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KU’s academic units are listed on the left. If you’re not sure where your major is, start with Liberal Arts & Sciences.
KU Core

KU Core Curriculum

Effective Fall 2013, the KU Core is the university-wide curriculum all incoming freshmen will complete. The KU Core integrates with the degree requirements of the various majors offered at KU. In some cases, degree-specific requirements can simultaneously be used to complete the KU Core. The KU Core spans the entire undergraduate experience and comprises three general education goals and three advanced education goals. General education goals and are best met during the first two years of university study.

- Critical Thinking and Quantitative Literacy
- Written & Oral Communication
- Breadth of Knowledge

Advanced education goals can naturally incorporate coursework and other educational experiences done as part of a student’s major(s), minor(2), or experiences as an upperclassman.

- Culture & Diversity
- Social Responsibility & Ethics
- Integration & Creativity

Students may follow individual paths through the KU Core, meeting milestones in different ways.

To learn more about the KU Core Curriculum Committee, the faculty and student committee that establishes and oversees KU Core requirements, please see the University Core Curriculum Committee policy.

By completing the KU Core, the successful graduate will

- Acquire essential skills
- Build a broad background of knowledge
- Have a stronger appreciation for cultural and global diversity
- Cultivate ethical integrity
- Generate the capacity and opportunity to blend and create ideas

Fulfilling the KU Core

Fulfilling the KU Core requires 12 units across the six education goals. A KU Core unit can be

- A single approved course (3-5 hours)
- An approved educational experience
- An approved combination or partnership of course work and experiences

Text Only description of the Distribution of the 12 units (p. 11).

To view a list of courses and experiences approved to meet the learning outcomes of the KU Core Curriculum, click here (http://kucore.ku.edu).

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<td>- One in oral communication</td>
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<td>Breadth of Knowledge</td>
<td>Requires 3 units.</td>
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<td>- One unit in the arts and humanities</td>
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<td>- One unit in the natural sciences</td>
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<td>- One unit in the social sciences</td>
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<td>Requires 2 units.</td>
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<td>- One unit meeting learning outcome 1 (human diversity in the U.S.)</td>
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<td>Integration and Creativity</td>
<td>Requires 1 unit</td>
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Critical Thinking and Quantitative Literacy Requires 2 units.
- One in critical thinking
- One in quantitative literacy.
Regulations

The rules and regulations of the University of Kansas pertaining to academic work are published in the University Senate Rules and Regulations, the Faculty Senate Rules and Regulations, and the University of Kansas Senate Code. Copies of these documents are on file with University Governance, Strong Hall, 1450 Jayhawk Blvd., Room 33, Lawrence, KS 66045-7518, 785-864-5169, or online in the University of Kansas Policy Library (http://www.policy.ku.edu).

See your school’s Regulations page for specific rules and regulations: CLAS (p. 796), Arts (p. 101), Architecture (p. 15), Business (p. 180), Education (p. 249), Engineering (p. 478), Health Professions (p. 647), Journalism (p. 744), Music (p. 1870), Nursing (p. 1952), Pharmacy (p. 1991), Social Welfare (p. 2044).

View Graduate Studies (p. 2059) admission and degree requirements and regulations.

Consult College Student Academic Services or the dean’s office of your school for more information.
Resources

- Academic Achievement and Access Center (http://www.achievement.ku.edu)
Architecture, Design & Planning

Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU (see your advisor (http://www.advising.ku.edu) for details). Other years' catalogs:

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- Master of Arts in Design with a concentration in Design Management (p. 87)
- Master of Arts in Design with a concentration in Environmental Design (p. 88)
- Master of Arts in Design with a concentration in Interaction Design (p. 89)

Urban Planning (p. 90)
- Master of Urban Planning (p. 93)

Introduction

The School of Architecture, Design and Planning offers undergraduate and graduate degree programs for students interested in a variety of design-based professions. The School's three departments-Architecture, Design and Urban Planning-share this common dedication to the professional education of students. Degree programs in all three departments emphasize the mastery of appropriate skills, technologies and bodies of knowledge as well as the development of critical thinking and creative problem-solving abilities. Our faculty are dedicated to educating students who will excel in their professional paths or career lines.

The School's students share a common interest, as well, in the design and construction of buildings, environments, objects and visual forms of communication. They take courses that incorporate knowledge and theory related to sustainability and sustainable design, to human wellness and the creation of healthy environments, places and lifestyles, and to the design of client- or user-oriented buildings, places, objects and communications. They have many unique opportunities for interdisciplinary course work, service learning and study abroad in the School's degree programs.

Facilities

The School of Architecture, Design and Planning is at the western end of Jayhawk Boulevard on the Lawrence campus. It occupies several large adjacent buildings with additional facilities in Lawrence and Kansas City.

The school has been headquartered in Marvin Hall since its founding. The main administrative offices are there along with the departmental offices for Architecture, Design and Urban Planning. The Architectural Resource Center and Hatch Reading Room are in Marvin Hall along with 18 design studios, several classrooms, offices for architecture and planning faculty, woodworking and metal shops, three computer labs, and critique spaces on each floor. A covered building yard is situated on the south side of the building.

Snow Hall, directly across Jayhawk Boulevard from Marvin Hall, contains 6 architecture studios and a number of faculty and staff offices. An open-access computer lab and a well-equipped model-building shop are in Snow Hall, along with a large critique and display area for student work.

Snow Hall, formerly known as Broadcasting Hall when it housed the campus radio station, is just behind Marvin Hall. It includes four architectural design studios, an acoustics lab, a computer lab, an HVAC lab, a laser-cutter lab, display and critique areas, and several faculty offices.

The school's Design-Build Center is in the East Hills Industrial Park on Highway K-10 in East Lawrence. This 63,000-square-foot, open-span building acquired in 2009 is the site of design-build studios, including the internationally acclaimed Studio 804. It includes studio design spaces, offices, conference areas, shop facilities, and large assembly areas for indoor construction of modular buildings.

Since 1987, the school has supported an urban design studio and a public education and community outreach center in Kansas City. The two programs operate together in the Kansas City Design Center at 1020 Baltimore Avenue in the heart of downtown Kansas City. This large street-front location includes working space for an entire architectural design studio as well as offices for instructors, exhibitions areas, and conference and meeting spaces for events that include community partners and sponsors.

The 130,000-square-foot Art and Design Building, next to Marvin Hall, houses the main design department programs, including studios and classrooms. The building also houses the 2,100-square-foot Art and Design Gallery, which features new exhibits every two weeks and is an important component of the teaching mission. Each major program offers all students spacious work areas and a range of equipment, from traditional to the newest digital technology. Students have access to multipurpose computer labs with the most commonly used current software for photography, animation, CAD, 3-D modeling, video production, desktop publishing, scanning, illustration, large- and medium-format plotters, and color and black-and-white laser printers. Unique satellite computer areas are dedicated to each major area. Students have access to a traditional film Photography Lab, which includes a dark room for black-and-white photography as well as a digital processing lab with dedicated spaces for video and digital image production and an equipment checkout facility. The 6,400-square-foot Common Shop includes a range of woodworking equipment, a plastic vacuum former, metal-working equipment, and classroom space. All computer and photo
labs and the common shop have professionally trained technical support staff.

The historic Chamney Farm, on the western edge of the Lawrence campus, is the site of the school’s Center for Design Research, an award-winning building that connects a converted native limestone farmhouse and 19th-century restored barn. Corporate-sponsored projects are supervised by design faculty and executed by graduate students and advanced undergraduates. This fully equipped facility has become a connection between the academic and professional worlds of design as well as a focus for collaborations among applied design areas and other KU units.

The Helen Foresman Spencer Museum of Art houses the only comprehensive art collection in Kansas. Collections are particularly noteworthy in medieval art, 17th- and 18th-century German and Austrian painting, sculpture, American painting, prints, American photography, Japanese art of the Edo period, textiles (especially quilts), and decorative arts. Spencer Museum sponsors exhibitions, lectures, films, workshops, and activities that support curricular instruction in the arts. Another important resource is the Murphy Art and Architecture Library, with 150,000 volumes and 600 current journals documenting design, and architecture from all cultures, from antiquity to the present.

School of Architecture, Design and Planning
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Fax: 785-864-5393
archku@ku.edu
http://www.sadp.ku.edu/

Undergraduate Programs
Degree programs available to entering first-year students include a 5-year professional Master of Architecture (p. 49); a professional Bachelor of Fine Arts (p. 81) in design with concentrations in Environmental Design, Illustration and Animation, Industrial Design, Photo Media, and Visual Communication Design. The Bachelor of Arts in Architectural Studies (p. 54), a preprofessional degree, is also available to entering first-year students.

Admission
Information on undergraduate admission standards and requirements, as well as application procedures and deadlines, is found on the Department of Architecture and Department of Design pages. Visit the Office of Admissions (http://admissions.ku.edu) for information about admission to KU. Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions. Students who plan to transfer into programs and need advising assistance should contact the Architecture Admissions Office (http://www.sadp.ku.edu/architecture/admissions/undergrad) at 785-864-3167 or the Design Admissions Office (http://design.ku.edu/ApplytoKU) at 785-864-2073.

Advising
In addition to advising and academic assistance from KU offices, the school has individual advisors for each student. Advisors are available throughout the course of study by appointment, and students are expected to see their advisors at enrollment times. For architecture advising information, students should contact Barb Seba at 785-864-5130. For design advising information (http://design.ku.edu/advising), contact Samantha Raines at sraines@ku.edu or 785-864-2959.

University Honors Program
The school encourages qualified students to participate in the University Honors Program (http://www.honors.ku.edu). Students should be aware that the course load for professional architecture and design degrees may make it difficult to participate in the Honors Program.

Graduate Programs
Graduate programs include

• Master of Architecture (p. 63) (M.Arch.), a 3-year professional degree for students already holding bachelor’s degrees in any field;
• Master of Arts in Architecture (p. 65) (M.A.)–Academic/Research Track;
• Master of Arts in Architecture (p. 66) (M.A.)–Architectural Management Track;
• Doctor of Philosophy in Architecture (p. 68) (Ph.D.);
• Master of Arts (p. 87) (M.A.) in Design with a concentration in Design Management;
• Master of Arts (p. 89) (M.A.) in Design with a concentration in Environmental Design;
• Master of Arts (p. 89) (M.A.) in Design with a concentration in Interaction Design; and
• Master of Urban Planning (p. 93) (M.U.P.).

Undergraduate Scholarships and Financial Aid
Awards and scholarships are available to students at all year levels. All students who wish to be considered for KU financial aid or for the scholarships available within the school must complete applications with Financial Aid and Scholarships (http://financialaid.ku.edu).

Graduate Fellowships and Assistantships
For information about graduate assistantships, contact the School of Architecture, Design and Planning (http://www.sadp.ku.edu).

Visit the Graduate Studies website for information about funding opportunities (http://www.graduate.ku.edu/03-07_student_funding.shtml) for graduate students at KU.

Financial Aid and Scholarships (http://financialaid.ku.edu) administers grants, loans, and need-based financial aid.

Undergraduate University Regulations
For information about university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://www.policy.ku.edu).

Absences
A student with excessive absences may be withdrawn from the course by the dean.
Credit/No Credit

A Credit/No Credit option is available to all degree-seeking undergraduates. You may enroll in one course a semester under the option, if the course is not in your major or minor. Students must submit a form in 205 Marvin during the two week period designated by the University in order to elect a course for Credit/No Credit. For more information, visit the KU Policy Library (https://documents.ku.edu/policies/governance/USRR.htm#art2sect2).

Warning: Certain undesirable consequences may result from exercising the option. Some schools, scholarship committees, and honorary societies do not accept this grading system and convert grades of No Credit to F when computing grade-point averages.

Credit/No Credit is allowed for electives not in the major. It is not allowed for required courses or electives in the major.

ARCH 690 and ARCH 691 can only be taken for Credit/No Credit.

Graduation with Distinction and Highest Distinction

Students who rank in the upper 10 percent of their graduating class graduate with distinction. The upper third of those awarded distinction graduate with highest distinction. The list is compiled each spring and includes July, December, and May graduates.

Honor Roll (Dean’s List)

Students in the upper 10 percent of undergraduate student body who have completed at least 14 hours for architecture students and at least 12 hours for design students with letter grades are recognized on the honor roll or dean’s list in fall and spring. An Honor Roll notation appears on the transcript.

Independent Study Through KU Continuing Education

Students may take 9 hours of elective credit in Independent Study courses offered through KU Continuing Education.

Maximum and Minimum Semester Enrollment

No student may enroll in more than 19 credits without the approval of the department. No more than 15 hours for architecture students and no more than 9 hours for design students may be taken in summer session.

Prerequisites and Corequisites

The school strictly enforces prerequisites for all courses. Students enrolled in a course without successfully completing the appropriate prerequisites may be administratively dropped without notice in the first weeks of the semester.

Probation

Master of Architecture (5-year) and B.A. in Architectural Studies

Probation

Student records are reviewed after each semester. A student is placed on probation if the KU semester or cumulative grade-point-average is below 2.0. Students placed on probation are sent a letter stating the length of probation and the requirements for being returned to good standing.

Continued on Probation

A student on probation may be continued on probation for one more semester if the following KU semester and cumulative grade-point-averages show considerable improvement, but the semester or cumulative grade-point-average is lower than 2.0.

Dismissal

A student may be dismissed for poor scholarship if any of the following situations apply:

1. Fall and spring KU semester or cumulative grade-point-averages are below 2.0 with no considerable improvement.
2. The student has been placed on probation and has failed to meet the conditions required to return to good standing.
3. The student has repeatedly failed to make progress toward graduation.

Reinstatement

Appeals for reinstatement may be submitted to the department’s probation committee, 206 Marvin Hall. A student reinstated has one semester to return to good standing.

Good Standing

Students with KU semester and cumulative grade-point-averages of 2.0 or above are in good standing.

B.F.A. in Design

Probation

A student is placed on probation after completing a semester at KU without a 2.0 grade-point average. Students placed on probation are informed of their probationary terms and must have a mandatory advising meeting with a departmental advisor. For admissions purposes, students with strong portfolios may be admitted on a probationary basis if their grades or ACT scores are not strong enough.

Continued on Probation

A student on probation may be continued on probation for an additional semester if the student’s cumulative grade-point average shows considerable improvement.

Dismissal

A failure to raise the grade-point average above 2.0 in a semester while on probation may be grounds for dismissal. Students may also be dismissed by the Department of Design chair at any time for excessive absences or for failing to make progress toward the degree.

Good Standing

Students with KU semester and cumulative grade-point-averages of 2.0 or above are in good standing.

Required Work in Residence

Architecture Students

All architecture students must complete 30 hours of KU work. Architecture students who have grade-point averages of 2.0 in total and in residence hours may take up to 12 of the final 30 hours in nonresident study. Such an enrollment requires prior approval by petition and excludes fifth-year studios.
Design Students
Six of the final 30 hours may be taken for nonresident credit, with advance permission. Nonresident credit may fill only elective requirements not in the major field of study.

Transfer of Credit
CredTran (http://admissions.ku.edu/%7Eadmiss/credit/transfer) is a transfer course equivalency system that lists more than 2,200 colleges and universities from which KU has accepted transfer courses in the past. If your school or course is not listed, your evaluation will be completed when you are admitted to KU.

Architecture Students
Only grades of C- or higher are accepted in transfer credit toward a degree. Architecture students who wish to transfer design courses may do so only upon submission of a portfolio of work done in such courses. Placement in the professional curriculum is based on completed course work, a review of the comprehensive portfolio of prior work in architecturally oriented courses, and on a space-available basis. The student must conform to the work in residence requirements stated above.

Design Students
Only grades of C or higher in general course work are accepted as transfer credit toward degrees. Grades for studio related course work must be B or higher for transfer credit. Applicants with a lapse of four or more years since their last full-time enrollment may not expect studio credits to be accepted for transfer.

Graduate University Regulations
For information about university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://www.policy.ku.edu).

Credit/No Credit
The Credit/No Credit option is not authorized for graduate students’ enrollments, including, but not limited to, courses taken to fulfill the research skills requirements, undergraduate deficiencies, etc.

Master of Architecture (2 & 3-year)

Probation
Student records are reviewed after each semester. A student is placed on probation if the KU cumulative grade-point-average is below 3.0. Students placed on probation are sent a letter stating the length of probation and the requirements for being returned to good standing.

Continued on Probation
A student on probation may be continued on probation for one more semester if the cumulative grade-point-averages show considerable improvement, but the semester or cumulative grade-point-average is lower than 3.0.

Dismissal
A student may be dismissed for poor scholarship if any of the following situations apply:
1. Cumulative grade-point-averages are below 3.0 with no considerable improvement.
2. The student has been placed on probation and has failed to meet the conditions required to return to good standing.

3. The student has repeatedly failed to make progress toward graduation.

Good Standing
Graduate Students with KU cumulative grade-point-averages of 3.0 or above are in good standing.

Architecture Courses
ARCH 100. Architectural Foundations I. 4 Hours.
An introductory design studio directed toward the development of spatial thinking and the skills necessary for the analysis and design of architectural space and form. This course is based on a series of exercises that include direct observation: drawing, analysis and representation of the surrounding world, and full-scale studies in the making of objects and the representation of object and space. Students are introduced to different descriptive and analytical media and techniques of representation to aid in the development of critical thought. These include freehand drawing, orthographic projection, paraline drawing, basic computer skills, and basic materials investigation. Prerequisite: Approval from the Dean of the School of Architecture and Urban Planning. LAB.

ARCH 101. Architectural Foundations II. 6 Hours.
A continuation of ARCH 100 with major emphasis on the design relationships among people, architectural space, and the environment. The course is based on a series of exercises leading to the understanding of architectural enclosure as mediating between people and the outside world. Issues of scale, light, proportion, rhythm, sequence, threshold, and enclosure are introduced in relation to the human body, as well as in relation to architectural form, environment, and social and psychological factors. Students will engage in drawing, perspective projection, model building, and basic computer graphics. Prerequisite: ARCH 100. LAB.

ARCH 103. Introduction to Architecture. 3 Hours.
An introduction to the study and practice of architecture. This course aims at orienting the student to the various disciplinary facets which make up the total architectural curriculum as well as to the various professional roles which architects can be expected to perform. Architectural study is seen as both an art and a science, and architectural practice is seen as a complex, interdisciplinary professional activity. Presentations by guest lecturers are included. Discussions required for, and only open to, B.A. in Architectural Studies students. LEC.

ARCH 104. Principles of Modern Architecture. 3 Hours.
A lecture course covering the emergence of technological, theoretical and aesthetic principles of modern design beginning with the socio-cultural impact of industrialization and the crisis in architecture at the end of the 19th century. Attention is given to functionalist theory, mechanical analogies and the so-called machine aesthetic of 1910-1930 and to the precedents of important design principles of modern architecture, including modular coordination, the open plan, interlocking universal space, unadorned geometry, structural integrity, programmatic and tectonic expression, efficiency and transparency and briefly explores their development in post-war and late 20th century examples. LEC.

ARCH 105. B.A. Architectural Studies Seminar. 1 Hour.
The seminar provides a discussion section that supplements the lectures presented in ARCH 103. The course must be taken concurrently with ARCH 103 and is open only to students in the B.A. in Architectural Studies Program, or with approval by the School of Architecture and Urban Planning. SEM.

ARCH 106. B.A. Architectural Studies Seminar II. 1 Hour.
This seminar provides a discussion section that supplements the lectures presented in the lectures of ARCH 104. The course must be taken
ARCH 502; or consent of instructor. LEC.

An introductory design studio directed toward the development of spatial thinking and the skills necessary for the analysis and design of architectural space and form. This course is based on a series of exercises that include direct observation: drawing, analysis and representation of the surrounding world, and full-scale studies in the making of objects and the representation of object and space. Students are introduced to different descriptive and analytical media and techniques of representation to aid in the development of critical thought. These include freehand drawing, orthographic projection, paraline drawing, basic computer skills, and basic materials investigation. Prerequisite: Approval from the Dean of the School of Architecture and Urban Planning. LAB.

A continuation of ARCH 108 with major emphasis on the design relationships among people, architectural space, and the environment. The course is based on a series of exercises leading to the understanding of architectural enclosure as mediating between people and the outside world. Issues of scale, light, proportion, rhythm, sequence, threshold, and enclosure are introduced in relation to the human body, as well as in relation to architectural form, environment, and social and psychological factors. Students will engage in drawing, perspective projection, model building, and computer graphics. Prerequisite: ARCH 100 or ARCH 108. LAB.

ARCH 152. Professional Practice I. 1 Hour.
This course will introduce students to the history and nature of the architecture profession and its relationship to education, internship, registration and certification. The various roles which architects are expected to perform and the ethical standards they are expected to uphold are explored in the context of different models of practice. Prerequisite: Must be admitted to M.Arch 5-year program, Arch Studies Program or approval by the School of Architecture and Urban Planning. LEC.

ARCH 200. Architectural Foundations III. 6 Hours.
A continuation of ARCH 101 with a series of studio exercises following a succession based on analysis, form, and syntax, with an emphasis on the communication of architectural ideas. Students explore plan, section, and spatial organization, spatial sequence, structure and materiality in relation to human dwelling and the building site. The course aims for student integration of these issues into building designs that require the organization of multiple spaces. Students will consider natural forces as they both shape and affect buildings, including gravity, wind, light, heat, sound, and fluids. Precedent studies, direct observation, building analysis, and site analysis are significant aspects of the semester. Prerequisite: ARCH 101. LAB.

ARCH 205. Natural Forces. 3 Hours.
The course advances empirical understanding of natural forces as they both shape and affect buildings, including gravity, wind, light, heat, sound, and fluids. This course emphasizes the development of conceptual thinking and problem solving skills through sensory-based demonstrations, lectures, and laboratory experimentation. The course will emphasize concepts of PHSX 114 as they relate to the built environment. The course will require freehand drawing, physical, model-building and the application of Photoshop and InDesign software programs. Tutorials and workshop sessions will introduce and require use of other computer software applications. Prerequisite: PHSX 114 and either ARCH 109 or ARCH 502; or consent of instructor. LEC.

ARCH 208. Architectural Design I. 6 Hours.
The second year studios are responsible for introducing students to the basic form determinants of architecture—from limited scope exercises to complete building designs within the natural environment. Using diagrams and sketches, plans, sections, elevations and models, students explore the spatial ordering of human activity, the analysis of site, sound, light and air modulation, simple environmental controls and energy conservation, basic framing systems, volumetric organization and the materials of building skins and envelopes in the design of small buildings. Prerequisite: ARCH 109. LAB.

ARCH 209. Architectural Design II. 6 Hours.
A continuation of ARCH 208 with an emphasis on the synthesis of basic form determinants, including the completion of a design project of a medium-sized, multi-storied public building in the urban environment containing a variety of spaces and spans. This project will enable students to demonstrate competence in basic architectural design, act as a summation of the variety of smaller design exercises undertaken through the year, and prepare students for the third year focus on the materials and methods of building construction. Prerequisite: ARCH 208. LAB.

ARCH 280. Design Workshop I: Visual Narratives. 3 Hours.
This lab-based course will develop the skills and understanding necessary to visually communicate compelling narratives of complex data and situations. Students will engage in hand-sketching and diagramming as well as utilizing digital tools designed to facilitate clear and persuasive data display. Environmental scales ranging from settlement patterns down to product interface will be addressed. Students will learn the visualization pipeline, processing data for visualization, visual representations, the design of interaction in visualization systems, and the impact of perception. Students will also develop the skills necessary to solve visualization problems and critique and evaluate information visualization. This material will be covered through class discussions, readings, and a number of assignments and projects. The assignments and large group project will provide students with practical experience in the construction of visual narratives. LEC.

ARCH 281. Design Workshop II: Design Thinking. 3 Hours.
This course aims to enhance student’s abilities to apply concepts and methods associated with design thinking with an emphasis on ill-structured problem-solving and human-centered design. Students will gain exposure to design thinking processes including forecasting, scenario planning and various forms of analysis all of which help shape a robust problem statement that forward design innovation. This material will be covered through class discussions, readings, and a number of assignments and projects. Students will have the opportunity to develop their design-thinking competence through their final project which may be at the level of models, product, spatial, building and/or community designs. LEC.

ARCH 310. Computer Applications. 3 Hours.
The course will immerse students in the exploration of the generation, manipulation, and production of graphic images through the use of computers. The goal of the course is to help reach an understanding of computers that allows for future growth in an environment in constant change, and to provide an overview of what is currently possible. The format of the course will be a combination of lectures and workshops. The lectures will introduce students to theoretical and application-oriented topics. Group discussions will focus on the computer as a conceptual construct, the computability of design, and computers as design partners. The workshops will provide students with hands-on experience. The vehicles used for these investigations will be desktop publishing, paint, and drafting tools. As resources become available this list will be augmented. LEC.
ARCH 359. Special Problems. 1-3 Hours.
Special problems in architecture. The study of a particular problem in architecture involving individual research and presentation. Conferences and reports. (May be taken for Credit/No Credit.) Prerequisite: Student must submit to his or her faculty advisor, in advance, a statement of the problem he or she wishes to pursue, the methodology he or she plans to use in the program, and the objectives of the special problems. He or she must also be in agreement with the faculty member he or she proposes as instructor for the course. IND.

ARCH 360. Introduction to Landscape Architecture. 3 Hours.
This course situates landscape architecture in a broad cultural and social context with the intention of developing skills in critical thinking about the role of exterior place-making in the built environment. Lectures and assigned readings will explore central issues in the history and theory of landscape architecture and look at key sites and their designers. Other topics will include environmental attitudes and perception, the human experience of place, and ideas of nature. LEC.

ARCH 380. Design Workshop III: Ideas and Methods in Planning and Design. 3 Hours.
This course focuses on design methods, ideas and approaches at the city, neighborhood and community levels. The course will introduce approaches to urban design and planning which are responsive to social, environmental and ecological issues. The goal is to develop core competencies in design thinking such as analyzing specific problems and developing possible design interventions by understanding relevant theories and analyzing case studies. Students will critically analyze past and current urban trends through case studies to inform design ideas for more equitable and sustainable communities. This material will be covered through class discussions, readings, and a number of design-oriented team projects and assignments. LEC.

ARCH 381. Design Workshop V: Designing Sustainable Futures. 3 Hours.
This problem-based service-learning course aims to enhance students’ abilities to apply the concepts and methods associated with effective and facilitative leadership focused upon sustainable design problems. This material will be covered through class discussions, readings, and design-oriented team projects. Students learn core competencies such as analyzing organizational problems and goals, strategic planning, intervention, and evaluation. In the service-learning component, students apply these skills to issues that matter to them and to the communities they serve to generate design solutions for their client’s consideration. These projects may be at the level of interaction models, product, spatial, building and/or community designs. LEC.

ARCH 408. Architectural Design III. 6 Hours.
A continuation of ARCH 209 with an increased emphasis on building construction and systems as form determinants. Work will focus on medium scale, multi-storey non-residential buildings developed to an appropriate level of technical resolution as evidenced in clear schematic wall sections and structural proposals. Prerequisite: ARCH 209. LAB.

ARCH 409. Architectural Design IV. 6 Hours.
A workshop-based course with an emphasis on materiality and construction of building assemblies through hands-on activities. Development of craft, process, collaboration and technical documentation skills will be the primary objective of the course. Prerequisite: ARCH 209. LAB.

ARCH 480. Senior Seminar. 3 Hours.
This seminar will expose students to normative and critical approaches in the profession of architecture. Through field trips, attendance at juries, readings, and presentations by architects and designers, they are to develop an understanding of the precedence, theories, and practices of the profession. This is the capstone course for the B.A. in Architectural Studies. Prerequisite: ARCH 381. LEC.

ARCH 502. Accelerated Design I. 6 Hours.
The first of three accelerated design studios, this course emphasizes the design relationships among people, architectural space, and the environment. Issues of shelter, light, sequence and threshold are considered in relation to physical, psychological and sociological factors. Offered only in the summer. Prerequisite: Undergraduate degree and permission of the Dean of Architecture and Urban Planning. LAB.

ARCH 503. Accelerated Design II. 6 Hours.
The second of three accelerated design studios, this course emphasizes construction and technology as expressive mediators in the relationship between human dwelling and site. Students will consider natural forces as they both shape and affect buildings, including gravity, wind, light, heat, sound and fluids. Prerequisite: ARCH 502 and/or permission of the Dean of the School of Architecture and Urban Planning. Corequisite: ARCH 626. LAB.

ARCH 504. Accelerated Design III. 6 Hours.
The third of three accelerated design studios, this course focuses on the integration of material learned in previous studios with urban-based design problems of increasing scale and complexity within the frameworks of sustainability and universal design. Students will demonstrate an ability to use research and critical thinking skills, including the use of case precedents, and the ability to integrate various building systems in building design. Prerequisite: ARCH 503 (see studio grading policy) or permission of the Dean of the School of Architecture and Urban Planning. Corequisite: ARCH 627. LAB.

ARCH 505. Accelerated Design IV. 6 Hours.
Graduate studio emphasizing urban context and design theories. Students will undertake specialized research projects. Prerequisite: ARCH 504 (see studio grading policy) or permission of the Dean of the School of Architecture and Urban Planning. Corequisite: ARCH 690. LAB.

ARCH 510. Problems in Computer Applications. 3 Hours.
The study of a particular problem in architecture involving the application of computer-aided design and analysis techniques. Individual or group tutorials. Prerequisite: Consent of instructor based on the student’s advance submission of a written proposal outlining the plan of study. Completion of one course in computer programming and/or specific experience in writing original computer programs. LEC.

ARCH 515. Building Information Modeling. 3 Hours.
This course will expose students to building information modeling: a digital representation of the building process that facilitates exchange and interoperability of information in digital format. The focus will be on the software’s potential for reducing the information loss that occurs during each handoff of the project during the traditional delivery method. Possibilities for integrated practice including lifecycle costing and knowledge management are discussed. LEC.

ARCH 516. Portfolio Development. 3 Hours.
The aim of the course is to teach practical presentation skills using computer software, in addition to graphic design theories and strategies. This course will provide an opportunity for students to design and produce a design portfolio appropriate for internship and/or graduate school applications. LEC.

ARCH 520. Architectural Acoustics. 3 Hours.
An introduction to the physics of sound. Objective and subjective evaluation and control of sound as applied to architectural spaces. Room shaping, mechanical and electrical system noise and vibration control, and electro-acoustic sound reinforcement. Prerequisite: PHSX 114 and ARCH 626 or equivalent, or consent of instructor. LEC.
ARCH 521. Electro-Acoustical Systems. 3 Hours.
A study of electro-acoustic sound reinforcement and reproduction systems for buildings. Prerequisite: PHSX 212, or consent of instructor. LEC.

ARCH 524. Structures I. 4 Hours.
The fundamental principles of structural behavior including stress and deformation in structural components and systems. Open to architecture students only. Prerequisite: PHSX 114. LEC.

ARCH 530. Environmental Systems I. 3 Hours.
This introductory course addresses human needs and comfort in relation to the natural and man-made environments. Specific topics include: climate and weather; environmental health; indoor air quality; thermal comfort; passive and active systems and design strategies for heating, ventilating, and air-conditioning; plumbing; noise control; building management systems; and life safety systems. Prerequisite: PHSX 114. LEC.

ARCH 531. Environmental Systems II. 3 Hours.
This course addresses human needs and comfort in relation to the natural and man-made environments. Specific topics include: daylighting, electrical lighting systems, building acoustics, electrical power distribution systems, alternative energy sources, communication systems, and transportation systems. Prerequisite: ARCH 530. LEC.

The first unit of the two-part survey history course explores the historical changes of architecture in relation to civilizational change, techno-spatial experiments and town-building efforts, from the earliest evidence of human dwelling to the beginning of the industrial revolution. Emphasis is on the architecture as an integrated development of commercial, technological, and ideological transfers among different regions, nascent religious groups and evolving political enterprises. In regard to the geographical and geopolitical regions, the course includes South and Central America, Europe, Classical Greece and Italy, Asia Minor, North Africa and Asia. LEC.

ARCH 541. Global History of Architecture II: From Industrial Revolution to Present (1700 CE-Present). 3 Hours. AE42.
The second unit of study of the two-part survey history course offers a global perspective of the development of modern architecture from the industrial revolution to contemporary times. This course traces the genealogy of modern architecture to its multiple roots in European enlightenment, global dissemination of industrial knowledge, invention of new building materials and techniques, and development of architectural theory. Emphasis is on the historical context of how the diverse approaches of architects from different regions create variations of formal expressions, spatial program and theoretical underpinning, and thus create multiple meanings and images of modern architecture. Prerequisite: ARCH 340 or ARCH 540 or ARCH 640 or consent of instructor. LEC.

ARCH 542. History of Architecture III: Modern. 3 Hours.
A continuation of ARCH 541, History of Architecture II, covers the period from around 1800 to the present. Particular emphasis is placed on the major cultural shifts that have impacted architectural representation and have contributed to its differentiation as Modern, not only in Europe, North and South America but also with examples in India and Pakistan. Weekly lectures and readings including original sources. Supplementary readings and/or assignments may be assigned. Prerequisite: ARCH 341 or ARCH 541 or ARCH 641 or consent of instructor. LEC.

ARCH 552. Ethics and Leadership in Professional Practice. 3 Hours.
This course takes the perspective that architectural design is inherently an ethical act. Through this lens, students will learn the essentials of office practices, the many definitions of client and their roles in the design process, the legal responsibilities of the profession, the importance of continuous professional development and the obligation the profession has to provide civic leadership in regard to the built and natural environment. LEC.

ARCH 550. Site Design. 3 Hours.
This course introduces concepts of architectural context and site through a combination of lectures and field studies. Natural, social and built systems are presented using a range of perspectives, including holistic ones. Students will develop visual and written skills of analysis through specific site analytic and design techniques. Application exercises and ongoing analysis assignments are required. Restricted to 3.5 and 5 year Master of Architecture students. Prerequisite: ARCH 109 for undergraduate students. LEC.

ARCH 570. Contemporary Issues Seminar I. 1 Hour.
A series of seminars on contemporary issues facing the profession. LEC.

ARCH 571. Contemporary Issues Seminar II. 1 Hour.
These seminars will consist of three to four guest lecturers each semester. All students enrolled in this course will attend the same lecture as ARCH 572. Topics will be selected to reflect major issues covered in the course work, or contemporary issues facing the profession. LEC.

ARCH 572. Contemporary Issues Seminar III. 1 Hour.
These seminars will consist of three to four guest lecturers each semester. All students enrolled in this course will attend the same lecture with ARCH 571. Topics will be selected to reflect major issues covered in the course work, or contemporary issues facing the profession. LEC.

ARCH 573. Financial and Economic Issues in Architecture Management. 3 Hours.
This course will focus on the fundamentals of accounting, macroeconomics and the construction industry, and concepts related to the development and implementation of a strategic business plan. LEC.

ARCH 574. Organizational Issues in Architecture Management. 3 Hours.
Topics that will be covered in this course include the organization of a professional practice, personnel management, and the development of effective communication skills. LEC.

ARCH 575. Architecture Management: Managing a CAD System. 3 Hours.
This course covers the various procedures involved in managing a CAD system within a design organization. It also explores the different applications and uses of current CAD technology. Topics to be addressed include: selecting a system; billing CAD services; support services and personnel; marketing CAD; customization, file management, menus and script files; AutoLisp Programming; and integrating CAD with other programs. Prerequisite: An introductory CAD class or permission of the instructor. LEC.

ARCH 576. Project Delivery in Architecture Management. 3 Hours.
Conventional methods for project delivery will be reviewed along with design/build, fast-track, and other techniques. The relationship of the architect and development will also be explored, as will the relationship of project development to urban design concepts. LEC.

ARCH 577. Marketing Architectural Services. 3 Hours.
The emphasis of this course will be on the development and implementation of a marketing plan, techniques related to the marketing of specific projects, and the relationship of marketing to other components of a firm. LEC.
ARCH 578. Legal Issues in Architectural Management. 3 Hours.
A course designed to familiarize the student with legal considerations related to a professional practice. Case studies and selected readings will serve as the basis for discussion of registration, contracts, business formation, taxes, employment practices, copyright, and patent law. In addition, the course will draw upon the knowledge and experience of members of the professional community. LEC.

ARCH 600. Special Topics in Architecture: ______. 3 Hours.
This course is for the study of architectural topics on a one time or experimental basis in response to changing needs and/or resources in the Program. It may be offered concurrently by different instructors under different subtitles as announced in the Timetable. May be repeated for credit. Prerequisite: Variable. IND.

ARCH 601. Design Research. 3 Hours.
This course will examine issues in architectural research. It will provide an overview of graduate level studies with regard to definitions, methods, skills, and techniques. The course will consist of lectures, seminars, readings and guest presentations. The class will enable students to make informed judgments about matters of quality and quantity on architectural issues. Students will be expected to formulate sensible systems of classification for their chosen material. Students will be expected to formulate sensible systems of classification for their chosen material. Students will be expected to produce papers and essays, make sample research proposals, and other research based assignments. Limited to students in M. Arch Program with Undergraduate status. Prerequisite: ARCH 608. LEC.

ARCH 608. Architectural Design V. 6 Hours.
A continuation of previous studio coursework with an emphasis on the programming and design of individual urban buildings with culture, context and precedent as major form determinants. Clear development and integration of structural, mechanical and life safety systems will be a focus of the course. The concepts of integrated practice and building information modeling will be introduced. Prerequisite: ARCH 408 and ARCH 409; or ARCH 301 or ARCH 504 or ARCH 505; or ARCH 604. LAB.

ARCH 609. Comprehensive Studio. 9 Hours.
A culmination of all previous design study with emphasis given to the individual student’s demonstration of synthesis of all previously learned design skills. These include program analysis, site design, structure, formal composition, materials and methods of construction, technical development of building fabric, environmental systems, code and zoning compliance, and principles of sustainability. Students should also demonstrate an appropriate awareness of history, theory, and culture. The level of project development should be demonstrated by technically precise drawings and will researched written documentation in addition to other means of representation. Prerequisite: ARCH 608 and successful completion of all other required professional courses through the semester with ARCH 608. LAB.

ARCH 610. Computers and Project Development. 3 Hours.
This course introduces one to the use of computers in project development (final and execution drawings, specifications). Initiates advanced computer aided design systems. Emphasis is to be on CAD potential in generating complex representation; lectures and laboratory work on extent and limits of CAD systems in design; familiarizes with software and hardware (basic training, plotting, etc.); encourages the use of CAD process for exploration (three-dimensional representation); introduces editing and report preparation. Lectures on computers and profession. No computer language is taught in this course. Prerequisite: ARCH 310 or introductory CAD course. LEC.

ARCH 613. Visual Thinking Studio I. 3 Hours.
An intensive course covering the graphics topics described in ARCH 113 and ARCH 114. Graduate level course that supplements the core syllabus or ARCH 102 with weekly seminars, expanded reading lists, and additional classroom assignments. Prerequisite: Undergraduate degree in area other than architecture with three credits in calculus, four credits in physics, three semesters of English, and/or permission of the Dean of the School of Architecture and Urban Planning. LAB.

ARCH 614. Freehand Drawing. 3 Hours.
Open to all SAPD non-graduating students interested in enhancing current freehand drawing skills, generally in the architectural realm. While a broad range of expression and graphic materials is explored, emphasis is on drawing as a notational skill, the instrument of creative expression for professional purposes as well as for lifelong artistic fulfillment. Prerequisite: Consent of instructor. LAB.

ARCH 615. Intensive Graphics II. 3 Hours.
Open to students with intermediate level graphic skills. Course will be designed to deal with all aspects of graphic communication for designers in the different stages of the architectural process. This would include sketching, drafting, lettering, rendering, modelmaking, photographic and slide presentation, reproduction, brochure, etc. Prerequisite: Consent of instructor. LAB.

ARCH 616. Advanced Architectural Presentation Techniques. 3 Hours.
An advanced studio course intended for students who have a working knowledge of basic presentation techniques wishing to refine their existing skills and experiment with new techniques. The course will review basic techniques and explore new ones through a series of lectures and these techniques will be put to use in the concurrent development of complete presentations of architecturally significant buildings. The lectures and studio work will be supplemented by slide presentations, demonstrations, guest lecturers, and field trips. Not intended as a remedial course or substitute for ARCH 615. Prerequisite: Consent of instructor. LEC.

ARCH 618. Architectural Photography. 3 Hours.
A basic course in black and white photography intended to enable the student to utilize photography routinely as a medium for visualization, documentation and presentation of images useful for design. It is organized in relation to the controls of the roll film camera so that assignments reinforce the understanding of this tool and its creative possibilities. Experiences include making photograms, developing black and white films, printing black and white images, mounting and presenting prints, photocopying, photographing buildings and architectural models, photomontage, high contrast graphics effects and an introduction to color materials. Enough technical information is included for the student to pursue black and white photography on his/her own to the desired level of proficiency. LAB.

ARCH 619. Advanced Architectural Photography. 3 Hours.
An advanced course in photography specifically dealing with the skills and techniques of the professional architectural photographer. Students will use and experiment with large format photography, manipulation of the exposure and development process, special developers and processes; negative retouching, specialized film and their application, simulation, model photography, and photographic rendering. Brochure development, marketing services, and professional ethics will also be discussed. Prerequisite: ARCH 618 or equivalent, submission of a brochure, and consent of instructor. LAB.

ARCH 622. Material Investigations. 3 Hours.
This course will provide opportunities for students to learn about research methods in the realm of architectural materials. The course will have two concurrent phases: the first phase will consist of a series of field trips to
materials manufacturers, fabricators and distributors in the Lawrence, Topeka and Kansas City area. The purpose of these trips is to see, first-hand, how materials are developed and made, and to understand the research involved in their development. The second phase will consist of a self-directed research project based on the students’ natural curiosity about a particular material or process. The project will have three components: 1) a research agenda, rigorously developed and executed; and 2) a “built” component, with actual materials, executed by the students’ own hands and financial resources; and 3) final documentation of the research project. LEC.

ARCH 623. Building Practicum. 3 Hours.
The building technology practicum is offered as a course that will afford students a “real world” experience outside of the academic setting. Students can bring their own project proposals to the practicum committee or faculty members on the committee can suggest local preservation efforts, including planning and administration, or actual physical implementation of such projects. It could also be in the interest of some students to develop skills in a specific area, i.e. model building, architectural photography, historic reconstruction, or technical documentation. Those interested in specific areas will need to work closely with the practicum committee to develop a working list of goals and objectives. Students can elect to work individually or in teams, can work outside of the semester schedule with grades assigned at the completion of the project, and will be bound by a contract approved by the practicum committee. LEC.

ARCH 624. Structures II. 3 Hours.
A continuation of ARCH 524, with focus on applying learned principles to basic contemporary structural systems such as concrete, steel, and wood framing systems. Open to architecture students only. Prerequisite: ARCH 524 or ARCH 620 and ARCH 621. LEC.

ARCH 625. Analysis and Design of Structures for Architects. 3 Hours.
Analysis of statically indeterminate beams and frames. Fundamentals of structural design in concrete and steel. Open to architecture students only. Prerequisite: ARCH 624. LEC.

ARCH 626. Building Technology I: Construction Systems and Assemblies. 3 Hours.
This course is an introduction to the materials, processes and craft of construction. Along with presenting the information required for understanding the basic principles and appropriate application and performance of construction systems and assemblies, the course also provides a conceptual framework to bridge between the physical conditions of construction and the more abstract processes of design. Teaching method includes modeling and hands-on building experiences. Prerequisite: ARCH 200 or ARCH 209 or Corequisite: ARCH 408 or ARCH 409 or ARCH 503. LEC.

ARCH 627. Building Technology II: Culture of Building Technology. 3 Hours.
A continuation of ARCH 626. Introduction to industrialized production. A consideration of the detailed sub-systems and cultural practices that comprise the built environment, and the factors responsible for their design and installation. Includes discussion of building codes, mechanisms of failure, and materials selection. Lectures and demonstrations by the instructors and visitors, films, slide projections, quizzes and written examinations. A student should demonstrate an understanding of elementary systems of construction and be able to relate this understanding to the design process. Prerequisite: ARCH 626. LEC.

ARCH 628. Structure in Nature and Architecture. 3 Hours.
The course deals with the historical development of structure, first in nature and then in architecture. In nature, the course discusses the evolution of structural materials, systems, connections and anchorage (foundations) in geological structure, botanical structure, endoskeleton structure, exoskeleton structure and insect architecture. The course then analyzes the growth of structure from anthropological structure through ancient and medieval structure to modern architecture. In these broad architectural periods in world history, the course examines the structural materials, structural behavior and construction of some of the important buildings that helped to define and delineate the architecture of their time. This course helps students to understand structural systems and their behavior, in a non-mathematical way, by relating the structural principles involved to our common experience of the world around us. The course will have every student do a research project on an assigned topic in geological structure, botanical structure, exoskeleton structure, insect architecture or anthropological structure. LEC.

ARCH 629. Listening to Architecture. 3 Hours.
This course has the objectives of introducing the art and science of “listening” to architectural spaces; exploring, from both historical and current viewpoints, how proper acoustical conditions have and can be realized within the aesthetic and functional parameters of the particular architectural space; understanding the importance of building acoustics in architectural design; obtaining the ability to discuss building acoustics with the proper use of acoustical terms and descriptions; and understanding the basics of how sound behaves in an enclosed architectural space. The course will include several visits to existing architectural spaces that have specific acoustical requirements and interesting acoustical characteristics. LEC.

ARCH 630. Theory and Context of Architecture. 3 Hours.
An examination of architectural theories that understand the designed environment as a cultural medium and product of a sociocultural process that expresses values and ideas. Understanding of these theories will be enhanced through the analysis of paradigmatic buildings, urban form and ideologies that have influenced architectural culture. LEC.

ARCH 631. Issues in Contemporary Architecture. 3 Hours.
This class focuses the student on directed readings and provides the student the opportunity to select a topic for the semester’s duration. With a very crammed schedule, the student is given a venue to concentrate on issues that they wish to pursue. A seminal reading is provided to the class, at the beginning of the semester, and this reading forms the basis of the semester’s discussion. The selected reading is “current” and is the device used to distribute other readings pertinent to the author’s argument. The basis of selection is related to current thought and discourse affecting the evolving nature of architectural culture. Class discussion may include slides, videos, sound tapes, etc. These are intended to complement the assigned readings. LEC.

ARCH 632. Contemporary French Architecture. 3 Hours.
This course introduces the student to contemporary trends in French architecture. Social, technological, economic, and theoretical perspectives will be investigated, and the work of the major French architects of the latter half of the twentieth century will be studied in depth. This course supplements the Paris studio program. LEC.

ARCH 635. Visualizing Airflow In and Around Buildings. 3 Hours.
It is often difficult to predict the way certain environmental design features will perform if not built and tested which can be costly and time consuming. This course will analyze the performance of such designs in an efficient and cost effective manner within a visual medium using computational fluid dynamics (CFD). CFD will provide a visual understanding of airflow behavior in and around buildings. In addition, thermal comfort and air quality will be investigated in this animated environment. The culmination of the course will be an analysis of a portion of one’s studio design project. Prerequisite: ARCH 530. LEC.
ARCH 636. Art of Architectural Machines. 3 Hours.
This course emphasizes architectural trends of the twentieth century, which have been influenced by significant technological advances. The purpose of the course is to familiarize the student with the achievements and failures of architectural concepts that were influenced by modern technology. Examples will be drawn primarily from buildings and architects in Western Europe and North America. LEC.

ARCH 637. Architecture and Cosmos. 3 Hours.
Idea of symmetry, harmony, proportion, and ideal form have long been used by architectural theorists and practitioners as a way of translating a traditional knowledge of the world into architectural form. Such traditional knowledge is embedded in the mathematics of Pythagoras, the philosophy of Plato, and the four part study of the cosmos (known in Western thought as "the quadrivium"—arithmetic, geometry, music, and astronomy). This course will entail the study of selected readings in this intellectual tradition as well as the analysis of buildings as they relate to the concepts learned through this study. Prerequisite: ARCH 641, History of Architecture II: Renaissance, or consent of instructor. LEC.

ARCH 638. Architecture, Art and Science. 3 Hours.
This course explores the relationship between architecture and the liberal arts and sciences through the principle of isomorphic correspondence—a term from Gestalt psychology to describe similar structures occurring in different media. Emphasis on the historical connections to music and on aesthetic principles on the natural sciences. Prerequisite: Six hours of architectural history or consent of instructor for non-majors. LEC.

ARCH 639. Current/Historical Directions in Architecture. 2-3 Hours.
A study of contemporary or historical trends in architecture which relate to the development of individual or broad philosophies of architecture. LEC.

ARCH 648. Historic Preservation. 3 Hours.
The focus of this course is on the development of concepts and practices of retrieving, recycling, and curating the built environment from the mid-nineteenth century to the present. After a series of introductory readings and discussions, students are encouraged to investigate particular environmental, technological, social, or ideological questions of their choice, focusing on structures that demonstrate persistence over great distances and, co-existing with this persistence, ability to accommodate changes over time. LEC.

ARCH 650. Architect-Led Design-Build. 1 Hour.
This is a 5-week course covering an introduction to the design-build method of project delivery, highlighting the role of architect as leader of the design-build team. The course covers team structure; ethical issues; forming a design-build firm; project management; licensing, corporate and insurance issues; public design-build laws and bridging. LEC.

ARCH 651. Advanced Design-Build for Architects. 2 Hours.
This is a 10-week course covering a more advanced examination of the design-build method of project delivery, highlighting the role of architect as leader of the design-build team. The course covers team structure; ethical issues; forming a design-build firm; project management; licensing, corporate and insurance issues; public design-build laws and bridging; as well as history, architect-as-prime contractor, architect-as-subcontractor, business issues and marketing, bonding, design-build contracts, cost estimating and OSHA, risks and legal liabilities. LEC.

ARCH 652. Architect-Client Relations. 1 Hour.
The intent of this five-week course is to provide a forum for the examination of varied aspects of the architect-client relationship. Components of this relationship will be explored both from the point of view of the practicing architect and of the project owner or client. LEC.

ARCH 653. Non-Traditional Careers in Architecture. 1 Hour.
The intent of this five-week course is to provide a forum for the examination of the wide range of career options that are open to architects. The positive impact, to both the built environment and society as a whole that architects in alternative roles are ideally suited to provide, will be explored. LEC.

ARCH 654. Ethics in Architectural Practice. 1 Hour.
This course is designed to develop an understanding of the underpinnings of ethical reasoning including the structure and vocabulary of moral argumentation; apply this knowledge to common ethical issues confounding contemporary architects, demonstrated through presentations and interaction with leading Kansas City architects, interactive analysis of case studies, participatory discussions, reading comprehension and analytical writing. LEC.

ARCH 658. Programming and Pre-Design Issues. 3 Hours.
This course will introduce the concepts, methods, techniques, and information used by the architect to establish the parameters of a project, prior to entering the formal design process. The course will introduce the student to the social, technical, leagan and economic dimensions of architectural programming,. The content will introduce the core competencies in programming, site, and environmental analysis required by the profession. Programming theory, research techniques, information analysis, evaluation of significance, and creative synthesis of the multivalent factors acting upon the pre-design process of project definition will be covered. Exercises may include programming and analysis of projects and sites assigned in the Architectural Design Studio sequence. Prerequisite: ARCH 408 and ARCH 409 or ARCH 504. LEC.

ARCH 661. Eighteenth to Twentieth Century American Landscape Design. 3 Hours.
This course will explore eighteenth, nineteenth, and twentieth-century American landscape design including gardens, estates, rural cemeteries, campuses, suburbs, urban parks, and national parks, as well as the beginnings of landscape architecture as a profession. Topics of inquiry will include European contributions in landscape theory, practice, and aesthetics, and American adaptations in response to climatic, social, and political differences. An important focus will be whether one can look at a designed landscape and see the expression of an attitude toward nature. LEC.

ARCH 662. Twentieth Century American Landscape. 3 Hours.
The purpose of this course is to investigate the relationships between the American culture and the resulting built and natural landscape. Issues of building types, public places, and land use arrangements will be studied from a socio-historical perspective. (Same as UBPL 662.) LEC.

ARCH 663. Darwin, Humboldt, and Changing Ideas in Landscape Architecture. 3 Hours.
The seminar explores the influence of the natural historians Alexander von Humboldt and Charles Darwin on American writings in landscape architecture in the late 19th and early 20th centuries. The original texts of Humboldt (including Aspects of Nature and Cosmos) and Darwin (including On the Origin of Species and Insectivorous Plants), will be studied in conjunction with significant authors in landscape architecture including A. J. Downing, George Perkins Marsh, Frederick Law Olmsted, Horace William Shaler Cleveland, Mariana Griswold van Rensselaer, Jens Jensen, Garrett Eckbo, Daniel Kiley, and James C. Rose. The emerging ideas of conservation and ecology found in these works will also be examined. LEC.

ARCH 665. History of Urban Design. 3 Hours.
An exploration of the evolution of cities through the cultural and spatial development of human settlement patterns. The role of cities in the transformations of human culture from tribal communities to post industrial
society is defined in terms of the historical origins of urban institutions and functions and their transformation into spatial structure and physical form.

ARCH 670. Spreadsheet Applications. 1 Hour.
This course will focus on the application of electronic spreadsheets in the management of project fees, company staffing, and business cash flow. Topics covered include spreadsheet linkage, creation of lookup tables, data consolidation, writing macros and charting results. LEC.

ARCH 671. Database Management. 1 Hour.
This course focuses on the development of database applications to track the information generated during the normal course of business operations. Topics include database design, table creation, queries, forms, reports, and macros. LEC.

ARCH 672. Project Management Software. 1 Hour.
This course uses software packages to manage a simulated design project. The topics in this section include creating tasks and linkages, assigning and managing resources, monitoring a project and creating reports. LEC.

ARCH 673. Presentation Tools. 1 Hour.
This course covers the use of various software packages in the development of on-screen and hard-copy presentations. Topics include presentation design, importing graphics, output strategies, and communications techniques. LEC.

ARCH 674. Electronic Communication. 1 Hour.
This course focuses on the use of electronic data communications in operating a design organization. Topics include use of the Internet, electronic research, telecommunication technologies and remote access. LEC.

ARCH 675. Graphics Packages. 1 Hour.
This course focuses on the development of graphic images. Students are taught to generate vector-based graphics and bit-mapped images that can be incorporated into various software packages. LEC.

ARCH 676. Facility Management: Tools and Techniques. 3 Hours.
The application of Information Technology to Facility Management has changed a formerly basement operation into a center of corporate support. In this course, we explore the use of Computer Aided Facility Management (CAFM) software and its application to real world facility management. LEC.

ARCH 677. Construction Cost Estimating for Architects. 1 Hour.
The main objective of this course is to introduce and inform the student of the processes involved in construction estimating. This course will focus on commercial construction and the fundamentals of estimating a commercial project. This course will acquaint the student with quantity surveying, costing methods, types of estimates, estimating software, the construction estimating process, and estimating the various parts of a project. LEC.

ARCH 678. Construction Project Management for Architects. 1 Hour.
The main objective of this course is to introduce and inform the student of the processes involved in construction project management. This course will focus on commercial construction and the fundamentals of managing a commercial project. The course will acquaint the student with transferring a project from the estimating stage to actual construction, the buyout process, contracts, purchase orders, responsibilities of project managers, responsibilities of superintendents, planning and scheduling, management of changes in a project, financial reporting, accounting processes, payment procedures, and the close-out process in construction. LEC.

ARCH 680. Building with Intelligence. 3 Hours.
This course is intended to be a broad course introducing basis concepts of sustainable design. It will introduce broad outlines of many of the crucial issues facing us in the next few decades. This course identifies how we can re-imagine the relationship between human beings and living systems. The order of the course will begin at a broad overview of our environmental dilemma, then focus upon community issues and end with a close look at green buildings and their systems. This course will include a series of lectures, required reading with written responses, visits to local examples of sustainable buildings and the development of research projects. LEC.

ARCH 681. Defining Community. 3 Hours.
This course explores how a neighborhood is sustainable, or is not. Imbedded in our built landscape are constructs, which once revealed, offer us insight into a community’s values and underlying intentions. We will engage neighborhoods in Lawrence, Kansas, and other community neighborhoods. This seminar course will provide a format for discussion and testing observations of patterns in neighborhoods. Our intent will be to describe the detailed patterns for neighborhoods, houses, and gardens, thereby increasing an understanding of how people inform and are informed by their neighborhoods. This course will include a series of lectures, required reading with written responses, visits to a variety of neighborhoods and the development of research projects. LEC.

ARCH 690. Architecture Study Abroad. 3-6 Hours.
May be repeated up to a maximum of 9 credits. Students participate in a study abroad program approved by the Architecture Chair. Students will be evaluated upon a submitted journal, sketchbook, or equivalent assignments assigned by the instructor. Graded on a satisfactory/fail basis. IND.

ARCH 691. Architecture Practicum. 6 Hours.
Based upon the student’s approved proposal, each student will explore the process of creating the built environment by working in a setting that is intended to provide a new perspective for that student. The range of venues may include non-profit organizations, research settings, hands on-building experiences, and other professional settings as approved by the instructor. Students evaluation will include an assessment by the supervisor in the practicum settings as well as on a final paper using appropriate graphics to illustrate key points. Graded on a satisfactory/fail basis. IND.

ARCH 692. Documentation. 3 Hours.
Students will document their experience in ARCH 690 or another approved study abroad program. This is intended as a critical reflection upon the student’s experience and is additional documentation produced beyond the work done for the study abroad credit. The final product will include a written paper, using appropriate graphics to illustrate key points. IND.

ARCH 693. Workplaces. 3 Hours.
This course is about the design of places where people work. The workplace is important for many reasons. Not only do we spend a considerable amount of our waking life there, but our work often becomes one of the central features of our life. In some senses it can be considered to be a homelike activity; people often identify with their work and personalize their workplaces and make them responsive to their daily life needs. Workplaces are also social places where people meet and interact. And, of course they are also places of work, where they must respond to work needs and be conducive to efficient and productive work activities. This course will raise questions about how to design good workplaces. LEC.
ARCH 694. Homeplaces. 3 Hours.
Architects design buildings and spaces which they hope will contribute to making significant, enriching, and rewarding places. The quality of places, however, is not identical to the quality of buildings which contribute to them. This course will explore ways in which physical environments, in this case, houses can become and be experienced as rich and embraced homeplaces. It will look at the various processes through which residents, dwellers, designers, real-estate agents, builders, and others are involved with home environments. Implications for design and production processes will be investigated with reference to particular case studies. LEC.

ARCH 697. The Making of Place in an Aging Society. 3 Hours.
This course explores both theoretical and applied perspectives as to how design at the scales of settlement, neighborhood, building and room enables enhanced quality of life for society’s elderly and their families. Discussion will center on readings, case studies and lecture material, with a focus on arriving at a critical understanding of how built fabric choreographs the aging experience. Prerequisite: Graduate standing or consent of instructor. LEC.

ARCH 700. Directed Readings in Architecture:. 1-3 Hours.
Individual study of special topics and problems. May be repeated for credit. Prerequisite: Graduate standing. RSH.

ARCH 701. Introduction to Graduate Studies. 3 Hours.
This course will examine issues in architectural research. It will provide an overview of graduate level studies with regard to definitions, methods, skills, and techniques. The course will consist of lectures, seminars, readings and guest presentations. The class will enable students to make informed judgments about matters of quality and quantity on architectural issues. Students will be expected to formulate sensible systems of classification for their chosen material. Students will be expected to produce papers and essays, make sample grant applications, and thesis formulations. Prerequisite: Students must be admitted to the 3.5 or 5 year Master of Architecture Professional plan and have successfully completed ARCH 409 or ARCH 608. LEC.

ARCH 706. Thesis or Project Definition. 1 Hour.
Seminar oriented to the clarification of the thesis or project problem and to the development of the thesis or project proposal. Prerequisite: Graduate standing. RSH.

ARCH 707. Furniture Design and Production. 3 Hours.
The object of this course is an intensive examination of the aesthetic problems of perceiving and making quality objects. Students will be expected to engage in a series of short-term, limited scope design exercises and experiments of an architectural nature. LEC.

ARCH 720. Architectural Acoustics. 3 Hours.
An introduction to the physics of sound. Objective and subjective evaluation and control of sound as applied to architectural spaces. Room shaping, mechanical and electrical system noise and vibration control, and electro-acoustic sound reinforcement. Prerequisite: PHSX 114 and ARCH 626 or equivalent, or consent of instructor. LEC.

ARCH 721. Electro-Acoustical Systems. 3 Hours.
A study of electro-acoustic sound reinforcement and reproduction systems for buildings. Prerequisite: PHSX 212, or consent of instructor. LEC.

ARCH 730. The Environmental Psychology of Health and Well-Being. 3 Hours.
This seminar examines the theories and understandings that address the health and well-being outcomes resulting from the complexity of interaction between human beings, their behavior, and designed systems or objects and how this varies across the life course. Environmental stimulation, orientation, control, restoration and their relationship to health outcomes through mediating concepts including stress, place identity and person-environment fit will be addressed. Students will engage in several research/assessment projects through the semester. Participation in class discussion will be an essential component of the class. Prerequisite: Graduate status or consent of the instructor. LEC.

ARCH 731. Architecture of Health. 3 Hours.
This is a seminar that will focus on the architectural dimensions of health and wellness. The course will investigate the ways the environment contributes to the well being (physical, emotional, spiritual) of people. The history of healthcare environments will be explored to show how healthcare environments have evolved to meet changing medical protocols and environmental technologies. A range of contemporary building types will be studied, from critical-care hospitals to assisted-living residences and health spas. Students will research bibliographic sources, prepare case studies of existing health and wellness environments and prepare preliminary planning and design proposals for an environment that human well being. LEC.

ARCH 732. Environmental Pattern Languages. 3 Hours.
An introduction to the theory of pattern languages with particular emphasis on the work of Christopher Alexander; analysis of its relationships to other architectural theories; exploration of its implications for architectural practice. LEC.

ARCH 733. Analogous Thinking in Design. 3 Hours.
This seminar will seek analogs in psychology, medicine, biology, anthropology, and other disciplines; analogs that can serve to develop problem-solving and problem-solving skills in design. Practice sessions in morphological analysis, synectics, bisociation, and triadization will link rigorous research to methods of application. LEC.

ARCH 735. Graduate Seminar in Environmental Systems. 3 Hours.
The intention of this seminar is to provide a substantive overview of the literature and themes in environmental systems. It will serve to introduce students to skills required to conduct research in environmental systems. In addition, the course will entail discussions of students’ works in progress, peer review sessions, and completion of a conference paper. LEC.

ARCH 754. Design Ethics. 3 Hours.
This seminar will explore both Western and Eastern concepts of ethics and morality through readings, papers, discussion, and guest speakers. The role of ethics in providing guideposts for social and societal responsibility in design will be developed. LEC.

ARCH 762. Urban Design Studies. 3 Hours.
Seminar concerned with the factors, processes, techniques, and current issues in urban design practice. LEC.

ARCH 765. Theory of Urban Design. 3 Hours.
An examination of the relationship between architecture and urban planning through contemporary interpretations of future urban form and the determinants of the location, spatial structure, growth and decline of cities. Foundations for an interdisciplinary synthesis are examined in an attempt to bridge the hiatus between large-scale architectural design and incremental adjustments to urban dynamics. LEC.

ARCH 770. Contemporary Issues Seminar I. 1 Hour.
A series of seminars on contemporary issues facing the profession. LEC.

ARCH 771. Contemporary Issues Seminar II. 1 Hour.
These seminars will consist of three to four guest lecturers each semester. All students enrolled in this course will attend the same lecture as ARCH 772. Topics will be selected to reflect major issues covered in the course work, or contemporary issues facing the profession. LEC.
ARCH 772. Contemporary Issues Seminar III. 1 Hour.
These seminars will consist of three to four guest lecturers each semester. All students enrolled in this course will attend the same lecture with ARCH 771. Topics will be selected to reflect major issues covered in the course work, or contemporary issues facing the profession. This course will be graded Satisfactory/Unsatisfactory. LEC.

ARCH 773. Financial and Economic Issues in Architecture Management. 3 Hours.
This course will focus on the fundamentals of accounting, macroeconomics and the construction industry, and concepts related to the development and implementation of a strategic business plan. LEC.

ARCH 774. Organizational Issues in Architecture Management. 3 Hours.
Topics that will be covered in this course include the organization of a professional practice, personnel management, and the development of effective communication skills. LEC.

ARCH 775. Architecture Management: Managing a CAD System. 3 Hours.
This course covers the various procedures involved in managing a CAD system within a design organization. It also explores the different applications and uses of current CAD technology. Topics to be addressed include: selecting a system; billing CAD services; support services and personnel; marketing CAD: customization, file management, menus and script files; AutoLisp Programming; and integrating CAD with other programs. Prerequisite: An introductory CAD class or permission of the instructor. LEC.

ARCH 776. Project Delivery in Architecture Management. 3 Hours.
Conventional methods for project delivery will be reviewed along with design/build, fast-track, and other techniques. The relationship of the architect and development will also be explored, as will the relationship of project development to urban design concepts. LEC.

ARCH 777. Marketing Architectural Services. 3 Hours.
The emphasis of this course will be on the development and implementation of a marketing plan, techniques related to the marketing of specific projects, and the relationship of marketing to other components of a firm. LEC.

ARCH 778. Legal Issues in Architecture Management. 3 Hours.
A course designed to familiarize the student with legal considerations related to professional practice. Case studies and selected readings will serve as the basis for discussion of registration, contracts, business formation, taxes, employment practices, copyright, and patent law. In addition, the course will draw upon the knowledge and experience of members of the professional community. LEC.

ARCH 790. Architectural Study Abroad: ____. 1-3 Hours.
Organized field visits and study of selected architectural and urban sites abroad. Pre- and post-travel readings on themes selected to supplement and reinforce thesis or project research or areas of concentration. Students will be expected to maintain a diary and/or sketch book and submit a final paper. Prerequisite: Graduate standing and permission of instructor. FLD.

ARCH 799. Independent Study. 1-3 Hours.
May be repeated for credit up to a total of nine (9) credits. Prerequisite: Graduate standing and consent of instructor. IND.

ARCH 800. Special Topics in Architecture: ____. 1-3 Hours.
Advanced or experimental courses on specialized topics representing unique or changing needs and resources in the graduate program in architecture. LEC.

ARCH 801. Urban and Community Issues I. 6 Hours.
A workshop-based course involving approved self and group directed investigations into issues of urban and community design with a focus on problem-setting, discovery and analysis. Prerequisite: Successful completion of ARCH 609 and consent of the Architecture Program Chair. LAB.

ARCH 802. Urban and Community Issues II. 6 Hours.
Continuation of the critical and rigorous investigations into issues of urban and community design with an increasing focus on synthesis and evaluation. Prerequisite: ARCH 801. LAB.

ARCH 803. Design-Build and Materiality I. 6 Hours.
A workshop-based course involving approved self and group directed investigations into issues of design-build and/or materiality with a focus on problem-setting, discovery and analysis. Prerequisite: Successful completion of ARCH 609 or ARCH 704 and consent of the Architecture Program Chair. LAB.

ARCH 804. Design-Build and Materiality II. 6 Hours.
Continuation of the critical and rigorous investigations into issues of design-build and/or materiality with an increasing focus on synthesis and evaluation. Prerequisite: ARCH 803. LAB.

ARCH 805. Architectural Technology I. 6 Hours.
A workshop-based course involving approved self and group directed investigations into issues of building technology with a focus on problem-setting, discovery and analysis. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Successful completion of ARCH 609 and consent of the Architecture Program Chair. LAB.

ARCH 806. Architectural Technology II. 6 Hours.
Continuation of the critical and rigorous investigations into issues of building technology with an increasing focus on synthesis and evaluation. Prerequisite: ARCH 805. LAB.

ARCH 807. Healthy and Sustainable Environments I. 6 Hours.
A workshop-based course involving approved self and group directed investigations into healthy and sustainable environments with a focus on problem-setting, discovery and analysis. Prerequisite: Successful completion of ARCH 609 and consent of the Architecture Program Chair. LAB.

ARCH 808. Healthy and Sustainable Environments II. 6 Hours.
Continuation of the critical and rigorous investigations into healthy and sustainable environments with an increasing focus on synthesis and evaluation. Prerequisite: ARCH 807. LAB.

ARCH 809. Building Typology I. 6 Hours.
A workshop-based course involving approved self and group directed investigations into a particular building type with a focus on problem-setting, discovery and analysis. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Successful completion of ARCH 609 and consent of the Architecture Program Chair. LAB.

ARCH 810. Building Typology II. 6 Hours.
Continuation of the critical and rigorous investigations into a particular building type with an increasing focus on synthesis and evaluation. Prerequisite: ARCH 809. LEC.

ARCH 811. Architectural Investigation I. 6 Hours.
A workshop-based course involving approved self and group directed investigations in a particular area of architectural investigation with a focus on problem-setting, discovery and analysis. Prerequisite: Successful completion of ARCH 609 and consent of the Architecture Program Chair. LAB.
ARCH 812. Architectural Investigation II. 6 Hours.
Continuation of the critical and rigorous investigations in a particular area of architectural investigation with an increasing focus on synthesis and evaluation. Prerequisite: ARCH 811. LAB.

ARCH 830. Designing Healthy Places and Communities. 3 Hours.
This seminar investigates the research-based evidence regarding health outcomes at four different levels of dwelling: settlement, institution, home, and proximate. Research domains that will be explored include how the urban fabric impacts active living; the role of public parks in urban health; environmental factors on health outcomes in hospitals and workplaces; environmental pathogens in the home; and ergonomic health. Healthy design will be understood as an important variable impacting people’s health by: increasing physical activity; reducing injury; improving air and water quality; minimizing environmental degradation; decreasing mental health stresses; and strengthening social fabric. Environmental assessment audits appropriate at various scales as well as space syntax as an analytic tool will be introduced and utilized. Participation in class discussion will be an essential component of the class. The semester will include a problem-based service-learning project requiring application of research in a real-life setting and active student reflection. Prerequisite: Graduate status or consent of the instructor. LEC.

ARCH 850. Special Topics in Management/Practice: ______. 2-3 Hours.
Advanced or experimental courses on specialized topics representing unique or changing needs and resources in the management/practice option. IND.

ARCH 852. Ethics and Leadership in Professional Practice. 3 Hours.
This course takes the perspective that architectural design is inherently an ethical act. Through this lens, students will learn the essentials of office practices, the many definitions of client and their roles in the design process, the legal responsibilities of the profession, the importance of continuous professional development and the obligation the profession has to provide civic leadership in regard to the built and natural environment. LEC.

ARCH 858. Architectural Management Systems. 3 Hours.
Graduate course that investigates current issues in construction technologies and management techniques. LEC.

ARCH 899. Thesis or Project Research. 1-6 Hours.
Independent study, research and project work leading to the submission of a master’s thesis or master’s project. May be repeated for credit. Note: In some cases a Comprehensive Oral Examination Option may be substituted. Prerequisite: Permission of the Architecture Program Chair. THE.

ARCH 930. Doctoral Seminar I. 1 Hour.
The purpose of this discussion-based seminar is to explore issues of architectural research from a variety of perspectives. May be repeated up to a maximum of two (2 credits). Prerequisite: Admission to the Ph.D. in Architecture Program or consent of the Architecture Program Chair. LEC.

ARCH 931. Theories of Architectural Inquiry. 3 Hours.
This course will introduce the doctoral student to the major historical and theoretical foundations of architectural research. Architectural inquiry will be defined from diverse and distinct perspectives, and it will be assumed that buildings should be viewed as physical and cultural artifacts, as elements within larger social, natural and urban contexts, and as products of design and fabrication processes. The course will be a seminar format in which students will contribute to the discussions through independent research and critical analyses of the assigned readings and lectures. Prerequisite: Admission to the Ph.D. in Architecture Program or consent of the Architecture Program Chair. LEC.

ARCH 951. Methods of Inquiry in Architectural Research. 3 Hours.
This course will provide students a foundation in methods of inquiry in researching the built environment. The purpose is to train students in developing research strategies applicable to the areas of design-fabrication processes, dwelling and community, and health and sustainability. Students will be exposed to a variety of methods of inquiry drawn from a number of disciplines. Through critical reading and content analysis, students will consider the value of scholarly research, learn to develop research questions, understand the nature of evidence, and the writing, presentation and illustration of scholarship. The course will be a seminar format in which students will contribute to the discussions through independent research and critical analyses of the assigned readings and lectures. Prerequisite: Admission to the Ph.D. in Architecture Program or consent of the Architecture Program Chair. LEC.

ARCH 958. Research Practicum Preparation. 1 Hour.
In this course, the students will frame a research question and develop a research proposal. The course is intended to serve as preparation for ARCH 959. Prerequisite: ARCH 931 and ARCH 951. RSH.

ARCH 959. Research Practicum. 4 Hours.
This is a research project undertaken and completed under the supervision of the student’s major professor. The student designs, executes, and completes a small scale research project and produces a document of publishable quality within his/her area of inquiry. The project is intended to serve as a pilot study leading towards the dissertation. Prerequisite: ARCH 958. RSH.

ARCH 999. Doctoral Dissertation. 1-9 Hours.
Individual research work. A minimum of nine credits is required for the degree. May be repeated for credit. Prerequisite: Successful completion of the Comprehensive Oral Examination. THE.

Design Courses

ADS 320. Hallmark Symposium Series. 1 Hour.
Visiting professionals discuss various aspects of Design based upon their own special areas of expertise. The series is mandatory for all Design majors. Design majors must repeat this course at least 4 times for a total of 4 credit hours for graduation. Graded on a satisfactory/unsatisfactory basis. Open to all University wide students. LEC.

ADS 340. History and Philosophy of Design. 3 Hours.
Survey of design history from 1800 to present with emphasis on graphics, architecture, industrial and interior design movements, individuals and their influences. Prerequisite: BDS 102. LEC.

ADS 530. Intra Design Problems: ______. 3 Hours.
A collaborative studio across all Design Department areas of study. Students of the different areas will be organized into work groups and conduct in-depth research, investigate new problem solving methodologies, develop new applications and working knowledge of specialized subjects. Prerequisite: Junior level or higher standing in Design or Architecture or permission of the instructor. LAB.

ADS 531. Internship. 3 Hours.
Students develop professional skills and problems solving with an applied and relevant design employer’s office. Supervision by faculty and a professional designer, designated and approved by the faculty in the area is mandatory. Graded on a Satisfactory/Unsatisfactory basis. May be repeated twice for credit. Prerequisite: Junior level or higher standing in the Design Department. FLD.

ADS 532. Study Abroad: ______. 3 Hours.
Students will participate in a Design focused study abroad program. The student will be required to attend group meetings prior to the trip along with development of research topics of interest. Simple documentation
would be required - sketchbook/journal responding to day-to-day
iterative and other events, following the trip and presented for a grade.
Prerequisite: Junior level or higher standing in Design or with permission
of the instructor. Corequisite: ADS 533. LAB.

**ADS 533. Study Abroad Documentation. 3 Hours.**
Consists of research work prior to the trip as well as follow-up and
required studio work due after return. A portfolio of work will be required
for a grade. Course will also fulfill Design-specific requirements or studio
credits for other majors. Areas may designate specific Design courses as
substitutions for this course. Prerequisite: Junior level or higher standing
in Design or with permission of the instructor. Corequisite: ADS 532. LEC.

**ADS 560. Topics in Design: _____, 3 Hours.**
A study of different topics in different semesters in a special area of
interest to a staff member and suitable qualified students. May be
repeated for credit. Prerequisite: Junior standing in department or
permission of instructor. LAB.

**ADS 570. Design Seminar. 3 Hours.**
Comprehensive examination of a complex design problem from the point
of view of the various specializations. Prerequisite: Junior standing in
department. LEC.

**ADS 580. Special Problems in Design. 1-6 Hours.**
A study of current problems in design or crafts with an emphasis on
research. Special problems proposals must be discussed with and
approved by the instructor and advisor prior to enrollment in the course.
A student may not take more than six credit hours of special problems in
any one semester. Prerequisite: Junior standing in department. IND.

**ADS 710. Advanced Human Factors in Interaction Design. 3 Hours.**
The study of human factors principles and guidelines are fundamental
to interaction design. In this course, these principles will be illustrated
and applied to real-world design projects/problems. Human physical
and cognitive capabilities, computer-human interface and systems
properties, interaction design methods, and the physical and socio-cultural
environment will be considered. Fundamental issues in human-centered
systems, basic research methods, including statistics and literature
searches, will be included. Open to all university students. Graduate
students will meet concurrently with INDD 510 and receive additional
coursework. LEC.

**ADS 712. Design Strategies and Methods. 3 Hours.**
This course will cover the principles of design thinking, design processes,
design strategies and methods, including techniques and tools for the
development of human-technology interfaces. Abstract through concrete
representation methods and techniques will be applied to interaction
design projects/problems. Information collection and analysis methods,
scenario and prototyping methods, evaluation methods (empirical),
creativity methods, and task-oriented method (non-empirical) will also be
considered. Methods common to design-related disciplines in the social
sciences, business, architecture, communication studies and engineering
are integrated. Graduate students will meet concurrently with INDD 512
and receive additional work. Prerequisite: Consent of instructor for all non-
design students. LEC.

**ADS 714. Designing Business Services and Consumer Experiences. 3 Hours.**
Business products, services and environments are often intermingled
in ways that require more holistic ways of thinking and development. A
challenge of service innovation is to design with an understanding of the
many dimensions of human experience and satisfaction. This course
elaborates how, where, when, and why design can enhance the value
of business services. Theory, methods, and practice aspects of services
design are presented. LEC.

**ADS 720. Graduate Seminar in Design. 1 Hour.**
Comparative studies of various areas of specialization in design. Repeat
for credit to a maximum of six credit hours. LEC.

**ADS 730. Directed Reading in Design. 1-3 Hours.**
Research reading and presentation of reports on specific subjects related
to the students major area of specialization. Required of all graduate
students. RSH.

**ADS 740. Special Problems in Design. 1-6 Hours.**
An in-depth study of current problems in design or crafts with an emphasis
on research. Special problems proposals must be discussed with and
approved by the instructor and graduate advisor prior to enrollment in the
course. RSH.

**ADS 745. Branding and Design. 3 Hours.**
A rapidly changing marketplace demands business strategy that is
rooted in the dynamics of human culture, society, and psychology.
Design thinking directly engages such factors and is, thus, well suited
to help organizations formulate effective, versatile and strategic brands.
This class focuses on strategic design analysis as a means to promote
innovation in core brand development and extension into new applications
and product categories. By aligning design with engineering, marketing,
advertising, packaging, and service, business can innovate new
sources of market value and deliver a more powerful brand messages.
Prerequisite: Consent of instructor for all non-design students. LEC.

**ADS 750. Design Management. 3 Hours.**
Design Management has been described as "applied innovation" or
the methodical capturing of talent and resources available inside and
outside an organization to create valuable new offerings, brands, and
business models. This course explores the design functions in business
as a means to solve difficult challenges and develop new market-facing
opportunities. Subjects include brand value creation, differentiation,
coordination, and transformation. Numerous cases will be discussed.
LEC.

**ADS 751. Creating Design Scenarios and Simulations. 3 Hours.**
Most organizations are imaginatively challenged and experience difficulty
innovating and marketing new concept offerings. Conventional methods
spotting and validating new opportunities often lack the persuasive power
necessary for change to occur. Scenario-based design and simulation
offers ways to vividly representing a future that is different from the past.
This course presents theory, methods and practice aspects of design
scenario construction and simulation. LEC.

**ADS 760. Design and Strategic Innovation. 3 Hours.**
As companies struggle with the demands of increasing consumer, intense
competition and downward price pressures, there is a corresponding
increase in the demand for more innovative business models and higher-
value offerings. These forces have significantly broadened the strategic
scope of design. Advanced, multi-disciplinary design teams are being
engaged early to help guide new business and product development
efforts. Why, where, when, and how this is done in order to deliver on the
promise of innovation is the subject of this course. Prerequisite: ADS 750
or with consent of instructor. LEC.

**ADS 765. Interaction Design. 3 Hours.**
Interaction Design is about creating products, services or environments
that offer significant experiential value to people and economic value to
organizations. This course engages the comprehensive subject of design
for human experience. Building on the gamut of human factors and design
methods knowledge, this offers hands-on experience in the research,
analysis, modeling and simulation of original and experientially compelling
design solutions. Prerequisite: ADS 710, ADS 712 or with consent of
instructor. LEC.
ADS 770. Design Cognition. 3 Hours.
In a science of design, the study of "human designers" is as important as the study of designed artifacts or design tools. Since the beginning of research in Design Cognition, many empirical studies have opened up our understanding of human designers and the ways they design. While design is largely a mental activity, it interacts strongly with heterogeneous external representations. It encompasses problem definition and solving, analogical reasoning, mental imaging, and other mental processes. It requires team coordination and is situated in a cultural milieu that defines roles and modes of behavior. As such, distributed cognition, situated cognition, and social cognition - all have become relevant to the understanding of design cognition. The structure of a design task, the mental representation of design form and behavior, the structure of design teams, and the associated concepts of design cognition will be the subject of the course. LEC.

ADS 810. Orientation Seminar. 1 Hour.
Studies directed to development of a thesis plan. Required of all graduate students. Offered in fall semester only. Graded S or F. LEC.

ADS 850. Studio Teaching Practice. 1 Hour.
Graduate students only. Must hold an assistant instructor or teaching appointment. Credit earned does not satisfy any credit requirement for a degree. Graded S or U. FLD.

ADS 860. Graduate Synthesis and Applications Seminar. 1 Hour.
Group discussion and presentations on timely industry topics. Topics will be substantial, bridging relevant program subjects and professional area boundaries. May be repeated for up to six credit hours in subsequent semesters. LEC.

ADS 861. Thesis Research Seminar. 1 Hour.
Approaches to producing original design research. Methods, resources, topics and projects are discussed and evaluated. May be repeated for up to six credit hours in subsequent semesters. LEC.

ADS 890. Thesis. 1-8 Hours.
For guidance refer to Design department graduate guidelines. THE.

BDS 100. Design Dialogues. 3 Hours.
Design, like almost every industry, profession, school or major on campus, is forever being changed by technology, it’s reach, global access, and social innovation. From the basics of how to think like a designer or how to design a better presentation in PowerPoint to how design can be situated in businesses and organizations to create innovative new products, services or social change. The ultimate goal is that by the end of this course students will know how design contributes to contemporary society and how they might use this understanding throughout their life in little and big ways. Open to all majors. Corequisite: BDS 102 (for Design majors only). LEC.

BDS 101. Design Thinking and Making I. 3 Hours.
This is a course for all Design Department majors, to introduce them to creative problem solving; and the fundamentals of two, three and four-dimensional design. Drawing, photography, 2D and 3D models are used in this course as a means of design thinking to visually represent problems and solutions. Students must receive at least a grade of C- (1.7) in this course to continue in the Design program. Prerequisite: Must be admitted into the Design Department or receive instructor permission. Corequisite: BDS 103. LAB.

BDS 102. Design Thinking and Making II. 3 Hours.
This is a course for all Design Department majors and serves as a continuation of BDS 101 with a greater emphasis on examining the relationships between design and other systems: environment, society and culture, and technology and economics. One and a half hours of lecture and six hours of studio-lab per week. Students must receive at least a grade of C- (1.7) in this course to continue in their Design program. Prerequisite: Must be admitted into the Design Department and have completed BDS 101 and BDS 103 with at least a grade of C- (1.7) or equivalent course work, or receive instructor permission. LAB.

BDS 103. Drawing for Design. 3 Hours.
This course will focus on drawing as a tool of communication through freehand exercises that explore observation and perception, form and proportion, dimensional illusion and expressive characteristics using a variety of materials and media. Some identified sections of this course will also use two-and three-dimensional modeling software. Students must receive at least a grade of C- (1.7) in this course to continue in their Design program. Prerequisite: Must be admitted into the Design Department or receive instructor permission. Corequisite: BDS 101. LAB.

ENVD 200. Fundamentals of Environmental Design. 3 Hours.
Introduction to fundamentals and processes involved in developing design concepts in the unit scale interior environment that may include residential or small scale commercial spaces. The studio focuses on developing design vocabulary, graphic representations, space planning, furniture and furnishings. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 102 and ENVD 202. Corequisite: ENVD 203. Prerequisite or corequisite: ENVD 212. or permission of instructor. LAB.

ENVD 203. Materials and Sustainability. 3 Hours.
Study and analyze building materials, furniture and furnishings through investigation into their physical and technical characteristics, limitations, and applications. The course also introduces the sustainability issues that relate to the selections and specifications that impact the environment, energy use and limited resources. It covers various agencies and organizations that develop guidelines on materials, resources, building practices, processes and systems that support sustainable design. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 102 and ENVD 202. Corequisite: ENVD 200 or permission of the instructor. LAB.

ENVD 204. Fundamentals of Interior Design. 3 Hours.
This first interior design studio will introduce the principles and elements of interior design, including design composition, space planning, furniture layout, color, and finish materials. It will also provide the direction and opportunity for the student to apply basic design and drawing skills developed in the Foundation courses to meet project program requirements in a series of projects of increasing complexity. Students will be expected to produce process diagrams, plans, elevations, models and finish boards. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 102 and BDS 103 or permission of instructor. Corequisite: ENVD 212. or permission of instructor. LAB.

ENVD 212. Drawing for Environmental Design. 3 Hours.
Introduction to visualization tools in applications to interior environments using freehand sketching and computer aided design. The class focuses on vocabulary and theories of different drawing systems and develops external representations. It encompasses problem definition and solving, analogical reasoning, mental imaging, and other mental processes.
the next course in the sequence. Prerequisite: BDS 102 and BDS 103 or permission of instructor. LAB.

ENVD 304. Environmental Topics. 3 Hours.
This studio focuses on topics that relate to specific environments that may include retailing, hospitality, health care, restaurants, or work space strategies in offices. Students conduct research, explore ideas and generate concepts at a more complex scale level. Emphasis will be placed on understanding of users’ operational needs, company brand or image, adjacencies, spatial analyses, understanding of material and their applications, environmental factors, codes and regulations that impact the planning and selections. Related issues include lighting, furniture systems analysis and their applications, and custom casework design. Depending on availability, studio may work with other studio in Architecture or other discipline within the department on joint projects. This class may be repeated for credit. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ENVD 200 or permission of instructor. LAB.

ENVD 305. Research and Programming. 3 Hours.
Examining and analyzing essential information necessary to determine the clients’ present and future operational requirements and the space, facilities, and services required for support. Establishing pre-planning concepts and guidelines on building and space utilization. Effort is directed toward developing space into a functional, flexible, and aesthetic environment in which to work. Study includes the use of questionnaires, organization charts, space study and standards, space projections, space tabulations, and space distribution using interaction, blocking, and layering diagrams. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ENVD 200, ENVD 304 and MATH 101 or permission of instructor. LAB.

ENVD 408. Integrated Senior Problems I. 3 Hours.
This class provides individual students with the opportunity to develop a project of choice based on the individual’s interest and design philosophy and incorporates the skills acquired from the integrated curriculum. Students will conduct initial research and data collection to develop a program that includes the schematic and preliminary design development. Projects may include corporate offices, retailing, health care, hospitality and restaurants, exhibitions, residential design, or specialty interior products. Effort will focus on the investigation of a component within a large or complex project. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ENVD 304 and ENVD 305. LAB.

ENVD 410. Integrated Senior Problems II and Specification. 3 Hours.
A continuation of ENVD 408 that focuses on further design development leading to final design solutions and explores in detail the design of the total environment. The use of materials and their limitations, sustainability, environmental factors, technology, graphics and signage, custom design casework and interior products, applicable codes and standards, budget, and construction document production are all part of the investigations. Final results may include a set of drawings, working drawings, detail drawings, 4D models and/or multi-media presentations. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ENVD 408. LAB.

ENVD 413. Portfolio and Professional Practice. 3 Hours.
There are two different components to this class. The first is to develop the student’s graduating portfolio that relates to the individual’s professional practice of a design office including office personnel and organization, scheduling, fee structures, contracts, billing, marketing and professional ethics. The course will include lectures, guest speakers, and field trips. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ENVD 304 and ENVD 305. LAB.

ENVD 715. Interior Design. 2-6 Hours.
Individual research. Prerequisite: INTD 606 or equivalent. RSH.

ENVD 815. Interior Design. 2-6 Hours.
Continuation of INTD 715. RSH.

ILLU 205. Drawing Media for Illustration. 3 Hours.
Exploration of problems in drawing for various reproduction processes. Emphasis on perspective, head drawing, the clothed and nude figure, nature illustration, perspective, and environments. Various drawing media and materials are explored. Required for Illustration majors as a pre-review course. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 101 or permission of instructor. LAB.

ILLU 305. Image Making. 3 Hours.
Concentrated study in developing methodologies for producing contemporary illustration. Emphasis is placed on concept development, composition exploration, value and color studies, and reference creation. Required for Illustration majors as a pre-review course. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 102. LAB.

ILLU 315. Introduction to Illustration. 3 Hours.
Concentrated study in developing skills and techniques with media and materials that are employed in producing contemporary illustration. Continued emphasis on methods of research and idea generation. For majors only. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C+ (2.3) or higher to continue on to the next course in the sequence. Prerequisite: ILLU 305 and/or permission of instructor. Corequisite: ILLU 405. LAB.

ILLU 405. Drawing Media for Illustration II. 3 Hours.
Students will explore various drawing and painting media to continue developing their mastery of representational imagery for illustration. Reference collecting, model making, and the creating of photographic reference material will be addressed. Emphasis on mark making, value and color relationships, and placing the figure in an environment is also covered. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C+ (2.3) or higher to continue on to the next course in the sequence. Prerequisite: ILLU 205 or permission of instructor. Corequisite: ILLU 315 or permission of instructor. LAB.

ILLU 410. Fundamentals of Animation. 4 Hours.
Concentrated study in developing skills and techniques with digital media and materials employed in producing basic contemporary animation. Development of concept, script, storyboard, and use of audio, music and sound effects are part of this animation experience. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ILLU 315 and ILLU 405 and/or permission of instructor. Corequisite: ILLU 415. LAB.
ILLU 415. Illustration Concepts. 3 Hours.
Focus of this course is to learn how to think visually. Concentrated study on developing different forms of concepts for illustration. Continued development of technical skills and visual literacy to gain insight on how to make images that communicate unique ideas clearly. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ILLU 305 and ILLU 315. Corequisite: ILLU 410. LAB.

ILLU 425. Concept Art. 3 Hours.
Introductory exploration of the process, skills and concepts necessary for successful concept art character design and effective blending of matte painting and film. Drawing will be of primary concern for this course, yet exploring digital means of character development will also be introduced. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ILLU 410 and ILLU 415 and/or permission of instructor. Corequisite: ILLU 435. LAB.

ILLU 435. Sequential and Narrative Illustration. 4 Hours.
Exploration of thematic illustration through the development of a series of images based on a topic or story. Aspects of continuity, consistency, storytelling, pacing, editing, packaging and a holistic method of developing illustration are addressed. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ILLU 415 and ILLU 410. Corequisite: ILLU 425. LAB.

ILLU 445. Advanced Concept Art. 3 Hours.
Continuation in exploration of the process, skills and concepts for successful concept art character design, along with continued development of digital characters and 3D modeling. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ILLU 425 and ILLU 435 and/or permission of instructor. LAB.

ILLU 510. Animation. 3 Hours.
Continued development of concepts, scripts, storyboards, and use of audio, music and sound effects in the production of a one to three minute animated film. Prerequisite: ILLU 410 or permission of instructor. LAB.

ILLU 535. Promotion and Marketing for Illustration. 4 Hours.
Focus will be on preparation for entering the profession. Development and completion of a self-promotion and marketing package will supplement and support the senior portfolio. Contemporary business practices and legal issues will be addressed. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ILLU 410 and/or permission of instructor. LAB.

ILLU 703. Illustration. 3-6 Hours.
LAB.

ILLU 825. Illustration. 2-6 Hours.
Individual research. RSH.

INDD 212. Drawing for Industrial Design. 3 Hours.
This course will focus on drawing as a tool of communication through a variety of exercises that explore observation and perception, form and proportion, dimensional illusion and expressive characteristics using a variety of materials and media. This course will also use two- and three-dimensional modeling software necessary for all Industrial Designers. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 101 and BDS 103. Corequisite: BDS 102. LAB.

INDD 284. Basic Industrial Design Studio. 3 Hours.
Course introduces tools, techniques and processes used in the professional practice of Industrial Design. Learning is through a series of short, focused projects. Techniques in drawing, computer modeling, physical modeling, and presentation are demonstrated and developed. Strategies to improve creativity are explored, while addressing market and production considerations. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 102 and INDD 212. LAB.

INDD 302. Intermediate Industrial Design Studio. 3 Hours.
Course introduces tools, techniques and processes used in the professional practice of Industrial Design. Learning is through a series of short, focused projects. Techniques in drawing, computer modeling, physical modeling, and presentation are demonstrated and developed. Strategies to improve creativity are explored, while addressing market and production considerations. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: INDD 284. LAB.

INDD 378. Problems in Industrial Design: ______. 3 Hours.
Individual and/or group research projects in one of several specific design areas which will be identified on a semester by semester basis. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. May be repeated for credit. Prerequisite: Eligibility for INDD 302 or permission of instructor. LAB.

INDD 446. Advanced Industrial Design Studio. 3 Hours.
Continuation of INDD 284 and 302 but encompassing design problems of greater complexity including group research and problem solving assignments in advanced product and service design. Advanced techniques in problem solving, concept communication, visualization, and overall design expression will be demonstrated and explored. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: INDD 302. LAB.

INDD 448. Professional Industrial Design Studio Practices. 3 Hours.
Continuation of Industrial Design studios, projects are longer requiring a high level of demonstrated design ability for successful completion. Issues regarding professional ethics, accountability, and responsibility to public and client are discussed and implemented. Professional design, presentation, and visualization skills will be demonstrated and explored. Finished designs will include full production technical specifications. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: INDD 446. LAB.

INDD 508. Materials and Processes. 3 Hours.
A study of modern materials, manufacturing processes, and construction methods applicable to the fields of industrial design and interior design. Design analysis of existing products, furniture, building components, and storage systems. Design assignments in furniture, storage systems, and interior space arrangements with emphasis on materials and construction. Field trips to area manufacturing and design facilities. Prerequisite: Permission of instructor. LEC.
INDD 510. Human Factors in Design. 3 Hours.
Introduction to the field of human factors (ergonomics) appropriate to industrial, interior, and visual design. Human capabilities, human-machine interfaces and system properties, and the environment are considered, a micro-computer laboratory is integrated into the course. Open to all university students. Prerequisite: Consent of instructor for non-art and non-design majors. Corequisite: BDS 102. LEC.

INDD 512. Methods in Design. 3 Hours.
Introduction to the study of methods of designing common to industrial, interior, and visual design. Evaluation methods (semantic differential), creativity methods (scenario writing), and task-oriented method: (PERT/CPM) will be considered in relation to design problems. Open to non-design students. Prerequisite and/or Corequisite: INDD 302 for industrial design majors or ENVD 200 for environmental design majors respectively. Consent of instructor for all other students. LEC.

INDD 555. Portfolio. 3 Hours.
Work directed toward maximizing the quality and effectiveness of the individual student's professional portfolio. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite or Corequisite: INDD 448. LEC.

INDD 580. Senior Industrial Design Studio. 3 Hours.
Course requires the accomplishment of a comprehensive, independent research, design, and development project appropriate to the field of industrial design, the depth and complexity of which are commensurate with expectations for entry-level professionals. The nature and scope of the project, as well as details of anticipated accomplishment must be outlined by the student and approved by the instructor prior to the beginning of the second week of classes. This course requires completion of all research and basic problem solving. In INDD 581 students will complete their projects and present their final thesis. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Both fall and spring enrollment required. Prerequisite: INDD 448. LAB.

INDD 581. Senior Industrial Design Studio II. 3 Hours.
This course is the counterpart to INDD 580. This course focuses on the preliminary design phases of the project, final design development and refinement, detail technical specifications, renderings, physical and computer modeling, and a written documented report of the project. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Both fall and spring enrollment required. Prerequisite: INDD 580. LAB.

INDD 715. Industrial Design. 2-6 Hours.
Research-oriented advanced study in industrial design. Prerequisite: Graduate major in industrial design or consent of instructor. RSH.

INDD 815. Industrial Design. 2-6 Hours.
Prerequisite: INDD 715. RSH.

PHMD 101. Fundamentals of Photography. 3 Hours. GE3H.
Open to students of all disciplines and experience levels, this course provides an introduction to the medium and language of photography. Basic camera operation, workflow, and digital/analog printing methods are explored, accompanied by lectures, readings, and discussions regarding the historical and theoretical concerns of the medium. A digital camera with full manual controls is required - RAW capable preferred. Open to students of all disciplines and experience levels. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. LAB.

PHMD 201. Photography I. 4 Hours.
The first of the two-part foundational Photography sequence, this majors-only course provides students with a rigorous immersion into the formal, technical, and conceptual concerns and challenges of photography by way of the view camera. Embracing both the wet and digital darkrooms, students shoot and develop sheet film that is then utilized to produce both traditional and digital prints. Intermediate digital editing methods are introduced and explored. View cameras are provided. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: PHMD 101, BDS 102, and permission of instructor. LAB.

PHMD 202. Photography II. 4 Hours.
The second of the two-part foundational Photography sequence, this advanced course builds upon PHMD 201 with additional emphasis on color, RAW workflow, and advanced methods for digital capture, manipulation, editing, and compositing. Additionally, students work extensively with large-format inkjet printers to create custom ICC printing profiles. A digital SLR (RAW capable) camera with full manual controls is required. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: PHMD 201 and permission of instructor. LAB.

PHMD 210. Understanding Photographs. 3 Hours.
Understanding Photographs is a lecture-based course that focuses on developing a critical understanding of how images, paired with culture and society, generate meaning in both the historical and contemporary contexts. Open to students of all disciplines and experience level. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. LEC.

PHMD 301. Lighting Studio. 3 Hours.
Lighting Studio is a fundamental course in awareness, modification, and control of light. Students work extensively with strobe and continuous light sources. Principles of natural and artificial light are introduced, explored, and applied through hands on assignments both in and out of the studio environment. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: PHMD 202 or permission of instructor. LAB.

PHMD 302. The Moving Image. 3 Hours.
This course serves as an introduction to the principles and challenges of photography as a time-based medium. Fundamental concepts of production are introduced and explored through hands-on exercises, class presentations and discussions, lectures, critiques, and individual and group projects. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: PHMD 202 or permission of instructor. LAB.

PHMD 315. Experimental Processes. 3 Hours.
Experimental Processes is an introduction to the understanding and production of image-based works utilizing experimental approaches and alternative processes in an interdisciplinary environment. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: PHMD 202 or permission of instructor. LAB.
PHMD 402. Photo Media Seminar. 3 Hours.
This upper-level seminar is focused primarily on the development of independent and collaborative projects through on-going group critique with an emphasis on research and analysis. Learning is focused on personal development and other issues relevant to contemporary photographic practice through assigned readings, presentations, and group discussion. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. May be repeated for credit. Prerequisite: PHMD 202 or instructor permission. LAB.

PHMD 500. Portfolio. 3 Hours. AE61.
Taken the final semester of study, this course guides students through the research, preparation, and refinement of a final portfolio and appropriate supplemental materials. Methods and strategies of presentation and dissemination are discussed and explored. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: PHMD 402 or instructor permission. LAB.

PHMD 501. Advanced Lighting Studio. 3 Hours.
A continuation of the skills and principles discussed in PHMD 301. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: PHMD 301. LAB.

PHMD 502. Advanced Moving Image. 3 Hours.
A continuation of the skills and principles discussed in PHMD 302. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: PHMD 302. LAB.

PHMD 515. Advanced Experimental Processes. 3 Hours.
A continuation of the skills and principles covered in PHMD 315. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: PHMD 315. LAB.

PHMD 560. Special Topics in Photo Media: _____. 3 Hours.
Special topics courses in Photo Media vary by instructor and provide additional opportunities for interdisciplinary research and advanced special education. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. May be repeated for credit. Prerequisite: PHMD 202 or permission of instructor. LAB.

VISC 177. First Year Seminar:. 3 Hours.
Graphic design is everywhere, on everything we see, touching everything we do, on everything we buy. Graphic design is a popular art and a practical art, an applied art and an ancient art. Simply put, it is the art of visualizing ideas and it is a way of thinking. In this class we will explore principles of Graphic Design: how to identify them, how to be more savvy consumers of them and how to use them for good and not for evil. You will learn to look at your visual environment with designer’s eyes to discern "good design" from "bad design", while putting powerful design principles into practice in your own careers, communities and classrooms. LEC.

VISC 201. Visual Communication Design. 3 Hours.
Presentation of fundamental concepts of visual and non-visual communication. Exploration of various theories of visual perception and visual communication with emphasis on reading visual images for meaning and making meaning through the construction of visual images and typography. A special laboratory section will include design thinking and making strategies and processes which are common to visual communication design from the handmade to the computer. This course is for non-Visual Communication majors. Prerequisite and/or Corequisite: BDS 102. LAB.

VISC 202. Elements of Typography. 3 Hours.
Introduces the discipline, function, and tradition of typography as it relates to visual/verbal communication. Emphasis is on interrelationships of letter, word, line and page. Projects examine two-dimensional typographic space, sequence and information hierarchy. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 102. Corequisite: VISC 204. LAB.

VISC 204. Principles of Visual Communication. 3 Hours.
Visual communication problems involving the student in the translation of verbal concepts and design theory into visual images. This course focuses on the process of defining problems, gathering information, and formulating clear, powerful, and persuasive visual statements. Introduction to methods of research, idea generation, and image making will be an integral part of this course. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 102. Corequisite: VISC 202. LAB.

VISC 302. Typographic Systems. 3 Hours.
Further exploration of typographic form and manipulation of variables which affect content; stresses the importance of typographic composition as an integral component of visual communication design. Projects examine advanced structures of typographic space, work-image structure, and typographic details and aesthetic. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: VISC 202, VISC 204, and permission of instructor. Corequisite: VISC 304. LAB.

VISC 304. Designing Understanding. 3 Hours.
Exploration of the relationships among people, places, and the visual objects and information they use. Attention on the different roles of the designer as observer, empathizer, communicator and experience builder. Introduction to information design processes and procedures of understanding by ordering data into useful and persuasive information tools and experiences. Various methodologies will be explored for visualizing information for clarity, resonance, and editorial voice with special attention to the relationships among audience and context in the creation of meaning. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: VISC 202, VISC 204, and permission of instructor. Corequisite: VISC 302. LAB.

VISC 310. Letterpress. 3 Hours.
This course concentrates on the traditional methods of hand typesetting, using the Department of Design’s collection of lead and wood type. Learn how to use a pica rule, composing stick, leading, spacing material, the California Job Case, mix ink and operate a Vandercook proof press and CP or Goldering platen. Be inspired by visits to Special Collections. Emphasis will be placed on the acquisition of skills and the creative use of type and images. Open to all majors. Prerequisite: VISC 201 or VISC 202 or permission of the instructor. LAB.
VISC 402. Designer as Author. 3 Hours.
Building from the structures and approaches of VISC 302, the course is a research-based examination of traditional, non-traditional and expressive uses of the typographic medium. Projects emphasize the student as both content generator as well as designer and include development of text + image narrative, word as image and typographic “voice” while further refining technical proficiency. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: VISC 302 and VISC 304. Corequisite: VISC 404. LAB.

VISC 404. Designing for Social Interactions. 3 Hours.
Introduces the discipline of designing for dynamic media (i.e., internet, on screen, multi-media.) Emphasis will be placed on concept development and on the fundamental principles of information hierarchy, user experience, navigation strategies, site development and site architecture. Projects, lectures and tutorials will provide a working knowledge of current tools and techniques, while exploring the issues of narrative structure, rhythm, space, animation, sound, and video. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: VISC 302 and VISC 304. Corequisite: VISC 402. LAB.

VISC 410. Letterpress II. 3 Hours.
Artists’ books are books created as original works of art that push the boundaries of the traditional book. This course will focus on the interdependence of form and content through studio work, readings, and the examination of historical and contemporary models. Students will explore a wide range of book structures from basic to innovative. Final outcomes will combine images, hand set type, and digital processes to create both one-of-a-kind, and limited edition artists’ books. VISC 310 Letterpress I is recommended, but not required. Open to all majors. Prerequisite: VISC 201 or VISC 202, or permission of the instructor. LAB.

VISC 414. Publication and Editorial. 4 Hours.
Exploration of topics dealing intensively with editorial concept and format organization. Projects stress advanced problems in the integration of text and image through the development of complex and variable structures. Emphasis on thorough researching of content and audience as well as understanding of production/execution implications of solutions. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: VISC 402, VISC 404. LAB.

VISC 415. Motion Graphics. 3 Hours.
Introduction to the elements, principles and history of motion design. Emphasis on the conceptualization, planning and storyboarding of time-based media with respect to some specific, clearly stated aesthetic and/or communicative purpose. Students will examine methods for synthesizing still moving imagery, typography and audio, in motion, using Adobe After Effects in combination with other software such as Final Cut Pro, Illustrator and Photoshop. Prerequisite: VISC 201, ARCH 108 or VISC 202. LAB.

VISC 420. Exhibition Design. 3 Hours.
This course will explore how exhibitions are conceptualized, designed and made. It will look at the role of curators, exhibition designers, graphic designers as well as the audience of cultural institutions. Open to all majors. Prerequisite: VISC 201, ARCH 108 or VISC 202. LEC.

VISC 425. Environmental Graphics. 3 Hours.
This course will examine core principles and practices of environmental graphic design. Many of these concepts will be concerned with the visual aspects of wayfinding, communicating identity and information, and shaping the idea of place. Some of the topics discussed will include: signage, exhibit design, identity graphics, pictogram design, mapping, civic design and themed environments. Prerequisite: VISC 201 or VISC 304. LEC.

VISC 435. Book Arts. 3 Hours.
Producing books in editions is a complex undertaking. Students work in teams to create or compile content of their choosing, then edit, design, and bind their own books in a small edition. The class combines both traditional letterpress technology and digital interface for the creation of text and image. Each student receives two copies of the team’s final book, one copy is archived in Special Collections at the Spencer Research Library. This class is required for the completion of the Book Arts Certificate. Open to all majors. Prerequisite: VISC 201 or VISC 202, or permission of the instructor. LAB.

VISC 440. Bookstructures and Papermaking. 3 Hours.
Students will learn to make a variety of book structures and enclosures, from historical to contemporary. Prototypes and models, as well as comprehensive notes and instructions will provide the student with a library of bindings for future reference. Students will document paper that is made in class and create a record for themselves, other students, and the Department of Design. Open to all majors. Prerequisite: VISC 201 or VISC 202 or permission of the instructor. LAB.

VISC 455. Designing Information. 3 Hours.
Making preliminary visualizations, models, and prototypes. Examines words, diagrams, type, and sequencing to restructure messages so that they tell a story more effectively. Editing images to make messages clear, unambiguous and understandable by their intended audience(s). Designing the appearance of an information product so that users can find what they want and understand it when they get there. Open to all Design majors. Prerequisite: VISC 201 or VISC 304 or permission of the instructor. LAB.

VISC 520. Designing for Change. 4 Hours. AE61.
Exploration of branding, service and interaction design opportunities that respond to real-life complexity: audiences, systems and contexts. Introduces business and design thinking strategies associated with brand development and the idea that design plays a vital role in our local, national, and global society and well-being. Emphasis on the methods of thinking and research which precede the making of design as well as the importance of writing and verbal presentation to the visual communication design profession. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: VISC 414 or permission of the instructor. LAB.

VISC 525. Senior Problems. 4 Hours.
Goal-oriented graphic design problem-solving with emphasis on research, analysis, and synthesis of complex visual problems. Will allow for in-depth study of professional design issues and topics; provides a forum for multi-disciplinary collaboration with related professional disciplines. May be repeated for credit. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: VISC 520 or permission of instructor. LAB.

VISC 530. Portfolio. 3 Hours.
Instruction in the organization and presentation of a professional quality visual portfolio. Readings, feedback and online collaborations will focus on the development of a focused portfolio consistent with the individual student’s pursuits. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade
of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite or Corequisite: VISC 520 or permission of instructor. LEC.

**VISC 534. Portfolio Development. 3 Hours.**
This course will provide design and non-design majors instruction in the organization and presentation of a professional quality visual portfolio. Readings, feedback and online collaborations will focus on the development of a focused portfolio consistent with the individual student’s pursuits. Graded on a satisfactory/unsatisfactory basis. LEC.

**VISC 560. Special Topics in Visual Communication: _____ 3 Hours.**
A study of different topics in different semesters in a special area of visual communication. Entry by permission of instructor. May be repeated for credit. LAB.

**VISC 701. Visual Communication. 3 Hours.**
Presentation of fundamental concepts of visual and non-visual communication. Exploration of various theories of visual perception and visual communication with emphasis on reading visual images for meaning and making meaning through the construction of visual images and typography. A special laboratory section will include design thinking and making strategies and processes which are common to visual communication design from the handmade to the computer. Prerequisite: Permission of the instructor. LAB.

**VISC 704. Designing Understanding. 3 Hours.**
Exploration of the relationships among people, places, and the visual objects and information they use. Attention on the different roles of the designer as observer, empathizer, communicator and experience builder. Introduction to information design processes and procedures of understanding by ordering data into useful and persuasive information tools and experiences. Various methodologies will be explored for visualizing information for clarity, resonance, and editorial voice with special attention to the relationships among audience and context in the creation of meaning. Prerequisite: Permission of the instructor. LAB.

**VISC 706. Graphics. 3-6 Hours.**
LAB.

**VISC 710. Letterpress. 3 Hours.**
This introductory course in letterpress will instruct the student in methods for printing from moveable type and other type-high surfaces. The discipline will be explored from a historic as well as artistic perspective. Emphasis will be placed on the acquisition of skills and vocabulary, and the creative use of type and techniques. Prerequisite: Permission of the instructor. LAB.

**VISC 714. Designing for Social Interactions. 3 Hours.**
Introduces the discipline of designing for dynamic media (i.e., internet, on screen, multi-media.) Emphasis will be placed on concept development and on the fundamental principles of information hierarchy, user experience, navigation strategies, site development and site architecture. Projects, lectures and tutorials will provide a working knowledge of current tools and techniques, while exploring the issues of narrative structure, rhythm, space, animation, sound, and video. Prerequisite: Permission of the instructor. LAB.

**VISC 715. Motion Graphics. 3 Hours.**
Introduction to the elements, principles and history of motion design. Emphasis on the conceptualization, planning and storyboard of time-based media with respect to some specific, clearly stated aesthetic and/or communicative purpose. Students will examine methods for synthesizing still moving imagery, typography and audio, in motion, using Adobe After Effects in combination with other software such as Final Cut Pro, Illustrator and Photoshop. Prerequisite: Permission of the instructor. LAB.

**VISC 720. Exhibition Design. 3 Hours.**
This course will explore how exhibitions are conceptualized, designed and made. It will look at the role of curators, exhibition designers, graphic designers as well as the audience of cultural institutions. Open to all majors. Prerequisite: Permission of the instructor. LAB.

**VISC 725. Environmental Graphics. 3 Hours.**
This course will examine core principles and practices of environmental graphic design. Many of these concepts will be concerned with the visual aspects of wayfinding, communicating identity and information, and shaping the idea of place. Some of the topics discussed will include: signage, exhibit design, identity graphics, pictogram design, mapping, civic design and themed environments. Prerequisite: Permission of the instructor. LAB.

**VISC 735. Books Art. 3 Hours.**
Combines wide range of traditional letterpress and digital processes for type and image for individually determined student book projects. Projects will culminate in a small printed and bound edition. Prerequisite: Permission of the instructor. LAB.

**VISC 740. Bookstructures and Papermaking. 3 Hours.**
This course will seek to acquaint the student with the origins of the book, paper, and pre-paper writing surfaces. Prototypes and models, as well as comprehensive notes and instructions will provide the student with a library of structures and variations for future reference. Students will document paper that is made in class and create a record for themselves, other students, and the School of Design. Prerequisite: Permission of the instructor. LAB.

**VISC 755. Designing Information. 3 Hours.**
Making preliminary visualizations, models, and prototypes. Examines words, diagrams, type, and sequencing to restructure messages so that they tell a story more effectively. Editing images to make messages clear, unambiguous and understandable by their intended audience(s). Designing the appearance of an information product so that users can find what they want and understand it when they get there. Open to all Design majors. Prerequisite: Permission of the instructor. LAB.

**VISC 760. Designing for Change. 3 Hours.**
Exploration of branding, service and interaction design opportunities that respond to real-life complexity: audiences, systems and contexts. Introduces business and design thinking strategies associated with brand development and the idea that design plays a vital role in our local, national, and global society and well-being. Emphasis on the methods of thinking and research which precede the making of design as well as the importance of writing and verbal presentation to the visual communication design profession. Prerequisite: Permission of the instructor. LAB.

**VISC 815. Graphics. 2-6 Hours.**
Individual research. RSH.

**Urban Planning Courses**

**UBPL 200. Sustainability and Society. 3 Hours. GE11/GE3S.**
This course will introduce the concept of sustainability, examining its early iterations, recent applications, and possible future transformations. Critical analysis of sustainability as a concept and societal goal will be a course cornerstone. We will examine two contemporary social issues that are relevant to students at the University of Kansas. Social science perspectives will be emphasized, but, because sustainability necessitates an interdisciplinary perspective, the course will consider the contributions of a wide range of disciplines to these issues. LEC.

**UBPL 300. Planning the American City. 3 Hours.**
A broad introduction to the field of urban planning as a technical profession, a process of decision-making, and a governmental function.
The multi-disciplinary nature of planning as an area for professional practice in the geographical, socio-economic and political contexts of the U.S. is stressed. We will explore the promise and limitations of planning in the context of mitigating and adapting to climate change. The course is intended for both the student who is considering planning as a major field of study and the student with primary interest in a related field who would like a working knowledge of past and current planning in the U.S. LEC.

UBPL 502. Special Topics in Urban Planning: ______. 1-6 Hours.
Intended for undergraduate individual or group projects/research in an urban planning topic. LEC.

UBPL 522. History of the American City I. 3 Hours.
This course examines the evolution of American cities from their European antecedents through the late 20th Century, from the urban planning perspective. It focuses on the changing spatial forms and functions of American cities and how these changes relate to socioeconomic and political aspects of urbanization as well as changes in technology. Emphasis is placed on analyzing the relationships between historical development patterns and the current range of problems facing most U. S. cities. (Same as UBPL 722 but gives undergraduate credit.) LEC.

UBPL 538. Environmental Planning Techniques. 3 Hours.
The course covers a variety of topics within environmental planning. Each topic is examined with respect to the scope of the issues, the methods of analyzing and/or measuring those issues, and the ways planners can address those issues in order to avoid or mitigate environmental problems. LEC.

UBPL 565. Introduction to Sustainable Land Use Planning. 3 Hours.
This course introduces students to the issues that planners and decision makers face as they strive to protect environmental resources, especially within the context of land use planning. Emphasis will be placed on the theoretical and policy considerations that guide the work of environmental planners. LEC.

UBPL 662. Twentieth Century American Landscape. 3 Hours.
The purpose of this course is to investigate the relationships between the American culture and the resulting built and natural landscape. Issues of building types, public places, and land use arrangements will be studied from a socio-historical perspective. (Same as ARCH 662.) LEC.

UBPL 701. Directed Readings. 1-6 Hours.
Designed to meet the needs of students whose study in urban planning cannot be met with the present courses. Prerequisite: Consent of instructor. RSH.

UBPL 705. Economic Analysis for Planners. 3 Hours.
An introduction to the concepts and analytical techniques of economics that are most relevant to urban planners. The first part of the course is devoted to microeconomic theory, welfare economics, and the role of the government in the economy. The remainder covers public finance, investment analysis, and methods of determining the allocation of public resources (such as benefit-cost analysis). LEC.

UBPL 710. Introduction to Housing Policy. 3 Hours.
Designed to provide an introduction to the various methods used by the public sector in order to intervene in the housing market. Many different programs are used by governments at all levels to serve many different housing goals. This course will examine many of these programs in an effort to understand what they are supposed to accomplish and how well they work. In all cases, the objective of the course is to train planners so that they have a firm understanding of housing programs that exist now as well as a grasp of the methods used to select housing strategies for implementation by the public sector. LEC.

UBPL 714. Local Economic Development Planning. 3 Hours.
This course provides a broad overview of local economic development planning. Emphasis is on the role of the practitioner and the various activities that can be pursued to encourage and enhance the economic base of a locality. The objectives of the course are to answer the questions: who are economic development planners; what backgrounds and interests do they have; what types of activities do they perform and initiate to encourage and enhance economic development; and how do they decide upon which activities to pursue? Prerequisite: UBPL 764 or permission of instructor. LEC.

UBPL 715. Community“ in Neighborhood Planning and Design. 3 Hours.
This course provides a place-centered approach for understanding and applying the idea of community to local neighborhood planning. The course explores social theories of community and how these have influenced prescriptive models for neighborhood development and design. The course also evaluates the interplay of social, environmental, and economic forces at the neighborhood level and their relationship to community development and well-being. LEC.

UBPL 716. Community and Neighborhood Revitalization. 3 Hours.
The course examines the fields of community development and the revitalization of urban neighborhoods. In the course, students study the theories of community redevelopment as well as the methods of analysis guiding the planning of neighborhoods. The course also reviews the many programs that exist to assist the neighborhood revitalization process and looks at the literature evaluating the implementation of these programs. As an implementation course, students complete a project that calls for them to apply the knowledge learned to real world setting. Prerequisite: UBPL 764 or permission of the professor. LEC.

UBPL 722. History of the American City II. 3 Hours.
This course examines the evolution of American cities from their European antecedents through the late 20th Century, from the urban planning perspective. It focuses on the changing spatial forms and functions of American cities and how these changes relate to socioeconomic and political aspects of urbanization as well as changes in technology. Emphasis is placed on analyzing the relationships between historical development patterns and the current range of problems facing most U. S. cities. (Same as UBPL 522 but gives graduate credit.) LEC.

UBPL 730. Plans and Planning Processes. 3 Hours.
This course is about how to create plans and put the pieces of cities together in a sustainable manner, balancing the competing values of economy, ecology, equity, and livability. It introduces students to the planning process in the U.S., what makes great plans, the basic implementation tools for planning (zoning, capital improvement plans, engineering standards, and subdivision regulations.) We will learn about the Comprehensive Plan along with specialized plans for transportation, housing, land use, and the environment. LEC.

UBPL 735. Site Planning and Design. 3 Hours.
Site planning is the arrangement of elements (buildings, landscaping, parking, open space) on particular pieces of property. This class focuses on the site planning process and the implementation of site design standards through regulations. We will delve into the elements and principles of design and ask these big questions: What makes great public spaces? What makes great neighborhoods? What makes great streets? What can we do to steer development in the direction of greatness? LEC.

UBPL 736. Planning Institutions. 3 Hours.
This course explores the legal principles underlying the institutions, practices and processes of city planning. Subjects to be discussed include zoning, eminent domain, subdivision regulation, transfer of development rights, environmental regulation, growth management, and other planning
mechanisms used to guide urban growth and control the use of land. Students should emerge from the course with a solid understanding of both the logic and routine practice of planning in a procedural and institutional context. LEC.

UBPL 737. NEPA Environmental Assessments. 3 Hours. This course provides an understanding of how to effectively manage and conduct environmental assessments as required by the National Environmental Protection Act (NEPA). Topics include the history and intent of NEPA; the steps, players and assessment types; techniques used to balance environmental concerns with the social and economic considerations; and the role of the courts and environmental advocacy groups in challenging NEPA assessment findings. The course also addresses the role of leadership, conflict resolution, and consensus building in managing environmental assessments. Case studies are used to examine different assessment types and process approaches. LEC.

UBPL 738. Environmental Planning Techniques. 3 Hours. The course covers a variety of topics within environmental planning. Each topic is examined with respect to the scope of the issues, the methods of analyzing and/or measuring those issues, and the ways planners can address those issues in order to avoid or mitigate environmental problems. LEC.

UBPL 739. Issues in Growth Management. 3 Hours. This course examines various aspects of growth management including its history, legal foundations, and application at different levels of government. Growth management not only means dealing with the rapid growth of cities, it also includes managing slow growth, no growth, and negative growth with the ultimate goal being sustainability. Impacts on affordable housing, economic development, social equity, transpiration, and environmental conservation are also explored. LEC.

UBPL 741. Quantitative Methods I. 3 Hours.
Introduction to quantitative techniques utilized in planning analysis. Introduction to inferential statistics, computer programming, and the use of statistical packages. LEC.

UBPL 742. Quantitative Methods II. 3 Hours. Advanced study in planning techniques in the areas of population forecasting, analysis of variance, and regression. The course makes extensive use of microcomputers. Prerequisite: UBPL 741 or consent of instructor. LEC.

UBPL 746. GIS Applications for Design and Planning. 3 Hours. This course will explore a range of Geographic Information Systems (GIS) applications for students in architecture and planning. It will be structured as a workshop, starting with a review of basic GIS concepts and procedures. Different digital data sources will be explored, along with file sharing (import and export) capabilities. The focus will be on applications at different scales using projects in architecture, site planning, environmental planning, urban analysis, and regional analysis. Three dimensional analysis will also be introduced. Each student will develop a final project as a synthesis of earlier exercises and as an application relevant to their individual professional interests. LEC.

UBPL 750. Introduction to Transportation Planning. 3 Hours. This course is a survey course covering multiple modes of transportation (planes, trains, buses, automobiles, bicycles, and walking). The field of transportation planning is examined within a policy analysis framework. Knowing the policy context and understanding how decisions are made will assist transportation planners in understanding the world in which they operate. In addition to the policy context, this course will focus on the technical knowledge transportation planners are expected to know like federal requirements, traffic modeling, and specific topics like bicycle and pedestrian planning and traffic calming. LEC.

UBPL 755. Planning Intercity Transportation Systems. 3 Hours. This course explores the supply and demand of intercity multimodal movement of people and goods from megaregional to global scales. Students will learn the characteristics and performance of rail, aviation, and marine travel, the nuts and bolts of supply provision, effects of intercity connections on communities, and mechanisms for planning at across state and national borders. LEC.

UBPL 756. Travel Demand Forecasting Methods. 3 Hours. The course is intended to provide a working knowledge of analytical transportation planning; it emphasizes two elements. One emphasis is to describe the fundamental principles of transportation planning through the review of transportation modeling theory and practice. The second emphasis is to work with the TransCad model. Students learn how to use these models by running TransCad (GIS based modeling software), building a transportation model, and using it to forecast future transportation conditions. Prerequisite: UBPL 750 or consent of instructor. LEC.

UBPL 757. Transportation Planning Implementation. 3 Hours. A variety of transportation implementation methods and strategies are explored. Project management with an emphasis on finance is the major focus of this course. This is a significant responsibility of transportation planners, consisting of several key steps including project initiating, planning, execution, and control. Other techniques included in this course deal with air quality conformity, congestion management, environmental reviews, developing performance measures, scenario testing, highway capacity analysis and micro-simulation modeling, and executing public involvement programs. LEC.

UBPL 758. Public Transit. 3 Hours. This course familiarizes students with core concepts and practices in public provision of local transit systems from high-capacity heavy rail to on-the-fly demand response. Course modules examine modes, system design, planning issues, organizational relationships inherent to public transit, and technical operations. The course concludes with an examination of comprehensive transit systems. LEC.

UBPL 760. Historic Preservation Planning. 3 Hours. In addition to studying the history of the preservation movement in the United States, the course will discuss preservation at the state and local level, preservation at the private level, ordinance creation, legal aspects of preservation, technical issues and contemporary issues and controversies in the field of preservation. Projects will deal with philosophic and current issues in preservation. LEC.

UBPL 761. Historic Preservation Economics. 3 Hours. This course considers the economic strategies for the historic preservation of the built environment. Topics include investment tax credits, tax increment financing and tax abatement, bond issues, historic preservation grants, and revolving funds. Students will analyze case studies and meet guest speakers who make preservation projects work. Class projects may include market analyses, economic feasibility studies, rehabilitation/redevelopment plans, and technical research papers. LEC.

UBPL 762. Sustainability and the Future of the Built Environment. 3 Hours. This course critically examines the evolving relationship between rehabilitation preservation, and new construction in creating a sustainable built environment in the United States during the twenty-first century. Some observers insist that we cannot build our way to sustainability, but instead must conserve our way to it. What is the appropriate balance of rehabilitation and new construction in creating sustainable built environment? What is the appropriate role of planning and design professionals in this movement? What knowledge and skills will be necessary? The course surveys the contemporary discussion about
defining and evaluating a sustainable built environment as well as the economic and social requirements for creating a sustainable society. LEC.

UBPL 763. Professional Practice. 3 Hours.
This course seeks to provide students with both skills and evaluative frameworks to enhance their work as practicing planners. We will focus specifically on issues related to ethics, citizen participation, dispute resolution, and management. Considerable attention will be paid to "real life" lessons. Prerequisite: UBPL 741 and UBPL 815. LEC.

UBPL 764. Real Estate Development I. 3 Hours.
This course is designed to provide a working knowledge of the mechanics of real estate investment analysis. As a planning course, the emphasis is placed upon the process as performed by the practicing planner working with the public sector. This means that the course covers much of the same material that is normally included in a real estate development course in a business school. However, this material is augmented with the study of techniques used to achieve public sector goals. Among the topics covered in the course are: the calculation of return on investment in real estate; the financing of real estate development; the various forms of property ownership; and the implications of tax laws upon the rehabilitation of historic properties and the provision of low-income housing. Prerequisite: Knowledge of spreadsheet software on a personal computer. LEC.

UBPL 765. Introduction to Sustainable Land Use Planning. 3 Hours.
This course introduces students to the issues that planners and decision makers face as they strive to promote sustainability, especially within the context of land use planning. Emphasis will be placed on the theoretical and policy considerations that guide the work of planners. LEC.

UBPL 766. Real Estate Development II. 3 Hours.
This course extends the study of real estate development planning begun in UBPL 764: Real Estate Development Planning I. The course will examine various forms of public-private participation in the real estate development process. Advanced study of various public sector programs to guide and direct the real estate development process will be undertaken, including the use of tax credits for affordable housing and for historic preservation. Projects developed within the region will be examined to illustrate the application of these techniques. Prerequisite: Successful completion of UBPL 764 or permission of instructor. LEC.

UBPL 773. Environmental Planning Implementation. 3 Hours.
This course emphasizes the details of successful implementation of environmental plans. While the particular focus (land, water, energy, etc.) may vary, the techniques and processes studied will be broadly applicable. Students will develop environmental plans using real-world data. Prerequisite: UBPL 765, UBPL 738, or consent of instructor. LEC.

UBPL 802. Special Topics: _____, 1-6 Hours.
This course is intended to afford the opportunity for individual or group projects/research in an urban planning topic. RSH.

UBPL 806. Thesis - Graduate Research. 1-6 Hours.
Independent study and research related to the master’s thesis. Prerequisite: Consent of instructor. THE.

UBPL 815. History and Theory of Planning. 3 Hours.
The course serves as an introduction to the history of city planning and "how to plan" in general. Planners are particularly concerned with future consequences of current action. In looking to the future, knowing past history is a good place to start. Also, planning theorists have thought deeply about how best to plan and their thoughts and advice can serve planners and decision-makers well when they are facing unknowns. LEC.

UBPL 816. Politics and Planning. 3 Hours.
Planners operate within a highly technical yet political environment. Planners often try to bring consensus and action-taking to communities but the very structure of our democracy promotes conflict and stalemate. Understanding how power, structures and agencies influence policy-making will help planners become savvier as they balance their roles as advisors, educators, facilitators, advocates, and administrators. This class explores the trials, tribulations, and triumphs of planners as they deal with politics. LEC.

UBPL 850. Urban and Regional Theory. 3 Hours.
The course explores the forces that shape the structure and function of cities and regions, drawing upon insights from planning, geography, economics, sociology, demography, and political science. Special attention is paid to theories that can be applied by urban planners to improve the economic performance, quality of life, and social equity of urban areas. Topics covered include the origin and development of cities, agglomeration economies, location theory, central place, mix-and-share analysis, economic base, input-output, labor markets, urban models, regional development planning, globalization, high technology, urban poverty, and problems of regional governance. Prerequisite: UBPL 741 and UBPL 815. LEC.

Department of Architecture

Introduction

Architecture is inherently an interdisciplinary field of study, integrating knowledge from art, science, and the humanities. As a method of practice, it is a complex, collaborative, professional activity aimed at improving the quality of life for people and the planet. The discipline requires creative, critical, agile, and integrative thinking. Architecture deals with highly complex problems and aims to solve them not only competently, but in a way that ennobles society. The curriculum responds to these considerations by offering a series of overlapping sequences in professional and academic course work.

Mission

The Department of Architecture engages in progressive knowledge generation, dissemination, and application through its core activities of teaching, scholarship, and service to enhance the quality of life for people and the planet. The department furthers this mission by offering 4 degrees:

- The Master of Architecture (an NAAB-accredited professional degree);
- The Bachelor of Arts in Architectural Studies (a pre-professional program); and
- 2 post-professional graduate degrees,
  - the Master of Arts in Architecture
  - the Ph.D. in Architecture

Undergraduate Programs

Master of Architecture Program (5-year)

“In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (http://www.naab.org) (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master
of Architecture, and the Doctor of Architecture. A program may be granted a six-year, three-year, or two-year term of accreditation, depending on the extent of its conformance with established educational standards. Master’s degree programs may consist of a preprofessional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the preprofessional degree is not, by itself, recognized as an accredited degree.”

— National Architectural Accrediting Board

Prospective students who apply for admission to the accredited 5-year degree program and are accepted through the undergraduate admissions process are admitted directly into the Master of Architecture program. These students pay undergraduate tuition through the first 4 years and are considered graduate students for the final year. Students holding a baccalaureate degree apply through graduate admissions and enter a 3-plus-year program (those holding a preprofessional degree in architecture receive advanced standing and usually complete the degree in 2 years plus 1 summer).

Bachelor of Arts in Architectural Studies

The Department of Architecture offers a Bachelor of Arts in Architectural Studies degree. This program combines a liberal arts education with the study of the historical and theoretical content of architecture. This four-year degree program requires a minimum of 124 credit hours. Students considering a B.A. degree in other areas as a double major with the B.A. in Architectural Studies should consult the College of Liberal Arts and Sciences for advising, because other B.A. degrees may have different elective requirements for graduation.

Students considering the B.A. in Architectural Studies must understand that this is not the professional degree for architectural practice. It is not designed to prepare the student either for architectural registration or for entry into the architecture profession. It is specifically designed for students seeking exposure to the conceptual content of architecture within a liberal arts framework. The curriculum is a powerful platform from which to pursue graduate education.

Graduate Programs

The Department of Architecture offers 4 distinct plans for graduate study:

1. A Master of Architecture (M.Arch.), a 3-year professional degree for students already holding bachelor’s degrees in any field (those with architecture degrees are considered for advanced placement);
2. A Master of Arts in Architecture (M.A.) — Academic/Research Track for students interested in the study of architecture from an academic and scholarly perspective;
3. A Master of Arts in Architecture (M.A.) — Architectural Management Track for students interested in management issues confronting contemporary professional architecture practice; and
4. A Doctor of Philosophy in Architecture (Ph.D.) for students interested in engaging in robust, innovative inquiry that adds to the body of knowledge in architecture and its related fields.

Of these 3 degree programs, only the 3-year Master of Architecture is a professional degree. The other degrees are post-professional degrees that do not place the student on the path for architectural registration. Students seeking a career change into a professional curriculum, should apply for admission to the 3-year M.Arch. degree.

Courses

ARCH 100. Architectural Foundations I. 4 Hours.
An introductory design studio directed toward the development of spatial thinking and the skills necessary for the analysis and design of architectural space and form. This course is based on a series of exercises that include direct observation: drawing, analysis and representation of the surrounding world, and full-scale studies in the making of objects and the representation of object and space. Students are introduced to different descriptive and analytical media and techniques of representation to aid in the development of critical thought. These include freehand drawing, orthographic projection, paraline drawing, basic computer skills, and basic materials investigation. Prerequisite: Approval from the Dean of the School of Architecture and Urban Planning. LAB.

ARCH 101. Architectural Foundations II. 6 Hours.
A continuation of ARCH 100 with major emphasis on the design relationships among people, architectural space, and the environment. The course is based on a series of exercises leading to the understanding of architectural enclosure as mediating between people and the outside world. Issues of scale, light, proportion, rhythm, sequence, threshold, and enclosure are introduced in relation to the human body, as well as in relation to architectural form, environment, and social and psychological factors. Students will engage in drawing, perspective projection, model building, and basic computer graphics. Prerequisite: ARCH 100. LAB.

ARCH 103. Introduction to Architecture. 3 Hours.
An introduction to the study and practice of architecture. This course aims at orienting the student to the various disciplinary facets which make up the total architectural curriculum as well as to the various professional roles which architects can be expected to perform. Architectural study is seen as both an art and a science, and architectural practice is seen as a complex, interdisciplinary professional activity. Presentations by guest lecturers are included. Discussions required for, and only open to B.A. in Architectural Studies students. LEC.

ARCH 104. Principles of Modern Architecture. 3 Hours.
A lecture course covering the emergence of technological, theoretical and aesthetic principles of modern design beginning with the socio-cultural impact of industrialization and the crisis in architecture at the end of the 19th century. Attention is given to functionalist theory, mechanical analogies and the so-called machine aesthetic of 1910-1930 and to the precedents of important design principles of modern architecture, including modular coordination, the open plan, interlocking universal space, unadorned geometry, structural integrity, programmatic and tectonic expression, efficiency and transparency and briefly explores their development in post-war and late 20th century examples. LEC.

ARCH 105. B.A. Architectural Studies Seminar. 1 Hour.
The seminar provides a discussion section that supplements the lectures presented in ARCH 103. The course must be taken concurrently with ARCH 103 and is open only to students in the B.A. in Architectural Studies Program, or with approval by the School of Architecture and Urban Planning. SEM.

ARCH 106. B.A. Architectural Studies Seminar II. 1 Hour.
This seminar provides a discussion section that supplements the lectures presented in the lectures of ARCH 104. The course must be taken concurrently with ARCH 104 and is open only to students in the B.A. in Architectural Studies program, or with consent of the Dean of the School of Architecture and Urban Planning. LEC.

An introductory design studio directed toward the development of spatial thinking and the skills necessary for the analysis and design
of architectural space and form. This course is based on a series of exercises that include direct observation: drawing, analysis and representation of the surrounding world, and full-scale studies in the making of objects and the representation of object and space. Students are introduced to different descriptive and analytical media and techniques of representation to aid in the development of critical thought. These include freehand drawing, orthographic projection, paraline drawing, basic computer skills, and basic materials investigation. Prerequisite: Approval from the Dean of the School of Architecture and Urban Planning. LAB.

A continuation of ARCH 108 with major emphasis on the design relationships among people, architectural space, and the environment. The course is based on a series of exercises leading to the understanding of architectural enclosure as mediating between people and the outside world. Issues of scale, light, proportion, rhythm, sequence, threshold, and enclosure are introduced in relation to the human body, as well as in relation to architectural form, environment, and social and psychological factors. Students will engage in drawing, perspective projection, model building, and basic computer graphics. Prerequisite: ARCH 100 or ARCH 108. LAB.

ARCH 152. Professional Practice I. 1 Hour.
This course will introduce students to the history and nature of the architecture profession and its relationship to education, internship, registration and certification. The various roles which architects are expected to perform and the ethical standards they are expected to uphold are explored in the context of different models of practice. Prerequisite: Must be admitted to M.Arch 5-year program, Arch Studies Program or approval by the School of Architecture and Urban Planning. LEC.

ARCH 200. Architectural Foundations III. 6 Hours.
A continuation of ARCH 101 with a series of studio exercises following a succession based on analysis, form, and syntax, with an emphasis on the communication of architectural ideas. Students explore plan, section, and spatial organization, spatial sequence, structure and materiality in relation to human dwelling and the building site. The course aims for student integration of these issues into building designs that require the organization of multiple spaces. Students will consider natural forces as they both shape and affect buildings, including gravity, wind, light, heat, sound, and fluids. Precedent studies, direct observation, building analysis, and site analysis are significant aspects of the semester. Prerequisite: ARCH 101. LAB.

ARCH 205. Natural Forces. 3 Hours.
The course advances empirical understanding of natural forces as they both shape and affect buildings, including gravity, wind, light, heat, sound, and fluids. This course emphasizes the development of conceptual thinking and problem solving skills through sensory-based demonstrations, lectures, and laboratory experimentation. The course will emphasize concepts of PHSX 114 as they relate to the built environment. The course will require freehand drawing, physical, model-building and the application of Photoshop and InDesign software programs. Tutorials and workshop sessions will introduce and require use of other computer software applications. Prerequisite: PHSX 114 and either ARCH 109 or ARCH 502; or consent of instructor. LEC.

ARCH 208. Architectural Design I. 6 Hours.
The second year studios are responsible for introducing students to the basic form determinants of architecture—from limited scope exercises to complete building designs within the natural environment. Using diagrams and sketches, plans, sections, elevations and models, students explore the spatial ordering of human activity, the analysis of site, sound, light and air modulation, simple environmental controls and energy conservation, basic framing systems, volumetric organization and the materials of building skins and envelopes in the design of small buildings. Prerequisite: ARCH 109. LAB.

ARCH 209. Architectural Design II. 6 Hours.
A continuation of ARCH 208 with an emphasis on the synthesis of basic form determinants, including the completion of a design project of a medium-sized, multi-storied public building in the urban environment containing a variety of spaces and spans. This project will enable students to demonstrate competence in basic architectural design, act as a summation of the variety of smaller design exercises undertaken through the year, and prepare students for the third year focus on the materials and methods of building construction. Prerequisite: ARCH 208. LAB.

ARCH 280. Design Workshop I: Visual Narratives. 3 Hours.
This lab-based course will develop the skills and understanding necessary to visually communicate compelling narratives of complex data and situations. Students will engage in hand-sketching and diagramming as well as utilizing digital tools designed to facilitate clear and persuasive data display. Environmental scales ranging from settlement patterns down to product interface will be addressed. Students will learn the visualization pipeline, processing data for visualization, visual representations, the design of interaction in visualization systems, and the impact of perception. Students will also develop the skills necessary to solve visualization problems and critique and evaluate information visualization. This material will be covered through class discussions, readings, and a number of assignments and projects. The assignments and large group project will provide students with practical experience in the construction of visual narratives. LEC.

ARCH 281. Design Workshop II: Design Thinking. 3 Hours.
This course aims to enhance student’s abilities to apply concepts and methods associated with design thinking with an emphasis on ill-structured problem-solving and human-centered design. Students will gain exposure to design thinking processes including forecasting, scenario planning and various forms of analysis all of which help shape a robust problem statement that forward design innovation. This material will be covered through class discussions, readings, and a number of assignments and projects. Students will have the opportunity to develop their design-thinking competence through their final project which may be at the level of models, product, spatial, building and/or community designs. LEC.

ARCH 310. Computer Applications. 3 Hours.
The course will immerse students in the exploration of the generation, manipulation, and production of graphic images through the use of computers. The goal of the course is to help reach an understanding of computers that allows for future growth in an environment in constant change, and to provide an overview of what is currently possible. The format of the course will be a combination of lectures and workshops. The lectures will introduce students to theoretical and application-oriented topics. Group discussions will focus on the computer as a conceptual construct, the computability of design, and computers as design partners. The workshops will provide students with hands-on experience. The vehicles used for these investigations will be desktop publishing, paint, and drafting tools. As resources become available this list will be augmented. LEC.

ARCH 359. Special Problems. 1-3 Hours.
Special problems in architecture. The study of a particular problem in architecture involving individual research and presentation. Conferences and reports. (May be taken for Credit/No Credit.) Prerequisite: Student must submit to his or her faculty advisor, in advance, a statement of the problem he or she wishes to pursue, the methodology he or she plans to
use in the program, and the objectives of the special problems. He or she must also be in agreement with the faculty member he or she proposes as instructor for the course. IND.

ARCH 360. Introduction to Landscape Architecture. 3 Hours.
This course situates landscape architecture in a broad cultural and social context with the intention of developing skills in critical thinking about the role of exterior place-making in the built environment. Lectures and assigned readings will explore central issues in the history and theory of landscape architecture and look at key sites and their designers. Other topics will include environmental attitudes and perception, the human experience of place, and ideas of nature. LEC.

ARCH 380. Design Workshop III: Ideas and Methods in Planning and Design. 3 Hours.
This course focuses on design methods, ideas and approaches at the city, neighborhood and community levels. The course will introduce approaches to urban design and planning which are responsive to social, environmental and ecological issues. The goal is to develop core competencies in design thinking such as analyzing specific problems and developing possible design interventions by understanding relevant theories and analyzing case studies. Students will critically analyze past and current urban trends through case studies to inform design ideas for more equitable and sustainable communities. This material will be covered through class discussions, readings, and a number of design-oriented team projects and assignments. LEC.

ARCH 381. Design Workshop V: Designing Sustainable Futures. 3 Hours.
This problem-based service-learning course aims to enhance students’ abilities to apply the concepts and methods associated with effective and facilitative leadership focused upon sustainable design problems. This material will be covered through class discussions, readings, and design-oriented team projects. Students learn core competencies such as analyzing organizational problems and goals, strategic planning, intervention, and evaluation. In the service-learning component, students apply these skills to issues that matter to them and to the communities they serve to generate design solutions for their client’s consideration. These projects may be at the level of interaction models, product, spatial, building and/or community designs. LEC.

ARCH 408. Architectural Design III. 6 Hours.
A continuation of ARCH 209 with an increased emphasis on building construction and systems as form determinants. Work will focus on medium scale, multi-storey non-residential buildings developed to an appropriate level of technical resolution as evidenced in clear schematic wall sections and structural proposals. Prerequisite: ARCH 209. LAB.

ARCH 409. Architectural Design IV. 6 Hours.
A workshop based course with an emphasis on materiality and construction of building assemblies through hands-on activities. Development of craft, process, collaboration and technical documentation skills will be a primary objective of the course. Prerequisite: ARCH 209. LAB.

ARCH 480. Senior Seminar. 3 Hours.
This seminar will expose students to normative and critical approaches in the profession of architecture. Through field trips, attendance at juries, readings, and presentations by architects and designers, they are to develop an understanding of the precedence, theories, and practices of the profession. This is the capstone course for the B.A. in Architectural Studies. Prerequisite: ARCH 381. LEC.

ARCH 502. Accelerated Design I. 6 Hours.
The first of three accelerated design studios, this course emphasizes the design relationships among people, architectural space, and the environment. Issues of shelter, light, sequence and threshold are considered in relation to physical, psychological and sociological factors. Offered only in the summer. Prerequisite: Undergraduate degree and permission of the Dean of Architecture and Urban Planning. LAB.

ARCH 503. Accelerated Design II. 6 Hours.
The second of three accelerated design studios, this course emphasizes construction and technology as expressive mediators in the relationship between human dwelling and site. Students will consider natural forces as they both shape and affect buildings, including gravity, wind, light, heat, sound and fluids. Prerequisite: ARCH 502 and/or permission of the Dean of the School of Architecture and Urban Planning. Corequisite: ARCH 626. LAB.

ARCH 504. Accelerated Design III. 6 Hours.
The third of three accelerated design studios, this course focuses on the integration of material learned in previous studios with urban-based design problems of increasing scale and complexity within the frameworks of sustainability and universal design. Students will demonstrate an ability to use research and critical thinking skills, including the use of case precedents, and the ability to integrate various building systems in building design. Prerequisite: ARCH 503 (see studio grading policy) or permission of the Dean of the School of Architecture and Urban Planning. Corequisite: ARCH 627. LAB.

ARCH 505. Accelerated Design IV. 6 Hours.
Graduate studio emphasizing urban context and design theories. Students will undertake specialized research projects. Prerequisite: ARCH 504 (see studio grading policy) or permission of the Dean of the School of Architecture and Urban Planning. Corequisite: ARCH 690. LAB.

ARCH 510. Problems in Computer Applications. 3 Hours.
The study of a particular problem in architecture involving the application of computer-aided design and analysis techniques. Individual or group tutorials. Prerequisite: Consent of instructor based on the student’s advance submission of a written proposal outlining the plan of study. Completion of one course in computer programming and/or specific experience in writing original computer programs. LEC.

ARCH 515. Building Information Modeling. 3 Hours.
This course will expose students to building information modeling: a digital representation of the building process that facilitates exchange and interoperability of information in digital format. The focus will be on the software’s potential for reducing the information loss that occurs during each handoff of the project during the traditional delivery method. Possibilities for integrated practice including lifecycle costing and knowledge management are discussed. LEC.

ARCH 516. Portfolio Development. 3 Hours.
The aim of the course is to teach practical presentation skills using computer software, in addition to graphic design theories and strategies. This course will provide an opportunity for students to design and produce a design portfolio appropriate for internship and/or graduate school applications. LEC.

ARCH 520. Architectural Acoustics. 3 Hours.
An introduction to the physics of sound. Objective and subjective evaluation and control of sound as applied to architectural spaces. Room shaping, mechanical and electrical system noise and vibration control, and electro-acoustic sound reinforcement. Prerequisite: PHSX 114 and ARCH 626 or equivalent, or consent of instructor. LEC.

ARCH 521. Electro-Acoustical Systems. 3 Hours.
A study of electro-acoustic sound reinforcement and reproduction systems for buildings. Prerequisite: PHSX 212, or consent of instructor. LEC.
ARCH 524. Structures I. 4 Hours.
The fundamental principles of structural behavior including stress and deformation in structural components and systems. Open to architecture students only. Prerequisite: PHSX 114. LEC.

ARCH 530. Environmental Systems I. 3 Hours.
This introductory course addresses human needs and comfort in relation to the natural and man-made environments. Specific topics include: climate and weather; environmental health; indoor air quality; thermal comfort; passive and active systems and design strategies for heating, ventilating, and air-conditioning; plumbing; noise control; building management systems; and life safety systems. Prerequisite: PHSX 114. LEC.

ARCH 531. Environmental Systems II. 3 Hours.
This course addresses human needs and comfort in relation to the natural and man-made environments. Specific topics include: daylighting, electrical lighting systems, building acoustics, electrical power distribution systems, alternative energy sources, communication systems, and transportation systems. Prerequisite: ARCH 530. LEC.

The first unit of the two-part survey history course explores the historical changes of architecture in relation to civilizations, change, technological, and ideological transfers among different regions, nascent religious groups and evolving political enterprises. In regard to the geographical and geopolitical regions, the course includes South and Central America, Europe, Classical Greece and Italy, Asia Minor, North Africa and Asia. LEC.

ARCH 541. Global History of Architecture II: From Industrial Revolution to Present (1700 CE-Present). 3 Hours. AE42.
The second unit of study of the two-part survey history course offers a global perspective of the development of modern architecture from the industrial revolution to contemporary times. This course traces the genealogy of modern architecture to its multiple roots in European enlightenment, global dissemination of industrial knowledge, invention of new building materials and techniques, and development of architectural theory. Emphasis is on the historical context of how the diverse approaches of architects from different regions create variations of formal expressions, spatial program and theoretical underpinning, and thus create multiple meanings and images of modern architecture. Prerequisite: ARCH 340 or ARCH 540 or ARCH 640 or consent of instructor. LEC.

ARCH 542. History of Architecture III: Modern. 3 Hours.
A continuation of ARCH 541, History of Architecture II, covers the period from around 1800 to the present. Particular emphasis is placed on the major cultural shifts that have impacted architectural representation and have contributed to its differentiation as Modern, not only in Europe, North and South America but also with examples in India and Pakistan. Weekly lectures and readings including original sources. Supplementary readings and/or assignments may be assigned. Prerequisite: ARCH 341 or ARCH 541 or ARCH 641 or consent of instructor. LEC.

ARCH 552. Ethics and Leadership in Professional Practice. 3 Hours.
This course takes the perspective that architectural design is inherently an ethical act. Through this lens, students will learn the essentials of office practices, the many definitions of client and their roles in the design process, the legal responsibilities of the profession, the importance of continuous professional development and the obligation the profession has to provide civic leadership in regard to the built and natural environment. LEC.

ARCH 560. Site Design. 3 Hours.
This course introduces concepts of architectural context and site through a combination of lectures and field studies. Natural, social and built systems are presented using a range of perspectives, including holistic ones. Students will develop visual and written skills of analysis through specific site analytic and design techniques. Application exercises and ongoing analysis assignments are required. Restricted to 3.5 and 5 year Master of Architecture students. Prerequisite: ARCH 109 for undergraduate students. LEC.

ARCH 570. Contemporary Issues Seminar I. 1 Hour.
A series of seminars on contemporary issues facing the profession. LEC.

ARCH 571. Contemporary Issues Seminar II. 1 Hour.
These seminars will consist of three to four guest lecturers each semester. All students enrolled in this course will attend the same lecture as ARCH 572. Topics will be selected to reflect major issues covered in the course work, or contemporary issues facing the profession. LEC.

ARCH 572. Contemporary Issues Seminar III. 1 Hour.
These seminars will consist of three to four guest lecturers each semester. All students enrolled in this course will attend the same lecture with ARCH 571. Topics will be selected to reflect major issues covered in the course work, or contemporary issues facing the profession. LEC.

ARCH 573. Financial and Economic Issues in Architecture Management. 3 Hours.
This course will focus on the fundamentals of accounting, macroeconomics and the construction industry, and concepts related to the development and implementation of a strategic business plan. LEC.

ARCH 574. Organizational Issues in Architecture Management. 3 Hours.
Topics that will be covered in this course include the organization of a professional practice, personnel management, and the development of effective communication skills. LEC.

ARCH 575. Architecture Management: Managing a CAD System. 3 Hours.
This course covers the various procedures involved in managing a CAD system within a design organization. It also explores the different applications and uses of current CAD technology. Topics to be addressed include: selecting a system; billing CAD services; support services and personnel; marketing CAD; customization, file management, menus and script files; AutoLisp Programming; and integrating CAD with other programs. Prerequisite: An introductory CAD class or permission of the instructor. LEC.

ARCH 576. Project Delivery in Architecture Management. 3 Hours.
Conventional methods for project delivery will be reviewed along with design/build, fast-track, and other techniques. The relationship of the architect and development will also be explored, as will the relationship of project development to urban design concepts. LEC.

ARCH 577. Marketing Architectural Services. 3 Hours.
The emphasis of this course will be on the development and implementation of a marketing plan, techniques related to the marketing of specific projects, and the relationship of marketing to other components of a firm. LEC.

ARCH 578. Legal Issues in Architectural Management. 3 Hours.
A course designed to familiarize the student with legal considerations related to a professional practice. Case studies and selected readings will serve as the basis for discussion of registration, contracts, business formation, taxes, employment practices, copyright, and patent law. In
addition, the course will draw upon the knowledge and experience of members of the professional community. LEC.

ARCH 600. Special Topics in Architecture: ____, 3 Hours.
This course is for the study of architectural topics on a one time or experimental basis in response to changing needs and/or resources in the Program. It may be offered concurrently by different instructors under different subtitles as announced in the Timetable. May be repeated for credit. Prerequisite: Variable. IND.

ARCH 601. Design Research. 3 Hours.
This course will examine issues in architectural research. It will provide an overview of graduate level studies with regard to definitions, methods, skills, and techniques. The course will consist of lectures, seminars, readings and guest presentations. The class will enable students to make informed judgments about matters of quality and quantity on architectural issues. Students will be expected to formulate sensible systems of classification for their chosen material. Students will be expected to formulate sensible systems of classification for their chosen material. Students will be expected to produce papers and essays, make sample research proposals, and other research based assignments. Limited to students in M. Arch Program with Undergraduate status. Prerequisite: ARCH 608. LEC.

ARCH 608. Architectural Design V. 6 Hours.
A continuation of previous studio coursework with an emphasis on the programming and design of individual urban buildings with culture, context and precedent as major form determinants. Clear development and integration of structural, mechanical and life safety systems will be a focus of the course. The concepts of integrated practice and building information modeling will be introduced. Prerequisite: ARCH 408 and ARCH 409; or ARCH 301 or ARCH 504 or ARCH 505; or ARCH 604. LAB.

ARCH 609. Comprehensive Studio. 9 Hours.
A culmination of all previous design study with emphasis given to the individual student’s demonstration of synthesis of all previously learned design skills. These include program analysis, site design, structure, formal composition, materials and methods of construction, technical development of building fabric, environmental systems, code and zoning compliance, and principles of sustainability. Students should also demonstrate an appropriate awareness of history, theory, and culture. The level of project development should be demonstrated by technically precise drawings and will researched written documentation in addition to other means of representation. Prerequisite: ARCH 608 and successful completion of all other required professional courses through the semester with ARCH 608. LAB.

ARCH 610. Computers and Project Development. 3 Hours.
This course introduces one to the use of computers in project development (final and execution drawings, specifications). Initiates advanced computer aided design systems. Emphasis is to be on CAD potential in generating complex representation; lectures and laboratory work on extent and limits of CAD systems in design; familiarizes with software and hardware (basic training, plotting, etc.); encourages the use of CAD process for exploration (three-dimensional representation); introduces editing and report preparation. Lectures on computers and profession. No computer language is taught in this course. Prerequisite: ARCH 310 or introductory CAD course. LEC.

ARCH 613. Visual Thinking Studio I. 3 Hours.
An intensive course covering the graphics topics described in ARCH 113 and ARCH 114. Graduate level course that supplements the core syllabus or ARCH 102 with weekly seminars, expanded reading lists, and additional classroom assignments. Prerequisite: Undergraduate degree in area other than architecture with three credits in calculus, four credits in physics, three semesters of English, and/or permission of the Dean of the School of Architecture and Urban Planning. LAB.

ARCH 614. Freehand Drawing. 3 Hours.
Open to all SADP non-graduating students interested in enhancing current freehand drawing skills, generally in the architectural realm. While a broad range of expression and graphic materials is explored, emphasis is on drawing as a notational skill, the instrument of creative expression for professional purposes as well as for lifelong artistic fulfillment. Prerequisite: Consent of instructor. LAB.

ARCH 615. Intensive Graphics II. 3 Hours.
Open to students with intermediate level graphic skills. Course will be designed to deal with all aspects of graphic communication for designers in the different stages of the architectural process. This would include sketching, drafting, lettering, rendering, modelmaking, photographic and slide presentation, reproduction, brochure, etc. Prerequisite: Consent of instructor. LAB.

ARCH 616. Advanced Architectural Presentation Techniques. 3 Hours.
An advanced studio course intended for students who have a working knowledge of basic presentation techniques wishing to refine their existing skills and experiment with new techniques. The course will review basic techniques and explore new ones through a series of lectures and these techniques will be put to use in the concurrent development of complete presentations of architecturally significant buildings. The lectures and studio work will be supplemented by slide presentations, demonstrations, guest lecturers, and field trips. Not intended as a remedial course or substitute for ARCH 615. Prerequisite: Consent of instructor. LEC.

ARCH 618. Architectural Photography. 3 Hours.
A basic course in black and white photography intended to enable the student to utilize photography routinely as a medium for visualization, documentation and presentation of images useful for design. It is organized in relation to the controls of the roll film camera so that assignments reinforce the understanding of this tool and its creative possibilities. Experiences include making photograms, developing black and white film, printing black and white images, mounting and presenting prints, photocopying, photographing buildings and architectural models, photomontage, high contrast graphics effects and an introduction to color materials. Enough technical information is included for the student to pursue black and white photography on his/her own to the desired level of proficiency. LAB.

ARCH 619. Advanced Architectural Photography. 3 Hours.
An advanced course in photography specifically dealing with the skills and techniques of the professional architectural photographer. Students will use and experiment with large format photography, manipulation of the exposure and development process, special developers and processes; negative retouching, specialized film and their application, simulation, model photography, and photographic rendering. Brochure development, marketing services, and professional ethics will also be discussed. Prerequisite: ARCH 618 or equivalent, submission of a brochure, and consent of instructor. LAB.

ARCH 622. Material Investigations. 3 Hours.
This course will provide opportunities for students to learn about research methods in the realm of architectural materials. The course will have two concurrent phases: the first phase will consist of a series of field trips to materials manufacturers, fabricators and distributors in the Lawrence, Topeka and Kansas City area. The purpose of these trips is to see, first-hand, how materials are developed and made, and to understand the research involved in their development. The second phase will consist of a self-directed research project based on the students’ natural curiosity about a particular material or process. The project will have three
components: 1) a research agenda, rigorously developed and executed; and 2) a "built" component, with actual materials, executed by the students' own hands and financial resources; and 3) final documentation of the research project. LEC.

ARCH 623. Building Practicum. 3 Hours.
The building technology practicum is offered as a course that will afford students a "real world" experience outside of the academic setting. Students can bring their own project proposals to the practicum committee or faculty members on the committee can suggest local preservation efforts, including planning and administration, or actual physical implementation of such projects. It could also be in the interest of some students to develop skills in a specific area, i.e. model building, architectural photography, historic reconstruction, or technical documentation. Those interested in specific areas will need to work closely with the practicum committee to develop a working list of goals and objectives. Students can elect to work individually or in teams, can work outside of the semester schedule with grades assigned at the completion of the project, and will be bound by a contract approved by the practicum committee. LEC.

ARCH 624. Structures II. 3 Hours.
A continuation of ARCH 524, with focus on applying learned principles to basic contemporary structural systems such as concrete, steel, and wood framing systems. Open to architecture students only. Prerequisite: ARCH 524 or ARCH 620 and ARCH 621. LEC.

ARCH 625. Analysis and Design of Structures for Architects. 3 Hours.
Analysis of statically indeterminate beams and frames. Fundamentals of structural design in concrete and steel. Open to architecture students only. Prerequisite: ARCH 624. LEC.

ARCH 626. Building Technology I: Construction Systems and Assemblies. 3 Hours.
This course is an introduction to the materials, processes and craft of construction. Along with presenting the information required for understanding the basic principles and appropriate application and performance of construction systems and assemblies, the course also provides a conceptual framework to bridge between the physical conditions of construction and the more abstract processes of design. Teaching method includes modeling and hands-on building experiences. Prerequisite: ARCH 200 or ARCH 209 or Corequisite: ARCH 408 or ARCH 409 or ARCH 503. LEC.

ARCH 627. Building Technology II: Culture of Building Technology. 3 Hours.
A continuation of ARCH 626. Introduction to industrialized production. A consideration of the detailed sub-systems and cultural practices that comprise the built environment, and the factors responsible for their design and installation. Includes discussion of building codes, mechanisms of failure, and materials selection. Lectures and demonstrations by the instructors and visitors, films, slide projections, quizzes and written examinations. A student should demonstrate an understanding of elementary systems of construction and be able to relate this understanding to the design process. Prerequisite: ARCH 626. LEC.

ARCH 628. Structure in Nature and Architecture. 3 Hours.
The course deals with the historical development of structure, first in nature and then in architecture. In nature, the course discusses the evolution of structural materials, systems, connections and anchorage (foundations) in geological structure, botanical structure, endoskeleton structure, exoskeleton structure and insect architecture. The course then analyzes the growth of structure from anthropological structure through ancient and medieval structure to modern architecture. In these broad architectural periods in world history, the course examines the structural materials, structural behavior and construction of some of the important buildings that helped to define and delineate the architecture of their time. This course helps students to understand structural systems and their behavior, in a non-mathematical way, by relating the structural principles involved to our common experience of the world around us. The course will have every student do a research project on an assigned topic in geological structure, botanical structure, exoskeleton structure, insect architecture or anthropological structure. LEC.

ARCH 629. Listening to Architecture. 3 Hours.
This course has the objectives of introducing the art and science of "listening" to architectural spaces; exploring, from both historical and current viewpoints, how proper acoustical conditions have and can be realized within the aesthetic and functional parameters of the particular architectural space; understanding the importance of building acoustics in architectural design; obtaining the ability to discuss building acoustics with the proper use of acoustical terms and descriptions; and understanding the basics of how sound behaves in an enclosed architectural space. The course will include several visits to existing architectural spaces that have specific acoustical requirements and interesting acoustical characteristics. LEC.

ARCH 630. Theory and Context of Architecture. 3 Hours.
An examination of architectural theories that understand the designed environment as a cultural medium and product of a sociocultural process that expresses values and ideas. Understanding of these theories will be enhanced through the analysis of paradigmatic buildings, urban form and ideologies that have influenced architectural culture. LEC.

ARCH 631. Issues in Contemporary Architecture. 3 Hours.
This class focuses the student on directed readings and provides the student the opportunity to select a topic for the semester's duration. With a very crammed schedule, the student is given a venue to concentrate on issues that they wish to pursue. A seminal reading is provided to the class, at the beginning of the semester, and this reading forms the basis of the semester's discussion. The selected reading is "current" and is the device used to distribute other readings pertinent to the author's argument. The basis of selection is related to current thought and discourse affecting the evolving nature of architectural culture. Class discussion may include slides, videos, sound tapes, etc. These are intended to complement the assigned readings. LEC.

ARCH 632. Contemporary French Architecture. 3 Hours.
This course introduces the student to contemporary trends in French architecture. Social, technological, economic, and theoretical perspectives will be investigated, and the work of the major French architects of the latter half of the twentieth century will be studied in depth. This course supplements the Paris studio program. LEC.

ARCH 635. Visualizing Airflow In and Around Buildings. 3 Hours.
It is often difficult to predict the way certain environmental design features will perform if not built and tested which can be costly and time consuming. This course will analyze the performance of such designs in an efficient and cost effective manner within a visual medium using computational fluid dynamics (CFD). CFD will provide a visual understanding of airflow behavior in and around buildings. In addition, thermal comfort and air quality will be investigated in this animated environment. The culmination of the course will be an analysis of a portion of one's studio design project. Prerequisite: ARCH 530. LEC.

ARCH 636. Art of Architectural Machines. 3 Hours.
This course emphasizes architectural trends of the twentieth century, which have been influenced by significant technological advances. The purpose of the course is to familiarize the student with the achievements and failures of architectural concepts that were influenced by modern
technology. Examples will be drawn primarily from buildings and architects in Western Europe and North America. LEC.

ARCH 637. Architecture and Cosmos. 3 Hours.
Ideas of symmetry, harmony, proportion, and ideal form have long been used by architectural theorists and practitioners as a way of translating a traditional knowledge of the world into architectural form. Such traditional knowledge is embedded in the mathematics of Pythagoras, the philosophy of Plato, and the four part study of the cosmos (known in Western thought as “the quadrivium”—arithmetic, geometry, music, and astronomy). This course will entail the study of selected readings in this intellectual tradition as well as the analysis of buildings as they relate to the concepts learned through this study. Prerequisite: ARCH 641, History of Architecture II: Renaissance, or consent of instructor. LEC.

ARCH 638. Architecture, Art and Science. 3 Hours.
This course explores the relationship between architecture and the liberal arts and sciences through the principle of isomorphic correspondence—a term from Gestalt psychology to describe similar structures occurring in different media. Emphasis on the historical connections to music and on aesthetic principles on the natural sciences. Prerequisite: Six hours of architectural history or consent of instructor for non-majors. LEC.

ARCH 639. Current/Historical Directions in Architecture. 2-3 Hours.
A study of contemporary or historical trends in architecture which relate to the development of individual or broad philosophies of architecture. LEC.

ARCH 648. Historic Preservation. 3 Hours.
The focus of this course is on the development of concepts and practices of retrieving, recycling, and curating the built environment from the mid-nineteenth century to the present. After a series of introductory readings and discussions, students are encouraged to investigate particular environmental, technological, social, or ideological questions of their choice, focusing on structures that demonstrate persistence over great distances and, co-existing with this persistence, ability to accommodate changes over time. LEC.

ARCH 650. Architect-Led Design-Build. 1 Hour.
This is a 5-week course covering an introduction to the design-build method of project delivery, highlighting the role of architect as leader of the design-build team. The course covers team structure; ethical issues; forming a design-build firm; project management; licensing, corporate and insurance issues; public design-build laws and bridging. LEC.

ARCH 651. Advanced Design-Build for Architects. 2 Hours.
This is a 10-week course covering a more advanced examination of the design-build method of project delivery, highlighting the role of architect as leader of the design-build team. The course covers team structure; ethical issues; forming a design-build firm; project management; licensing, corporate and insurance issues; public design-build laws and bridging; as well as history, architect-as-prime contractor, architect-as-subcontractor, business issues and marketing, bonding, design-build contracts, cost estimating and OSHA, risks and legal liabilities. LEC.

ARCH 652. Architect-Client Relations. 1 Hour.
The intent of this five-week course is to provide a forum for the examination of varied aspects of the architect-client relationship. Components of this relationship will be explored both from the point of view of the practicing architect and of the project owner or client. LEC.

ARCH 653. Non-Traditional Careers in Architecture. 1 Hour.
The intent of this five week course is to provide a forum for the examination of the wide range of career options that are open to architects. The positive impact, to both the built environment and society as a whole that architects in alternative roles are ideally suited to provide, will be explored. LEC.

ARCH 654. Ethics in Architectural Practice. 1 Hour.
This course is designed to develop an understanding of the underpinnings of ethical reasoning including the structure and vocabulary of moral argumentation; apply this knowledge to common ethical issues confounding contemporary architects, demonstrated through presentations and interaction with leading Kansas City architects, interactive analysis of case studies, participatory discussions, reading comprehension and analytical writing. LEC.

ARCH 655. Programming and Pre-Design Issues. 3 Hours.
This course will introduce the concepts, methods, techniques, and information used by the architect to establish the parameters of a project, prior to entering the formal design process. The course will introduce the student to the social, technical, legal and economic dimensions of architectural programming. The content will introduce the core competencies in programming, site, and environmental analysis required by the profession. Programming theory, research techniques, information analysis, evaluation of significance, and creative synthesis of the multivalent factors acting upon the pre-design process of project definition will be covered. Exercises may include programming and analysis of projects and sites assigned in the Architectural Design Studio sequence. Prerequisite: ARCH 408 and ARCH 409 or ARCH 504. LEC.

ARCH 661. Eighteenth to Twentieth Century American Landscape Design. 3 Hours.
This course will explore eighteenth, nineteenth, and twentieth-century American landscape design including gardens, estates, rural cemeteries, campuses, suburbs, urban parks, and national parks, as well as the beginnings of landscape architecture as a profession. Topics of inquiry will include European contributions to landscape theory, practice, and aesthetics, and American adaptations in response to climatic, social, and political differences. An important focus will be whether one can look at a designed landscape and see the expression of an attitude toward nature. LEC.

ARCH 662. Twentieth Century American Landscape. 3 Hours.
The purpose of this course is to investigate the relationships between the American culture and the resulting built and natural landscape. Issues of building types, public places, and land use arrangements will be studied from a socio-historical perspective. (Same as UBPL 662.) LEC.

ARCH 663. Darwin, Humboldt, and Changing Ideas in Landscape Architecture. 3 Hours.
The seminar explores the influence of the natural historians Alexander von Humboldt and Charles Darwin on American writings in landscape architecture in the late 19th and early 20th centuries. The original texts of Humboldt (including Aspects of Nature and Cosmos) and Darwin (including On the Origin of Species and Insectivorous Plants), will be studied in conjunction with significant authors in landscape architecture including A. J. Downing, George Perkins Marsh, Frederick Law Olmsted, Horace William Shaler Cleveland, Mariana Griswold van Rensselaer, Jens Jensen, Garrett Eckbo, Daniel Kiley, and James C. Rose. The emerging ideas of conservation and ecology found in these works will also be examined. LEC.

ARCH 665. History of Urban Design. 3 Hours.
An exploration of the evolution of cities through the cultural and spatial development of human settlement patterns. The role of cities in the transformations of human culture from tribal communities to post industrial society is defined in terms of the historical origins of urban institutions and functions and their transformation into spatial structure and physical form. LEC.

ARCH 670. Spreadsheet Applications. 1 Hour.
This course will focus on the application of electronic spreadsheets in the management of project fees, company staffing, and business cash flow.
ARCH 671. Database Management. 1 Hour.
This course focuses on the development of database applications to track the information generated during the normal course of business operations. Topics include database design, table creation, queries, forms, reports, and macros. LEC.

ARCH 672. Project Management Software. 1 Hour.
This course uses software packages to manage a simulated design project. The topics in this section include creating tasks and linkages, assigning and managing resources, monitoring a project and creating reports. LEC.

ARCH 673. Presentation Tools. 1 Hour.
This course covers the use of various software packages in the development of on-screen and hard-copy presentations. Topics include presentation design, importing graphics, output strategies, and communications techniques. LEC.

ARCH 674. Electronic Communication. 1 Hour.
This course focuses on the use of electronic data communications in operating a design organization. Topics include use of the Internet, electronic research, telecommunication technologies and remote access. LEC.

ARCH 675. Graphics Packages. 1 Hour.
This course focuses on the development of graphic images. Students are taught to generate vector-based graphics and bit-mapped images that can be incorporated into various software packages. LEC.

ARCH 676. Facility Management: Tools and Techniques. 3 Hours.
The application of Information Technology to Facility Management has changed a formerly basement operation into a center of corporate support. In this course, we explore the use of Computer Aided Facility Management (CAFM) software and its application to real world facility management. LEC.

ARCH 677. Construction Cost Estimating for Architects. 1 Hour.
The main objective of this course is to introduce and inform the student of the processes involved in construction estimating. This course will focus on commercial construction and the fundamentals of estimating a commercial project. This course will acquaint the student with quantity surveying, costing methods, types of estimates, estimating software, the construction estimating process, and estimating the various parts of a project. LEC.

ARCH 678. Construction Project Management for Architects. 1 Hour.
The main objective of this course is to introduce and inform the student of the processes involved in construction project management. This course will focus on commercial construction and the fundamentals of managing a commercial project. The course will acquaint the student with transferring a project from the estimating stage to actual construction, the buyout process, contracts, purchase orders, responsibilities of project managers, responsibilities of superintendents, planning and scheduling, management of changes in a project, financial reporting, accounting processes, payment procedures, and the close-out process in construction. LEC.

ARCH 680. Building with Intelligence. 3 Hours.
This course is intended to be a broad course introducing basis concepts of sustainable design. It will introduce broad outlines of many of the crucial issues facing us in the next few decades. This course identifies how we can re-imagine the relationship between human beings and living systems. The order of the course will begin at a broad overview of our environmental dilemma, then focus upon community issues and end with a close look at green buildings and their systems. This course will include a series of lectures, required reading with written responses, visits to local examples of sustainable buildings and the development of research projects. LEC.

ARCH 681. Defining Community. 3 Hours.
This course explores how a neighborhood is sustainable, or is not. Imbedded in our built landscape are constructs, which once revealed, offer us insight into a community’s values and underlying intentions. We will engage neighborhoods in Lawrence, Kansas, and other community neighborhoods. This seminar course will provide a format for discussion and testing observations of patterns in neighborhoods. Our intent will be to describe the detailed patterns for neighborhoods, houses, and gardens, thereby increasing an understanding of how people inform and are informed by their neighborhoods. This course will include a series of lectures, required reading with written responses, visits to a variety of neighborhoods and the development of research projects. LEC.

ARCH 690. Architecture Study Abroad. 3-6 Hours.
May be repeated up to a maximum of 9 credits. Students participate in a study abroad program approved by the Architecture Chair. Students will be evaluated upon a submitted journal, sketchbook, or equivalent assignments assigned by the instructor. Graded on a satisfactory/fail basis. IND.

ARCH 691. Architecture Practicum. 6 Hours.
Based upon the student’s approved proposal, each student will explore the process of creating the built environment by working in a setting that is intended to provide a new perspective for that student. The range of venues may include non-profit organizations, research settings, hands-on building experiences, and other professional settings as approved by the instructor. Students evaluation will include an assessment by the supervisor in the practicum settings as well as on a final paper using appropriate graphics to illustrate key points. Graded on a satisfactory/fail basis. IND.

ARCH 692. Documentation. 3 Hours.
Students will document their experience in ARCH 690 or another approved study abroad program. This is intended as a critical reflection upon the student’s experience and is additional documentation produced beyond the work done for the study abroad credit. The final product will include a written paper, using appropriate graphics to illustrate key points. IND.

ARCH 693. Workplaces. 3 Hours.
This course is about the design of places where people work. The workplace is important for many reasons. Not only do we spend a considerable amount of our waking life there, but our work often becomes one of the central features of our life. In some senses it can be considered to be a homelike activity; people often identify with their work and personalize their workplaces and make them responsive to their daily life needs. Workplaces are also social places where people meet and interact. And, of course they are also places of work, where they must respond to work needs and be conducive to efficient and productive work activities. This course will raise questions about how to design good workplaces. LEC.

ARCH 694. Homeplaces. 3 Hours.
Architects design buildings and spaces which they hope will contribute to making significant, enriching, and rewarding places. The quality of places, however, is not identical to the quality of buildings which contribute to them. This course will explore ways in which physical environments, in this case, houses can become and be experienced as rich and embraced homeplaces. It will look at the various processes through which residents, dwellers, designers, real-estate agents, builders, and others are involved with home environments. Implications for design and production...
ARCH 697. The Making of Place in an Aging Society. 3 Hours.
This course explores both theoretical and applied perspectives as to how design at the scales of settlement, neighborhood, building and room enables enhanced quality of life for society’s elderly and their families. Discussion will center on readings, case studies and lecture material, with a focus on arriving at a critical understanding of how built fabric choreographs the aging experience. Prerequisite: Graduate standing or consent of instructor. LEC.

ARCH 700. Directed Readings in Architecture: 1-3 Hours.
Individual study of special topics and problems. May be repeated for credit. Prerequisite: Graduate standing. RSH.

ARCH 701. Introduction to Graduate Studies. 3 Hours.
This course will examine issues in architectural research. It will provide an overview of graduate level studies with regard to definitions, methods, skills, and techniques. The course will consist of lectures, seminars, readings and guest presentations. The class will enable students to make informed judgments about matters of quality and quantity on architectural issues. Students will be expected to formulate sensible systems of classification for their chosen material. Students will be expected to produce papers and essays, make sample grant applications, and thesis formulations. Prerequisite: Students must be admitted to the 3.5 or 5 year Master of Architecture Professional plan and have successfully completed ARCH 409 or ARCH 608. LEC.

ARCH 706. Thesis or Project Definition. 1 Hour.
Seminar oriented to the clarification of the thesis or project problem and to the development of the thesis or project proposal. Prerequisite: Graduate standing. RSH.

ARCH 707. Furniture Design and Production. 3 Hours.
The object of this course is an intensive examination of the aesthetic problems of perceiving and making quality objects. Students will be expected to engage in a series of short-term, limited scope design exercises and experiments of an architectural nature. LEC.

ARCH 720. Architectural Acoustics. 3 Hours.
An introduction to the physics of sound. Objective and subjective evaluation and control of sound as applied to architectural spaces. Room shaping, mechanical and electrical system noise and vibration control, and electro-acoustic sound reinforcement. Prerequisite: PHSX 114 and ARCH 626 or equivalent, or consent of instructor. LEC.

ARCH 721. Electro-Acoustical Systems. 3 Hours.
A study of electro-acoustic sound reinforcement and reproduction systems for buildings. Prerequisite: PHSX 212, or consent of instructor. LEC.

ARCH 730. The Environmental Psychology of Health and Well-Being. 3 Hours.
This seminar examines the theories and understandings that address the health and well-being outcomes resulting from the complexity of interaction between human beings, their behavior, and designed systems or objects and how this varies across the life course. Environmental stimulation, orientation, control, restoration and their relationship to health outcomes through mediating concepts including stress, place identity and person-environment fit will be addressed. Students will engage in several research/assessment projects through the semester. Participation in class discussion will be an essential component of the class. Prerequisite: Graduate status or consent of the instructor. LEC.

ARCH 731. Architecture of Health. 3 Hours.
This is a seminar that will focus on the architectural dimensions of health and wellness. The course will investigate the ways the environment contributes to the well being (physical, emotional, spiritual) of people. The history of healthcare environments will be explored to show how healthcare environments have evolved to meet changing medical protocols and environmental technologies. A range of contemporary building types will studied, from critical-care hospitals to assisted-living residences and health spas. Students will research bibliographic sources, prepare case studies of existing health and wellness environments and prepare preliminary planning and design proposals for an environment that human well being. LEC.

ARCH 732. Environmental Pattern Languages. 3 Hours.
An introduction to the theory of pattern languages with particular emphasis on the work of Christopher Alexander; analysis of its relationships to other architectural theories; exploration of its implications for architectural practice. LEC.

ARCH 733. Analogous Thinking in Design. 3 Hours.
This seminar will seek analogs in psychology, medicine, biology, anthropology, and other disciplines; analogs that can serve to develop problem-seeking and problem-solving skills in design. Practice sessions in morphological analysis, synectics, bisociation, and triadization will link rigorous research to methods of application. LEC.

ARCH 735. Graduate Seminar in Environmental Systems. 3 Hours.
The intention of this course is to provide a substantive overview of the literature and themes in environmental systems. It will serve to introduce students to skills required to conduct research in environmental systems. In addition, the course will entertain discussions of students’ works in progress, peer review sessions, and completion of a conference paper. LEC.

ARCH 754. Design Ethics. 3 Hours.
This seminar will explore both Western and Eastern concepts of ethics and morality through readings, papers, discussion, and guest speakers. The role of ethics in providing guideposts for social and societal responsibility in design will be developed. LEC.

ARCH 762. Urban Design Studies. 3 Hours.
Seminar concerned with the factors, processes, techniques, and current issues in urban design practice. LEC.

ARCH 770. Contemporary Issues Seminar I. 1 Hour.
A series of seminars on contemporary issues facing the profession. LEC.

ARCH 771. Contemporary Issues Seminar II. 1 Hour.
These seminars will consist of three to four guest lecturers each semester. All students enrolled in this course will attend the same lecture as ARCH 772. Topics will be selected to reflect major issues covered in the course work, or contemporary issues facing the profession. LEC.

ARCH 772. Contemporary Issues Seminar III. 1 Hour.
These seminars will consist of three to four guest lecturers each semester. All students enrolled in this course will attend the same lecture with ARCH 771. Topics will be selected to reflect major issues covered in the course work, or contemporary issues facing the profession. This course will be graded Satisfactory/Unsatisfactory. LEC.
ARCH 773. Financial and Economic Issues in Architecture Management. 3 Hours.
This course will focus on the fundamentals of accounting, macroeconomics, and the construction industry, and concepts related to the development and implementation of a strategic business plan. LEC.

ARCH 774. Organizational Issues in Architecture Management. 3 Hours.
Topics that will be covered in this course include the organization of a professional practice, personnel management, and the development of effective communication skills. LEC.

ARCH 775. Architecture Management: Managing a CAD System. 3 Hours.
This course covers the various procedures involved in managing a CAD system within a design organization. It also explores the different applications and uses of current CAD technology. Topics to be addressed include: selecting a system; billing CAD services; support services and personnel; marketing CAD; customization, file management, menus and script files; AutoLisp Programming; and integrating CAD with other programs. Prerequisite: An introductory CAD class or permission of the instructor. LEC.

ARCH 776. Project Delivery in Architecture Management. 3 Hours.
Conventional methods for project delivery will be reviewed along with design/build, fast-track, and other techniques. The relationship of the architect and development will also be explored, as will the relationship of project development to urban design concepts. LEC.

ARCH 777. Marketing Architectural Services. 3 Hours.
The emphasis of this course will be on the development and implementation of a marketing plan, techniques related to the marketing of specific projects, and the relationship of marketing to other components of a firm. LEC.

ARCH 778. Legal Issues in Architecture Management. 3 Hours.
A course designed to familiarize the student with legal considerations related to professional practice. Case studies and selected readings will serve as the basis for discussion of registration, contracts, business formation, taxes, employment practices, copyright, and patent law. In addition, the course will draw upon the knowledge and experience of members of the professional community. LEC.

ARCH 790. Architectural Study Abroad: ______. 1-3 Hours.
Organized field visits and study of selected architectural and urban sites abroad. Pre- and post-travel readings on themes selected to supplement and reinforce thesis or project research or areas of concentration. Students will be expected to maintain a diary and/or sketch book and submit a final paper. Prerequisite: Graduate standing and permission of instructor. FLD.

ARCH 799. Independent Study. 1-3 Hours.
May be repeated for credit up to a total of nine (9) credits. Prerequisite: Graduate standing and consent of instructor. IND.

ARCH 800. Special Topics in Architecture: ______. 1-3 Hours.
Advanced or experimental courses on specialized topics representing unique or changing needs and resources in the graduate program in architecture. LEC.

ARCH 801. Urban and Community Issues I. 6 Hours.
A workshop-based course involving approved self and group directed investigations into issues of urban and community design with a focus on problem-setting, discovery and analysis. Prerequisite: Successful completion of ARCH 609 and consent of the Architecture Program Chair. LAB.

ARCH 802. Urban and Community Issues II. 6 Hours.
Continuation of the critical and rigorous investigations into issues of urban and community design with an increasing focus on synthesis and evaluation. Prerequisite: ARCH 801. LAB.

ARCH 803. Design-Build and Materiality I. 6 Hours.
A workshop-based course involving approval self and group directed investigations into issues of design-build and/or materiality with a focus on problem-setting, discovery and analysis. Prerequisite: Successful completion of ARCH 609 or ARCH 704 and consent of the Architecture Program Chair. LAB.

ARCH 804. Design-Build and Materiality II. 6 Hours.
Continuation of the critical and rigorous investigations into issues of design-build and/or materiality with an increasing focus on synthesis and evaluation. Prerequisite: ARCH 803. LAB.

ARCH 805. Architectural Technology I. 6 Hours.
A workshop-based course involving approved self and group directed investigations into issues of building technology with a focus on problem-setting, discovery and analysis. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Successful completion of ARCH 609 and consent of the Architecture Program Chair. LAB.

ARCH 806. Architectural Technology II. 6 Hours.
Continuation of the critical and rigorous investigations into issues of building technology with an increasing focus on synthesis and evaluation. Prerequisite: ARCH 805. LAB.

ARCH 807. Healthy and Sustainable Environments I. 6 Hours.
A workshop-based course involving approved self and group directed investigations into healthy and sustainable environments with a focus on problem-setting, discovery and analysis. Prerequisite: Successful completion of ARCH 609 and consent of the Architecture Program Chair. LAB.

ARCH 808. Healthy and Sustainable Environments II. 6 Hours.
Continuation of the critical and rigorous investigations into healthy and sustainable environments with an increasing focus on synthesis and evaluation. Prerequisite: ARCH 807. LAB.

ARCH 809. Building Typology I. 6 Hours.
A workshop-based course involving approved self and group directed investigations into a particular building type with a focus on problem-setting, discovery and analysis. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Successful completion of ARCH 609 and consent of the Architecture Program Chair. LAB.

ARCH 810. Building Typology II. 6 Hours.
Continuation of the critical and rigorous investigations into a particular building type with an increasing focus on synthesis and evaluation. Prerequisite: ARCH 809. LEC.

ARCH 811. Architectural Investigation I. 6 Hours.
A workshop-based course involving approved self and group directed investigations in a particular area of architectural investigation with a focus on problem-setting, discovery and analysis. Prerequisite: Successful completion of ARCH 609 and consent of the Architecture Program Chair. LAB.

ARCH 812. Architectural Investigation II. 6 Hours.
Continuation of the critical and rigorous investigations in a particular area of architectural investigation with an increasing focus on synthesis and evaluation. Prerequisite: ARCH 811. LAB.

ARCH 830. Designing Healthy Places and Communities. 3 Hours.
This seminar investigates the research-based evidence regarding health outcomes at four different levels of dwelling: settlement, institution, home and proximate. Research domains that will be explored include how the
urban fabric impacts active living; the role of public parks in urban health; environmental factors on health outcomes in hospitals and workplaces; environmental pathogens in the home; and ergonomic health. Healthy design will be understood as an important variable impacting people’s health by: increasing physical activity; reducing injury; improving air and water quality; minimizing environmental degradation; decreasing mental health stresses; and strengthening social fabric. Environmental assessment audits appropriate at various scales as well as space syntax as an analytic tool will be introduced and utilized. Participation in class discussion will be an essential component of the class. The semester will include a problem-based service-learning project requiring application of research in a real-life setting and active student reflection. Prerequisite: Graduate status or consent of the instructor. LEC.

ARCH 850. Special Topics in Management/Practice: _____, 2-3 Hours. Advanced or experimental courses on specialized topics representing unique or changing needs and resources in the management/practice option. IND.

ARCH 852. Ethics and Leadership in Professional Practice. 3 Hours. This course takes the perspective that architectural design is inherently an ethical act. Through this lens, students will learn the essentials of office practices, the many definitions of client and their roles in the design process, the legal responsibilities of the profession, the importance of continuous professional development and the obligation the profession has to provide civic leadership in regard to the built and natural environment. LEC.

ARCH 858. Architectural Management Systems. 3 Hours. Graduate course that investigates current issues in construction technologies and management techniques. LEC.

ARCH 899. Thesis or Project Research. 1-6 Hours. Independent study, research and project work leading to the submission of a master’s thesis or master’s project. May be repeated up to a maximum of two (2 credits). Prerequisite: Admission to the Ph.D. in Architecture Program or consent of the Architecture Program Chair. LEC.

MASTER OF ARCHITECTURE (5-YEAR)

Master of Architecture (Track I: 5+ Year Program)

The Master of Architecture is an NAAB-accredited professional degree program and is an essential aspect of preparing for the professional practice of architecture. Graduates of this program who complete a recognized internship program (such as the Intern Development Program) and successfully complete the Architectural Registration Examination are able to become licensed architects.

Track I is designed for students entering from high school or transferring from another undergraduate program. The curriculum is designed so as to be completed within 5 calendar years, but to do so demands sustained concentration and focus. We highly recommend that students consider leveraging the available time by planning to spend one summer between their first and fourth years in residence in Lawrence, taking a studio and another course.

The 180 credit curriculum is divided into three segments: Foundations, Core and Professional Options.

The Foundations segment involves three foundation design studios and three introductory lecture courses examining the discipline of architecture. A unique aspect of our program is that immediately upon commencing their studies at KU, first year students enter into architecture-specific design studios and are immediately ensconced in the program’s culture.

The Core is a five-semester sequence that addresses the wide range of skills and understanding required for the practice of architecture, including history and theory, technology, professional practice, and integrating this knowledge within design projects of increasing scale and complexity. The core culminates in a comprehensive studio experience in which students demonstrate their readiness to enter the profession of architecture.

Professional Options. The architecture profession has become an extremely diverse field. Seeking to provide our students the greatest opportunity within that diversity, the final year of the curriculum allows a student to explore a more-focused professional option of their choosing. This experience allows students to craft an area of specialization or a
domain of architecture that may otherwise be addressed superficially within a professional curriculum. Currently students are investigating design-build processes, researching sustainable design practices, pursuing healthcare and urban design as areas of specialization and engaging in service-learning opportunities around the globe.

Within the 180 credits required to graduate, students will also have a study abroad experience and complete coursework in a variety of other academic disciplines. Students will be exposed to the social sciences, the physical sciences, the humanities and the arts. Study abroad options currently include spending a semester in Denmark, Germany, England, or Australia, travel to Siena and Berlin, a technology and culture tour of Italy and France, travel to South America or working in an international architecture office in Paris.

Career Opportunities

The M.Arch. is a NAAB accredited professional degree. The following options are open to students after they complete it:

1. Graduates may seek to refine and augment their professional capabilities through experience in an office under a licensed architect. Such experience qualifies the graduate for admission to the appropriate examination for licensing and practice as an architect or may precede admission to graduate school. Increasingly, graduates are finding alternative career options, including work in urban design, design-build firms, interior design, historic preservation, and many others.

2. Qualified students may pursue graduate study in Ph.D. in architecture programs or in areas related to architecture and environmental design, such as urban planning, law, psychology, social welfare, public administration, or business.

Professional Registration and Licensing

Although state laws vary, professional registration as an architect in Kansas involves completion of three aspects: receiving an accredited professional degree (such as the M.Arch.), completion of internship requirements (for information on the Intern Development Program, see www.ncarb.org) and successful completion of all sections of the Architectural Registration Examination (http://www.ncarb.org) (ARE). Upon successful completion of these three aspects, the applicant may use the title “architect” and may practice as an architect, either as an individual or as a licensed professional in an office under a licensed architect. Such experience qualifies the graduate for admission to the appropriate examination for licensing and practice as an architect.

Applications

Applications for fall semester should be submitted during the student’s senior year in high school. The priority application deadline is November 1, and the final application deadline is February 1. Completed applications are reviewed, and applicants are notified of their admission status. A complete application includes sixth-semester transcript, rank in class, ACT scores, and a list of courses in progress. Applications received after February 1 are considered but are less likely to be accepted due to space limitations.

Transfer students should apply by October 1 for the spring semester and by the priority deadline of November 1 for the summer and fall terms. The final application deadline is February 1. Space limitations apply to transfer students. Transfer applications received after February 1 are likely to be denied for reasons not connected with the applicant’s academic qualifications. The School of Architecture, Design and Planning encourages applications from women and members of minority groups.

High School Students

High school students are encouraged to apply for admission if they have a cumulative GPA of at least 3.2 and have a minimum ACT of 23 or a minimum SAT of 1050 and if they will meet the following preparation requirements by the time they graduate:

- 3 or more years of math ending with calculus (preferred),
- 3 or more years of natural science including physics,
- 3 or more art/drawing classes. Art/drawing classes are preferred over additional drafting or technical courses (1 semester of drafting is adequate),
- 2 or more years of foreign language (recommended).

Although students who do not meet these minimum thresholds may apply to the Department of Architecture, they are encouraged to enroll in the College of Liberal Arts and Sciences for a preliminary year of study.

Within the 180 credits required to graduate, students will also have a study abroad experience and complete coursework in a variety of other academic disciplines. Students will be exposed to the social sciences, the physical sciences, the humanities and the arts. Study abroad options currently include spending a semester in Denmark, Germany, England, or Australia, travel to Siena and Berlin, a technology and culture tour of Italy and France, travel to South America or working in an international architecture office in Paris.

Undergraduate Admission

First-year and transfer students may be admitted to the 5-year Master of Architecture degree program. Contact:

University of Kansas
Michael Swann, Associate Dean,
School of Architecture, Design and Planning (http://www.sadp.ku.edu)
Marvin Hall
1465 Jayhawk Blvd., Room 206
Lawrence, KS 66045-7626
archku@ku.edu

For undergraduate applications, write to:

KU Office of Admissions (http://admissions.ku.edu)
KU Visitor Center

1502 Iowa St.
Lawrence, KS 66044-7576
785-864-3911
adm@ku.edu
**Transfer Students**

Transfer students may be admitted, if space is available, and if they have an overall grade-point average of 3.0.

**International Students**

The School of Architecture, Design and Planning admits only exceptional students from other countries. Standards for admission are set according to the traditions and grading policies of those countries. In some countries, for example, the grade of A is almost never given, while in other countries the A grade is more frequently seen. The number of students admitted depends on the space available on February 1.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

**Master of Architecture Degree Requirements**

Credit hours in the 5-year Master of Architecture curriculum are distributed as follows:

- **Design/Synthesis** 61
- **Architecture Support Courses** 58
- **Architecture Electives** 15
- **General Education Courses** 46

Students must maintain a 2.0 grade-point average to remain in good standing and to graduate.

The core of the curriculum is a sequence of design studios composing approximately 1/3 of the total degree requirements. Students complete sequences in graphics, structures, building construction, environmental technology, and architectural history and meet a study abroad requirement. Course work in site planning, urban design, and professional practice completes the professional content.

In addition to professional courses, students are expected to complete course work in a variety of academic disciplines, reflecting the interdisciplinary nature of architecture. These general education requirements include course work in mathematics, physics, English, communication, humanities and Western civilization, fine arts, and the natural and social sciences.

In the final year of the program, students participate in a chosen year-long professional option. Options are defined by faculty strengths and the emerging needs of the profession. They offer students the opportunity to focus in a particular area of interest that is one of the professional choices or specializations available after graduation. These currently include Design-Build, Health and Wellness, Globalized Practice, Urban Design, and Architectural Investigations.

- Students in the Design-Build option participate in our national award-winning Studio 804, where they collaboratively design and build a sustainable house for moderate-income families.
- Students in the Health and Wellness option are expected to complete a 7-month professional work experience in an architectural firm engaged in design for health followed by a service-learning studio.
- Globalized Practice introduces students to the increasingly multinational nature of architectural practice; students are placed in an internship abroad for a semester followed by a competition studio in the final semester.
- Those in the Urban Design option participate in the fifth year in the Kansas City Urban Design Studio in downtown Kansas City, Missouri, offered with Kansas State University.

**Requirements and Policies**

**Distribution Courses**

**Oral Communication (3)**

Select one of the following: 3

- COMS 130 Speaker-Audience Communication
- COMS 230 Fundamentals of Debate
- PHIL 148 Reason and Argument
- PHIL 310 Introduction to Symbolic Logic

**Western Civilization (6)**

- HWC 204 Western Civilization I 3
- HWC 205 Western Civilization II 3

**Environmental and Social Sciences (6)**

- EVRN 148 Scientific Principles of Environmental Studies 3
- GEOG 102 Principles of Human Geography 3

**Natural Sciences (3)**

Select one of the following: 3

- BIOL 100 Principles of Biology
- BIOL 116 Introduction to Evolutionary Biology
- GEOL 101 The Way The Earth Works
- GEOL 105 History of the Earth
- GEOL 121 Prehistoric Life: DNA to Dinosaurs

**Fine Arts (9)**

Select one of the following: 3

- HA 265 Introduction to Asian Art
- HA 266 The Visual Arts of East Asia
- HA 267 Art and Culture of Japan
- HA 268 Art and Culture of China
- HA 269 Art and Culture of Korea

Select one of the following: 3

- MUSC 136/336 Masterworks of Music 3
  - 3 hours of performance

**Electives (9)**

Selected outside of architecture 9

**Study Abroad Requirement**

Students must fulfill a 9-credit-hour study abroad requirement. This requirement gives students an experience completely different from their previous educational careers and provides some preparation for the increasingly globalized architectural profession. There are several ways in which students may meet this requirement:

1. Participation in any of the school’s academic-year or semester study abroad programs in Germany, England, Denmark, and Australia automatically fulfills the study abroad requirement; however, to fulfill the total degree requirements, students must complete an additional 9 hours of electives.
2. Participation in any school-directed short-term study abroad program, usually in the summer (but including any during regular semesters), meets the requirement. These programs vary from 3 to
9 credit hours, and several may be combined (not necessarily in the same semester) to total 9 hours.

3. Participation in any university-sponsored study abroad programs or programs at other college-level institutions approved by KU for transfer credit meets the requirement. These programs, including summer programs, vary from 3 to 6 credit hours and may be combined with one another or with school-directed programs (including ARCH 692) to total 9 hours.

4. Enrollment in ARCH 691 (3-6 hours) meets the requirement. The practicum component is one option for earning a portion of the 9 hours. Students who choose this option are required, through special scholarship programs, to take advantage of short-duration, intensive study abroad experiences (e.g., Western Civilization London Spring Break, 2-week summer programs, etc.) to earn a minimum of 3 hours in a study abroad experience to complete the 9-hour requirement. Note: ARCH 691 requires approval of the student's proposal by the architecture chair.

5. International students, for whom enrollment in the school is already a study abroad experience, automatically meet the requirement; however, to fulfill the total degree requirements, they may need to complete an additional 9 hours of electives.

All students are encouraged to meet with their faculty advisors by the end of the second year to begin planning to fulfill the study abroad requirement.

This is an ambitious program of study, averaging 17 credit hours a semester, plus a summer of study abroad. Given the number of general education hours in the fourth and fifth years, it is highly recommended that students either

1. attempt to enter with advanced-placement credit for general education courses such as calculus, physics, environmental studies, or geography and/or
2. plan to take 6 hours of general education requirements during a summer (this may be completed at a local community college).

In addition to the 5-year course of study outlined above, there is a 12-semester curriculum sequence that averages 15 credit hours a semester. It serves students interested in semester or academic-year study abroad opportunities or students who want to take more time to complete the program.

**Portfolio Requirement**

All students must maintain a record of work as they proceed through the program. This must be in the form of an 8½" x 11" portfolio (exceptions to the required format may be approved by the faculty) and must include examples of at least one major project from each semester of the design sequence, starting with the foundations studios in the first year. It is recommended that all major projects be included in the portfolio as well as selected examples of work from support and elective courses such as building technology, construction documents, and photography. The portfolio is a prerequisite for advancement in the studio course sequence and may be requested by the studio critic on the first day of class.

**Studio Grading Policy**

Work evaluated as “satisfactory” is graded C. Work evaluated as “more than satisfactory” is graded B. Work evaluated as “exceptional” is graded A. Work evaluated as “less than satisfactory” is graded D. Work evaluated as “failing” is graded F. Information on the studio grade appeal procedure is available in the architecture department office.

If a student receives a grade of D in a design studio in any semester, he or she is placed on notice by the school, regardless of overall grade-point average. To be removed from this status, the student must perform satisfactory work in the next semester of design. If in any subsequent semester the student receives another grade of D, he or she must repeat that studio before advancing in the sequence. If the student receives a grade of D in 2 consecutive studios, he or she must repeat the entire design year in which the first D was given.

**Probation/Dismissal Policy**

Student records are reviewed after each semester. A student is placed on probation if the KU semester or cumulative grade-point average is below 3.0. Students placed on probation are sent a letter stating the length of probation and the requirements for being returned to good standing. A student on probation may be continued on probation for one more semester if the following KU semester and cumulative grade-point averages show considerable improvement, but the cumulative grade-point-average is lower than 3.0. A student may be dismissed for poor scholastic performance if any of the following situations apply:

1. Fail and spring KU semester or cumulative grade-point averages are below 3.0 with no considerable improvement.
2. The student has been placed on probation and has failed to meet the conditions required to return to good standing.
3. The student has repeatedly failed to make progress toward graduation.

**Reinstatement**

Appeals for reinstatement may be submitted to the department’s probation committee, 206 Marvin Hall. A student reinstated has one semester to return to good standing.

**Good Standing**

Students with KU semester and cumulative grade-point-averages of 3.0 or above are in good standing.

**Honor Roll**

Students enrolled in at least 14 graded hours per semester will be considered for Architecture’s Honor Roll distinction each semester. The top 10% of the enrolled undergraduate class will qualify for the status of Honor Roll. This distinction is placed on the student’s KU transcript.

**Computer Requirement**

All third-year students and above in the Master of Architecture program must supply a computer for digitally based architectural studios. Students must follow a checklist of minimum hardware- and software-requirements when they purchase a computer. The specifications for architectural studio computing are on the school’s website (http://www.sadp.ku.edu).

**Substitution of Courses**

A student who wishes to select certain courses not in the prescribed curriculum may petition through the chair at the department office. Petitions for substitution of courses are considered at any time except after the beginning of the student’s last semester.

**Credit for ROTC Courses**

Students may enter the Reserve Officers Training Corps to train for commissions as regular or reserve officers. An allowance of 6 hours of military science, aerospace studies, or naval science may be substituted for free electives in the M.Arch. program. A student who enters one of the
ROTCl programs but discontinues military training and does not receive a commission may not apply credits for ROTC courses toward a degree in architecture. If a student does not receive a commission because of circumstances beyond his or her control (such as a medical discharge), he or she may use ROTC credits as part of the requirements for the degree as indicated above.

Activity Courses
The School of Architecture, Design and Planning does not accept physical education activity courses for fulfilling graduation requirements.

Studio Enrollment/Selection Process
KU’s online enrollment system allows students in each year level to enroll in an order based on the number of college credit hours completed (then by grade-point average, then by age). To eliminate the disadvantage that this imposes on some students in the selection of their studio instructor and to discourage students from repeating the same instructor for design studio, the architecture department has developed alternative processes for studio enrollment, which are used at the department’s discretion.

Career Opportunities
The M.Arch. is a NAAB accredited professional degree. The following options are open to students after they complete it:

1. Graduates may seek to refine and augment their professional capabilities through experience in an office under a licensed architect. Such experience qualifies the graduate for admission to the appropriate examination for licensing and practice as an architect or may precede admission to graduate school. Increasingly, graduates are finding alternative career options, including work in urban design, design-build firms, interior design, historic preservation, and many others.

2. Qualified students may pursue graduate study in Ph.D. in architecture programs or in areas related to architecture and environmental design, such as urban planning, law, psychology, social welfare, public administration, or business.

Professional Registration and Licensing
Although state laws vary, professional registration as an architect in Kansas involves completion of three aspects: receiving an accredited professional degree (such as the M.Arch.), completion of internship requirements (for information on the Intern Development Program, see www.ncarb.org (http://www.ncarb.org) (ARE). Upon successful completion of all sections of the Architectural Registration Examination (http://www.ncarb.org) (ARE), the applicant may use the title “architect” and may practice as an architect, either as an individual or as a licensed professional in an office performing professional services.

Prescribed Curriculum
Master of Architecture (5-year)
A total of 180 credit hours is required. Substitutions in the prescribed curriculum may be made only by petition to the department.

Students are in Undergraduate Status for enrollment first 4 years and begin Graduate Status enrollment the final year of this program.

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<tr>
<td>ARCH 665</td>
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<td>18</td>
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<table>
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<tbody>
<tr>
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<tr>
<td>ARCH 800-level course: Professional Options I</td>
<td>6</td>
<td>ARCH 800-level course: Professional Options I</td>
<td>6</td>
</tr>
</tbody>
</table>
**Bachelor of Arts in Architectural Studies**

**Architectural Studies, The B.A. Path**

The B.A. in Architectural Studies is designed to serve as a platform or foundational degree for students who plan to specialize in architecture and other disciplines that focus on the design, planning and construction of the built environment. It exposes students to ideas and practices currently followed in all of the School’s design disciplines and it focuses on many of the business, communications and organizational skills that are not covered in the technical requirements of the graduate curricula. Students at KU who start in the B.A. in Architectural Studies, co-enroll in graduate professional degrees and take courses that count toward the B.A. and the graduate professional degree.

Some students may opt to complete the 124-credit B.A. without continuing and completing the additional year (or two) required to finish one of the professional degree paths. The four-year, 124-credit course of study that leads to a Bachelor of Arts (B.A.) in Architectural Studies prepares students for graduate education in many other fields such as law, business, government, facility management, and public administration that are enhanced by a broad knowledge of architecture. It also prepares them for work in a number of fields related to architecture.

Students who complete the B.A. and later wish to become licensed architects may pursue a professionally accredited Master of Architecture degree. This educational path may include KU’s accredited M.Arch III or it may include a three-year M.Arch III at one of the many other architecture schools that offer this graduate professional degree.

NOTE: Students admitted to the B.A. Architectural Studies degree prior to 2014 must follow the 4-year, 124-credit curriculum in place at the time of their admission. (see the KU Academic Catalog for 2013).

**Undergraduate Admission**

First-year and transfer students may be admitted to the B.A. in architectural studies degree program. Contact:

University of Kansas  
Michael Swann, Associate Dean,  
School of Architecture, Design and Planning (http://www.sadp.ku.edu)  
Marvin Hall  
1465 Jayhawk Blvd., Room 206  
Lawrence, KS 66045-7626  
archku@ku.edu

For undergraduate applications, write to:  
KU Office of Admissions (http://admissions.ku.edu)  
KU Visitor Center  
1502 Iowa St.

**Application**

Applications for fall semester should be submitted during the student’s senior year in high school. The priority application deadline is **November 1**, and the final application deadline is **February 1**. Completed applications are reviewed, and applicants are notified of their admission status. A complete application includes sixth-semester transcript, rank in class, ACT scores, and a list of courses in progress. Applications received after February 1 are considered but are less likely to be accepted due to space limitations.

Transfer students should apply by **October 1** for the spring semester and by the priority deadline of **November 1** for the summer and fall terms. The final application deadline is **February 1**. Space limitations apply to transfer students. Transfer applications received after February 1 are likely to be denied for reasons not connected with the applicant’s academic qualifications. The School of Architecture, Design and Planning encourages applications from women and members of minority groups.

**High School Students**

High school students are encouraged to apply for admission if they have a cumulative GPA of at least 3.2 and have a minimum ACT of 23 or a minimum SAT of 1050 and if they will meet the following preparation thresholds by the time they graduate:

- 3 or more years of math ending with calculus (preferred).  
- 3 or more years of natural science including physics,  
- 3 or more art/drawing classes. Art/drawing classes are preferred over additional drafting or technical courses (1 semester of drafting is adequate),  
- 2 or more years of foreign language (recommended).

Although students who do not meet these minimum thresholds may apply to the Department of Architecture, they are encouraged to enroll in the College of Liberal Arts and Sciences for a preliminary year of study.

During the first semester of this preliminary year, students should complete:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 105</td>
<td>Introduction to Topics in Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 115</td>
<td>Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 103</td>
<td>Introduction to Architecture</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
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</table>

During the second semester, students should complete:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 114</td>
<td>College Physics I</td>
<td>1-4</td>
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<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 540</td>
<td>Global History of Architecture I: Origins to Industrial Revolution (3500 BCE-1700 CE)</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

Students already at the University of Kansas may apply to the B.A. in Architectural Studies program by February 1 for admission the following fall. Students must have a cumulative college GPA of 3.0 or higher and

**Total Hours: 180**
space must be available to be admitted to the B.A. in Architectural Studies program.

**Transfer Students**

Transfer students may be admitted, if space is available, if they have an overall grade-point average of 3.0.

**International Students**

The School of Architecture, Design and Planning admits only exceptional students from other countries. Standards for admission are set according to the traditions and grading policies of those countries. In some countries, for example, the grade of A is almost never given, while in other countries the A grade is more frequently seen. The number of students admitted depends on the space available on February 1.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

**Requirements for the B.A. in Architectural Studies**

A minimum of 124 hours is required, including 45 hours of courses numbered 300 or above.

**Requirements and Policies**

**Probation/Dismissal Policy**

Student records are reviewed after each semester. A student is placed on probation if the KU semester or cumulative grade-point average is below 2.0. Students placed on probation are sent a letter stating the length of probation and the requirements for being returned to good standing. A student on probation may be continued on probation for one more semester if the following KU semester and cumulative grade-point averages show considerable improvement, but the cumulative grade-point-average is lower than 2.0. A student may be dismissed for poor scholastic performance if any of the following situations apply:

1. Fall and spring KU semester or cumulative grade-point averages are below 2.0 with no considerable improvement.
2. The student has been placed on probation and has failed to meet the conditions required to return to good standing.
3. The student has repeatedly failed to make progress toward graduation.

**Reinstatement**

Appeals for reinstatement may be submitted to the department’s probation committee, 206 Marvin Hall. A student reinstated has one semester to return to good standing.

**Good Standing**

Students with KU semester and cumulative grade-point-averages of 2.0 or above are in good standing.

**Honor Roll**

Students enrolled in at least 14 graded hours per semester will be considered for Architecture’s Honor Roll distinction each semester. The top 10% of the enrolled undergraduate class will qualify for the status of Honor Roll. This distinction is placed on the student’s KU transcript.

**Computer Requirement**

All third-year students and above in the Master of Architecture program must supply a computer for digitally based architectural studios. Students must follow a checklist of minimum hardware- and software-requirements when they purchase a computer. The specifications for architectural studio computing are on the school’s website (http://www.sadp.ku.edu).

**Substitution of Courses**

A student who wishes to select certain courses not in the prescribed curriculum may petition through the chair at the department office. Petitions for substitution of courses are considered at any time except after the beginning of the student’s last semester.

**Credit for ROTC Courses**

Students may enter the Reserve Officers Training Corps to train for commissions as regular or reserve officers. An allowance of 6 hours of military science, aerospace studies, or naval science may be substituted for free electives in the M.Arch. program. A student who enters one of the ROTC programs but discontinues military training and does not receive a commission may not apply credits for ROTC courses toward a degree in architecture. If a student does not receive a commission because of circumstances beyond his or her control (such as a medical discharge), he or she may use ROTC credits as part of the requirements for the degree as indicated above.

**Activity Courses**

The School of Architecture, Design and Planning does not accept physical education activity courses for fulfilling graduation requirements.

**4-Year Graduation Plan for students admitted 2014**

**B.A. in Architectural Studies**

**Suggested Undergraduate Curriculum**

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 103</td>
<td>3 BDS 102</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARCH 105</td>
<td>1 ADS 320</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDS 101</td>
<td>3 ENGL 105 or 105</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDS 103</td>
<td>3 KU Core Class, Goal 2, Learning Outcome 2</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 115, 105, or 365</td>
<td>3 ARCH 540</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 101</td>
<td>3 Geol 101 or Geog 104 or Physx 114</td>
<td>3-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>16-17</strong></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Sophomore</th>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH XXX Touchstone Workshop I</td>
<td>3 ARCH XXX Touchstone Workshop II</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UBPL 200</td>
<td>3 KU Core Class, Goal 4.1</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARCH 541</td>
<td>3 Free Elective 1</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Enrichment Elective</td>
<td>3 Professional Enrichment Elective</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Bachelor of Architectural Studies and Undergraduate Certificate conferred

**B.A. Architectural Studies - Master of Architecture**

#### Architectural Studies, The B.A. Path

**The B.A. – M.Arch. Path**

The B.A.-M.Arch. path at the University of Kansas is designed to give students seeking a professional, accredited Master of Architecture degree the skills in design, visualization, and technology that are required in a professional architecture degree. It also provides formal, advanced instruction in the communication, business, organizational and interpersonal skills that have become especially important in the 21st century.

Students who pursue the 173-credit, six-year B.A.-M.Arch. path of study receive a B.A. in Architectural Studies, an Undergraduate Certificate in one of KU’s specialized programs (Leadership, Entrepreneurship, Research, etc) and a professional accredited Master of Architecture degree. Approximately one-third of the credits in this path focus on the B.A. degree core and the KU Core Curriculum and the remaining two-thirds involve professional course work.

Years 1 through 3 include studios, workshops and courses that focus on architecture, design and planning while students are also completing the KU Core. Years 4 through 6 focus on the design/synthesis and technical support classes that are central to the accredited professional degree.

The B.A.-M.Arch. path is highly appropriate for students who intend to become practicing architects and also have multiple academic interests or believe they may be interested in pursuing more than one professional degree.

### Undergraduate Admission

First-year and transfer students may be admitted to the B.A. in architectural studies degree program. Contact:

University of Kansas  
Michael Swann, Associate Dean,  
School of Architecture, Design and Planning (http://www.sadp.ku.edu)  
Marvin Hall  
1465 Jayhawk Blvd., Room 206  
Lawrence, KS 66045-7626  
archku@ku.edu

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KU Visitor Center  
1502 Iowa St.  
Lawrence, KS 66044-7576  
785-864-3911  
adm@ku.edu

#### Application

Applications for fall semester should be submitted during the student’s senior year in high school. The priority application deadline is **November 1**, and the final application deadline is **February 1**. Completed applications are reviewed, and applicants are notified of their admission status. A complete application includes sixth-semester transcript, rank in class, ACT scores, and a list of courses in progress. Applications received after February 1 are considered but are less likely to be accepted due to space limitations.

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<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 105 or MATH 115</td>
<td>Introduction to Topics in Mathematics, Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 103</td>
<td>Introduction to Architecture</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>6</td>
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</table>

During the second semester, students should complete:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 114</td>
<td>College Physics I</td>
<td>1-4</td>
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<tr>
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<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 540</td>
<td>Global History of Architecture I: Origins to Industrial Revolution (3500 BCE-1700 CE)</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>6</td>
</tr>
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</table>

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**International Students**

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Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

**B.A. - M.Arch Plan**

**Freshman**

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Fall</th>
<th>Hours Spring</th>
<th>Hours</th>
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<tr>
<td></td>
<td>ARCH 103</td>
<td>3 BDS 102</td>
<td>3</td>
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<td></td>
<td>ARCH 105</td>
<td>1 ADS 320</td>
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<td></td>
<td>BDS 101</td>
<td>3 ENGL 102 or 105</td>
<td>3</td>
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<td></td>
<td>BDS 103</td>
<td>3 KU Core Class, Goal 2, Learning Outcome 2</td>
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<td></td>
<td>MATH 105 or 365</td>
<td>3 ARCH 540</td>
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**Sophomore**

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Fall</th>
<th>Hours Spring</th>
<th>Hours Summer</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>ARCH XXX</td>
<td>3 ARCH XXX</td>
<td>3 ARCH 502</td>
</tr>
<tr>
<td></td>
<td>Touchstone Workshop I</td>
<td>Touchstone Workshop II</td>
<td></td>
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<tr>
<td></td>
<td>UBPL 200</td>
<td>3 ADS 320</td>
<td>Hallmark Symposium</td>
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<tr>
<td></td>
<td>ARCH 541</td>
<td>3 KU Core Class, Goal 3, Social Sciences</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Certificate Program Course 1</td>
<td>3 Certificate Program Course 1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td>3 Certificate Program Course 2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
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**Junior**

<table>
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<tr>
<th>Year</th>
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<th>Hours Spring</th>
<th>Hours Summer</th>
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<td>3 ARCH 502</td>
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<tr>
<td></td>
<td>Touchstone Workshop III</td>
<td>Touchstone Workshop IV</td>
<td></td>
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<tr>
<td></td>
<td>ARCH 626</td>
<td>3 ARCH 627</td>
<td>3 ARCH 613</td>
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<td></td>
<td>ARCH 630</td>
<td>3 ARCH 530</td>
<td>3 ARCH 205</td>
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<tr>
<td></td>
<td>Certificate Program Course 3</td>
<td>3 Certificate Program Course 4</td>
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<td></td>
<td>Complete GRE. Submit Graduate Studies form. Make sure GPA is 3.0</td>
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<tr>
<td></td>
<td>Free Elective</td>
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**Senior**

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Fall</th>
<th>Hours Spring</th>
<th>Hours</th>
</tr>
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<tr>
<td></td>
<td>ARCH 503</td>
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<td></td>
<td>ARCH 658</td>
<td>3 ARCH 560</td>
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<td>ARCH 531</td>
<td>3 ARCH 552</td>
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Total Hours: 124

**Bachelor of Architectural Studies and Undergraduate Certificate conferred.**

**Enroll Summer as Graduate Student**

**Year 4**

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Summer</th>
<th>Hours</th>
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<tbody>
<tr>
<td></td>
<td>ARCH 590</td>
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</table>

**B.A. - M.Arch Plan**

**Freshman**

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Fall</th>
<th>Hours Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ARCH 103</td>
<td>3 BDS 102</td>
<td>3</td>
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<tr>
<td></td>
<td>ARCH 105</td>
<td>1 ADS 320</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>BDS 101</td>
<td>3 ENGL 102 or 105</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BDS 103</td>
<td>3 KU Core Class, Goal 2, Learning Outcome 2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MATH 105 or 365</td>
<td>3 ARCH 540</td>
<td>3</td>
</tr>
</tbody>
</table>

**Sophomore**

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Fall</th>
<th>Hours Spring</th>
<th>Hours Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ARCH XXX</td>
<td>3 ARCH XXX</td>
<td>3 ARCH 502</td>
</tr>
<tr>
<td></td>
<td>Touchstone Workshop I</td>
<td>Touchstone Workshop II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>UBPL 200</td>
<td>3 ADS 320</td>
<td>Hallmark Symposium</td>
</tr>
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<td></td>
<td>ARCH 541</td>
<td>3 KU Core Class, Goal 3, Social Sciences</td>
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</tr>
<tr>
<td></td>
<td>Certificate Program Course 1</td>
<td>3 Certificate Program Course 1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td>3 Certificate Program Course 2</td>
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</tr>
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<td></td>
<td>Free Elective</td>
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</table>

**Junior**

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Fall</th>
<th>Hours Spring</th>
<th>Hours Summer</th>
</tr>
</thead>
<tbody>
<tr>
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<td>3 ARCH XXX</td>
<td>3 ARCH 502</td>
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<tr>
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<td>3 ARCH 613</td>
</tr>
<tr>
<td></td>
<td>ARCH 630</td>
<td>3 ARCH 530</td>
<td>3 ARCH 205</td>
</tr>
<tr>
<td></td>
<td>Certificate Program Course 3</td>
<td>3 Certificate Program Course 4</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete GRE. Submit Graduate Studies form. Make sure GPA is 3.0</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

**Senior**

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Fall</th>
<th>Hours Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ARCH 503</td>
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<td>6</td>
</tr>
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<td></td>
<td>ARCH 658</td>
<td>3 ARCH 560</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ARCH 531</td>
<td>3 ARCH 552</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

Total Hours: 124

**Bachelor of Architectural Studies and Undergraduate Certificate conferred.**

**Enroll Summer as Graduate Student**

**Year 4**

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Summer</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ARCH 590</td>
<td>6</td>
</tr>
</tbody>
</table>
ARCH 505 6

Total Hours: 12

Year 5
Fall
ARCH 608 6
ARCH 524 4

Spring
ARCH 609 9
ARCH 624 3

12 12

Year 6
Fall
ARCH 8XX Professional Option 6
ARCH XXX Architectural Elective 3

Spring
ARCH 8XX Professional Option 6

9 6

Total Hours: 37

Master of Architecture conferred.

B.A. Architectural Studies - M.A. Environmental Design

The B.A. – M.A. Design Path

In a highly competitive economy where the success of a building such as a stadium, restaurant, retail boutique, museum or theater rests as much on the user’s experience as it does on a building’s performance, cost or look, the successful design of interior environments is critical. Traditional approaches in interior design and interior architecture lack the specialized and technology-based focus on individual experience that an environmental design degree path offers through the special fusion of course work in architecture, interior design and interaction design.

The B.A. – M.A. Environmental Design degree path is offered by the School’s Architecture and Design departments. It allows architecture students to combine the skills and knowledge obtained in the Architectural Studies degree core with basic interior design and interior architecture skills and techniques offered in professional enrichment classes.

Students complete a rigorous sequence of courses in interaction design that includes the research skills needed to design extraordinary spaces that respond to the needs and perceptions of different individuals. In addition, they are trained to use emerging technologies to customize environments for different purposes.

Students in this degree path also have the opportunity to develop leadership and entrepreneurial skills in one of KU’s Undergraduate Certificate Programs and, more importantly, they go well beyond the basic professional practice training found in a traditional interior design or interior architecture degree with specialized course work in design management.

In addition to the challenges offered by this rigorous sequence of courses, students can participate in professional internships and they have the opportunity to engage in research projects conducted within the School’s highly recognized Center for Design Research. Within this 154-credit degree path, the B.A. is awarded by the Architecture Department and the NASAD-accredited M.A. in Environmental Design is awarded by the Department of Design.

Undergraduate Admission

First-year and transfer students may be admitted to the B.A. in architectural studies degree program. Contact:

University of Kansas
Michael Swann, Associate Dean,
School of Architecture, Design and Planning (http://www.sadp.ku.edu)
Marvin Hall
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Lawrence, KS 66045-7626
archku@ku.edu

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KU Visitor Center
1502 Iowa St.
Lawrence, KS 66044-7576
785-864-3911
adm@ku.edu

Application

Applications for fall semester should be submitted during the student’s senior year in high school. The priority application deadline is November 1, and the final application deadline is February 1. Completed applications are reviewed, and applicants are notified of their admission status. A complete application includes sixth-semester transcript, rank in class, ACT scores, and a list of courses in progress. Applications received after February 1 are considered but are less likely to be accepted due to space limitations.

Transfer students should apply by October 1 for the spring semester and by the priority deadline of November 1 for the summer and fall terms. The final application deadline is February 1. Space limitations apply to transfer students. Transfer applications received after February 1 are likely to be denied for reasons not connected with the applicant’s academic qualifications. The School of Architecture, Design and Planning encourages applications from women and members of minority groups.

High School Students

High school students are encouraged to apply for admission if they have a cumulative GPA of at least 3.2 and have a minimum ACT of 23 or a minimum SAT of 1050 and if they will meet the following preparation thresholds by the time they graduate:

• 3 or more years of math ending with calculus (preferred),
• 3 or more years of natural science including physics,
• 3 or more art/drawing classes. Art/drawing classes are preferred over additional drafting or technical courses (1 semester of drafting is adequate),
• 2 or more years of foreign language (recommended).

Although students who do not meet these minimum thresholds may apply to the Department of Architecture, they are encouraged to enroll in the College of Liberal Arts and Sciences for a preliminary year of study.
During the first semester of this preliminary year, students should complete:

- MATH 105 or MATH 115: Introduction to Topics in Mathematics 3
- ENGL 101: Composition 3
- ARCH 103: Introduction to Architecture 3
- Electives 6

During the second semester, students should complete:

- PHSX 114: College Physics I 1-4
- ENGL 102: Critical Reading and Writing 3
- ARCH 540: Global History of Architecture I: Origins to Industrial Revolution (3500 BCE-1700 CE) 3
- Electives 6

Students already at the University of Kansas may apply to the B.A. in Architectural Studies program by February 1 for admission the following fall. Students must have a cumulative college GPA of 3.0 or higher and space must be available to be admitted to the B.A. in Architectural Studies program.

**Transfer Students**

Transfer students may be admitted, if space is available, if they have an overall grade-point average of 3.0.

**International Students**

The School of Architecture, Design and Planning admits only exceptional students from other countries. Standards for admission are set according to the traditions and grading policies of those countries. In some countries, for example, the grade of A is almost never given, while in other countries the A grade is more frequently seen. The number of students admitted depends on the space available on February 1.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

---

**Freshman**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 103</td>
<td>3 BDS 102</td>
<td>3</td>
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<tr>
<td>ARCH 105</td>
<td>1 ADS 320</td>
<td>1</td>
</tr>
<tr>
<td>BDS 101</td>
<td>3 ENGL 102 or 105</td>
<td>3</td>
</tr>
<tr>
<td>BDS 103</td>
<td>3 ARCH 540</td>
<td>3</td>
</tr>
<tr>
<td>MATH 105 or 115</td>
<td>3 PHSX 114</td>
<td>4</td>
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<td>ENGL 101</td>
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**Sophomore**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours Spring</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ARCH XXX Touchstone Workshop I</td>
<td>3 ARCH XXX Touchstone Workshop II</td>
<td>3</td>
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<tr>
<td>UBPL 200</td>
<td>3 KU Core Class, Goal 3 Social Sciences</td>
<td>3</td>
</tr>
<tr>
<td>KU Core Class, Goal 2, Learning Outcome 2</td>
<td>3 KU Core Class, Goal 4, Learning Outcome 1</td>
<td>3</td>
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<tr>
<td>ARCH 541</td>
<td>3 ENVD 203</td>
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**Junior**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours Spring</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ADS 320 Hallmark Symposium</td>
<td>1 Certificate Program Course 1</td>
<td>3</td>
</tr>
<tr>
<td>ENVD 304</td>
<td>3 ENVD 304 Topics in Environmental Design</td>
<td>3</td>
</tr>
<tr>
<td>ADS 560 (or Arch Elective)</td>
<td>3 VISC or INDD Elective</td>
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Complete GRE. Submit Graduate Studies form. Make sure GPA is 3.00

**Senior**

<table>
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<tr>
<th>Fall</th>
<th>Hours Spring</th>
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<td>ENVD 408</td>
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<tr>
<td>ENVD 413</td>
<td>3 Elective based on concentration or MA</td>
<td>3</td>
</tr>
<tr>
<td>Elective based on concentration or MA</td>
<td>3 Certificate Program Course 3</td>
<td>3</td>
</tr>
<tr>
<td>Certificate Program Course 3</td>
<td>3 ADS 560 or Arch Elective</td>
<td>3</td>
</tr>
<tr>
<td>VISC or INDD elective</td>
<td>3 Free Elective 1</td>
<td>3</td>
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</tbody>
</table>

Total Hours: 124

* Recommended Courses (see advisor for substitutions)

**B.A. Architectural Studies and Undergraduate Certificate Conferved.**

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**Year 5**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours Spring</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ENVD XXX Advanced Research &amp; Programming</td>
<td>3 ENVD XXX Integrated Experience in Space, Graphics &amp; Arch</td>
<td>3</td>
</tr>
<tr>
<td>ADS 712</td>
<td>3 ADS 714</td>
<td>3</td>
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<tr>
<td>ADS 860</td>
<td>1 ADS 890 Thesis</td>
<td>3</td>
</tr>
<tr>
<td>ADS 861</td>
<td>1 Graduate Elective in Design</td>
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</tr>
<tr>
<td>ADS 890</td>
<td>1 Open Elective</td>
<td>3</td>
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<tr>
<td>Graduate Elective in Design</td>
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<td>3</td>
</tr>
<tr>
<td>Graduate Elective in Design</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours: 30

**M.A. Design (Environmental Design) conferred.**

**B.A. Architectural Studies - M.U.P. Plan**

Urban Planning, the B.A. – M.U.P Path
Urban planners work with civic leaders, residents and businesses to develop new solutions to community problems. They help leaders envision the direction their community will grow and find the right balance of new development and services, environmental protection, and innovative change.

Urban planners are trained to protect the environment, to create housing for people, to preserve historic buildings and places, to design public spaces, to develop alternative transportation choices, to foster economic development and to craft healthy communities. Good urban planning creates communities that offer better choices for living. Planners help people make their communities more convenient, healthful, efficient, fair and attractive. Good planning improves the welfare of people and communities in the present and for the future.

The B.A.-M.U.P. degree path is offered jointly by the Architecture and Urban Planning departments. It includes the basic elements of the B.A.--studies, workshops, certificate program, basic professional and general enrichment electives and the KU Core Curriculum, along with core courses in planning history, theory and methods as well as specialized classes in environmental planning, housing and development planning, land use planning and urban design, and transportation planning.

The Master of Urban Planning (M.U.P.) degree is the normal academic qualification for those who wish to become professional planners. An M.U.P. degree opens doors to careers in environmental conservation, housing, economic development, historic preservation, real estate development, and many other areas. State, city and local governments as well as private companies and nonprofit agencies employ planners. There are planning jobs in such areas as health care delivery, criminal justice, education, public finance and law.

Students in the B.A.-M.U.P. track have the opportunity to shorten the usual 6-year period required to complete a bachelor's degree and the M.U.P. by one full year of study. Students who achieve a GPA of 3.25 by the end of their third year of study, and complete the appropriate B.A. requirements shown in the B.A.-M.U.P. Plan will spend their fourth year in the B.A. degree completing the first year of courses required in the M.U.P. These urban Planning classes are used to satisfy remaining undergraduate requirements so that students receive the B.A. degree at the end of their fourth year. This also allows students to finish the second and final year of M.U.P. work in their fifth year at KU, when they would also be awarded the accredited M.U.P. degree.

### Undergraduate Admission

First-year and transfer students may be admitted to the B.A. in architectural studies degree program. Contact:

University of Kansas
Michael Swann, Associate Dean,
School of Architecture, Design and Planning (http://www.sadp.ku.edu)
Marvin Hall
1465 Jayhawk Blvd., Room 206
Lawrence, KS 66045-7662
archku@ku.edu

For undergraduate applications, write to:

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KU Visitor Center
1502 Iowa St.
Lawrence, KS 66044-7576

785-864-3911
adm@ku.edu

### Application

Applications for fall semester should be submitted during the student's senior year in high school. The priority application deadline is **November 1**, and the final application deadline is **February 1**. Completed applications are reviewed, and applicants are notified of their admission status. A complete application includes sixth-semester transcript, rank in class, ACT scores, and a list of courses in progress. Applications received after February 1 are considered but are less likely to be accepted due to space limitations.

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### High School Students

High school students are encouraged to apply for admission if they have a cumulative GPA of at least 3.2 and have a minimum ACT of 23 or a minimum SAT of 1050 and if they will meet the following preparation thresholds by the time they graduate:

- 3 or more years of math ending with calculus (preferred),
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<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 105</td>
<td>Introduction to Topics in Mathematics</td>
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</tr>
<tr>
<td>or MATH 115</td>
<td>Calculus I</td>
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<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
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<tr>
<td>ARCH 103</td>
<td>Introduction to Architecture</td>
<td>3</td>
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<tr>
<td>Electives</td>
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<td>6</td>
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</tbody>
</table>

During the second semester, students should complete:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 114</td>
<td>College Physics I</td>
<td>1-4</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 540</td>
<td>Global History of Architecture I: Origins to Industrial Revolution (3500 BCE-1700 CE)</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>6</td>
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</tbody>
</table>

Students already at the University of Kansas may apply to the B.A. in Architectural Studies program by February 1 for admission following fall. Students must have a cumulative college GPA of 3.0 or higher and space must be available to be admitted to the B.A. in Architectural Studies program.
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Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Freshman
Fall | Hours | Spring | Hours |
--- | --- | --- | --- |
ARCH 103 | 3 | BDS 102 | 3 |
ARCH 105 | 1 | ADS 320 | 1 |
BDS 101 | 3 | ENGL 102 | 3 |
BDS 103 | 3 | KU Core Class, Goal 2, Learning Outcome 2 |
MATH 105, 115, or 365 | 3 | ARCH 540 | 3 |
ENGL 101 | 3 | GEOL 101 or GEOG 104 | 3 |
| 16 | 13 |

Sophomore
Fall | Hours | Spring | Hours |
--- | --- | --- | --- |
ARCH XXX Touchstone Workshop I | 3 | ARCH XXX Touchstone Workshop II |
UBPL 200 | 3 | UBPL 522 | 3 |
UBPL 300 | 3 | ECON 104, 105, 142, or 143 | 3-4 |
ARCH 541 | 3 | KU Core Class, goal 4, Learning Outcome 1 |
Certificate Program Course 1 | 3 | Certificate Program Course 2 |
Free Elective 1 | 3 | |
| 18 | 15-16 |

Junior
Fall | Hours | Spring | Hours |
--- | --- | --- | --- |
ARCH XXX Touchstone Workshop III | 3 | ARCH XXX Touchstone Workshop IV |
ARCH 665 | 3 | UBPL 538 | 3 |
UBPL 565 | 3 | GEOG 377 | 3 |
Certificate Program Course 3 | 3 | Certificate Program Course 4 |
Free Elective 2 | 3 | Free Elective 4 | 3 |
Free Elective 4 | 3 | Free Elective 5 | 2-3 |
Make sure GPA is 3.25 | 18 | 17-18 |

Senior
Fall | Hours | Spring | Hours |
--- | --- | --- | --- |
UBPL 741 | 3 | UBPL 705 | 3 |
UBPL 815 | 3 | UBPL 742 | 3 |
UBPL Elective | 3 | UBPL 736 | 3 |

UBPL Elective | 3 | UBPL Elective | 3 |
Complete GRE. Submit Graduate Studies form. Make sure GPA is 3.25
B.A. Architectural Studies and Undergraduate Certificate conferred. 12 12
Total Hours: 121-123
Bachelor of Architectural Studies and Undergraduate Certificate conferred.

Enroll for Summer as Graduate Student

Year 5
Summer | Hours | Spring | Hours |
--- | --- | --- | --- |
UBPL Elective | 3 | UBPL Elective | 3 |
| 6 |
Total Hours: 6
Year 5
Fall | Hours | Spring | Hours |
--- | --- | --- | --- |
UBPL 850 | 3 | UBPL Implementation Seminar |
UBPL 763 | 3 | UBPL Elective | 3 |
UBPL Elective | 3 | UBPL Elective | 3 |
| 12 | 12 |
Total Hours: 24
Master of Urban Planning degree conferred.

B.A. Architectural Studies - M.C.M. Plan

The B.A. – M.C.M. Path
The rise of the design-build approach in the production of buildings has made architectural training as well as a solid grounding in business essential educational elements in the Construction Management profession. The leadership of complex design-build teams that involve architects, engineers, clients, building contractors, building systems experts, and multiple consultants involves knowledge of the many subfields that inform the building process as well as advanced interpersonal and communication skills.

At the same time, the constant emergence of new design and construction technologies, the development and use of new building materials and the application of new performance and sustainability standards highlight the need for architectural training in the development of professional construction managers.

The B.A. – M.C.M. degree path at KU is a cooperative program involving the SADP Architecture Department and the Department of Civil, Environmental and Architectural Engineering in KU’s School of Engineering. It allows architecture students to enroll in construction management courses while they are completing studios, workshops and

other courses required in the Architectural Studies degree core. The 154-credit path draws heavily on courses in both schools that directly address the issues described above.

B.A. –M.C.M. students begin with the Architectural Studies core, and move quickly into professional enrichment courses in Construction Management. They must complete one of KU’s Undergraduate Certificate Programs (including programs in Leadership and Entrepreneurship) as part of the degree path and they have sufficient general enrichment electives to include a minor in Business as well.

**Undergraduate Admission**

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<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>or MATH 115</td>
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<tr>
<td>ENGL 101</td>
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<td>ARCH 103</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

During the second semester, students should complete:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>PHSX 114</td>
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</tr>
<tr>
<td>ENGL 102</td>
<td></td>
</tr>
<tr>
<td>ARCH 540</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

Students already at the University of Kansas may apply to the B.A. in Architectural Studies program by February 1 for admission the following fall. Students must have a cumulative college GPA of 3.0 or higher and space must be available to be admitted to the B.A. in Architectural Studies program.

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**Freshman**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 103</td>
<td>3 BDS 102</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 105</td>
<td>1 ADS 320</td>
<td>1</td>
</tr>
<tr>
<td>BDS 101</td>
<td>3 ENGL 102 or 105</td>
<td>3</td>
</tr>
<tr>
<td>BDS 103</td>
<td>3 ARCH 540</td>
<td>3</td>
</tr>
<tr>
<td>MATH 105, 115, or 365</td>
<td>3 KU Core Class, Goal 2, Learning Outcome 2</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>3 GEOL 101 or GEOG 104</td>
<td>3</td>
</tr>
</tbody>
</table>
Master of Architecture (3-year)

Master of Architecture 3-year

Students who have completed or are completing a bachelor’s degree and who wish to pursue professional careers as licensed architects may apply for admission to this program. In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor Architecture, Master of Architecture and the Doctor of Architecture. A program may be granted a 6-year, 3-year or 2-year term of accreditation, depending on the extent of its conformity with established educational standards.

Master’s degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

This Master of Architecture degree is accredited by the National Architectural Accrediting Board (NAAB). Students who have completed previous course work in an approved NAAB architecture curriculum or a pre-professional architectural degree program may achieve advanced standing. All requests for advanced standing are evaluated using the minimum qualifications for graduate study at KU, the student performance criteria established by NAAB, and procedures approved by the architecture graduate studies committee. This degree requires a sequence of 6 semesters and 2 summers of architectural design studio/synthesis experiences, each of which is accompanied by associated professional graduate courses, constituting a total of 118 credit hours. The program also has a required study abroad component, planned to occur during a student’s second summer.

There are 4 typical entry points to this curriculum:

1. Students without backgrounds in architecture who hold bachelor’s degrees in non-design-oriented disciplines enter the first year of the curriculum which begins in the summer session. The first year of the curriculum is 2 academic semesters and 2 summer sessions. The total number of credit hours required is 118.

2. Students without backgrounds in architecture who hold bachelor’s degrees in a design discipline usually begin course work with the fall semester of the first year. Other curricular requirements may potentially be waived after a careful vetting of the student’s educational background. The total number of credit hours required for graduation is likely to be approximately 109.

3. Students with a pre-professional degree in architecture, such as a Bachelor of Arts in Architectural Studies, are likely to be placed in the second year of the curriculum if they have background in design studio. This is commonly referred to as the 4+2 option. Students interested in being placed in this way should make this clear in their statements. These students normally are asked to complete four studios (synthesis experiences), a study abroad summer experience, and architecture support courses whose number and content are determined on a case-by-case basis. The total number of credit hours required for graduation depends on the student’s previous preparation and is highly variable, but is likely to
be approximately 75 hours.

4. Students who already possess an accredited professional Bachelor of Architecture degree generally enter a three-semester program that requires a study abroad experience during a summer session as well as the final year of the curriculum. The total number of credit hours required for graduation depends on the student’s previous preparation and is highly variable, but a minimum of 36 hours is required.

Joint 3-Year M.Arch.-B.S. in Architectural Engineering Option

This program is for students who have completed all requirements for the Bachelor of Science (B.S.) degree in architectural engineering. (See specific degree requirements in the Department of Civil, Environmental, and Architectural Engineering (p. 553) section of the online catalog.) The B.S. in architectural engineering is an ABET-accredited professional degree that requires a minimum of 5 years and 164 credit hours to complete.

Architectural engineering students who wish to complete an accredited Master of Architecture degree in addition to the B.S. in architectural engineering should apply for admission to the school’s 3-year M.Arch. program by February 1 of the final year in architectural engineering. The application includes the completed application form and appropriate fee, a statement of purpose, and a portfolio of work. Assuming good performance in previous design studios, students are likely to receive advanced placement into the M.Arch. curriculum (normally into the second year of study).

Dual Master of Architecture and Master of Business Administration Degree Program

The Master of Business Administration/Master of Architecture dual degree program is designed particularly for students intending to pursue leadership opportunities in architecture, development, or construction. The M.B.A./M.Arch. program requires 4 years of study, 1 year less than it would take to earn each degree separately.

Students completing the dual degree program earn an M.B.A. from the KU School of Business (http://www.business.ku.edu) and an M.Arch. from the KU School of Architecture, Design and Planning (http://www.sadp.ku.edu). Students complete 112 credits in the 3-year Master of Architecture program and 37 credits in the School of Business. Prospective dual degree students must already be students in the Master of Architecture program and must apply and be accepted by the School of Business. New students must complete the first year of the architecture curriculum before starting the M.B.A. curriculum and must declare their intention before completing the second year of the architecture curriculum.

For information, consult the school websites and program chairs. See also the Master of Business Administration (p. 227) section of the online catalog.

Joint Master of Architecture and Master of Urban Planning

This joint degree combines in a 4-year program the normal 2-year Master of Urban Planning (p. 93) degree and the 3-year M.Arch. degree, both offered through the School of Architecture, Design and Planning. The program is intended for students interested in careers in urban design. A total of 133 credit hours is required, comprising 39 hours in urban planning and 94 hours in architecture. Applicants must meet admission requirements of both the Department of Architecture and the Department of Urban Planning. Students pursuing the M.Arch. may apply to the joint degree program during, but not after, the second year of study. Students pursuing the M.U.P. may apply to the joint degree program during, but not after, the first year of study.

Graduate Admission

Regardless of background or career goals, a person whose previous records indicate the ability to succeed with advanced work may be admitted to one of the graduate programs. Admission requires a bachelor’s degree and a grade-point average of 3.0 from KU or another accredited institution or foreign university with substantially equivalent requirements for the bachelor’s degree. The academic background is reviewed before a student without a bachelor’s degree is admitted as a degree-seeking graduate student at KU. A complete application for admission consists of the following materials:

1. Graduate application (http://www.graduate.ku.edu).
2. One unofficial transcript where the undergraduate degree is confirmed and one copy of the transcript where any graduate degree/credit was earned (if applicable).
3. Three letters of recommendation from persons qualified to comment on the applicant’s intellectual abilities and probable success in graduate study.
4. Application fee, nonrefundable check or money order payable to the University of Kansas (See Admission in the Graduate Studies (p. 2059) section of the online catalog for further information).
5. Evidence of language proficiency if the native tongue is not English, including
   a. A degree from an English-language college or university or
   b. Receipt of official copy of applicant’s proficiency scores achieved not more than 2 years before the semester of admission: IELTS scores: minimum overall score 6.5 with no part score below 6.0; TOEFL scores (iBT): all part scores at least 23; TOEFL scores (CBT): all part scores at least 23 and essay score of at least 5; TOEFL scores (paper): all part scores at least 57 and essay score of at least 5.
6. A statement of interest indicating the applicant’s career goals and the relationship of these goals to the specific option chosen (Those seeking advanced placement in the M.Arch. program should make this clear in this statement.).
7. A portfolio of work demonstrating the candidate’s strengths. Examples may include design or creative work and writing samples. The portfolio is limited to 10 megabytes (not zipped) in PDF format. Upload under other documents.
8. Graduate Record Examination (GRE) test results.
9. For international students, a financial statement showing minimum financial support for the first year of study (see the admissions page on the school’s website (http://www.sadp.ku.edu)).

Submit your graduate application and upload all application materials online (http://www.graduate.ku.edu). Please contact the Admissions Coordinator if you have any questions:

The University of Kansas
Department of Architecture
Marvin Hall
Master of Architecture Degree Requirements

M.Arch. Curriculum (3-year)

The curriculum is designed in 3 parts. The first 2 semesters plus 2 summer sessions offer an accelerated education in the foundations of architecture as a professional discipline. The second academic year emphasizes professional development, with the comprehensive studio as a capstone experience. The third and final year offers students a choice of options for an inquiry of enhanced depth typical in graduate education. This allows students to develop a specialization by the time they complete the professional degree. The timing of course offerings is subject to change. Please visit the school’s website (http://www.sadp.ku.edu) for the most current information.

Plan (3-year)

**Year 1**

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<thead>
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<td>3 ARCH 540</td>
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**Year 3**

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<tr>
<td>ARCH 630</td>
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Total Hours: 118

Master of Arts in Architecture: Academic-Research Track

Introduction

The post-professional M.A. in Architecture offers 2 distinct programs. The architectural management program (p. 66) is oriented to the administration and practice of architecture and related disciplines. The research-based academic program is offered on the Lawrence campus. It is for the student who is interested in exploring various approaches in analyzing the built environment. A student with an undergraduate degree in architecture or a related discipline may enter this course of study. To receive the master’s degree, each student must complete an academic or design-related project or must take a comprehensive examination at the end of the plan of study.

This program is for the student who is interested in the study of architecture from an academic and scholarly perspective. A student who wishes to pursue graduate study in architecture at KU must submit a statement of intent detailing academic interests and career goals. Students from this program have established a strong academic tradition and won honors in national research competitions. The key to their success has been the careful selection of research topics and the ways these topics have paralleled the academic and professional interests of the architecture faculty.

For students admitted to the academic/research program at the master’s level in architecture in Lawrence, a total of 36 credit hours of course work is required. Each student must enroll in a 3-hour course dealing with research methods.

In addition to the core courses, each student must complete a minimum of 15 graduate credit hours in a concentration. With the consent of the student’s advisor and the approval of the graduate studies committee, the student may take a maximum of 12 hours of graduate credit in course work outside the School of Architecture, Design and Planning. 6 hours in the 36-hour course of study are composed of course work in which the student prepares a written project or thesis, or in additional course work in the student’s concentration to prepare for a final written examination.

Graduate Admission

Regardless of background or career goals, a person whose previous records indicate the ability to succeed with advanced work may be admitted to one of the graduate programs. Admission requires a bachelor’s degree and a grade-point average of 3.0 from KU or another accredited institution or foreign university with substantially equivalent requirements for the bachelor’s degree. The academic background is reviewed before a student without a bachelor’s degree is admitted as a degree-seeking graduate student at KU. A complete application for admission consists of the following materials:

1. Graduate application (http://www.graduate.ku.edu);
2. One unofficial transcript where the undergraduate degree is confirmed and one copy of the transcript where any graduate degree/credit was earned (if applicable);
3. Three letters of recommendation from persons qualified to comment on the applicant’s intellectual abilities and probable success in graduate study;
4. Application fee, nonrefundable check or money order payable to the University of Kansas (See Admission in the Graduate Studies section of the online catalog for further information);
5. Evidence of language proficiency if the native tongue is not English, including
   a. A degree from an English-language college or university or
   b. Receipt of official copy of applicant’s proficiency scores achieved not more than 2 years before the semester of admission:
      - IELTS scores: minimum overall score 6.5 with no part score below 6.0
      - TOEFL scores (iBT): all part scores at least 23
      - TOEFL scores (paper): all part scores at least 57 and essay score of at least 5;
6. A statement of interest indicating the applicant’s career goals and the relationship of these goals to the specific option chosen (Those seeking advanced placement in the M.Arch. program should make this clear in this statement.);
7. Graduate Record Examination (GRE) test results.
8. For international students, a financial statement showing minimum financial support for the first year of study (see the admissions page on the school’s website (http://www.sadp.ku.edu)).

Submit your graduate application and upload all application materials online (http://www.graduate.ku.edu). Please contact the Admissions Coordinator if you have any questions:

The University of Kansas  
Department of Architecture  
Marvin Hall  
1465 Jayhawk Blvd., Room 206  
Lawrence, KS 66045-7626

Be sure to check the school’s website (http://www.sadp.ku.edu) for updates to the admission process or requirements.

Following is a selected list of recently offered courses in each of the 4 concentrations. Students should consult the most current course listing of the architecture department to determine which courses will be offered each semester.

History/Theory
- Architectural History
- History of Urban Design
- Space and Poverty
- Theorizing Vernacular Architecture
- 20th Century American Landscapes

Technology/Practice
- Design Thinking
- Electro-Acoustics
- Facility Management: Tools & Techniques
- Graduate Seminar in Environmental Systems
- Integrated Materials, Structures, and Systems
- Visualizing Airflow

Design/Methods
- Computer Applications
- Building Information Modeling

- Portfolio Development
- Architectural Morphology
- Geographical Information Systems

Urban/Social Issues
- Architecture of Health
- Environmental Psychology of Health & Wellbeing
- Healthy Buildings, Healthy Communities
- Homeplaces
- The Making of Place in an Aging Society
- Socialist Cities

Master of Arts in Architecture: Architectural Management Track

The post-professional M.A. in Architecture offers 2 distinct programs. The architectural management program is oriented to the administration and practice of architecture and related disciplines. It is offered on the KU Edwards Campus (http://edwardscampus.ku.edu) in Overland Park. Classes in this program are intended to

1. Provide students with the skills and knowledge necessary to become effective participants in the management of a design organization;
2. Provide information about the management of planning, design, and construction projects; and
3. Expose students to management issues facing the design professions.

The curriculum draws on the disciplines of business management, planning, computer science, law, and architecture to expose students to fundamental concepts of management as they relate to the business of architecture. A total of 36 credit hours of course work is required. The curriculum consists of required courses in Financial and Economic Issues, Organizational Issues, Project Delivery, Law and the Design Professions, Marketing, and Contemporary Issues in Architectural Management. Students may enroll in 9 to 12 hours of graduate credit outside the required courses in the architectural management curriculum. Three to six hours in the 36-hour course of study are fulfilled in the preparation of a written project or thesis, or in additional course work in an area of management to prepare for a final written examination.

Graduate Admission

KU Edwards Campus

The architectural management post-professional program is offered on the KU Edwards Campus (http://edwardscampus.ku.edu) in Kansas City. This course of study focuses on management issues in the practice of architecture. It is designed for working professionals and structured to be completed on a part-time basis.

Graduate Admission

Regardless of background or career goals, a person whose previous records indicate the ability to succeed with advanced work may be admitted to one of the graduate programs. Admission requires a bachelor's degree and a grade-point average of 3.0 from KU or another accredited institution or foreign university with substantially equivalent
The requirements for the bachelor’s degree. A complete application for admission consists of the following materials:

1. Graduate application (http://www.graduate.ku.edu).
2. One unofficial transcript where the undergraduate degree is confirmed and one copy of the transcript where any graduate degree/credit was earned (if applicable).
3. Three letters of recommendation from persons qualified to comment on the applicant’s intellectual abilities and probable success in graduate study.
4. Application fee, nonrefundable check or money order payable to the University of Kansas (See Admission in the Graduate Studies section of the online catalog for further information).
5. Evidence of language proficiency if the native tongue is not English, including
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   b. Receipt of official copy of applicant’s proficiency scores achieved not more than 2 years before the semester of admission: IELTS scores: minimum overall score 6.5 with no part score below 6.0; TOEFL scores (iBT): all part scores at least 23; TOEFL scores (paper): all part scores at least 57 and essay score of at least 5.
6. A statement of interest indicating the applicant’s career goals and the relationship of these goals to the Architectural Management track.
7. For international students, a financial statement showing minimum financial support for the first year of study (see the admissions page on the school’s website (http://www.sadp.ku.edu)).

Submit your graduate application and upload all application materials online (http://www.graduate.ku.edu). Please contact the Admissions Coordinator if you have any questions:

The University of Kansas
Department of Architecture
Marvin Hall
1465 Jayhawk Blvd., Room 206
Lawrence, KS 66045-7626

Be sure to check the school’s website (http://www.sadp.ku.edu) for updates to the admission process or requirements.

The Curriculum
The requirements for the degree comprise 36 credit hours, distributed as follows:

Contemporary Issues Seminars (3 credit hours)

These seminars consist of three to four guest lecturers each semester. All students enrolled in these courses attend the same lectures. Topics are selected to reflect current problems facing the design professions. Students typically enroll in ARCH 770 the first semester, ARCH 771 the second semester, and ARCH 772 the third semester. Students must complete all of the following:

ARCH 770 Contemporary Issues Seminar I (1)
ARCH 771 Contemporary Issues Seminar II (1)
ARCH 772 Contemporary Issues Seminar III (1)

Basic Architectural Management Classes (15 credit hours)

Students must complete all of the following:

ARCH 773 Financial and Economic Issues (3). Focuses on the Fundamentals of financial planning and budgeting for a design firm. Covers the development and implementation of a business plan and emphasizes the application of financial control techniques to the management of design organizations.

ARCH 774 Organizational Issues (3). Covers the organization of a professional practice, personnel management issues, and the development of effective communication skills. Case studies and class exercises are used to develop an understanding of the stages in the growth of an organization, the role of management in successful firms, and the responsibility of the individual in the organization.

ARCH 776 Project Delivery (3). Conventional methods for project delivery are reviewed, along with design-build, fast-track, and other approaches. Team building techniques and the relationship of the design professional to the development process are also explored. The effective management of time, project scheduling, and delegation of authority are covered.

ARCH 777 Marketing of Professional Services (3). Emphasizes the development and implementation of a marketing plan, techniques related to the marketing of specific types of projects, and the relationship of marketing to other components of a firm.

ARCH 778 Design Professional and the Law (3). Covers legal doctrines relating to owners, design professionals, and contractors. Also emphasizes sources of the law; forms of association and agency; contracts, duties and obligations of the design professional, owner and contractor; and related legal topics.

Electives (12-15 credit hours)
Students must complete 12 to 15 credit hours of elective course work dealing with related areas of management. These courses can include more specialized seminars and classes in Architectural Management that are offered periodically but are not part of the regular curriculum. Recently offered electives in Architectural Management include:

Advanced Marketing in Architecture
Architecture-Client Relations
Architect-Led Design-Build
Bidding and Estimating for Architects
Construction Management for Architects
Electronic Communications
Facilities Management: Tools and Techniques
Non-Traditional Careers in Architecture
Project Management Software

Classes can also be selected from other graduate programs such as Construction Management, Engineering Management, and Business Administration at the KU Edwards Campus, or they may be taken from appropriate graduate programs on the main campus in Lawrence. The Architectural Management Program may also accept up to 6 hours of graduate courses taken at another institution, depending on their applicability to the curriculum.

Completion Requirements (3-6 credit hours)
Students have two options to complete the program: a research project or a comprehensive examination.

Option 1: The Comprehensive Examination. Upon completion of the Contemporary Issues Seminars, the Basic Architectural Management Classes, and...
Elective Classes (12-15 credit hours), students may take a two-part comprehension of the core curriculum and understanding of an area of specialized knowledge developed through elective classes.

**Option 2: The Research Project.** The student enrolls in ARCH 706 Thesis or Project Definition (1 credit hour) and develops a proposal for a research project.

The proposal is submitted to a faculty adviser and committee for review. Once the proposal is accepted, the student may begin working on the project for credit.

Students may propose research related to current work experience or responsibilities, or they may choose to explore new areas of interest. The research project usually emphasizes the application of management techniques to the practice of architecture or design. Students receive up to 6 hours of credit for completing the research project option.

**Doctor of Philosophy in Architecture**

**Introduction**

Architecture is inherently an interdisciplinary field of study, integrating knowledge from art, science, and the humanities. As a method of practice, it is a complex, collaborative, professional activity aimed at improving the quality of life for people and the planet. The discipline requires creative, critical, agile, and integrative thinking. Architecture deals with highly complex problems and aims to solve them not only competently, but in a way that ennobles society. The curriculum responds to these considerations by offering a series of overlapping sequences in professional and academic course work.

The Ph.D. in Architecture educates students to become more valuable to society through academic, business, and government organizations that require greater artistic, scientific, and investigative skills. It offers candidates opportunities to develop and deepen their education in 3 important ways:

- Enhancing research and analytical skills with rigorous methods of inquiry and synthesis;
- Acquiring advanced knowledge specific to their area(s) of inquiry through comprehensive scholarly investigations and distinguished documentation; and
- Developing the ability to communicate knowledge in a clear and eloquent manner.

To realize this goal, the faculty has made a commitment to create, along with doctoral students, a climate in which scholarship and creativity can flourish. Underlying the advanced study of architecture at KU is an ethic regarding architectural inquiry and architectural practice; one that sustains the question, “What ought we do as architects and researchers to enhance the quality of life on this planet?” Examples of inquiry at KU that exemplify this underlying question are

- Progressive models of practice embracing evidence-based design and design-build practices;
- Affordable housing with a sensitive aesthetic;
- Material investigations to create more affordable and sustainable building practices;
- Rigorous evaluations of built artifacts to inform better design practice;
- Translation of empirical findings of person-place interaction research into design guidelines; and
- Critical perspectives on human settlement patterns.

Our research is founded on an ethical position. We are not involved in research simply to generate knowledge for its own sake but rather to improve the human condition through more thoughtful built form. The overall focus is on developing understanding that may inform the critical delivery processes by which humane architecture is created.

**Note:** Contact your department or program for more information about the Research and Skills and Responsible Scholarship requirement for doctoral students.

**Graduate Admission**

Regardless of background or career goals, a person whose previous records indicate the ability to succeed with advanced work may be admitted to the Ph.D., Architecture. Admission requires a bachelor’s degree and a grade-point average of 3.0 from KU or another accredited institution or foreign university with substantially equivalent requirements for the bachelor’s degree. The academic background is reviewed before a student without a bachelor’s degree is admitted as a degree-seeking graduate student at KU. A complete application for admission consists of the following materials:

1. Graduate application (http://www.graduate.ku.edu).
2. Curriculum Vitae or resume.
3. A statement of interest outlining reasons for pursuing the Ph.D. (not to exceed 1500 words).
4. 1 unofficial copy of the transcript where the undergraduate degree was confirmed and 1 copy of the transcript where any graduate degree/credit was earned.
5. 3 letters of recommendation from persons qualified to comment on the applicant’s intellectual abilities and probable success in graduate study.
6. Application fee, nonrefundable check or money order payable to the University of Kansas (See Admission in the Graduate Studies (p. 2059) section of the online catalog for further information).
7. Evidence of language proficiency if the native tongue is not English, including
   a. A degree from an English-language college or university or
   b. Receipt of official copy of applicant’s proficiency scores achieved not more than 2 years before the semester of admission:
      - IELTS scores: minimum overall score 6.5 with no part score below 6.0;
      - TOEFL scores (iBT): all part scores at least 23;
      - TOEFL scores (CBT): all part scores at least 23 and essay score of at least 5;
      - TOEFL scores (paper): all part scores at least 57 and essay score of at least 5,
8. One research-informed writing sample (example: published article, manuscript, report, thesis) (limited to 10 megabytes). Upload under “other documents.”
9. Exhibit of work illustrating the applicant’s interests and abilities in areas related to the design disciplines (limited to 10 megabytes, not zipped, in PDF format).
10. Graduate Record Examination (GRE) test results.
11. For international students, a financial statement showing minimum financial support for the first year of study (see the admissions page on the school’s website (http://www.sadp.ku.edu)).

Submit your graduate application and upload all application materials online (http://www.graduate.ku.edu). Please contact the Admissions Coordinator if you have any questions:

The University of Kansas
Department of Architecture
Marvin Hall
1465 Jayhawk Blvd., Room 206
Lawrence, KS 66045-7626

Be sure to check the school’s website (http://www.sadp.ku.edu) for updates to the admission process or requirements.

Ph.D. Degree Requirements

General Plan of Study

The Ph.D. in Architecture degree program is carefully crafted to allow students to engage in rewarding and potentially revolutionary scholarly investigation steeped in an atmosphere of rigorous academic pursuit. The 49-credit-hour curriculum is divided into three parts: foundation, concentrations, and advanced study. In the foundation, students must take the following courses:

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<td>ARCH 951</td>
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<td>Research Skills</td>
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<td>Advanced Methods</td>
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<td>ARCH 958</td>
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<td>ARCH 959</td>
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Concentrations are major (12 credit hours minimum) and minor (9 credit hours minimum) curricula developed by the student in concert with the major professor. The student becomes a candidate upon passing the comprehensive examination. As a candidate, the student enters the advanced studies portion of the curriculum and begins work on the dissertation. The student must be continuously enrolled, including summer sessions, until all requirements for the degree are completed. A minimum of 9 dissertation credit hours is required for the degree. What follows under “Degree Plan” is a sample plan of study.

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<td>ARCH 931</td>
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Graduate Certificate Program in Facilities Management

Overview

The graduate certificate in facilities management, based at the KU Edwards Campus (http://edwardscampus.ku.edu) in Overland Park, offers a structured program that addresses the graduate educational needs of facility managers. This 15-credit-hour program keeps practicing professional facility managers abreast of the most innovative developments in each area of facilities management and helps students acquire more specialized knowledge in areas important to their careers.

The curriculum consists of 15 hours of course work divided into 3 components: a required 3-credit-hour course on Facility Management: Issues and Overview; 9 hours of specialized 1-credit-hour workshops that cover trends and innovations in each of the principal knowledge areas identified by the International Facility Management Association; and a 3-credit-hour Capstone Seminar focused on solving multidisciplinary facility problems.

Admission

The graduate certificate in facility management program is offered on the KU Edwards Campus (http://edwardscampus.ku.edu) in Kansas City. This course of study focuses on management issues in the practice of facility management. It is designed for working professionals and structured to be completed on a part-time basis.

Regardless of background or career goals, a person whose previous records indicate the ability to succeed with advanced work may be admitted to the Graduate Certificate in Facility Management. Admission requires a bachelor’s degree and a grade-point average of 3.0 from KU or another accredited institution or foreign university with substantially equivalent requirements for the bachelor’s degree. A complete application for admission consists of the following materials:

1. Graduate application (http://www.graduate.ku.edu).
2. One unofficial transcript where the undergraduate degree is confirmed and one copy of the transcript where any graduate degree/credit was earned (if applicable).
3. Application fee, nonrefundable check or money order payable to the University of Kansas (See Admission in the Graduate Studies section of the online catalog for further information).
4. Evidence of language proficiency if the native tongue is not English, including...
a. A degree from an English-language college or university or
b. Receipt of official copy of applicant’s proficiency scores
achieved not more than 2 years before the semester of
admission:IELTS scores: minimum overall score 6.5 with no
part score below 6.0;
TOEFL scores (iBT): all part scores at least 23;
TOEFL scores (paper): all part scores at least 57 and essay
score of at least 5.

5. A statement of interest indicating the applicant’s career goals and
the relationship of these goals to the specific option chosen.

6. For international students, a financial statement showing minimum
financial support for the first year of study (see the admissions page
on the school’s website [http://www.sadp.ku.edu]).

Submit your graduate application and upload all application materials
online (http://www.sadp.ku.edu). Please contact the Admissions
Coordinator if you have any questions:

The University of Kansas
Department of Architecture
Marvin Hall
1465 Jayhawk Blvd., Room 206
Lawrence, KS 66045-7626

Be sure to check the school’s website (http://www.sadp.ku.edu) for
updates to the admission process or requirements.

Graduate Certificate Program in Facilities Management

The Curriculum

The 15 credits of course work that make up this program are divided into
three components: an Introduction, a Core of workshops, and a Capstone,
research-based seminar.

Component 1: Introduction to the Program (3 credits)

An introductory, 3-credit, semester-long class provides a starting point.
Focused on current issues and comprehensive in its coverage of the
various areas that are generally included within Facility Management, this
course helps to establish a common base of knowledge for participants
from the four groups mentioned above. It provides a useful context for
the highly focused technical workshops that constitute the Core of the
program. This common introductory course is described as follows.

Facility Management: Issues and Overview (3 credits).

This class is designed to cover emerging issues that are affecting
the practice of Facility Management (globalism, increased security
concerns, breakthroughs in building technologies, etc.) and how they
influence the critical areas of Facility Management, such as planning,
project management, business procedures, and facility operation and
maintenance. The course runs an entire semester with 15 three-hour
sessions, each meeting one evening per week at the Edwards Campus.
The class involves numerous guest speakers and students are assigned
readings, team-based projects, and other directed learning activities.

Component 2: The Core of the Program (9 credits)

Individuals in this program will already have varying degrees of
experience in the management of facilities. As noted above, some
will have general business backgrounds while others may have more
specialized training in engineering or architecture and others might be
more proficient in construction, interior design or safety and security
issues. To accommodate these differences in training, background and
experience and to allow for constant updating of the more specialized
content of this program, the central or Core component of the curriculum
consists of 9 different categories of workshops, each of which addresses
important topics within one of the principal knowledge areas that make up
a standard Facility Management degree.

Because students in the program have experience in Facility
Management, they are not required to cover all 9 of the different topical
workshops. Instead, they may select a mix of workshops that meet their
own specific needs and even substitute other appropriate graduate-level
classes in order to meet the 9-credit Core requirement.

Two or three of these one-credit, five-week workshops are offered each
semester. The entire set of 9 workshops is offered over a four-semester
period and the cycle is repeated every two years. The focus or subject
matter of the workshops in each of the 9 categories may change each
time they are offered, depending upon the recommendations of the
program’s professional advisory committee, faculty availability and
expertise, and student demand. The goal of each workshop is to build
upon basic practical knowledge within each category and to address
specific Facility Management challenges, practices and problems that are
affected by emerging issues in the profession. For example, Workshop
G: Planning and Project Management could cover methods of forecasting
and managing space usage the first time it is offered and, the next time
it is taught, it might focus on new software packages that are useful in
managing small internal construction projects. The idea is to craft each of
the workshops to current topics and local demand.

The nine categories of topical workshops are listed below.

Workshop A: Operational and Maintenance Issues (1 credit).
This workshop may cover topics related to:
1) life safety and security issues and crisis management;
2) building systems and maintenance assessment; and
3) building information modeling, computer-aided facility maintenance.

Workshop B: Business Issues (1 credit).
This workshop may cover topics related to:
1) organizational issues for facility managers;
2) human resources issues; and
3) risk management, contracts and other legal issues.

Workshop C: Real Estate and Property Issues (1 credit).
This workshop may cover topics related to:
1) site planning, analysis and selection;
2) real estate development and planning; and
3) master planning.

Workshop D: Financial Issues (1 credit).
This workshop may cover topics related to:
1) financial analysis of facility decisions (e.g., life cycle costing, etc.);
2) budgeting procedures and techniques for facilities offices; and
3) constructing and implementing a business plan for facilities.

Workshop E: Human and Environmental Factors (1 credit).
This workshop may cover topics related to:
1) the impact of facilities/environments on individual and group
performance, behavior and satisfaction;
2) environmental health and safety issues, regulation and liability; and
3) facility needs of diverse user groups.
Workshop F: Facility Assessment (1 credit).
This workshop may cover topics related to:
1) the application of research skills in solving facility problems;
2) post-occupancy facility evaluation; and
3) presentation, interpretation and evaluation of research/assessment results.

Workshop G: Planning and Project Management (1 credit).
This workshop may cover topics related to:
1) general project management procedures, issues and software;
2) facility documentation, inventory, forecasting and programming; and
3) linking facility plans to larger business plans.

Workshop H: Communication Techniques (1 credit).
This workshop may cover topics related to:
1) effective personal and professional communication skills;
2) the use of current electronic communication media; and
3) interpersonal communication, conflict resolution and group communication.

Workshop I: Technological Innovation (1 credit).
This workshop may cover topics related to:
1) recent advances in intelligent building systems;
2) the achievement of sustainability through intelligent building systems and appropriate building materials; and
3) the promotion of health and wellness through design and technological innovation.

Component 3: The Culmination of the Program (3 credits)

Following or concurrent with the completion of the Core workshop requirement, participants in the program will complete a Capstone Seminar in which they will have an opportunity to use, in a highly integrated and very practical fashion, the knowledge, methods and techniques covered in the Introduction and Core of the program.

Capstone Seminar: Solving Facility Problems (3 credits)
This final class is led by an instructor who will work with each participant to identify, focus and carry out a contained individualized project that uses information, most likely collected from the student’s place of employment, to solve a facility problem using the formal methods, strategies and knowledge covered in the Core of the program. The product will be a professional report, presented within the seminar. In some cases, these integrative capstone research projects might be carried out by teams, particularly if they have a high degree of complexity and a significant breadth of managerial and planning issues.

Additional Available Courses
A variety of other courses closely related to the Core workshops listed above are offered regularly on the Lawrence Campus and, through various graduate programs, at the Edwards Campus. Each semester, the School of Architecture and Urban Planning schedules a dozen or more elective classes, many of which carry graduate credit and focus on such topics as Intelligent Building Systems, Laboratory Design, Lighting Systems, Building Acoustics, Power Systems and the like. Some of these courses are also offered in the evening. Students may request to substitute courses such as these, where appropriate, for Core workshop credits in the Graduate Certificate Program in Facility Management. Similarly, a number of classes are offered each semester in the Architectural Management program at the Edwards Campus including courses in Project Management, Legal Issues, Financial Management, Construction Management, Construction Bidding and Estimating, and the like. These classes may also be substituted for Core workshop credits in the Certificate Program, where appropriate and with permission. Other Edwards Campus classes in graduate programs ranging from Engineering Management to Communications and Public Administration may also be available on a permission basis and may be substituted for Certificate Program requirements, if appropriate.

Please Note: The Office of Graduate Studies at the University of Kansas does not allow courses taken at other institutions to be applied toward the requirements of a graduate certificate program.

Department of Design

Introduction
The Department of Design advances the professional work of thoughtful, creative, and meaningful design to delight, inspire, and serve the needs of people. Design is the planning that lays the basis for creation and development of every object or system people use. Design programs train students to be problem solvers who consider the aesthetic, functional, and user-focused aspects of an object or a process. This requires considerable integrative research, thought, modeling, interactive adjustments, and redesign.

KU is an accredited institutional member of the National Association of Schools of Art and Design (http://nasad.arts-accredit.org). The entrance and graduation requirements in this catalog conform to the published guidelines of that organization.

Undergraduate Programs
The department offers a professional B.F.A. degree program with concentrations in
- Environmental Design,
- Illustration and Animation,
- Industrial Design,
- Photo Media,
- Visual Communication Design.

Courses for Nonmajors
Students in other KU schools may enroll in design courses for credit, subject to the availability of classroom space, with the permission of the instructor of the course.

Course Policies
To get the most out of the courses and grow as a young designer, students need to approach the course work with a serious attitude and a willingness to work beyond just doing what is asked. Design is a very competitive and challenging profession, but for those who find a way to be engaged with the work and enjoy being challenged, the demands are well worth meeting and the rewards are truly fulfilling. Courses are taught with this philosophy as a backdrop. Students are expected to commit themselves and to work hard, every day, not just for better grades, but for the enjoyment that the work brings and the creative growth and skill development that comes with it.

Attendance
Students are required to attend class. Please be in class on time and remain for the entire period. Attendance will be taken at the beginning of each class period. Three “late” marks will equal one absence. Leaving
class early will be counted the same as arriving late. A total of 3 absences will be allowed for any reason. More than 3 absences will be grounds for being dropped from the course. If it is necessary for you to be absent more than 3 classes for any reason, including medical condition, you are advised to withdraw from the class.

In the event of any absence, students are still responsible for obtaining all information and materials from the class period and completing all assignments on time. It is your sole responsibility to find out about any new work assigned during your absence.

Religious Holidays
If any scheduled course meeting conflicts with mandated religious observance, the student must notify the instructor prior to the day of the observance that the student will be absent.

Expected Workload
Throughout the semester students are required to work a minimum of 3 hours of homework per credit hour per week outside of class on their projects (3 hour studio will have a minimum of 9 hours of homework per week). Many students will find that they will need to spend even more time per week to complete the work.

Students should be aware that not all project work can be done at home or at their convenience. They should also be aware that expecting to work a full-time or near full-time job (over 20 hrs. per week) will most likely have a negative impact on their performance and grade. Studio course projects require a great deal of time in order to develop and complete. It is very difficult to try and balance both a full-time job and a full load of studio classes.

Participation
Design does not happen in a vacuum. Clear verbal skills are important in communicating ideas to clients and design team members. For all critiques, students are expected to come prepared to present their concepts, discuss how the form of their design supports their concept, and describe how they arrived at their ideas. Providing comments to their peers is a privilege. Students will benefit from both giving and receiving feedback—students do not have to “like” another’s work, but they must provide insightful commentary in a courteous and productive manner.

Students are required to turn their mobile phones to silent and refrain from surfing the web, updating their Facebook page (or any social media), checking email, text messaging, etc. during class, lectures, and demos. Students may use these devices only during designated break times.

Professionalism
Lack of professionalism can effect a student’s grade and could lower their grade by one full letter grade.

• attend class on time and stay throughout the whole class period
• prepare for every class
• participate in classroom discussions and critiques
• maintain a positive and open-minded attitude
• demonstrate deliberate self-disciplined and timely work habits
• progressively strive for and achieve the highest standards of quality

Plagiarism
If a student tries to copy someone’s work or take someone’s idea and pass it off as their own they will suffer the penalties as outlined in the KU Student Code of Rights and Responsibilities.

All work that students hand in for a course must be made and created by them, over the course of this semester, exclusively for the course in question.

Academic Conduct
Students should adhere to the rules as listed in the Student Disruptive Conduct policy as found in the student handbook (http://www.studenthandbook.ku.edu/codes.shtml).

Disabilities (ADA)
The Academic Achievement and Access Center (AAAC) coordinates academic accommodations and services for all eligible KU students with disabilities. If you have a disability for which you wish to request accommodations and have not contacted the AAAC, please do so as soon as soon as possible. They are located in 22 Strong Hall and can be reached at 785-864-4064 (V/TTY). Information about their services can be found at http://www.disability.ku.edu. Please contact the instructor privately in regard to your needs in the course.

Late Projects
All projects and assignments are due on the date set by the instructor. All projects are due at the start of class. Late projects will be penalized by lowering the project grade by one full letter grade for each day that it is late. After three days, late projects will no longer be accepted and a grade of F will be assigned.

Grade Requirements
If a course is required under the majors studies section on the degree check sheet students must receive a grade of C (2.0) or better to continue on to the next course in the sequence. A grade of C- (1.7) or lower will require them to repeat this course. In most cases these courses are only offered once a year. Students in the Department of Design must maintain a cumulative 2.0 GPA to graduate with a degree in Design.

Graduate Programs
The department offers the following graduate degree programs:

• Master of Arts (M.A.) in Design with a concentration in Design Management
• Master of Arts (M.A.) in Design with a concentration in Environmental Design
• Master of Arts (M.A.) in Design with a concentration in Interaction Design

Please visit the Graduate Studies (http://www.graduate.ku.edu) website for more information.

Courses
ADS 320. Hallmark Symposium Series. 1 Hour.
Visiting professionals discuss various aspects of Design based upon their own special areas of expertise. The series is mandatory for all Design majors. Design majors must repeat this course at least 4 times for a total of 4 credit hours for graduation. Graded on a satisfactory/unsatisfactory basis. Open to all University wide students. LEC.
ADS 340. History and Philosophy of Design. 3 Hours.
Survey of design history from 1800 to present with emphasis on graphics, architecture, industrial and interior design movements, individuals and their influences. Prerequisite: BDS 102. LEC.

ADS 530. Intra Design Problems: ______. 3 Hours.
A collaborative studio across all Design Department areas of study. Students of the different areas will be organized into work groups and conduct in-depth research, investigate new problem solving methodologies, develop new applications and working knowledge of specialized subjects. Prerequisite: Junior level or higher standing in Design or Architecture or permission of the instructor. LAB.

ADS 531. Internship. 3 Hours.
Students develop professional skills and problems solving with an applied and relevant design employer's office. Supervision by faculty and a professional designer, designated and approved by the faculty in the area is mandatory. Graded on a Satisfactory/Unsatisfactory basis. May be repeated twice for credit. Prerequisite: Junior level or higher standing in the Design Department. FLD.

ADS 532. Study Abroad: ______. 3 Hours.
Students will participate in a Design focused study abroad program. The student will be required to attend group meetings prior to the trip along with development of research topics of interest. Simple documentation would be required - sketchbook/journal responding to day-to-day itinerary and other events, following the trip and presented for a grade. Prerequisite: Junior level or higher standing in Design or with permission of the instructor. Corequisite: ADS 533. LAB.

ADS 533. Study Abroad Documentation. 3 Hours.
Consists of research work prior to the trip as well as follow-up and required studio work due after return. A portfolio of work will be required for a grade. Course will also fulfill Design-specific requirements or studio credits for other majors. Areas may designate specific Design courses as substitutions for this course. Prerequisite: Junior level or higher standing in Design or with permission of the instructor. Corequisite: ADS 533. LAB.

ADS 560. Topics in Design: ______. 3 Hours.
A study of different topics in different semesters in a special area of interest to a staff member and suitable qualified students. May be repeated for credit. Prerequisite: Junior standing in department or permission of instructor. LAB.

ADS 570. Design Seminar. 3 Hours.
Comprehensive examination of a complex design problem from the point of view of the various specializations. Prerequisite: Junior standing in department. LEC.

ADS 580. Special Problems in Design. 1-6 Hours.
A study of current problems in design or crafts with an emphasis on research. Special problems proposals must be discussed with and approved by the instructor and advisor prior to enrollment in the course. A student may not take more than six credit hours of special problems in any one semester. Prerequisite: Junior standing in department. IND.

ADS 710. Advanced Human Factors in Interaction Design. 3 Hours.
The study of human factors principles and guidelines are fundamental to interaction design. In this course, these principles will be illustrated and applied to real-world design projects/problems. Human physical and cognitive capabilities, computer-human interface and systems properties, interaction design methods, and the physical and socio-cultural environment will be considered. Fundamental issues in human-centered systems, basic research methods, including statistics and literature searches, will be included. Open to all university students. Graduate students will meet concurrently with INDD 510 and receive additional coursework. LEC.

ADS 712. Design Strategies and Methods. 3 Hours.
This course will cover the principles of design thinking, design processes, design strategies and methods, including techniques and tools for the development of human-technology interfaces. Abstract through concrete representation methods and techniques will be applied to interaction design projects/problems. Information collection and analysis methods, scenario and prototyping methods, evaluation methods (empirical), creativity methods, and task-oriented method (non-empirical) will also be considered. Methods common to design-related disciplines in the social sciences, business, architecture, communication studies and engineering are integrated. Graduate students will meet concurrently with INDD 512 and receive additional work. Prerequisite: Consent of instructor for all non-design students. LEC.

ADS 714. Designing Business Services and Consumer Experiences. 3 Hours.
Business products, services and environments are often intermingled in ways that require more holistic ways of thinking and development. A challenge of service innovation is to design with an understanding of the many dimensions of human experience and satisfaction. This course elaborates how, where, when, and why design can enhance the value of business services. Theory, methods, and practice aspects of services design are presented. LEC.

ADS 720. Graduate Seminar in Design. 1 Hour.
Comparative studies of various areas of specialization in design. Repeat for credit to a maximum of six credit hours. LEC.

ADS 730. Directed Reading in Design. 1-3 Hours.
Research reading and presentation of reports on specific subjects related to the students major area of specialization. Required of all graduate students. RSH.

ADS 740. Special Problems in Design. 1-6 Hours.
An in-depth study of current problems in design or crafts with an emphasis on research. Special problems proposals must be discussed with and approved by the instructor and graduate advisor prior to enrollment in the course. RSH.

ADS 745. Branding and Design. 3 Hours.
A rapidly changing marketplace demands business strategy that is rooted in the dynamics of human culture, society, and psychology. Design thinking directly engages such factors and is, thus, well suited to help organizations formulate effective, versatile and strategic brands. This class focuses on strategic design analysis as a means to promote innovation in core brand development and extension into new applications and product categories. By aligning design with engineering, marketing, advertising, packaging, and service, business can innovate new sources of market value and deliver a more powerful brand messages. Prerequisite: Consent of instructor for all non-design students. LEC.

ADS 750. Design Management. 3 Hours.
Design Management has been described as "applied innovation" or the methodical capturing of talent and resources available inside and outside an organization to create valuable new offerings, brands, and business models. This course explores the design functions in business as a means to solve difficult challenges and develop new market-facing opportunities. Subjects include brand value creation, differentiation, coordination, and transformation. Numerous cases will be discussed. LEC.

ADS 751. Creating Design Scenarios and Simulations. 3 Hours.
Most organizations are imaginatively challenged and experience difficulty innovating and marketing new concept offerings. Conventional methods spotting and validating new opportunities often lack the persuasive power necessary for change to occur. Scenario-based design and simulation
offers ways to vividly representing a future that is different from the past. This course presents theory, methods and practice aspects of design scenario construction and simulation. LEC.

ADS 760. Design and Strategic Innovation. 3 Hours.
As companies struggle with the demands of increasing consumer, intense competition and downward price pressures, there is a corresponding increase in the demand for more innovative business models and highervalue offerings. These forces have significantly broadened the strategic scope of design. Advanced, multi-disciplinary design teams are being engaged early to help guide new business and product development efforts. Why, where, when, and how this is done in order to deliver on the promise of innovation is the subject of this course. Prerequisite: ADS 750 or with consent of instructor. LEC.

ADS 765. Interaction Design. 3 Hours.
Interaction Design is about creating products, services or environments that offer significant experiential value to people and economic value to organizations. This course engages the comprehensive subject of design for human experience. Building on the gamut of human factors and design methods knowledge, this offers hands-on experience in the research, analysis, modeling and simulation of original and experientially compelling design solutions. Prerequisite: ADS 710, ADS 712 or with consent of instructor. LEC.

ADS 770. Design Cognition. 3 Hours.
In a science of design, the study of “human designers” is as important as the study of designed artifacts or design tools. Since the beginning of research in Design Cognition, many empirical studies have opened up our understanding of human designers and the ways they design. While design is largely a mental activity, it interacts strongly with heterogeneous external representations. It encompasses problem definition and solving, analogical mappings, mental imaging and other mental processes. It requires team coordination and is situated in a cultural milieu that defines roles and modes of behavior. As such, distributed cognition, situated cognition, and social cognition - all have become relevant to the understanding of design cognition. The structure of a design task, the mental representation of design form and behavior, the structure of design teams, and the associated concepts of design cognition will be the subject of the course. LEC.

ADS 810. Orientation Seminar. 1 Hour.
Studies directed to development of a thesis plan. Required of all graduate students. Offered in fall semester only. Graded S or F. LEC.

ADS 850. Studio Teaching Practice. 1 Hour.
Graduate students only. Must hold an assistant instructor or teaching appointment. Credit earned does not satisfy any credit requirement for a degree. Graded S or U. FLF.

ADS 860. Graduate Synthesis and Applications Seminar. 1 Hour.
Group discussion and presentations on timely industry topics. Topics will be substantial, bridging relevant program subjects and professional area boundaries. May be repeated for up to six credit hours in subsequent semesters. LEC.

ADS 861. Thesis Research Seminar. 1 Hour.
Approaches to producing original design research. Methods, resources, topics and projects are discussed and evaluated. May be repeated for up to six credit hours in subsequent semesters. LEC.

ADS 890. Thesis. 1-8 Hours.
For guidance refer to Design department graduate guidelines. THE.

BDS 100. Design Dialogues. 3 Hours.
Design, like almost every industry, profession, school or major on campus, is forever being changed by technology, it's reach, global access, and social innovation. From the basics of how to think like a designer or how to design a better presentation in powerpoint to how design can be situated in businesses and organizations to create innovative new products, services or social change. This course will give students an awareness of design in our everyday world; an understanding of some of the cultural, theoretical, conceptual, and practical issues related to design and designing. The ultimate goal is that by the end of this course students will know how design contributes to contemporary society and how they might use this understanding throughout their life in little and big ways. Open to all majors. Corequisite: BDS 102 (for Design majors only). LEC.

BDS 101. Design Thinking and Making I. 3 Hours.
This is a course for all Design Department majors, to introduce them to creative problem solving; and the fundamentals of two, three and four-dimensional design. Drawing, photography, 2D and 3D models are used in this course as a means of design thinking to visually represent problems and solutions. Students must receive at least a grade of C- (1.7) in this course to continue in the Design program. Prerequisite: Must be admitted into the Design Department or receive instructor permission. Corequisite: BDS 103. LAB.

BDS 102. Design Thinking and Making II. 3 Hours.
This is a course for all Design Department majors and serves as a continuation of BDS 101 with a greater emphasis on examining the relationships between design and other systems: environment, society and culture, and technology and economics. One and a half hours of lecture and six hours of studio-lab per week. Students must receive at least a grade of C- (1.7) in this course to continue in their Design program. Prerequisite: Must be admitted into the Design Department and have completed BDS 101 and BDS 103 with at least a grade of C- (1.7) or equivalent course work, or receive instructor permission. LAB.

BDS 103. Drawing for Design. 3 Hours.
This course will focus on drawing as a tool of communication through freehand exercises that explore observation and perception, form and proportion, dimensional illusion and expressive characteristics using a variety of materials and media. Some identified sections of this course will also use two-and three-dimensional modeling software. Students must receive at least a grade of C- (1.7) in this course to continue in their Design program. Prerequisite: Must be admitted into the Design Department or receive instructor permission. Corequisite: BDS 101. LAB.

ENVD 200. Fundamentals of Environmental Design. 3 Hours.
Introduction to fundamentals and processes involved in developing design concepts in the unit scale interior environment that may include residential or small scale commercial spaces. The studio focuses on developing design vocabulary, graphic representations, space planning, furniture and furnishings. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C- (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 102 and ENVD 202. Corequisite: ENVD 203. Prerequisite or corequisite: ENVD 212. or permission of instructor. LAB.

ENVD 203. Materials and Sustainability. 3 Hours.
Study and analyze building materials, furniture and furnishings through investigation into their physical and technical characteristics, limitations, and applications. The course also introduces the sustainability issues that relate to the selections and specifications that impact the environment, energy use and limited resources. It covers various agencies and organizations that develop guidelines on materials, resources, building practices, processes and systems that support sustainable design. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C- (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 102
and ENVD 202. Corequisite: ENVD 200 or permission of the instructor. LAB.

ENVD 204. Fundamentals of Interior Design. 3 Hours.
This first interior design studio will introduce the principles and elements of interior design, including design composition, space planning, furniture layout, color, and finish materials. It will also provide the direction and opportunity for the student to apply basic design and drawing skills developed in the Foundation courses to meet project program requirements in a series of projects of increasing complexity. Students will be expected to produce process diagrams, plans, elevations, models and finish boards. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 102 and BDS 103 or permission of instructor. Corequisite: ENVD 212. or permission of instructor. LAB LAB.

ENVD 212. Drawing for Environmental Design. 3 Hours.
Introduction to visualization tools in applications to interior environments using freehand sketching and computer aided design. The class focuses on vocabulary and theories of different drawing systems and develops basic CAD skills using Autocad and related software to generate 3D digital modeling, scene descriptions and view manipulations. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 102 and BDS 103 or permission of instructor. LAB.

ENVD 304. Environmental Topics. 3 Hours.
This studio focuses on topics that relate to specific environments that may include retailing, hospitality, health care, restaurants, or work space strategies in offices. Students conduct research, explore ideas and generate concepts at a more complex scale level. Emphasis will be placed on understanding of users' operational needs, company brand or image, adjacencies, spatial analyses, understanding of material and their applications, environmental factors, codes and regulations that impact the planning and selections. Related issues include lighting, furniture systems analysis and their applications, and custom casework design. Depending on availability, studio may work with other studio in Architecture or other discipline within the department on joint projects. This class may be repeated for credit. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ENVD 200 or permission of instructor. LAB.

ENVD 305. Research and Programming. 3 Hours.
Examine and analyzing essential information necessary to determine the clients’ present and future operational requirements and the space, facilities, and services required for support. Establishing pre-planning concepts and guidelines on building and space utilization. Effort is directed toward developing space into a functional, flexible, and aesthetic environment in which to work. Study includes the use of questionnaires, organization charts, space study and standards, space projections, space tabulations, and space distribution using interaction, blocking, and layering diagrams. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ENVD 200, ENVD 304 and MATH 101 or permission of instructor. LAB.

ENVD 408. Integrated Senior Problems I. 3 Hours.
This class provides individual students with the opportunity to develop a project of choice based on the individual’s interest and design philosophy and incorporates the skills acquired from the integrated curriculum. Students will conduct initial research and data collection to develop a program that includes the schematic and preliminary design development. Projects may include corporate offices, retailing, health care, hospitality and restaurants, exhibitions, residential design, or specialty interior products. Effort will focus on the investigation of a component within a large or complex project. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ENVD 304 and ENVD 305. LAB.

ENVD 410. Integrated Senior Problems II and Specification. 3 Hours.
A continuation of ENVD 408 that focuses on further design development leading to final design solutions and explores in detail the design of the total environment. The use of materials and their limitations, sustainability, environmental factors, technology, graphics and signage, custom design casework and interior products, applicable codes and standards, budget, and construction document production are all part of the investigations. Final results may include a set of drawings, working drawings, detail drawings, 4D models and/or multi-media presentations. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ENVD 408. LAB.

ENVD 413. Portfolio and Professional Practice. 3 Hours.
There are two different components to this class. The first is to develop the student’s graduating portfolio that relates to the individual’s professional interest. The second is the standards associated with the professional practice of a design office including office personnel and organization, scheduling, fee structures, contracts, billing, marketing and professional ethics. The course will include lectures, guest speakers, and field trips. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ENVD 304 and ENVD 305. LAB.

ENVD 715. Interior Design. 2-6 Hours.
Individual research. Prerequisite: INTD 606 or equivalent. RSH.

ENVD 815. Interior Design. 2-6 Hours.
Continuation of INTD 715. RSH.

ILLU 205. Drawing Media for Illustration. 3 Hours.
Exploration of problems in drawing for various reproduction processes. Emphasis on perspective, head drawing, the clothed and nude figure, nature illustration, perspective, and environments. Various drawing media and materials are explored. Required for Illustration majors as a pre-review course. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 101 or permission of instructor. LAB.

ILLU 305. Image Making. 3 Hours.
Concentrated study in developing methodologies for producing contemporary illustration. Emphasis is placed on concept development, composition exploration, value and color studies, and reference creation. Required for Illustration majors as a pre-review course. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 102. LAB.

ILLU 315. Introduction to Illustration. 3 Hours.
Concentrated study in developing skills and techniques with media and materials that are employed in producing contemporary illustration. Continued emphasis on methods of research and idea generation. For majors only. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C+ (2.3)
or higher to continue on to the next course in the sequence. Prerequisite: ILLU 305 and/or permission of instructor. Corequisite: ILLU 405. LAB.

ILLU 405. Drawing Media for Illustration II. 3 Hours.
Students will explore various drawing and painting media to continue developing their mastery of representational imagery for illustration. Reference collecting, model making, and the creating of photographic reference material will be addressed. Emphasis on mark making, value and color relationships, and placing the figure in an environment is also covered. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ILLU 205 or permission of instructor. Corequisite: ILLU 315 or permission of instructor. LAB.

ILLU 410. Fundamentals of Animation. 4 Hours.
Concentrated study in developing skills and techniques with digital media and materials employed in producing basic contemporary animation. Development of concept, script, storyboard, and use of audio, music and sound effects are part of this animation experience. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ILLU 205 or permission of instructor. Corequisite: ILLU 405 or permission of instructor. LAB.

ILLU 415. Illustration Concepts. 3 Hours.
Focus of this course is to learn how to think visually. Concentrated study on developing different forms of concepts for illustration. Continued development of technical skills and visual literacy to gain insight on how to make images that communicate unique ideas clearly. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ILLU 305 and ILLU 405 or/and permission of instructor. Corequisite: ILLU 415. LAB.

ILLU 425. Concept Art. 3 Hours.
Introductory exploration of the process, skills and concepts necessary for successful concept art character design and effective blending of matte painting and film. Drawing will be of primary concern for this course, yet exploring digital means of character development will also be introduced. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ILLU 410 and ILLU 415 or/and permission of instructor. Corequisite: ILLU 435. LAB.

ILLU 435. Sequential and Narrative Illustration. 4 Hours.
Exploration of thematic illustration through the development of a series of images based on a topic or story. Aspects of continuity, consistency, storytelling, pacing, editing, packaging and a holistic method of developing illustration are addressed. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ILLU 415 and ILLU 410. Corequisite: ILLU 425. LAB.

ILLU 445. Advanced Concept Art. 3 Hours.
Continuation in exploration of the process, skills and concepts for successful concept art character design, along with continued development of digital characters and 3D modeling. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ILLU 425 and ILLU 435 or/and permission of instructor. LAB.

ILLU 510. Animation. 3 Hours.
Continued development of concepts, scripts, storyboards, and use of audio, music and sound effects in the production of a one to three minute animated film. Prerequisite: ILLU 410 or permission of instructor. LAB.

ILLU 535. Promotion and Marketing for Illustration. 4 Hours.
Focus will be on preparation for entering the profession. Development and completion of a self-promotion and marketing package will supplement and support the senior portfolio. Contemporary business practices and legal issues will be addressed. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: ILLU 445. LAB.

ILLU 703. Illustration. 3-6 Hours.
LAB.

ILLU 825. Illustration. 2-6 Hours.
Individual research. RSH.

INDD 212. Drawing for Industrial Design. 3 Hours.
This course will focus on drawing as a tool of communication through a variety of exercises that explore observation and perception, form and proportion, dimensional illusion and expressive characteristics using a variety of materials and media. This course will also use two- and three-dimensional modeling software necessary for all Industrial Designers. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 101 and BDS 103. Corequisite: BDS 102. LAB.

INDD 284. Basic Industrial Design Studio. 3 Hours.
Course introduces tools, techniques and processes used in the professional practice of Industrial Design. Learning is through a series of short, focused projects. Techniques in drawing, computer modeling, physical modeling, and presentation are demonstrated and developed. Strategies to improve creativity are explored, while addressing market and production considerations. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 102 and INDD 212. LAB.

INDD 302. Intermediate Industrial Design Studio. 3 Hours.
Course introduces tools, techniques and processes used in the professional practice of Industrial Design. Learning is through a series of short, focused projects. Techniques in drawing, computer modeling, physical modeling, and presentation are demonstrated and developed. Strategies to improve creativity are explored, while addressing market and production considerations. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: INDD 284. LAB.

INDD 378. Problems in Industrial Design: ______. 3 Hours.
Individual and/or group research projects in one of several specific design areas which will be identified on a semester by semester basis. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. May be repeated for credit. Prerequisite: Eligibility for INDD 302 or permission of instructor. LAB.

INDD 446. Advanced Industrial Design Studio. 3 Hours.
Continuation of INDD 284 and 302 but encompassing design problems of greater complexity including group research and problem solving assignments in advanced product and service design. Advanced techniques in problem solving, concept communication, visualization,
and overall design expression will be demonstrated and explored. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: INDD 446. LAB.

**INDD 448. Professional Industrial Design Studio Practices. 3 Hours.**
Continuation of Industrial Design studios, projects are longer requiring a high level of demonstrated design ability for successful completion. Issues regarding professional ethics, accountability, and responsibility to public and client are discussed and implemented. Professional design, presentation, and visualization skills will be demonstrated and explored. Finished designs will include full production technical specifications. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: INDD 446. LAB.

**INDD 508. Materials and Processes. 3 Hours.**
A study of modern materials, manufacturing processes, and construction methods applicable to the fields of industrial design and interior design. Design analysis of existing products, furniture, building components, and storage systems. Design assignments in furniture, storage systems, and interior space arrangements with emphasis on materials and construction. Field trips to area manufacturing and design facilities. Prerequisite: Permission of instructor. LEC.

**INDD 510. Human Factors in Design. 3 Hours.**
Introduction to the field of human factors (ergonomics) appropriate to industrial, interior, and visual design. Human capabilities, human-machine interfaces and system properties, and the environment are considered, a micro-computer laboratory is integrated into the course. Open to all university students. Prerequisite: Consent of instructor for non-art and non-design majors. Corequisite: BDS 102. LEC.

**INDD 512. Methods in Design. 3 Hours.**
Introduction to the study of methods of designing common to industrial, interior, and visual design. Evaluation methods (semantic differential), creativity methods (scenario writing), and task-oriented method: (PERT/CPM) will be considered in relation to design problems. Open to non-design students. Prerequisite and/or Corequisite: INDD 302 for industrial design majors or ENVD 200 for environmental design majors respectively. Consent of instructor for all other students. LEC.

**INDD 555. Portfolio. 3 Hours.**
Work directed toward maximizing the quality and effectiveness of the individual student’s professional portfolio. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite or Corequisite: INDD 448. LEC.

**INDD 580. Senior Industrial Design Studio. 3 Hours.**
Course requires the accomplishment of a comprehensive, independent research, design, and development project appropriate to the field of industrial design, the depth and complexity of which are commensurate with expectations for entry-level professionals. The nature and scope of the project, as well as details of anticipated accomplishment must be outlined by the student and approved by the instructor prior to the beginning of the second week of classes. This course requires completion of all research and basic problem solving. In INDD 581 students will complete their projects and present their final thesis. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Both fall and spring enrollment required. Prerequisite: INDD 448. LAB.

**INDD 581. Senior Industrial Design Studio II. 3 Hours.**
This course is the counterpart to INDD 580. This course focuses on the preliminary design phases of the project, final design development and refinement, detail technical specifications, renderings, physical and computer model building, and a written documented report of the project. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Both fall and spring enrollment required. Prerequisite: INDD 580. LAB.

**INDD 715. Industrial Design. 2-6 Hours.**
Research-oriented advanced study in industrial design. Prerequisite: Graduate major in industrial design or consent of instructor. RSH.

**INDD 815. Industrial Design. 2-6 Hours.**
Prerequisite: INDD 715. RSH.

**PHMD 101. Fundamentals of Photography. 3 Hours. GE3H.**
Open to students of all disciplines and experience levels, this course provides an introduction to the medium and language of photography. Basic camera operation, workflow, and digital/analog printing methods are explored, accompanied by lectures, readings, and discussions regarding the historical and theoretical concerns of the medium. A digital camera with full manual controls is required - RAW capable preferred. Open to students of all disciplines and experience levels. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. LAB.

**PHMD 201. Photography I. 4 Hours.**
The first of the two-part foundational Photography sequence, this majors-only course provides students with a rigorous immersion into the formal, technical, and conceptual concerns and challenges of photography by way of the view camera. Embracing both the wet and digital darkrooms, students shoot and develop sheet film that is then utilized to produce both traditional and digital prints. Intermediate digital editing methods are introduced and explored. View cameras are provided. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: PHMD 101, BDS 102, and permission of instructor. LAB.

**PHMD 202. Photography II. 4 Hours.**
The second of the two-part foundational Photography sequence, this advanced course builds upon PHMD 201 with additional emphasis on color, RAW workflow, and advanced methods for digital capture, manipulation, editing, and compositing. Additionally, students work extensively with large-format inkjet printers to create custom ICC printing profiles. A digital SLR (RAW capable) camera with full manual controls is required. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: PHMD 201 and permission of instructor. LAB.

**PHMD 210. Understanding Photographs. 3 Hours.**
Understanding Photographs is a lecture-based course that focuses on developing a critical understanding of how images, paired with culture and society, generate meaning in both the historical and contemporary contexts. Open to students of all disciplines and experience level. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. LEC.

**PHMD 301. Lighting Studio. 3 Hours.**
Lighting Studio is a fundamental course in awareness, modification, and control of light. Students work extensively with strobe and continuous light
sources. Principles of natural and artificial light are introduced, explored, and applied through hands-on assignments both in and out of the studio environment. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: PHMD 202 or permission of instructor. LAB.

PHMD 302. The Moving Image. 3 Hours.
This course serves as an introduction to the principles and challenges of photography as a time-based medium. Fundamental concepts of production are introduced and explored through hands-on exercises, class presentations and discussions, lectures, critiques, and individual and group projects. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: PHMD 202 or permission of instructor. LAB.

PHMD 315. Experimental Processes. 3 Hours.
Experimental Processes is an introduction to the understanding and production of image-based works utilizing experimental approaches and alternative processes in an interdisciplinary environment. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: PHMD 202 or permission of instructor. LAB.

PHMD 402. Photo Media Seminar. 3 Hours.
This upper-level seminar is focused primarily on the development of independent and collaborative projects through on-going group critique with an emphasis on research and analysis. Learning is focused on personal development and other issues relevant to contemporary photographic practice through assigned readings, presentations, and group discussion. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. May be repeated for credit. Prerequisite: PHMD 202 or permission of instructor. LAB.

PHMD 500. Portfolio. 3 Hours. AE61.
Taken the final semester of study, this course guides students through the research, preparation, and refinement of a final portfolio and appropriate supplemental materials. Methods and strategies of presentation and dissemination are discussed and explored. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: PHMD 402 or instructor permission. LAB.

PHMD 501. Advanced Lighting Studio. 3 Hours.
A continuation of the skills and principles discussed in PHMD 301. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: PHMD 301. LAB.

PHMD 502. Advanced Moving Image. 3 Hours.
A continuation of the skills and principles discussed in PHMD 302. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: PHMD 302. LAB.

PHMD 515. Advanced Experimental Processes. 3 Hours.
A continuation of the skills and principles covered in PHMD 315. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: PHMD 315. LAB.

PHMD 560. Special Topics in Photo Media: ______. 3 Hours.
Special topics courses in Photo Media vary by instructor and provide additional opportunities for interdisciplinary research and advanced specialized study. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. May be repeated for credit. Prerequisite: PHMD 202 or permission of instructor. LAB.

VISC 177. First Year Seminar:. 3 Hours.
Graphic design is everywhere, on everything we see, touching everything we do, on everything we buy. Graphic design is a popular art and a practical art, an applied art and an ancient art. Simply put, it is the art of visualizing ideas and it is a way of thinking. In this class we will explore principles of Graphic Design: how to identify them, how to be more savvy consumers of them and how to use them for good and not for evil. You will learn to look at your visual environment with designer’s eyes to discern “good design” from “bad design”, while putting powerful design principles into practice in your own careers, communities and classrooms. LEC.

VISC 201. Visual Communication Design. 3 Hours.
Presentation of fundamental concepts of visual and non-visual communication. Exploration of various theories of visual perception and visual communication with emphasis on reading visual images for meaning and making meaning through the construction of visual images and typography. A special laboratory section will include design thinking and making strategies and processes which are common to visual communication design from the handmade to the computer. This course is for non-Visual Communication majors. Prerequisite and/or Corequisite: BDS 102. LAB.

VISC 202. Elements of Typography. 3 Hours.
Introduces the discipline, function, and tradition of typography as it relates to visual/verbal communication. Emphasis is on interrelationships of letter, word, line and page. Projects examine two-dimensional typographic space, sequence and information hierarchy. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 102. Corequisite: VISC 204. LAB.

VISC 204. Principles of Visual Communication. 3 Hours.
Visual communication problems involving the student in the translation of verbal concepts and design theory into visual images. This course focuses attention on the process of defining problems, gathering information, and formulating clear, powerful, and persuasive visual statements. Introduction to methods of research, idea generation, and image making will be an integral part of this course. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: BDS 102. Corequisite: VISC 202. LAB.

VISC 302. Typographic Systems. 3 Hours.
Further exploration of typographic form and manipulation of variables which affect content; stresses the importance of typographic composition as an integral component of visual communication design. Projects examine advanced structures of typographic space, work-image structure, and typographic details and aesthetic. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C+ (2.3) or higher to continue on to the next course in the sequence. Prerequisite: VISC 202, VISC 204, and permission of instructor. Corequisite: VISC 304. LAB.
VISC 304. Designing Understanding. 3 Hours.
Exploration of the relationships among people, places, and the visual objects and information they use. Attention on the different roles of the designer as observer, empathizer, communicator and experience builder. Introduction to information design processes and procedures of understanding by ordering data into useful and persuasive information tools and experiences. Various methodologies will be explored for visualizing information for clarity, resonance, and editorial voice with special attention to the relationships among audience and context in the creation of meaning. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C+ (2.3) or higher to continue on to the next course in the sequence. Prerequisite: VISC 202, VISC 204, and permission of instructor. Corequisite: VISC 302. LAB.

VISC 310. Letterpress. 3 Hours.
This course concentrates on the traditional methods of hand typesetting, using the Department of Design’s collection of lead and wood type. Learn how to use a pica rule, composing stick, leading, spacing material, the California Job Case, mix ink and operate a Vandercook proof press and CP or Goding platen. Be inspired by visits to Special Collections. Emphasis will be placed on the acquisition of skills and the creative use of type and images. Open to all majors. Prerequisite: VISC 201 or VISC 202 or permission of the instructor. LAB.

VISC 402. Designer as Author. 3 Hours.
Building from the structures and approaches of VISC 302, the course is a research-based examination of traditional, non-traditional and expressive uses of the typographic medium. Projects emphasize the student as both content generator as well as designer and include development of text + image narrative, word as image and typographic “voice” while further refining technical proficiency. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: VISC 302 and VISC 304. Corequisite: VISC 404. LAB.

VISC 404. Designing for Social Interactions. 3 Hours.
Introduces the discipline of designing for dynamic media (i.e., internet, on screen, multi-media.) Emphasis will be placed on concept development and on the fundamental principles of information hierarchy, user experience, navigation strategies, site development and site architecture. Projects, lectures and tutorials will provide a working knowledge of current tools and techniques, while exploring the issues of narrative structure, rhythm, space, animation, sound, and video. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: VISC 302 and VISC 304. Corequisite: VISC 402. LAB.

VISC 410. Letterpress II. 3 Hours.
Artists’ books are books created as original works of art that push the boundaries of the traditional book. This course will focus on the interdependence of form and content through studio work, readings, and the examination of historical and contemporary models. Students will explore a wide range of book structures from basic to innovative. Final outcomes will combine images, hand set type, and digital processes to create both one-of-a-kind, and limited edition artists’ books. VISC 310 Letterpress I is recommended, but not required. Open to all majors. Prerequisite: VISC 201 or VISC 202, or permission of the instructor. LAB.

VISC 414. Publication and Editorial. 4 Hours.
Exploration of topics dealing intensively with editorial concept and format organization. Projects stress advanced problems in the integration of text and image through the development of complex and variable structures. Emphasis on thorough researching of content and audience as well as understanding of production/execution implications of solutions. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: VISC 402, VISC 404. LAB.

VISC 415. Motion Graphics. 3 Hours.
Introduction to the elements, principles and history of motion design. Emphasis on the conceptualization, planning and storyboarding of time-based media with respect to some specific, clearly stated aesthetic and/or communicative purpose. Students will examine methods for synthesizing still moving imagery, typography and audio, in motion, using Adobe After Effects in combination with other software such as Final Cut Pro, Illustrator and Photoshop. Prerequisite: VISC 201, ARCH 108 or VISC 202. LAB.

VISC 420. Exhibition Design. 3 Hours.
This course will explore how exhibitions are conceptualized, designed and made. It will look at the role of curators, exhibition designers, graphic designers as well as the audience of cultural institutions. Open to all majors. Prerequisite: VISC 201, ARCH 108 or VISC 202. LEC.

VISC 425. Environmental Graphics. 3 Hours.
This course will examine core principles and practices of environmental graphic design. Many of these concepts will be concerned with the visual aspects of wayfinding, communicating identity and information, and shaping the idea of place. Some of the topics discussed will include: signage, exhibit design, identity graphics, pictogram design, mapping, civic design and themed environments. Prerequisite: VISC 201 or VISC 304. LEC.

VISC 435. Book Arts. 3 Hours.
Producing books in editions is a complex undertaking. Students work in teams to create or compile content of their choosing, then edit, design, and bind their own books in a small edition. The class combines both traditional letterpress technology and digital interface for the creation of text and image. Each student receives two copies of the team’s final book, one copy is archived in Special Collections at the Spencer Research Library. This class is required for the completion of the Book Arts Certificate. Open to all majors. Prerequisite: VISC 201 or VISC 202, or permission of the instructor. LAB.

VISC 440. Bookstructures and Papermaking. 3 Hours.
Students will learn to make a variety of book structures and enclosures, from historical to contemporary. Prototypes and models, as well as comprehensive notes and instructions will provide the student with a library of bindings for future reference. Students will document paper that is made in class and create a record for themselves, other students, and the Department of Design. Open to all majors. Prerequisite: VISC 201 or VISC 202 or permission of the instructor. LAB.

VISC 455. Designing Information. 3 Hours.
Making preliminary visualizations, models, and prototypes. Examines words, diagrams, type, and sequencing to restructure messages so that they tell a story more effectively. Editing images to make messages clear, unambiguous and understandable by their intended audience(s). Designing the appearance of an information product so that users can find what they want and understand it when they get there. Open to all Design majors. Prerequisite: VISC 201 or VISC 304 or permission of the instructor. LAB.

VISC 520. Designing for Change. 4 Hours. AE61.
Exploration of branding, service and interaction design opportunities that respond to real-life complexity: audiences, systems and contexts. Introduces business and design thinking strategies associated with brand
development and the idea that design plays a vital role in our local, national, and global society and well-being. Emphasis on the methods of thinking and research which precede the making of design as well as the importance of writing and verbal presentation to the visual communication design profession. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: VISC 414 or permission of the instructor. LAB.

VISC 525. Senior Problems. 4 Hours.
Goal-oriented graphic design problem-solving with emphasis on research, analysis, and synthesis of complex visual problems. Will allow for in-depth study of professional design issues and topics; provides a forum for multi-disciplinary collaboration with related professional disciplines. May be repeated for credit. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite: VISC 520 or permission of instructor. LAB.

VISC 530. Portfolio. 3 Hours.
Instruction in the organization and presentation of a professional quality visual portfolio. Readings, feedback and online collaborations will focus on the development of a focused portfolio consistent with the individual student’s pursuits. If this course is required under the major studies section on the degree requirement sheet, students must receive a grade of C (2.0) or higher to continue on to the next course in the sequence. Prerequisite or Corequisite: VISC 520 or permission of instructor. LAB.

VISC 534. Portfolio Development. 3 Hours.
This course will provide design and non-design majors instruction in the organization and presentation of a professional quality visual portfolio. Readings, feedback and online collaborations will focus on the development of a focused portfolio consistent with the individual student’s pursuits. Graded on a satisfactory/unsatisfactory basis. LEC.

VISC 560. Special Topics in Visual Communication: _____, 3 Hours.
A study of different topics in different semesters in a special area of visual communication. Entry by permission of instructor. May be repeated for credit. LAB.

VISC 701. Visual Communication. 3 Hours.
Presentation of fundamental concepts of visual and non-visual communication. Exploration of various theories of visual perception and visual communication with emphasis on reading visual images for meaning and making meaning through the construction of visual images and typography. A special laboratory section will include design thinking and making strategies and processes which are common to visual communication design from the handmade to the computer. Prerequisite: Permission of the instructor. LAB.

VISC 704. Designing Understanding. 3 Hours.
Exploration of the relationships among people, places, and the visual objects and information they use. Attention on the different roles of the designer as observer, empathizer, communicator and experience builder. Introduction to information design processes and procedures of understanding by ordering data into useful and persuasive information tools and experiences. Various methodologies will be explored for visualizing information for clarity, resonance, and editorial voice with special attention to the relationships among audience and context in the creation of meaning. Prerequisite: Permission of the instructor. LAB.

VISC 706. Graphics. 3-6 Hours.
LAB.

VISC 710. Letterpress. 3 Hours.
This introductory course in letterpress will instruct the student in methods for printing from moveable type and other type-high surfaces. The discipline will be explored from a historic as well as artistic perspective. Emphasis will be placed on the acquisition of skills and vocabulary, and the creative use of type and techniques. Prerequisite: Permission of the instructor. LAB.

VISC 714. Designing for Social Interactions. 3 Hours.
Introduces the discipline of designing for dynamic media (i.e., internet, on screen, multi-media.) Emphasis will be placed on concept development and on the fundamental principles of information hierarchy, user experience, navigation strategies, site development and site architecture. Projects, lectures and tutorials will provide a working knowledge of current tools and techniques, while exploring the issues of narrative structure, rhythm, space, animation, sound, and video. Prerequisite: Permission of the instructor. LAB.

VISC 715. Motion Graphics. 3 Hours.
Introduction to the elements, principles and history of motion design. Emphasis on the conceptualization, planning and storyboarding of time-based media with respect to some specific, clearly stated aesthetic and/or communicative purpose. Students will examine methods for synthesizing still moving imagery, typography and audio, in motion, using Adobe After Effects in combination with other software such as Final Cut Pro, Illustrator and Photoshop. Prerequisite: Permission of the instructor. LAB.

VISC 720. Exhibition Design. 3 Hours.
This course will explore how exhibitions are conceptualized, designed and made. It will look at the role of curators, exhibition designers, graphic designers as well as the audience of cultural institutions. Open to all majors. Prerequisite: Permission of the instructor. LAB.

VISC 725. Environmental Graphics. 3 Hours.
This course will examine core principles and practices of environmental graphic design. Many of these concepts will be concerned with the visual aspects of wayfinding, communicating identity and information, and shaping the idea of place. Some of the topics discussed will include: signage, exhibit design, identity graphics, pictogram design, mapping, civic design and themed environments. Prerequisite: Permission of the instructor. LAB.

VISC 735. Books Art. 3 Hours.
Combines wide range of traditional letterpress and digital processes for type and image for individually determined student book projects. Projects will culminate in a small printed and bound edition. Prequisite: Permission of the instructor. LAB.

VISC 740. Bookstructures and Papermaking. 3 Hours.
This course will seek to acquaint the student with the origins of the book, paper, and pre-paper writing surfaces. Prototypes and models, as well as comprehensive notes and instructions will provide the student with a library of structures and variations for future reference. Students will document paper that is made in class and create a record for themselves, other students, and the School of Design. Prerequisite: Permission of the instructor. LAB.

VISC 755. Designing Information. 3 Hours.
Making preliminary visualizations, models, and prototypes. Examines words, diagrams, type, and sequencing to restructure messages so that they tell a story more effectively. Editing images to make messages clear, unambiguous and understandable by their intended audience(s). Designing the appearance of an information product so that users can find and make sense of the ideas that the product presents. Students will create a small printed edition. Prerequisite: Permission of the instructor. LAB.

VISC 760. Designing for Change. 3 Hours.
Exploration of branding, service and interaction design opportunities that respond to real-life complexity: audiences, systems and contexts. Introduces business and design thinking strategies associated with brand...
development and the idea that design plays a vital role in our local, national, and global society and well-being. Emphasis on the methods of thinking and research which precede the making of design as well as the importance of writing and verbal presentation to the visual communication design profession. Prerequisite: Permission of the instructor. LAB.

VISC 815. Graphics. 2-6 Hours. Individual research. RSH.

Bachelor of Fine Arts in Design

Undergraduate Advising

Students admitted to the B.F.A. degree program are advised by the Coordinator of Undergraduate Student Services. After a student has completed the 9 hours of Basic Design Studies courses, he or she is advised and mentored by faculty member(s) in the major field.

Check sheets describing each program in detail are available from the main design office (http://design.ku.edu/checksheets), 205 Marvin Hall, 785-864-1578. Students are encouraged to seek advice from any faculty member in a specific area of interest.

Undergraduate Admission

Freshman Students

First-year students interested in design should enter the department directly. All design applicants must answer 3 essay questions and submit a digital portfolio (on a CD or flash drive) of 10 to 20 images, including a color inventory sheet. See the department website (http://design.ku.edu/admission-requirements) for details.

Applications must be submitted online through the Office of Admissions. All final high school transcripts must be sent to Admissions. The essays, portfolio, and inventory sheet should be mailed directly to the department by the indicated application deadline (http://design.ku.edu/admission-requirements).

Transfer Students

Students with fewer than 9 hours in studio courses equivalent to the Basic Design Studies courses must enroll in the Foundation studios (BDS courses). Students who wish to transfer 9 or more credit hours in art and design studio courses may be requested to submit examples of their work to the chair for evaluation before enrollment. Portfolios should represent all college-level studio experiences and must contain original examples of drawings and designs. Paintings, sculpture, and other three-dimensional work should be submitted as PDFs or JPGs on a CD or flash drive.

Possible receipt of advanced-standing credit is decided by review of portfolio work representing all courses for which advanced standing is to be considered. A catalog description and syllabus for each course must accompany the portfolio. Consideration for advanced standing is based on the nature and quality of work in courses for which it is sought. Prospective transfer students must submit applications and portfolios the spring semester prior to the fall term for which they are seeking admission.

Applications with a lapse of 3 or more years since their last full-time enrollment may not be able to apply studio credits toward advanced standing or transfer credit.

Change of School Students

Students may apply to the department from other KU schools if they have B (3.0) average or higher. They must also pass a portfolio and essay review. Admission is highly competitive. All design applicants must answer 3 essay questions and submit a digital portfolio (on a CD or flash drive) of 10 to 20 images, including a color inventory sheet. See the department website (http://design.ku.edu/admission-requirements) for details.

- Students with more than 24 hours of college level credit must have at least a 3.0 cumulative GPA on a 4.0 point scale at a college or university.
- Students with less than 24 hours of college level credit will be evaluated on the freshmen requirements (http://design.ku.edu/admission-requirements).

The department encourages all transfer students to follow the full 4-year program. Change of school students are considered for admission and will be placed accordingly. Change of school students with fewer than 9 hours in studio courses equivalent to the Basic Design Studies courses must enroll in the Foundation studios (BDS courses).

Re-Admit Students

Students may be re-admitted to the department if they have B (3.0) average or higher. They must also pass a portfolio and essay review. Admission is highly competitive. All design applicants must answer 3 essay questions and submit a digital portfolio (on a CD or flash drive) of 10 to 20 images, including a color inventory sheet. See the department website (http://design.ku.edu/admission-requirements) for details.
• Students with more than 24 hours of college level credit must have at least a 3.0 cumulative GPA on a 4.0 point scale at a college or university.

• Students with less than 24 hours of college level credit will be evaluated on the freshmen requirements (http://design.ku.edu/admission-requirements).

Applications must be submitted online through the Office of Admissions (http://admissions.ku.edu/?initial=transfers). All transcripts from previously attended institutions must be sent to Admissions. The essays, portfolio, and inventory sheet should be mailed directly to the department by the indicated application deadline (http://design.ku.edu/admission-requirements).

The department encourages all re-admit students to follow the full 4-year program. Re-admit students are considered for admission and will be placed accordingly.

Re-admit students with fewer than 9 hours in studio courses equivalent to the Basic Design Studies courses must enroll in the Foundation studios (BDS courses). Students who wish to transfer 9 or more credit hours in art and design studio courses may be requested to submit examples of their work to the chair for evaluation before enrollment. Portfolios should represent all college-level studio experiences and must contain original examples of drawings and designs. Paintings, sculpture, and other three-dimensional work should be submitted as PDFs or JPGs on a CD or flash drive.

Possible receipt of advanced-standing credit is decided by review of portfolio work representing all courses for which advanced standing is to be considered. A catalog description and syllabus for each course must accompany the portfolio. Consideration for advanced standing is based on the nature and quality of work in courses for which it is sought. Prospective readmit students must submit applications and portfolios the spring semester prior to the fall term for which they are seeking admission.

Applicants with a lapse of 3 or more years since their last full-time enrollment may not be able to apply studio credits toward advanced standing or credit.

Restrictions on Admission
By permission of the Kansas Board of Regents, application for admission or transfer to the Department of Design may be refused if the available instructional space does not allow the addition of more students. Students may be denied admission to the department if they do not meet the academic requirements and/or do not pass the portfolio review. It is recommended that students apply before the indicated deadline.

Undergraduate

Requirements for Graduation
Degrees from the Department of Design and the School of Architecture, Design and Planning are conferred on candidates who have satisfactorily completed the necessary course requirements.

Students must complete the total hours required for the degree; 45 credit hours must be in junior/senior-level courses, numbered 300 and above. At least 30 hours must be in residence to receive a degree from the department and KU. Only 3 hours of activity and/or performance work will count toward the degree.

English
At least 9 hours of English composition and literature are required of all design students, consisting of:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 203</td>
<td>Topics in Reading and Writing:</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 209</td>
<td>Introduction to Fiction</td>
<td></td>
</tr>
<tr>
<td>ENGL 210</td>
<td>Introduction to Poetry</td>
<td></td>
</tr>
<tr>
<td>ENGL 211</td>
<td>Introduction to the Drama</td>
<td></td>
</tr>
</tbody>
</table>

Some areas require additional course work in English. Students must enroll continuously in ENGL 101 or ENGL 102, as appropriate, until completed. When the requirement is reduced, due to an ACT/SAT score or an AP exemption, students must substitute these hours in liberal arts electives.

Remedial Courses
Remedial courses listed in the catalog and Schedule of Classes are numbered below 100. Such courses include, but are not limited to, MATH 2. If such courses are required for a student they will have to pass the course(s), however, the remedial course(s) do not count toward graduation in design and may not be counted as distribution courses.

First-Year Preparation: Basic Design Studies
A minimum of 9 hours in Basic Design Studies courses is required before a student may enter a major program in the sophomore year. The 9 hours are composed of Design Thinking and Making I and II and Drawing for Design (BDS) studios. These specified prerequisites must be completed before enrollment in advanced design studio courses.

The typical first year enrollment below should be followed for two semesters, unless specific requirements for a degree program are different (16 hours each semester):

| Studio (3) | Elective       | 3     |
| Hallmark Symposium Series (2) |                  | 2     |
| English (6) | Composition    | 3     |
| ENGL 102 | Critical Reading and Writing | 3     |
| History of art (6) | Introduction to Western Art History | 3     |
| History of art elective | 3     |
| Liberal arts (6) | Required electives | 6     |

KU Core & Liberal Arts Requirements
All design majors must take at least the following courses in the College of Liberal Arts and Sciences:
ENGL 101  Composition (GE21)                           3
ENGL 102  Critical Reading and Writing (GE21)           3
Select one of the following:                            3
    ENGL 203  Topics in Reading and Writing: _____ (GE11)  
    ENGL 209  Introduction to Fiction (GE11)             
    ENGL 210  Introduction to Poetry (GE11)              
    ENGL 211  Introduction to the Drama (GE11)           
ENGL to be determined by the area                      3
Arts & Humanities course - HA preferred (GE3H)         3
Social Sciences courses (GE3S)                         3
Natural Science courses (GE3N)                         3
FIN 101  Personal Finance (GE12)                        3
or MATH 101  College Algebra                           
COMS 130  Speaker-Audience Communication (GE22)         3
or JOUR 150  Stand and Deliver                         
SOC 104  Elements of Sociology (GE41)                   3
Social Responsibility & Ethics (GE5)                    3
History of art:                                        
    HA 100/300  Introduction to Western Art History (GE42)  3
ADS 340  History and Philosophy of Design              3
Additional hours of art history                        6

Concentration-specific CLAS requirements are listed with the course work in more detail.

Programs
The Department of Design offers the B.F.A. in design with concentrations in

• Environmental Design,
• Illustration and Animation,
• Industrial Design,
• Photo Media, and
• Visual Communication Design.

All program requirements are 124 credit hours and normally can typically be completed in 8 semesters (4 years).

Concentrations
Environmental Design
The Environmental Design program focuses on preparing designers with the critical thinking and technical skills that integrate architecture/interior architecture, environmental graphics, furniture/casework and product design with traditional interior design practice for the design of the total built environment. Studio project experiences may include simple residential, retailing, hospitality, health care, as well as complex corporate offices functional types. The program provides for collaboration through teamwork opportunities in which students work on joint projects with other disciplines within the School of Architecture, Design and Planning.

A total of 125 hours is required for the degree, including 65 hours in design as follows:

Foundation (9)
BDS 101  Design Thinking and Making I                   3
BDS 102  Design Thinking and Making II                  3

Studio Requirements (12)
VISC 201  Visual Communication Design                   3
PHMD Photo Media elective                                
Select one of the following INDD electives:              3
    INDD 508  Materials and Processes                    
    INDD 510  Human Factors in Design                   
    INDD 512  Methods in Design                         
VISC 425  Environmental Graphics (or VISC Elective)     3

Major Studies (34)
ARCH 108  Architectural Foundations I                   4
ENVD 200  Fundamentals of Environmental Design          3
ENVD 212  Drawing for Environmental Design              3
ENVD 203  Materials and Sustainability                  
ENVD 304  Environmental Topics (option to repeat for credit)  3
ENVD 305  Research and Programming                      3
ENVD 408  Integrated Senior Problems I                  3
ENVD 410  Integrated Senior Problems II and Specification 3
ENVD 413  Portfolio and Professional Practice          3
Select two of the following courses for a total of 6 credits:  6
    ENVD 304  Environmental Topics                      
    ARCH 694  Homeplaces                                 
    ENVD 304  Environmental Topics                      
    or ARCH 731  Architecture of Health                  
    or INDD 508  Materials and Processes                  
    or INDD 510  Human Factors in Design                  
    or INDD 512  Methods in Design                        
    VISC 425  Environmental Graphics (or VISC Elective)   
    ADS 560  Topics in Design: _____                     

Professional Studies (10)
ADS 320  Hallmark Symposium Series (1 credit hour, 4 semesters)  4
Select two from the following:                           6
    ADS 530  Intra Design Problems: _____                 
    ADS 531  Internship                                  
    ADS 560  Topics in Design: _____ (OR)                
    ADS 532  Study Abroad: _____ (and ADS 533 Study Abroad Documentation)  3

KU CORE & Liberal Arts (60)
English: Basic requirements                              9
Select one of the following:                             3
    ENGL 351  Fiction Writing I                          
    or ENGL 353  Screenwriting I                         
    or ENGL 360  Advanced Composition: _____             
    or ENGL 361  Professional Writing: _____            
    or ENGL 362  Foundations of Technical Writing       
COMS 130  Speaker-Audience Communication (GE22)         3
or JOUR 150  Stand and Deliver                          
Arts & Humanities course (GE3H)                         3
Natural Sciences Course (GE3N)                          3
MATH 101  College Algebra (GE12)                        3
PSYC 104  General Psychology (GE3S)                    3
SOC 104  Elements of Sociology (or other GE41 course)   3
The Illustration & Animation program prepares students to develop and refine methodologies in image making while acquiring an effective use of visual language, and problem solving skills. Technical skills and techniques, as well as a refined understanding of composition, color and value are developed through the introduction and exploration of traditional and contemporary media. Business and legal issues of the industry are addressed that prepare students for numerous professional options that include print media, book publishing, motion graphics, entertainment, gallery installation, fashion, toys and games, and surface design.

The number of students admitted in the fall is based on resources (space and number of faculty members).

First-year Checkpoint / Entrance to the Second Year Studios

Beyond first-year studies there is a maximum of 20 seats available for degree-seeking Illustration & Animation majors each year. There are typically two students vying for every one available position. In order to arrive at an impartial means of entry, all first year students declaring Illustration & Animation as their major are ranked according to their cumulative GPA. The first 18 students on the list are allowed first opportunity to enroll in ILLU 305 (Image Making), the first of the two-part second-year foundational sequence. Enrollment for ILLU 305 is done ONLY during the Spring Advising & Enrollment period (for the following Fall term) and entry into the course is based solely on cumulative GPA standings. In order to qualify, students must have successfully completed BDS 101 and 103 (or their equivalents) and be enrolled in (or have completed) BDS 102 and ILLU 205 (or their equivalent) at the time of Spring Advising and Enrollment. Students will also enroll in VISC 201 (Visual Communication).

Note: ILLU 205 Drawing Media for Illustration should be taken in the spring semester of the freshman year.

A total of 124 credit hours is required for the degree, including 67 hours in art and design courses, as follows:

Foundation (9)
- BDS 101 Design Thinking and Making I 3
- BDS 102 Design Thinking and Making II 3
- BDS 103 Drawing for Design 3
- or ART 101 Drawing I

Studio Requirements (12)

VISC 201 Visual Communication Design 3
PHMD Elective 3
DRWG 213 Life Drawing I 3
PNTG 263 Painting I 3

Major Studies (37) 1
- ILLU 205 Drawing Media for Illustration 3
- ILLU 305 Image Making 3
- ILLU 315 Introduction to Illustration 3
- ILLU 405 Drawing Media for Illustration II 3
- ILLU 410 Fundamentals of Animation 4
- ILLU 415 Illustration Concepts 3
- ILLU 425 Concept Art 3
- ILLU 435 Sequential and Narrative Illustration 4
- ILLU 510 Animation (or Visual Art Elective (300+)) 4
- ILLU 445 Advanced Concept Art 3
- ILLU 535 Promotion and Marketing for Illustration 4

Professional Studies (10)
- ADS 320 Hallmark Symposium Series (1 credit hour, 4 semesters) 4

Select two from the following: 6
- ADS 530 Intra Design Problems: _____
- ADS 531 Internship
- ADS 560 Topics in Design: _____
- VISC 530 Portfolio
- ART 300 & 500: Special Topic in VA
- ADS 532 Study Abroad: _____ (and ADS 533 Study Abroad Documentation)

KU Core & Liberal Arts (57)

English: Basic requirements 9
- COMS 130 Speaker-Audience Communication 3
- or JOUR 150 Stand and Deliver

Arts & Humanities course (GE3H) This requirement should be fulfilled by an HA elective.
- Natural Sciences course (GE3N) 3
- FIN 101 Personal Finance (GE12) 3
- or MATH 101 College Algebra

Social Sciences course (GE3S) 3
- History of Art/Architecture/Design:
- SOC 104 Elements of Sociology (or other GE14 course) 3
- Social Responsibility & Ethics (GE5) 3
- HA 100/300 Introduction to Western Art History 3
- ADS 340 History and Philosophy of Design 3
- HA electives
- Academic concentration (9 hours at the 300+ level, no Design or Visual Art) 9

General electives 9

1 To enroll in Illustration and Animation courses in this category, students must pass a review and go through checkpoints. For more information, refer to the undergraduate degree and review requirements on the Design website.
Industrial Design

Graduates of KU’s Industrial Design program are particularly attractive to potential employers because of our well rounded and rigorous curriculum. Our students find career opportunities in a wide variety of disciplines including product design, furniture design, exhibit design, package design, human factors, design research and product planning. The variety of products and systems that fall within the potential scope of an industrial designer’s work is extremely broad. Examples range from household appliances to aircraft interiors and from furniture to major electronics equipment, transportation vehicles, and myriad other product areas.

A total of 124 hours is required for the degree, including 67 hours in design, as follows:

Foundation (9)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDS 101</td>
<td>Design Thinking and Making I</td>
<td>3</td>
</tr>
<tr>
<td>BDS 102</td>
<td>Design Thinking and Making II</td>
<td>3</td>
</tr>
<tr>
<td>BDS 103</td>
<td>Drawing for Design</td>
<td>3</td>
</tr>
</tbody>
</table>

Studio Requirements (15)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VISC 201</td>
<td>Visual Communication Design</td>
<td>3</td>
</tr>
<tr>
<td>INDD 508</td>
<td>Materials and Processes</td>
<td>3</td>
</tr>
<tr>
<td>INDD 510</td>
<td>Human Factors in Design</td>
<td>3</td>
</tr>
<tr>
<td>INDD 512</td>
<td>Methods in Design</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>elective in Design, Architecture, or Visual Art</td>
<td>3</td>
</tr>
</tbody>
</table>

Major Studies (33)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDD 212</td>
<td>Drawing for Industrial Design</td>
<td>3</td>
</tr>
<tr>
<td>INDD 284</td>
<td>Basic Industrial Design Studio</td>
<td>3</td>
</tr>
<tr>
<td>INDD 302</td>
<td>Intermediate Industrial Design Studio</td>
<td>3</td>
</tr>
<tr>
<td>INDD 378</td>
<td>Problems in Industrial Design: ______</td>
<td>9</td>
</tr>
<tr>
<td>INDD 446</td>
<td>Advanced Industrial Design Studio</td>
<td>3</td>
</tr>
<tr>
<td>INDD 448</td>
<td>Professional Industrial Design Studio Practices</td>
<td>3</td>
</tr>
<tr>
<td>INDD 555</td>
<td>Portfolio</td>
<td>3</td>
</tr>
<tr>
<td>INDD 580</td>
<td>Senior Industrial Design Studio</td>
<td>3</td>
</tr>
<tr>
<td>INDD 581</td>
<td>Senior Industrial Design Studio II</td>
<td>3</td>
</tr>
</tbody>
</table>

Professional Studies (10)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADS 320</td>
<td>Hallmark Symposium Series (1 credit hour, 4 semesters)</td>
<td>4</td>
</tr>
</tbody>
</table>

Select two from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADS 530</td>
<td>Intra Design Problems: ______</td>
<td>1</td>
</tr>
<tr>
<td>ADS 531</td>
<td>Internship</td>
<td>3</td>
</tr>
<tr>
<td>ADS 560</td>
<td>Topics in Design: ______</td>
<td>3</td>
</tr>
<tr>
<td>INDD Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ADS 532</td>
<td>Study Abroad: ______ (and ADS 533 Study Abroad Documentation)</td>
<td>3</td>
</tr>
</tbody>
</table>

KU Core & Liberal Arts (57)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English: Basic requirements</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Arts &amp; Humanities Course (GE3H) This course should be fulfilled by an HA elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COMS 130</td>
<td>Speaker-Audience Communication (GE22)</td>
<td>3</td>
</tr>
<tr>
<td>or JOUR 150</td>
<td>Stand and Deliver</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences course (GE3N)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>FIN 101</td>
<td>Personal Finance (GE12)</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 101</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences course (GE3S)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SOC 104</td>
<td>Elements of Sociology (or other GE41 course)</td>
<td>3</td>
</tr>
<tr>
<td>Social Responsibility &amp; Ethics (GE5)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>History of Art/Architecture/Design:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HA 100/300</td>
<td>Introduction to Western Art History</td>
<td>3</td>
</tr>
<tr>
<td>ADS 340</td>
<td>History and Philosophy of Design</td>
<td>3</td>
</tr>
<tr>
<td>HA electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Academic concentration (9 hours at the 300+ level, no Design or Visual Art)</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>General electives</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

Photo Media

The Photo Media program at the University of Kansas is dedicated to evaluating and redefining the medium of photography. Through in-depth instruction, students develop a diverse technical skillset, becoming proficient in both analog and digital practices. The program encourages a strong work ethic, and places emphasis on visual literacy. Graduates of the Photo Media program at the University of Kansas leave with exceptional visual communication skills, fully prepared to successfully engage in a wide range of possible careers in lens-based media.

The number of students admitted in the fall is based on resources (space and number of faculty members).

First-year Checkpoint / Entrance to the Second Year Studios

Beyond first-year studies there is a maximum of 20 seats available for degree-seeking Photo Media majors each year. There are typically two students vying for every one available position. In order to arrive at an impartial means of entry, all first year students declaring Photo Media as their major are ranked according to their cumulative GPA. The first 18 students on the list are allowed first opportunity to enroll in PHMD 201 (Photography I), the first of the two-part second-year foundational sequence. Enrollment for PHMD 201 is done only during the Spring Advising & Enrollment period (for the following Fall term) and entry into the course is based solely on cumulative GPA standings. In order to qualify, students must have successfully completed BDS 101 and 103 (or their equivalents) and be enrolled in (or have completed) BDS 102 and PHMD 101 (or their equivalent) at the time of Spring Advising and Enrollment.

A total of 124 hours is required for the degree, including 67 hours in design, as follows:

Foundation (9)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>BDS 101</td>
<td>Design Thinking and Making I</td>
<td>3</td>
</tr>
<tr>
<td>BDS 102</td>
<td>Design Thinking and Making II</td>
<td>3</td>
</tr>
<tr>
<td>BDS 103</td>
<td>Drawing for Design</td>
<td>3</td>
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Studio Requirements (15)

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>VISC 201</td>
<td>Visual Communication Design</td>
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<tr>
<td>PHMD 203</td>
<td>Photography I</td>
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<tr>
<td>PHMD 204</td>
<td>Photography II</td>
<td>4</td>
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<tr>
<td>PHMD 210</td>
<td>Understanding Photographs</td>
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<tr>
<td>PHMD 402</td>
<td>Photo Media Seminar</td>
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<tr>
<td>PHMD 500</td>
<td>Portfolio</td>
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Major Studies (32)

<table>
<thead>
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<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADS 340</td>
<td>Elements of Sociology (or other GE41 course)</td>
<td>3</td>
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<tr>
<td>Social Responsibility &amp; Ethics (GE5)</td>
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<td>History of Art/Architecture/Design:</td>
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<tr>
<td>HA 100/300</td>
<td>Introduction to Western Art History</td>
<td>3</td>
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<tr>
<td>ADS 340</td>
<td>History and Philosophy of Design</td>
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<td>HA electives</td>
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<tr>
<td>Academic concentration (9 hours at the 300+ level, no Design or Visual Art)</td>
<td>9</td>
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<td>General electives</td>
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Visual Communication Design

Visual Communication Designers shape the information that everybody sees, uses and experiences. The Visual Communication Design program at KU prepares students for current professional demands and provides students with the fundamental design thinking, making and process skills required to build a rewarding career and facilitate life-long learning. Career options for visual communication designers include a wide range of areas such as traditional print media, magazine and book design, corporate marketing communications, branding, packaging design, exhibition and environmental design, motion graphic design, website design, interface design and more.

The number of students admitted in the fall is based on resources (space and number of faculty members).

First-year Checkpoint / Entrance to the Second Year Studios

Beyond first-year studies there is a maximum of 40 seats available for degree-seeking Visual Communication Design majors each year. There are typically two students vying for every one available position. In order to arrive at an impartial means of entry, all first year students declaring Visual Communication as their major are ranked according to their cumulative GPA. The first 36 students on the list are allowed first opportunity to enroll in VISC 202 (Elements of Typography) and VISC 204 (Principles of Visual Communication), the first of the two-part second-year sequence. Enrollment for VISC 202 & 204 is done ONLY during the Spring Advising & Enrollment period (for the following Fall term) and entry into the course is based solely on cumulative GPA standings. In order to qualify, students must have successfully completed BDS 101 and 103 (or their equivalents) and be enrolled in (or have completed) BDS 102 at the time of Spring Advising and Enrollment.

Visual Communication Design Track

A total of 124 credit hours is required for the degree, including 67 hours in design courses, as follows:

Foundation (9)
BDS 101 Design Thinking and Making I 3
BDS 102 Design Thinking and Making II 3
BDS 103 Drawing for Design 3

Studio Requirements (15)
ILLU 205 Drawing Media for Illustration (or Drawing Elective) 3
PHMD 101 Fundamentals of Photography (or Photo Media elective) 3

3 studio elective courses in Design, Architecture, or Visual Art 9

Major Studies (33) 1
VISC 202 Elements of Typography 3
VISC 204 Principles of Visual Communication 3
VISC 302 Typographic Systems 3
VISC 304 Designing Understanding 3
VISC 402 Designer as Author 3
VISC 404 Designing for Social Interactions 3
VISC 414 Publication and Editorial 4
VISC 520 Designing for Change 4
VISC 525 Senior Problems 4
VISC 530 Portfolio 3

Professional Studies (10)
ADS 320 Hallmark Symposium Series (1 credit hour, 4 semesters) 4

Select two from the following: 6
ADS 530 Intra Design Problems: _____
ADS 531 Internship
ADS 560 Topics in Design: _____
ADS 532 Study Abroad: _____ (and ADS 533 Study Abroad Documentation)

KU Core & Liberal Arts (57)

English: Basic requirements 9
COMS 130 Speaker-Audience Communication (GE22) 3
or JOUR 150 Stand and Deliver

Arts & Humanities course (GE3H) 3
Natural Sciences course (GE3N) 3
FIN 101 Personal Finance (GE12) 3
or MATH 101 College Algebra

Social Sciences course (GE3S) 3
SOC 104 Elements of Sociology (or other GE41 course) 3
Social Responsibility & Ethics (GE5) 3

History of Art/Architecture/Design:
HA 100/300 Introduction to Western Art History 3
ADS 340 History and Philosophy of Design 3
HA 580 History of Photography 3

Academic concentration (9 hours at the 300+ level, no Design or Visual Art) 9

General electives 9

1 To enroll in Photo Media courses in this category, students must pass a review and go through checkpoints. For more information, refer to the undergraduate degree and review requirements on the Design website.

4 additional PHMD courses 300+
PHMD 301 or PHMD 501
PHMD 302 or PHMD 502
PHMD 402
PHMD 560

Professional Studies (10)
ADS 320 Hallmark Symposium Series (1 credit hour, 4 semesters) 4

Select two from the following: 6
ADS 530 Intra Design Problems: _____
ADS 531 Internship
ADS 560 Topics in Design: _____
ADS 532 Study Abroad: _____ (and ADS 533 Study Abroad Documentation)
COMS 130 Speaker-Audience Communication (GE22) 3
or JOUR 150 Stand and Deliver
Natural Sciences course (GE3N) 3
FIN 101 Personal Finance (GE12) 3
or MATH 101 College Algebra
Social Sciences course (GE3S) 3
SOC 104 Elements of Sociology (or other GE41 course) 3
Social Responsibility & Ethics (GE5) 3
History of Art/Architecture/Design:
HA 100/300 Introduction to Western Art History 3
ADS 340 History and Philosophy of Design 3
HA electives 3
Academic concentration (9 hours at the 300+ level, no Design or Visual Art) 9
General electives 9

1 To enroll in Visual Communication courses in this category, students must pass a review and go through checkpoints. For more information, refer to the undergraduate degree and review requirements on the Design website.

The design department offers 3 Master of Arts degrees, which share a core curriculum.

The M.A. in **Design Management** educates students in the theory, methods, and practices relevant to managing design in an organizational and business context. The program gives students the requisite knowledge to augment their professional skills and abilities, perform as effective design managers, and advance their careers.

The M.A. in **Environmental Design** educates students in the theory, methods, and practices of design for the built environment. This program prepares students for professional practice in integrated multi-disciplinary design practice.

The M.A. in **Interaction Design** educates students in the theory, methods, and practices of interaction design. It gives students the requisite professional knowledge, skills, and abilities to perform as interaction designers.

KU is an accredited institutional member of the National Association of Schools of Art and Design (http://nasad.arts-accredit.org). The entrance and graduation requirements in this catalog conform to the published guidelines of that organization.

### Master of Arts in Design with Concentration in Design Management

The Department of Design advances the professional work of thoughtful, creative, and meaningful design to delight, inspire, and serve the needs of people. Design is the planning that lays the basis for creation and development of every object or system people use. Design programs train students to be problem solvers who consider the aesthetic, functional, and user-focused aspects of an object or a process. This requires considerable integrative research, thought, modeling, interactive adjustments, and redesign.

The M.A in Design with a concentration in **Design Management** explores in depth the design function in business as an important integrative, and often interdisciplinary, area. The curriculum couples a rigorous, practical understanding of business with design’s natural capacity for handling diverse input, creative problem-solving, and human-centered understanding.

The Design Management program is for prospective students who already hold design-related baccalaureate degrees and are seeking specialized study in management. Applicants should have at least 2 years of full-time professional work experience in design or a design-related field.

The master’s student in design management should demonstrate an advanced ability to solve design problems, manage teams and processes, communicate clearly, and produce excellent goal-directed outcomes. The graduate will have completed significant course work and a thesis that documents independent discovery and research and will have passed an oral examination on that work. For more information about the program M.A in Design Management (http://design.ku.edu/ma-design-management-0).

#### M.A. in Design Management Admission

By permission of the Kansas Board of Regents, application for admission to graduate programs in the Department of Design may be refused if available instructional space does not allow addition of more students. The application deadline for Fall is **April 1** and **October 1** for Spring.

A departmental graduate faculty committee reviews transcripts and evaluates applications to determine admission qualifications. Applicants to the M.A. programs must have undergraduate and/or professional backgrounds judged by the Graduate Faculty to be appropriate preparation for the specialization selected.

A complete application for admission consists of the following materials:

1. Graduate application (http://www.graduate.ku.edu) and application fee (See Admission in the Graduate Studies (p. 2059) section of the online catalog for further information);
2. 1 unofficial copy of the transcript from all colleges or universities attended, showing receipt of a bachelor’s degree, and 1 unofficial copy of the transcript showing any graduate degree or credit earned;
3. 3 letters of recommendation from people in a position to comment on your abilities and performance;
4. Statement of design philosophy and approach;
5. A portfolio of your design work, or if your previous degree was not in a design related discipline, samples of written work or other creative artifacts you have produced. Portfolio should represent the scope of your experience, knowledge, skills, and abilities to date. Please include documentation of each project: the challenge it was intended to address, the process involved, your role and the role of others in its execution. Please upload your portfolio digitally under “other documents” during the online application process. The portfolio is limited to 10 megabytes (not zipped) in PDF format;
6. For international students, a financial statement showing minimum financial support for the first year of study (see the Admissions page on the school's website (http://www.sadp.ku.edu)).
7. Evidence of language proficiency if the native tongue is not English.
adjustments, and redesign.

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functional, and user-focused aspects of an object or a process. This
train students to be problem solvers who consider the aesthetic,
development of every object or system people use. Design programs
creative, and meaningful design to delight, inspire, and serve the needs
The Department of Design advances the professional work of thoughtful,

Concentration in Environmental

Admissions Coordinator
1465 Jayhawk Blvd., Room 205
Lawrence, KS 66045-7531
785-864-3167
gerak@ku.edu

Course and Credit Distribution Requirements

Total Credit Hours 31

CORE COURSES (12 credit hours)
ADS 750 Design Management (3)
ADS 712 Design Strategies & Methods (3)
ADS 760 Strategic Design Innovation (3)
ADS 714 Designing Business Services & Consumer Services (3)

RESEARCH
ADS 860 Graduate Synthesis & Applications Seminar 1 x 2 (2)
ADS 861 Thesis Research Seminar (1)

PRACTICA
ADS 890 Thesis (1-8 cr) (3)

ELECTIVES IN DESIGN (9)
Select 3 or more from the following:
ADS 751 Creating Design Scenarios & Simulations (3)
ADS 785 Interaction Design (3)
ADS 745 Branding & Design (3)
ADS 770 Design Cognition (3)
ADS 710 Advanced Human Factors in Design (3)
ADS 540 History & Philosophy of Design (3)
ADS 560 Topics in Design (1-3)
ADS 740 Special Problems in Design (1-6)
VISC 815 Graphics (2-6)

ELECTIVES OUTSIDE OF ART AND DESIGN (5)

Master of Arts in Design with Concentration in Environmental Design

The Department of Design advances the professional work of thoughtful,
believable, and meaningful design to delight, inspire, and serve the needs
of people. Design is the planning that lays the basis for creation and
development of every object or system people use. Design programs
train students to be problem solvers who consider the aesthetic,
functional, and user-focused aspects of an object or a process. This
requires considerable integrative research, thought, modeling, interactive
adjustments, and redesign.

The concentration in Environmental Design educates students and
develops their competency in design solutions that will enhance and
improve the experience of the “user” occupant of both the interior
and exterior built environment. Theory, method, and practice of this
integrated discipline approach create a basis for effective research and
conceptualization of design ideas for public and private spaces.

The M.A in Environmental Design further provides the student with
the opportunity to develop projects that integrate architecture, interior
spaces and graphics in a multi-disciplinary approach that is common
in today’s practice. The program aims to provide a broad based design
experience that involves the analyses of building systems, circulation,
spatial experiences, materials, furniture, lighting, use of graphics and
advanced digital technology. Students develop specific experience within
an environment that may involve strategically focused project types such
as retail, hospitality, health care, mixed use development, sport facilities,
etc. where integration of multi-disciplinary design is interdependent and
plays an important role in users’ interactions with the built environment.

The design department offers 3 Master of Arts degrees, which share a
core curriculum.

The M.A in Design Management educates students in the theory,
methods, and practices relevant to managing design in an organizational
and business context. The program gives students the requisite
knowledge to augment their professional skills and abilities, perform as
effective design managers, and advance their careers.

The M.A in Environmental Design educates students in the theory,
methods, and practices of design for the built environment. This program
prepares students for professional practice in integrated multi-disciplinary
design practice.

The M.A. in Interaction Design educates students in the theory,
methods, and practices of interaction design. It gives students the
requisite professional knowledge, skills, and abilities to perform as
interaction designers.

KU is an accredited institutional member of the National Association of
Schools of Art and Design (http://nasad.arts-accredit.org). The entrance
and graduation requirements in this catalog conform to the published
guidelines of that organization.

M.A. in Environmental Design Admission

By permission of the Kansas Board of Regents, application for admission
to graduate programs in the Department of Design may be refused if
available instructional space does not allow addition of more students.
The application deadline for Fall is April 1 and October 1 for Spring.

A departmental graduate faculty committee reviews transcripts and
evaluates applications to determine admission qualifications. Applicants
to the M.A. programs must have undergraduate and/or professional
backgrounds judged by the Graduate Faculty to be appropriate
preparation for the specialization selected.

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1. Graduate application (http://www.graduate.ku.edu) and application
fee (See Admission in the Graduate Studies (p. 2059) section of the
online catalog for further information);
2. 1 unofficial copy of the transcript from all colleges or universities attended, showing receipt of a bachelor’s degree, and 1 unofficial copy of the transcript showing any graduate degree or credit earned;

3. 3 letters of recommendation from people in a position to comment on your abilities and performance;

4. Statement of design philosophy and approach;

5. A portfolio of your design work, or if your previous degree was not in a design related discipline, samples of written work or other creative artifacts you have produced. Portfolio should represent the scope of your experience, knowledge, skills, and abilities to date. Please include documentation of each project: the challenge it was intended to address, the process involved, your role and the role of others in its execution. Please upload your portfolio digitally under “other documents” during the online application process. The portfolio is limited to 10 megabytes (not zipped) in PDF format;

6. For international students, a financial statement showing minimum financial support for the first year of study (see the Admissions page on the school’s website (http://www.sadp.ku.edu)).

7. Evidence of language proficiency if the native tongue is not English.

8. Graduate Record Examination (GRE) test results.

Submit your graduate application and application materials online (http://www.graduate.ku.edu). Please contact the Admissions Coordinator if you have any questions:

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<th>Course and Credit Distribution Requirements</th>
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<tbody>
<tr>
<td>Total Credit Hours 31</td>
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</table>

**CORE COURSES** (12 credit hours)
- ADS 710 Advanced Human Factors in Design (3)
- ADS 712 Design Strategies & Methods (3)
- ADS 714 Designing Business Services & Consumer Services (3)
- ADS 765 Interaction Design (3)

**ELECTIVES IN ARCHITECTURE or DESIGN** (select 3 courses, 9 credit hours)

**Architecture**
- ARCH 524 Structures I (3)
- ARCH 530 Environmental Systems (3)
- ARCH 626 Building Technology (3)
- ARCH 600 Special Topics in Architecture (3)
- ARCH 731 Architecture of Health (3)

**Design**
- ADS 560 Topics in Design (3)
- ADS 740 Special Problems in Design (3)
- ADS 751 Creating Design Scenarios (3)
- ADS 770 Design Cognition (3)
- ADS 540 History & Philosophy of Design (3)

**Visual Communication (Graphic Design)**
- VISC 525 Environmental Graphics (3)
- VISC 815 Graphics (3)
- ADS 745 Branding & Design (3)

**RESEARCH** (2-3 credit hours)
- ADS 880 Graduate Synthesis & Applications Seminar 1 x 2 (2)
- ADS 861 Thesis Research Seminar (1)

**PRACTICA** (3 credit hours)
- ADS 890 Thesis (1-8 cr) (3)

**ELECTIVES OUTSIDE OF ART AND DESIGN** (5)

### Master of Arts in Design with Concentration in Interaction Design

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**Interaction Design** involves researching and fashioning products, services, and systems that are useful, useable, and desirable. Interaction design offers a human-centered approach to innovation, creatively mediating how businesses engage with customers and how brands and organizations can become more relevant in the marketplace. Broadly speaking, interaction design defines the contextual behavior of artifacts, environments, and systems.

The Interaction Design program is for prospective students who already hold design-related baccalaureate degrees and are seeking advanced study in a versatile, rapidly growing professional design discipline. Applicants should have at least 2 years of full-time professional work experience in design or a design-related field.

The master’s student in interaction design should demonstrate the ability to conduct original design research, translate research insights into design input, and produce an interactive artifact of relevance and quality. The graduate will have completed significant course work and a thesis that documents independent discovery and research and will have passed an oral examination on that work. For more information about the program M.A in Interaction Design. (http://design.ku.edu/ma-interaction-design)

The design department offers 3 Master of Arts degrees, which share a core curriculum.

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prepares students for professional practice in integrated multi-disciplinary design practice.

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M.A. in Interaction Design Admission

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Course and Credit Distribution Requirements

| Total Credit Hours | 31 |

CORE COURSES (12 credit hours)
- ADS 710 Advanced Human Factors in Design (3)
- ADS 712 Design Strategies & Methods (3)
- ADS 765 Interaction Design (3)
- ADS 714 Designing Business Services & Consumer Experiences (3/3)

RESEARCH
- ADS 860 Graduate Synthesis & Applications Seminar 1 x 2 (2)
- ADS 861 Thesis Research Seminar (1)

PRACTICA
- ADS 890 Thesis (1-8 cr) (3)

ELECTIVES IN DESIGN (9)
Select 3 or more from the following:
- ADS 770 Design Cognition (3)
- ADS 750 Design Management (3)
- ADS 751 Creating Design Scenarios & Simulations (3)
- ADS 745 Branding & Design (3)
- ADS 740 Special Problems in Design (1-6)

ELECTIVES OUTSIDE OF ART AND DESIGN (5)

Department of Urban Planning

Introduction

The KU Urban Planning program emphasizes policy planning and analysis within the context of urban or urbanizing environments. Policies affecting urban issues are formulated at all levels of government--federal, state, regional, and local--as well as in the private sector. The MUP program is geared towards meeting the needs for public planning policy in all these forums.

Courses

UBPL 200. Sustainability and Society. 3 Hours. GE11/GE3S.
This course will introduce the concept of sustainability, examining its early iterations, recent applications, and possible future transformations. Critical analysis of sustainability as a concept and societal goal will be a course cornerstone. We will examine two contemporary social issues that are relevant to students at the University of Kansas. Social science perspectives will be emphasized, but, because sustainability necessitates an interdisciplinary perspective, the course will consider the contributions of a wide range of disciplines to these issues. LEC.

UBPL 300. Planning the American City. 3 Hours.
A broad introduction to the field of urban planning as a technical profession, a process of decision-making, and a governmental function. The multi-disciplinary nature of planning as an area for professional practice in the geographical, socio-economic and political contexts of the U.S. is stressed. We will explore the promise and limitations of planning in the context of mitigating and adapting to climate change. The course is intended for both the student who is considering planning as a major field
of study and the student with primary interest in a related field who would like a working knowledge of past and current planning in the U.S. LEC.

**UBPL 502. Special Topics in Urban Planning: _____, 1-6 Hours.**
Intended for undergraduate individual or group projects/research in an urban planning topic. LEC.

**UBPL 522. History of the American City I. 3 Hours.**
This course examines the evolution of American cities from their European antecedents through the late 20th Century, from the urban planning perspective. It focuses on the changing spatial forms and functions of American cities and how these changes relate to socioeconomic and political aspects of urbanization as well as changes in technology. Emphasis is placed on analyzing the relationships between historical development patterns and the current range of problems facing most U. S. cities. (Same as UBPL 722 but gives undergraduate credit.) LEC.

**UBPL 538. Environmental Planning Techniques. 3 Hours.**
The course covers a variety of topics within environmental planning. Each topic is examined with respect to the scope of the issue, the methods of analyzing and/or measuring those issues, and the ways planners can address those issues in order to avoid or mitigate environmental problems. LEC.

**UBPL 565. Introduction to Sustainable Land Use Planning. 3 Hours.**
This course introduces students to the issues that planners and decision makers face as they strive to protect environmental resources, especially within the context of land use planning. Emphasis will be placed on the theoretical and policy considerations that guide the work of environmental planners. LEC.

**UBPL 662. Twentieth Century American Landscape. 3 Hours.**
The purpose of this course is to investigate the relationships between the American culture and the resulting built and natural landscape. Issues of building types, public places, and land use arrangements will be studied from a socio-historical perspective. (Same as ARCH 662.) LEC.

**UBPL 701. Directed Readings. 1-6 Hours.**
Designed to meet the needs of students whose study in urban planning cannot be met with the present courses. Prerequisite: Consent of instructor. RSH.

**UBPL 705. Economic Analysis for Planners. 3 Hours.**
An introduction to the concepts and analytical techniques of economics that are most relevant to urban planners. The first part of the course is devoted to microeconomic theory, welfare economics, and the role of the government in the economy. The remainder covers public finance, investment analysis, and methods of determining the allocation of public resources (such as benefit-cost analysis). LEC.

**UBPL 710. Introduction to Housing Policy. 3 Hours.**
Designed to provide an introduction to the various methods used by the public sector in order to intervene in the housing market. Many different programs are used by governments at all levels to serve many different housing goals. This course will examine many of these programs in an effort to understand what they are supposed to accomplish and how well they work. In all cases, the objective of the course is to train planners so that they have a firm understanding of housing programs that exist now as well as a grasp of the methods used to select housing strategies for implementation by the public sector. LEC.

**UBPL 714. Local Economic Development Planning. 3 Hours.**
This course provides a broad overview of local economic development planning. Emphasis is on the role of the practitioner and the various activities that can be pursued to encourage and enhance the economic base of a locality. The objectives of the course are to answer the questions: who are economic development planners; what backgrounds and interests do they have; what types of activities do they perform and initiate to encourage and enhance economic development; and how do they decide upon which activities to pursue? Prerequisite: UBPL 764 or permission of instructor. LEC.

**UBPL 715. Community** in Neighborhood Planning and Design. 3 Hours.
This course provides a place-centered approach for understanding and applying the idea of community to neighborhood planning. The course explores social theories of community and how these have influenced prescriptive models for neighborhood development and design. The course also evaluates the interplay of social, environmental, and economic forces at the neighborhood level and their relationship to community development and well-being. LEC.

**UBPL 716. Community and Neighborhood Revitalization. 3 Hours.**
The course examines the fields of community development and the revitalization of urban neighborhoods. In the course, students study the theories of community redevelopment as well as the methods of analysis guiding the planning of neighborhoods. The course also reviews the many programs that exist to assist the neighborhood revitalization process and looks at the literature evaluating the implementation of these programs. As an implementation course, students complete a project that calls for them to apply the knowledge learned to real world setting. Prerequisite: UBPL 764 or permission of the professor. LEC.

**UBPL 722. History of the American City II. 3 Hours.**
This course examines the evolution of American cities from their European antecedents through the late 20th Century, from the urban planning perspective. It focuses on the changing spatial forms and functions of American cities and how these changes relate to socioeconomic and political aspects of urbanization as well as changes in technology. Emphasis is placed on analyzing the relationships between historical development patterns and the current range of problems facing most U. S. cities. (Same as UBPL 522 but gives graduate credit.) LEC.

**UBPL 730. Plans and Planning Processes. 3 Hours.**
This course is about how to create plans and put the pieces of cities together in a sustainable manner, balancing the competing values of economy, ecology, equity, and livability. It introduces students to the planning process in the U.S., what makes great plans, the basic implementation tools for planning (zoning, capital improvement plans, engineering standards, and subdivision regulations.) We will learn about the Comprehensive Plan along with specialized plans for transportation, housing, land use, and the environment. LEC.

**UBPL 735. Site Planning and Design. 3 Hours.**
Site planning is the arrangement of elements (buildings, landscaping, parking, open space) on particular pieces of property. This class focuses on the site planning process and the implementation of site design standards through regulations. We will delve into the elements and principles of design and ask these big questions: What makes great public spaces? What makes great neighborhoods? What makes great streets? What can we do to steer development in the direction of greatness? LEC.

**UBPL 736. Planning Institutions. 3 Hours.**
This course explores the legal principles underlying the institutions, practices and processes of city planning. Subjects to be discussed include zoning, eminent domain, subdivision regulation, transfer of development rights, environmental regulation, growth management, and other planning mechanisms used to guide urban growth and control the use of land. Students should emerge from the course with a solid understanding of both the logic and routine practice of planning in a procedural and institutional context. LEC.
UBPL 737. NEPA Environmental Assessments. 3 Hours.
This course provides an understanding of how to effectively manage and conduct environmental assessments as required by the National Environmental Protection Act (NEPA). Topics include the history and intent of NEPA; the steps, players and assessment types; techniques used to balance environmental concerns with the social and economic considerations; and the role of the courts and environmental advocacy groups in challenging NEPA assessment findings. The class also addresses the role of leadership, conflict resolution, and consensus building in managing environmental assessments. Case studies are used to examine different assessment types and process approaches. LEC.

UBPL 738. Environmental Planning Techniques. 3 Hours.
The course covers a variety of topics within environmental planning. Each topic is examined with respect to the scope of the issues, the methods of analyzing and/or measuring those issues, and the ways planners can address those issues in order to avoid or mitigate environmental problems. LEC.

UBPL 739. Issues in Growth Management. 3 Hours.
This course examines various aspects of growth management including its history, legal foundations, and application at different levels of government. Growth management not only means dealing with the rapid growth of cities, it also includes managing slow growth, no growth, and negative growth with the ultimate goal being sustainability. Impacts on affordable housing, economic development, social equity, transpiration, and environmental conservation are also explored. LEC.

UBPL 741. Quantitative Methods I. 3 Hours.
Introduction to quantitative techniques utilized in planning analysis. Introduction to inferential statistics, computer programming, and the use of statistical packages. LEC.

UBPL 742. Quantitative Methods II. 3 Hours.
Advanced study in planning techniques in the areas of population forecasting, analysis of variance, and regression. The course makes extensive use of microcomputers. Prerequisite: UBPL 741 or consent of instructor. LEC.

UBPL 746. GIS Applications for Design and Planning. 3 Hours.
This course will explore a range of Geographic Information Systems (GIS) applications for students in architecture and planning. It will be structured as a workshop, starting with a review of basic GIS concepts and procedures. Different digital data sources will be explored, along with file sharing (import and export) capabilities. The focus will be on applications at different scales using projects in architecture, site planning, environmental planning, urban analysis, and regional analysis. Three dimensional analysis will also be introduced. Each student will develop a final project as a synthesis of earlier exercises and as an application relevant to their individual professional interests. LEC.

UBPL 750. Introduction to Transportation Planning. 3 Hours.
This course is a survey course covering multiple modes of transportation (planes, trains, buses, automobiles, bicycles, and walking). The field of transportation planning is examined within a policy analysis framework. Knowing the policy context and understanding how decisions are made will assist transportation planners in understanding the world in which they operate. In addition to the policy context, this course will focus on the technical knowledge transportation planners are expected to know like federal requirements, traffic modeling, and specific topics like bicycle and pedestrian planning and traffic calming. LEC.

UBPL 755. Planning Intercity Transportation Systems. 3 Hours.
This course explores the supply and demand of intercity multimodal movement of people and goods from megaregional to global scales. Students will learn the characteristics and performance of rail, aviation, and marine travel, the nuts and bolts of supply provision, effects of intercity connections on communities, and mechanisms for planning at across state and national borders. LEC.

UBPL 756. Travel Demand Forecasting Methods. 3 Hours.
The course is intended to provide a working knowledge of analytical transportation planning; it emphasizes two elements. One emphasis is to describe the fundamental principles of transportation planning through the review of transportation modeling theory and practice. The second emphasis is to work with the TransCad model. Students learn how to use these models by running TransCad (GIS based modeling software), building a transportation model, and using it to forecast future transportation conditions. Prerequisite: UBPL 750 or consent of instructor. LEC.

UBPL 757. Transportation Planning Implementation. 3 Hours.
A variety of transportation implementation methods and strategies are explored. Project management with an emphasis on finance is the major focus of this course. This is a significant responsibility of transportation planners, consisting of several key steps including project initiating, planning, execution, and control. Other techniques included in this course deal with air quality conformity, congestion management, environmental reviews, developing performance measures, scenario testing, highway capacity analysis and micro-simulation modeling, and executing public involvement programs. LEC.

UBPL 758. Public Transit. 3 Hours.
This course familiarizes students with core concepts and practices in public provision of local transit systems from high-capacity heavy rail to on-the-fly demand response. Course modules examine modes, system design, planning issues, organizational relationships inherent to public transit, and technical operations. The course concludes with an examination of comprehensive transit systems. LEC.

UBPL 760. Historic Preservation Planning. 3 Hours.
In addition to studying the history of the preservation movement in the United States, the course will discuss preservation at the state and local level, preservation at the private level, ordinance creation, legal aspects of preservation, technical issues and contemporary issues and controversies in the field of preservation. Projects will deal with philosophic and current issues in preservation. LEC.

UBPL 761. Historic Preservation Economics. 3 Hours.
This course considers the economic strategies for the historic preservation of the built environment. Topics include investment tax credits, tax increment financing and tax abatement, bond issues, historic preservation grants, and revolving funds. Students will analyze case studies and meet guest speakers who make preservation projects work. Class projects may include market analyses, economic feasibility studies, rehabilitation/redevelopment plans, and technical research papers. LEC.

UBPL 762. Sustainability and the Future of the Built Environment. 3 Hours.
This course critically examines the evolving relationship between rehabilitation preservation, and new construction in creating a sustainable built environment in the United States during the twenty-first century. Some observers insist that we cannot build our way to sustainability, but instead must conserve our way to it. What is the appropriate balance of rehabilitation and new construction in creating sustainable built environment? What is the appropriate role of planning and design professionals in this movement? What knowledge and skills will be necessary? The course surveys the contemporary discussion about defining and evaluating a sustainable built environment as well as the economic and social requirements for creating a sustainable society. LEC.
Understanding how power, structures and agencies influence policy-making will help planners become savvier as they balance their roles as advisors, educators, facilitators, advocates, and administrators. This class explores the trials, tribulations, and triumphs of planners as they deal with politics.

UBPL 850. Urban and Regional Theory. 3 Hours.
This course explores the forces that shape the structure and function of cities and regions, drawing upon insights from planning, geography, economics, sociology, demography, and political science. Special attention is paid to theories that can be applied by urban planners to improve the economic performance, quality of life, and social equity of urban areas. Topics covered include the origin and development of cities, agglomeration economies, location theory, central place, mix-and-share analysis, economic base, input-output, labor markets, urban models, regional development planning, globalization, high technology, urban poverty, and problems of regional governance. Prerequisite: UBPL 741 and UBPL 815. LEC.

Master of Urban Planning
The Master of Urban Planning (M.U.P.) is a graduate professional degree that prepares students for careers in urban planning. It is the normal academic qualification for various planning and planning-related positions. The M.U.P. degree is accredited by the Planning Accreditation Board. The program places strong emphasis on policy planning and analysis in the context of urban or urbanizing environments. The program is geared toward meeting the need for planning policy on urban issues at any level of government — federal, state, regional, and local — or outside the governmental arena.

3 major areas of knowledge are necessary for competence in policy planning:

1. History and theory, which provide the conceptual framework of social, economic, and political environments within which public policy is formed;
2. Quantitative methods, which provide the skills necessary to define and analyze problems through data manipulation; and
3. Specialty areas, which provide focused information and skills in environmental planning, housing and development planning, land use planning and urban design, and transportation planning specializations.

Baccalaureate Preparation
A good undergraduate education in almost any discipline is acceptable preparation. Undergraduate preparation in the social sciences, engineering, business, or architecture is closely related to the direction and content of the M.U.P. program at KU. Students pursuing the bachelor of architectural studies may apply for a joint M.U.P. degree during their junior year.

Admission
Persons whose previous records indicate ability to succeed with advanced work may be admitted to graduate studies through the Department of Urban Planning. Ordinarily, admission requires a bachelor's degree and a grade-point average of approximately B from KU or another institution with substantially equivalent requirements for the bachelor's degree. The student's academic background is reviewed before an applicant without a bachelor's degree is admitted as a degree-seeking student at
KU. Admission decisions are based on the information supplied in the application materials.

A complete application consists of the following:

- A completed graduate application (http://www.graduate.ku.edu) submitted online (see Admission in the Graduate Studies (p. 2059) section of the online catalog);
- A statement of the applicant’s career goals and substantive interests in urban planning and rationale for undertaking graduate study in urban planning at KU;
- 1 copy of transcripts from all colleges or universities attended;
- 3 reference forms or letters of recommendation from persons qualified to comment on the applicant’s academic abilities and probable success in graduate study;
- Scores from the Graduate Record Examination;
- Test of English as a Foreign Language (TOEFL) or IELTS scores, if the student’s native language is not English; and
- Application fee submitted with online application.

Application deadlines are July 1 for fall and December 1 for spring admission. Candidates are urged to submit applications as early as possible. It may take several weeks to obtain all the materials required for an application file. International applicants must apply by June 1 for fall and November 1 for spring admission.

Applications for financial aid generally are considered early in the spring. In some cases, there is a February 15 application deadline. Students seeking scholarship funding must submit their scores from the Graduate Record Examination.

Submit your graduate application (http://www.graduate.ku.edu) and application fee online. Other requested application materials may be submitted online with the application or mailed to:

The University of Kansas
Department of Urban Planning
Marvin Hall
1465 Jayhawk Blvd., Room 317
Lawrence, KS 66045

M.U.P. Degree Requirements
All students must complete 48 credit hours, which normally involves 4 semesters of full-time study.* The required courses are

<table>
<thead>
<tr>
<th>General (6)</th>
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<tbody>
<tr>
<td>UBPL 736</td>
<td>Planning Institutions</td>
<td>3</td>
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<tr>
<td>UBPL 763</td>
<td>Professional Practice</td>
<td>3</td>
</tr>
<tr>
<td>Techniques (9)</td>
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<tr>
<td>UBPL 705</td>
<td>Economic Analysis for Planners</td>
<td>3</td>
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<tr>
<td>UBPL 741</td>
<td>Quantitative Methods I</td>
<td>3</td>
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<tr>
<td>UBPL 742</td>
<td>Quantitative Methods II</td>
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<tr>
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<tr>
<td>UBPL 815</td>
<td>History and Theory of Planning</td>
<td>3</td>
</tr>
<tr>
<td>UBPL 850</td>
<td>Urban and Regional Theory</td>
<td>3</td>
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<tr>
<td>Total Hours</td>
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<td>21</td>
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*Students completing the 5-year B.A.-M.U.P. track within the School of Architecture, Design and Planning must complete 30 credits following completion of the B.A. portion of the track.

Specializations
The curriculum requires each student to specialize in one of the following substantive areas:

- Housing and development planning,
- Sustainable land use planning, and
- Transportation planning.

The student should declare a specialization by the third semester of the course of study. In each specialization, the student must complete one course each in theory and policy, methods, and implementation. The minimum number of credit hours for the major area depends on whether the student pursues the thesis or the non-thesis option. For the thesis option, the student takes at least 9 hours in the major area. For the non-thesis option, the student takes at least 12 hours in the major area.

The specialty courses are as follows:

### Housing and Development Planning

**Theory and Policy (3)**
- UBPL 710 Introduction to Housing Policy 3

**Methods (3)**
- UBPL 764 Real Estate Development I 3

**Implementation (3)**
- UBPL 716 Community and Neighborhood Revitalization 3

**Supplementary Courses (9)**
- UBPL 760 Historic Preservation Planning 3
- UBPL 768 Real Estate Development II 3
- UBPL 802 Special Topics: ______ 3

### Sustainable Land Use Planning

**Theory and Policy (3)**
- UBPL 765 Introduction to Sustainable Land Use Planning 3

**Methods (6)**
- UBPL 735 Site Planning and Design 3
- UBPL 738 Environmental Planning Techniques 3

**Implementation (3)**
- UBPL 773 Environmental Planning Implementation 3

**Supplementary Courses (9)**
- UBPL 730 Plans and Planning Processes 3
- UBPL 762 Sustainability and the Future of the Built Environment 3
- UBPL 764 Real Estate Development I 3

### Transportation Planning

**Theory and Policy (3)**
- UBPL 750 Introduction to Transportation Planning 3

**Methods (3)**
- UBPL 756 Travel Demand Forecasting Methods 3

**Implementation (3)**
- UBPL 757 Transportation Planning Implementation 3

**Supplementary Courses (12)**
Free Electives
Besides the specialty courses, thesis students must take 3 additional credit hours, and non-thesis students must take 9 additional credit hours of elective courses; 6 of these hours may be outside the School of Architecture, Design and Planning.

Thesis Option
The thesis provides an opportunity for the student to apply individual research skills in the context of her or his interest. The thesis is a continuation of the student’s course of study rather than a separate academic effort. The format, medium, and focus of the thesis vary with the problem addressed. 6 hours of academic credit are given for the thesis. A student desiring to prepare a thesis must develop, with the assistance of a faculty advisor, a thesis proposal to be submitted to the faculty thesis committee no later than the first day of classes of the semester before the semester in which the student plans to graduate. The committee’s approval is required before the student may pursue the thesis option. A final general examination on the thesis and course work is held.

Non-thesis Option
The comprehensive examination may be taken as an alternative to the thesis. The examination provides a learning experience that encourages the student to synthesize the knowledge gained through course work and tests the student’s competence as a generalist/specialist planner. The examination consists of the student responding to a scenario or case study in which one is asked to synthesize knowledge gained in one’s course work and apply it within a particular context. No academic credit is given for the examination.

M.U.P. Curriculum
A total of 48 semester hours is required. Students typically complete the degree within 2 years.

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Hours Spring</th>
<th>Hours</th>
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<tbody>
<tr>
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<tr>
<td>UBPL 741</td>
<td>3 UBPL 705</td>
<td>3</td>
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<tr>
<td>UBPL 815</td>
<td>3 UBPL 742</td>
<td>3</td>
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<tr>
<td>Specialization courses or electives</td>
<td>6 UBPL 736</td>
<td>3</td>
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</table>

Specialization course or elective

<table>
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<tr>
<th>Year 2</th>
<th>Hours Spring</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Fall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UBPL 763</td>
<td>3 Implementation seminar</td>
<td>3</td>
</tr>
<tr>
<td>UBPL 850</td>
<td>3 Specialization courses or electives</td>
<td>9</td>
</tr>
</tbody>
</table>

Total Hours: 48

Master of Urban Planning and Bachelor of Arts in Architectural Studies
This program leads to the Bachelor of Arts in architectural studies and the Master of Urban Planning; it combines 6 years into 5 years of study. A total of 154 credit hours is required, composed of 39 hours in urban planning and 115 hours in architectural studies.

Students wishing to pursue this option must apply during the third year of study. Students must meet all the required courses for the bachelor degree and have a minimum 3.25 grade-point average. In the fourth year of undergraduate study, a student takes the same courses as a first-year graduate student. The student may submit Graduate Record Examination scores during the junior year but must submit GRE test results in the senior year. If the student has completed all first-year planning courses and been accepted for admission by the end of the fourth year of study, the student officially enters the graduate program to pursue the second year of study toward the completion of the Master of Urban Planning degree.

Master of Urban Planning and Master of Architecture
This joint degree combines in a 4-year program the normal 2-year M.U.P. degree and the 3-year M.Arch. degree, both offered through the School of Architecture, Design and Planning. The program is intended for students interested in careers in urban design. A total of 133 credit hours is required, comprising 39 hours in urban planning and 94 hours in architecture.

Applicants must meet admission requirements of both the Department of Architecture and the Department of Urban Planning. Students pursuing the M.Arch. may apply to the joint degree program during, but not after, the second year of study. Students pursuing the M.U.P. may apply to the joint degree program during, but not after, the first year of study.

Master of Urban Planning and M.A. in American Studies
This joint degree combines in a 2½-year program the normal 2-year M.U.P. degree offered through the School of Architecture, Design and Planning and the normal 1-year M.A. degree in American studies offered through the College of Liberal Arts and Sciences. The program is designed for students interested in careers in policy planning and research involving the arts, social planning, cultural activities and facilities, and historic preservation.

Contact the Department of American Studies or the Department of Urban Planning for information about degree requirements.

Master of Urban Planning and M.A. in Geography
This joint degree combines in a 3-year program the 2-year M.U.P. degree offered through the School of Architecture, Design and Planning and the normal 1½-year M.A. degree in geography offered through the College
of Liberal Arts and Sciences. The program is designed for students interested in careers in policy planning and research involving GIS cartography, environmental planning, and land use planning.

Contact the Department of Geography or the Department of Urban Planning for information about degree requirements.

**Master of Urban Planning and Master of Public Administration**

This joint degree combines in a 3-year program the M.U.P. degree offered in the School of Architecture, Design and Planning and the Master of Public Administration degree offered through the College of Liberal Arts and Sciences. The program is intended for students interested in careers in urban policy planning and urban management.

Contact the Department of Public Administration or the Department of Urban Planning for information about degree requirements.

**Master of Urban Planning and Juris Doctor**

The joint Juris Doctor /Master of Urban Planning program is open to those who have earned baccalaureate degrees and whose undergraduate records indicate that they have the capacity to complete the law and urban planning programs. Applicants must meet the admission requirements of the School of Law and of the Department of Urban Planning. Applicants should apply and be admitted to each school separately before they enter the first year of the program. The Law School Admission Test is the required entrance examination for the law school; the Graduate Record Examination is required for the Department of Urban Planning. A student who decides to enter the program while enrolled in the first year of the J.D. or M.U.P. curriculum must obtain approval from the School of Law and the Department of Urban Planning as soon as possible. No student may enter the joint degree program after completing more than 4 full semesters in the law school or 3 full semesters in the Department of Urban Planning.

A total of 115 credit hours is required for the joint degree, comprising 39 hours in urban planning and 76 hours in law. The joint degree program can be completed in 4 years. To pursue the degrees separately would require 5 years. For information on the combined program, consult the School of Law and the Department of Urban Planning.
Arts (in CLAS)

Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU (see your advisor (http://www.advising.ku.edu) for details). Other years' catalogs» (http://catalog.ku.edu/archive)

Dance (p. 130)
- Bachelor of Fine Arts in Dance (p. 133)
- Bachelor of Arts in Dance (p. 134)
- Minor in Dance (p. 135)

Film and Media Studies (p. 136)
- Bachelor of Arts and Bachelor of General Studies in Film and Media Studies (p. 142)
- Minor in Film and Media Studies (p. 144)
- Master of Arts in Film and Media Studies (p. 144)
- Doctor of Philosophy in Film and Media Studies (p. 145)

Theatre (p. 147)
- Bachelor of Arts and Bachelor of General Studies in Theatre (p. 152)
- Bachelor of Fine Arts in Theatre Design (p. 154)
- Minor in Theatre (p. 155)
- Master of Arts in Theatre (p. 155)
- Master of Fine Arts in Theatre Design-Scenography Concentration (p. 156)
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Visual Art (p. 158)
- Bachelor of Fine Arts in Visual Art (p. 169)
- Bachelor of Fine Arts in History of Art (p. 169)
- Bachelor of Arts in Visual Art (p. 173)
- Bachelor of Art Education in Visual Art Education (p. 174)
- Master of Fine Arts in Visual Art (p. 175)
- Master of Arts in Visual Art Education (p. 176)

Introduction

The School of the Arts in the College of Liberal Arts and Sciences is composed of 4 departments:
- Dance (p. 130)
- Film and Media Studies (p. 136),
- Theatre (p. 147), and
- Visual Art (p. 158).

The school acquaints students with the arts as an important field of a liberal culture, either as members of a discriminating public or as trained practitioners. It prepares students for careers in dance, film and media, theatre, and visual art and promotes scholarship and research in the arts. It offers curricula for teachers of art in public schools and institutions of higher education.

The school makes a substantial contribution to the cultural life of the campus, community, and state by providing a center for the best of theatre and dance performance and the exhibition of works of art and film.

Undergraduate Degree Requirements

Undergraduate Degree Programs

- The degree of Bachelor of Arts (B.A.) is granted with majors in dance, film and media studies, theatre, and visual art.
- The degree of Bachelor of Fine Arts (B.F.A.) is granted with majors in dance, history of art, theatre design, and visual art.
- The degree of Bachelor of General Studies (B.G.S.) is granted with majors in film and media studies and theatre.
- The Bachelor of Art Education (B.A.E.) offers a major in art education.

Requirements for Graduation

All undergraduate degrees from the University of Kansas require completion of the KU Core Curriculum. In addition to the KU Core, students must satisfy the degree specific and major requirements of the degree they are pursuing.

Degrees from the School of the Arts are conferred on candidates who have satisfactorily completed a minimum of 120 credit hours for the B.A., B.G.S., and B.F.A. degrees, including required subjects. The B.A.E. degree requires additional hours in student teaching, internship, and graduate credit for Kansas licensure and therefore requires a minimum of 139 hours.

45 credit hours must be in junior/senior-level courses, numbered 300 and above. 2.0 grade-point averages in KU courses and in junior/senior hours in the major are required for graduation. 4 hours of the total in each case except B.A.E. degrees may be in physical education activity courses. Art appreciation courses are not accepted toward art history requirements for students majoring in any field of art or design. HA 100 and HA 300 are not accepted toward any requirement for students majoring in any field of art or design.

Remedial Courses

Remedial courses listed in the catalog and Schedule of Classes are numbered below 100. Such courses include, but are not limited to, ENGL 50 and MATH 2. Such courses do not count toward graduation in the School of the Arts and may not be counted as distribution courses.

Facilities

Art and Design Building

View a slide show in the School of the Arts brochure.

The 130,000-square-foot Art and Design Building houses all major art and design programs, including studios and offices. The building houses the 2,100-square-foot Art and Design Gallery (http://art.ku.edu/about/art_design_gallery.shtml); this space features new exhibitions every 2 weeks and serves as an important component of the teaching mission. Each major program offers all students spacious work areas and a range of equipment, from traditional to the newest digital technology. Students have access to multiplatform computer labs with the most commonly used current software for photography, animation, CAD, 3-D, video
production, desktop publishing, scanning, illustration, large- and medium-format plotters, and color and black-and-white laser printers. Unique satellite computer areas are dedicated to textiles, metalsmithing and jewelry, expanded media, and printmaking. Students have access to a traditional Photography Laboratory, including a dark room for black-and-white photography, a digital processing lab, dedicated spaces for project photography, and an equipment checkout facility. The 6,400-square-foot Common Shop includes a range of woodworking equipment, a plastic vacuum former, metalworking equipment, and classroom space. All labs and the shop have technical support staff.

There are 3 large, well-equipped painting studios. The print studios consist of 8,000 square feet of workspaces and a dedicated computer lab for serigraphy, lithography, and intaglio. The intaglio studio has 5 presses and a separate acid room. The lithography studio has 3 presses and various sizes of stones. The serigraphy studio has 12 printing stations, a separate wash-out room, and a large exposure unit, available for a variety of photo-based processes. The sculpture studio is divided into 5 general work areas with appropriate equipment: woodworking, metal fabrication, foundry, an open courtyard, and individual studios. The foundry contains equipment necessary for casting with a variety of kilns, 3 gas-fired furnaces, and an overhead crane. There is an induction furnace with a lift-swing unit for bronze and a tilt box unit for iron and steel.

The 3,800-square-foot metalsmithing and jewelry studio has 8 rooms with separate areas for soldering, metalsmithing, plating/electro-forming, a finishing room, casting, gas and TIG welding, enameling, and a student-operated supply store. Matrix GemVision computer software is available for students to develop 3-dimensional jewelry models. The ceramics area includes 5,300 square feet of studio space in the Art and Design building as well as separate west campus Chamney barn facilities. Kilns include salt, soda, cross-draft wood, anagama wood-fired, raku, an electric test kiln, and several kinds of gas and electric kilns. The textile design area has separate weaving, screen-printing, sewing, and dye areas. The weaving studios are equipped with 4-, 8-, and 16-harness floor looms and two 16-harness AVL compu-dobby looms. The sewing area includes traditional machines, sergers, and a computer-aided embroidery machine. The textile Mac computer lab offers numerous software applications specific to weaving and surface design including jacquard weaving CAD software.

Murphy Hall

Murphy Hall houses all major theatre programs and facilities (http://theatre.ku.edu/about/facilities.shtml) for University Theatre (http://www.kutheatre.com) productions. Crafton-Preyer Theatre is a large proscenium theatre seating 1,181. It is equipped with a full-stage turntable, a hydraulic orchestra pit elevator, cutting-edge lighting and sound control equipment, and a recently renovated counterfeit line system. William Inge Memorial Theatre is a 50-foot by 50-foot black box theatre with flexible seating for approximately 120. It is also equipped with excellent lighting and sound control equipment. Well-equipped shops for scenery, costume, and props construction, as well as a lighting maintenance laboratory serve the production areas. Crafton-Preyer is also used as Stage Too! The audience is built onto the large stage of the theatre for a more intimate setting. 4 main studios are used as rehearsal halls and classrooms. The Thomas Gorton Music and Dance Library is in Murphy Hall.

Oldfather Studios

Programs in film and media studies are housed in the 18,000-square-foot Oldfather Studios, a fully equipped film and video production facility (http://film.ku.edu/~film/about/facilities.shtml) featuring a soundstage, sound and editing suites, screening rooms and classrooms. In these contemporary workspaces, students have the opportunity to plan, produce, and edit film and video using current technologies.

Robinson Center

The dance department is housed in Robinson Center, which contains 3 large, well-equipped dance studios. One of the studios converts into the Elizabeth Sherbon Theatre, an informal, black box theatre. Dance students have performance opportunities (http://dance.ku.edu/performance_opportunities) with the University Dance Company (http://www.ku.edu/404.php), New Dance, and in School of Music and Department of Theatre productions. The Thomas Gorton Music and Dance Library is in Murphy Hall.

Spencer Museum of Art

The Helen Foresman Spencer Museum of Art (http://www.spencerart.ku.edu) is regarded as one of the most innovative university museums and has long been considered one of the top teaching museums in the country. 5 galleries display selections from the permanent collection of more than 36,000 works of art. Areas of special strength include medieval art; European and American paintings, sculpture, and prints; photography; Japanese Edo-period paintings and prints; 20th-century Chinese paintings; and an ethnographic collection that includes 10,000 Native American, African, Latin American, and Australian works. Spencer Museum sponsors exhibitions, lectures, films, workshops, and activities that support curricular instruction in the arts. The also museum houses the Kress Foundation Department of Art History and the Murphy Art and Architecture Library, with more than 170,000 volumes and 600 current journals documenting the visual arts, design, and architecture from all cultures, from antiquity to the present.

Lied Center

The Lied Center of Kansas (http://www.lied.ku.edu) is a multipurpose performing arts facility with a 2,000-seat performing arts hall. It offers outstanding presentations of music, dance, and theatre, as well as lectures by artists and scholars. The Lied Center is a major regional presenter and provider of performing arts. The Department of Visual Art, Spencer Museum of Art, Hall Center for the Humanities, and the Lied Center present active visiting artist programs.

Undergraduate Programs

- The Department of Dance (p. 130) offers the Bachelor of Fine Arts degree and the Bachelor of Arts in Dance degree.
- The departments of Film and Media Studies (p. 136) and Theatre (p. 147) offer Bachelor of Arts and Bachelor of General Studies degrees.
- The Department of Visual Art (p. 158) offers the Bachelor of Fine Arts degree, the Bachelor of Arts degree, and the Bachelor of Art Education degree.
- The program leading to the Bachelor of Fine Arts degree in theatre design is offered cooperatively by the School of the Arts and the Department of Theatre (p. 147).

Courses for Nonmajors

Students in other KU schools may enroll in dance, film and media studies, theatre, and visual art courses for credit, subject to the availability of instructional time and the completion of necessary prerequisites. Qualifications are determined by course instructors.
Minors in dance, film and media studies, and theatre are offered for students in other disciplines.

**University Honors Program**

The school encourages qualified undergraduates to participate in the University Honors Program (http://www.honors.ku.edu).

**Art Exhibitions**

A number of exhibitions are sponsored by the Department of Visual Art. These are shown in department galleries and the Kansas Union. Each year, there are exhibitions of work by students in the school, representing the disciplines of art and design.

**Performances**

The University Dance Company (http://www.ku.edu/students/orgs/University_10366.html) performs a varied repertoire of ballet, modern, and jazz dance. It presents 2 major programs on campus each year as well as numerous presentations on tour.

The University Theatre (http://www.kutheatre.com) gives students a chance to act in, direct, design, and crew theatre productions. Each year, the University Theatre mounts about 8 fully staged productions. Students gain experience in children’s theatre, musicals, operas, and a range of classical and contemporary plays.

**Graduate Programs**

The School of the Arts is part of the College of Liberal Arts and Sciences (called the College or CLAS). The College is KU’s largest academic unit with more than 50 departments and programs. Graduate programs in the liberal arts and sciences include disciplines in the arts, humanities, social and behavioral sciences, and natural and mathematical sciences, as well as many interdisciplinary degree programs where often highly diverse disciplines come together to offer students a unique graduate experience. Each graduate program’s page contains program-specific information about admission, course curriculum, and faculty mentors.

The College’s participation in graduate education reflects a long and distinguished commitment to higher learning and research across the liberal arts and sciences. The College takes full advantage of KU’s role as an international research institution to ensure that the knowledge imparted to students is current and that they learn the skills of inquiry and critical evaluation. Graduate students are central to the research and teaching missions of the College. They are also the next generation of scholars who will make contributions to our communities and the production of knowledge for many years to come.

**It is the students’ responsibility to become thoroughly acquainted with all requirements for the degree programs in which they plan to participate.** These include the university requirements for graduate studies at KU outlined in the Graduate Studies (p. 2059) section of the online catalog, as well as the requirements of CLAS outlined in this section. Additionally, students are responsible for understanding the requirements that are unique to individual graduate programs outlined in both the graduate handbooks of individual academic units and the Departments & Programs sections of the online catalog.

In general, the student is subject to the regulations in force at the time of admission as a degree-seeking student. If degree requirements change, the student may opt to follow the new requirements or to continue under the regulations in force at the time of admission. Any student readmitted 10 years or more after his or her initial term as a degree-seeking student must fulfill the requirements in effect on the date of readmission to the graduate program.

**School of the Arts Graduate Degrees**

The School of the Arts offers graduate programs in 3 departments. The Master of Arts (M.A.) degree can be earned in film and media studies, theatre, and visual art education. The Master of Fine Arts degree is offered in visual art and in theatre design with a concentration in scenography. For students whose academic and professional goals can best be achieved through investigations at the interface of 2 or more disciplines, the School of the Arts offers master’s degree programs in interdisciplinary studies.

The School of the Arts offers the Doctor of Philosophy degree in film and media studies and theatre.

**Art Exhibitions**

A number of exhibitions are sponsored by the Department of Visual Art. These are shown in department galleries and the Kansas Union. Each year, there are exhibitions of work by students in the school, representing the disciplines of art and design.

**Performances**

The University Dance Company (http://www.ku.edu/404.php) performs a varied repertoire of ballet, modern, and jazz dance. It presents 2 major programs on campus each year as well as numerous presentations on tour.

The University Theatre (http://www.kutheatre.com) gives students a chance to act in, direct, design, and crew theatre productions. Each year, the University Theatre mounts about 8 fully staged productions. Students gain experience in children’s theatre, musicals, operas, and a range of classical and contemporary plays.

**Degree Requirements**

Requirements for the completion of master’s and doctoral degrees in the College are governed by department- or program-specific policy, College policies and procedures, Graduate Studies policies, and the University Senate Rules and Regulations.

Information on degree requirements presented in this section are limited to the most frequently consulted policies and key milestones in the graduate career. Students will find additional information under the KU Policy Library (http://www.policy.ku.edu/office.shtml/#16), the Graduate Studies (p. 2059) and College’s graduate regulations sections of the online catalog, the academic unit’s handbook, and the University of Kansas Rules and Regulations (p. 12).

**Master’s Degree Requirements**

**Coursework**

Coursework requirements for the Master’s degree are established and tracked by the department or program, and their completion verified and approved by the College. Please consult with your advisor, the academic unit’s graduate handbook, and the relevant Departments & Programs section of the online catalog for further information on specific courses or course sequences required for the degree.
Thesis

Final Examination
A final general examination in the major subject is required. The examination is held during the semester of the student's final enrollment in course work and, in the case of thesis students, when the thesis has been substantially completed. In thesis programs, an oral thesis defense may be one of the degree requirements. Such a defense may be offered in addition to, or in conjunction with, the required general examination in the major field. Students earning a master's thesis degree must have completed at least 1 hour of thesis enrollment before the master's degree can be awarded. See also Master's Degree Requirements (p. 2059), M.A. and M.S. Degrees, in the Graduate Studies section of the online catalog.

Doctor of Philosophy Degree Requirements

Coursework
Coursework requirements for the doctoral degree are established and tracked by the department or program, and their completion verified and approved by the College. Please consult with your advisor, the academic unit’s graduate handbook, and the relevant Departments & Programs section of the online catalog for further information on specific courses or course sequences required for the degree.

Research Skills and Responsible Scholarship
Graduate Studies requires that all doctoral students meet the Research Skills and Responsible Scholarship requirement before proceeding to the Comprehensive Exam. Specific requirements are determined by each department or program in consultation with Graduate Studies. Information on these requirements is contained in the department or program’s approved research skills requirement plan. Consult with your advisor and the Departments & Programs section of the online catalog for further information.

Residency
Two semesters, which may include one summer session, must be spent in resident study at KU. The College requires that residency be fulfilled before the comprehensive oral examination is scheduled. For more information on residency requirements, please see the Graduate Studies section (p. 2059) of the online catalog.

Comprehensive Oral Examination
The comprehensive oral examination covers the major field and any outside work for which the academic unit wishes to hold the student responsible. The examination is expected to be broader than a mere defense of the dissertation proposal.

The student must be enrolled the semester or summer session in which he or she completes the comprehensive oral examination. This enrollment may count toward the post-comprehensive enrollment requirements as described in Graduate Studies’ Candidacy for Doctoral Degree policy. If more than 5 years elapses between the completion of the comprehensive exam and degree completion, the student may be required to retake the oral comprehensive.

More information about comprehensive exam requirements may be found in the Graduate Studies section (p. 2059) of the online catalog.

Dissertation and Final Exam
Completion of the dissertation is the culminating phase of a doctoral program, marked by the final oral examination and defense of the dissertation. In all but the rarest cases, tentative approval of the dissertation is followed promptly by the final oral examination. Refer to the Graduate Studies section (p. 2059) of the online catalog for further information on the regulations governing the final oral examination, including committee composition and attendance regulations.


Ceremonies
At the end of each spring semester, the College holds a master’s hooding ceremony and Graduate Studies organizes the annual doctoral hooding ceremony. The School of the Arts hosts a separate ceremony for SOTA graduates. University Commencement information is available in the KU Commencement section of the KU website.

Attendance at these ceremonies is optional. Please consult the COGA website for more information.

The School of the Arts (http://sota.ku.edu) is home to four departments: dance, film and media studies, theatre, and visual art. It is housed within the College of Liberal Arts and Sciences, the broadest and most diverse academic unit on campus.

Students in the School of the Arts create, perform, and interpret works of art that contribute to our culture and history. As part of the College, students have access to ideas across the spectrum of arts, humanities, sciences and mathematics, social and behavioral sciences, and international studies. This partnership offers fresh possibilities for collaboration, paving the way for innovations and ideas.

Students interested in pursuing an undergraduate major or minor in the School of the Arts should contact the School of the Arts advisor at 785-864-3500 to schedule an advising appointment.

Graduate Advising
Advising of graduate students is primarily conducted within the graduate programs by program staff members and the individual faculty members who act as mentors and advisors. Students are encouraged to work with the director of graduate studies in their program regarding course selections and individual program requirements to ensure that all program milestones are reached as expected by the program faculty and the College. The graduate studies director or coordinator is also responsible for the regular assessment of students in the program and can address questions regarding a student’s progress toward the degree.

Students seeking information on specific policy or procedures should review the relevant content in the KU Policy Library (http://www.policy.ku.edu/office.shtml/#16) as well as the College and Graduate Studies (p. 2059) sections and the relevant Department or Program section of the online catalog. The College Office of Graduate Affairs (http://clas.ku.edu/coga), 108 Strong Hall, coga@ku.edu, is also available for assistance.
Students who have completed all degree requirements and are preparing to graduate are encouraged to schedule a Graduation Appointment with the College Office of Graduate Affairs.

Undergraduate University Regulations

For information about university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://www.policy.ku.edu).

Credit/No Credit

A Credit/No Credit option is available to all degree-seeking undergraduates. You may enroll in one course a semester under the option, if the course is not in your major or minor. For more information, visit the KU Policy Library (https://documents.ku.edu/policies/governance/USRR.htm#art2sect2).

Warning: Certain undesirable consequences may result from exercising the option. Some schools, scholarship committees, and honorary societies do not accept this grading system and convert grades of No Credit to F when computing grade-point averages.

Incompletes

The letter I indicates incomplete work, such as may be completed without re-enrollment in the course. The letter I should not be used when a definite grade can be assigned for the work done. It is not given for the work of a student in any course except to indicate that some part of the work has, for reasons beyond the student’s control, not been done, while the rest has been satisfactorily completed. At the time an I is reported on the electronic roster, the character and amount of work needed, as well as the date required for completion and lapse grade if further work is not completed by this date, should be indicated.

A student who has an I posted for a course must make up the work by the date determined by the instructor, in consultation with the student, which may not exceed 1 calendar year, or the last day of the term of graduation, whichever comes first. An I not removed according to this rule automatically converts to a grade of F or U, or the lapse grade assigned by the course instructor, and appears on the student’s record.

Extensions to the time limit may be granted by the dean’s representative upon submission of a petition from the student containing the endorsement of the course instructor who assigned the I grade, or the department chairperson if the instructor is unavailable. After the I grade is converted to a grade of F or U, the grade may only be changed in accordance with USRR Article II, Section 3 (https://documents.ku.edu/policies/governance/USRR.htm#art2sect3).

Probation and Dismissal

Students may be dismissed at any time by the dean for excessive absences or for failure to make satisfactory progress in their studies. A student not on probation who fails to earn a grade-point average of at least 2.0 in any semester is placed on probation for the following semester. At the end of the semester in which the student has been on probation, he or she is removed from probation if the grade-point average for the semester is at least 2.0, with a minimum course load of 12 hours and a cumulative grade-point average of 2.0. A student whose course load is fewer than 12 hours or whose cumulative grade-point average is below 2.0 continues on probation even if the semester grade-point average is 2.0 or above. At the end of the semester in which the student has been on probation, he or she is dismissed for poor scholarship if the grade-point average for the semester is below 2.0. A student who has been dismissed for poor scholarship is not eligible to enroll again at any time, except with the special permission of the chair of the department. A reinstated student is placed on final probation. If the student fails to achieve a minimum grade-point average of 2.0 for the semester, he or she is dismissed, and readmission is not granted. Students who take courses at other institutions during the suspension may receive credit for such work only if it meets the approval of the department in which the student is doing major work.

Required Work in Residence

6 of the final 30 hours may be taken for nonresident credit, with advance permission. Nonresident credit may fill only elective requirements not in the major field of study.

Transfer of Credit

Only grades of C or higher are accepted as transfer credit toward degrees. Applicants with a lapse of 4 or more years since their last full-time enrollment may not expect studio credits in visual art to be accepted for transfer.

CredTran (http://admissions.ku.edu/apply/credits) is a transfer course equivalency system that lists more than 2,200 colleges and universities from which KU has accepted transfer courses in the past. If your school or course is not listed, your evaluation will be completed when you are admitted to KU.

Graduate University Regulations

The pursuit of graduate study in the College of Liberal Arts and Sciences at KU is governed by department- or program-specific policy, College policies and procedures, Graduate Studies policies, and University Senate Rules and Regulations. Information on the most frequently consulted policies is contained in this section. Students should also consult the academic unit’s handbook, Graduate Studies and College sections of the KU Policy Library, and the Graduate Studies and University of Kansas Regulations sections of the online catalog.

Academic and Research Integrity

The College of Liberal Arts and Sciences strictly enforces KU and College policies on academic and scholarly misconduct. Academic integrity requires honest performance of academic and research responsibilities by students. These include, but are not limited to, ethical preparation of assignments, reports, and research papers; completion of examinations; ethical treatment of human and animal subjects; execution of administrative requirements; and a sincere and conscientious effort by students to abide by the policies set forth by instructors and research advisors.

Enrollment

Full-time, Half-Time and Part-Time Enrollment

Graduate Studies defines full-time enrollment as 9 credit hours in Fall or Spring semester and 6 hours in the summer session. Maximum enrollment for graduate students, except in rare instances, is 16 hours in Fall or Spring semester and 9 hours in the summer session. Please see the Full-time Enrollment for Graduate Students policy in the Graduate Studies (p. 2059) section of the online catalog and the KU Policy Library (http://www.policy.ku.edu/office.shtml/#16) for more information on
what constitutes full-time, half-time, and part-time enrollment, including variations on this policy for GTA/GRA/GA appointments and active duty military. At a minimum, all graduate students should be continuously enrolled in the Fall and Spring semesters while completing the credit hours required for the fulfillment of their degrees. Please consult the Graduate Studies (p. 2059) section of the online catalog and the KU Policy Library (http://www.policy.ku.edu/office.shtml/#16) for other enrollment regulations.

Continuous Enrollment for Master’s Students

All master’s students in the College who have completed the required coursework for their degrees must be continuously enrolled in the Fall and Spring semesters until all remaining requirements for the degree, including thesis when applicable, are completed. No enrollment is required during the summer session unless it is the semester during which the student will graduate, in which case enrollment is required. Certain academic units have rules governing summer enrollment.

Post-Comprehensive Enrollment for Doctoral Students

After passing the Comprehensive Oral Exam, doctoral candidates must be continuously enrolled. During this time, until all requirements for the degree are completed (including the filing of the dissertation) or until 18 post-comprehensive hours have been completed (whichever comes first), the candidate must enroll for a minimum of 6 hours a semester and 3 hours a summer session. At least one of these hours must be in dissertation or approved dissertation equivalent coursework.

In addition, the College requires a period of at least 5 months to elapse between the comprehensive oral exam and the final exam. Students that have completed all degree requirements before completing 18 hours are still required to continue enrollment until this 5-month requirement has been met.

Upon completion of the 18-hour requirement, a student’s level of enrollment should reflect as accurately as possible the faculty time he or she utilizes. This may be as little as one hour per semester.

Special enrollment requirements apply to those with GTA/GRA/GA appointments. Please consult the Graduate Studies (p. 2059) section of the online catalog and the KU Policy Library (http://www.policy.ku.edu/office.shtml/#16).

Lapses in Enrollment

Generally, no student is allowed to enroll after the first 4 weeks of a semester or the first 2 weeks of a summer session. If a student does not intend to enroll, he or she must determine the appropriate course of action in consultation with the department or program.

The student may elect to Voluntarily Discontinue from the program, and must inform the department or program in writing of this decision, which will in turn file the necessary forms with the College. This option requires the student to seek re-admission to the program if they choose to return at a future date. They remain eligible to seek admission to another department or program in the College.

The student may also petition for a Leave of Absence of up to one calendar year. If granted, the Leave of Absence maintains the student’s place in the program. Leave of Absence petitions must be filed by the department or program and provide evidence of the department or program’s endorsement of the student’s petition. Students interested in this option should begin by consulting with their advisor.

The time spent on Leave of Absence does not count toward the student’s time to degree, and therefore does not shorten the time available to complete their degree requirements. Similarly, if a student that has elected to Voluntarily Discontinue subsequently returns to the program, the time that has elapsed since his or her last enrollment does not count toward the time to degree.

Students who fail to enroll without completing the Voluntary Discontinuance process or without being granted a Leave of Absence are reviewed by the College Office of Graduate Affairs and the students’ academic units for possible dismissal. Any time that accrues during these lapses of enrollment in which the student does not occupy any approved enrollment category (e.g., Enrolled, Voluntarily Discontinued, On Leave) is counted toward the time to degree.

Students on an international student visa should consult with the International Programs office prior to any change in enrollment status.

Please see Graduate Studies policies governing Leave of Absence and Voluntary Discontinuance in the Graduate Studies (p. 2059) section of the online catalog and in the KU Policy Library (http://www.policy.ku.edu/office.shtml/#16).

Dual Enrollments

Students enrolled in two schools or working on two degrees at the same time must complete the work for both degrees. Courses may not be counted toward both degrees, except in the joint degree programs that have been established (e.g., M.P.A./J.D., M.A. in Economics/J.D., M.B.A./M.A. in Area Studies, etc.). Please refer to the Combined Degrees in the Graduate Studies (p. 2059) section of the online catalog for a complete list of approved joint degree programs.

Examinations

Students must be enrolled during the semester in which they complete their oral comprehensive or final examinations. Additionally, no graduate student will be allowed to take oral comprehensive or final examinations, or to go forward with a thesis or dissertation defense, if a waiting grade (WG) placeholder or an incomplete (I) grade is listed on the student’s transcript.

University Regulations on Grading

Article II of the University Senate Rules and Regulations provides detailed information on regulations governing the grading of graduate coursework. Students should also consult the Graduate Studies (p. 2059) section of the online catalog and the KU Policy Library (http://www.policy.ku.edu/office.shtml/#16) for more information on the Grading Policy.

The following are of particular relevance for graduate students in the College:

Passing Grades for Graduate Coursework

Only courses graded C or above are considered passing and may be counted for graduate credit. Courses graded C-, D or F may not be used to fulfill degree requirements.

Incomplete (I) and Waiting Grades (WG)

Incomplete (I) grades are used to note, temporarily, that students have been unable to complete a portion of the required course work during that semester due to circumstances beyond their control. Incomplete work must be completed and assigned an A-F or S/U grade within the time...
period prescribed by the course instructor. After one calendar year from the original grade due date, an Incomplete (I) grade will automatically convert to a grade of F or U, or the lapsed grade assigned by the course instructor.

Waiting Grades (WG) are placeholders and should only be used in rare instances when, for reasons beyond his or her control, an instructor is not able to assign a course grade by the deadline.

Credit/No Credit (CR/NC)
Graduate students may select the Credit/No Credit option only for those courses that do not fulfill a degree requirement. This includes courses used to fulfill the Research Skills and Responsible Scholarship requirement. Students should consult with their advisor prior to electing the CR/NC option.

College-Specific Grading Policy
Plus/Minus (+/-) Grades
Plus/minus (+/-) grades may be used in the College. The plus or minus sign describes intermediate levels of performance between a maximum of A and a minimum of F. Intermediate grades are calculated as 0.3 units above or below the corresponding letter grade.

Participation (P) Grades
Use of the Participation (P) grade is restricted in the College. It is only approved for a limited number of courses for which special permission has been sought. When permission is granted, it is only used to indicate participation in thesis, dissertation, or research enrollments (related to thesis or dissertation), or in the first semester enrollment of a two-semester sequence course. In any semester, the instructor may elect to assign a letter grade of A, B, C, D, or F when evidence about performance is available. A letter grade (A, B, C, D, or F) must be assigned in the last semester of enrollment to characterize the quality of the final product.

A-F or S/U grades are used in all other courses, including those that are repeated across semesters. The latter include courses in which students are collecting, assembling, or analyzing data; reviewing a research or scholarly literature; creating portfolios; or writing theses or dissertations (e.g., research, thesis, and dissertation hours). Students in these courses are expected to develop plans of study with their instructors and to contact these instructors throughout the semester to discuss their progress or changes in their plans. Instructors assign grades each semester based on the quantity and quality of the work students complete that semester. The grades that students receive in the last semester of these courses (e.g., for completing data analyses and literature reviews, exhibiting portfolios, defending theses or dissertations) apply only to that semester.

If a department or program has a course for which the P grading system may be more appropriate than the A-F or S/U grading system, it must seek special approval from the College.

Incompletes (I) and Waiting Grades (WG)
The College does not allow graduate students to take oral comprehensive or final examinations or to go forward with a thesis or dissertation defense if a waiting grade (WG) or an incomplete (I) grade is listed on the student’s transcript.

Probation and Dismissal Guidelines
To be in good standing, a student must maintain a 3.0 cumulative grade-point average and be making satisfactory progress toward the degree, as determined by the department or program.

If the grade-point average falls below 3.0, the department or program notifies the student in writing that they are being recommended for probation and outlines the expectations of the graduate program and the College that the student must meet to return to good standing. This is followed by a letter from the College confirming their probationary status.

When the rationale for probation is based on grade-point average, a student is typically placed on probation for 1 academic semester. If the cumulative grade-point average has not risen to 3.0 at the end of that semester, the student can either be dismissed or be allowed to continue on probation, depending on the department or program’s assessment of the student’s progress.

Students may also be placed on probation for failing to make satisfactory progress toward the degree. This may include, but is not limited to, failed exams or failure to make adequate and timely progress on the dissertation or thesis.

A graduate student is dismissed upon recommendation of the student's department or program. This typically occurs when a student fails to raise the grade point average to 3.0 after one or more semesters of probation, or otherwise fails to meet the terms of the probationary period. Academic dismissal should occur before a semester begins. If a student is dismissed during the semester, the dismissal is effective only at the end of the semester in which the department or program gives notification of dismissal. The department or program will notify the student in writing of the reasons for their dismissal. This will be followed by a letter from the College confirming the dismissal from the program and from the College.

In cases when a student’s grade point average is so low that their ability to ever achieve the 3.0 grade-point average required for graduation is in serious doubt, the department or program should move to dismissal. If they wish to allow the student to continue, they must petition the College on the student’s behalf.

A student who has been dismissed from a graduate department or program in the College is not eligible for readmission to graduate study in any department or program in the College of Liberal Arts and Sciences.

Time Limits
The University and the College have established time limits governing various stages of the graduate student career.

Maximum Time to Count Required Course Work
Courses completed at the University of Kansas, or transfer credits from another university, are valid for a period of 10 years. Courses that were completed more than 10 years before the scheduling of the final defense may not be used to fulfill graduate degree requirements in the College of Liberal Arts and Sciences.

With the endorsement of their graduate programs, students may petition the College to accept out-of-date course work to fulfill the requirements for their graduate degrees, provided they are able to justify why this course work meets the current standards of scholarship in the discipline.
Maximum Time to Submit Thesis or Dissertation

Students must make all final revisions and file the final version of the thesis or dissertation manuscript to UMI/ProQuest within six months of the date of final presentation and/or defense of the thesis or dissertation work. Until the final manuscript of a thesis or dissertation is filed, the student must be enrolled in accordance with enrollment policy. Graduate students in the College who do not file the final manuscript within the six-month time limit must enroll in 3 hours a semester until the thesis or dissertation is completed and filed.

Maximum Time to Complete the Degree

Graduate Studies has established time limits on master’s and doctoral degree completion. Please see Graduate Studies policies on Doctoral Program Time Constraints and Master’s Program Time Constraints in the Graduate Studies (p. 2059) sections of the online catalog and in the KU Policy Library (http://www.policy.ku.edu/office.shtml/#16) for full details.

Master’s degree students have a total of seven calendar years, excluding any periods of absence due to an approved leave of absence or voluntary discontinuation from a program, in which to complete the work for a master’s degree.

Doctoral degree students have a total of eight calendar years, excluding any periods of absence due to an approved leave of absence or voluntary discontinuation from a program, to complete the Ph.D. This includes students who enter with a master’s degree from an institution other than KU and bachelor’s degree holders who bypass the master’s and are admitted directly to a Ph.D. program.

Students who complete the master’s degree at KU and subsequently begin doctoral studies have 10 years to complete both degrees.

A time limit extension may be granted by the College. All extension petitions require the department to prepare and file a Graduate Degree Completion Agreement, which must then be approved by a designated subcommittee of the Committee on Graduate Studies. Per Graduate Studies policy, extensions may be granted for up to one year. However, additional time may be requested in the Completion Agreement. If the Completion Agreement is approved, subsequent petitions will receive an expedited review.

Academic units may set their own, more rigorous time limits. Consult with your advisor and review your academic unit’s handbook and the relevant Departments and Programs section of the online catalog for program-specific information, requirements, and restrictions.

Graduation

All graduate students must be enrolled the semester they complete all degree requirements.

Graduate Studies establishes an early deadline for degree completion for each semester and summer session, usually occurring at the end of the first 2 weeks of a semester or the end of the first week of summer session. If the student meets all degree requirements including the submission of all required documentation by this date, they are not required to enroll for that semester.

The final Graduate Application for Graduation Deadline is set by the Registrar for each semester. Please consult the official Academic Calendar for specific dates. To be eligible for graduation, an application for degree must be submitted and all degree requirements met by this deadline. This includes the submission of all required documentation to the College Office of Graduate Affairs. See the Graduation section of the COGA (http://clas.ku.edu/coga/graduation) website for more information.

Undergraduate Graduation with Honors

Undergraduates may earn honors upon graduation in 3 ways. The student may graduate with distinction or highest distinction, earn departmental honors in the major, or complete the University Honors Program (http://www.honors.ku.edu). It is possible to earn honors in 1 of these areas, any combination of them, or all 3. The award of honors is noted on the student’s transcript and in the Commencement program. Distinction and highest distinction are noted on the diploma.

Graduation with Distinction or Highest Distinction

The top 10 percent of each year’s graduating class is designated as graduating with distinction. Of these, the top one-third is designated as graduating with highest distinction. To be eligible, students must have completed at least 60 credit hours, graded A through F, in residence at KU. See Required Work in Residence below.

Graduation with Departmental Honors

Most departments and programs allow qualified majors to work toward graduation with departmental honors. Graduation with departmental honors is awarded in recognition of exceptional performance in the major, completion of a program of independent research or an alternative project, and a strong overall academic record.

In addition to the requirements of individual departments and programs (which must be approved by the College committee on undergraduate studies and advising), the College requires the following for graduation with departmental honors:

1. Candidates must declare the intention to work for departmental honors with the appropriate departmental honors coordinator(s) no later than the time of enrollment for the final undergraduate semester, but sooner if required by the department(s). Copies of the intent form should be returned to College Student Academic Services.

2. At the end of the final undergraduate semester, the candidate must have achieved an overall grade-point average of at least 3.25 and a grade-point average of at least 3.5 in the major. Both overall and major grade-point averages include work completed at other institutions, as well as at KU. No minimum grade-point average is required to declare candidacy for graduation with departmental honors unless specified by the department.

3. Each candidate’s departmental honors work must include independent research or an acceptable alternative project. The results of research are presented in a form appropriate to the requirements of the major department. Equivalents to the independent research component are established by approved departmental honors programs. In courses meeting the independent research requirement, the candidate must earn a grade of B or higher. Successful completion of all departmental honors requirements must be certified to the departmental honors coordinator(s) by a panel composed of at least three members of the College faculty who have read the report of the independent research and heard the oral presentation, where required.
Petitions
A department or program may petition to award graduation with departmental honors to deserving students who, for good reason, do not meet every College and departmental requirement. Send petitions to the committee on undergraduate studies and advising, College Student Academic Services (http://collegesas.ku.edu).

Late Completion of Honors Requirement
Requirements for graduation with honors may be completed after the date on which certifications are requested from departments. In fact, requirements—for example, the completion of an honors thesis for which the credit hours are not needed to graduate—may be completed after a student has graduated. When a candidate finishes all requirements, departments must notify College Student Academic Services (http://collegesas.ku.edu) in writing.

University Honors Program
The University Honors Program (http://www.honors.ku.edu) provides opportunities for outstanding and creative undergraduate students in all schools at KU to develop their full potential during their undergraduate years. The Honors Program brings talented students together in honors classes and seminars to benefit from mutual interests and association. It brings students and faculty members together in a teaching and research environment that ensures high academic achievement and standards. The program also coordinates merit-based scholarship opportunities for qualified students, including KU awards such as the University Scholars Program, and Undergraduate Research Awards. The Honors Student Association and the Honors Ambassador Program provide opportunities for student leadership.

In general, honors classes are small, oriented to discussion, and taught by full-time members of the faculty. Most honors courses fulfill requirements and deal with introductory fundamentals and principles, but they are likely to do so in more depth than their non-honors equivalents. Honors courses are distinguished by the energetic atmosphere and critical thinking generated by the students in them and the faculty members who teach them.

Honors students are interested in expanding their knowledge and take a broad range of liberal arts and sciences courses. This is true of students in the professional schools (architecture, engineering, business, etc.) as well as students in the College of Liberal Arts and Sciences. Honors program advisors typically recommend that students explore their interests through the broad curriculum choices KU has to offer.

A first-year, semester-long tutorial experience provides an introduction to an academic area of study in an informal setting that allows students to get to know one another and the instructor. The tutorial explores the research methods of a discipline and acquaints the student with the research resources at KU. Honors advising is personalized in meetings with honors staff, faculty fellows, and specially selected advisors from across the university. The program’s advising committee facilitates early and frequent contact with academic advisors in the students’ areas of interest. Honors students benefit from priority enrollment, which provides flexibility in planning one’s academic curriculum.

The program does not require a minimum number of honors courses a semester. However, students in the program quickly discover that honors courses engage the intellect, hold the interest, and create the enthusiasm for learning they seek at a university. Students in the professional schools are particularly encouraged to seek out honors course opportunities early, while their curricula still have breadth and flexibility.

Honors students are strongly encouraged to include research, study abroad experiences, internships, and community service in their academic programs. Consult Honors Program staff about applying these activities toward completion of honors requirements.

Admission
Students with strong high school curricula and excellent academic records are encouraged to apply to the University Honors Program. Admission is highly competitive. Although no ACT/SAT composite score or high school grade-point average guarantees that a student will or will not be admitted to the University Honors Program, this year’s average ACT composite for accepted students is a 32.4, and the average unweighted GPA for an accepted student is 3.96. Applications are evaluated on the basis of high school curriculum, grades, an essay, activities, and standardized test scores. Applications from first- and second-year students currently attending KU, as well as incoming transfer students, are evaluated on the basis of college course work, an essay, and college activities. Review of applications begins in October and continues through April. Send inquiries to the University Honors Program, 1506 Engel Road, Lawrence, KS 66045-3845. View further information and the online application (http://www.honors.ku.edu).

Completion of the Program
Students graduate from the program by completing 8 honors units and the first-year, semester-long tutorial. The 8 units must be completed as follows:

1. 6 honors courses (may include graduate-level courses numbered 700 and above).
2. 1 out-of-classroom experience such as study abroad, departmental honors, documented research experience, approved and documented internship experience, or approved and documented community service.
3. The eighth unit may be from either category 1 or category 2. Students also must maintain a minimum 3.25 grade-point average.

Nunemaker Center
This unique building, with its modern architectural design, is the home of the Honors Program, near the Daisy Hill residence halls at 15th Street and Engel Road. The Honors Program is home to several faculty fellows who serve the program and bring additional resources to the program to complement the full-time staff. Faculty fellows are available for advising, consultation about majors and careers, guiding research projects, and work with the Honors Council to develop programmatic initiatives.

Students are encouraged to take advantage of the spaces available at Nunemaker, including several classrooms and study areas, a kitchen, comfortable lounges that include 2 fireplaces, and wireless Internet access. Nunemaker also serves as a gallery for undergraduate art. The center is open days and evenings.

View Honors (http://catalog.dept.ku.edu/201314/schools/clas/honors) courses in the online catalog.

Graduate Awards
The College of Liberal Arts and Sciences offers several awards to recognize outstanding graduate students, faculty service, teaching excellence, and exemplary advising. Below, you will find a brief
description of each award. More specific information about eligibility and the call for nominations each year can be found on the College’s website under Faculty Awards (http://clas.ku.edu/resources/faculty-staff/awards) and Graduate Student Awards (http://clas.ku.edu/resources/faculty-staff/awards).

Graduate Student Awards

Howard J. Baumgartel Peace and Justice Award
This is an annual award to support a graduate student in the College or the School of Business for thesis or dissertation research whose interests, achievements, and talents are in the peace and justice field.

Outstanding Thesis/Research Project Award
The Committee on Graduate Studies in the College has established 2 annual awards for students receiving a master’s degree. The awards carry a $500 stipend. Students are nominated for the award by their advisors. Each department may nominate one master’s student for each award.

Graduate Faculty Awards
Byron A. Alexander/John C. Wright Graduate Mentor Awards
Graduate students (current or those who have graduated since May of the calendar year prior to the award deadline) may nominate any tenured or tenure-track faculty member in the College of Liberal Arts and Sciences who has served as an outstanding mentor.

Career Achievement Teaching Award
This annual award recognizes a retired faculty member in the College of Liberal Arts and Sciences who has made a significant contribution to the teaching of College students at either the undergraduate or graduate level and who has distinguished him/herself through excellence in teaching. The award amount is $1,000.

Dance Courses

DANC 101. Ballet I. 1.5 Hour.
Classical and modern approaches to the language of ballet for beginners. May be repeated for credit. Does not count toward the dance major requirements. ACT.

DANC 102. Ballet II. 1.5 Hour.
Classical and modern approaches to the language of ballet for experienced beginners. May be repeated for credit. Does not count toward the dance major requirements. Prerequisite: DANC 101 or consent of instructor. ACT.

DANC 103. Modern I. 1.5 Hour.
Dance technique for beginners with precedents in the movement vocabularies of Isadora Duncan, Martha Graham, Doris Humphrey, Merce Cunningham, and the seminal choreographers of modern dance. May be repeated for credit. Does not count toward the dance major requirements. Prerequisite: DANC 101 or consent of instructor. ACT.

DANC 104. Modern II. 1.5 Hour.
Dance technique for experienced beginners with precedents in the movement vocabularies of Isadora Duncan, Martha Graham, Doris Humphrey, Merce Cunningham, and the seminal choreographers of modern dance. May be repeated for credit. Does not count toward the dance major requirements. Prerequisite: DANC 103 or permission of instructor. ACT.

DANC 105. Jazz I. 1.5 Hour.
Dance technique for beginners based on elements of Latino, African, popular and classical jazz dance forms. May be repeated for credit. Does not count toward the dance major requirements. ACT.

DANC 106. Jazz II. 1.5 Hour.
Dance technique for experienced beginners based on elements of Latino, African, popular and classical jazz dance forms. May be repeated for credit. Does not count toward the dance major requirements. Prerequisite: DANC 105 or consent of instructor. ACT.

DANC 108. Pas de Deux. 1 Hour.
The elements of classical ballet partnering (pas de deux) are explored. These elements include supported poses, turns, lifts, and their coordination between the partners. For men only. Women enroll in Pointe and Pas de Deux, DANC 307. May be repeated for credit. ACT.

DANC 109. Men’s Ballet. 2 Hours.
An introduction to classical ballet focusing on the particular requirements of the male ballet technique including leaps, turns, batterie, and their presentation. May be repeated for credit. ACT.

DANC 125. Movement Efficiency for Athletes. 3 Hours.
A course designed to improve athletic performance potential by improving initiation and follow-through of movement; improving coordination, timing, and ease of action; and reducing the risk of injury through better technique. Students will learn how to apply the basic principles of Rudolf Laban and Irmgard Barteneff to the specialized movement skills of various sports. Students will also learn to develop individualized warm-ups and drills to improve performance. Prerequisite: Participation in team sports, dance, martial arts, other skilled sport movement, or consent of instructor. ACT.

DANC 150. Dance Improvisation. 2 Hours.
Developing skills in perception and the rapid translation of ideas into dance. Central to the course will be exposure to a variety of stimuli from music and the visual arts, to nature and people on the streets. Prerequisite: DANC 104 or consent of instructor. ACT.

DANC 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Dance. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

DANC 201. Ballet III. 1-2 Hours.
Classical and modern approaches to the language of ballet for intermediate dancers. May be repeated for variable credit. Prerequisite: DANC 102 or consent of instructor. LAB.

DANC 203. Modern III. 1-2 Hours.
Dance technique for intermediate dancers with precedents in the movement vocabularies of Isadora Duncan, Martha Graham, Doris Humphrey, Merce Cunningham, and the seminal choreographers of modern dance. May be repeated for variable credit. Prerequisite: DANC 104 or consent of instructor. LAB.

DANC 205. Jazz III. 1-2 Hours.
Dance technique for intermediate dancers based on elements of Latino, African, popular and classical jazz dance forms. May be repeated for variable credit. Prerequisite: DANC 105 or consent of instructor. LAB.

DANC 210. Rhythms and Structures of Music. 1 Hour.
An introduction to the analysis and use of rhythms and the compositional forms of music for dance. LEC.
DANC 220. Dance Performance. 1 Hour.
A dance repertory and performance class with emphasis on developing skills for performing ballet, modern, jazz, historic, and/or forms of theatrical dance. May be repeated for credit. Prerequisite: 200- or 300-level dance technique course. ACT.

DANC 230. Introduction to African Dance Theatre. 2 Hours. NW.
An introduction to the general techniques of non-verbal theatrical conventions in African cultures. Practical training in movement vocabulary will be supplemented by lectures on the "text" of performance. (Same as AAAS 334 and THR 226.) LEC.

DANC 240. Introduction to Classical East Indian Dance. 3 Hours.
Classical East Indian dance has an extensive movement vocabulary that emphasizes the coordination of rhythmic foot patterns with intricate hand gestures. Students will learn the mudras (hand gestures) and their significance and integration within each dance. Readings will include excerpts from the Natya Sastra and other treatises of East Indian dance and culture. LEC.

DANC 250. Choreography: Structured Solos. 2 Hours.
Movement studies for solo figure based on exploration of the fundamental ingredients of dance (space, time, weight, and energy flow) and how to organize them into short compositional forms such as ABA, verse/refrain, or narrative. Prerequisite: DANC 150 and DANC 203 or consent of instructor. LAB.

DANC 260. Musical Theatre Dance. 2 Hours.
This course focuses on the dance and movement vocabulary uniquely associated with musical theatre productions, as well as a variety of popular dance styles from the 1920s to the present. Performance techniques for the stage are emphasized. ACT.

DANC 301. Ballet IV. 1-3 Hours.
Classical and modern approaches to the language of ballet for advanced dancers. May be repeated for variable credit. Prerequisite: DANC 202 or consent of instructor. LAB.

DANC 303. Modern IV. 1-3 Hours.
Dance technique for advanced dancers with precedents in the movement vocabularies of Isadora Duncan, Martha Graham, Doris Humphrey, Merce Cunningham, and the seminal choreographers of modern dance. May be repeated for variable credit. Prerequisite: DANC 203 or consent of instructor. LAB.

DANC 305. Jazz IV. 3 Hours.
Dance technique for advanced dancers based on elements of Latino, African, popular and classical jazz dance forms. May be repeated for credit. Prerequisite: DANC 205 or consent of instructor. LAB.

DANC 307. Pointe and Pas de Deux. 2 Hours.
An introduction to pointe and classical partnering work for the intermediate/advanced female ballet dancer, with equal emphasis on pointe technique and style, and on classical repertory for couples. May be repeated for credit. Prerequisite: DANC 201 or consent of instructor. LAB.

DANC 308. Pas de Deux. 1 Hour.
The exploration of classical ballet partnering (pas de deux) including supported poses, lifts, turns, and their coordination between the partners. For men only. Women enroll in Pointe and Pas de Deux, DANC 307. May be repeated for credit. Prerequisite: DANC 108, DANC 201, or permission of instructor. LAB.

DANC 309. Men’s Ballet. 2 Hours.
A continuation of the study of male classical ballet technique including leaps, turns, batterie, and their presentation. May be repeated for credit. Prerequisite: DANC 109, DANC 201, or permission of instructor. LAB.

DANC 310. Music for Dance. 3 Hours.
An examination of music as accompaniment for dance in both classroom and performance settings. Students will listen and analyze music from various historic periods to develop the skills necessary to select music appropriate for choreography. They will learn techniques for working with accompanists and composers. Prerequisite: DANC 210 or consent of instructor. LEC.

DANC 320. University Dance Company. 0-1 Hours.
A dance repertory, performance and production class. Emphasis is on the development of skills for performing and/or producing dance concerts. Admission by audition only. May be repeated for credit. IND.

DANC 325. Movement Efficiency for Athletes. 3 Hours.
A course designed to improve athletic performance potential by improving initiation and follow-through of movement; improving coordination, timing, and ease of action; and reducing the risk of injury through better technique. Students will learn how to apply the basic principles of Rudolf Laban and Irmgard Bartenieff to the specialized movement skills of various sports. Students also will learn to develop individualized warm-ups and drills to improve performance. Prerequisite: Participation in team sports, dance, martial arts, other skilled sport movement, or consent of instructor. ACT.

DANC 330. Approaches to World Dance. 3 Hours. HL AE42.
This course examines dance forms from throughout the world and how they relate to the times and cultures in which they evolved. Dance forms such as African, East Indian classical, European court dance, ballet, modern, and jazz will be studied through readings, master classes, live performances, videotapes, and films. Prerequisite: 200-level English course. LEC.

DANC 350. Choreography: Group Forms. 3 Hours.
In-depth development of movement themes for duet, trio, and larger groups. At least one concert length work with plans for presentation to an audience will be required. Prerequisite: DANC 250 or consent of instructor. LAB.

DANC 375. Ideokinesis. 3 Hours. H.
Basic concepts of neuromuscular and skeletal education through the use of specific imagery (ideokinesis). Based on the work of Mabel Todd, Lulu Sweigard, and Irmgard Bartenieff, the emphasis is on body connectedness and dynamic alignment. The aim is to realize full movement potential in the most efficient way through intrinsic body awareness. Injury prevention is addressed by introducing principles of conditioning (strength, flexibility, endurance) and factors leading to injury such as muscular imbalances or postural deviations. LEC.

DANC 420. Introduction to Videography and Website Design for Dance. 3 Hours. H.
This is a hands-on course exploring digital video technology for dance. Students are introduced to video and website production as well as the time management skills necessary to engage the multi-faceted project that is dance video. We will cover video techniques for recording dance; video editing; collaborating with national and international sites and artists; and self-promotion and marketing strategies with video and websites. The final project will be the creation of a video website for each student. No previous video editing experience is required. Prerequisite: Basic computer literacy. LEC.

DANC 430. Dance for Children. 3 Hours.
Methods and materials for teaching creative dance and the fundamentals of dance technique to children. Lessons are prepared and tested in the classroom and then presented to elementary school children. Prerequisite: DANC 203 or consent of instructor. LEC.
DANC 440. Introduction to Classical East Indian Dance. 3 Hours. NW AE42.
Classical East Indian dance has an extensive movement vocabulary that emphasizes the coordination of rhythmic foot patterns with intricate hand gestures. Students will learn the mudras (hand gestures) and their significance and integration within each dance. Readings will include excerpts from the Natya Sastra and other treatises of East Indian dance and culture. LEC.

DANC 450. Environmental Choreography. 3 Hours.
Designing dances for non-traditional performing spaces both indoors and outdoors. Students analyze how different natural and built environments can affect the gesture, space, time, and overall structure of a dance composition as well as the relationship between performers and spectators. Prerequisite: DANC 350 or consent of instructor. LAB.

DANC 460. Dance History: Research and Reconstruction. 3 Hours. HL AE42 / H.
Through research and reconstruction, students will examine major topics in dance history, such as the meaning and function of dance in pre-industrial societies, communal and court dance in Europe from the 14th to the 19th centuries, and the transformation and development of dance as a theatre art in the modern world. Texts by dance historians and treatises by dancing masters will be supplemented by readings from fields, such as anthropology, philosophy, art history, and literature, that indicate the different ways of approaching the history of dance. LEC.

DANC 470. Renaissance and Baroque Dance. 3 Hours.
Students will analyze, interpret, reconstruct, and perform historic dance forms, such as the galliard and minuet, by working with treatises of Renaissance and Baroque dancing masters, scholarly studies, and other documentary materials. The dance forms will be studied in relation to the music, visual arts, and literature of the period. LEC.

DANC 475. Performing Arts Administration Dancers. 3 Hours.
Designed to provide an overview of key areas in performing arts administration, including professional speaking and writing, grant writing and development, publicity and marketing strategies, developing relationships with presenters and funders, and audience education. Through readings, class discussion, guest lectures with professionals from the field, and projects based on real-life scenarios, students will develop tools to further their careers as choreographers and performers. This focused study also provides individuals with the direction and means to employ their training in the field of performing arts administration and management at many different levels. This course prepares dance students for their entry into the professional arts marketplace. LEC.

DANC 480. Movement for Older Adults. 3 Hours.
This course is designed to increase knowledge and understanding of the movement problems experienced by older adults and to develop the student’s ability to create movement interventions to address these concerns. Prerequisite: Open to juniors and seniors only. LEC.

DANC 490. Introduction to Flamenco Dance Technique. 3 Hours. AE42/GE3H.
Using the basic compas (rhythmic structures) of Flamenco, we will explore the different components of flamenco dance technique: floreo (spiraling fingers), brazo (arm movements), palmas (rhythmic hand-clapping), marcaje (marking, or movement through space), vueltas (turns) and zapateado (footwork). We will cultivate an awareness of flamenco’s unique posture, learn the structure of the different rhythmic forms and introduce the possibilities for personal expression and improvisation. LEC.

DANC 498. Directed Study in: _____. 1-3 Hours.
Investigation of a special topic or project in aesthetics, dance history, movement analysis, production, or a creative project. A maximum of six hours may be counted toward graduation. Prerequisite: At least seven hours of credit in dance courses. IND.

DANC 530. Practicum in: _____. 1 Hour.
Supervised experience in teaching beginning level dance technique in the style of ballet, jazz, or modern dance. Different approaches are analyzed, discussed, and tested in the studio. Prerequisite: Intermediate level of dance technique in the style of the practicum. FLD.

DANC 540. Field Experience in Dance Teaching. 1-3 Hours.
Teaching ballet, modern, or jazz dance technique to children or adults with faculty supervision in an academic or community program. Prerequisite: DANC 530 and consent of instructor. FLD.

DANC 550. Senior Project. 3 Hours. AE61.
In-depth research project in dance theory or history, or choreography project involving the complete development and presentation of a dance idea. Prerequisite: Performance option: DANC 320, DANC 350, DANC 450, THF 220 or THF 224, and permission of the dance division. Research option: DANC 340, DANC 370, DANC 375, DANC 460, and permission of the dance division. IND.

DANC 580. Special Topics in Dance. 1-3 Hours.
A study of current developments in dance with an emphasis on performance or research. May be repeated for credit. Prerequisite: Junior or senior standing and consent of instructor. IND.

DANC 598. Seminar in Dance. 3 Hours.
Special studies in dance. May be repeated for credit. Prerequisite: Junior or senior standing and consent of instructor. LEC.

DANC 735. Analysis, Criticism, and Choreography. 3 Hours.
The choreographic approaches of outstanding dance masters of the past (for example, Marius Petipa and Isadora Duncan) and present (for example, Martha Graham and Merce Cunningham) will be analyzed in terms of their handling of gesture, time, space, structure, and meaning. Students will be expected to seek out and study readings, photographs, and films in order to do written and performance projects based on the choreographic principles of old and new masters in ballet and modern dance. Prerequisite: A course in dance choreography or consent of instructor. LEC.

DANC 740. Introduction to Laban Movement. 3 Hours.
This course will introduce both the theoretical and physical applications of Laban Movement Analysis: Effort/Shape Notation (a notation system recording changes in movement qualities with respect to time, weight, space, and energy flow); Space harmony (a system that describes human movement in relation to space); Bartenieff Movement Fundamentals (a series of basic exercises to integrate and facilitate the neuromuscular connections within the body); and Laban Movement Analysis to the fields of anthropology, dance, human development, industrial efficiency, the performing arts, physical education, physical therapy, and psychology will be introduced. LAB.

DANC 742. Laban Movement Observation, Analysis, and Notation. 3 Hours.
Two systems of symbolic movement notation will be used in this course: Rudolf Laban’s Effort/Shape Writing and his system of Labanotation. Several applications of Laban’s notational systems will be studied as they appear in cross-cultural, developmental, psychological, and sociological research. Emphasis will be placed on refining the student’s ability to perceive, describe, and note human movement of all kinds from everyday gestures to highly trained movement skills. Prerequisite: DANC 740 or consent of instructor. LAB.
DANC 780. Movement for Older Adults. 3 Hours.
This course is designed to increase knowledge and understanding of
the movement problems experienced by older adults and to develop
the student's ability to create movement interventions to address these
concerns. Prerequisite: Open to graduate students in any field of study.
LEC.

DANC 898. Directed Study in: _____ 1-3 Hours.
Directed study in some aspect of aesthetics, dance history, movement
analysis, production, or an advanced creative project. Prerequisite:
Consent of instructor. IND.

Film and Media Studies Courses

FMS 100. Introduction to the Film Medium. 3 Hours. HL / H.
Study of film as a visual art. Focus on communicative transaction between
film viewer and film maker. Learning to read basic signs, syntaxes, and
structures of cinematic language. Direct analysis of selected films. LEC.

FMS 177. First Year Seminar: _____ 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing
current issues in Film and Media Studies. Course is designed to
meet the critical thinking learning outcome of the KU Core. First-Year
Seminar topics are coordinated and approved by the Office of First-Year
Experience. Prerequisite: First-time freshman status. LEC.

FMS 200. Film and Media Aesthetics. 3 Hours. HL GE3H / H.
An introduction to film and media aesthetics, including basic film/media
theories and their practical applications. Students will be introduced to
the concepts of time, space, composition, movement, editing, light, color,
and sound. A key feature of the course will be a practical emphasis on
learning how to see creatively by applying elements of design, camera
lens and sound recording principles. Examples of these aspects of film
and associated media will be examined and discussed in depth. Should
be taken before or concurrently with FMS 275 or FMS 276. LEC.

FMS 204. Study Abroad Topics in: _____ 1-6 Hours. H.
This course is designed for the study of special topics in Film at the
freshman/sophomore level. Credit for coursework must be arranged
through the Office of KU Study Abroad. May be repeated for credit if
content varies. LEC.

FMS 273. Basic Screenwriting. 3 Hours. H.
An introduction to the craft and principles of screenwriting, from inspiration
to writing a complete first act. Emphasis on factors relevant to the creation
of a treatment and a screenplay. Prerequisite: Consent of instructor. LEC.

FMS 275. Basic Video Production. 3 Hours. H.
Theory and practice of video production with emphasis on preproduction
planning, scripting, directing, lighting, camera operation and audio.
Lecture-laboratory. Prerequisite: FMS 100, completion of or concurrent
enrollment in FMS 200, and consent of instructor. LEC.

FMS 276. Basic Film Production. 3 Hours. H.
An introduction to 16mm film techniques and structures, requiring
construction of brief, individually produced fictive-narrative films employing
classical continuity. Lecture-laboratory. Prerequisite: FMS 100 and
consent of instructor. LEC.

FMS 302. Undergraduate Studies Seminar in: _____ 1-3 Hours. H.
Course organized any given semester to examine a particular studies
topic or to take advantage of special competence by an individual
faculty member. Topics change as needs and resources develop. Class
discussion, readings, and individual projects. LEC.

FMS 303. Undergraduate Production Seminar in: _____ 1-3 Hours. H.
Course organized any given semester to study a particular production
topic or to take advantage of special competence by an individual

FMS 304. Study Abroad Topics: _____ 1-6 Hours. H.
This course is designed for the study of special topics in Film at the junior/
senior level. Credit for course work must be arranged through the Office of
KU Study Abroad. May be repeated for credit if content varies. LEC.

FMS 307. Undergraduate Film/Media Internship. 1-6 Hours. H.
Supervised study with an approved film/media company or project. May
be repeated for credit. No more than six hours may be applied to the
B.A. or B.G.S. degrees. Graded on a satisfactory/unsatisfactory basis.
Prerequisite: Consent of instructor and at least seven hours credit in the
department. FLD.

FMS 310. History of the Silent Film. 3 Hours. H.
A survey of the artistic, economic and sociological development of the
narrative cinema with emphasis on the American studio system, German
LEC.

FMS 311. History of the American Sound Film. 3 Hours. HL / H.
A study of the artistic, economic, and sociological development of the
American sound film with emphasis on the studio system, major directors,
genres, and the impact of television. Analysis of selected films. LEC.

FMS 312. History of the International Sound Film to 1950. 3 Hours. H.
A survey of the artistic, economic, and sociological development of the
international sound film 1929 to 1950. Emphasis on European National
Cinemas. LEC.

FMS 313. History of the International Sound Film Post 1950. 3 Hours.
H.
A survey of the artistic, economic, and sociological development of the
international sound film from 1950 to the present. Emphasis on Free
Cinema, New Wave, and other emerging post-war cinemas. LEC.

FMS 314. History of African-American Images in Film. 3 Hours. HL
AE41 / H.
A history and critical assessment of the diverse images of African-
Americans in American cinema and the impact of those images on
American society. Screenings of feature and independent films, including
those by African-Americans. LEC.

FMS 315. Survey of Japanese Film. 3 Hours. NW AE42 / H.
This course surveys the major developments in and critical approaches
to twentieth-century Japanese film. Focusing mostly on narrative films,
Survey of Japanese Film introduces students to basic methodological
issues in Japanese film history, especially questions of narrative, genre,
stardom, and authorship. We examine Japanese cinema as an institution
located within specific contexts focusing on the ways in which this
institution shapes gender, class, ethnic, and national identities. This
course examines how patterns of distribution, exhibition, and reception
have influenced film aesthetics and film style over the last century.
Through secondary readings, lectures, and discussions students critically
examine how Japanese cinema as an institution both responds to and
intervenes in the social, cultural, and political history of twentieth century
Japan. The course is offered at the 300 and 700 levels, with additional
assignments at the 700 level. (Same as EALC 315.) LEC.

FMS 316. Cinemas of the Southern Cone: Argentina, Chile, and
Uruguay. 3 Hours. AE41 / H.
This course will examine the cinemas of three neighboring South
American countries to find similar themes and some differences between
them historically, politically, and culturally. Themes will include: gender
and nation, political repression during dictatorship, globalization and
the cinema, youth culture in the Southern Cone, and representations
of race and ethnicity, immigration and identity in contemporary cinema. Other themes in common are financing issues, such as co-production agreements, film production under the regional trade pact Mercosur and issues of circulation, distribution and marketing of national films. Most films will be feature length narrative, but a few documentaries will be shown. May be taken as FMS 716, but with additional requirements. LEC.

FMS 317. Race and the American Documentary. 3 Hours. H.
This course surveys a range of documentaries in which race is a key part. There are two class objectives: the first is to broaden the students’ knowledge of American social history and culture, especially around issues of identity, representation and race. The second is to heighten the students’ critical skills as viewers of films in general. A complete film or portion is screened at each class session, preceded by an introductory lecture, and a follow-up discussion. Readings from a variety of scholarly texts are excerpted for student review prior to a particular class. LEC.

FMS 318. Anti-war Film. 3 Hours. H.
An overview and exploration of the history of anti-war film and media themes to show how attitudes regarding war and political policy can be affected by positive and negative depictions of conflict. Course includes analysis of selected films. LEC.

FMS 320. Adaptation from Stage to Screen. 3 Hours. H.
In an increasingly global media economy, adaptation study offers an enterprising model for the cross-pollination of texts across historical, national, and cultural boundaries. Although this course focuses more specifically on adaptations and adaptation processes involving theatrical events and cinematic properties, this larger view should be kept in mind. The course will consist of readings, screenings, and presentations by faculty in the Department Film and Media Studies and the Department of Theatre addressing theoretical issues, case studies, and intertextual considerations, and an historical overview of theatre-film interaction. LEC.

FMS 345. New Media and Society. 3 Hours. H.
Students will be introduced to major themes and debates in digital media studies and apply critical approaches for understanding new media practices, technologies, and theories. In addition to readings and lectures, students will engage in a variety of digital activities and participate in production-oriented projects. By the end of this course students will gain a foundational understanding of historical and emerging relationships between new media (internet, cell phones, digital games, etc.) and society, acquire key digital skills, and experience a variety of new media texts and services. This course is offered at the 300 and 700 levels, with additional assignments at the 700 level. LEC.

FMS 373. Intermediate Screenwriting. 3 Hours. H.
Emphasis on writing a full-length screenplay. Explores genre, character, dialogue, and the development of a personal writing style. Prerequisite: FMS 273 and consent of instructor (students will be selected based on writing samples). LEC.

FMS 374. Animation. 3 Hours. H.
A survey that combines animation history, theory, and production by examining animated works of all kinds and exploring various styles utilizing both hands-on techniques and digital animation programs. Lecture-laboratory. LEC.

FMS 375. Intermediate Video Production. 3 Hours. H.
Theory and practice of longer-form video production with emphasis on scripting, talent coordination and editing in preproduction, production and postproduction. Lecture-laboratory. Prerequisite: FMS 275 and consent of instructor. LEC.

FMS 376. Cinematography. 3 Hours. H.
Theory and practice of cinematography, with emphasis on creation of film, video, and digital imagery. Prerequisite: FMS 275 or FMS 276, and consent of instructor. LEC.

FMS 377. Post-Production. 3 Hours. H.
Students become familiar with techniques and processes in film and video post-production including, but not limited to, editing, sound, post-production management, marketing, and distribution. This course is offered at the 300 and 700 levels, with additional assignments at the 700 level. Prerequisite: FMS 275 and consent of instructor. LEC.

FMS 380. American Popular Culture of: _____. 3 Hours. HL / H.
An interdisciplinary examination of popular cultural forms and their relationships with the social, political and economic dynamics of America, with emphasis on film, media, music, literature (including magazines and newspapers) and the graphic arts. The decade or other specific topic to be studied changes as needs and resources develop. May be repeated for credit for different decades or topics. LEC.

FMS 401. Undergraduate Professional Development Seminar. 1 Hour. H.
Provides an overview of opportunities for professional development in Film and Media Studies, and helps students plan goals for their education through an understanding of professional practices. The course also covers practical exercises in professional development, including writing resumes, finding internships and entry-level work, and other aspects of establishing a career in Film and Media Studies. Prerequisite: FMS 275 or equivalent. Open to FMS Majors only. Graded satisfactory/unsatisfactory. LEC.

FMS 407. Undergraduate Film/Media Service Learning Internship. 1-6 Hours. H.
Supervised study with an approved government agency, established non-profit organization, school, or community-based partner to produce a professional-level film and/or media project in the public interest. Community work should meet the needs of the community-based organization and the education goals set by the student, instructor, and community based partner; be in direct service, indirect service, policy analysis, research, and/or advocacy work; engage the student with individuals or communities of need and with issues related to social justice, community development, and/or access to resources. May be repeated for credit. No more than six hours may be applied to the B.A. or B.G.S. degrees. Graded satisfactory/unsatisfactory. Prerequisite: Consent of instructor and at least 22 credit hours in the department. FLD.

FMS 410. Race, Class, and Gender in Visual Culture. 3 Hours. H.
Examines the way in which race, class, and gender are represented through visual culture, historically and in the present. The study of visual culture analyzes the way in which visual images communicate systems of beliefs, contribute to identity formation, and have an influence on our thinking about race, class, and gender. Course looks at visual objects, i.e., film, television, photography, art, advertisements, and theatre as well as visual practices, i.e., in public and private spaces. LEC.

FMS 411. Television Studies. 3 Hours. H.
A historical, theoretical and critical survey of U.S. television from 1945 to the present from the public’s perspective, with emphasis on the early influences of radio (e.g., Federal regulation and sponsorship), film and theatre; TV’s rapid rise as the U.S. public’s prime source of entertainment, news and information; TV’s rise as a key cultural, economic and political phenomenon; TV’s more recent accommodations to the forces of globalization, new technologies/media, and new business models through convergence. Discussion and screening of representative TV texts as seen against the backdrop of the theories and critical views of TV scholars ranging from Raymond Williams and John Fiske to Henry Jenkins. LEC.
FMS 412. Cyberculture Studies. 3 Hours. H.
Historically there has been a tendency to approach new media technologies and their proliferation as either utopic or dystopic. Cyberculture studies has been no exception. Students will work toward a comprehensive understanding of cyberculture as emergent computer networks forming around and constructing entertainment, knowledge, business, community, and identity. Cyberculture will be examined as the constant (re)organizing of virtual and physical relationships as well as the reorganization of media production, distribution and consumption. The variety of opportunities for computer-mediated human interaction such as social networks, virtual worlds, blogs, and games will be examined as cyberculture transposes online and offline relationships and practices. LEC.

FMS 413. Asian Media Studies. 3 Hours. H.
This course examines new and emerging media in East Asia and how the media industries of East Asia function. Using recent scholarship and industry data on contemporary cyberculture, music studies, and television industries of East Asia we examine how such factors as globalization, post-colonialism, censorship, emerging technology, and national media legislation affect regional and transnational media industries in Japan, South Korea, and Mainland China/Taiwan/Hong Kong. (Same as EALC 413.) LEC.

FMS 414. Kansas Art, History, and Popular Culture. 3 Hours. H.
An overview of the art and cultural history of Kansas (and Kansas City) from territorial days to the present. Emphasis is placed on key issues, figures and events. A general familiarity with American history is recommended. May be taken as FMS 714, but with additional requirements. (Same as HA 584.) LEC.

FMS 475. Advanced Video Production. 3 Hours. H.
Special projects in video production, using both studio and remote locations. Prerequisite: FMS 375 and consent of instructor. LEC.

FMS 477. Sound Design. 3 Hours. H.
Students will study and produce film and video work with an emphasis on sound design theory and practice. Course projects consist of several short works in response to readings and screenings, which include a survey of sound in cinema, internet and radio. Students will also become conversant with related equipment, software and techniques. Prerequisite: FMS 275 and consent of instructor. LEC.

FMS 478. Experimental Production. 3 Hours. H.
Students will produce experimental film and video projects, including installation art and performance art pieces, in both collaborative and a cumulative production modes. Practical production aspects of historical experimental works will be studied, with emphasis on creation of works inspired by these earlier artists and their work. Unorthodox video and film production concepts and modes will also be studied and used in the creation of original works. The incorporation of experimental elements in the creation of mainstream works, and the creation of such projects, will also be a key area of study and experimentation. By pushing their individual creative limits, students will gain an appreciation for the experimental film and video genre, as well as an expansion of their production skills. Prerequisite: FMS 275 and consent of instructor. LEC.

FMS 479. Broadcast Documentary Production. 3 Hours. H.
This is a hands-on production course in which students will research, plan and produce short-form non-fiction documentaries. The class is dedicated to training young professionals in the principles, skills, techniques, habits and practices of documentary production. We will focus also on the aesthetics of our craft and the documentary form. The objective is to ground students in the fundamental skills of good non-fiction storytelling-conceptualization, research, story structure, theme development, writing, producing and directing. The goal is the production of several short-form compositions (videos) where storytelling is employed to communicate a concept or idea effectively. Students will form into teams to research, develop and produce a course-long short-form documentary. Prerequisite: FMS 275 and consent of instructor. LEC.

FMS 480. Music Video Production. 3 Hours. H.
This course will cover elements of the history, aesthetics, and business of music video and music video production. Students will view and discuss many different types of music videos, and will learn how to classify and critique these videos in a professional manner. Students will gain familiarity with the genres, themes, forms, and iconography of music video; an understanding of the place of music video in media culture; an exploration of the ideological, cultural, and historical contexts of music video; and an ability to create or assist in the creation of professional-quality music videos. Prerequisite: FMS 275 and consent of instructor. LEC.

FMS 498. Honors Seminar. 2-6 Hours. AE61 / H.
Study may be directed toward either (a) reading for integration of knowledge and insight in film and media, or (b) original research (i.e., investigation of a specific problem in film and media). Six hours maximum credit. Prerequisite: Consent of Departmental Honors Coordinator. LEC.

FMS 499. Directed Study in Film. 1-6 Hours. AE61 / H.
Investigation of a special topic or project selected by the student with advice, approval, and supervision by an instructor. Such study may take the form of directed reading or special research. Individual reports and conferences. A maximum of six hours credit may be counted toward a degree. Prerequisite: At least seven hours credit in the department and consent of instructor. IND.

FMS 530. Classical Film/Media Theory. 3 Hours. H.
Comprehensive examination of most significant theories and theorists of film. Organized around specific questions, e.g., what qualities make film art unique, and how is film related to other visual and literary arts? Class discussion, individual projects. Prerequisite: FMS 100 or equivalent (determined by instructor). LEC.

FMS 531. Contemporary Concepts in Media Studies. 3 Hours. H.
This course emphasizes a theoretical understanding of media and media production skills. It is a critical cultural study of the media, focusing on the relationships between media representations and society. Students explore different conceptual perspectives on the role and power of visual media in society in influencing social values, political beliefs, identities and behaviors; analyze specific media texts, such as film and television shows; and examine the dynamics of how class, gender, generation, and race influence the production and reception of media. LEC.

FMS 540. Cuban Cinema. 3 Hours. H.
This course explores Cuban cinema from 1959 to the present day. Special attention is paid to the representations of Cuban history, cultural politics, and the political-economic conditions of production in Cuba. In addition, the Cuban-American community and their contributions or reactions to Cuban film are discussed. Through readings, lectures, discussion, and viewing Cuban films, the class examines a variety of topics related to Cuban cinema, history, and contemporary concerns. This course is offered at the 500 and 800 levels, with additional assignments at the 800 level. Prerequisite: Junior standing. LEC.

FMS 541. Asian Film. 3 Hours. NW AE42 / H.
Seminar on various national film cultures of East and Southeast Asia. Representative films are studied from formal, stylistic, and socio-historic perspectives. Addresses the impact of key cultural, economic, and political issues on each film industry. Class discussion, reports, and individual research papers. The course is offered at the 500 and 800
levels, with additional assignments at the 800 level. (Same as EALC 541.) Prerequisite: Junior status. LEC.

FMS 542. Latin American Film. 3 Hours. H.
The course explores the national cinemas and film industries of various nations in Latin America, as well as films made by Indigenous and Chicano/a filmmakers. Films are analyzed both as artistic works (formal qualities, cinematic styles, and influences) and as documents that provide windows to the socio-historical context of the nation. The course focuses on the political-economic factors surrounding the production of Latin American national cinema (the role of the state, coproductions, film markets). Prerequisite: Junior status. May be taken as FMS 842. There will be additional requirements for graduate students taking FMS 842. LEC.

FMS 543. Contemporary Japanese Film. 3 Hours. NW AE42 / H.
Seminar on the major developments in the contemporary (1980-present) Japanese film industry examining how filmmaking practices and film criticism have been influenced by such issues as transnationalism, postcolonialism, critical race theory, postmodernism, and new media. We survey recent industrial and stylistic trends as well as key critical debates. Class discussion, reports, and individual research papers. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. (Same as EALC 543.) Prerequisite: Junior status. LEC.

FMS 544. African Film. 3 Hours. NW / H.
A critical study of Africa and its peoples as depicted in films. The aesthetic, cultural, economic, political, historical, and ideological aspects of African films are examined. (Same as AAAS 555.) LEC.

FMS 585. Capstone in Film and Media Studies. 3 Hours. H.
This course integrates the knowledge and skills acquired across the curriculum of Film Media Studies including primarily academic studies, but also production and other related disciplines to enable the student to demonstrate achievement through the production of a major creative research project. Prerequisite: Must be admitted to the Film and Media Studies B.A. or B.G.S. degree. Must have completed one FMS production course. Must have Departmental permission to enroll. LEC.

FMS 592. Documentary Film and Video. 3 Hours. H.
An historical and theoretical survey of that major genre of film and video typically termed "documentary." The course will trace the main historical developments from documentary’s beginnings through contemporary innovations. Prerequisite: FMS 100 and FMS 310, FMS 311, or consent of instructor. LEC.

FMS 593. Experimental Film and Video. 3 Hours. H.
A history of experimental film and video through an examination of major artists, movements, theories, and films/tapes. Prerequisite: FMS 100 and FMS 310, or consent of instructor. LEC.

FMS 620. International Women Filmmakers. 3 Hours. H.
This course examines films made by women around the world. Mainstream and independent fiction, documentary, and experimental works will be screened and discussed. The objectives of the course are: 1) to learn the variety of films made by women and the conditions of their production, distribution reception. 2) to interrogate the idea of women’s cinema as ‘counter-cinema’. We will acquire tools for analyzing films in terms of economic, aesthetic, cultural, and political circumstance by women of different countries, classes, races, ethnicities, genders, and sexual preferences. LEC.

FMS 621. American Film Criticism. 3 Hours. H.
An analysis of the evolution, methods and impact of American film criticism as practiced by such critics as James Agee, Robert Warshow, Andrew Sarris, John Simon, Pauline Kael, Stanley Kauffman, and Dwight Macdonald. Prerequisite: FMS 310 or FMS 311. LEC.
addition to the lecture sessions taught in tandem with FMS 316, additional research component, lecture presentation, and class meeting are also required. LEC.

FMS 717. Race and the American Documentary. 3 Hours.
This course will survey a range of documentaries in which race is a key part of the film’s text. There are two class objectives: to broaden the student’s knowledge of American social history and culture, especially around issues of identity, representation and race, and to heighten the student’s ability as a critical viewer of films. This course will include: film viewing, scholarly readings, and lectures. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. LEC.

FMS 718. Anti-war Films. 3 Hours.
An overview and exploration of the history of the portrayal of anti-war film and media themes to show how anti-war attitudes and political policy can be affected by positive and negative depictions of conflict. Analysis of selected films. FMS 318 and FMS 718 will meet concurrently, though separate consultations and specific research assignments for FMS 718 are also required. LEC.

FMS 743. Contemporary Japanese Film. 3 Hours.
Seminar on the major developments in the contemporary (1980-present) Japanese film industry examining how filmmaking practices and film criticism have been influenced by such issues as transnationalism, postcolonialism, critical race theory, postmodernism, and new media. We will survey recent industrial and stylistic trends as well as key critical debates. Class includes discussion, reports, and individual research papers. This course is offered at the 500 and 700 levels, with additional assignments at the 700 level. (Same as EALC 743.) SEM.

FMS 745. New Media and Society. 3 Hours.
Students will be introduced to major themes and debates in digital media studies and apply critical approaches for understanding new media practices, technologies, and theories. In addition to readings and lectures, students will engage in a variety of digital activities and participate in production-oriented projects. By the end of the course students will gain a foundational understanding of historical and emerging relationships between new media (internet, cell phones, digital games, etc.) and society, acquire key digital skills, and experience a variety of new media texts and services. This course is offered at the 300 and 700 levels, with additional assignments at the 700 level. LEC.

FMS 773. Problems in Intermediate Screenwriting. 3 Hours.
The principles of screenwriting are developed through scene writing and analysis culminating in the writing and structuring of a full-length, three act screenplay. In addition to the class sessions taught with FMS 373 Intermediate Screenwriting, separate consultations and specific research assignments for graduate students in FMS 773 are also required. LEC.

FMS 774. Animation. 3 Hours.
A survey that combines animation history, theory, and production by examining animated works of all kinds and exploring various styles utilizing both hands-on techniques and digital animation programs. This course is offered at the 300 and 700 levels, with additional assignments at the 700 level. Lecture-laboratory LEC.

FMS 775. Problems in Intermediate Video Production. 3 Hours.
Theory and practice of multiple-camera video production with emphasis on preproduction planning, scripting, directing, lighting, camera operation, and audio. In addition to the class sessions taught with FMS 375 Intermediate Video Production, separate consultations and specific research assignments for graduate students in FMS 775 are also required. Lecture-laboratory. LEC.

FMS 776. Problems in Cinematography. 3 Hours.
Theory and practice of cinematography, with emphasis on creation of film, video, and digital imagery. FMS 776 meets concurrently with FMS 376; students enrolled in the graduate-level course will have separate consultations and specific research assignments. Lecture-laboratory. Prerequisite: Consent of instructor and FMS 675 or FMS 676. LEC.

FMS 777. Post-Production. 3 Hours.
Students will become familiar with techniques and processes in film and video post-production including, but not limited to, editing, sound, post-production management, marketing, and distribution. This course is offered at the 300 and 700 levels, with additional assignments at the 700 level. Prerequisite: Consent of instructor. LEC.

FMS 800. Introduction to Graduate Study in Film/Media. 3 Hours.
Major emphasis is placed upon the principles of research, bibliographical data, and research methods useful in film and television. The course should be taken at the beginning of the graduate student’s program. LEC.

FMS 801. Professional Development Seminar. 1 Hour.
Preparation and training for faculty careers in film and related fields, including research skills and methods, responsible scholarship, teaching, and service. Other topics vary from semester to semester. May be repeated for credit. SEM.

FMS 802. Master's Projects. 3-6 Hours.
Advanced creative projects which may be elected by master's degree candidates in lieu of thesis. RSH.

FMS 810. Development of the Silent Film. 3 Hours.
Intensive study of the artistic, economic, and sociological development of the silent narrative film with emphasis on the evolution of the American studio system, German Expressionism, and Soviet Expressive Realism. LEC.

FMS 811. Development of the American Sound Film. 3 Hours.
Intensive study of the artistic, economic, and sociological development of the American sound film with emphasis on the studio system, major directors, genres, and the impact of television. LEC.

FMS 813. Development of the International Sound Film. 3 Hours.
Intensive study of the artistic, economic, and sociological development of the international sound film with emphasis on the cinemas of England, France, Italy, Germany, Sweden, and Eastern Europe. LEC.

FMS 814. Development of African-American Images in Film. 3 Hours.
A history and critical assessment of the development of diverse images of African-Americans in American cinema and the impact of those images of American society. Screenings of feature and independent films, including those by African-Americans. In addition to the lecture/screening sessions taught in tandem with FMS 314, a separate discussion section and specific research assignments for graduate students enrolled in FMS 814 are also required. LEC.

FMS 840. Cuban Cinema. 3 Hours.
This course explores Cuban cinema from 1959 to the present day. Special attention will be paid to the representations of Cuban history, cultural politics, and the political-economic conditions of production in Cuba. In addition, the Cuban-American community and their contributions or reactions to Cuban film will be discussed. Through readings, lectures, discussion, and viewing Cuban films, the class will examine a variety of topics related to Cuban cinema, history, and contemporary concerns. This course is offered at the 500 and 800 levels, with additional assignments at the 800 level. LEC.

FMS 841. Asian Film. 3 Hours.
Seminar on various national film cultures of East and Southeast Asia. Representative films are studied from formal, stylistic, and socio-historic
perspectives. Addresses the impact of key cultural, economic and political issues on each film industry. Class includes discussion, reports, and individual research papers. This course is offered at the 500 and 800 levels, with additional assignments at the 800 level. (Same as EALC 841.) SEM.

FMS 842. Latin American Film. 3 Hours.
The course explores the national cinemas and film industries of various nations in Latin America, as well as films made by indigenous and Chicano/a filmmakers. Films are analyzed both as artistic works (formal qualities, cinematic styles, and influences) and as documents that provide windows to the socio-historical context of the nation. The course focuses on the political-economic factors surrounding the production of Latin American national cinema (the role of the state, co-productions, film markets). LEC.

FMS 862. Survey of Film and Media History. 3 Hours.
This seminar will be primarily international in scope and will concentrate on the following: technological and production issues relating to the transition in 1927-1931 of silent to sound film; the constructions of national identity, including those of recently emerging cultures; a comparison and contrast of the censorial agencies in America and abroad; and current revisionist perspectives on received film and media history. SEM.

FMS 863. Survey of Documentary and Experimental Film and Media. 3 Hours.
Surveys the important historical and theoretical issues pertinent to both the documentary and experimental approaches as expressed in film, video and new technologies. Includes major documentary and experimental genres, directors, national schools, artistic movements, and landmark works. Screenings reflect a chronology from origins to present-day. LEC.

FMS 864. Classical Film and Media Theory. 3 Hours.
This seminar is a comprehensive survey of the major classical film and media theories and theorists, such as Munsterberg, Eisenstein, Arnheim, Bazin, and Adorno. Organized around specific questions, e.g.: What qualities differentiate film and media from other art and communications forms? What qualities do film and media share with other art and communication forms? What qualities differentiate film from other forms of media such as television? Readings from primary sources stressed. Class discussion, individual research papers. SEM.

FMS 865. Contemporary Film and Media Theory. 3 Hours.
This seminar is a study of the theories applied to the study of film and media since the 1970s moving through structuralism, and into the posts: -structuralism, -modernism, -colonialism, and beyond. Within these broad paradigms some of the theories examined in depth are cinesemiotics, Marxism, cinematic apparatus, feminist film theory, reception theory, new media and virtual reality. SEM.

FMS 875. Problems in Advanced Video Production. 3 Hours.
Special projects in video production, using both studio and remote locations. In addition to the class sessions taught with FMS 475 Advanced Video Production, separate consultations and specific research assignments for graduate students in FMS 875 are also required. Prerequisite: FMS 775 or consent of instructor. LEC.

FMS 880. Development of American Popular Culture in the: _____ 3 Hours.
Intensive interdisciplinary examination of popular culture forms and their relationships with the social, political, and economic dynamics of America in a specific decade, with emphasis on film, broadcasting, theatre, music literature (including magazines and newspapers), and the graphic arts. Decade to be studied changes as resources and needs develop. LEC.

FMS 887. Film and the Public. 3 Hours.
A study of the actual and implied responsibilities of film and video to the public, as seen in regulations, self-regulatory codes, and the critical literature of the field. Prerequisite: Consent of instructor. LEC.

FMS 888. Special Problems in Film History and Criticism. 1-4 Hours.
FMS 895. Intensive Film Project Seminar. 1-4 Hours.
The student plans and executes an intensive special project which requires the professional skills of investigation and performance appropriate to radio, television and/or film. May be repeated for credit up to a maximum of six credit hours. (This seminar is to the special project program what "thesis" is to the traditional program.) RSH.

FMS 897. Practicum in Film. 1-3 Hours.
Various approaches to the illustration of principles of production in film and/or video through the supervision of laboratory exercises and subsequent evaluation by the Theatre and Film graduate faculty. FLD.

FMS 898. Investigation and Conference (for Master's Students). 1-8 Hours.
Directed research and experimentation in film or media. Limited to eight hours credit toward the Master's degree. RSH.

FMS 899. Master's Thesis. 1-6 Hours.
The.

FMS 902. Film Seminar in: _____ 3 Hours.
A graduate seminar devoted to selected historical, theoretical, or critical issues. Prerequisite: Consent of instructor. LEC.

FMS 998. Investigation and Conference (for Doctoral Students). 1-8 Hours.
RSH.

FMS 999. Doctoral Dissertation. 1-12 Hours.
The.

Theatre Courses

THR 100. Introduction to the Theatre. 3 Hours. HL GE3H / H.
Designed to help students by means of experience with theatre as well as study about it to achieve an understanding of its cultural role in contemporary society, to develop a sensitive and informed appreciation of its art, and to make it an integral part of their cultural lives. Lectures, discussion groups, special interest groups, theatre attendance. LEC.

THR 101. Theatre Practicum I. 1 Hour. H.
Involvement in theatre performance and/or production. One acting role in a University Theatre production or classroom project plus one crew assignment, or two crew assignments qualify for credit. May be repeated for credit. This course will be graded satisfactory/unsatisfactory. ACT.

THR 105. Improvisation. 3 Hours. H.
Designed to free the beginning actor physically, vocally, and emotionally. Beginning with basic physical action and sense memory exercises performed by individuals, the work will progress to pair and small-group improvisations in preparation for scene work. Open to freshmen and sophomores only. LEC.

THR 106. Acting I. 3 Hours. HL GE3H / H.
Fundamental techniques in acting. Practice in character creation, body language, and effective stage speech. LEC.

THR 111. Make-Up. 1 Hour. H.
The techniques in application of make-up for specific characterizations, both straight and character. Study of the structure of the face and hands for stage make-up. Should be taken concurrently with THR 106, if possible. LEC.
THR 116. Scenographic Techniques. 3 Hours. H.
Emphasis on drafting, model building, and presentational techniques for
the theatrical designer or art director. Some work in computer drafting for
the designer-technician. Lecture and laboratory periods. LEC.

THR 177. First Year Seminar: ______. 3 Hours. HT GE11.
A limited-enrollment, seminar course for first-time freshmen, organized
around current issues in Theatre. May not contribute to major
requirements in theatre. First year seminar topics are coordinated and
approved through the Office of First Year Experiences. Prerequisite: First-
year freshman status. LEC.

THR 201. Theatre Practicum II. 1 Hour. H.
Involvement in theatre performance and/or production. One acting
role in a University Theatre production or classroom project plus one
crew assignment, or two crew assignments qualify for credit. May be
repeated for credit. This course will be graded satisfactory/unsatisfactory.
Prerequisite: THR 101. ACT.

THR 204. Study Abroad Topics in: ______. 1-6 Hours. H.
This course is designed for the study of special topics in Theatre at the
freshman/sophomore level. Credit for coursework must be arranged
through the Office of KU Study Abroad. May be repeated for credit if
content varies. LEC.

THR 206. Acting II. 3 Hours. H.
The study of roles and scenes from plays. Practice in character analysis,
creation of roles, rehearsal of scenes, and ensemble work. Prerequisite:
THR 108. LEC.

THR 209. Play Reading for Performance. 3 Hours. H.
This course is designed to prepare students for upper-level courses in
theatre by developing and enhancing their ability to read plays. Close
reading of plays introduces students to a variety of different dramatic
genres and theatrical styles. Emphasis is placed on comprehension and
analysis of dramatic literature for theatrical performance. LEC.

THR 210. Musical Performance for the Actor I. 3 Hours. H.
Beginning Studies in Musical Theatre Performance: practical application
of voice, acting and movement techniques for musical theatre, solo and
group performance. LEC.

THR 212. Beginning Voice and Speech for Actors. 3 Hours. H.
A foundation course; introduction to phonetics; training in Standard
American Stage Speech; articulation skills; resonance and voice
placement. LEC.

THR 213. Movement I: The Acting Instrument. 3 Hours. H.
A foundational course in discovering ease and efficient use of the body
in a performance context, developing non-verbal communication and
partnering skills, and establishing the connection of movement to voice
production. Trains actors in proper warm-up technique, alignment and
balance, physical safety, and basic tumbling skills. LEC.

THR 215. Approaching Design. 3 Hours. HL GE3H / H.
Conceptualization and visualization of the elements involved in creative
design for theatre, dance, television, and film. LEC.

THR 216. Scenic Production. 2 Hours. H.
Introduction to the planning, construction, and mounting of scenery for
theatre, television, and film. Concentration on the technical organization
of scenic production. Lecture, discussion, and laboratory periods. LEC.

THR 220. Costume Production. 2 Hours. H.
Introduction to techniques of costume construction, including study of
fabrics, color, fundamentals of pattern making, and draping of
costumes for theatre, television, and film. Concentration on the technical
organization of costume production. Lecture, discussion, and laboratory
periods. LEC.

THR 224. Lighting Production. 2 Hours. H.
Introduction to the planning and execution of lighting for theatre,
television, and film. Concentration organized any given semester to study
particular subject matter or to take advantage of special competence by
an individual faculty member. Topics change as needs and resources
develop. Class discussion, readings, and individual projects. LEC.

THR 226. Introduction to African Dance Theatre. 2 Hours. NW / H.
Introduction to the general techniques of non-verbal theatrical
conventions in African cultures. Practical training in movement vocabulary
supplemented by lectures on the "text" of performance. There will be an
end of semester "studio performance." (Same as AAAS 334 and DANC
230.) LEC.

THR 301. Theatre Practicum III. 1 Hour. H.
Involvement in theatre performance and/or production. One acting
role in a University Theatre production or classroom project plus one
crew assignment, or two crew assignments qualify for credit. May be
repeated for credit. This course will be graded satisfactory/unsatisfactory.
Prerequisite: THR 201. ACT.

THR 302. Undergraduate Seminar in: ______. 3 Hours. H.
Course organized any given semester to study a particular subject
matter or to take advantage of special competence by an individual
faculty member. Topics change as needs and resources develop. Class
discussion, readings, and individual projects. LEC.

THR 303. Summer Theatre. 1-6 Hours. H.
Provides experience in a wide range of theatre activity related to the
summer theatre production or productions. Work may include activity
in the following areas: acting, directing, design, technical theatre, voice
and/or movement. Specialized skills are developed through individual
classes, production preparation and performance. Prerequisite: Consent
of instructor. ACT.

THR 304. Study Abroad Topics in: ______. 1-6 Hours. H.
This course is designed for the study of special topics in Theatre at the
junior/senior level. Credit for coursework must be arranged through the
Office of KU Study Abroad. May be repeated for credit if content varies.
LEC.

THR 305. Honors Seminar in: ______. 3 Hours. H.
Special topics seminar serving students enrolled in the University
Honors Program. Course organized any given semester to study a
particular subject matter or to take advantage of special competence by
an individual faculty member. Topics change as needs and resources
develop. Prerequisite: Students must be enrolled in the University Honors
Program. LEC.

THR 306. Acting III. 3 Hours. H.
Advanced projects in acting. Character and scene analysis, scoring the
role, rehearsal, and performance. Prerequisite: THR 206. LEC.

THR 307. Undergraduate Theatre Internship. 1-3 Hours. AE61 / H.
Supervised study with an approved theater company or project. May be
repeated for credit. No more than six hours may be applied to the B.A. or
B.G.S. degrees. This course will be graded satisfactory/unsatisfactory.
Prerequisite: Consent of instructor and at least seven hours credit in the
department. FLD.

THR 308. Script Analysis. 3 Hours. H.
This course provides knowledge and methods enabling students to
conduct in-depth study of dramatic scripts. Emphasis is given to the
analysis skills appropriate to practitioners of stage and screen arts. LEC.
THR 310. Musical Performance for the Actor I. 3 Hours. H.
Intermediate Studies in Musical Theatre Performance: practical application of voice, acting and movement techniques for musical theatre, solo and group performance. Prerequisite: THR 106 and THR 210. LEC.

THR 312. Acting with an Accent. 3 Hours. H.
A performance class for actors using monologues and scenes involving the use of accents and dialects. The course will also provide instruction in many of the most used American regional, British regional dialects, and foreign language accents. Prerequisite: THR 212, or by permission of instructor after the student demonstrates an ability in the International Phonetic Alphabet. LEC.

THR 313. Movement II: Physical Characterization. 3 Hours. H.
The study of diverse physical acting techniques, and an investigation into creating a character through manipulation of the acting instrument. Actor training in performance neutrality, mask work, age, and gender distinctions. Prerequisite: THR 213 and permission of instructor. LEC.

THR 316. Beginning Scene Design. 3 Hours. H.
Study of scenic design process with beginning problems in textual analysis, style, historical research, and preliminary and finished methods of design presentation. Concentration on developing fundamental design skills and awareness. Prerequisite: THR 116 and THR 215, or permission of instructor. LEC.

THR 320. Beginning Costume Design. 3 Hours. H.
Study of the costume design process with beginning problems in textual analysis, style, historical research, and preliminary and finished methods of design presentation. Concentration on developing fundamental design skills and awareness. Prerequisite: THR 215. LEC.

THR 324. Beginning Lighting Design. 3 Hours. H.
Study of the lighting design process with beginning problems in textual analysis, style, historical research, with preliminary and finished methods of design presentation. Concentration on developing fundamental design skills and awareness. Prerequisite: THR 116 and THR 215, or permission of instructor. LEC.

THR 326. African Theatre and Drama. 3 Hours. NW / H/W.
A study of the origin and development of continental African theatre and its affinity to the Levant. Traditional, colonial and contemporary dramatic theories and experiments will be examined in play selections. (Same as AAAS 355.) LEC.

THR 327. African-American Theatre and Drama. 3 Hours. AE41 / H.
A historical study of Black Theatre in the U.S.A. from its African genesis to its contemporary Americanness. Epochs in African-American dramaturgy will be critically examined. (Same as AAAS 356.) LEC.

THR 380. Popular Culture: _____ 3 Hours. HL GE3H / H.
Interdisciplinary examination of popular culture oriented around a specific genre or theme. Objects of study may include popular forms of live performance such as musicals or vaudeville, as well as media-based performances (radio, television, film, internet). Specific topic to be studied changes as needs and resources develop. May be repeated for credit for different topics. LEC.

THR 401. Stage Management and Assistant Direction. 1 Hour. H.
 Majors are assigned to stage manage or assistant direct a University Theatre production, or to take related workshops in stage management or assistant directing. May be repeated for credit. This course will be graded satisfactory/unsatisfactory. ACT.

THR 404. Children and Drama. 3 Hours. HL / H.
Exploration of forms, methods, and materials appropriate for development of elementary-age children in dramatic arts. LEC.

THR 405. Children and Media. 3 Hours. H.
The applied study of child development theories and research methods on the influences and effects of television and related visual media on childhood in the contexts of families, schools, and society. (Same as ABSC 405 and PSYC 405.) LEC.

THR 406. Audition Techniques. 3 Hours. H.
This course prepares students for all types of audition experiences. It includes study in techniques of prepared auditions, cold readings, interviews, and the musical audition for actors. Emphasis is placed upon developing resumes and photo portfolios as well as concentrated study in professional contracts, unions, and agent acquisition. Prerequisite: THR 206. LEC.

THR 410. Musical Performance for the Actor III. 3 Hours. H.
Advanced Studies in Musical Theatre Performance: practical application of voice, acting and movement techniques for musical theatre, solo and group performance. Prerequisite: THR 106, THR 210, and THR 310. LEC.

THR 413. Stage Combat Skills. 3 Hours. U.
Study of the illusion of violence in a dramatic context and the special skills necessary for creating believable and safe stage fights. Actor training in armed and unarmed combat, including one or more of the following: rapier and dagger, broadsword, and quarter staff. Prerequisite: THR 313 and permission of instructor. LEC.

THR 416. Design Forum. 3 Hours. U.
Depending on student qualifications and specialization, focus is on scenic, costume, and/or lighting design. Special attention placed on developing collaborative awareness and the conceptual and presentation skills that underlie and inform the design process. Prerequisite: THR 316 or THR 320 or THR 324. LEC.

THR 429. Postcolonial Theatre and Drama. 3 Hours. NW AE42/GE3H / H.
The course develops an understanding of the postcolonial concept and its different manifestations in theatre and drama across nations and cultures. It approaches postcolonialism as a way of reading theatre, and as a genre within theatre by exploring how the "colonial project" has reconfigured the concept, content, and context of theatre in both colonized and colonizing cultures. In addition to the study of postcolonial playwrights and their works, the course is also an introduction to postcolonial theory and its critics. (Same as AAAS 429.) LEC.

THR 445. Teaching Theatre in the Middle/Secondary Schools. 3 Hours. H.
Study of philosophy and methods appropriate to teaching improvisation, acting, stagecraft, directing, playwriting, dramatic literature, and theatre history in middle/secondary schools. Includes curriculum development, instructional and evaluative strategies, and management of co-curricular theatre programs. Prerequisite: Consent of instructor. LEC.

THR 498. Honors Seminar. 2-6 Hours. AE61 / H.
Study may be directed toward either (1) reading for integration of knowledge and insight in theatre or (2) original research, i.e., investigation of a specific problem in theatre. Six hours maximum credit, which may be distributed through four semesters. Prerequisite: Consent of Departmental Honors Committee. IND.

THR 499. Directed Study in Theatre. 1-6 Hours. AE61 / H.
Investigation of a special topic or project selected by the student with advice, approval, and supervision by an instructor. Such study may take the form of directed reading or special research. Individual reports and conferences. A maximum of six hours credit may be counted toward a degree. Prerequisite: At least seven hours credit in the department and consent of instructor. IND.
THR 501. Colloquium on American Theatre. 1 Hour. U.
A series of fourteen weekly lecture/discussions led by invited guests both from the university and outside it on various topics central to the study of theatre. The first four meetings, led by the course coordinator, are a brief survey of the history of theatre in America and a preparation for the ten lecture/discussions to follow. LEC.

THR 506. Acting for the Camera. 3 Hours. H.
A study of acting techniques appropriate to the requirements of the camera. Emphasis is placed on developing audition skills necessary to compete for roles in dramatic features, corporate videos, and commercials. Actors acquire skills essential to the transition from stage to camera. Prerequisite: Permission of instructor. LEC.

THR 508. Fundamentals of Directing. 3 Hours. H.
Offered as a first course in play directing. Designed primarily for theatre majors and secondary education majors in language arts with a theatre and drama concentration. The content is principally descriptive in nature with some practical experience. Lecture and laboratory periods. Prerequisite: THR 308. LEC.

THR 509. Dramatic Script Writing. 3 Hours. H.
Study and practice in the fundamental techniques of dramatic writing and the application of such techniques most specifically to theatre. Open upon consent of instructor to students who have completed one course in advanced composition and one course in the theory or history of drama. LEC.

THR 512. A Vocal Approach to the Classics. 3 Hours. H.
This is an advanced voice and speech course for actors aiming to further increase their command over tone, rhythm, pacing, and diction. Their range and power will be extended. Through discovery of the demands of a variety of classical texts, the actor will be challenged both in verse and in prose to develop the skills necessary to fully interpret that material. Prerequisite: THR 212. LEC.

THR 516. Scenic Painting Techniques. 3 Hours. H.
Study of painting equipment, tools, pigments, binders, and vehicles, and their relationship to the surfaces to be painted. Instruction in basic painting techniques. Prerequisite: THR 115 and THR 215. LEC.

THR 517. Computer-Aided Design. 3 Hours. U.
Study of new media in theatre and film/video production, primarily computer technologies and methods for the theatrical designer or art director. Emphasis on computer 3-D modeling and color rendering. Prerequisite: THR 116, THR 215, or permission of instructor. LEC.

THR 518. Scenography and the Classic Script. 3 Hours. H.
Holistic production design, including lighting, scenery, and costumes, for classic theatre scripts. Contrasts historical styles of production with styles for contemporary spaces and audiences. Projects tailored to the needs and level of the students. Prerequisite: Consent of instructor. LEC.

THR 519. Scenography and the Modern Script. 3 Hours. H.
Holistic production design, including lighting, scenery, and costumes, for modern theatre scripts. Examines modern styles of production. Projects tailored to the needs and level of the students. Prerequisite: Consent of instructor. LEC.

THR 520. History of Period Style I. 3 Hours. H.
A survey of Western style from ancient Egypt to the Restoration. Focus is placed on developing a comprehensive understanding of the stylistic relationships between art, architecture, clothing, decor, manners, and social and political history. Prerequisite: Nine hours in theatre/design/technical courses or consent of instructor. LEC.

THR 521. History of Period Style II. 3 Hours. H.
Continuation of THR 520, from the Restoration to the present day. Prerequisite: Nine hours in theatre/design/technical courses or consent of instructor. LEC.

THR 525. History of Theatre. 3 Hours. H.
Study of developments in world theatre and drama from the ancient world to the eighteenth century. LEC.

THR 526. History of Theatre II. 3 Hours. H.
Study of developments in world theatre and drama since the eighteenth century. LEC.

THR 527. Asian Theatre and Performance. 3 Hours. NW / H.W.
A survey of traditional and modern theatre and performance in Asia, with greatest attention given to India, China, and Japan. A study of plays, dramatic genres, history, conventions of play production, acting styles and other performance forms. (Same as EALC 527.) LEC.

THR 528. History of U.S. Theatre and Drama. 3 Hours. H.
Historical approach to the development of theatre and performing arts in the United States. LEC.

THR 529. Race and the American Theatre. 3 Hours. U.
The representation(s) of race in significant texts and performance styles in American theatre analyzed according to political ideologies, dramatic movements and the impact of these factors on the representation of the “other” in the theatre. (Same as AAAS 585 and AMS 529.) LEC.

THR 550. Applied and Interactive Theatre. 3 Hours. H.
This course is an exploration of interactive drama techniques and practices of the evolving field of applied theatre. The tools of applied theatre serve varied purposes and are being used around the world for community-building, personal empowerment, to address social and political issues, and to strengthen communication skills. The class will work specifically on community-based dialogue and classroom situations that students and professors encounter in their daily lives. LEC.

THR 599. Special Topics in Scenography. 1-6 Hours. U.
Individual studio activity. Course content to be determined by the student under the supervision of a faculty member. May be repeated for credit in subsequent semesters. Prerequisite: Permission of instructor. IND.

THR 603. Theatre for Young Audiences. 3 Hours. U.
A survey of theories, history, literature, criticism, production methods, and audience research about theatre performed by adults for children and adolescents. Emphasis is on child development and community outreach. Prerequisite: THR 308 or consent of instructor. LEC.

THR 604. Drama with Young People. 1-3 Hours. U.
A laboratory experience in developing and conducting improvisational drama workshops with children or adolescents in local schools. Includes readings by leading theorists and practitioners. Prerequisite: Actors cast in current KU Theatre for Young People production, or THR 404, or consent of instructor. LEC.

THR 609. Play Directing. 3 Hours. H.
Readings, lectures, and practice dealing with the relationship between actor and director. Prerequisite: THR 508. LEC.

THR 617. Computer-Aided Design II. 3 Hours. U.
Continuation of THR 517. Emphasis on computer-generated images as scenic media in production situations. Prerequisite: THR 517, or permission of instructor. LEC.

THR 618. Scenography and the Musical Theatre. 3 Hours. H.
Holistic production design, including lighting, scenery, and costumes, for musical theatre, opera, and dance. Examines development and changes in design styles in the evolution of musical theatre, opera, and dance and...
the special requirements of these forms. Projects tailored to the needs and level of the students. Prerequisite: Consent of instructor. LEC.

THR 619. Scenography and the Contemporary Script. 3 Hours. H.
Holistic production design, including lighting, scenery, and costumes, for contemporary scripts. Examines contemporary episodic scripts written for the stage that are based on a filmic structure, the special problems of these kinds of scripts, and the respective problems of designing for theatre and film. Projects tailored to the needs and level of the students. Prerequisite: Consent of instructor. LEC.

THR 620. Scenography and the Experimental Production. 3 Hours. H.
Holistic production design, including lighting, scenery, and costumes, for experimental scripts/scenarios. Examines experimental approaches to a variety of script/scenarios, including mixed-media production. Projects tailored to the needs and level of the students. Prerequisite: Consent of instructor. LEC.

THR 626. Myth and the Dramatist. 3 Hours. U.
This seminar critically explores myths in dramatic literature from ancient to contemporary times, using select authors from different cultures. Analysis of the works will be based on both conventional and post-structuralist theories and specific emphasis will be on myths that have been adapted cross-culturally and/or in different time perspectives. LEC.

THR 702. Graduate Seminar in: _____. 3 Hours.
Course organized any given semester to study particular subject matter or to take advantage of special competency by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. LEC.

THR 703. Directed Readings in Theatre. 1-3 Hours.
Research reading and presentation of reports on specific subjects related to the students major area of specialization. May be repeated up to a total of six credits on petition. Required of all MFA Scenography students. IND.

THR 704. Study Abroad Topics in: _____. 1-6 Hours.
This course is designed for the study of special topics in Theatre. Credit for coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

THR 707. Theatre Internship. 3-12 Hours.
Study with an approved theatre company. Emphasis may be in one or all of the following areas: acting, directing, stage management, technical theatre, promotion management. No more than six hours may be applied to an M.A. degree. Course will be graded satisfactory/unsatisfactory. Prerequisite: Consent of instructor. FLD.

THR 709. Advanced Dramatic Script Writing. 3 Hours.
The purpose of this course is to permit selected students, by consent of instructor, to develop or continue dramatic writing projects in theatre, film, television, and radio under the individual supervision of the instructor. LEC.

THR 711. Styles of Acting: Shakespearean. 3 Hours.
An approach to acting styles of the period, based on a study of the art, customs, spirit, and the theatre of the times applied to scene studies taken from the works of Shakespeare. Prerequisite: THR 106 and THR 206 or consent of instructor. LEC.

THR 713. Styles of Acting: Restoration and 18th Century English. 3 Hours.
An approach to acting styles of the period, based on a study of the art, customs, spirit, and the theatre of the times applied to scene studies taken from the works of English Restoration dramatists and those 18th century English playwrights writing in the Restoration mode. Prerequisite: THR 106 and THR 206 or consent of instructor. LEC.

THR 715. Problems and Techniques of Direction. 3 Hours.
Practical experience in directing. Prerequisite: THR 609. RSH.

THR 719. M.F.A. Production Seminar. 3 Hours.
To be taken by M.F.A. candidates during those semesters in which they are assigned to design one or more elements in a production to be mounted on one of our stages. Weekly critique and discussion of solutions to practical design problems from conception through execution. May be repeated for a total of no more than six hours credit. Prerequisite: Consent of instructor. IND.

THR 725. Russian Theatre and Drama from Stanislavski and Chekhov to the Present. 3 Hours.
A study of the development of Russian theatre and dramatic literature from 1898 to the present. Lectures and readings in English. (Same as SLAV 562.) LEC.

THR 800. Introduction to Graduate Study in Theatre. 3 Hours.
Major emphasis is placed upon the principles of research, bibliographical data, and research methods useful in theatre and performance studies. The course should be taken at the beginning of the graduate student’s program. LEC.

THR 801. Professional Development Seminar. 1 Hour.
Preparation for faculty careers in theatre and related fields, including issues of research, teaching, and service. At least three hours per semester will be devoted to training in responsible scholarship. May be repeated for credit. RSH.

THR 802. Master’s Projects. 3-6 Hours.
Advanced creative projects which may be elected by master’s degree candidates in lieu of thesis. RSH.

THR 803. Summer Theatre: Graduate. 1-3 Hours.
Provides graduate level experience in a wide range of theatre activity related to the summer theatre production or productions. Work may include activity in the following areas: acting, directing, design, technical theatre, voice and/or movement. Specialized skills are developed through individual classes, production preparation, and performance. Prerequisite: Consent of instructor. FLD.

THR 815. Advanced Play Production. 1-3 Hours.
Individually supervised directing of theatre pieces for public presentation. In special cases credit may be given for musical direction, choreography, or stage management. Prerequisite: THR 715. FLD.

THR 817. Theory of Acting and Directing. 3 Hours.
Readings, lectures, discussions and papers on acting and directing theory; is concerned with the divergence between presentational and representational acting methods and the emergence of directing art. Prerequisite: THR 609 or THR 715. LEC.

THR 819. Advanced M.F.A. Production Seminar. 3 Hours.
Continuation of THR 719, but production design assignments will be more complex and larger in scope. May be repeated for maximum of six hours credit. Prerequisite: Six hours of THR 719 and consent of instructor. IND.

THR 826. Seminar in African Theatre. 3 Hours.
a study of developments in African theatre in the 20th Century focusing on themes, concepts, styles, and critical perspectives. The course will investigate the idea of an "African theatre" and identify different periods and movements within national and international contexts. The analysis of representative works and authors will be grounded within appropriate theoretical frameworks. LEC.

THR 828. Seminar in American Theatre and Drama to 1895. 3 Hours.
Intensive investigation of selected topics. Individual study emphasized. LEC.
**THR 829. Seminar in American Theatre and Drama from 1895. 3 Hours.**
Intensive investigation of selected topics. Individual study emphasized. LEC.

**THR 898. Investigation and Conference (for Master’s Students). 1-8 Hours.**
Directed research and experimentation in theatre. Limited to eight hours credit toward the Master’s degree. RSH.

**THR 899. Master’s Thesis. 1-6 Hours.**
THE.

**THR 901. Theatre Seminar in: ______. 3 Hours.**
A graduate seminar devoted to selected historical, theoretical, or critical issues in theatre. Prerequisite: Consent of instructor. LEC.

**THR 914. Theories of Race and Performance. 3 Hours.**
Theories of Race and Performance is an inter-textual graduate course that explores interdisciplinary scholarship on race and performance. It seeks to translate these theories into practical application in various visual, audio and performance texts in popular culture. The course is divided into modules aimed at gaining an understanding of the shifting meaning of race over time and its relationship to ethnicity, gender, sexuality, class, nation, and power. How do we perform our identities? How is race constructed and maintained through performance? To begin to answer these questions, we will examine the ways in which racial identities are created through performance. SEM.

**THR 915. Modern Theatre and Drama. 3 Hours.**
A study of the movements in playwriting and theatrical production in Europe and America from the mid-19th century to World War II. Prerequisite: THR 525 and THR 526 or comparable courses. LEC.

**THR 916. Postmodern Theatre and Drama. 3 Hours.**
A study of developments in Europe and American playwriting, directing, acting, and design from World War II to the present. SEM.

**THR 917. Dramatic Theory I. 3 Hours.**
A survey of dramatic theory from Plato to Lessing. LEC.

**THR 918. Dramatic Theory II. 3 Hours.**
A survey of dramatic theory from Lessing to Langer. LEC.

**THR 919. Dramatic Theory Seminar. 3 Hours.**
Study in depth of selected theorists. Offered as determined by faculty availability and student interest. LEC.

**THR 920. Practicum in Criticism. 3 Hours.**
Contemporary approaches to theatre and drama criticism. Emphasis on actual practice, using a variety of critical methods. FLD.

**THR 922. Theatre Historiography. 3 Hours.**
This course focuses on the advanced study of research methods, subjects, interpretative paradigms, theoretical frameworks, and philosophies of history employed in contemporary approaches to writing and teaching theatre history. Prerequisite: THR 525 and THR 526 or equivalent. LEC.

**THR 998. Investigation and Conference (for Doctoral Students). 1-8 Hours.**
RSH.

**THR 999. Doctoral Dissertation. 1-12 Hours.**
THE.

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**Visual Art Courses**

**ADSC 177. First Year Seminar: ______. 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Advanced Design Studies College. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**ADSC 560. Topics in Design: ______. 1-3 Hours.**
A study of different topics in different semesters in a special area of interest to a staff member and suitable qualified students. May be repeated for credit. Prerequisite: Junior standing in department. LAB.

**ADSC 580. Special Problems in Design. 1-6 Hours.**
A study of current problems in design or crafts with an emphasis on research. Special problems proposals must be discussed with and approved by the instructor and advisor prior to enrollment in the course. A student may not take more than six credit hours of special problems in any one semester. Prerequisite: Junior standing in department. IND.

**ADSC 810. Orientation Seminar. 1 Hour.**
Studies directed to development of a thesis plan. Required of all graduate students. Offered in fall semester only. Graded S or F. LEC.

**ART 101. Drawing I. 3 Hours. GE3H.**
Basic problems in drawing. LAB.

**ART 102. Drawing II. 3 Hours.**
Continuation of ART 101. Prerequisite: ART 101. LAB.

**ART 103. Art Concepts and Practice. 3 Hours. U.**
A companion course to ART 104. Lecture and studio experiences across disciplines emphasizing conceptual fundamentals, technical/skill development, visual sensibility, critical thinking and professional topics in art. LEC.

**ART 104. Art Principles and Practice. 3 Hours. U.**
A companion course to ART 103. Lecture and studio experiences across disciplines emphasizing conceptual fundamentals, technical/skill development, visual sensibility, critical thinking and professional topics in art. LEC.

**ART 120. Fundamentals of Drawing and Painting. 3 Hours.**
Open to all university students. Specifically for students with limited or no previous experience. An exploration of basic technical and expressive possibilities in drawing and painting; may include field trips, films, visiting lecturers. Six hours scheduled studio activity and three hours outside work weekly. LAB.

**ART 121. Fundamentals of Printmaking. 3 Hours.**
Open to all university students. Specifically for students with limited or no previous experience. An exploration of basic technical and expressive possibilities in printmaking, including woodcut, etching, lithography and silk screen; may include field trips, films, visiting lecturers. Six hours scheduled studio activity and three hours outside work weekly. LAB.

**ART 122. Fundamentals of Sculpture. 3 Hours.**
Open to all university students. Specifically for students with limited or no previous experience. An exploration of basic technical and expressive possibilities in sculpture; may include field trips, films, visiting lecturers. Six hours scheduled studio activity and three hours outside work weekly. LAB.

**ART 123. Fundamentals of Expanded Media. 3 Hours. GE3H / U.**
Open to all university students. Specifically for students with limited or no previous experience. An exploration of basic technical and expressive possibilities in Expanded Media, including Installation, Performance, Video and other Digital technologies; may include field trips, films, and/or visiting lecturers. Six hours scheduled studio activity and three hours outside work weekly. LAB.
ART 130. Fundamentals of Fiber Forms. 3 Hours. U.
Open to all university students. Studio exploration of fibers as an art form and means of personal expression. Emphasis is placed on three-dimensional objects. A variety of interlacement, construction, and dye techniques are introduced. LAB.

ART 131. Fundamentals of Ceramics. 3 Hours.
Open to all university students. Specifically for students with limited or no previous experience. An introduction to ceramics including throwing, handbuilding, glazing, firing, and related activities. LAB.

ART 132. Fundamentals of Metalsmithing/Jewelry. 3 Hours. GE3H.
Open to all university students. Specifically for students with limited or no previous experience. A comprehensive study of the field of jewelry and metalsmithing with an emphasis on the tools, processes, and techniques used in the design and fabrication of objects from metals such as aluminum, brass, copper, bronze, silver and related materials. Studio experience will include lectures, slide presentations, demonstrations, visiting artist, and student projects. LAB.

ART 133. Fundamentals of Fibers. 3 Hours. GE3H / U.
Open to all university students. Studio exploration of fibers as an art form and means of personal expression. A variety of dyeing, construction, and surface embellishment techniques will be introduced. LAB.

ART 177. First Year Seminar: _____ 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Art. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

ART 201. Color Theory. 3 Hours.
An introduction to the basic color theories and their application. Presentation of the relationship between pigment and light, and of additive and subtractive color mixing. Prerequisite: ART 101, and ART 103 or ART 104. LAB.

ART 300. Special Topics in Visual Art: _____. 1-3 Hours.
Course to be offered in related areas of research, mixed media or interdisciplinary exploration. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Visual Art courses, or permission of instructor. LAB.

ART 305. Visual Language. 3 Hours. H.
This course explores visual language and its relationship to cultural meaning. We examine the ways that cultural expression both influences and is influenced by artistic expression. An investigation of artistic practice and its basic elements and principles is used to demonstrate the connections between visual perception and the interpretation of visual experience. Examples from the arts and popular culture are used to illustrate the ways that we create meaning from the things we see. This course is open to all university students. Prerequisite: ENGL 101 and ENGL 102 or equivalent, or completion of the KU Core Written Communication requirements (Goal 2.1). LEC.

ART 310. Build Smart. 3 Hours. U.
Introduction to the experience and culture of building projects by hand. Students analyze and determine the best ways to build. Students also become familiar with tools, machines, building practices and material necessary for wood and steel fabrication. Prerequisite: ART 103, ART 104, or permission of the instructor. LEC.

ART 375. Directed Readings in Visual Art. 1-3 Hours. U.
Directed reading in specific areas of visual art. May be repeated for credit in subsequent semesters. Prerequisite: ART 102, ART 103 and ART 104; and six hours of Visual Art courses, or permission of instructor. IND.

ART 395. Study Abroad Topics in: _____. 1-6 Hours. H.
This course is designed for the study of special topics in Visual Art. Credit for course work must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. Open to all students. LEC.

ART 500. Advanced Special Topics in Visual Art: _____. 1-4 Hours.
Course to be offered in related areas of research, mixed media or interdisciplinary exploration. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Visual Art courses, or permission of instructor. LEC.

ART 540. Professional Activities Seminar. 3 Hours.
Comprehensive development of skills and strategies needed to pursue a career as a professional studio artist. Prerequisite: Twenty-four hours of departmental electives or permission of instructor. LEC.

ART 575. Advanced Directed Reading in Visual Art. 1-3 Hours.
Directed reading in specific areas of visual art. May be repeated for credit in subsequent semesters. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Visual Art courses, or permission of instructor. IND.

ART 590. Internship in Visual Art. 1-3 Hours. U.
Practical experience in the use of artistic skills in approved and supervised academic or professional settings. May be repeated for credit; no more than six hours may be applied to the B.A. or B.F.A. degree. Credit hours are graded on a satisfactory/unsatisfactory basis, according to the written recommendation provided by the internship supervisor to the faculty advisor. Prerequisite: ART 102, ART 103, and ART 104; and fifteen hours of Visual Art courses; and prerequisite of instructor. FLD.

ART 595. Advanced Study Abroad Topics in: _____. 1-6 Hours. H.
This course is designed for the study of special topics in Visual Art at the senior/graduate level. Credit for course work must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. Open to seniors and graduate level students. LEC.

ART 598. Special Topics: Studio Theory and Criticism. 3 Hours.
Lecture, discussion, and supervised research in current topics related to contemporary studio theory and criticism. May be repeated for credit as topics vary. This course will be counted as free electives in course distribution. Prerequisite: Eighteen hours of departmental electives. LEC.

Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor’s degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Visual Art courses; and permission of instructor. Does not fulfill ART 695/ART 696 requirement. IND.

ART 695. Directed Study I. 3 Hours.
Individual studio activity under direction of faculty advisor; capstone experience. Prerequisite: Thirty hours of departmental electives, consent of department, and permission of instructor. IND.

ART 696. Directed Study II. 4 Hours. AE61.
Continuation of ART 695; capstone experience. May be repeated for credit in subsequent semesters. Prerequisite: ART 695 and permission of instructor. IND.
ART 801. Directed Study III. 2-5 Hours.
Individual studio activity under the direction of faculty member. May be repeated for credit in subsequent semesters. Prerequisite: Permission of graduate director and enrollment in the Visual Art MFA program. RSH.

ART 802. Directed Study IV. 2-5 Hours.
Continuation of Directed Study III. Prerequisite: Enrollment in the Visual Art MFA Program. RSH.

ART 803. Directed Study V. 2-5 Hours.
Continuation of Directed Study IV. Prerequisite: Enrollment in the Visual Art MFA Program. RSH.

ART 805. Graduate Studio. 1-3 Hours.
Individual graduate studio research in visual art. Course content to be determined by the student under the supervision of a graduate faculty member. May be repeated for credit. Prerequisite: Graduate standing in The School of The Arts and permission of the instructor. RSH.

ART 861. Directed Reading in Visual Art. 1-3 Hours.
Research reading and presentation of reports on specific subjects related to the student's major area of specialization. Prerequisite: Enrollment in the MFA Program in the Department of Visual Art. RSH.

ART 877. Graduate Seminar. 3 Hours.
The graduate seminar emphasizes professional preparation for contemporary artists focusing on writing skills, oral presentations, critiques of individual creative research/artwork, critical thinking about and visual analysis of current art forms and contemporary approaches to the teaching of studio art. Prerequisite: Admission to the Graduate Program in Visual Art. SEM.

ART 896. Special Topics: Studio Theory and Criticism. 3 Hours.
Lecture, discussion, and supervised research in current topics related to contemporary studio theory and criticism. May be repeated for credit as topics vary. This course will be counted as a graduate level elective in course and credit distribution. LEC.

ART 899. Graduate Seminar. 1 Hour.
Weekly discussion of issues and/or work in art. (Graded on a satisfactory/ or F basis.) Repeat for credit in subsequent semesters. SEM.

ART 906. Graduate Studio. 1-3 Hours.
Individual graduate studio research in visual art. Course content to be determined by the student under the supervision of a graduate faculty member. May be repeated for credit. Prerequisite: ART 805 and permission of the instructor. RSH.

Original research in visual art culminating in a thesis exhibition. May be repeat for credit. Prerequisite: Thirty-six credit hours of graduate credit and permission of the graduate review committee. THE.

CER 177. First Year Seminar: _____, 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Ceramics. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

CER 208. Ceramics I. 3 Hours.
The development of form and surface through the use of handbuilding and wheel thrown techniques. Stoneware and Raku are explored. Prerequisite: ART 102 and ART 104. LAB.

CER 300. Special Topics in Ceramics: _____, 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

CER 301. Ceramics II. 3 Hours.
A continuation of ART 131 and/or CER 208 with emphasis in firing low temperature ceramics. An introduction to glaze formulation and firing procedures through the use of earthenware and low temperature talc bodies. Prerequisite: ART 131 or CER 208. LAB.

CER 402. Ceramics III. 3 Hours.
A study of high fire ceramics using stoneware and porcelain. The development of ceramic forms and shapes utilizing traditional and nontraditional techniques such as salt glaze, wood firing, oxidation, and reductions. Prerequisite: ART 131 or CER 208. LAB.

CER 500. Advanced Special Topics Ceramics: _____, 1-4 Hours. U.
Course to be offered in an area of specific interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Ceramics courses, or permission of instructor. LEC.

CER 504. Kilns. 3 Hours.
The principles in kiln design, including up-draft, down-draft, cross-draft, and electric kilns, and burner technology. Prerequisite: CER 301. LEC.

CER 505. Clay and Glaze Formulation. 3 Hours.
Formulation of the various clay bodies and glazes associated with ceramics. Prerequisite: CER 301. LEC.

CER 506. Production. 6 Hours.
Procedures, techniques, problems, and solutions for setting up and operating a production pottery studio, including the development of ceramic forms and glazes related to marketability and design and mold production for industry. May be repeated for credit. Prerequisite: CER 301 and CER 302. LAB.

CER 515. Advanced Ceramics I. 3-6 Hours. AE61.
Development of individual direction in ceramics based on experience, research, and skills acquired in previous courses; capstone experience. May be repeated for credit. Prerequisite: CER 301 and CER 402. LAB.

CER 520. Advanced Ceramics II. 3-6 Hours. AE61 / U.
Continuation of CER 515; capstone experience. May be repeated for credit. Prerequisite: CER 515. LAB.

CER 590. Internship in Ceramics. 1-3 Hours. U.
Practical experience in the use of artistic skills in approved and supervised academic or professional settings. May be repeated for credit; no more than six hours may be applied to the B.A. or B.F.A. degree. Credit hours are graded on a satisfactory/unsatisfactory basis, according to the written recommendation provided by the internship supervisor to the faculty advisor. Prerequisite: ART 102, ART 103, and ART 104; and fifteen hours of Visual Art courses; and permission of instructor. FLD.

CER 599. Individual Studies in Ceramics. 1-6 Hours. AE61 / U.
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor’s degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Ceramics courses or permission of instructor. IND.

CER 715. Ceramics. 2-6 Hours.
Individual research. Prerequisite: CER 515 or equivalent. RSH.

CER 725. Glass. 2-6 Hours.
Individual research. Prerequisite: Approval of instructor. RSH.
CER 815. Ceramics. 2-6 Hours.
Continuation of CER 805. RSH.

CER 825. Glass. 2-6 Hours.
Individual research. Prerequisite: Approval of instructor. RSH.

DRWG 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Drawing. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

DRWG 203. Drawing III. 3 Hours.
Advanced problems in drawing. Prerequisite: ART 102. LAB.

DRWG 213. Life Drawing I. 3 Hours.
Figure drawing. Prerequisite: ART 102 and ART 103 or ART 104. LAB.

DRWG 300. Special Topics in Drawing: ____. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

DRWG 304. Drawing IV. 3 Hours.
Continuation of DRWG 203. Prerequisite: DRWG 203. LAB.

DRWG 314. Life Drawing II. 3 Hours.
Continuation of DRWG 213. Prerequisite: DRWG 213. LAB.

DRWG 318. Life Drawing II, Honors. 3 Hours.
Figure drawing, a continuation of DRWG 213. Prerequisite: DRWG 213; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

DRWG 335. Special Topics in Drawing: ____. 3 Hours.
Course to be offered in area of special interest to individual faculty, and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: DRWG 203, or DRWG 213, or permission of instructor. LAB.

DRWG 500. Advanced Special Topics in Drawing: ____. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Drawing courses, or permission of instructor. LEC.

DRWG 505. Drawing V. 3 Hours.
Continuation of DRWG 304. Prerequisite: DRWG 304. LAB.

DRWG 506. Drawing VI. 3 Hours.
Continuation of DRWG 505. May be repeated for credit in subsequent semesters. Prerequisite: DRWG 505. LAB.

DRWG 515. Life Drawing III. 3 Hours.
Continuation of DRWG 314. Prerequisite: DRWG 314. LAB.

DRWG 516. Life Drawing IV. 3 Hours.
Continuation of DRWG 515. May be repeated for credit in subsequent semesters. Prerequisite: DRWG 515. LAB.

DRWG 518. Life Drawing III, Honors. 3 Hours.
Figure drawing, a continuation of DRWG 314 or DRWG 318. May be repeated for credit in subsequent semesters. Prerequisite: DRWG 314 or DRWG 318; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

DRWG 519. Life Drawing IV, Honors. 3 Hours.
Figure drawing, a continuation of DRWG 515 or DRWG 518. May be repeated for credit in subsequent semesters. Prerequisite: DRWG 515 or DRWG 518; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

DRWG 535. Special Topics in Drawing: ____. 3 Hours.
Course to be offered in area of special interest to individual faculty, and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: 12 hours of drawing and permission of instructor. LAB.

DRWG 599. Individual Studies in Drawing. 1-6 Hours. AE61 / U.
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor’s degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Drawing courses, or permission of instructor. IND.

DRWG 807. Drawing VII. 3 Hours.
Individual research in drawing. Prerequisite: DRWG 506. RSH.

DRWG 817. Life Drawing V. 3 Hours.
Individual research in figure drawing. Prerequisite: DRWG 516. RSH.

DRWG 908. Drawing VIII. 3 Hours.
Continuation of DRWG 807. Prerequisite: DRWG 807. RSH.

DRWG 918. Life Drawing VI. 3 Hours.
Continuation of DRWG 817. Prerequisite: DRWG 817. RSH.

EXM 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Expanded Media. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

EXM 274. Expanded Media. 3 Hours. U.
Beginning course to introduce the fundamental concepts, strategies, and technologies that comprise the Expanded Media area of the Department of Visual Art: Installation, Performance, and Digital Image. Emphasis is placed on forming ideas and strategies, and creating artwork that considers the core connections within Expanded Media: time, space, the body, the viewer, and society at large. Computer-based technologies and time-based media that are inherent to Expanded Media practice support studio assignments. Coursework includes the investigation and discussion of historic precedents and the development of an appropriate critical dialogue with which to discuss their work. Prerequisite: ART 102, ART 103, and ART 104. LAB.

EXM 300. Special Topics in Expanded Media: ____. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

EXM 301. The Digital Image I. 3 Hours.
Introduction to various still digital processes and skills that encourage the use of digital imagery within a variety of other media. Focus on content issues as they relate to development of artwork incorporating digital imagery. LAB.

EXM 302. Performance Art I. 3 Hours. U.
An introduction to the understanding and production of performance art. Students gain proficiency in conceptualization and production
of performance time-based art in an Interdisciplinary art-making environment. Prerequisite: ART 102, ART 103, and ART 104. LAB.

**EXM 303. Intermedia I. 3 Hours.**
An introduction to the use/ handling and integration of diverse, new and traditional materials, techniques and processes. Problems will involve strategies for discovering and managing combinations of drawn, painted, digital and constructed forms. Studio sessions will include research, lecture, demos, and guest speakers. Prerequisite: Permission of instructor. LAB.

**EXM 307. Installation Art I. 3 Hours. U.**
An introduction to the understanding and production of installed art environments using a variety of media and approaches to art-making. Students gain proficiency in conceptualization and production of installation art in an interdisciplinary art-making environment. Prerequisite: ART 102, ART 103, and ART 104. LAB.

**EXM 314. Alternative Approaches in Photography I. 3 Hours. U.**
An introduction to the understanding and production of art-making using alternative approaches in photography. Students gain proficiency in conceptualization and production of artwork using alternative approaches in photography in an interdisciplinary art-making environment. Prerequisite: ART 102, ART 103, and ART 104. LAB.

**EXM 326. Video and Time-Based Media I. 3 Hours. U.**
An introduction to the understanding and production of video and time-based art. Students gain proficiency in conceptualization and production of video and time-based art in an interdisciplinary art-making environment. Prerequisite: ART 102, ART 103, and ART 104. LAB.

**EXM 350. Advanced Special Topics in Expanded Media: _____ 1-4 Hours. U.**
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

**EXM 351. The Digital Image I. 3 Hours.**
Continuation of EXM 301. The Digital Image I. May be repeated for credit. LAB.

**EXM 353. Intermediate Expanded Media. 3 Hours.**
Continuation of EXM 303. Intermediate I. May be repeated for credit. Prerequisite: Permission of instructor. LAB.

**EXM 354. Alternative Approaches in Photography II. 3 Hours. U.**
Continuation of EXM 314. Prerequisite: EXM 314. LAB.

**EXM 356. Video and Time-Based Media II. 3 Hours. U.**
Continuation of EXM 326. Prerequisite: EXM 326. LAB.

**EXM 355. Intermediate Expanded Media. 3 Hours.**
Continuation of Expanded Media studio research. Prerequisite: Two (200- and/or 300-level) Expanded Media courses. LAB.

**EXM 356. Intermediate Expanded Media, Honors. 3 Hours.**
Continuation of Expanded Media studio research. Prerequisite: Two (200- and/or 300-level) Expanded Media courses; membership in the University Honors Program or 3.25 minimum cumulative grade point average with permission of the department. LAB.

**EXM 357. Advanced Expanded Media. 3 Hours.**
Continuation of EXM 355. May be repeated for credit. Prerequisite: EXM 355 or EXM 356. LAB.

**EXM 358. Advanced Expanded Media, Honors. 3 Hours.**
Continuation of EXM 356. May be repeated for credit. Prerequisite: EXM 356 or EXM 358; membership in the University Honors Program or 3.25 minimum cumulative grade point average with permission of the department. LAB.

**EXM 3541. Graduate Performance Art. 3 Hours.**
Students will gain proficiency in conceptualization and production of performance time-based art in an interdisciplinary art-making environment. Prerequisite: Permission of instructor. LAB.

**EXM 3542. Graduate Installation Art. 3 Hours.**
Advanced problems toward the creation of environments using a variety of media including traditional and non-traditional approaches to art-making. Prerequisite: Permission of instructor. LAB.

**EXM 3543. Graduate: The Digital Image. 3 Hours.**
Advanced work focusing on content issues as they relate to development of artwork incorporating digital imagery. Prerequisite: Permission of instructor. LAB.

**EXM 3545. Graduate Intermedia. 3 Hours.**
Advanced work in the use/handling and integration of diverse, new and traditional materials, techniques and processes. Advanced problems will involve strategies for discovering and managing combinations of drawn, painted, digital, and constructed forms. Studio sessions will include research, lecture, demos, and guest speakers. Prerequisite: Permission of instructor. LAB.

**EXM 3546. Graduate Expanded Media V. 3 Hours.**
Continuation of Expanded Media studio research. Prerequisite: Permission of instructor. LAB.

**EXM 3573. Performance Art II. 3 Hours. U.**
Continuation of EXM 302. Prerequisite: EXM 302. LAB.

**EXM 3574. Performance Art II, Honors. 3 Hours. U.**
Continuation of EXM 302. Prerequisite: EXM 302; and membership in the University Honors Program or 3.25 minimum cumulative grade point average with permission of the department. LAB.

**EXM 3577. Installation Art II. 3 Hours. U.**
Continuation of EXM 307. Prerequisite: EXM 307. LAB.

**EXM 3578. Installation Art II, Honors. 3 Hours. U.**
Continuation of EXM 307. Prerequisite: EXM 307; and membership in the University Honors Program or 3.25 minimum cumulative grade point average with permission of the department. LAB.

**EXM 3599. Individual Studies in Expanded Media. 1-6 Hours. AE61 / U.**
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor’s degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Expanded Media courses, of permission of instructor. IND.

**EXM 3846. Graduate Expanded Media VI. 3 Hours.**
Continuation of Expanded Media studio research. Prerequisite: Permission of instructor. LAB.

**EXM 3946. Graduate Expanded Media VII. 3 Hours.**
Continuation of Expanded Media studio research. Prerequisite: Permission of instructor. LAB.

**METL 177. First Year Seminar: _____ 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Metalsmithing/Jewelry. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.
METL 211. Jewelry. 3 Hours. GE3S.
Introduction to metalsmithing and jewelry design, materials and processes. Student projects explore the joining, forming, and surface embellishment of metals such as copper, brass, bronze, and sterling. Prerequisites: ART 102 and ART 104. LAB.

METL 300. Special Topics in Metalsmithing: ____. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

METL 301. Introduction to Casting for Jewelry. 3 Hours.
Introduction to casting and mold making processes used for jewelry and small sculpture. Students explore various methods and materials for creating models for casting in bronze or silver including wax carving, wax modeling, and the use of natural and synthetic materials as models. Models are cast using centrifugal and vacuum casting processes. Basic mold making in clay and silicone are also explored. Prerequisite: ART 132 or METL 211. LAB.

METL 302. Professional Practices. 3 Hours.
The development of a portfolio including designing, rendering, and model making for future projects. Photographing completed objects and discussing professional aspects of the jewelry/metalsmithing field. Prerequisite: Six hours of metalsmithing. LAB.

METL 360. Holloware. 3 Hours.
Problems related to specific smithing techniques such as raising, stretching, shell structures and seam fabrications. Metal manipulation on a large scale. Prerequisite: METL 301. LAB.

METL 362. Metalsmithing. 6 Hours.
Advanced metalworking with an emphasis on the refinement of design and techniques. Processes may include linkage, marriage of metals, metal inlays, hinge and catch fabrication. Prerequisite: METL 301. LAB.

METL 364. Enameling. 6 Hours.
Problems of basic and advanced enameling as applied to jewelry design and metalsmithing objects. Exploration of major enameling techniques: such as limoges, cloissoné, champelle, and bassetaille. Prerequisite: Six hours of metalsmithing or consent of instructor. LAB.

METL 500. Advanced Special Topics in Metalsmithing: ____. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

METL 501. Seminar. 3 Hours.
Lectures and demonstrations on techniques of contemporary interest outside of typical classroom activity. Prerequisite: Six hours of metalsmithing. LEC.

METL 503. Gemology. 3 Hours. H.
Students study the optical and physical characteristics of gemstones in order to identify them using gemological instruments. This laboratory and discussion class explores related topics including the principles of optics that support this methodology, history and geographical distribution of gemstones, gemstone cutting and pearl farming, the history of DeBeers and the development of the world demand for diamond, quality analysis of diamond, colored gemstones and pearls, including the history of diamond grading, the development and identification of synthetics, imitations and laboratory enhancements as well as the use of gemstones in designing jewelry. Prerequisite: ART 132. LAB.

METL 504. A History of Jewelry. 3 Hours. H.
This course explores the history from Sumeria to the 21st century of the use of metals and gemstones in the creation of decorative art for personal adornment. Students explore the evolution of the role of jewelry in ancient culture and modern society and survey individuals whose ideas and work influenced generations of goldsmiths and jewelers around the globe. The class studies primitive tools and modern manufacturing techniques, the history of gemstone cutting and setting and the origin and development of gemstones as symbols. Prerequisite: ART 132. LEC.

METL 505. Digital Jewelry Design I. 3 Hours. H.
Matrix is a 3-D CAD program based on Rhino developed by Rhino, specifically for jewelry design. The goal of this course is to instruct beginners in the Matrix design program. Students learn to transform their 2-D designs from their sketchbooks into 3-D models in Matrix, which can be milled in wax, and cast in metal. Students also learn how to render their 3-D Matrix models to appear as if they were a finished object. The class time is structured as a combination of instructor-led tutorials and working labs. Prerequisite: ART 132. LAB.

METL 506. Digital Jewelry Design II. 3 Hours. H.
The second semester of Matrix increases the operating and design skills building on the knowledge of DG I. The focus of the class is producing wax models on the Revo Digital Mill.Digi II covers the advanced modeling skills including T-spline and Rhino. Students also learn how to make a customized tool path for Revo C mill program and how to solve milling problems. Students also learn how to convert Rhino files to produce a 3D print for outsourcing to other 3D modeling programs. Prerequisite: ART 132, METL 301, METL 505. LAB.

METL 515. Advanced Metals I. 6 Hours. AE61.
Emphasis on individual design aesthetic through intensive designing, rendering, and modelmaking as preparation for fabricated pieces of jewelry, holloware, and/or small objects; capstone experience. Prerequisite: METL 362. LAB.

METL 520. Advanced Metals II. 6 Hours. AE61 / U.
Continuation of METL 515; capstone experience. This course requires a final presentation of a complete portfolio including resume, renderings and photographs of the finished work. Prerequisite: METL 515. LAB.

METL 590. Internship in Metalsmithing/Jewelry. 1-3 Hours. U.
Practical experience in the use of artistic skills in approved and supervised academic or professional settings. May be repeated for credit; no more than six hours may be applied to the B.A. or B.F.A. degree. Credit hours are graded on a satisfactory/unsatisfactory basis, according to the written recommendation provided by the internship supervisor to the faculty advisor. Prerequisite: ART 102, and ART 103, and ART 104; and fifteen hours of Visual Art Courses; and permission of instructor. FLD.

METL 599. Individual Studies in Metalsmithing/Jewelry. 1-6 Hours. AE61 / U.
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor's degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Metalsmithing/Jewelry courses, or permission of instructor. IND.

METL 715. Metals/Jewelry. 2-6 Hours.
Individual research. Prerequisite: METL 515 or equivalent. RSH.

METL 815. Metals/Jewelry. 2-6 Hours.
Continuation of METL 715. RSH.
PNTG 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Painting. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

PNTG 263. Painting I. 3 Hours.
Basic problems in painting. Prerequisite: ART 102, and ART 103 or ART 104. LAB.

PNTG 300. Special Topics in Painting: ______. 1-4 Hours.
Course to be offered in area of studio activity of specific interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

PNTG 337. Watercolor. 3 Hours.
Sessions deal with the preparation of watercolor paints and equipment, but the main emphasis is placed on relational concepts affecting tone, structure, and unity in work. While the students are expected to explore some of the traditional approaches to watercolor, they also are encouraged to work with new and innovative ones. May be repeated for credit. Prerequisite: PNTG 263 or permission of instructor. LAB.

PNTG 338. Landscape Painting. 3 Hours.
An introduction to landscape painting. Considerable work is done out-of-doors. Emphasis is placed upon experiencing the environment and the development of individual approach. May be repeated for credit. Prerequisite: PNTG 263 and permission of instructor. LAB.

PNTG 364. Painting II. 3 Hours.
Continuation of PNTG 263. Prerequisite: PNTG 263. LAB.

PNTG 368. Painting II, Honors. 3 Hours.
Continuation of PNTG 263. Prerequisite: PNTG 263; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PNTG 500. Advanced Special Topics in Painting: ______. 1-4 Hours.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Painting courses, or permission of instructor. LAB.

PNTG 565. Painting III. 3 Hours.
Continuation of PNTG 364. Prerequisite: PNTG 364. LAB.

PNTG 566. Painting IV. 3 Hours.
Continuation of PNTG 565. May be repeated for credit. Prerequisite: PNTG 565. LAB.

PNTG 567. Painting III, Honors. 3 Hours.
Continuation of PNTG 364 or PNTG 368. Prerequisite: PNTG 364 or PNTG 368; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PNTG 569. Painting IV, Honors. 3 Hours.
Continuation of PNTG 565 or PNTG 568. Prerequisite: PNTG 565 or PNTG 568; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PNTG 585. The Figure I. 3 Hours.
The figure and its environment in various media. Prerequisite: DRWG 314 and PNTG 364. LAB.

PNTG 586. The Figure II. 3 Hours.
Continuation of PNTG 585. May be repeated for credit. Prerequisite: PNTG 585. LAB.

PNTG 588. The Figure I, Honors. 3 Hours.
The figure and its environment in various media. Prerequisite: DRWG 314 or DRWG 318 and PNTG 364 and PNTG 368; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PNTG 589. The Figure II, Honors. 3 Hours.
Continuation of PNTG 585 or PNTG 588. May be repeated for credit. Prerequisite: PNTG 585 or PNTG 588; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PNTG 599. Individual Studies in Painting. 1-6 Hours. AE61 / U.
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor’s degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Painting courses, or permission of instructor. IND.

PNTG 667. Painting V. 3 Hours.
Continuation of PNTG 566. Prerequisite: PNTG 566. LAB.

PNTG 668. Painting VI. 3 Hours.
Continuation of PNTG 667. May be repeated for credit in subsequent semesters. Prerequisite: PNTG 667. LAB.

PNTG 687. The Figure III. 3 Hours.
Continuation of PNTG 585. Prerequisite: PNTG 585. LAB.

PNTG 688. The Figure IV. 3 Hours.
Continuation of PNTG 687. May be repeated for credit. Prerequisite: PNTG 687. LAB.

PNTG 869. Painting VII. 3 Hours.
Individual research in painting. Prerequisite: PNTG 668. RSH.

PNTG 889. The Figure V. 3 Hours.
Individual research in the figure and its environment in various media. Prerequisite: PNTG 688. RSH.

PNTG 970. Painting VIII. 3 Hours.
Continuation of PNTG 869. Prerequisite: PNTG 869. RSH.

PNTG 990. The Figure VI. 3 Hours.
Continuation of PNTG 889. Prerequisite: PNTG 889. RSH.

PRNT 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Printmaking. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

PRNT 223. Intaglio I. 3 Hours.
Introduction to intaglio. Prerequisite: ART 102, and ART 103 or ART 104. LAB.

PRNT 224. Relief I. 3 Hours.
Introduction to relief printing. Prerequisite: ART 102, and ART 103 or ART 104. LAB.

PRNT 233. Lithography I. 3 Hours.
Introduction to lithography. Prerequisite: ART 102, and ART 103 or ART 104. LAB.
PRNT 243. Serigraphy I. 3 Hours.
Introduction to serigraphy. Prerequisite: ART 102, and ART 103 or ART 104. LAB.

PRNT 300. Special Topics in Printmaking: ____. 3 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

PRNT 324. Intaglio II. 3 Hours.
Continuation of PRNT 223. Prerequisite: PRNT 223, or permission of instructor. LAB.

PRNT 325. Relief II. 3 Hours.
Continuation of PRNT 224. Prerequisite: PRNT 224, or permission of instructor. LAB.

PRNT 328. Intaglio II, Honors. 3 Hours.
Continuation of PRNT 223. Prerequisite: PRNT 223; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PRNT 329. Relief II, Honors. 3 Hours.
Continuation of PRNT 224. Prerequisite: PRNT 224; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PRNT 334. Lithography II. 3 Hours.
Continuation of PRNT 233. Prerequisite: PRNT 233 or permission of instructor. LAB.

PRNT 338. Lithography II, Honors. 3 Hours.
Continuation of PRNT 233. Prerequisite: PRNT 233; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PRNT 344. Serigraphy II. 3 Hours.
Continuation of PRNT 243. Prerequisite: PRNT 243 or permission of instructor. LAB.

PRNT 348. Special Problems in Printmaking--Color Printing in Relief and Intaglio. 3 Hours.
Multiple block and plate printing in color. (This course is not regularly offered. The current Schedule of Classes should be consulted.) Prerequisite: PRNT 222 and permission of instructor. LAB.

PRNT 349. Serigraphy II, Honors. 3 Hours.
Continuation of PRNT 243. Prerequisite: PRNT 243; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PRNT 500. Advanced Special Topics in Printmaking: ____. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Printmaking courses, or permission of instructor. LEC.

PRNT 523. Printmaking III A (Intaglio). 3 Hours.
Prerequisite: PRNT 522 or permission of instructor. LAB.

PRNT 524. Printmaking III B (Lithography). 3 Hours.
Prerequisite: PRNT 523 or permission of instructor. LAB.

PRNT 525. Printmaking III C (Serigraphy). 3 Hours.
Prerequisite: PRNT 524 or permission of instructor. LAB.

PRNT 526. Printmaking IV A (Intaglio). 3 Hours.
Prerequisite: PRNT 523 or permission of instructor. LAB.

PRNT 527. Printmaking IV B (Lithography). 3 Hours.
Prerequisite: PRNT 524 or permission of instructor. LAB.

PRNT 528. Printmaking IV C (Serigraphy). 3 Hours.
Prerequisite: PRNT 525 or permission of instructor. LAB.

PRNT 599. Individual Studies in Printmaking. 1-6 Hours. AE61 / U.
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor's degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Printmaking courses, or permission of instructor. IND.

PRNT 662. Printmaking V. 3 Hours.
Individual research in printmaking. Prerequisite: PRNT 526 or PRNT 527 or PRNT 528. LAB.

PRNT 663. Printmaking VI. 3 Hours.
Continuation of PRNT 662. Prerequisite: PRNT 662. LAB.

PRNT 802. Special Problems in Printmaking. 3 Hours.
Individual research in printmaking; course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters. Prerequisite: PRNT 579 and permission of instructor. RSH.

PRNT 827. Printmaking VII. 3 Hours.
Continuation of PRNT 826. Prerequisite: PRNT 826. LAB.

PRNT 928. Printmaking VIII. 3 Hours.
Continuation of PRNT 927. Prerequisite: PRNT 827. LAB.

SCUL 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Sculpture. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

SCUL 253. Sculpture I. 3 Hours.
Introduction to sculpture. Prerequisite: ART 102, ART 103, and ART 104, or permission of instructor. LAB.

SCUL 300. Special Topics in Sculpture: _____. 1-4 Hours. LAB.
Course to be offered in an area of studio activity of specific interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104, or permission of instructor. LAB.

SCUL 349. Metal and Glass Casting. 3 Hours.
A course in foundry techniques as related to sculpture. Both traditional and experimental procedures for casting bronze, aluminum, and iron sculpture will be explored. May be repeated for credit. Prerequisite: SCUL 253. LAB.

SCUL 350. Direct Metal Fabrication. 3 Hours.
The course will present a variety of techniques for fabricating metal sculpture. Oxyacetylene and electric arc welding processes will be included. May be repeated for credit. Prerequisite: SCUL 253. LAB.
SCUL 354. Sculpture II. 3 Hours.
Continuation of SCUL 253. Prerequisite: SCUL 253. LAB.

SCUL 355. Sculpture III. 3 Hours.
Continuation of SCUL 354. Prerequisite: SCUL 354. LAB.

SCUL 358. Sculpture II, Honors. 3 Hours.
Continuation of SCUL 253. Prerequisite: SCUL 253; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the Department. LEC.

SCUL 359. Sculpture III, Honors. 3 Hours.
Continuation of SCUL 354 or SCUL 358. Prerequisite: SCUL 354 or SCUL 358; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the Department. LEC.

SCUL 500. Advanced Special Topics in Sculpture: ____. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Sculpture courses, or permission of instructor. LEC.

SCUL 556. Sculpture IV. 3 Hours.
Continuation of SCUL 355. May be repeated for credit. Prerequisite: SCUL 355. LAB.

SCUL 558. Sculpture IV, Honors. 3 Hours.
Continuation of SCUL 355 or SCUL 359. May be repeated for credit. Prerequisite: SCUL 355 or SCUL 359; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

SCUL 592. Individual Studies in Sculpture. 1-6 Hours. AE1 / U.
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours can apply toward the bachelor’s degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Sculpture courses, or permission of instructor. IND.

SCUL 657. Sculpture V. 3 Hours.
Continuation of SCUL 556. Prerequisite: SCUL 556. LAB.

SCUL 658. Sculpture VI. 3 Hours.
Continuation of SCUL 657. May be repeated for credit in subsequent semesters. Prerequisite: SCUL 657. LAB.

SCUL 804. Special Problems in Sculpture. 3 Hours.
Individual research in sculpture; course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters. Prerequisite: SCUL 559 and permission of instructor. RSH.

SCUL 859. Sculpture VII. 3 Hours.
Individual research in sculpture. Prerequisite: SCUL 658. RSH.

SCUL 905. Special Problems in Sculpture. 3 Hours.
Individual research in sculpture; course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters. Prerequisite: SCUL 804 and permission of instructor. RSH.

SCUL 960. Sculpture VIII. 3 Hours.
Continuation of SCUL 859. Prerequisite: SCUL 859. RSH.

TD 130. Introduction to Weaving. 3 Hours.
Specifically for students with limited or no previous experience. Application to art and design principles to four-harness loom structures. Emphasis on the use of color and texture in loom controlled and weaver controlled techniques. Counts only as a studio elective or general elective for a B.F.A. in Art or Design. LAB.

TD 133. Introduction to Fibers. 3 Hours.
Studio exploration of fibers as an art and design form. Techniques include dyeing, spinning yarn, soft sculpture, embellishment, crochet. Open to all university students. LAB.

TD 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Textile Design. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

TD 300. Special Topics in Textiles/Fibers: ____. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104, or permission of instructor. LEC.

TD 313. Fiber Forms. 3 Hours.
Studio exploration of fibers as an art form. Techniques include feltmaking, papermaking, basketry, and dyeing. Prerequisite: ART 101, and ART 130 or ART 133. LAB.

TD 314. Introduction to Weaving. 3 Hours. U.
Application of art and design principles to four-harness loom structures. Emphasis on the use of color and texture in loom controlled and weaver controlled techniques. Prerequisite: ART 101, and ART 130 or ART 133. LAB.

TD 315. Textile Handprinting and Resist Processes. 3 Hours. U.
Fundamentals of resist and dye techniques on textiles: batik, tie-dye, discharge, and direct application. Prerequisite: ART 101, and ART 130 or ART 133. LAB.

TD 316. Screenprinting Textiles. 3 Hours.
Design problems in textile printing with emphasis on screenprinting and photo techniques. Prerequisite: ART 101, and ART 130 or ART 133. LAB.

TD 401. Weave Structures. 3 Hours. U.
Continuation of TD 314. Research and analysis of multiple-harness weave structures. Weave drafts. Design problems to develop the use of color, form, and surface in simple and compound weaves. Prerequisite: TD 314. LAB.

TD 402. Techniques in Weaving. 3 Hours. U.
Development of individual art and design concepts in relation to woven structures and/or forms. Emphasis on weaver-controlled techniques used to create images and composition. Prerequisite: TD 314. LAB.

TD 403. Intermediate Textile Printing. 3 Hours.
Individual problems in textile printing and dyeing processes. Prerequisite: TD 316. LAB.

TD 404. Surface Design. 3 Hours.
Textile pattern design for art and/or industry. Prerequisite: Twelve hours in Visual Art or Design, or permission of the instructor. LAB.

TD 414. Experimental Concepts in Weaving. 3 Hours.
Experimentation with resist dyeing, painted warps and/or "Fiber Forms" techniques in woven structures. Individual research and development of thematic concepts. Prerequisite: TD 313, and TD 301 or TD 302. LAB.

TD 500. Advanced Special Topics in Textiles/Fibers: ____. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit.
Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Textiles/Fibers courses, or permission of instructor. LEC.

**TD 503. Advanced Surface Design/Screenprinting. 1-6 Hours. U.**
Directed study of advanced surface design and screenprinting methods. May be repeated for credit. Prerequisite: TD 403. IND.

**TD 504. History of Textiles, Lecture. 3 Hours.**
Study of historical textiles, their design development, and the techniques employed. Prerequisite: Junior standing in department or permission of instructor. LEC.

**TD 506. Advanced Fiber Forms. 1-6 Hours. U.**
Directed study of three-dimensional and off-loom methods and techniques. May be repeated for credit. Prerequisite: TD 401 and TD 402. IND.

**TD 514. Advanced Techniques in Weaving. 1-6 Hours. U.**
Directed study of advanced loom-controlled and weaver-controlled methods. May be repeated for credit. Prerequisite: TD 401 and TD 402. IND.

**TD 515. Advanced Textiles/Fibers I. 3-6 Hours. AE61.**
Development of individual direction in textiles based on experience, research, and skills acquired in preceding courses; capstone experience. Prerequisite: Twenty-four credits in Textiles/Fibers and consent of instructor. LAB.

**TD 520. Advanced Textiles/Fibers II. 3-6 Hours. AE61.**
Continuation of TD 515, capstone experience. Prerequisite: TD 515. LAB.

**TD 590. Internship in Textiles/Fibers. 1-3 Hours. U.**
Practical experience in the use of artistic skills in approved and supervised academic or professional settings. May be repeated for credit; no more than six hours may be applied to the B.A. or B.F.A. degree. Credit hours are graded on a satisfactory/unsatisfactory basis, according to the written recommendation provided by the internship supervisor to the faculty advisor. Prerequisite: ART 102, ART 103, and ART 104; and fifteen hours of Visual Art courses, FLD.

**TD 599. Individual Studies in Textiles/Fibers. 1-6 Hours. AE61 / U.**
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours can apply toward the bachelor’s degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Textiles/Fibers courses, or permission of instructor. IND.

**TD 715. Textile Design in Weaving, Printing, and Dyeing. 2-6 Hours. U.**
Individual research. Prerequisite: TD 520 or TD 525 or equivalent. RSH.

**TD 750. Graduate Seminar. 0.5 Hours.**
Discussion of issues and/or work in textiles. Graded on satisfactory/unsatisfactory basis. LEC.

**TD 815. Textile Design in Weaving, Printing, and Dyeing. 2-6 Hours.**
Continuation of TD 715. RSH.

**VAE 100. Introduction to the Profession of Art Education. 3 Hours.**
This course is designed to acquaint students with the profession of art education by helping to increase an awareness of the role and characteristics of an effective art teacher. Large and small group activities and assignments are dispersed throughout the semester to facilitate these outcomes. Students are involved in observation of and participation with art teachers and pupils in the public school classrooms, which complement course activities and assignments. VAE 100 is a professional course. LEC.

**VAE 130. Art and Design in Daily Life. 3 Hours. U.**
The course aims to develop students’ appreciation of designed objects in contemporary life whether they are historical icons or everyday items in the immediate environment. The instructional materials and activities assist students in acquiring the knowledge and skills for critically analyzing, discussing, and evaluating objects. Course content is interdisciplinary with a focus on design history. The class is open to all students and is relevant to those who have taken classes in art, design, architecture, and art history. Not open to students with credit in VAE 530. LEC.

**VAE 177. First Year Seminar: _____, 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Visual Art Education. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**VAE 300. Special Topics in Visual Art Education: _____, 1-4 Hours. U.**
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104, or permission of instructor. LEC.

**VAE 320. Instruction and Curriculum I. 3 Hours.**
This methods course provides an overview of the professional practices of K-12 art educators. Course content deals with the art education program, K-12, in relationship to the rest of the curriculum. This encompasses goals, objective sequence, courses offered at various levels, finance, staffing and administration. Prerequisite: Junior standing or consent of the instructor. LEC.

**VAE 325. Education in Multicultural Society. 2 Hours.**
The course is designed to provide the student with an awareness of and sensitivity to the concept of multicultural education. Topics related to the rationale for and processes of providing a multicultural perspective within the schools will be addressed. Field experiences will be structured to provide students with opportunities to observe the diversity within our society. LEC.

**VAE 330. Fundamentals of Art. 3 Hours.**
An introduction to art designed for the general university student. Designed to facilitate understanding and viewing works of art. Basic information including elements and principles of art, materials and techniques used by artists, and the function of art in society. LEC.

**VAE 341. Instructional Strategies in Art for Elementary Classroom Teachers. 2 Hours.**
Child growth and development in art. Materials as they relate to a sequential art education curriculum in the elementary school. Prerequisite: Admission to the School of Education or the education division of the graduate school. LEC.

**VAE 395. Community Collaborations in Art Education. 3 Hours. U.**
A focused examination of existing community organizations, models, and resources alongside collaborative strategies for working with these entities to achieve common goals for art education. Students in this class will learn of collaborative community models, explore entrepreneurial and other educational initiatives that contribute to the general purpose of art education, and recognize the role of families and other community members in contributing to the arts. LEC.

**VAE 410. Instruction and Curriculum II. 3 Hours.**
This methods course provides an overview of the professional practices of K-12 art educators. Course content deals with the art education program, K-12, in relationship to the rest of the curriculum. This encompasses goals, objective sequence, courses offered at various levels, finance,
staffing and administration. Prerequisite: Junior standing or consent of the instructor. LEC.

**VAE 420. Artistic Media and Processes in Art Education. 3 Hours.**
Building on course content in VAE 320, this course concentrates on instructional strategies and presentation models in art education. Students examine and explore the media appropriate to teaching art in various settings and levels as well as how art program budgets are derived and impact overall curriculum development. Prerequisite: VAE 320 or permission of instructor. LEC.

**VAE 497. Independent Study. 1-3 Hours.**
Only one enrollment permitted each semester; a maximum of four hours will apply toward the bachelor's degree. Prerequisite: Recommendation of advisor and consent of instructor. IND.

**VAE 500. Student Teaching. 6 Hours. AE61.**
A supervised teaching experience in an approved school setting, with level and subject area to be selected according to the teaching field. Prerequisite: Admission to the student teaching program. FLD.

**VAE 520. Instructional Technology in Art Education. 3 Hours.**
This course addresses technology that is pertinent to professional art educators. Students use technology to develop a professional portfolio and technology-related resources for teaching art in PreK-12 schools and community settings. LEC.

**VAE 530. Art and Design in Daily Life. 3 Hours.**
The course aims to develop students' appreciation of designed objects in contemporary life whether they are historical icons or everyday items in the immediate environment. The instructional materials and activities will assist students in acquiring the knowledge and skills for critically analyzing, discussing, and evaluating objects. Course content is interdisciplinary with a focus on design history. The class is open to all students and is relevant to those who have taken classes in art, design, architecture, and art history. Not open to students with credit in VAE 130. LEC.

**VAE 596. Practicum in Teaching Art. 2 Hours.**
A supervised art teaching practicum in which students will learn to employ different teaching strategies with children pre-school through high school in the school or museum setting. Prerequisite: VAE 320, VAE 410, VAE 795 or consent of instructor. LEC.

**VAE 598. Special Course: _____. 1-5 Hours.**
A special course of study to meet current needs of education students; primarily for undergraduates. LEC.

**VAE 599. Community Based Project in Art Education. 1-6 Hours. AE61 / U.**
Individual activity and project that serves as an alternate capstone experience to VAE 500 (Student Teaching). Will involve the development of an independent, community-based arts education project developed by the student under the supervision of a VAE faculty member. Prerequisite: Forty credits of Visual Art, fifteen credits of Visual Art Education Courses, and permission of the instructor. IND.

**VAE 600. Evaluation and Measurement in Art Education. 3 Hours.**
An introduction to the concepts and skills for the development and implementation of evaluation procedures for art education. Topics will include the development of student evaluation, the relationship between instructional objectives and evaluation, various evaluation techniques for art education, grading, and providing grades and feedback to students, parents, and schools. Prerequisite: VAE 320 and VAE 410. LEC.

**VAE 680. Internship in Teaching Art. 5-16 Hours.**
A supervised internship experience leading to initial art teacher certification. The student assumes the total professional role as a teacher of art in an approved school setting. LEC.

**VAE 698. Education of Women in the Arts. 2-3 Hours.**
This course will examine the education of women in the arts at all levels of schooling (preschool, primary, secondary, and university) and in nonformal settings (art clubs, women's leagues, tutoring, etc.). The intent is to further a historical and contemporary based understanding of gender characteristics and discrimination as they affect the education of women in the arts. Students enrolled in three hours credit will be required to write a case study on the education of a woman artist. LEC.

**VAE 710. Assessment in Art Education. 3 Hours.**
The course is designed to introduce students to evaluation procedures in art education as they apply to public school teaching K-12. The material will incorporate methods of evaluating student learning in art, the effectiveness of instruction, the designing of instruments, grading procedures including the provision of feedback to students, parents, and schools. Concepts and skills for both formative and summative evaluation will be related to the development of objectives, instruction, and curriculum development as a whole. LEC.

**VAE 716. Teaching Art: _____. 1-4 Hours.**
Instructional techniques, methodology, materials, and evaluation. Processes for the specific art area named. May be repeated for credit in different media. LEC.

**VAE 750. Introduction to Art Museum Education. 1-4 Hours.**
This course provides a general overview to the museum education field. Course readings include current ideas and issues on learning, art education, criticism, the museum in education, and museum education practices. LEC.

**VAE 774. Art for Exceptional Children. 2 Hours.**
A study of the psychology, philosophy, content, and media in art expression and its relationship to mental and creative growth with exceptional children. Prerequisite: SPED 741, which may be taken concurrently. LEC.

**VAE 780. Internship in Teaching Art. 9 Hours.**
A supervised internship experience leading to initial art teacher certification. The student assumes the total professional role as a teacher of art in an approved school setting. LEC.

**VAE 790. Applications of Technology in Art Education. 1-3 Hours.**
The course is designed to provide students with the skills necessary for using and assessing the impact of microcomputers, video recorders, and other technological developments in art education. Prerequisite: TL 601 or equivalent. LEC.

**VAE 798. Special Course: _____. 1-5 Hours.**
A special course of study to meet current needs of education professionals; primarily for graduate students. LEC.

**VAE 800. Visual Art Education Curriculum Development. 1-3 Hours.**
A study of research, resources, and media as they relate to learning goals in a sequential art curriculum for use by teachers. The amount of credit reflects the extent of the curriculum being developed and the amount of work involved in the development process. LEC.

**VAE 825. Seminar in: _____. 1-4 Hours.**
LEC.

**VAE 830. Seminar in: _____. 1-4 Hours.**
LEC.
VAE 842. Teaching Art Criticism. 3 Hours.
An examination of the four phases of art criticism (description, analysis, interpretation and judgment) will be followed by practice in using these phases in the development of effective art curriculum for all developmental levels. Prerequisite: PRE 702 and PRE 704 or equivalents. LEC.

VAE 850. Aesthetics, the Arts and Education. 3 Hours.
Theoretical introduction to the problems involved in teaching critical appreciation of the arts; examination of materials from aesthetics, art history, and criticism. LEC.

VAE 869. History of Art Education. 3 Hours.
A study of the historical development of art education. Prerequisite: Nine hours of education. LEC.

VAE 875. Research in Art Education. 3 Hours.
This course examines the issues and procedures commonly used to conduct research in art education in preparation for students’ graduate theses or projects. Research methods are adapted and applied to students’ professional needs and interests in the form of a research proposal. LEC.

VAE 890. Preparation for the M.A. Examination. 1 Hour.
An independent reading course in preparation for the M.A. Examination. The grade will be an S or U, as determined by the performance on the examination. The examination will be evaluated separately. Prerequisite: Permission of the instructor. LEC.

VAE 895. Field Experience in: ____. 1-6 Hours.
Supervised and directed experiences in selected professional settings and cooperating agencies. Prerequisite: Permission of instructor. FLD.

VAE 897. Independent Study. 1-4 Hours.
Prerequisite: Consent of advisor and instructor. RSH.

VAE 898. Master’s Project. 1-4 Hours.
RSH.

VAE 899. Master’s Thesis. 1-6 Hours.
THE.

VAE 900. Supervision and Evaluation of Visual Arts Programs. 3 Hours.
A study of the administration of school, museum, and community arts education programs. Topics will include curriculum development, personnel supervision, finance, and the quantitative and qualitative evaluation of arts programs. Prerequisite: TL 703 or equivalent. LEC.

VAE 929. Research in Art Education. 3 Hours.
An examination of research methodology in visual arts education. Emphasis will be on philosophical, historical, qualitative, and quantitative research development. LEC.

VAE 949. Artistic Learning and Development. 3 Hours.
Research from psychology, sociology, and anthropology will be examined for its implications for the artistic development of the child. Topics include cross-cultural and age comparisons of children’s graphic symbol development, aesthetic judgments, and perceptual skills. Prerequisite: PRE 702 and PRE 704 or equivalents. LEC.

VAE 995. Field Experience in: ____. 1-5 Hours.
Supervised and directed experiences in selected educational settings. The advisor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experiences will be prepared independently by the student, a representative of the cooperating agency, and the advisor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. LEC.

VAE 996. College Teaching Experience in: ____. 2 Hours.
To meet the college teaching experience requirement for doctoral programs, a student shall engage in a semester long, planned, instructional activity that shall include college classroom teaching under supervision. Planning shall be done with the advisor and/or member of the faculty who will supervise the experience. The activity shall be done under the supervision of a member of the University of Kansas faculty or by an individual or individuals designated by the candidate’s committee. RSH.

VAE 997. Individual Study. 1-4 Hours.
Prerequisite: Prior graduate course work in the area of study and consent of instructor. RSH.

VAE 998. Seminar in: ____. 1-4 Hours.
LEC.

VAE 999. Doctoral Dissertation. 1-15 Hours.
THE.

Department of Dance

Dance Undergraduate Programs

The Department of Dance offers the Bachelor of Arts in Dance and the Bachelor of Fine Arts in Dance degrees. A minor in dance is available to students in all majors.

Courses

DANC 101. Ballet I. 1.5 Hour.
Classical and modern approaches to the language of ballet for beginners. May be repeated for credit. Does not count toward the dance major requirements. ACT.

DANC 102. Ballet II. 1.5 Hour.
Classical and modern approaches to the language of ballet for experienced beginners. May be repeated for credit. Does not count toward the dance major requirements. Prerequisite: DANC 101 or consent of instructor. ACT.

DANC 103. Modern I. 1.5 Hour.
Dance technique for beginners with precedents in the movement vocabularies of Isadora Duncan, Martha Graham, Doris Humphrey, Merce Cunningham, and the seminal choreographers of modern dance. May be repeated for credit. Does not count toward the dance major requirements. ACT.

DANC 104. Modern II. 1.5 Hour.
Dance technique for experienced beginners with precedents in the movement vocabularies of Isadora Duncan, Martha Graham, Doris Humphrey, Merce Cunningham, and the seminal choreographers of modern dance. May be repeated for credit. Does not count toward the dance major requirements. ACT.

DANC 105. Jazz I. 1.5 Hour.
Dance technique for beginners based on elements of Latino, African, popular and classical jazz dance forms. May be repeated for credit. Does not count toward the dance major requirements. ACT.

DANC 106. Jazz II. 1.5 Hour.
Dance technique for experienced beginners based on elements of Latino, African, popular and classical jazz dance forms. May be repeated for credit. Does not count toward the dance major requirements. Prerequisite: DANC 105 or consent of instructor. ACT.
DANC 108. Pas de Deux. 1 Hour.
The elements of classical ballet partnering (pas de deux) are explored. These elements include supported poses, turns, lifts, and their coordination between the partners. For men only. Women enroll in Pointe and Pas de Deux, DANC 307. May be repeated for credit. ACT.

DANC 109. Men's Ballet. 2 Hours.
An introduction to classical ballet focusing on the particular requirements of the male ballet technique including leaps, turns, batterie, and their presentation. May be repeated for credit. ACT.

DANC 125. Movement Efficiency for Athletes. 3 Hours.
A course designed to improve athletic performance potential by improving initiation and follow-through of movement; improving coordination, timing, and ease of action; and reducing the risk of injury through better technique. Students will learn how to apply the basic principles of Rudolf Laban and Irmgard Bartenieff to the specialized movement skills of various sports. Students will also learn to develop individualized warm-ups and drills to improve performance. Prerequisite: Participation in team sports, dance, martial arts, other skilled sport movement, or consent of instructor. ACT.

DANC 150. Dance Improvisation. 2 Hours.
Developing skills in perception and the rapid translation of ideas into dance. Central to the course will be exposure to a variety of stimuli from music and the visual arts, to nature and people on the streets. Prerequisite: DANC 104 or consent of instructor. ACT.

DANC 177. First Year Seminar: ____, 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Dance. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

DANC 201. Ballet III. 1-2 Hours.
Classical and modern approaches to the language of ballet for intermediate dancers. May be repeated for variable credit. Prerequisite: DANC 102 or consent of instructor. LAB.

DANC 203. Modern III. 1-2 Hours.
Dance technique for intermediate dancers with precedents in the movement vocabularies of Isadora Duncan, Martha Graham, Doris Humphrey, Merce Cunningham, and the seminal choreographers of modern dance. May be repeated for variable credit. Prerequisite: DANC 104 or consent of instructor. LAB.

DANC 205. Jazz III. 1-2 Hours.
Dance technique for intermediate dancers based on elements of Latino, African, popular and classical jazz dance forms. May be repeated for variable credit. Prerequisite: DANC 105 or consent of instructor. LAB.

DANC 210. Rhythms and Structures of Music. 1 Hour.
An introduction to the analysis and use of rhythms and the compositional forms of music for dance. LEC.

DANC 220. Dance Performance. 1 Hour.
A dance repertoire and performance class with emphasis on developing skills for performing ballet, modern, jazz, historic, and/or forms of theatrical dance. May be repeated for credit. Prerequisite: 200- or 300-level dance technique course. ACT.

DANC 230. Introduction to African Dance Theatre. 2 Hours. NW.
An introduction to the general techniques of non-verbal theatrical conventions in African cultures. Practical training in movement vocabulary will be supplemented by lectures on the "text" of performance. (Same as AAAS 334 and THR 226.) LEC.

DANC 240. Introduction to Classical East Indian Dance. 3 Hours.
Classical East Indian dance has an extensive movement vocabulary that emphasizes the coordination of rhythmic foot patterns with intricate hand gestures. Students will learn the mudras (hand gestures) and their significance and integration within each dance. Readings will include excerpts from the Natya Sastra and other treatises of East Indian dance and culture. LEC.

DANC 250. Choreography: Structured Solos. 2 Hours.
Movement studies for solo figure based on exploration of the fundamental ingredients of dance (space, time, weight, and energy flow) and how to organize them into short compositional forms such as ABA, verse/refrain, or narrative. Prerequisite: DANC 150 and DANC 203 or consent of instructor. LEC.

DANC 260. Musical Theatre Dance. 2 Hours.
This course focuses on the dance and movement vocabulary uniquely associated with musical theatre productions, as well as a variety of popular dance styles from the 1920s to the present. Performance techniques for the stage are emphasized. ACT.

DANC 301. Ballet IV. 1-3 Hours.
Classical and modern approaches to the language of ballet for advanced dancers. May be repeated for variable credit. Prerequisite: DANC 202 or consent of instructor. LAB.

DANC 303. Modern IV. 1-3 Hours.
Dance technique for advanced dancers with precedents in the movement vocabularies of Isadora Duncan, Martha Graham, Doris Humphrey, Merce Cunningham, and the seminal choreographers of modern dance. May be repeated for variable credit. Prerequisite: DANC 203 or consent of instructor. LAB.

DANC 305. Jazz IV. 3 Hours.
Dance technique for advanced dancers based on elements of Latino, African, and classical jazz dance forms. May be repeated for credit. Prerequisite: DANC 205 or consent of instructor. LAB.

DANC 307. Pointe and Pas de Deux. 2 Hours.
An introduction to pointe and classical partnering work for the intermediate/advanced female ballet dancer, with equal emphasis on pointe technique and style, and on classical repertory for couples. May be repeated for credit. Prerequisite: DANC 201 or consent of instructor. LAB.

DANC 308. Pas de Deux. 1 Hour.
The exploration of classical ballet partnering (pas de deux) including supported poses, lifts, turns, and their coordination between the partners. For men only. Women enroll in Pointe and Pas de Deux, DANC 307. May be repeated for credit. Prerequisite: DANC 108, DANC 201, or permission of instructor. LAB.

DANC 309. Men’s Ballet. 2 Hours.
A continuation of the study of male classical ballet technique including leaps, turns, batterie, and their presentation. May be repeated for credit. Prerequisite: DANC 109, DANC 201, or permission of instructor. LAB.

DANC 310. Music for Dance. 3 Hours.
An examination of music as accompaniment for dance in both classroom and performance settings. Students will listen and analyze music from various historic periods to develop the skills necessary to select music appropriate for choreography. They will learn techniques for working with accompanists and composers. Prerequisite: DANC 210 or consent of instructor. LEC.

DANC 320. University Dance Company. 0-1 Hours.
A dance repertoire, performance and production class. Emphasis is on the development of skills for performing and/or producing dance concerts. Admission by audition only. May be repeated for credit. IND.
DANC 325. Movement Efficiency for Athletes. 3 Hours.
A course designed to improve athletic performance potential by improving initiation and follow-through of movement; improving coordination, timing, and ease of action; and reducing the risk of injury through better technique. Students will learn how to apply the basic principles of Rudolf Laban and Irmgard Barteneff to the specialized movement skills of various sports. Students also will learn to develop individualized warm-ups and drills to improve performance. Prerequisite: Participation in team sports, dance, martial arts, other skilled sport movement, or consent of instructor. ACT.

DANC 330. Approaches to World Dance. 3 Hours. HL AE42.
This course examines dance forms from throughout the world and how they relate to the times and cultures in which they evolved. Dance forms such as African, East Indian classical, European court dance, ballet, modern, and jazz will be studied through readings, master classes, live performances, videotapes, and films. Prerequisite: 200-level English course. LEC.

DANC 350. Choreography: Group Forms. 3 Hours.
In-depth development of movement themes for duet, trio, and larger groups. At least one concert length work with plans for presentation to an audience will be required. Prerequisite: DANC 250 or consent of instructor. LAB.

DANC 375. Ideokinesis. 3 Hours. H.
Basic concepts of neuromuscular and skeletal education through the use of specific imagery (ideokinesis). Based on the work of Mabel Todd, Lulu Sweigard, and Irmgard Barteneff, the emphasis is on body connectedness and dynamic alignment. The aim is to realize full movement potential in the most efficient way through intrinsic body awareness. Injury prevention is addressed by introducing principles of conditioning (strength, flexibility, endurance) and factors leading to injury such as muscular imbalances or postural deviations. LEC.

DANC 420. Introduction to Videography and Website Design for Dance. 3 Hours. H.
This is a hands-on course exploring digital video technology for dance. Students are introduced to video and website production as well as the time management skills necessary to engage the multi-faceted project that is dance video. We will cover video techniques for recording dance; video editing; collaborating with national and international sites and artists; and self-promotion and marketing strategies with video and websites. The final project will be the creation of a video website for each student. No previous video editing experience is required. Prerequisite: Basic computer literacy. LEC.

DANC 430. Dance for Children. 3 Hours.
Methods and materials for teaching creative dance and the fundamentals of dance technique to children. Lessons are prepared and tested in the classroom and then presented to elementary school children. Prerequisite: DANC 203 or consent of instructor. LEC.

DANC 440. Introduction to Classical East Indian Dance. 3 Hours. NW AE42.
Classical East Indian dance has an extensive movement vocabulary that emphasizes the coordination of rhythmic foot patterns with intricate hand gestures. Students will learn the mudras (hand gestures) and their significance and integration within each dance. Readings will include excerpts from the Natya Sastra and other treatises of East Indian dance and culture. LEC.

DANC 450. Environmental Choreography. 3 Hours.
Designing dances for non-traditional performing spaces both indoors and outdoors. Students analyze how different natural and built environments can affect the gesture, space, time, and overall structure of a dance composition as well as the relationship between performers and spectators. Prerequisite: DANC 350 or consent of instructor. LAB.

DANC 460. Dance History: Research and Reconstruction. 3 Hours. HL AE42 / H.
Through research and reconstruction, students will examine major topics in dance history, such as the meaning and function of dance in pre-industrial societies, communal and court dance in Europe from the 14th to the 19th centuries, and the transformation and development of dance as a theatre art in the modern world. Texts by dance historians and treatises by dancing masters will be supplemented by readings from fields, such as anthropology, philosophy, art history, and literature, that indicate the different ways of approaching the history of dance. LEC.

DANC 470. Renaissance and Baroque Dance. 3 Hours.
Students will analyze, interpret, reconstruct, and perform historic dance forms, such as the galliard and minuet, by working with treatises of Renaissance and Baroque dancing masters, scholarly studies, and other documentary materials. The dance forms will be studied in relation to the music, visual arts, and literature of the period. LEC.

DANC 475. Performing Arts Administration Dancers. 3 Hours.
Designed to provide an overview of key areas in performing arts administration, including professional speaking and writing, grant writing and development, publicity and marketing strategies, developing relationships with presenters and funders, and audience education. Through readings, class discussion, guest lectures with professionals from the field, and projects based on real-life scenarios, students will develop tools to further their careers as choreographers and performers. This focused study also provides individuals with the direction and means to employ their training in the field of performing arts administration and management at many different levels. This course prepares dance students for their entry into the professional arts marketplace. LEC.

DANC 480. Movement for Older Adults. 3 Hours.
This course is designed to increase knowledge and understanding of the movement problems experienced by older adults and to develop the student’s ability to create movement interventions to address these concerns. Prerequisite: Open to juniors and seniors only. LEC.

DANC 490. Introduction to Flamenco Dance Technique. 3 Hours. AE42/GE3H.
Using the basic compás (rhythmic structures) of Flamenco, we will explore the different components of flamenco dance technique: flocero (spiral fingers), brazaño (arm movements), palmas (rhythmic hand-clapping), maraje (marking, or movement through space), vueltas (turns) and zapateado (footwork). We will cultivate an awareness of flamenco’s unique posture, learn the structure of the different rhythmic forms and introduce the possibilities for personal expression and improvisation. LEC.

DANC 498. Directed Study in :_____. 1-3 Hours.
Investigation of a special topic or project in aesthetics, dance history, movement analysis, production, or a creative project. A maximum of six hours may be counted toward graduation. Prerequisite: At least seven hours of credit in dance courses. IND.

DANC 530. Practicum in :_____. 1 Hour.
Supervised experience in teaching beginning level dance technique in the style of ballet, jazz, or modern dance. Different approaches are analyzed, discussed, and tested in the studio. Prerequisite: Intermediate level of dance technique in the style of the practicum. FLD.

DANC 540. Field Experience in Dance Teaching. 1-3 Hours.
Teaching ballet, modern, or jazz dance technique to children or adults with faculty supervision in an academic or community program. Prerequisite: DANC 530 and consent of instructor. FLD.
DANC 550. Senior Project. 3 Hours. AE61.
In-depth research project in dance theory or history, or choreography project involving the complete development and presentation of a dance idea. Prerequisite: Performance option: DANC 320, DANC 350, DANC 450, THF 220 or THF 224, and permission of the dance division. Research option: DANC 340, DANC 370, DANC 375, DANC 460, and permission of the dance division. IND.

DANC 580. Special Topics in Dance. 1-3 Hours.
A study of current developments in dance with an emphasis on performance or research. May be repeated for credit. Prerequisite: Junior or senior standing and consent of instructor. IND.

DANC 598. Seminar in Dance. 3 Hours.
Special studies in dance. May be repeated for credit. Prerequisite: Junior or senior standing and consent of instructor. LEC.

DANC 735. Analysis, Criticism, and Choreography. 3 Hours.
The choreographic approaches of outstanding dance masters of the past (for example, Marius Petipa and Isadora Duncan) and present (for example, Martha Graham and Merce Cunningham) will be analyzed in terms of their handling of gesture, time, space, structure, and meaning. Students will be expected to seek out and study readings, photographs, and films in order to do written and performance projects based on the choreographic principles of old and new masters in ballet and modern dance. Prerequisite: A course in dance choreography or consent of instructor. LEC.

DANC 740. Introduction to Laban Movement. 3 Hours.
This course will introduce both the theoretical and physical applications of Laban Movement Analysis: Effort/Shape Notation (a notation system recording changes in movement qualities with respect to time, weight, space, and energy flow); Space harmony (a system that describes human movement in relation to space); Bartenieff Movement Fundamentals (a series of basic exercises to integrate and facilitate the neuromuscular connections within the body); and Laban Movement Analysis to the fields of anthropology, dance, human development, industrial efficiency, the performing arts, physical education, physical therapy, and psychology will be introduced. LAB.

DANC 742. Laban Movement Observation, Analysis, and Notation. 3 Hours.
Two systems of symbolic movement notation will be used in this course: Rudolf Laban's Effort/Shape Writing and his system of Labanotation. Several applications of Laban's notational systems will be studied as they appear in cross-cultural, developmental, psychological, and sociological research. Emphasis will be placed on refining the student's ability to perceive, describe, and notate human movement of all kinds from everyday gestures to highly trained movement skills. Prerequisite: DANC 740 or consent of instructor. LAB.

DANC 780. Movement for Older Adults. 3 Hours.
This course is designed to increase knowledge and understanding of the movement problems experienced by older adults and to develop the student's ability to create movement interventions to address these concerns. Prerequisite: Open to graduate students in any field of study. LEC.

DANC 898. Directed Study in: _____. 1-3 Hours.
Directed study in some aspect of aesthetics, dance history, movement analysis, production, or an advanced creative project. Prerequisite: Consent of instructor. IND.

Bachelor of Fine Arts in Dance

Dance Undergraduate Programs

The Department of Dance offers the Bachelor of Arts in Dance and the Bachelor of Fine Arts in Dance degrees. A minor in dance is available to students in all majors.

Bachelor of Fine Arts in Dance Degree Requirements

The B.F.A. requires an audition for entry; however, students enrolled in the B.A. program may audition at the end of each academic year. In order to be considered for a scholarship or entry directly into the B.F.A. program, incoming students MUST audition in person or online via Acceptd (https://app.getacceptd.com/kudance).

The curriculum leading to the B.F.A. focuses on technique, choreography, and performance. It prepares students for professional careers or further academic study in dance. Entrance into the B.F.A. program is provisional during the first year. After evaluation of the year's work and approval by the faculty, a student is fully accepted into the B.F.A. program.

B.F.A. majors receive integrated training in ballet, modern, and jazz dance technique. They also take courses in choreography, dance theory, history, dance science, and pedagogy. Other B.F.A. courses include flamenco, performing arts administration, classical East Indian dance, conditioning and injury prevention for dancers, and musical theatre dance. Students must complete a senior project in performance and/or choreography. B.F.A. majors have a variety of performance opportunities as members of the University Dance Company (http://www.ku.edu/students/orgs/University_10366.html). A total of 120 credit hours is required.

General Education Requirements (0)

In addition to degree and major requirements, all students must complete the KU Core.

Majors must complete 33 hours of courses in the following areas.

Dance Technique (33) 33

Majors must complete 33 hours of courses in the following areas. Majors must have at least 6 hours of technique at the 300 level in ballet and modern and 3 hours at the 300 level in jazz.

<table>
<thead>
<tr>
<th>Course</th>
<th>Level</th>
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<tbody>
<tr>
<td>DANC 201</td>
<td>Ballet III</td>
</tr>
<tr>
<td>DANC 203</td>
<td>Modern III</td>
</tr>
<tr>
<td>DANC 205</td>
<td>Jazz III</td>
</tr>
<tr>
<td>DANC 301</td>
<td>Ballet IV</td>
</tr>
<tr>
<td>DANC 303</td>
<td>Modern IV</td>
</tr>
<tr>
<td>DANC 305</td>
<td>Jazz IV</td>
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</tbody>
</table>

The following may be substituted for DANC 201, DANC 203, DANC 301, or DANC 303 if 4 semesters of level IV ballet or modern are completed.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>DANC 307</td>
<td>Pointe and Pas de Deux</td>
</tr>
<tr>
<td>DANC 308</td>
<td>Pas de Deux</td>
</tr>
<tr>
<td>DANC 309</td>
<td>Men's Ballet</td>
</tr>
</tbody>
</table>

Choreography (10)

Majors must complete courses as specified in each of the following areas:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>DANC 150</td>
<td>Dance Improvisation</td>
</tr>
</tbody>
</table>
**Bachelor of Arts in Dance**

**Bachelor of Arts in Dance Degree Requirements**

The B.A. in Dance at the University of Kansas does not require an audition. Instead, all students must pass a technical and academic evaluation at the end of their sophomore year. However, to be considered for a scholarship, a prospective or transfer student must audition. The B.A. in dance offers comprehensive technical training, built on a solid liberal arts foundation, which allows students to double-major or to pursue graduate study in any number of fields.

The curriculum leading to the B.A. in dance offers integrated training in ballet, modern, and jazz dance techniques, as well as courses in dance improvisation and composition, history and philosophy of dance, Laban Movement Analysis, dance science, music for dance, creative dance for children, dance production, and independent study options. An audition is required for admission to the B.A. program in dance. The program prepares students for professional careers in dance or for further academic study. The senior project may involve research in any of the above areas or choreography and performance culminating in a senior recital. Students are expected to take technique classes appropriate to their level of training each semester they are enrolled. A total of 120 credit hours is required.

**Bachelor of Arts in Dance Course Requirements**

**General Education Requirements (0)**

Completion of the KU Core (See KU Core)

Completion of the College BA degree specific requirements (see College BA requirements)

**Dance Technique (16)**

Students may choose 16 hours from among the following, but must take at least the following: One semester of level III in jazz. Two semesters of level III in ballet and two semesters of level III in modern. Courses may be taken twice for full credit and may be taken for variable credit thereafter.

- DANC 102: Ballet II
- DANC 104: Modern II
- DANC 106: Jazz II
- DANC 201: Ballet III
- DANC 203: Modern III
- DANC 205: Jazz III
- DANC 301: Ballet IV
- DANC 303: Modern IV (Jazz IV, Satisfied by the following:)
- DANC 305: Jazz IV

**Dance Performance (2)**

University Dance Company. Satisfied by 2 hours of the following:

- DANC 320: University Dance Company

**Dance Composition (10)**

**Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**

Satisfied by 81 hours of major courses.

**Major Hours in Residence**

Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**

Satisfied by a minimum of 47 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Graduation Plan**

With careful planning and commitment to a full-time course load, you can graduate in 4 years. For details please consult the department.
Majors must complete courses as specified in each of the following areas.

- **DANC 150** DANCE Improvisation  
- **DANC 250** Choreography: Structured Solos  
- **DANC 350** Choreography: Group Forms  
- **DANC 450** Environmental Choreography

**Pedagogy (4)**

- **DANC 430** Dance for Children 3
- **DANC 530** Practicum in: _____ 1

**Dance Studies (16)**

Majors must complete courses as specified in each of the following areas.

- **DANC 330** Approaches to World Dance 3
- **DANC 375** Ideokinesis 3

Students must select 10 hours from the following:

- **DANC 210** Rhythms and Structures of Music
- **DANC 230** Introduction to African Dance Theatre
- **DANC 260** Musical Theatre Dance
- **DANC 420** Introduction to Videography and Website Design for Dance
- **DANC 440** Introduction to Classical East Indian Dance
- **DANC 460** Dance History: Research and Reconstruction
- **DANC 475** Performing Arts Administration Dancers
- **DANC 490** Introduction to Flamenco Dance Technique

**Senior Project (3)**

Satisfied by completion of 3 hours of the following:

- **DANC 550** Senior Project 3

**Minor in Dance**

**Dance Undergraduate Programs**

The Department of Dance offers the Bachelor of Arts in Dance and the Bachelor of Fine Arts in Dance degrees. A minor in dance is available to students in all majors.

**Requirements for the Minor in Dance**

**Open to all KU students**

**Dance Minor Course Requirements**

Students selecting this minor must complete the following requirements:

- **Dance Technique (8)**
  Satisfied by 8 hours from the following: 8
  - **DANC 102** Ballet II
  - **DANC 104** Modern II
  - **DANC 106** Jazz II
  - **DANC 201** Ballet III
  - **DANC 203** Modern III
  - **DANC 205** Jazz III
  - **DANC 260** Musical Theatre Dance
  - **DANC 301** Ballet IV
  - **DANC 303** Modern IV
  - **DANC 305** Jazz IV

- **Dance Minor Required Electives (12)**
  Satisfied by 12 hours from the following: 12
  - **DANC 150** Dance Improvisation
  - **DANC 210** Rhythms and Structures of Music
  - **DANC 230** Introduction to African Dance Theatre
  - **DANC 250** Choreography: Structured Solos
  - **DANC 330** Approaches to World Dance
  - **DANC 375** Ideokinesis
  - **DANC 420** Introduction to Videography and Website Design for Dance
  - **DANC 440** Introduction to Classical East Indian Dance
  - **DANC 460** Dance History: Research and Reconstruction
  - **DANC 475** Performing Arts Administration Dancers
  - **DANC 490** Introduction to Flamenco Dance Technique

**Minor Hours & Minor GPA**

While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

- **Minor Hours**
  Satisfied by 20 hours of minor courses.

- **Minor Hours in Residence**
  Satisfied by a minimum of 9 junior/senior hours of KU resident credit in the minor.

**Graduation Plan**

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please contact the department for details.
Minor Junior/Senior Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses (300+) in the minor. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Department of Film and Media Studies

Why study film and media?
The Department of Film and Media Studies unites the inquiry of the academic with the practice and technique of the artist. Scholars and filmmakers work and study together in an environment of mutual encouragement and collegiality.

Undergraduate Programs
The department offers Bachelor of Arts and Bachelor of General Studies degrees, as well as a minor in film and media studies.

Courses for Nonmajors
The department offers many courses open to nonmajors who wish to learn more about film and media, including but not limited to:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMS 100</td>
<td>Introduction to the Film Medium</td>
<td>3</td>
</tr>
<tr>
<td>FMS 200</td>
<td>Film and Media Aesthetics</td>
<td>3</td>
</tr>
<tr>
<td>FMS 311</td>
<td>History of the American Sound Film</td>
<td>3</td>
</tr>
<tr>
<td>FMS 314</td>
<td>History of African-American Images in Film</td>
<td>3</td>
</tr>
<tr>
<td>FMS 380</td>
<td>American Popular Culture of: _____</td>
<td>3</td>
</tr>
</tbody>
</table>

These 5 courses also fulfill a College principal course requirement.

Graduate Programs
The department offers graduate programs culminating in a Master of Arts degree in Film and Media Studies and/or a Doctor of Philosophy degree in Film and Media Studies.

Courses
FMS 100. Introduction to the Film Medium. 3 Hours. HL / H.
Study of film as a visual art. Focus on communicative transaction between film viewer and film maker. Learning to read basic signs, syntaxes, and structures of cinematic language. Direct analysis of selected films. LEC.

FMS 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Film and Media Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

FMS 200. Film and Media Aesthetics. 3 Hours. HL GE3H / H.
An introduction to film and media aesthetics, including basic film/media theories and their practical applications. Students will be introduced to the concepts of time, space, composition, movement, editing, light, color, and sound. A key feature of the course will be a practical emphasis on learning how to see creatively by applying elements of design, camera lens and sound recording principles. Examples of these aspects of film and associated media will be examined and discussed in depth. Should be taken before or concurrently with FMS 275 or FMS 276. LEC.

FMS 204. Study Abroad Topics in: _____. 1-6 Hours. H.
This course is designed for the study of special topics in Film at the freshman/sophomore level. Credit for coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

FMS 273. Basic Screenwriting. 3 Hours. H.
An introduction to the craft and principles of screenwriting, from inspiration to writing a complete first act. Emphasis on factors relevant to the creation of a treatment and a screenplay. Prerequisite: Consent of instructor. LEC.

FMS 275. Basic Video Production. 3 Hours. H.
Theory and practice of video production with emphasis on preproduction planning, scripting, directing, lighting, camera operation and audio. Lecture-laboratory. Prerequisite: FMS 100, completion of or concurrent enrollment in FMS 200, and consent of instructor. LEC.

FMS 276. Basic Film Production. 3 Hours. H.
An introduction to 16mm film techniques and structures, requiring construction of brief, individually produced fictive-narrative films employing classical continuity. Lecture-laboratory. Prerequisite: FMS 100 and consent of instructor. LEC.

FMS 302. Undergraduate Studies Seminar in: _____. 1-3 Hours. H.
Course organized any given semester to examine a particular studies topic or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. LEC.

FMS 303. Undergraduate Production Seminar in: _____. 1-3 Hours. H.
Course organized any given semester to study a particular production topic or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. LEC.

FMS 304. Study Abroad Topics in: _____. 1-6 Hours. H.
This course is designed for the study of special topics in Film at the junior/senior level. Credit for course work must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

FMS 307. Undergraduate Film/Media Internship. 1-6 Hours. H.
Supervised study with an approved film/media company or project. May be repeated for credit. No more than six hours may be applied to the B.A. or B.G.S. degrees. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Consent of instructor and at least seven hours credit in the department. FLD.

FMS 310. History of the Silent Film. 3 Hours. H.
A survey of the artistic, economic and sociological development of the narrative cinema with emphasis on the American studio system, German Expressionism, and Soviet Expressive Realism. Analysis of selected films. LEC.

FMS 311. History of the American Sound Film. 3 Hours. H.
A study of the artistic, economic, and sociological development of the American sound film with emphasis on the studio system, major directors, genres, and the impact of television. Analysis of selected films. LEC.

FMS 312. History of the International Sound Film to 1950. 3 Hours. H.
A survey of the artistic, economic, and sociological development of the international sound film 1929 to 1950. Emphasis on European National Cinemas. LEC.
FMS 313. History of the International Sound Film Post 1950. 3 Hours. H.
A survey of the artistic, economic, and sociological development of the international sound film from 1950 to the present. Emphasis on Free Cinema, New Wave, and other emerging post-war cinemas. LEC.

FMS 314. History of African-American Images in Film. 3 Hours. HL AE41 / H.
A history and critical assessment of the diverse images of African-Americans in American cinema and the impact of those images on American society. Screenings of feature and independent films, including those by African-Americans. LEC.

FMS 315. Survey of Japanese Film. 3 Hours. NW AE42 / H.
This course surveys the major developments in and critical approaches to twentieth-century Japanese film. Focusing mostly on narrative films, Survey of Japanese Film introduces students to basic methodological issues in Japanese film history, especially questions of narrative, genre, stardom, and authorship. We examine Japanese cinema as an institution located within specific contexts focusing on the ways in which this institution shapes gender, class, ethnic, and national identities. This course examines how patterns of distribution, exhibition, and reception have influenced film aesthetics and style over the last century. Through secondary readings, lectures, and discussions students critically examine how Japanese cinema as an institution both responds to and intervenes in the social, cultural, and political history of twentieth century Japan. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. (Same as EALC 315.) LEC.

FMS 316. Cinemas of the Southern Cone: Argentina, Chile, and Uruguay. 3 Hours. AE41 / H.
This course will examine the cinemas of three neighboring South American countries to find similar themes and some differences between them historically, politically, and culturally. Themes will include: gender and nation, political repression, and globalization and the cinema, youth culture in the Southern Cone, and representations of race and ethnicity in contemporary cinema. Other themes in common are financing issues, such as coproduction agreements, film production under the regional trade pact Mercosur and issues of circulation, distribution and marketing of national films. Most films will be feature length narrative, but a few documentaries will be shown. May be taken as FMS 716, but with additional requirements. LEC.

FMS 317. Race and the American Documentary. 3 Hours. H.
This course surveys a range of documentaries in which race is a key part. There are two class objectives: the first is to broaden the students’ knowledge of American social history and culture, especially around issues of identity, representation and race. The second is to heighten the students’ critical skills as viewers of films in general. A complete film or portion is screened at each class session, preceded by an introductory lecture, and a follow-up discussion. Readings from a variety of scholarly texts are excerpted for student review prior to a particular class. LEC.

FMS 318. Anti-war Film. 3 Hours. H.
An overview and exploration of the history of anti-war film and media themes to show how attitudes regarding war and political policy can be affected by positive and negative depictions of conflict. Course includes analysis of selected films. LEC.

FMS 320. Adaptation from Stage to Screen. 3 Hours. H.
In an increasingly global media economy, adaptation study offers an enterprising model for the cross-pollination of texts across historical, national, and cultural boundaries. Although this course focuses more specifically on adaptations and adaptation processes involving theatrical events and cinematic properties, this larger view should be kept in mind. The course will consist of readings, screenings, and presentations by faculty in the Department Film and Media Studies and the Department of Theatre addressing theoretical issues, case studies, and intertextual considerations, and an historical overview of theatre-film interaction. LEC.

FMS 345. New Media and Society. 3 Hours. H.
Students will be introduced to major themes and debates in digital media studies and apply critical approaches for understanding new media practices, technologies, and theories. In addition to readings and lectures, students will engage in a variety of digital activities and participate in production-oriented projects. By the end of this course students will gain a foundational understanding of historical and emerging relationships between new media (internet, cell phones, digital games, etc.) and society, acquire key digital skills, and experience a variety of new media texts and services. This course is offered at the 300 and 700 levels, with additional assignments at the 700 level. LEC.

FMS 373. Intermediate Screenwriting. 3 Hours. H.
Emphasis on writing a full-length screenplay. Explores genre, character, dialogue, and the development of a personal writing style. Prerequisite: FMS 273 and consent of instructor (students will be selected based on writing samples). LEC.

FMS 374. Animation. 3 Hours. H.
A survey that combines animation history, theory, and production by examining animated works of all kinds and exploring various styles utilizing both hands-on techniques and digital animation programs. Lecture-laboratory. LEC.

FMS 375. Intermediate Video Production. 3 Hours. H.
Theory and practice of longer-form video production with emphasis on scripting, talent coordination and editing in preproduction, production and postproduction. Lecture-laboratory. Prerequisite: FMS 275 and consent of instructor. LEC.

FMS 376. Cinematography. 3 Hours. H.
Theory and practice of cinematography, with emphasis on creation of film, video, and digital imagery. Prerequisite: FMS 275 or FMS 276, and consent of instructor. LEC.

FMS 377. Post-Production. 3 Hours. H.
Students become familiar with techniques and processes in film and video post-production including, but not limited to, editing, sound, post-production management, marketing, and distribution. This course is offered at the 300 and 700 levels, with additional assignments at the 700 level. Prerequisite: FMS 275 and consent of instructor. LEC.

FMS 380. American Popular Culture of: _____. 3 Hours. HL / H.
An interdisciplinary examination of popular cultural forms and their relationships with the social, political and economic dynamics of America, with emphasis on film, media, music, literature (including magazines and newspapers) and the graphic arts. The decade or other specific topic to be studied changes as needs and resources develop. May be repeated for credit for different decades or topics. LEC.

FMS 401. Undergraduate Professional Development Seminar. 1 Hour. H.
Provides an overview of opportunities for professional development in Film and Media Studies, and helps students plan goals for their education through an understanding of professional practices. The course also covers practical exercises in professional development, including writing resumes, finding internships and entry-level work, and other aspects of establishing a career in Film and Media Studies. Prerequisite: FMS 275 or equivalent. Open to FMS Majors only. Graded satisfactory/unsatisfactory. LEC.
FMS 407. Undergraduate Film/Media Service Learning Internship. 1-6 Hours. H.
Supervised study with an approved government agency, established non-profit organization, school, or community-based partner to produce a professional-level film and/or media project in the public interest. Community work should meet the needs of the community-based organization and the education goals set by the student, instructor, and community based partner; be in direct service, indirect service, policy analysis, research, and/or advocacy work; engage the student with individuals or communities of need and with issues related to social justice, community development, and/or access to resources. May be repeated for credit. No more than six hours may be applied to the B.A. or B.G.S. degrees. Graded satisfactory/unsatisfactory. Prerequisite: Consent of instructor and at least 22 credit hours in the department. FLD.

FMS 410. Race, Class, and Gender in Visual Culture. 3 Hours. H.
Examines the way in which race, class, and gender are represented through visual culture, historically and in the present. The study of visual culture analyzes the way in which visual images communicate systems of beliefs, contribute to identity formation, and have an influence on our thinking about race, class, and gender. Course looks at visual objects, i.e., film, television, photography, art, advertisements, and theatre as well as visual practices, i.e., in public and private spaces. LEC.

FMS 411. Television Studies. 3 Hours. H.
A historical, theoretical and critical survey of U.S. television from 1945 to the present from the public's perspective, with emphasis on the early influences of radio (e.g., Federal regulation and sponsorship), film and theatre; TV's rapid rise as the U.S. public's prime source of entertainment, news and information; TV's rise as a key cultural, economic and political phenomenon; TV's more recent accommodations to the forces of globalization, new technologies/media, and new business models through convergence. Discussion and screening of representative TV texts as seen against the backdrop of the theories and critical views of TV scholars ranging from Raymond Williams and John Fiske to Henry Jenkins. LEC.

FMS 412. Cyberculture Studies. 3 Hours. H.
Historically there has been a tendency to approach new media technologies and their proliferation as either utopic or dystopic. Cyberculture studies has been no exception. Students will work toward a comprehensive understanding of cyberculture as emergent computer networks forming around and constructing entertainment, knowledge, business, community, and identity. Cyberculture will be examined as the constant (re)organizing of virtual and physical relationships as well as the reorganization of media production, distribution and consumption. The variety of opportunities for computer-mediated human interaction such as social networks, virtual worlds, blogs, and games will be examined as cyberculture transposes online and offline relationships and practices. LEC.

FMS 413. Asian Media Studies. 3 Hours. H.
This course examines new and emerging media in East Asia and how the media industries of East Asia function. Using recent scholarship and industry data on contemporary cyberculture, music studies, and television industries of East Asia we examine how such factors as globalization, post-colonialism, censorship, emerging technology, and national media legislation affect regional and transnational media industries in Japan, South Korea, and Mainland China/Taiwan/Hong Kong. (Same as EALC 413.) LEC.

FMS 414. Kansas Art, History, and Popular Culture. 3 Hours. H.
An overview of the art and cultural history of Kansas (and Kansas City) from territorial days to the present. Emphasis is placed on key issues, figures and events. A general familiarity with American history is recommended. May be taken as FMS 714, but with additional requirements. (Same as HA 584.) LEC.

FMS 475. Advanced Video Production. 3 Hours. H.
Special projects in video production, using both studio and remote locations. Prerequisite: FMS 375 and consent of instructor. LEC.

FMS 477. Sound Design. 3 Hours. H.
Students will study and produce film and video work with an emphasis on sound design theory and practice. Course projects consist of several short works in response to readings and screenings, which include a survey of sound in cinema, internet and radio. Students will also become conversant with related equipment, software and techniques. Prerequisite: FMS 275 and consent of instructor. LEC.

FMS 478. Experimental Production. 3 Hours. H.
Students will produce experimental film and video projects, including installation art and performance art pieces, in both collaborative and a collaborative production modes. Practical production aspects of historical experimental works will be studied, with emphasis on creation of works inspired by these earlier artists and their work. Unorthodox video and film production concepts and modes will also be studied and used in the creation of original works. The incorporation of experimental elements in the creation of mainstream works, and the creation of such projects, will also be a key area of study and experimentation. By pushing their individual creative limits, students will gain an appreciation for the experimental film and video genre, as well as an expansion of their production skills. Prerequisite: FMS 275 and consent of instructor. LEC.

FMS 479. Broadcast Documentary Production. 3 Hours. H.
This is a hands-on production course in which students will research, plan and produce short-form non-fiction documentaries. The class is dedicated to training young professionals in the principles, skills, techniques, habits and practices of documentary production. We will focus also on the aesthetics of our craft and the documentary form. The objective is to ground students in the fundamental skills of good non-fiction storytelling-conceptualization, research, story structure, theme development, writing, producing and directing. The goal is the production of several short-form compositions (videos) where storytelling is employed to communicate a concept or idea effectively. Students will form into teams to research, develop and produce a course-long short-form documentary. Prerequisite: FMS 275 and consent of instructor. LEC.

FMS 480. Music Video Production. 3 Hours. H.
This course will cover elements of the history, aesthetics, and business of music video and music video production. Students will view and discuss many different types of music videos, and will learn how to classify and critique these videos in a professional manner. Students will gain familiarity with the genres, themes, forms, and iconography of music video; an understanding of the place of music video in media culture; an exploration of the ideological, cultural, and historical contexts of music video; and an ability to create or assist in the creation of professional-quality music videos. Prerequisite: FMS 275 and consent of instructor. LEC.

FMS 498. Honors Seminar. 2-6 Hours. AE61 / H.
Study may be directed toward either (a) reading for integration of knowledge and insight in film and media, or (b) original research (i.e., investigation of a specific problem in film and media). Six hours maximum credit. Prerequisite: Consent of Departmental Honors Coordinator. LEC.

FMS 499. Directed Study in Film. 1-6 Hours. AE61 / H.
Investigation of a special topic or project selected by the student with advice, approval, and supervision by an instructor. Such study may take the form of directed reading or special research. Individual reports and conferences. A maximum of six hours credit may be counted toward a
degree. Prerequisite: At least seven hours credit in the department and consent of instructor. IND.

FMS 530. Classical Film/Media Theory. 3 Hours. H.
Comprehensive examination of most significant theories and theorists of film. Organized around specific questions, e.g., what qualities make film art unique, and how is film related to other visual and literary arts? Class discussion, individual projects. Prerequisite: FMS 100 or equivalent (determined by instructor). LEC.

FMS 531. Contemporary Concepts in Media Studies. 3 Hours. H.
This course emphasizes a theoretical understanding of media and media production skills. It is a critical cultural study of the media, focusing on the relationships between media representations and society. Students explore different conceptual perspectives on the role and power of visual media in society in influencing social values, political beliefs, identities and behaviors; analyze specific media texts, such as film and television shows; and examine the dynamics of how class, gender, generation, and race influence the production and reception of media. LEC.

FMS 540. Cuban Cinema. 3 Hours. H.
This course explores Cuban cinema from 1959 to the present day. Special attention is paid to the representations of Cuban history, cultural politics, and the political-economic conditions of production in Cuba. In addition, the Cuban-American community and their contributions or reactions to Cuban film are discussed. Through readings, lectures, discussion, and viewing Cuban films, the class examines a variety of topics related to Cuban cinema, history, and contemporary concerns. This course is offered at the 500 and 800 levels, with additional assignments at the 800 level. Prerequisite: Junior standing. LEC.

FMS 541. Asian Film. 3 Hours. NW AE42 / H.
Seminar on various national film cultures of East and Southeast Asia. Representative films are studied from formal, stylistic, and socio-historic perspectives. Addresses the impact of key cultural, economic, and political issues on each film industry. Class discussion, reports, and individual research papers. The course is offered at the 500 and 800 levels, with additional assignments at the 800 level. (Same as EALC 541.) Prerequisite: Junior status. LEC.

FMS 542. Latin American Film. 3 Hours. H.
The course explores the national cinemas and film industries of various nations in Latin America, as well as films made by Indigenous and Chicano/a filmmakers. Films are analyzed both as artistic works (formal qualities, cinematic styles, and influences) and as documents that provide windows to the socio-historical context of the nation. The course focuses on the political-economic factors surrounding the production of Latin American national cinema (the role of the state, coproductions, film markets). Prerequisite: Junior status. May be taken as FMS 842. There will be additional requirements for graduate students taking FMS 842. LEC.

FMS 543. Contemporary Japanese Film. 3 Hours. NW AE42 / H.
Seminar on the major developments in the contemporary (1980-present) Japanese film industry examining how filmmaking practices and film criticism have been influenced by such issues as transnationalism, postcolonialism, critical race theory, postmodernism, and new media. We survey recent industrial and stylistic trends as well as key critical debates. Class discussion, reports, and individual research papers. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. (Same as EALC 543.) Prerequisite: Junior status. LEC.

FMS 544. African Film. 3 Hours. NW / H.
A critical study of Africa and its peoples as depicted in films. The aesthetic, cultural, economic, political, historical, and ideological aspects of African films are examined. (Same as AAAS 555.) LEC.

FMS 585. Capstone in Film and Media Studies. 3 Hours. H.
This course integrates the knowledge and skills acquired across the curriculum of Film Media Studies including primarily academic studies, but also production and other related disciplines to enable the student to demonstrate achievement through the production of a major creative research project. Prerequisite: Must be admitted to the Film and Media Studies B.A. or B.G.S. degree. Must have completed one FMS production course. Must have Departmental permission to enroll. LEC.

FMS 592. Documentary Film and Video. 3 Hours. H.
An historical and theoretical survey of that major genre of film and video typically termed “documentary.” The course will trace the main historical developments from documentary’s beginnings through contemporary innovations. Prerequisite: FMS 100 and FMS 310, FMS 311, or consent of instructor. LEC.

FMS 593. Experimental Film and Video. 3 Hours. H.
A history of experimental film and video through an examination of major artists, movements, theories, and films/tapes. Prerequisite: FMS 100 and FMS 310, or consent of instructor. LEC.

FMS 620. International Women Filmmakers. 3 Hours. H.
This course examines films made by women around the world. Mainstream and independent fiction, documentary, and experimental works will be screened and discussed. The objectives of the course are: 1) to learn the variety of films made by women and the conditions of their production, distribution reception. 2) to interrogate the idea of women’s cinema as ‘counter-cinema’. We will acquire tools for analyzing films in terms of economic, aesthetic, cultural, and political circumstance by women of different countries, classes, races, ethnicities, genders, and sexual preferences. LEC.

FMS 621. American Film Criticism. 3 Hours. H.
An analysis of the evolution, methods and impact of American film criticism as practiced by such critics as James Agee, Robert Warshow, Andrew Sarris, John Simon, Pauline Kael, Stanley Kauffman, and Dwight Macdonald. Prerequisite: FMS 310 or FMS 311. LEC.

FMS 673. Problems in Basic Screenwriting. 3 Hours. U.
The principles of screenwriting are developed through scene writing and analysis culminating in the writing and structure of a full-length, three-act screenplay. In addition to the class sessions taught with FMS 273 Basic Screenwriting, separate consultations and specific research assignments for graduate students in FMS 673 are also required. LEC.

FMS 675. Problems in Basic Video Production. 3 Hours. U.
Theory and practice of single-camera video production with emphasis on preproduction planning, scripting, directing, lighting, camera operation and audio. In addition to the class sessions taught with FMS 275 Basic Video Production, separate consultations and specific research assignments for graduate students in FMS 675 are also required. Lecture-laboratory. LEC.

FMS 676. Problems in Basic Film Production. 3 Hours. U.
An introduction to 16mm film techniques and structures, requiring construction of brief, individually produced fictive-narrative films employing classical continuity. In addition to the class sessions taught with FMS 276 Basic Film Production, separate consultations and specific research assignments for graduate students in FMS 676 are also required. Lecture-laboratory. LEC.

FMS 702. Graduate Seminar in: ____. 1-3 Hours.
Topics change as needs and resources develop. Class discussion, reports, and individual projects. SEM.
FMS 704. Study Abroad Topics in: __________. 1-6 Hours.
This course is designed for the study of special topics in Film. Credit for coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

FMS 707. Film/Media Internship. 3-12 Hours.
Study with an approved film or media company. Emphasis may be in one or all of the following areas: acting, directing, or promotion management. No more than six hours may be applied to an M.A. degree. Course will be graded satisfactory/unsatisfactory. Prerequisite: Consent of instructor. LEC.

FMS 714. Kansas Art, History and Popular Culture. 3 Hours.
An overview of the art and cultural history of Kansas (and Kansas City) from territorial days to the present. Emphasis is placed on key issues, figures and events. A general familiarity with American history is recommended. In addition to the lecture sessions taught in tandem with FMS 414, additional research component, lecture presentation, and class meeting are also required. LEC.

FMS 715. Survey of Japanese Film. 3 Hours.
This course surveys the major developments in patterns of distribution, exhibition, and reception and their influence on film aesthetics in twentieth century Japanese film. Through secondary readings, lectures, and discussions students will examine how Japanese cinema, as an institution, responds to and intervenes in the social, cultural, and political history of twentieth century Japan. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. (Same as EALC 715.) LEC.

FMS 716. Cinemas of the Southern Cone: Argentina, Chile, and Uruguay. 3 Hours.
This course will examine the cinemas of three neighboring South American countries to find similar themes and some differences between them historically, politically, and culturally. Themes will include: gender and nation, political repression during dictatorship, globalization and the cinema, youth culture in the Southern Cone, and representations of race and ethnicity, immigration and identity in contemporary cinema. In addition to the lecture sessions taught in tandem with FMS 316, additional research component, lecture presentation, and class meeting are also required. LEC.

FMS 717. Race and the American Documentary. 3 Hours.
This course will survey a range of documentaries in which race is a key part of the film’s text. There are two class objectives: to broaden the student’s knowledge of American social history and culture, especially around issues of identity, representation and race, and to heighten the student’s ability as a critical viewer of films. This course will include: film viewing, scholarly readings, and lectures. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. LEC.

FMS 718. Anti-war Films. 3 Hours.
An overview and exploration of the history of the portrayal of anti-war film and media themes to show how anti-war attitudes and political policy can be affected by positive and negative depictions of conflict. Analysis of selected films. FMS 318 and FMS 718 will meet concurrently, though separate consultations and specific research assignments for FMS 718 are also required. LEC.

FMS 743. Contemporary Japanese Film. 3 Hours.
Seminar on the major developments in the contemporary (1980-present) Japanese film industry examining how filmmaking practices and film criticism have been influenced by such issues as transnationalism, postcolonialism, critical race theory, postmodernism, and new media. We will survey recent industrial and stylistic trends as well as key critical debates. Class includes discussion, reports, and individual research papers. This course is offered at the 500 and 700 levels, with additional assignments at the 700 level. (Same as EALC 743.) SEM.

FMS 745. New Media and Society. 3 Hours.
Students will be introduced to major themes and debates in digital media studies and apply critical approaches for understanding new media practices, technologies, and theories. In addition to readings and lectures, students will engage in a variety of digital activities and participate in production-oriented projects. By the end of this course students will gain a foundational understanding of historical and emerging relationships between new media (internet, cell phones, digital games, etc.) and society, acquire key digital skills, and experience a variety of new media texts and services. This course is offered at the 300 and 700 levels, with additional assignments at the 700 level. LEC.

FMS 773. Problems in Intermediate Screenwriting. 3 Hours.
The principles of screenwriting are developed through scene writing and analysis culminating in the writing and structuring of a full-length, three act screenplay. In addition to the class sessions taught with FMS 373 Intermediate Screenwriting, separate consultations and specific research assignments for graduate students in FMS 773 are also required. LEC.

FMS 774. Animation. 3 Hours.
A survey that combines animation history, theory, and production by examining animated works of all kinds and exploring various styles utilizing both hands-on techniques and digital animation programs. This course is offered at the 300 and 700 levels, with additional assignments at the 700 level. Lecture-laboratory LEC.

FMS 775. Problems in Intermediate Video Production. 3 Hours.
Theory and practice of multiple-camera video production with emphasis on preproduction planning, scripting, directing, lighting, camera operation, and audio. In addition to the class sessions taught with FMS 375 Intermediate Video Production, separate consultations and specific research assignments for graduate students in FMS 775 are also required. Lecture-laboratory. LEC.

FMS 776. Problems in Cinematography. 3 Hours.
Theory and practice of cinematography, with emphasis on creation of film, video, and digital imagery. FMS 776 meets concurrently with FMS 376; students enrolled in the graduate-level course will have separate consultations and specific research assignments. Lecture-laboratory. Prerequisite: Consent of instructor and FMS 675 or FMS 676. LEC.

FMS 777. Post-Production. 3 Hours.
Students will become familiar with techniques and processes in film and video post-production including, but not limited to, editing, sound, post-production management, marketing, and distribution. This course is offered at the 300 and 700 levels, with additional assignments at the 700 level. Prerequisite: Consent of instructor. LEC.

FMS 800. Introduction to Graduate Study in Film/Media. 3 Hours.
Major emphasis is placed upon the principles of research, bibliographical data, and research methods useful in film and television. The course should be taken at the beginning of the graduate student’s program. LEC.

FMS 801. Professional Development Seminar. 1 Hour.
Preparation and training for faculty careers in film and related fields, including research skills and methods, responsible scholarship, teaching, and service. Other topics vary from semester to semester. May be repeated for credit. SEM.

FMS 802. Master’s Projects. 3-6 Hours.
Advanced creative projects which may be elected by master’s degree candidates in lieu of thesis. RSH.
FMS 810. Development of the Silent Film. 3 Hours.
Intensive study of the artistic, economic, and sociological development of the silent narrative film with emphasis on the evolution of the American studio system, German Expressionism, and Soviet Expressive Realism. LEC.

FMS 811. Development of the American Sound Film. 3 Hours.
Intensive study of the artistic, economic, and sociological development of the American sound film with emphasis on the studio system, major directors, genres, and the impact of television. LEC.

FMS 813. Development of the International Sound Film. 3 Hours.
Intensive study of the artistic, economic, and sociological development of the international sound film with emphasis on the cinemas of England, France, Italy, Germany, Sweden, and Eastern Europe. LEC.

FMS 814. Development of African-American Images in Film. 3 Hours.
A history and critical assessment of the development of diverse images of African-Americans in American cinema and the impact of those images of American society. Screenings of feature and independent films, including those by African-Americans. In addition to the lecture/screening sessions taught in tandem with FMS 314, a separate discussion section and specific research assignments for graduate students enrolled in FMS 814 are also required. LEC.

FMS 840. Cuban Cinema. 3 Hours.
This course explores Cuban cinema from 1959 to the present day. Special attention will be paid to the representations of Cuban history, cultural politics, and the political-economic conditions of production in Cuba. In addition, the Cuban-American community and their contributions or reactions to Cuban film will be discussed. Through readings, lectures, discussion, and viewing Cuban films, the class will examine a variety of topics related to Cuban cinema, history, and contemporary concerns. This course is offered at the 500 and 800 levels, with additional assignments at the 800 level. LEC.

FMS 841. Asian Film. 3 Hours.
Seminar on various national film cultures of East and Southeast Asia. Representative films are studied from formal, stylistic, and socio-historic perspectives. Addresses the impact of key cultural, economic and political issues on each film industry. Class includes discussion, reports, and individual research papers. This course is offered at the 500 and 800 levels, with additional assignments at the 800 level. (Same as EALC 841.) SEM.

FMS 842. Latin American Film. 3 Hours.
The course explores the national cinemas and film industries of various nations in Latin America, as well as films made by indigenous and Chicano/a filmmakers. Films are analyzed both as artistic works (formal qualities, cinematic styles, and influences) and as documents that provide windows to the socio-historical context of the nation. The course focuses on the political-economic factors surrounding the production of Latin American national cinema (the role of the state, co-productions, film markets). LEC.

FMS 862. Survey of Film and Media History. 3 Hours.
This seminar will be primarily international in scope and will concentrate on the following: technological and production issues relating to the transition in 1927-1931 of silent to sound film; the constructions of national identity, including those of recently emerging cultures; a comparison and contrast of the censorial agencies in America and abroad; and current revisionist perspectives on received film and media history. SEM.

FMS 863. Survey of Documentary and Experimental Film and Media. 3 Hours.
Surveys the important historical and theoretical issues pertinent to both the documentary and experimental approaches as expressed in film, video and new technologies. Includes major documentary and experimental genres, directors, national schools, artistic movements, and landmark works. Screenings reflect a chronology from origins to present-day. LEC.

FMS 864. Classical Film and Media Theory. 3 Hours.
This seminar is a comprehensive survey of the major classical film and media theories and theorists, such as Munsterberg, Eisenstein, Arnhem, Bazin, and Adorno. Organized around specific questions, e.g.; What qualities differentiate film and media from other art and communications forms? What qualities do film and media share with other art and communication forms? What qualities differentiate film from other forms of media such as television? Readings from primary sources stressed. Class discussion, individual research papers. SEM.

FMS 865. Contemporary Film and Media Theory. 3 Hours.
This seminar is a study of the theories applied to the study of film and media since the 1970s moving through structuralism, and into the posts: - structuralism, -modernism, -colonialism, and beyond. Within these broad paradigms some of the theories examined in depth are cinemiatrics, Marxism, cinematic apparatus, feminin film theory, reception theory, new media and virtual reality. SEM.

FMS 875. Problems in Advanced Video Production. 3 Hours.
Special projects in video production, using both studio and remote locations. In addition to the class sessions taught with FMS 475 Advanced Video Production, separate consultations and specific research assignments for graduate students in FMS 875 are also required. Prerequisite: FMS 775 or consent of instructor. LEC.

FMS 880. Development of American Popular Culture in the: ___. 3 Hours.
Intensive interdisciplinary examination of popular culture forms and their relationships with the social, political, and economic dynamics of America in a specific decade, with emphasis on film, broadcasting, theatre, music literature (including magazines and newspapers), and the graphic arts. Decade to be studied changes as resources and needs develop. LEC.

FMS 887. Film and the Public. 3 Hours.
A study of the actual and implied responsibilities of film and video to the public, as seen in regulations, self-regulatory codes, and the critical literature of the field. Prerequisite: Consent of instructor. LEC.

FMS 888. Special Problems in Film History and Criticism. 1-4 Hours. RSH.

FMS 895. Intensive Film Project Seminar. 1-4 Hours.
The student plans and executes an intensive special project which requires the professional skills of investigation and performance appropriate to radio, television and/or film. May be repeated for credit up to a maximum of six credit hours. (This seminar is to the special project program what “thesis” is to the traditional program.) RSH.

FMS 897. Practicum in Film. 1-3 Hours.
Various approaches to the illustration of principles of production in film and/or video through the supervision of laboratory exercises and subsequent evaluation by the Theatre and Film graduate faculty. FLD.

FMS 898. Investigation and Conference (for Master’s Students). 1-8 Hours.
Directed research and experimentation in film or media. Limited to eight hours credit toward the Master’s degree. RSH.

FMS 899. Master’s Thesis. 1-6 Hours.
THE.

FMS 902. Film Seminar in: ____. 3 Hours.
A graduate seminar devoted to selected historical, theoretical, or critical issues. Prerequisite: Consent of instructor. LEC.
FMS 998. Investigation and Conference (for Doctoral Students). 1-8 Hours.
RSH.

FMS 999. Doctoral Dissertation. 1-12 Hours.
THE.

Bachelor of Arts and Bachelor of General Studies in Film and Media Studies

Why study film and media?
The Department of Film and Media Studies unites the inquiry of the academic with the practice and technique of the artist. Scholars and filmmakers work and study together in an environment of mutual encouragement and collegiality.

First-Year Preparation
Students considering a major in film and media studies should enroll in FMS 100 and complete all courses required for admission to the major within the first 3 semesters.

Admission to the Major

Admission Requirements

Courses Required
Introduction to the Film Medium. Satisfied by:
FMS 100 Introduction to the Film Medium 3
Film and Media Aesthetics. Satisfied by:
FMS 200 Film and Media Aesthetics 3
American Popular Culture of: _____ . Satisfied by:
FMS 380 American Popular Culture of: _____ 3

Admission GPA
Satisfied by a minimum GPA of 2.5 on a 4.0 scale in required admission courses designated above. University Course Repeat Policy will apply.

Apply to the Major

Application Term
Students should apply to the major during the semester in which major admission criteria will be completed; normally no later than 60 hours, or for transfer students, during the initial term at KU. Application to this major after completion of 60 hours, or the initial KU term for transfer students, will likely delay graduation.

Application Process
Students with the film and media studies interest code who are enrolled in the second admissions class are contacted by the department and invited to a major admissions orientation mid-semester. Attendance at an orientation is necessary to be admitted to the film and media studies department. Admission occurs at the end of the semester once the 2.5 grade-point average in FMS 100, FMS 200, and FMS 380 is confirmed.

Film and Media Studies Programs
Film/video production experience is provided through course work at Oldfather Studios. B.A. and B.G.S. requirements are quite different, so it is important to check with a department advisor. The B.A. in film and media studies introduces students to the overall field of film and media studies and prepares them for graduate study. The B.G.S. in film and media studies prepares students broadly in film/video production.

Requirements for the B.A. Major

Film and Media Studies Core Knowledge and Skills (16)

Majors must complete the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>FMS 100</td>
<td>Introduction to the Film Medium Admission</td>
<td>3</td>
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<tr>
<td>FMS 200</td>
<td>Film and Media Aesthetics Admission</td>
<td>3</td>
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<tr>
<td>FMS 380</td>
<td>American Popular Culture of: Admission</td>
<td>3</td>
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Admission GPA
Must receive a 2.5 cumulative GPA.

Film and Media Studies Required Electives (12)

Majors must complete a course in each of the following areas:

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<tr>
<th>Area</th>
<th>Course Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Documentary or Experimental Film</td>
<td>FMS 592</td>
<td>Documentary Film and Video</td>
<td>3</td>
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<td></td>
<td>FMS 593</td>
<td>Experimental Film and Video</td>
<td>3</td>
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<tr>
<td>Cultural Studies</td>
<td>FMS 314</td>
<td>History of African-American Images in Film</td>
<td>3</td>
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<td>FMS 315</td>
<td>Survey of Japanese Film</td>
<td>3</td>
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<td>FMS 316</td>
<td>Cinemas of the Southern Cone: Argentina, Chil, and Uruguay</td>
<td>3</td>
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<tr>
<td>Production</td>
<td>FMS 620</td>
<td>International Women Filmmakers</td>
<td>3</td>
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<tr>
<td>Film History</td>
<td>FMS 310</td>
<td>History of the Silent Film</td>
<td>3</td>
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<tr>
<td></td>
<td>FMS 311</td>
<td>History of the American Sound Film</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>FMS 312</td>
<td>History of the International Sound Film to 1950</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>FMS 313</td>
<td>History of the International Sound Film Post 1950</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>FMS 621</td>
<td>American Film Criticism</td>
<td>3</td>
</tr>
</tbody>
</table>

Capstone: (3)
FMS 585 Capstone in Film and Media Studies 3

Film and Media Electives (6)

Satisfied by 6 hours from courses in the Film & Media Studies department (any course with an FMS prefix) 6

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:
Major Hours
Satisfied by 37 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major, of which 8 must be at the junior/senior (300+) level.

Major Junior/Senior Hours
Satisfied by a minimum of 22 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Graduation Plan
With careful planning and commitment to a full-time course load, you can graduate in 4 years. For details please consult the department.

Requirements for the B.G.S. Major

Film and Media Studies Core Knowledge and Skills (16)
Majors must complete a course in each of the following areas:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMS 100</td>
<td>Introduction to the Film Medium Admission</td>
<td>3</td>
</tr>
<tr>
<td>FMS 200</td>
<td>Film and Media Aesthetics Admission</td>
<td>3</td>
</tr>
<tr>
<td>FMS 380</td>
<td>American Popular Culture of Admission</td>
<td>3</td>
</tr>
<tr>
<td>FMS 275</td>
<td>Basic Video Production</td>
<td>3</td>
</tr>
<tr>
<td>FMS 401</td>
<td>Undergraduate Professional Development Seminar</td>
<td>1</td>
</tr>
<tr>
<td>FMS 530</td>
<td>Classical Film/Media Theory</td>
<td>3</td>
</tr>
</tbody>
</table>

Film and Media Studies Required Electives (15)
Majors must complete a course in each of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMS 592</td>
<td>Documentary Film and Video</td>
<td>3</td>
</tr>
<tr>
<td>FMS 593</td>
<td>Experimental Film and Video</td>
<td>3</td>
</tr>
</tbody>
</table>

Screenwriting, Film Criticism, or Media. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMS 273</td>
<td>Basic Screenwriting</td>
<td>3</td>
</tr>
<tr>
<td>FMS 345</td>
<td>New Media and Society</td>
<td>3</td>
</tr>
<tr>
<td>FMS 621</td>
<td>American Film Criticism</td>
<td>3</td>
</tr>
</tbody>
</table>

Film History. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMS 310</td>
<td>History of the Silent Film</td>
<td>3</td>
</tr>
<tr>
<td>FMS 311</td>
<td>History of the American Sound Film</td>
<td>3</td>
</tr>
<tr>
<td>FMS 312</td>
<td>History of the International Sound Film to 1950</td>
<td>3</td>
</tr>
<tr>
<td>FMS 313</td>
<td>History of the International Sound Film Post 1950</td>
<td>3</td>
</tr>
</tbody>
</table>

Intermediate Production. Satisfied by two of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMS 373</td>
<td>Intermediate Screenwriting</td>
<td>3</td>
</tr>
<tr>
<td>FMS 374</td>
<td>Animation</td>
<td>3</td>
</tr>
<tr>
<td>FMS 375</td>
<td>Intermediate Video Production</td>
<td>3</td>
</tr>
</tbody>
</table>

Capstone: (3)
FMS 585  Capstone in Film and Media Studies

Film and Media Studies Electives (6)
Satisfied by 6 hours elected from courses in the Film & Media Studies department (any course with an FMS prefix).

Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMS 376</td>
<td>Cinematography</td>
<td>3</td>
</tr>
<tr>
<td>FMS 377</td>
<td>Post-Production</td>
<td>3</td>
</tr>
<tr>
<td>FMS 477</td>
<td>Sound Design</td>
<td>3</td>
</tr>
<tr>
<td>FMS 478</td>
<td>Experimental Production</td>
<td>3</td>
</tr>
<tr>
<td>FMS 479</td>
<td>Broadcast Documentary Production</td>
<td>3</td>
</tr>
<tr>
<td>FMS 480</td>
<td>Music Video Production</td>
<td>3</td>
</tr>
</tbody>
</table>

Departmental Honors
An undergraduate interested in honors in film and media studies must present a written declaration of intention to the department’s honors coordinator as early as possible in the junior or senior year. The following are required:

1. A grade-point average at the time of declaration and at graduation of at least 3.25 overall and 3.5 in film and media studies courses.
2. Six hours in FMS 498 Honors Seminar. Enrollment in this course must be approved by the honors coordinator. Students in the honors seminar work under the direction of one instructor for each semester. The instructor conducts an examination at the end of each semester’s work and assigns a grade. Credit only is given to students who complete the work assigned for any semester but do not complete the requirements for honors. Students may change area of interest or instructor at the beginning of a semester with the consent of the honors coordinator.
3. Satisfactory performance in a final oral examination given approximately one month before graduation.
Minor in Film and Media Studies

Why study film and media?
The Department of Film and Media Studies unites the inquiry of the academic with the practice and technique of the artist. Scholars and filmmakers work and study together in an environment of mutual encouragement and collegiality.

Requirements for the Minor

Students selecting this minor must complete the following:

FMS 100 Introduction to the Film Medium 3
FMS 380 American Popular Culture of: _______ 3
Film History. Satisfied by one of the following: 3
  FMS 310 History of the Silent Film
  FMS 311 History of the American Sound Film
  FMS 312 History of the International Sound Film to 1950
  FMS 313 History of the International Sound Film Post 1950
  FMS 314 History of African-American Images in Film

Theory and Criticism. Satisfied by one of the following: 3
  FMS 530 Classical Film/Media Theory
  FMS 531 Contemporary Concepts in Media Studies

Film and Video. Satisfied by one of the following: 3
  FMS 592 Documentary Film and Video
  FMS 593 Experimental Film and Video

Film Studies. Satisfied by one of the following: 3
  FMS 302 Undergraduate Studies Seminar in: _______
  FMS 542 Latin American Film
  FMS 621 American Film Criticism

Minor Hours & Minor GPA

While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 hours of KU resident credit in the minor.

Minor Junior/Senior Hours
Satisfied by a minimum of 15 hours from junior/senior courses (300+) in the minor.

Master of Arts in Film and Media Studies

Why study film and media?
The Department of Film and Media Studies unites the inquiry of the academic with the practice and technique of the artist. Scholars and filmmakers work and study together in an environment of mutual encouragement and collegiality.

Graduate Admission

Graduate Admission Criteria

M.A. Degree

To be admitted, a student ordinarily is expected to have a Graduate Record Examination score of at least 160 (verbal), 144 (quantitative), and 4.5 analytical writing.

Ph.D. Degree

To be admitted, a student ordinarily is expected to have a Graduate Record Examination score of at least 160 (verbal), 144 (quantitative), and 4.5 analytical writing. Applicants also must have a grade-point average of at least 3.2 for undergraduate and at least 3.5 for graduate work, and a master's degree acceptable to the graduate faculty. Deficiencies in a student's background may require make-up work.

How to Apply (Graduate Level)

Deadlines

To apply for admission in the fall term, please submit all application materials for admission no later than

• January 1 to be considered for funding
• February 15 to be considered without funding

The department does not admit new students in the spring or summer terms.

Online Submission of Application and Fee
Submit your application fee and graduate application online (http://www.graduate.ku.edu).

Application Materials
Graduate Record Examination scores should be sent directly from the Educational Testing Service. For routing, the institution code is 6871; the department code is 4505. Check with your GRE Examination Center (http://www.ets.org/gre) to be certain your scores will arrive at KU by the application deadline.

The items listed below should be submitted online with the application and/or mailed to this address:

The University of Kansas
Department of Film and Media Studies
Attn: Graduate Secretary
Oldfather Studios
1621 W. 9th St.
Lawrence, KS 66044-2488

• An official transcript, sent directly to KU, from every previous college or university attended (copies issued to students are not accepted).
• 3 recent letters of recommendation, 2 of which should be from your current or former teachers. Each letter of recommendation must be accompanied by Graduate Letter of Recommendation Form. Completed letters with accompanying forms may be sent directly to the department by your recommenders, uploaded with your application, or included (in signed and sealed envelopes) with the rest of the materials you send us.
• A current résumé of academic and artistic experiences.
• A statement of personal goals that explains why you want to pursue graduate study.
• A writing sample (no more than 15 pages) that demonstrates your ability to theorize, analyze, and synthesize scholarly information. (Please do not send theses, DVDs, CDs, jump drives, or videotapes.)
• International students must provide TOEFL scores (http://policy.ku.edu/graduate-studies/english-proficiency-international-students) and the international I-20 Request Form.

M.A. Degree Requirements

The Master of Arts in film and media is an academic degree, but students are expected to complete 6 hours in film and video production. All M.A. students must write a thesis as the culmination of the degree.

To be admitted, a student ordinarily is expected to have a Graduate Record Examination score of at least 160 (verbal), 144 (quantitative), and 4.5 analytical writing.

To complete the M.A., the student must sustain a grade-point average of 3.0 or higher through 33 graduate credit hours.

Requirements for the M.A. in Film and Media Studies

A total of 33 hours is required.

Core Courses (15)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMS 800</td>
<td>Introduction to Graduate Study in Film/Media</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(taken the first semester in residence)</td>
<td></td>
</tr>
<tr>
<td>Studies:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMS 864</td>
<td>Classical Film and Media Theory</td>
<td>3</td>
</tr>
<tr>
<td>FMS 865</td>
<td>Contemporary Film and Media Theory</td>
<td>3</td>
</tr>
<tr>
<td>Production. Select two of the following:</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>FMS 673</td>
<td>Problems in Basic Screenwriting</td>
<td></td>
</tr>
<tr>
<td>FMS 675</td>
<td>Problems in Basic Video Production</td>
<td></td>
</tr>
<tr>
<td>FMS 676</td>
<td>Problems in Basic Film Production</td>
<td></td>
</tr>
</tbody>
</table>

Area of Concentration (12)

Select 12 hours of courses from one of the following 4 categories: 12

A. History and Theory

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMS 841</td>
<td>Asian Film</td>
<td>3</td>
</tr>
<tr>
<td>FMS 842</td>
<td>Latin American Film</td>
<td>3</td>
</tr>
<tr>
<td>FMS 862</td>
<td>Survey of Film and Media History</td>
<td>3</td>
</tr>
<tr>
<td>FMS 863</td>
<td>Survey of Documentary and Experimental Film and Media</td>
<td>3</td>
</tr>
<tr>
<td>FMS 902</td>
<td>Film Seminar in: _____ (an appropriate seminar)</td>
<td>3</td>
</tr>
<tr>
<td>1 elective in film history or theory</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

B. International Film and Media

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMS 841</td>
<td>Asian Film</td>
<td>3</td>
</tr>
<tr>
<td>FMS 842</td>
<td>Latin American Film</td>
<td>3</td>
</tr>
<tr>
<td>FMS 862</td>
<td>Survey of Film and Media History</td>
<td>3</td>
</tr>
<tr>
<td>1 elective chosen with the graduate advisor from the film and culture sequences offered, for example, by French and Italian or African and African-American studies, or an appropriate FMS 902 Film Seminar in: _____ (3)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
a master’s degree acceptable to the graduate faculty. Deficiencies in a student’s background may require make-up work.

How to Apply (Graduate Level)

Deadlines
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- A current résumé of academic and artistic experiences.
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Ph.D. Degree Requirements

The Ph.D. is an academic degree, but students are expected to complete 6 hours in film and video production.

To be admitted, a student ordinarily is expected to have a Graduate Record Examination score of at least 160 (verbal), 144 (quantitative), and 4.5 analytical writing. The applicant also must have a grade-point average of at least 3.2 for undergraduate and at least 3.5 for graduate work and a master’s degree acceptable to the graduate faculty. Deficiencies in background may require make-up work.

Ph.D. Degree in Film and Media Studies

The degree requires 60 hours not including language proficiency. Please meet with your advisor or graduate director each semester to assess your progress.

Core Requirements

24 hours of core courses are required. Doctoral students in film and media studies must take a core of courses aimed at strengthening methodological, historical, and theoretical grounding. 1 course must be taken in non-Western/indigenous film; 2 graduate-level production courses are required, and 2 courses in FMS 902 Film Seminar are mandatory.

Elective Requirements

9 hours of electives are required. Elective courses focus on the academic study of history, international cinema, popular culture, and film criticism. These courses are selected with a graduate advisor to reflect the student’s special interest. The advisor may increase the number of hours, depending on the student’s academic needs.

Production Requirements

6 hours of production courses are required. Production courses give students an understanding of the production process in making film, video, or animation pieces. On graduation, doctoral students can perform as competent artisans in addition to research scholars. Production courses are selected with a graduate advisor to reflect the student’s specific interest. The advisor may increase the number of hours, depending on the student’s academic needs.

Secondary Field Requirements

9 hours of secondary field courses at the graduate level from outside the Department of Film and Media Studies, are chosen to assist the student in writing the dissertation. They are related to the student’s proposed area of specialization. Examples include English; history; women, gender, and sexuality studies; American studies; education; and social welfare.

Research Skills and Responsible Scholarship Requirements

KU requires all doctoral students to meet the Research Skills requirement before proceeding to comprehensive exams. Compliance with this policy requires all graduate students to receive training in responsible scholarship pertinent to the field of research and obtain research skills pertinent to the doctoral level of research in their field(s). Research Skills requirements may be satisfied by taking either FMS 902 : Research Methods and Applications of New Media or FMS 902 : Visual Methods. Students may also elect to demonstrate proficiency in one foreign language for conducting research.
Comprehensive Examination
2 publishable papers are due at the time of the examination. The examination includes written responses to questions in history, theory, production, and literature/criticism, followed by an oral examination.

Dissertation
18 hours of dissertation credit are required. The finished dissertation must constitute a palpable contribution to knowledge in the candidate’s chosen field. After its completion, an oral defense must be held no less than 4 weeks before the graduation deadline. The committee consists of 1 chair, 3 departmental members, and an outside member.

Ph.D. in Film and Media Studies Program of Study

<table>
<thead>
<tr>
<th>Core (24)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FMS 800</td>
<td>Introduction to Graduate Study in Film/Media</td>
</tr>
<tr>
<td>FMS 801</td>
<td>Professional Development Seminar (1 hour/3 semesters)</td>
</tr>
<tr>
<td>FMS 862</td>
<td>Survey of Film and Media History</td>
</tr>
<tr>
<td>FMS 863</td>
<td>Survey of Documentary and Experimental Film and Media</td>
</tr>
<tr>
<td>FMS 864</td>
<td>Classical Film and Media Theory</td>
</tr>
<tr>
<td>FMS 865</td>
<td>Contemporary Film and Media Theory</td>
</tr>
<tr>
<td>FMS 902</td>
<td>Film Seminar in: _____ (Special Topics)</td>
</tr>
<tr>
<td>Select one graduate-level non-Western/indigenous film course</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives (9)
Select 9 hours of the following in consultation with the advisor:

| FMS 621   | American Film Criticism | 3 |
| FMS 702   | Graduate Seminar in: _____ | 3 |
| FMS 814   | Development of African-American Images in Film | 3 |
| FMS 841   | Asian Film | 3 |
| FMS 842   | Latin American Film | 3 |
| FMS 880   | Development of American Popular Culture in the: _____ | 3 |
| FMS 902   | Film Seminar in: _____ (Special Topics) | 3 |
| FMS 998   | Investigation and Conference (for Doctoral Students) | 3 |
| Others to be added from semester offerings at the graduate level | |

Production (6)
Select two of the following:

| FMS 673   | Problems in Basic Screenwriting | 3 |
| FMS 675   | Problems in Basic Video Production | 3 |
| FMS 676   | Problems in Basic Film Production | 3 |
| FMS 702   | Graduate Seminar in: _____ | 3 |
| FMS 773   | Problems in Intermediate Screenwriting | 3 |
| FMS 775   | Problems in Intermediate Video Production | 3 |
| FMS 895   | Intensive Film Project Seminar | 3 |
| FMS 897   | Practicum in Film | 3 |

Department of Theatre

KU Theatre: A Family of Students, Artists, Scholars, and Arts Professionals
The Department of Theatre offers outstanding theatre training in a liberal arts context. Our undergraduate programs are grounded in the philosophy that good theatre artists are thinking theatre artists. Our students work intensively on acquiring theatre skills and knowledge in our classrooms, studios, and laboratories. They receive small-school individual attention while benefiting from big-school academic choices and a vast array of programs. KU theatre students often undertake secondary study in areas such as business, journalism, art, and English. The Department of Theatre is internationally recognized for its graduate education. Our M.A. and Ph.D. programs are unique for combining intensive study of theatre and performance with the production training necessary for theatre careers in higher education. Our groundbreaking M.F.A. in Scenography is unique for having an integrated approach to scenic, lighting, and costume design that prepares artists for professional and academic careers.

Home of the University Theatre
Classroom meets the stage in the University Theatre, a leading arts program serving the KU and Lawrence communities. KU Theatre students, faculty, and professional staff work together to create up to ten fully produced shows each year, from dramas to musicals to opera. In our fully-equipped facilities students engage in all aspects of production onstage and backstage. Production continues year round with the Kansas Summer Theatre program.

Highly Qualified Faculty Scholars and Artists
The faculty of the Department of Theatre are creative artists and researchers working in the areas of theatre stagecraft, performance, design, dramatic literature, dramaturgy, pedagogy, as well as the historical, literary, and cultural study of theatre and performance. Our faculty include award-winning teachers and internationally recognized scholars and artists working in professional theatre, authoring books and establishing research and outreach programs.

Support for Students
The Department of Theatre offers students financial aid in the form of dozens of scholarships, awards, and teaching assistantships each year to graduate and undergraduate students. A strong community of support is found in the Friends of the Theatre (FROTH), a community group dedicated to enhancing the mission of the University Theatre. Once students graduate our program they join a wide network of theatre Alumni and Professional Advisors.

Undergraduate Programs
The department offers Bachelor of Arts and Bachelor of General Studies degrees, as well as a minor in theatre. The program leading to the Bachelor of Fine Arts degree in theatre design is offered cooperatively by the Department of Visual Art and the Department of Theatre.

Undergraduates may choose from 5 emphases: the B.A. or B.G.S with an emphasis in Theatre, Culture, and Society; the B.A. or B.G.S. with an emphasis in Performance; and a B.F.A. in Theatre Design. The concentration in Theatre, Culture, and Society acquaints students with the overall field of theatre and prepares them for possible graduate study. The concentration in Performance prepares students for professional
work in theatre and for M.F.A. study in acting or directing. The B.F.A in
Theatre Design is intended as general preparation for the professional
designer of scenery, costumes or lighting working in theatre and/or film or
as preparation for graduate studies.

The B.A., B.G.S. and B.F.A. requirements are quite different, so it is
important to consult with a department advisor. Theatre production
experience is provided through coursework in conjunction with the
University Theatre Program.

Courses for Nonmajors
The department offers many courses (including KU Core fulfillment) open
to non-majors who wish to learn more about theatre, including but not
limited to:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 100</td>
<td>Introduction to the Theatre</td>
<td>3</td>
</tr>
<tr>
<td>THR 106</td>
<td>Acting I</td>
<td>3</td>
</tr>
<tr>
<td>THR 215</td>
<td>Approaching Design</td>
<td>3</td>
</tr>
<tr>
<td>THR 380</td>
<td>Popular Culture: _____</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduate Programs
The Department of Theatre offers graduate programs leading to a Master
of Arts degree in theatre studies and a Doctor of Philosophy degree in
theatre. In collaboration with the Department of Visual Art, the Department
of Theatre also offers a Master of Fine Arts degree in theatre design with
a concentration in scenography.

Courses
THR 100. Introduction to the Theatre. 3 Hours. HL GE3H / H.
Designed to help students by means of experience with theatre as
well as study about it to achieve an understanding of its cultural role in
contemporary society, to develop a sensitive and informed appreciation
of its art, and to make it an integral part of their cultural lives. Lectures,
discussion groups, special interest groups, theatre attendance. LEC.

THR 101. Theatre Practicum I. 1 Hour. H.
Involvement in theatre performance and/or production. One acting role
in a University Theatre production or classroom project plus one crew
assignment, or two crew assignments qualify for credit. May be repeated
for credit. This course will be graded satisfactoy/unsatisfactory. ACT.

THR 105. Improvisation. 3 Hours. H.
Designed to free the beginning actor physically, vocally, and emotionally.
Beginning with basic physical action and sense memory exercises
performed by individuals, the work will progress to pair and small-group
improvisations in preparation for scene work. Open to freshmen and
sophomores only. LEC.

THR 106. Acting I. 3 Hours. HL GE3H / H.
Fundamental techniques in acting. Practice in character creation, body
language, and effective stage speech. LEC.

THR 111. Make-Up. 1 Hour. H.
The techniques in application of make-up for specific characterizations,
both straight and character. Study of the structure of the face and hands
for stage make-up. Should be taken concurrently with THR 106, if
possible. LEC.

THR 116. Scenographic Techniques. 3 Hours. H.
Emphasis on drafting, model building, and presentational techniques for
theatrical designer or art director. Some work in computer drafting for
the designer-technician. Lecture and laboratory periods. LEC.

THR 177. First Year Seminar: ______. 3 Hours. HT GE11.
A limited-enrollment, seminar course for first-time freshmen, organized
around current issues in Theatre. May not contribute to major
requirements in theatre. First year seminar topics are coordinated and
approved through the Office of First Year Experiences. Prerequisite: First-
time freshman status. LEC.

THR 201. Theatre Practicum II. 1 Hour. H.
Involvement in theatre performance and/or production. One acting
role in a University Theatre production or classroom project plus one
crew assignment, or two crew assignments qualify for credit. May be
repeated for credit. This course will be graded satisfactory/unsatisfactory.
Prerequisite: THR 101. ACT.

THR 204. Study Abroad Topics in: ______. 1-6 Hours. H.
This course is designed for the study of special topics in Theatre at the
freshman/sophomore level. Credit for coursework must be arranged
through the Office of KU Study Abroad. May be repeated for credit if
content varies. LEC.

THR 206. Acting II. 3 Hours. H.
The study of roles and scenes from plays. Practice in character analysis,
creation of roles, rehearsal of scenes, and ensemble work. Prerequisite:
THR 106. LEC.

THR 209. Play Reading for Performance. 3 Hours. H.
This course is designed to prepare students for upper-level courses in
theatre by developing and enhancing their ability to read plays. Close
reading of plays introduces students to a variety of different dramatic
genres and theatrical styles. Emphasis is placed on comprehension and
analysis of dramatic literature for theatrical performance. LEC.

THR 210. Musical Performance for the Actor I. 3 Hours. H.
Beginning Studies in Musical Theatre Performance: practical application
of voice, acting and movement techniques for musical theatre, solo and
group performance. LEC.

THR 212. Beginning Voice and Speech for Actors. 3 Hours. H.
A foundation course; introduction to phonetics; training in Standard
American Stage Speech; articulation skills; resonance and voice
placement. LEC.

THR 213. Movement I: The Acting Instrument. 3 Hours. H.
A foundational course in discovering ease and efficient use of the body
in a performance context, developing non-verbal communication and
partnering skills, and establishing the connection of movement to voice
production. Trains actors in proper warm-up technique, alignment and
balance, physical safety, and basic tumbling skills. LEC.

THR 215. Approaching Design. 3 Hours. HL GE3H / H.
Conceptualization and visualization of the elements involved in creative
design for theatre, dance, television, and film. LEC.

THR 216. Scenic Production. 2 Hours. H.
Introduction to the planning, construction, and mounting of scenery for
theatre, television, and film. Concentration on the technical organization of
scenic production. Lecture, discussion, and laboratory periods. LEC.

THR 220. Costume Production. 2 Hours. H.
Introduction to techniques of costume construction, including study of
fabrics, color, fundamentals of pattern making, and draping of
costumes for theatre, television, and film. Concentration on the technical
organization of costume production. Lecture, discussion, and laboratory
periods. LEC.

THR 224. Lighting Production. 2 Hours. H.
Introduction to the planning and execution of lighting for theatre,
television, and film. Concentration organized any given semester to study
particular subject matter or to take advantage of special competence by
an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. LEC.

THR 226. Introduction to African Dance Theatre. 2 Hours. NW / H. Introduction to the general techniques of non-verbal theatrical conventions in African cultures. Practical training in movement vocabulary supplemented by lectures on the "text" of performance. There will be an end of semester "studio performance." (Same as AAAS 334 and DANC 230.) LEC.

THR 301. Theatre Practicum III. 1 Hour. H. Involvement in theatre performance and/or production. One acting role in a University Theatre production or classroom project plus one crew assignment, or two crew assignments qualify for credit. May be repeated for credit. This course will be graded satisfactory/unsatisfactory. Prerequisite: THR 201. ACT.

THR 302. Undergraduate Seminar in: ____, 3 Hours. H. Course organized any given semester to study a particular subject matter or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. LEC.

THR 303. Summer Theatre. 1-6 Hours. H. Provides experience in a wide range of theatre activity related to the summer theatre production or productions. Work may include activity in the following areas: acting, directing, design, technical theatre, voice and/or movement. Specialized skills are developed through individual classes, production preparation and performance. Prerequisite: Consent of instructor. ACT.

THR 304. Study Abroad Topics in: ____, 1-6 Hours. H. This course is designed for the study of special topics in Theatre at the junior/senior level. Credit for coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

THR 305. Honors Seminar in: ____, 3 Hours. H. Special topics seminar serving students enrolled in the University Honors Program. Course organized any given semester to study a particular subject matter or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Prerequisite: Students must be enrolled in the University Honors Program. LEC.

THR 306. Acting III. 3 Hours. H. Advanced projects in acting. Character and scene analysis, scoring the role, rehearsal, and performance. Prerequisite: THR 206. LEC.

THR 307. Undergraduate Theatre Internship. 1-3 Hours. AE61 / H. Supervised study with an approved theater company or project. May be repeated for credit. No more than six hours may be applied to the B.A. or B.G.S. degrees. This course will be graded satisfactory/unsatisfactory. Prerequisite: Consent of instructor and at least seven hours credit in the department. FLD.

THR 308. Script Analysis. 3 Hours. H. This course provides knowledge and methods enabling students to conduct in-depth study of dramatic scripts. Emphasis is given to the analysis skills appropriate to practitioners of stage and screen arts. LEC.

THR 310. Musical Performance for the Actor II. 3 Hours. H. Intermediate Studies in Musical Theatre Performance: practical application of voice, acting and movement techniques for musical theatre, solo and group performance. Prerequisite: THR 106 and THR 210. LEC.

THR 312. Acting with an Accent. 3 Hours. H. A performance class for actors using monologues and scenes involving the use of accents and dialects. The course will also provide instruction in many of the most used American regional, British regional dialects, and foreign language accents. Prerequisite: THR 212, or by permission of instructor after the student demonstrates an ability in the International Phonetic Alphabet. LEC.

THR 313. Movement II: Physical Characterization. 3 Hours. H. The study of diverse physical acting techniques, and an investigation into creating a character through manipulation of the acting instrument. Actor training in performance neutrality, mask work, age, and gender distinctions. Prerequisite: THR 213 and permission of instructor. LEC.

THR 316. Beginning Scene Design. 3 Hours. H. Study of scenic design process with beginning problems in textual analysis, style, historical research, and preliminary and finished methods of design presentation. Concentration on developing fundamental design skills and awareness. Prerequisite: THR 116 and THR 215, or permission of instructor. LEC.

THR 320. Beginning Costume Design. 3 Hours. H. Study of the costume design process with beginning problems in textual analysis, style, historical research, and preliminary and finished methods of design presentation. Concentration on developing fundamental design skills and awareness. Prerequisite: THR 116 and THR 215, or permission of instructor. LEC.

THR 326. African Theatre and Drama. 3 Hours. NW / H/W. A study of the origin and development of continental African theatre and its affinity to the Levant. Traditional, colonial and contemporary dramatic theories and experiments will be examined in play selections. (Same as AAAS 355.) LEC.

THR 327. African-American Theatre and Drama. 3 Hours. AE41 / H. A historical study of Black Theatre in the U.S.A. from its African genesis to its contemporary Americaness. Epochs in African-American dramaturgy will be critically examined. (Same as AAAS 356.) LEC.

THR 380. Popular Culture: ____, 3 Hours. HL GESH / H. Interdisciplinary examination of popular culture oriented around a specific genre or theme. Objects of study may include popular forms of live performance such as musicals or vaudeville, as well as media-based performances (radio, television, film, internet). Specific topic to be studied changes as needs and resources develop. May be repeated for credit for different topics. LEC.

THR 401. Stage Management and Assistant Direction. 1 Hour. H. Majors are assigned to stage manage or assistant direct a University Theatre production, or to take related workshops in stage management or assistant directing. May be repeated for credit. This course will be graded satisfactory/unsatisfactory. ACT.

THR 404. Children and Drama. 3 Hours. HL / H. Exploration of forms, methods, and materials appropriate for development of elementary-age children in dramatic arts. LEC.

THR 405. Children and Media. 3 Hours. H. The applied study of child development theories and research methods on the influences and effects of television and related visual media on childhood in the contexts of families, schools, and society. (Same as ABSC 405 and PSYC 405.) LEC.

THR 406. Audition Techniques. 3 Hours. H. This course prepares students for all types of audition experiences. It includes study in techniques of prepared auditions, cold readings,
interviews, and the musical audition for actors. Emphasis is placed upon developing resumes and photo portfolios as well as concentrated study in professional contracts, unions, and agent acquisition. Prerequisite: THR 206. LEC.

THR 410. Musical Performance for the Actor III. 3 Hours. H.
Advanced Studies in Musical Theatre Performance: practical application of voice, acting and movement techniques for musical theatre, solo and group performance. Prerequisite: THR 106, THR 210, and THR 310. LEC.

THR 413. Stage Combat Skills. 3 Hours. U.
Study of the illusion of violence in a dramatic context and the special skills necessary for creating believable and safe stage fights. Actor training in armed and unarmed combat, including one or more of the following: rapier and dagger, broadsword, and quarter staff. Prerequisite: THR 313 and permission of instructor. LEC.

THR 416. Design Forum. 3 Hours. U.
Depending on student qualifications and specialization, focus is on scenic, costume, and/or lighting design. Special attention placed on developing collaborative awareness and the conceptual and presentation skills that underlie and inform the design process. Prerequisite: THR 316 or THR 320 or THR 324. LEC.

THR 429. Postcolonial Theatre and Drama. 3 Hours. NW AE42/GE3H / H.
The course develops an understanding of the postcolonial concept and its different manifestations in theatre and drama across nations and cultures. It approaches postcolonialism as a way of reading theatre, and as a genre within theatre by exploring how the "colonial project" has reconfigured the concept, content, and context of theatre in both colonized and colonizing cultures. In addition to the study of postcolonial playwrights and their works, the course is also an introduction to postcolonial theory and its critics. (Same as AAAS 429.) LEC.

THR 445. Teaching Theatre in the Middle/Secondary Schools. 3 Hours. H.
Study of philosophy and methods appropriate to teaching improvisation, acting, stagecraft, directing, playwriting, dramatic literature, and theatre history in middle/secondary schools. Includes curriculum development, instructional and evaluative strategies, and management of co-curricular theatre programs. Prerequisite: Consent of instructor. LEC.

THR 498. Honors Seminar. 2-6 Hours. AE61 / H.
Study may be directed toward either (1) reading for integration of knowledge and insight in theatre or (2) original research, i.e., investigation of a specific problem in theatre. Six hours maximum credit, which may be distributed through four semesters. Prerequisite: Consent of Departmental Honors Committee. IND.

THR 499. Directed Study in Theatre. 1-6 Hours. AE61 / H.
Investigation of a special topic or project selected by the student with advice, approval, and supervision by an instructor. Such study may take the form of directed reading or special research. Individual reports and conferences. A maximum of six hours credit may be counted toward a degree. Prerequisite: At least seven hours credit in the department and consent of instructor. IND.

THR 501. Colloquium on American Theatre. 1 Hour. U.
A series of fourteen weekly lecture/discussions led by invited guests both from the university and outside it on various topics central to the study of theatre. The first four meetings, led by the course coordinator, are a brief survey of the history of theatre in America and a preparation for the ten lecture/discussions to follow. LEC.

THR 506. Acting for the Camera. 3 Hours. H.
A study of acting techniques appropriate to the requirements of the camera. Emphasis is placed on developing audition skills necessary to compete for roles in dramatic features, corporate videos, and commercials. Actors acquire skills essential to the transition from stage to camera. Prerequisite: Permission of instructor. LEC.

THR 508. Fundamentals of Directing. 3 Hours. H.
Offered as a first course in play directing. Designed primarily for theatre majors and secondary education majors in language arts with a theatre and drama concentration. The content is principally descriptive in nature with some practical experience. Lecture and laboratory periods. Prerequisite: THR 308. LEC.

THR 509. Dramatic Script Writing. 3 Hours. H.
Study and practice in the fundamental techniques of dramatic writing and the application of such techniques most specifically to theatre. Open upon consent of instructor to students who have completed one course in advanced composition and one course in the theory or history of drama. LEC.

THR 512. A Vocal Approach to the Classics. 3 Hours. H.
This is an advanced voice and speech course for actors aiming to further increase their command over tone, rhythm, pacing, and diction. Their range and power will be extended. Through discovery of the demands of a variety of classical texts, the actor will be challenged both in verse and in prose to develop the skills necessary to fully interpret that material. Prerequisite: THR 212. LEC.

THR 516. Scenic Painting Techniques. 3 Hours. H.
Study of painting equipment, tools, pigments, binders, and vehicles, and their relationship to the surfaces to be painted. Instruction in basic painting techniques. Prerequisite: THR 115 and THR 215. LEC.

THR 517. Computer-Aided Design. 3 Hours. U.
Study of new media in theatre and film/video production, primarily computer technologies and methods for the theatrical designer or art director. Emphasis on computer 3-D modeling and color rendering. Prerequisite: THR 116, THR 215, or permission of instructor. LEC.

THR 518. Scenography and the Classic Script. 3 Hours. H.
Holistic production design, including lighting, scenery, and costumes, for classic theatre scripts. Contrasts historical styles of production with styles for contemporary spaces and audiences. Projects tailored to the needs and level of the students. Prerequisite: Consent of instructor. LEC.

THR 519. Scenography and the Modern Script. 3 Hours. H.
Holistic production design, including lighting, scenery, and costumes, for modern theatre scripts. Examines modern styles of production. Projects tailored to the needs and level of the students. Prerequisite: Consent of instructor. LEC.

THR 520. History of Period Style I. 3 Hours. H.
A survey of Western style from ancient Egypt to the Restoration. Focus is placed on developing a comprehensive understanding of the stylistic relationships between art, architecture, clothing, decor, manners, and social and political history. Prerequisite: Nine hours in theatre/design/technical courses or consent of instructor. LEC.

THR 521. History of Period Style II. 3 Hours. H.
Continuation of THR 520, from the Restoration to the present day. Prerequisite: Nine hours in theatre/design/technical courses or consent of instructor. LEC.

THR 525. History of Theatre. 3 Hours. H.
Study of developments in world theatre and drama from the ancient world to the eighteenth century. LEC.
THR 526. History of Theatre II. 3 Hours. H.
Study of developments in world theatre and drama since the eighteenth century. LEC.

THR 527. Asian Theatre and Performance. 3 Hours. NW / H/W.
A survey of traditional and modern theatre and performance in Asia, with greatest attention given to India, China, and Japan. A study of plays, dramatic genres, history, conventions of play production, acting styles and other performance forms. (Same as EALC 527.) LEC.

THR 528. History of U.S. Theatre and Drama. 3 Hours. H.
Historical approach to the development of theatre and performing arts in the United States. LEC.

THR 529. Race and the American Theatre. 3 Hours. U.
The representation(s) of race in significant texts and performance styles in American theatre analyzed according to political ideologies, dramatic movements and the impact of these factors on the representation of the "other" in the theatre. (Same as AAAS 585 and AMS 529.) LEC.

THR 550. Applied and Interactive Theatre. 3 Hours. H.
This course is an exploration of interactive drama techniques and practices of the evolving field of applied theatre. The tools of applied theatre serve varied purposes and are being used around the world for community-building, personal empowerment, to address social and political issues, and to strengthen communication skills. The class will work specifically on community-based dialogue and classroom situations that students and professors encounter in their daily lives. LEC.

THR 599. Special Topics in Scenography. 1-6 Hours. U.
Individual studio activity. Course content to be determined by the student under the supervision of a faculty member. May be repeated for credit in subsequent semesters. Prerequisite: Permission of instructor. IND.

THR 603. Theatre for Young Audiences. 3 Hours. U.
A survey of theories, history, literature, criticism, production methods, and audience research about theatre performed by adults for children and adolescents. Emphasis is on child development and community outreach. Prerequisite: THR 308 or consent of instructor. LEC.

THR 604. Drama with Young People. 1-3 Hours. U.
A laboratory experience in developing and conducting improvisational drama workshops with children or adolescents in local schools. Includes readings by leading theorists and practitioners. Prerequisite: Actors cast in current KU Theatre for Young People production, or THR 404, or consent of instructor. LEC.

THR 609. Play Directing. 3 Hours. H.
Readings, lectures, and practice dealing with the relationship between actor and director. Prerequisite: THR 508. LEC.

THR 617. Computer-Aided Design II. 3 Hours. U.
Continuation of THR 517. Emphasis on computer-generated images as scenic media in production situations. Prerequisite: THR 517, or permission of instructor. LEC.

THR 618. Scenography and the Musical Theatre. 3 Hours. H.
Holistic production design, including lighting, scenery, and costumes, for musical theatre, opera, and dance. Examines development and changes in design styles in the evolution of musical theatre, opera, and dance and the special requirements of these forms. Projects tailored to the needs and level of the students. Prerequisite: Consent of instructor. LEC.

THR 619. Scenography and the Contemporary Script. 3 Hours. H.
Holistic production design, including lighting, scenery, and costumes, for contemporary scripts. Examines contemporary episodic scripts written for the stage that are based on a filmic structure, the special problems of these kinds of scripts, and the respective problems of designing for theatre and film. Projects tailored to the needs and level of the students. Prerequisite: Consent of instructor. LEC.

THR 620. Scenography and the Experimental Production. 3 Hours. H.
Holistic production design, including lighting, scenery, and costumes, for experimental scripts/scenarios. Examines experimental approaches to a variety of script/scenarios, including mixed-media production. Projects tailored to the needs and level of the students. Prerequisite: Consent of instructor. LEC.

THR 626. Myth and the Dramatist. 3 Hours. U.
This seminar critically explores myths in dramatic literature from ancient to contemporary times, using select authors from different cultures. Analysis of the works will be based on both conventional and post-structuralist theories and specific emphasis will be on myths that have been adapted cross-culturally and/or in different time perspectives. LEC.

THR 702. Graduate Seminar in: ____, 3 Hours.
Course organized any given semester to study particular subject matter or to take advantage of special competency by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. LEC.

THR 703. Directed Readings in Theatre. 1-3 Hours.
Research reading and presentation of reports on specific subjects related to the students major area of specialization. May be repeated up to a total of six credits on petition. Required of all MFA Scenography students. IND.

THR 704. Study Abroad Topics in: ______, 1-6 Hours.
This course is designed for the study of special topics in Theatre. Credit for coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

THR 707. Theatre Internship. 3-12 Hours.
Study with an approved theatre company. Emphasis may be in one or all of the following areas: acting, directing, stage management, technical theatre, promotion management. No more than six hours may be applied to an M.A. degree. Course will be graded satisfactory/unsatisfactory. Prerequisite: Consent of instructor. FLD.

THR 709. Advanced Dramatic Script Writing. 3 Hours.
The purpose of this course is to permit selected students, by consent of instructor, to develop or continue dramatic writing projects in theatre, film, television, and radio under the individual supervision of the instructor. LEC.

THR 711. Styles of Acting: Shakespearean. 3 Hours.
An approach to acting styles of the period, based on a study of the art, customs, spirit, and the theatre of the times applied to scene studies taken from the works of Shakespeare. Prerequisite: THR 106 and THR 206 or consent of instructor. LEC.

THR 713. Styles of Acting: Restoration and 18th Century English. 3 Hours.
An approach to acting styles of the period, based on a study of the art, customs, spirit, and the theatre of the times applied to scene studies taken from the works of English Restoration dramatists and those 18th century English playwrights writing in the Restoration mode. Prerequisite: THR 106 and THR 206 or consent of instructor. LEC.

THR 715. Problems and Techniques of Direction. 3 Hours.
Practical experience in directing. Prerequisite: THR 609. RSH.

THR 719. M.F.A. Production Seminar. 3 Hours.
To be taken by M.F.A. candidates during those semesters in which they are assigned to design one or more elements in a production to be mounted on one of our stages. Weekly critique and discussion of solutions to practical design problems from conception through execution. May be
repeated for a total of no more than six hours credit. Prerequisite: Consent of instructor. IND.

THR 725. Russian Theatre and Drama from Stanislavski and Chekhov to the Present. 3 Hours.
A study of the development of Russian theatre and dramatic literature from 1898 to the present. Lectures and readings in English. (Same as SLAV 562.) LEC.

THR 800. Introduction to Graduate Study in Theatre. 3 Hours.
Major emphasis is placed upon the principles of research, bibliographical data, and research methods useful in theatre and performance studies. The course should be taken at the beginning of the graduate student’s program. LEC.

THR 801. Professional Development Seminar. 1 Hour.
Preparation for faculty careers in theatre and related fields, including issues of research, teaching, and service. At least three hours per semester will be devoted to training in responsible scholarship. May be repeated for credit. RSH.

THR 802. Master's Projects. 3-6 Hours.
Advanced creative projects which may be elected by master’s degree candidates in lieu of thesis. RSH.

THR 803. Summer Theatre: Graduate. 1-3 Hours.
Provides graduate level experience in a wide range of theatre activity related to the summer theatre production or productions. Work may include activity in the following areas: acting, directing, design, technical theatre, voice and/or movement. Specialized skills are developed through individual classes, production preparation, and performance. Prerequisite: Consent of instructor. FLD.

THR 815. Advanced Play Production. 1-3 Hours.
Individually supervised directing of theatre pieces for public presentation. In special cases credit may be given for musical direction, choreography, or stage management. Prerequisite: THR 715. FLD.

THR 817. Theory of Acting and Directing. 3 Hours.
Readings, lectures, discussions and papers on acting and directing theory; is concerned with the divergence between presentational and representational acting methods and the emergence of directing art. Prerequisite: THR 609 or THR 715. LEC.

THR 819. Advanced M.F.A. Production Seminar. 3 Hours.
Continuation of THR 719, but production design assignments will be more complex and larger in scope. May be repeated for a total of no more than six hours credit. Prerequisite: Six hours of THR 719 and consent of instructor. IND.

THR 826. Seminar in African Theatre. 3 Hours.
A study of developments in African theatre in the 20th Century focusing on themes, concepts, styles, and critical perspectives. The course will investigate the idea of an "African theatre" and identify different periods and movements within national and international contexts. The analysis of representative works and authors will be grounded within appropriate theoretical frameworks. LEC.

THR 828. Seminar in American Theatre and Drama to 1895. 3 Hours.
Intensive investigation of selected topics. Individual study emphasized. LEC.

THR 829. Seminar in American Theatre and Drama from 1895. 3 Hours.
Intensive investigation of selected topics. Individual study emphasized. LEC.

THR 898. Investigation and Conference (for Master’s Students). 1-8 Hours.
Directed research and experimentation in theatre. Limited to eight hours credit toward the Master’s degree. RSH.

THR 899. Master’s Thesis. 1-6 Hours.
THE.

THR 901. Theatre Seminar in: ______. 3 Hours.
A graduate seminar devoted to selected historical, theoretical, or critical issues in theatre. Prerequisite: Consent of instructor. LEC.

THR 914. Theories of Race and Performance. 3 Hours.
Theories of Race and Performance is an inter-textual graduate course that explores interdisciplinary scholarship on race and performance. It seeks to translate these theories into practical application in various visual, audio and performance texts in popular culture. The course is divided into modules aimed at gaining an understanding of the shifting meaning of race over time and its relationship to ethnicity, gender, sexuality, class, nation, and power. How do we perform our identities? How is race constructed and maintained through performance? To begin to answer these questions, we will examine the ways in which racial identities are created through performance. SEM.

THR 915. Modern Theatre and Drama. 3 Hours.
A study of the movements in playwriting and theatrical production in Europe and America from the mid-19th century to World War II. Prerequisite: THR 525 and THR 526 or comparable courses. LEC.

THR 916. Postmodern Theatre and Drama. 3 Hours.
A study of developments in Europe and American playwriting, directing, acting, and design from World War II to the present. SEM.

THR 917. Dramatic Theory I. 3 Hours.
A survey of dramatic theory from Plato to Lessing. LEC.

THR 918. Dramatic Theory II. 3 Hours.
A survey of dramatic theory from Lessing to Langer. LEC.

THR 919. Dramatic Theory Seminar. 3 Hours.
Study in depth of selected theorists. Offered as determined by faculty availability and student interest. LEC.

THR 920. Practicum in Criticism. 3 Hours.
Contemporary approaches to theatre and drama criticism. Emphasis on actual practice, using a variety of critical methods. FLD.

THR 922. Theatre Historiography. 3 Hours.
This course focuses on the advanced study of research methods, subjects, interpretative paradigms, theoretical frameworks, and philosophies of history employed in contemporary approaches to writing and teaching theatre history. Prerequisite: THR 525 and THR 526 or equivalent. LEC.

THR 998. Investigation and Conference (for Doctoral Students). 1-8 Hours.
RSH.

THR 999. Doctoral Dissertation. 1-12 Hours.
THE.

Bachelor of Arts and Bachelor of General Studies in Theatre

Department of Theatre B.A. and B.G.S. students work intensively on acquiring theatre skills and knowledge in classrooms, studios, and laboratories. Undergraduates pursuing the B.A. or B.G.S. may choose from two emphases: Theatre, Culture, and Society or Performance.
The Performance concentration prepares theatre majors for a career as a professional actor. Through small-class studio courses and department productions, our program provides talented performing artists with a solid foundation in acting, movement, voice and speech, improvisation, and musical theatre.

The Theatre, Culture and Society concentration is designed for students interested in studying the cultural and social underpinnings of theatre and performance along with courses in acting, directing and design and with participation in University Theatre production. The TCS concentration provides the critical, analytical, and historical education that is the foundation of a liberal arts degree.

Both the Bachelor of Arts (B.A.) and Bachelor of General Studies (B.G.S.) require 40 hours. The primary distinctions between the B.A. and the B.G.S. degree are the foreign language requirement (required of the B.A. but not the B.G.S.) and 18 hours junior/senior concentration or minor (required for the B.G.S but not the B.A.).

There are no major admission requirements for the B.A. or B.G.S. in Theatre.

Students considering a theatre major should enroll in THR 106 and THR 101 and complete all 100- and 200-level courses in the first 2 years of study. It is imperative that theatre students earn practicum credit (THR101, 201, 301) early in their careers at KU.

Requirements for the B.A. and B.G.S. Major

Both the B.A. and B.G.S. require 40 hours. The distinction between the B.G.S. degree and the B.A. degree is found in College of Liberal Arts and Sciences requirements.

Theatre, Culture, and Society Emphasis

The following 40 hours are required: (40 hours)

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>THR 101</td>
<td>Theatre Practicum I</td>
<td>1</td>
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<tr>
<td>THR 106</td>
<td>Acting I</td>
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<td>THR 201</td>
<td>Theatre Practicum II</td>
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<td>THR 215</td>
<td>Approaching Design</td>
<td>3</td>
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<td>THR 308</td>
<td>Script Analysis</td>
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<td>Select two of the following:</td>
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<td>THR 216</td>
<td>Scenic Production</td>
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<td>THR 220</td>
<td>Costume Production</td>
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<td>THR 224</td>
<td>Lighting Production</td>
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<td>Select one of the following:</td>
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<td>THR 301</td>
<td>Theatre Practicum III</td>
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<td>THR 401</td>
<td>Stage Management and Assistant Direction</td>
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<td>Select two of the following:</td>
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<tr>
<td>THR 525</td>
<td>History of Theatre</td>
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<td>THR 526</td>
<td>History of Theatre II</td>
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<td>THR 528</td>
<td>History of U.S. Theatre and Drama</td>
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<td>Select 18 hours from the following:</td>
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<td></td>
</tr>
<tr>
<td>THR 209</td>
<td>Play Reading for Performance</td>
<td></td>
</tr>
<tr>
<td>THR 302</td>
<td>Undergraduate Seminar in: _____</td>
<td></td>
</tr>
<tr>
<td>THR 304</td>
<td>Study Abroad Topics in: _____</td>
<td></td>
</tr>
</tbody>
</table>

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours

Satisfied by 40 hours of major courses.

Major Hours in Residence

Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Performance Emphasis

The following 40 hours are required: (40 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 101</td>
<td>Theatre Practicum I</td>
<td>1</td>
</tr>
<tr>
<td>THR 106</td>
<td>Acting I</td>
<td>3</td>
</tr>
<tr>
<td>THR 201</td>
<td>Theatre Practicum II</td>
<td>1</td>
</tr>
<tr>
<td>THR 206</td>
<td>Acting II</td>
<td>3</td>
</tr>
<tr>
<td>THR 212</td>
<td>Beginning Voice and Speech for Actors</td>
<td>3</td>
</tr>
<tr>
<td>THR 213</td>
<td>Movement I: The Acting Instrument</td>
<td>3</td>
</tr>
<tr>
<td>THR 215</td>
<td>Approaching Design</td>
<td>3</td>
</tr>
<tr>
<td>THR 308</td>
<td>Script Analysis</td>
<td>3</td>
</tr>
<tr>
<td>Select two of the following:</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>THR 216</td>
<td>Scenic Production</td>
<td></td>
</tr>
<tr>
<td>THR 220</td>
<td>Costume Production</td>
<td></td>
</tr>
<tr>
<td>THR 224</td>
<td>Lighting Production</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>THR 301</td>
<td>Theatre Practicum III</td>
<td></td>
</tr>
<tr>
<td>THR 401</td>
<td>Stage Management and Assistant Direction</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following: 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 304</td>
<td>Study Abroad Topics in: _____</td>
<td></td>
</tr>
</tbody>
</table>
Select two of the following:  

- THR 525 History of Theatre  
- THR 526 History of Theatre II  
- THR 528 History of U.S. Theatre and Drama

Select 9 hours from the following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 210</td>
<td>Musical Performance for the Actor I</td>
</tr>
<tr>
<td>THR 306</td>
<td>Acting III</td>
</tr>
<tr>
<td>THR 310</td>
<td>Musical Performance for the Actor II</td>
</tr>
<tr>
<td>THR 312</td>
<td>Acting with an Accent</td>
</tr>
<tr>
<td>THR 313</td>
<td>Movement II: Physical Characterization</td>
</tr>
<tr>
<td>THR 401</td>
<td>Stage Management and Assistant Direction (if not taken for core)</td>
</tr>
<tr>
<td>THR 404</td>
<td>Children and Drama</td>
</tr>
<tr>
<td>THR 406</td>
<td>Audition Techniques</td>
</tr>
<tr>
<td>THR 410</td>
<td>Musical Performance for the Actor III</td>
</tr>
<tr>
<td>THR 506</td>
<td>Acting for the Camera</td>
</tr>
<tr>
<td>THR 508</td>
<td>Fundamentals of Directing</td>
</tr>
<tr>
<td>THR 512</td>
<td>A Vocal Approach to the Classics</td>
</tr>
<tr>
<td>THR 603</td>
<td>Theatre for Young Audiences</td>
</tr>
<tr>
<td>THR 609</td>
<td>Play Directing</td>
</tr>
</tbody>
</table>

1 Other THR courses (such as special topics) not listed among the electives above are normally eligible as substitutes with advisor’s permission.

Departmental Honors

An undergraduate interested in honors in theatre must present a written declaration of intention to the department’s honors coordinator as early as possible in the junior or senior year. The following are required:

1. A grade-point average at the time of declaration and at graduation of at least 3.25 overall and 3.5 in theatre courses.
2. A maximum of 6 hours in THR 498 Honors Seminar. Enrollment in this course must be approved by the honors coordinator. Students in the honors seminar work under the direction of one instructor for each semester. The instructor conducts an examination at the end of each semester’s work and assigns a grade. Credit only is given to students who complete the work assigned for any semester but do not complete the requirements for honors. Students may change area of interest or instructor at the beginning of a semester with the consent of the honors coordinator.
3. Satisfactory performance in a final oral examination given approximately one month before graduation.

Bachelor of Fine Arts in Theatre Design

Bachelor of Fine Arts (B.F.A.) in Theatre Design is intended as general preparation for the professional designer of scenery, costumes or lighting working in theatre and/or film or as preparation for graduate studies. Students learn through small-class studio courses, laboratories, and involvement in productions in the University Theatre. The degree is offered cooperatively by the Department of Theatre and Department of Visual Arts. Student in the B.F.A. Theatre Design take 69 hours in the Departments of Theatre, Visual Art, and Art History in addition to the KU Core and electives.

B.F.A. in Theatre Design Degree Requirements

The program leading to the B.F.A. degree in theatre design is offered cooperatively by the School of the Arts and the Department of Theatre. It requires 6 hours of foundational coursework, 63 additional hours in the major, and completion of the KU Core, as well as additional general electives, for a total of 120 hours.

Foundations: Art and Design (57)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>Drawing I</td>
</tr>
<tr>
<td>ART 102</td>
<td>Drawing II</td>
</tr>
</tbody>
</table>

Core Theatre Courses (30)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 100</td>
<td>Introduction to the Theatre</td>
</tr>
<tr>
<td>THR 106</td>
<td>Acting I</td>
</tr>
<tr>
<td>THR 215</td>
<td>Approaching Design</td>
</tr>
<tr>
<td>THR 216</td>
<td>Scenic Production</td>
</tr>
<tr>
<td>THR 220</td>
<td>Costume Production</td>
</tr>
<tr>
<td>THR 224</td>
<td>Lighting Production</td>
</tr>
<tr>
<td>THR 308</td>
<td>Script Analysis</td>
</tr>
<tr>
<td>THR 508</td>
<td>Fundamentals of Directing</td>
</tr>
<tr>
<td>THR 520</td>
<td>History of Period Style I</td>
</tr>
<tr>
<td>THR 521</td>
<td>History of Period Style II</td>
</tr>
</tbody>
</table>

Graduation Plan

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please consult the department for details.
The University of Kansas

THR 525  History of Theatre
THR 526  History of Theatre II

Theatre Design Concentration
THR 116  Scenographic Techniques  3
THR 316  Beginning Scene Design  3
THR 320  Beginning Costume Design  3
THR 324  Beginning Lighting Design  3

Theatre design electives from an approved list  9

History of Art:
HA 150  Western Art History I: Ancient Through Medieval Art
HA 151  Western Art History II: Renaissance to Contemporary Art

History of art or architecture electives

General Electives

• Additional credit hours of general electives are needed to meet the minimum total hours required for graduation.

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 69 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 27 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://www.collegesas.ku.edu/GPAcalculator.shtml).

Minor in Theatre

The Department of Theatre welcomes non-majors who wish to learn more about acting, drama, design, theatre history, and technical theatre through the completion of a minor. Students minoring in theatre are welcome to audition for department productions and serve on backstage technical crews.

Requirements for the Minor

A minimum of 18 hours is required for the minor; 12 hours must be numbered 300 and above.

Theatre Minor Course Requirements

Minors must complete each of the following:

Theatre Core Knowledge and Skills (12)
Minors must complete courses in each of the following core areas:

Theatre Practicum I. Satisfied by:
THR 101  Theatre Practicum I  1
Acting I. Satisfied by:
THR 106  Acting I  3
Theatre Production. Satisfied by completion of one of the courses:
THR 216  Scenic Production
THR 220  Costume Production
THR 224  Lighting Production
Select two of the following:

History of Theatre I. Satisfied by:
THR 525  History of Theatre
History of Theatre II. Satisfied by:
THR 526  History of Theatre II
History of U.S. Theatre and Drama. Satisfied by:
THR 528  History of U.S. Theatre and Drama

Theatre Required Electives (6)
Satisfied by 2 courses (6 hours) from the following*:  6
THR 302  Undergraduate Seminar in: _____
THR 326  African Theatre and Drama
THR 327  African-American Theatre and Drama
THR 404  Children and Drama
THR 405  Children and Media
THR 527  Asian Theatre and Performance
THR 528  History of U.S. Theatre and Drama
THR 529  Race and the American Theatre
THR 603  Theatre for Young Audiences
THR 626  Myth and the Dramatist
THR 725  Russian Theatre and Drama from Stanislavsky and Chekhov to the Present

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 hours of KU resident credit in the minor.

Minor Junior/Senior (300+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses (300+) in the minor. GPA calculations include all departmental courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://www.collegesas.ku.edu/GPAcalculator.shtml).

Master of Arts in Theatre

The Master of Arts in Theatre Studies helps students to begin developing a broad, comparative grasp of the major methods, approaches and protocols currently used in both the study and practice of theatre and related art forms. Special emphasis is placed on (1) an analytic
understanding of specific episodes in the history of theatre and similar 
genres of enactment, (2) the ability to grasp the assumptions and practical 
protocols that are or have been influential in the creation of theatrical art, 
and (3) the capacity to examine and appreciate the way theatre influences 
and is influenced by the context in which it occurs.

By virtue of its broad regard for the way context and live performance 
interact, the M.A. helps to prepare students for leadership roles in 
community and regional arts organizations, especially when course work 
is complemented by a thesis about the arts in community. Several states 
regard an M.A. in theatre to be a creditable enhancement of a teacher’s 
qualifications in grades K-12. In addition, the focus on those assumptions 
and history that shape theatre studies and production provide students 
with a strong transition to a Ph.D. program.

Graduate Admission

To be admitted, a student ordinarily is expected to have a Graduate 
Record Examination score of at 148 (verbal), 144 (quantitative), and 4.5 
(analytical writing). Students who took the GRE before the implementation 
of the analytical writing section (i.e., before October 2002) will be 
expected to have an analytical score of 600 or above.

How to Apply

To apply for Fall admission, please submit all application materials no 
later than: January 1 (to be considered for admission with financial 
support) or February 15 (for admission consideration without financial 
support). The Department does not admit new students for the Spring or 
Summer terms.

Please visit the Department of Theatre (http://www.theatre.ku.edu) for 
more information about graduate application materials required.

M.A. Degree Requirements

The Master of Arts in theatre is an academic degree, but students are 
expected to complete 6 hours in theatrical production. All M.A. students 
must write a thesis as the culmination of the degree.

To complete the M.A., the student must sustain a grade-point average of 
3.0 or higher through 33 graduate credit hours.

Requirements for the M.A. in Theatre

A total of 33 hours is required.

<table>
<thead>
<tr>
<th>Core Requirement (15)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 800</td>
<td>Introduction to Graduate Study in Theatre (to be taken the first semester in residence)</td>
</tr>
<tr>
<td>In consultation with an advisor, students choose from among departmental courses in theatre history, dramatic literature, theory, and criticism</td>
<td>6</td>
</tr>
<tr>
<td>Production - Select two courses in either directing or scenography:</td>
<td>6</td>
</tr>
<tr>
<td>A. Directing</td>
<td></td>
</tr>
<tr>
<td>THR 609</td>
<td>Play Directing</td>
</tr>
<tr>
<td>THR 715</td>
<td>Problems and Techniques of Direction</td>
</tr>
<tr>
<td>THR 815</td>
<td>Advanced Play Production</td>
</tr>
<tr>
<td>B. Scenography</td>
<td></td>
</tr>
<tr>
<td>THR 516</td>
<td>Scenic Painting Techniques</td>
</tr>
<tr>
<td>THR 517</td>
<td>Computer-Aided Design</td>
</tr>
</tbody>
</table>

General Theatre Studies (15)

Select 15 hours of courses from graduate offerings in theatre history, dramatic literature, history and criticism: Of these 15 hours, up to 6 may be graduate courses from other areas such as film and media studies; child psychology; American studies; African and African-American studies; women, gender, and sexuality studies; developmental psychology; English; and pertinent offerings from language and culture programs.

Completion of the Degree (3)

An oral examination structured around a thesis based on scholarly and/or creative research:

| THR 899 | Master's Thesis | 3 |

All courses should be selected in consultation with the advisor.

Master of Fine Arts in Theatre Design-Scenography Concentration

The M.F.A. in Scenography is a three-year integrated program of study leading to a Master of Fine Arts degree, the terminal degree for professionals working in design for theatre, film, and television. Scenography classes are at the core of the curriculum and students will develop a portfolio in a wide variety of theatrical and performance genres. Students will design in both the large Crafton-Preyer proscenium stage and the William Inge Memorial theatre (black box). Opportunities exist to work with new technologies in theatre design, including Virtual Realities.

To be admitted, a prospective M.F.A. candidate must have a cumulative undergraduate GPA of at least 3.0 on a 4.0 scale and submit a design portfolio with work record and three letters of recommendation.

Visit the Department of Theatre (http://theatre.ku.edu) for more information about application materials required.

M.F.A. in Theatre Design with a Concentration in Scenography Degree Requirements

Scenography classes are at the core of the curriculum. While in the program, students will design at least 4 realized productions in the University Theatre program. They will do at least 1 lighting, 1 costume and 1 scenic design, and preferably a combination of 2 or all design areas for 1 production. Design assignments, made by the scenography faculty, will be based on the students’ experience and interests (i.e., a student with little experience in lighting design will be given a less challenging project in the smaller theatre).

Students work with the KU Theatre’s professional staff in the realization of their designs. Successful scenography students at the University of Kansas have come from a variety of backgrounds, including theatre, art and design, illustration and architecture. Students with deficiencies in
theatre production, theatre and/or art history, and painting and drawing may be required to take undergraduate courses in these areas, which could result in a longer program.

To complete the M.F.A., the student must sustain a grade-point average of 3.0 or higher through 60 graduate credit hours. The following guidelines govern the distribution of hours:

**Core Requirement (3)**

- THR 703 Directed Readings in Theatre 3

**Concentration Requirements (57)**

- THR 518 Scenography and the Classic Script 3
- THR 519 Scenography and the Modern Script 3
- THR 618 Scenography and the Musical Theatre 3
- THR 619 Scenography and the Contemporary Script 3
- THR 620 Scenography and the Experimental Production 3
- THR 719 M.F.A. Production Seminar (3 hour course taken 2 times) 6
- THR 801 Professional Development Seminar 1
- THR 802 Master’s Projects 6
- THR 819 Advanced M.F.A. Production Seminar 3
- THR 819 Advanced M.F.A. Production Seminar 3
- THR 898 Investigation and Conference (for Master’s Students) 6
- THR 899 Master’s Thesis 2
- Electives: no limit, but a minimum of 15 hours for a total of 60 hours 15

**Doctor of Philosophy in Theatre**

The purpose of the Ph.D. in Theatre is to develop leaders in the areas of both studies and practice. The curriculum requires an intense exposure to critical theory, history and historiography, and the craft and art of performance, especially directing. The majority of graduates become teachers in higher education, artists or both. Recent and former students from the M. A. and Ph.D. programs work or have worked across a wide array of academic and artistic settings, including Southern Methodist University, The Ohio State University System, Chapman College, Washburn University, CBS, Disney Productions, University of Costa Rica, University of Minnesota (Morehead), Southern Illinois University, University of Georgia, Texas Christian University, University of Minnesota (Duluth), University of Arizona, and Converse College.

Applicants for the Ph.D. program in Theatre must hold the M.A. or M.F.A. in theatre or a related field. To be admitted, a student will ordinarily be expected to have a Graduate Record Examination score of at least 148 (verbal), 144 (quantitative), and 4.5 (analytical writing). Students who took the GRE before the implementation of the analytical writing section (i.e., before October 2002) will be expected to have an analytical score of 600 or above. Applicants should also have a grade-point average of at least 3.2 for undergraduate and at least 3.5 for graduate work; and a master’s degree acceptable to the graduate faculty. Deficiencies in a student’s background may necessitate remedial courses. These courses do not count toward the degree requirements.

Visit the Department of Theatre (http://theatre.ku.edu) for more information about application materials required.

To apply for Fall admission into the Ph.D. program, please submit all application materials no later than: January 1 (to be considered for admission with financial support) or February 15 (for admission consideration without financial support.). The Department does not admit new students for the Spring or Summer terms.

**Ph.D. Degree Requirements**

The Ph.D. is an academic degree, but students must demonstrate competence in at least 1 production area. Normally the Ph.D. requires 60 hours not including Research Skills and Responsible Scholarship requirements. All courses must be chosen in consultation with an advisor.

**Core Requirements**

12 hours of core courses are required. In consultation with an advisor, students choose from departmental courses in theatre history, dramatic literature, theory, and criticism.

**Elective Requirements**

9 hours of electives are required. Elective courses focus on the academic study of theatre/performance history, theory, and related methodologies. Courses are selected with a graduate advisor to reflect the student’s special interest. Some courses may be taken outside theatre, for example in film and media studies, English, American studies, African and African-American studies, and history.

**Secondary Field Requirements**

Students choose 9 hours at the graduate level from outside the department to assist them in writing the dissertation. Courses are related to the student’s proposed specialization. (See examples under Elective Requirements.)

**Production Courses**

6 hours of production courses are required. To become competent artists as well as developing research scholars, students choose a sequence of graduate courses in either scenography or directing.

**Research Skills and Responsible Scholarship**

Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current policies on Doctoral Research Skills and Responsible Scholarship are listed under Degree Requirements in Graduate Studies section of the online catalog.

**Comprehensive Examination**

The comprehensive examination (6 credit hours) is an essential element of the doctoral program, providing an opportunity for students to focus and consolidate the diverse strands of their graduate course work, to demonstrate competence for teaching in particular subject areas, and to establish a strong foundation for moving on to the dissertation. It consists of 3 parts:

1. A written examination, which covers 4 or 5 areas of expertise. Ordinarily, each area corresponds to a member of the student’s committee.
2. Submission of 2 publishable papers of article length (5,000 to 8,000 words) that demonstrate the student’s ability to research and write original scholarship at a level appropriate to the field. Publishable papers may be revised versions of papers submitted in KU courses. Publishable papers must be submitted on the first day of the written examination.
3. An oral examination, given 2 to 4 weeks after the written examination. The oral examination lasts about 90 minutes and may revisit material covered in the written examination, the publishable papers, and/or other material as deemed appropriate by the committee. While preparing for the examination, students may enroll twice in THR 998 Investigation and Conference (for Doctoral Students).

Dissertation

Doctoral candidates are required, after passing the comprehensive oral examination, to be continuously enrolled in one or more hours of dissertation or programmatically equivalent coursework that both moves the student towards degree completion and reflects, as accurately as possible, the candidate’s demands on faculty time and university facilities. During this time, until all requirements for the degree are completed (including the filing of the dissertation) or until 18 post-comprehensive hours have been completed (whichever comes first), the candidate must enroll for a minimum of 6 hours a semester and 3 hours a summer session.

Department of Visual Art

Introduction

The University of Kansas is a member of the National Association of Schools of Art and Design (http://nasad.arts-accredit.org). The entrance and graduation requirements in this catalog conform to the published guidelines of those organizations.

Undergraduate Programs

Advanced Placement in Art and Design

Students who score 3, 4, or 5 on the CEEB Advanced Placement Examination may receive up to 3 credit hours in art studio electives. Advanced placement credit does not exempt students from foundations requirements.

Advising

Students admitted to work toward B.F.A., B.A., or B.A.E. degrees are advised by the advising specialist until foundations courses are complete, usually two semesters. After a student has completed 12 hours of foundations courses, he or she is advised by faculty members in their chosen concentration. Check sheets describing each program in complete detail are available from the Art and Design office, 300 Art and Design Building, or online (http://art.ku.edu). History of Art, information is available from the Kress Foundation Department of Art History (http://www2.ku.edu/~kuarthis). Students are encouraged to seek advice from any faculty member in a specific area of interest.

Students are expected to spend time outside of class working in the studio. For each credit hour in class another three hours of work will be expected outside of class time. It is normally expected that for 3 credit hours of studio a student will spend 9-15 hours per week working and studying for the entire 15 weeks during the semester.

Graduate Programs

The Department of Visual Art offers graduate programs leading to the Master of Fine Arts degree in visual art. Concentrations include ceramics, drawing and painting, expanded media, fibers, metalsmithing and jewelry, printmaking, and sculpture. A Master of Arts degree in visual art education and graduate licensure in art education are also available through the Department of Visual Art.

Courses

ADSC 177. First Year Seminar: _____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Advanced Design Studies College. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

ADSC 560. Topics in Design: _____. 1-3 Hours.
A study of different topics in different semesters in a special area of interest to a staff member and suitable qualified students. May be repeated for credit. Prerequisite: Junior standing in department. LAB.

ADSC 580. Special Problems in Design. 1-6 Hours.
A study of current problems in design or crafts with an emphasis on research. Special problems proposals must be discussed with and approved by the instructor and advisor prior to enrollment in the course. A student may not take more than six credit hours of special problems in any one semester. Prerequisite: Junior standing in department. IND.

ADSC 810. Orientation Seminar. 1 Hour.
Studies directed to development of a thesis plan. Required of all graduate students. Offered in fall semester only. Graded S or F. LEC.

ART 101. Drawing I. 3 Hours. GE11 / U.
Basic problems in drawing. LAB.

ART 102. Drawing II. 3 Hours.
Continuation of ART 101. Prerequisite: ART 101. LAB.

ART 103. Art Concepts and Practice. 3 Hours. U.
A companion course to ART 104. Lecture and studio experiences across disciplines emphasizing conceptual fundamentals, technical/skill development, visual sensibility, critical thinking and professional topics in art. LEC.

ART 104. Art Principles and Practice. 3 Hours. U.
A companion course to ART 103. Lecture and studio experiences across disciplines emphasizing conceptual fundamentals, technical/skill development, visual sensibility, critical thinking and professional topics in art. LEC.

ART 120. Fundamentals of Drawing and Painting. 3 Hours.
Open to all university students. Specifically for students with limited or no previous experience. An exploration of basic technical and expressive possibilities in drawing and painting; may include field trips, films, visiting lecturers. Six hours scheduled studio activity and three hours outside work weekly. LAB.

ART 121. Fundamentals of Printmaking. 3 Hours.
Open to all university students. Specifically for students with limited or no previous experience. An exploration of basic technical and expressive possibilities in printmaking, including woodcut, etching, lithography and silk screen; may include field trips, films, visiting lecturers. Six hours scheduled studio activity and three hours outside work weekly. LAB.

ART 122. Fundamentals of Sculpture. 3 Hours.
Open to all university students. Specifically for students with limited or no previous experience. An exploration of basic technical and expressive possibilities in three-dimensional form and space, including sculpture, modeling, carving, and construction; may include field trips, films, visiting lecturers. Six hours scheduled studio activity and three hours outside work weekly. LAB.
ART 123. Fundamentals of Expanded Media. 3 Hours. GE3H / U.
Open to all university students. Specifically for students with limited or no previous experience. An exploration of basic technical and expressive possibilities in Expanded Media, including Installation, Performance, Video and other Digital technologies; may include field trips, films, and/ or visiting lecturers. Six hours scheduled studio activity and three hours outside work weekly. LAB.

ART 130. Fundamentals of Fiber Forms. 3 Hours. U.
Open to all university students. Studio exploration of fibers as an art form and means of personal expression. Emphasis is placed on three-dimensional objects. A variety of interlacement, construction, and dye techniques are introduced. LAB.

ART 131. Fundamentals of Ceramics. 3 Hours.
Open to all university students. Specifically for students with limited or no previous experience. An introduction to ceramics including throwing, handbuilding, glazing, firing, and related activities. LAB.

ART 132. Fundamentals of Metalsmithing/Jewelry. 3 Hours. GE3H.
Open to all university students. Specifically for students with limited or no previous experience. A comprehensive study of the field of jewelry and metalsmithing with an emphasis on the tools, processes, and techniques used in the design and fabrication of objects from metals such as aluminum, brass, copper, bronze, sterling and related materials. Studio experience will include lectures, slide presentations, demonstrations, visiting artist, and student projects. LAB.

ART 133. Fundamentals of Fibers. 3 Hours. GE3H / U.
Open to all university students. Studio exploration of fibers as an art form and means of personal expression. A variety of dyeing, construction, and surface embellishment techniques will be introduced. LAB.

ART 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Art. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

ART 201. Color Theory. 3 Hours.
An introduction to the basic color theories and their application. Presentation of the relationship between pigment and light, and of additive and subtractive color mixing. Prerequisite: ART 101, and ART 103 or ART 104. LAB.

ART 300. Special Topics in Visual Art: ______. 1-4 Hours.
Course to be offered in related areas of research, mixed media or interdisciplinary exploration. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LAB.

ART 305. Visual Language. 3 Hours. H.
This course explores visual language and its relationship to cultural meaning. We examine the ways that cultural experience both influences and is influenced by artistic expression. An investigation of artistic practice and its basic elements and principles is used to demonstrate the connections between visual perception and the interpretation of visual experience. Examples from the arts and popular culture are used to illustrate the ways that we create meaning from the things we see. This course is open to all university students. Prerequisite: ENGL 101 and ENGL 102 or equivalent, or completion of the KU Core Written Communication requirements (Goal 2.1). LEC.

ART 310. Build Smart. 3 Hours. U.
Introduction to the experience and culture of building projects by hand. Students analyze and determine the best ways to build. Students also become familiar with tools, machines, building practices and material necessary for wood and steel fabrication. Prerequisite: ART 103, ART 104, or permission of the instructor. LEC.

ART 375. Directed Readings in Visual Art. 1-3 Hours. U.
Directed reading in specific areas of visual art. May be repeated for credit in subsequent semesters. Prerequisite: ART 102, ART 103 and ART 104; and six hours of Visual Art courses, or permission of instructor. IND.

ART 395. Study Abroad Topics in: ______. 1-6 Hours. H.
This course is designed for the study of special topics in Visual Art. Credit for course work must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. Open to all students. LEC.

ART 500. Advanced Special Topics in Visual Art: ______. 1-4 Hours.
Course to be offered in related areas of research, mixed media or interdisciplinary exploration. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Visual Art courses, or permission of instructor. LEC.

ART 540. Professional Activities Seminar. 3 Hours.
Comprehensive development of skills and strategies needed to pursue a career as a professional studio artist. Prerequisite: Twenty-four hours of departmental electives or permission of instructor. LEC.

ART 575. Advanced Directed Reading in Visual Art. 1-3 Hours.
Directed reading in specific areas of visual art. May be repeated for credit in subsequent semesters. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Visual Art courses, or permission of instructor. IND.

ART 590. Internship in Visual Art. 1-3 Hours. U.
Practical experience in the use of artistic skills in approved and supervised academic or professional settings. May be repeated for credit; no more than six hours may be applied to the B.A. or B.F.A. degree. Credit hours are graded on a satisfactory/unsatisfactory basis, according to the written recommendation provided by the internship supervisor to the faculty advisor. Prerequisite: ART 102, ART 103, and ART 104; and fifteen hours of Visual Art courses; and prerequisite of instructor. FLD.

ART 595. Advanced Study Abroad Topics in: ______. 1-6 Hours. H.
This course is designed for the study of special topics in Visual Art at the senior/graduate level. Credit for course work must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. Open to seniors and graduate level students. LEC.

ART 598. Special Topics: Studio Theory and Criticism. 3 Hours.
Lecture, discussion, and supervised research in current topics related to contemporary studio theory and criticism. May be repeated for credit as topics vary. This course will be counted as free electives in course distribution. Prerequisite: Eighteen hours of departmental electives. LEC.

Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor’s degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Visual Art courses; and permission of instructor. Does not fulfill ART 695/ART 696 requirement. IND.

ART 695. Directed Study I. 3 Hours.
Individual studio activity under direction of faculty advisor; capstone experience. Prerequisite: Thirty hours of departmental electives, consent of department, and permission of instructor. IND.
ART 696. Directed Study II. 4 Hours. AE61.
Continuation of ART 695; capstone experience. May be repeated for credit in subsequent semesters. Prerequisite: ART 695 and permission of instructor. IND.

ART 801. Directed Study III. 2-5 Hours.
Individual studio activity under the direction of faculty member. May be repeated for credit in subsequent semesters. Prerequisite: Permission of graduate director and enrollment in the Visual Art MFA program. RSH.

ART 802. Directed Study IV. 2-5 Hours.
Continuation of Directed Study III. Prerequisite: Enrollment in the Visual Art MFA Program. RSH.

ART 803. Directed Study V. 2-5 Hours.
Continuation of Directed Study IV. Prerequisite: Enrollment in the Visual Art MFA Program. RSH.

ART 805. Graduate Studio. 1-3 Hours.
Individual graduate studio research in visual art. Course content to be determined by the student under the supervision of a graduate faculty member. May be repeated for credit. Prerequisite: Graduate standing in The School of The Arts and permission of the instructor. RSH.

ART 861. Directed Reading in Visual Art. 1-3 Hours.
Research reading and presentation of reports on specific subjects related to the student’s major area of specialization. Prerequisite: Enrollment in the MFA Program in the Department of Visual Art. RSH.

ART 877. Graduate Seminar. 3 Hours.
The graduate seminar emphasizes professional preparation for contemporary artists focusing on writing skills, oral presentations, critiques of individual creative research/artwork, critical thinking about and visual analysis of current art forms and contemporary approaches to the teaching of studio art. Prerequisite: Admission to the Graduate Program in Visual Art. SEM.

ART 898. Special Topics: Studio Theory and Criticism. 3 Hours.
Lecture, discussion, and supervised research in current topics related to contemporary studio theory and criticism. May be repeated for credit as topics vary. This course will be counted as a graduate level academic elective in course and credit distribution. LEC.

ART 899. Graduate Seminar. 1 Hour.
Weekly discussion of issues and/or work in art. (Graded on a satisfactory/ or F basis.) Repeat for credit in subsequent semesters. SEM.

ART 906. Graduate Studio. 1-3 Hours.
Individual graduate studio research in visual art. Course content to be determined by the student under the supervision of a graduate faculty member. May be repeated for credit. Prerequisite: ART 805 and permission of the instructor. RSH.

Original research in visual art culminating in a thesis exhibition. May be repeated for credit. Prerequisite: Thirty-six credit hours of graduate credit and permission of the graduate review committee. THE.

CER 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Ceramics. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

CER 208. Ceramics I. 3 Hours.
The development of form and surface through the use of handbuilding and wheel thrown techniques. Stoneware and Raku are explored. Prerequisite: ART 102 and ART 104. LAB.

CER 300. Special Topics in Ceramics: ______. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

CER 301. Ceramics II. 3 Hours.
A continuation of ART 131 and/or CER 208 with emphasis in firing low temperature ceramics. An introduction to glaze formulation and firing procedures through the use of earthenware and low temperature talc bodies. Prerequisite: ART 131 or CER 208. LAB.

CER 402. Ceramics III. 3 Hours.
A study of high fire ceramics using stoneware and porcelain. The development of ceramic forms and shapes utilizing traditional and nontraditional techniques such as salt glaze, wood firing, oxidation, and reductions. Prerequisite: ART 131 or CER 208. LAB.

CER 500. Advanced Special Topics Ceramics: ______. 1-4 Hours. U.
Course to be offered in an area of specific interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Ceramics courses, or permission of instructor. LEC.

CER 504. Kilns. 3 Hours.
The principles in kiln design, including up-draft, down-draft, cross-draft, and electric kilns, and burner technology. Prerequisite: CER 301. LEC.

CER 505. Clay and Glaze Formulation. 3 Hours.
Formulation of the various clay bodies and glazes associated with ceramics. Prerequisite: CER 301. LEC.

CER 506. Production. 6 Hours.
Procedures, techniques, problems, and solutions for setting up and operating a production pottery studio, including the development of ceramic forms and glazes related to marketability and design and mold production for industry. May be repeated for credit. Prerequisite: CER 301 and CER 302. LAB.

CER 515. Advanced Ceramics I. 3-6 Hours. AE61.
Development of individual direction in ceramics based on experience, research, and skills acquired in previous courses; capstone experience. May be repeated for credit. Prerequisite: CER 301 and CER 402. LAB.

CER 520. Advanced Ceramics II. 3-6 Hours. AE61 / U.
Continuation of CER 515; capstone experience. May be repeated for credit. Prerequisite: CER 515. LAB.

CER 590. Internship in Ceramics. 1-3 Hours. U.
Practical experience in the use of artistic skills in approved and supervised academic or professional settings. May be repeated for credit; no more than six hours may be applied to the B.A. or B.F.A. degree. Credit hours are graded on a satisfactory/unsatisfactory basis, according to the written recommendation provided by the internship supervisor to the faculty advisor. Prerequisite: ART 102, ART 103, and ART 104; and fifteen hours of Visual Art courses; and permission of instructor. FLD.

CER 599. Individual Studies in Ceramics. 1-6 Hours. AE61 / U.
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor’s degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Ceramics courses or permission of instructor. IND.

CER 715. Ceramics. 2-6 Hours.
Individual research. Prerequisite: CER 515 or equivalent. RSH.
CER 725. Glass. 2-6 Hours.
Individual research. Prerequisite: Approval of instructor. RSH.

CER 815. Ceramics. 2-6 Hours.
Continuation of CER 805. RSH.

CER 825. Glass. 2-6 Hours.
Individual research. Prerequisite: Approval of instructor. RSH.

DRWG 177. First Year Seminar: _____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Drawing. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

DRWG 203. Drawing III. 3 Hours.
Advanced problems in drawing. Prerequisite: ART 102. LAB.

DRWG 213. Life Drawing I. 3 Hours.
Figure drawing. Prerequisite: ART 102 and ART 103 or ART 104. LAB.

DRWG 300. Special Topics in Drawing: _____. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LAB.

DRWG 304. Drawing IV. 3 Hours.
Continuation of DRWG 203. Prerequisite: DRWG 203. LAB.

DRWG 314. Life Drawing II. 3 Hours.
Continuation of DRWG 213. Prerequisite: DRWG 213. LAB.

DRWG 318. Life Drawing II, Honors. 3 Hours.
Figure drawing, a continuation of DRWG 213. Prerequisite: DRWG 213; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

DRWG 335. Special Topics in Drawing: _____. 3 Hours.
Course to be offered in area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: DRWG 203, or DRWG 213, or permission of instructor. LAB.

DRWG 500. Advanced Special Topics in Drawing: _____. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Drawing courses, or permission of instructor. LEC.

DRWG 505. Drawing V. 3 Hours.
Continuation of DRWG 304. Prerequisite: DRWG 304. LAB.

DRWG 506. Drawing VI. 3 Hours.
Continuation of DRWG 505. May be repeated for credit in subsequent semesters. Prerequisite: DRWG 505. LAB.

DRWG 515. Life Drawing III. 3 Hours.
Continuation of DRWG 314. Prerequisite: DRWG 314. LAB.

DRWG 516. Life Drawing IV. 3 Hours.
Continuation of DRWG 515. May be repeated for credit in subsequent semesters. Prerequisite: DRWG 515. LAB.

DRWG 518. Life Drawing III, Honors. 3 Hours.
Figure drawing, a continuation of DRWG 314 or DRWG 318. May be repeated for credit in subsequent semesters. Prerequisite: DRWG 314 or DRWG 318; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

DRWG 519. Life Drawing IV, Honors. 3 Hours.
Figure drawing, a continuation of DRWG 515 or DRWG 518. May be repeated for credit in subsequent semesters. Prerequisite: DRWG 515 or DRWG 518; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

DRWG 535. Special Topics in Drawing: _____. 3 Hours.
Course to be offered in area of special interest to individual faculty, and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: 12 hours of drawing and permission of instructor. LAB.

DRWG 599. Individual Studies in Drawing. 1-6 Hours. AE61 / U.
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor’s degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Drawing courses, or permission of instructor. IND.

DRWG 807. Drawing VII. 3 Hours.
Individual research in drawing. Prerequisite: DRWG 506. RSH.

DRWG 817. Life Drawing V. 3 Hours.
Individual research in figure drawing. Prerequisite: DRWG 516. RSH.

DRWG 908. Drawing VIII. 3 Hours.
Continuation of DRWG 807. Prerequisite: DRWG 807. RSH.

DRWG 918. Life Drawing VI. 3 Hours.
Continuation of DRWG 817. Prerequisite: DRWG 817. RSH.

EXM 177. First Year Seminar: _____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Expanded Media. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

EXM 274. Expanded Media. 3 Hours. U.
Beginning course to introduce the fundamental concepts, strategies, and technologies that comprise the Expanded Media area of the Department of Visual Art: Installation, Performance, and Digital Image. Emphasis is placed on forming ideas and strategies, and creating artwork that considers the core connections within Expanded Media: time, space, the body, the viewer, and society at large. Computer-based technologies and time-based media that are inherent to Expanded Media practice support studio assignments. Coursework includes the investigation and discussion of historic precedents and the development of an appropriate critical dialogue with which to discuss their work. Prerequisite: ART 102, ART 103, and ART 104. LAB.

EXM 300. Special Topics in Expanded Media: _____. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

EXM 301. The Digital Image I. 3 Hours.
Introduction to various still digital processes and skills that encourage the use of digital imagery within a variety of other media. Focus on content issues as they relate to development of artwork incorporating digital imagery. LAB.
EXM 302. Performance Art I. 3 Hours. U.
An introduction to the understanding and production of performance art. Students gain proficiency in conceptualization and production of performance time-based art in an Interdisciplinary art-making environment. Prerequisite: ART 102, ART 103, and ART 104. LAB.

EXM 303. Intermedia I. 3 Hours.
An introduction to the use/handling and integration of diverse, new and traditional materials, techniques and processes. Problems will involve strategies for discovering and managing combinations of drawn, painted, digital and constructed forms. Studio sessions will include research, lecture, demos, and guest speakers. Prerequisite: Permission of instructor. LAB.

EXM 307. Installation Art I. 3 Hours. U.
An introduction to the understanding and production of installed art environments using a variety of media and approaches to art-making. Students gain proficiency in conceptualization and production of installation art in an interdisciplinary art-making environment. Prerequisite: ART 102, ART 103, and ART 104. LAB.

EXM 314. Alternative Approaches in Photography I. 3 Hours. U.
An introduction to the understanding and production of art-making using alternative approaches in photography. Students gain proficiency in conceptualization and production of artwork using alternative approaches in photography in an interdisciplinary art-making environment. Prerequisite: ART 102, ART 103, and ART 104. LAB.

EXM 326. Video and Time-Based Media I. 3 Hours. U.
An introduction to the understanding and production of video and time-based art. Students gain proficiency in conceptualization and production of video and time-based art in an interdisciplinary art-making environment. Prerequisite: EXM 274. LAB.

EXM 500. Advanced Special Topics in Expanded Media: ______. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

EXM 501. The Digital Image II. 3 Hours.
Continuation of EXM 301, The Digital Image I. May be repeated for credit. LAB.

EXM 503. Intermedia II. 3 Hours.
Continuation of EXM 303, Intermedia I. May be repeated for credit. Prerequisite: Permission of instructor. LAB.

EXM 514. Alternative Approaches in Photography II. 3 Hours. U.
Continuation of EXM 314. Prerequisite: EXM 314. LAB.

EXM 526. Video and Time-Based Media II. 3 Hours. U.
Continuation of EXM 326. Prerequisite: EXM 326. LAB.

EXM 535. Intermediate Expanded Media. 3 Hours.
Continuation of Expanded Media studio research. Prerequisite: Two (200- and/or 300-level) Expanded Media courses. LAB.

EXM 536. Intermediate Expanded Media, Honors. 3 Hours.
Continuation of Expanded Media studio research. Prerequisite: Two (200- and/or 300-level) Expanded Media courses; membership in the University Honors Program or 3.25 minimum cumulative grade point average with permission of the department. LAB.

EXM 537. Advanced Expanded Media. 3 Hours.
Continuation of EXM 535. May be repeated for credit. Prerequisite: EXM 535 or EXM 536. LAB.

EXM 538. Advanced Expanded Media, Honors. 3 Hours.
Continuation of EXM 536. May be repeated for credit. Prerequisite: EXM 535 or EXM 536; membership in the University Honors Program or 3.25 minimum cumulative grade point average with permission of the department. LAB.

EXM 541. Graduate Performance Art. 3 Hours.
Students will gain proficiency in conceptualization and production of performance time-based art in an interdisciplinary art-making environment. Prerequisite: Permission of instructor. LAB.

EXM 542. Graduate Installation Art. 3 Hours.
Advanced problems toward the creation of environments using a variety of media including traditional and non-traditional approaches to art-making. Prerequisite: Permission of instructor. LAB.

EXM 543. Graduate: The Digital Image. 3 Hours.
Advanced work focusing on content issues as they relate to development of artwork incorporating digital imagery. Prerequisite: Permission of instructor. LAB.

EXM 544. Graduate Intermedia. 3 Hours.
Advanced work in the use/handling and integration of diverse, new and traditional materials, techniques and processes. Advanced problems will involve strategies for discovering and managing combinations of drawn, painted, digital, and constructed forms. Studio sessions will include research, lecture, demos, and guest speakers. Prerequisite: Permission of instructor. LAB.

EXM 546. Graduate Expanded Media V. 3 Hours.
Continuation of Expanded Media studio research. Prerequisite: Permission of instructor. LAB.

EXM 573. Performance Art II. 3 Hours. U.
Continuation of EXM 302. Prerequisite: EXM 302. LAB.

EXM 574. Performance Art II, Honors. 3 Hours. U.
Continuation of EXM 302. Prerequisite: EXM 302; and membership in the University Honors Program or 3.25 minimum cumulative grade point average with permission of the department. LAB.

EXM 577. Installation Art II. 3 Hours. U.
Continuation of EXM 307. Prerequisite: EXM 307. LAB.

EXM 578. Installation Art II, Honors. 3 Hours. U.
Continuation of EXM 307. Prerequisite: EXM 307; and membership in the University Honors Program or 3.25 minimum cumulative grade point average with permission of the department. LAB.

EXM 599. Individual Studies in Expanded Media. 1-6 Hours. AE61 / U.
Individual studio activity: capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor’s degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Expanded Media courses, of permission of instructor. IND.

EXM 846. Graduate Expanded Media VI. 3 Hours.
Continuation of Expanded Media studio research. Prerequisite: Permission of instructor. LAB.

EXM 946. Graduate Expanded Media VII. 3 Hours.
Continuation of Expanded Media studio research. Prerequisite: Permission of instructor. LAB.

METL 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Metalsmithing/Jewelry. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year
Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

METL 211. Jewelry. 3 Hours. GE3S.
Introduction to metalsmithing and jewelry design, materials and processes. Student projects explore the joining, forming, and surface embellishment of metals such as copper, brass, bronze, and sterling. Prerequisites: ART 102 and ART 104. LAB.

METL 300. Special Topics in Metalsmithing: ______. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

METL 301. Introduction to Casting for Jewelry. 3 Hours.
Introduction to casting and mold making processes used for jewelry and small sculpture. Students explore various methods and materials for creating models for casting in bronze or silver including wax carving, wax modeling, and the use of natural and synthetic materials as models. Models are cast using centrifugal and vacuum casting processes. Basic mold making in clay and silicone are also explored. Prerequisite: ART 132 or METL 211. LAB.

METL 302. Professional Practices. 3 Hours.
The development of a portfolio including designing, rendering, and model making for future projects. Photographing completed objects and discussing professional aspects of the jewelry/metalsmithing field. Prerequisite: Six hours of metalsmithing. LAB.

METL 360. Holloware. 3 Hours.
Problems related to specific smithing techniques such as raising, stretching, shell structures and seam fabrications. Metal manipulation on a large scale. Prerequisite: METL 301. LAB.

METL 362. Metalsmithing. 6 Hours.
Advanced metalworking with an emphasis on the refinement of design and techniques. Processes may include linkage, marriage of metals, metal inlays, hinge and catch fabrication. Prerequisite: METL 301. LAB.

METL 364. Enameling. 6 Hours.
Problems of basic and advanced enameling as applied to jewelry design and metalsmithing objects. Exploration of major enameling techniques: such as limoges, cloissoné, champlevé, and bassetteaille. Prerequisite: Six hours of metalsmithing or consent of instructor. LAB.

METL 500. Advanced Special Topics in Metalsmithing: ______. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

METL 501. Seminar. 3 Hours.
Lectures and demonstrations on techniques of contemporary interest outside of typical classroom activity. Prerequisite: Six hours of metalsmithing. LEC.

METL 503. Gemology. 3 Hours. H.
Students study the optical and physical characteristics of gemstones in order to identify them using gemological instruments. This laboratory and discussion class explores related topics including the principles of optics that support this methodology, history and geographical distribution of gemstones, gemstone cutting and pearl farming, the history of DeBeers and the development of the world demand for diamond, quality analysis of diamond, colored gemstones and pearls, including the history of diamond grading, the development and identification of synthetics, imitations and laboratory enhancements as well as the use of gemstones in designing jewelry. Prerequisite: ART 132. LAB.

METL 504. A History of Jewelry. 3 Hours. H.
This course explores the history from Sumeria to the 21st century of the use of metals and gemstones in the creation of decorative art for personal adornment. Students explore the evolution of the role of jewelry in ancient culture and modern society and survey individuals whose ideas and work influenced generations of goldsmiths and jewelers around the globe. The class studies primitive tools and modern manufacturing techniques, the history of gemstone cutting and setting and the origin and development of gemstones as symbols. Prerequisite: ART 132. LEC.

METL 505. Digital Jewelry Design I. 3 Hours. H.
Matrix is a 3-D CAD program based on Rhino developed by Rhino, specifically for jewelry design. The goal of this course is to instruct beginners in the Matrix design program. Students learn to transform their 2-D designs from their sketchbooks into 3-D models in Matrix, which can be milled in wax, and cast in metal. Students also learn how to render their 3-D Matrix models to appear as if they were a finished object. The class time is structured as a combination of instructor-led tutorials and working labs. Prerequisite: ART 132. LAB.

METL 506. Digital Jewelry Design II. 3 Hours. H.
The second semester of Matrix increases the operating and design skills building on the knowledge of DG I. The focus of the class is producing wax models on the Revo Digital Mill.Digi II covers the advanced modeling skills including T-spline and Rhino. Students also learn how to make a customized tool path for Revo C mill program and how to solve milling problems. Students also learn how to convert Rhino files to produce a 3D print for outsourcing to other 3D modeling programs. Prerequisite: ART 132, METL 301, METL 505. LAB.

METL 515. Advanced Metals I. 6 Hours. AE61.
Emphasis on individual design aesthetic through intensive designing, rendering, and modelmaking as preparation for fabricated pieces of jewelry, holloware, and/or small objects; capstone experience. Prerequisite: METL 362. LAB.

METL 520. Advanced Metals II. 6 Hours. AE61 / U.
Continuation of METL 515; capstone experience. This course requires a final presentation of a complete portfolio including resume, renderings and photographs of the finished work. Prerequisite: METL 515. LAB.

METL 590. Internship in Metalsmithing/Jewelry. 1-3 Hours. U.
Practical experience in the use of artistic skills in approved and supervised academic or professional settings. May be repeated for credit; no more than six hours may be applied to the B.A. or B.F.A. degree. Credit hours are graded on a satisfactory/unsatisfactory basis, according to the written recommendation provided by the internship supervisor to the faculty advisor. Prerequisite: ART 102, and ART 103, and ART 104; and fifteen hours of Visual Art Courses; and permission of instructor. FLD.

METL 599. Individual Studies in Metalsmithing/Jewelry. 1-6 Hours. AE61 / U.
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor’s degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Metalsmithing/Jewelry courses, or permission of instructor. IND.

METL 715. Metals/Jewelry. 2-6 Hours.
Individual research. Prerequisite: METL 515 or equivalent. RSH.
METL 815. Metals/Jewelry. 2-6 Hours.
Continuation of METL 715. RSH.

PNTG 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Painting. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

PNTG 263. Painting I. 3 Hours.
Basic problems in painting. Prerequisite: ART 102, and ART 103 or ART 104. LAB.

PNTG 300. Special Topics in Painting: ______. 1-4 Hours.
Course to be offered in area of studio activity of specific interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

PNTG 337. Watercolor. 3 Hours.
Sessons deal with the preparation of watercolor paints and equipment, but the main emphasis is placed on relational concepts affecting tone, structure, and unity in work. While the students are expected to explore some of the traditional approaches to watercolor, they also are encouraged to work with new and innovative ones. May be repeated for credit. Prerequisite: PNTG 263 or permission of instructor. LAB.

PNTG 338. Landscape Painting. 3 Hours.
An introduction to landscape painting. Considerable work is done out-of-doors. Emphasis is placed upon experiencing the environment and the development of individual approach. May be repeated for credit. Prerequisite: PNTG 263 and permission of instructor. LAB.

PNTG 364. Painting II. 3 Hours.
Continuation of PNTG 263. Prerequisite: PNTG 263. LAB.

PNTG 366. Painting IV. 3 Hours.
Continuation of PNTG 364. Prerequisite: PNTG 364 or PNTG 368. LAB.

PNTG 369. Painting IV, Honors. 3 Hours.
Continuation of PNTG 364 or PNTG 368. Prerequisite: PNTG 364 or PNTG 368; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. IND.

PNTG 500. Advanced Special Topics in Painting: ______. 1-4 Hours.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Painting courses, or permission of instructor. LAB.

PNTG 569. Painting IV, Honors. 3 Hours.
Continuation of PNTG 565 or PNTG 568. Prerequisite: PNTG 565 or PNTG 568; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.
PRNT 233. Lithography I. 3 Hours.
Introduction to lithography. Prerequisite: ART 102, and ART 103 or ART 104. LAB.

PRNT 243. Serigraphy I. 3 Hours.
Introduction to serigraphy. Prerequisite: ART 102, and ART 103 or ART 104. LAB.

PRNT 300. Special Topics in Printmaking: ______. 3 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

PRNT 324. Intaglio II. 3 Hours.
Continuation of PRNT 223. Prerequisite: PRNT 223, or permission of instructor. LAB.

PRNT 325. Relief II. 3 Hours.
Continuation of PRNT 224. Prerequisite: PRNT 224, or permission of instructor. LAB.

PRNT 328. Intaglio II, Honors. 3 Hours.
Continuation of PRNT 223. Prerequisite: PRNT 223; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PRNT 329. Relief II, Honors. 3 Hours.
Continuation of PRNT 224. Prerequisite: PRNT 224; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PRNT 334. Lithography II. 3 Hours.
Continuation of PRNT 233. Prerequisite: PRNT 233 or permission of instructor. LAB.

PRNT 338. Lithography II, Honors. 3 Hours.
Continuation of PRNT 233. Prerequisite: PRNT 233; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PRNT 344. Serigraphy II. 3 Hours.
Continuation of PRNT 243. Prerequisite: PRNT 243 or permission of instructor. LAB.

PRNT 348. Special Problems in Printmaking--Color Printing in Relief and Intaglio. 3 Hours.
Multiple block and plate printing in color. (This course is not regularly offered. The current Schedule of Classes should be consulted.) Prerequisite: PRNT 223 and permission of instructor. LAB.

PRNT 349. Serigraphy II, Honors. 3 Hours.
Continuation of PRNT 243. Prerequisite: PRNT 243; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PRNT 500. Advanced Special Topics in Printmaking: ______. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Printmaking courses, or permission of instructor. LEC.

PRNT 523. Printmaking III A (Intaglio). 3 Hours.
Prerequisite: PRNT 324 or permission of instructor. LAB.

PRNT 524. Printmaking III B (Lithography). 3 Hours.
Prerequisite: PRNT 334 or permission of instructor. LAB.

PRNT 525. Printmaking III C (Serigraphy). 3 Hours.
Prerequisite: PRNT 344 or permission of instructor. LAB.

PRNT 526. Printmaking IV A (Intaglio). 3 Hours.
Prerequisite: PRNT 523 or permission of instructor. LAB.

PRNT 527. Printmaking IV B (Lithography). 3 Hours.
Prerequisite: PRNT 524 or permission of instructor. LAB.

PRNT 528. Printmaking IV C (Serigraphy). 3 Hours.
Prerequisite: PRNT 525 or permission of instructor. LAB.

PRNT 599. Individual Studies in Printmaking. 1-6 Hours. AE61 / U.
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor’s degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Printmaking courses, or permission of instructor. IND.

PRNT 662. Printmaking V. 3 Hours.
Individual research in printmaking. Prerequisite: PRNT 526 or PRNT 527 or PRNT 528. LAB.

PRNT 663. Printmaking VI. 3 Hours.
Continuation of PRNT 662. Prerequisite: PRNT 662. LAB.

PRNT 802. Special Problems in Printmaking. 3 Hours.
Individual research in printmaking: course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters. Prerequisite: PRNT 579 and permission of instructor. RSH.

PRNT 827. Printmaking VII. 3 Hours.
Continuation of PRNT 827. Prerequisite: PRNT 827. LAB.

SCUL 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Sculpture. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

SCUL 253. Sculpture I. 3 Hours.
Introduction to sculpture. Prerequisite: ART 102, ART 103, and ART 104, or permission of instructor. LAB.

SCUL 300. Special Topics in Sculpture: ______. 1-4 Hours.
Course to be offered in an area of studio activity of specific interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104, or permission of instructor. LAB.

SCUL 349. Metal and Glass Casting. 3 Hours.
A course in foundry techniques as related to sculpture. Both traditional and experimental procedures for casting bronze, aluminum, and iron sculpture will be explored. May be repeated for credit. Prerequisite: SCUL 253. LAB.
SCUL 350. Direct Metal Fabrication. 3 Hours.
The course will present a variety of techniques for fabricating metal sculpture. Oxyacetylene and electric arc welding processes will be included. May be repeated for credit. Prerequisite: SCUL 253. LAB.

SCUL 354. Sculpture II. 3 Hours.
Continuation of SCUL 253. Prerequisite: SCUL 253. LAB.

SCUL 355. Sculpture III. 3 Hours.
Continuation of SCUL 354. Prerequisite: SCUL 354. LAB.

SCUL 358. Sculpture II, Honors. 3 Hours.
Continuation of SCUL 253. Prerequisite: SCUL 253; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

SCUL 359. Sculpture III, Honors. 3 Hours.
Continuation of SCUL 354 or SCUL 358. Prerequisite: SCUL 354 or SCUL 358; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

SCUL 500. Advanced Special Topics in Sculpture: _____, 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Sculpture courses, or permission of instructor. LEC.

SCUL 556. Sculpture IV. 3 Hours.
Continuation of SCUL 355. May be repeated for credit. Prerequisite: SCUL 355. LAB.

SCUL 558. Sculpture IV, Honors. 3 Hours.
Continuation of SCUL 354 or SCUL 358. May be repeated for credit. Prerequisite: SCUL 354 or SCUL 358; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

SCUL 599. Individual Studies in Sculpture. 1-6 Hours. AE61 / U.
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours can apply toward the bachelor's degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Sculpture courses, or permission of instructor. IND.

SCUL 657. Sculpture V. 3 Hours.
Continuation of SCUL 556. Prerequisite: SCUL 556. LAB.

SCUL 658. Sculpture VI. 3 Hours.
Continuation of SCUL 657. May be repeated for credit in subsequent semesters. Prerequisite: SCUL 657. LAB.

SCUL 804. Special Problems in Sculpture. 3 Hours.
Individual research in sculpture: course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters. Prerequisite: SCUL 559 and permission of instructor. RSH.

SCUL 859. Sculpture VII. 3 Hours.
Individual research in sculpture. Prerequisite: SCUL 658. RSH.

SCUL 905. Special Problems in Sculpture. 3 Hours.
Individual research in sculpture: course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters. Prerequisite: SCUL 804 and permission of instructor. RSH.

SCUL 960. Sculpture VIII. 3 Hours.
Continuation of SCUL 859. Prerequisite: SCUL 859. RSH.

TD 130. Introduction to Weaving. 3 Hours.
Specifically for students with limited or no previous experience. Application to art and design principles to four-harness loom structures. Emphasis on the use of color and texture in loom controlled and weaver controlled techniques. Counts only as a studio elective or general elective for a B.F.A. in Art or Design. LAB.

TD 133. Introduction to Fibers. 3 Hours.
Studio exploration of fibers as an art and design form. Techniques include dyeing, spinning yarn, soft sculpture, embellishment, crochet. Open to all university students. LAB.

TD 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Textile Design. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

TD 300. Special Topics in Textiles/Fibers: ______. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104, or permission of instructor. LEC.

TD 313. Fiber Forms. 3 Hours.
Studio exploration of fibers as an art form. Techniques include feltmaking, papermaking, basketry, and dyeing. Prerequisite: ART 101, and ART 130 or ART 133. LAB.

TD 314. Introduction to Weaving. 3 Hours. U.
Application of art and design principles to four-harness loom structures. Emphasis on the use of color and texture in loom controlled and weaver controlled techniques. Prerequisite: ART 101, and ART 130 or ART 133. LAB.

TD 315. Textile Handprinting and Resist Processes. 3 Hours. U.
Fundamentals of resist and dye techniques on textiles: batik, tie-dye, discharge, and direct application. Prerequisite: ART 101, and ART 130 or ART 133. LAB.

TD 316. Screenprinting Textiles. 3 Hours.
Design problems in textile printing with emphasis on screenprinting and photo techniques. Prerequisite: ART 101, and ART 130 or ART 133. LAB.

TD 401. Weave Structures. 3 Hours. U.
Continuation of TD 314. Research and analysis of multiple-harness weave structures. Weave drafts. Design problems to develop the use of color, form, and surface in simple and compound weaves. Prerequisite: TD 314. LAB.

TD 402. Techniques in Weaving. 3 Hours. U.
Development of individual art and design concepts in relation to woven structures and/or forms. Emphasis on weaver-controlled techniques used to create images and composition. Prerequisite: TD 314. LAB.

TD 403. Intermediate Textile Printing. 3 Hours.
Individual problems in textile printing and dyeing processes. Prerequisite: TD 316. LAB.

TD 404. Surface Design. 3 Hours.
Textile pattern design for art and/or industry. Prerequisite: Twelve hours in Visual Art or Design, or permission of the instructor. LAB.

TD 414. Experimental Concepts in Weaving. 3 Hours.
Experimentation with resist dyeing, painted warps and/or "Fiber Forms" techniques in woven structures. Individual research and development of thematic concepts. Prerequisite: TD 313, and TD 301 or TD 302. LAB.
TD 500. Advanced Special Topics in Textiles/Fibers: ____. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Textiles/Fibers courses, or permission of instructor. LEC.

TD 503. Advanced Surface Design/Screenprinting. 1-6 Hours. U.
Directed study of advanced surface design and screenprinting methods. May be repeated for credit. Prerequisite: TD 403. IND.

TD 504. History of Textiles, Lecture. 3 Hours.
Study of historical textiles, their design development, and the techniques employed. Prerequisite: Junior standing in department or permission of instructor. LEC.

TD 506. Advanced Fiber Forms. 1-6 Hours. U.
Directed study of three-dimensional and off-loom methods and techniques. May be repeated for credit. Prerequisite: TD 313. IND.

TD 514. Advanced Techniques in Weaving. 1-6 Hours. U.
Directed study of advanced loom-controlled and weaver-controlled methods. May be repeated for credit. Prerequisite: TD 401 and TD 402. IND.

TD 515. Advanced Textiles/Fibers I. 3-6 Hours. AE61.
Development of individual direction in textiles based on experience, research, and skills acquired in preceding courses; capstone experience. Prerequisite: Twenty-four credits in Textiles/Fibers and consent of instructor. LAB.

TD 520. Advanced Textiles/Fibers II. 3-6 Hours. AE61.
Continuation of TD 515, capstone experience. Prerequisite: TD 515. LAB.

TD 590. Internship in Textiles/Fibers. 1-3 Hours. U.
Practical experience in the use of artistic skills in approved and supervised academic or professional settings. May be repeated for credit; no more than six hours may be applied to the B.A. or B.F.A. degree. Credit hours are graded on a satisfactory/unsatisfactory basis, according to the written recommendation provided by the internship supervisor to the faculty advisor. Prerequisite: ART 102, ART 103, and ART 104; and fifteen hours of Visual Art courses. FLD.

TD 599. Individual Studies in Textiles/Fibers. 1-6 Hours. AE61 / U.
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours can apply toward the bachelor's degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Textiles/Fibers courses, or permission of instructor. IND.

TD 715. Textile Design in Weaving, Printing, and Dyeing. 2-6 Hours.
Individual research. Prerequisite: TD 520 or TD 525 or equivalent. RSH.

TD 750. Graduate Seminar. 0.5 Hours.
Discussion of issues and/or work in textiles. Graded on satisfactory/unsatisfactory basis. LEC.

TD 815. Textile Design in Weaving, Printing, and Dyeing. 2-6 Hours.
Continuation of TD 715. RSH.

VAE 100. Introduction to the Profession of Art Education. 3 Hours.
This course is designed to acquaint students with the profession of art education by helping to increase an awareness of the role and characteristics of an effective art teacher. Large and small group activities and assignments are dispersed throughout the semester to facilitate these outcomes. Students are involved in observation of and participation with art teachers and pupils in the public school classrooms, which complement course activities and assignments. VAE 100 is a professional course. LEC.

VAE 130. Art and Design in Daily Life. 3 Hours. U.
The course aims to develop students’ appreciation of designed objects in contemporary life whether they are historical icons or everyday items in the immediate environment. The instructional materials and activities assist students in acquiring the knowledge and skills for critically analyzing, discussing, and evaluating objects. Course content is interdisciplinary with a focus on design history. The class is open to all students and is relevant to those who have taken classes in art, design, architecture, and art history. Not open to students with credit in VAE 530. LEC.

VAE 177. First Year Seminar: _______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Visual Art Education. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

VAE 300. Special Topics in Visual Art Education: _______. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104, or permission of instructor. LEC.

VAE 320. Instruction and Curriculum I. 3 Hours.
This methods course provides an overview of the professional practices of K-12 art educators. Course content deals with the art education program, K-12, in relationship to the rest of the curriculum. This encompasses goals, objective sequence, courses offered at various levels, finance, staffing and administration. Prerequisite: Junior standing or consent of the instructor. LEC.

VAE 325. Education in Multicultural Society. 2 Hours.
The course is designed to provide the student with an awareness of and sensitivity to the concept of multicultural education. Topics related to the rationale for and processes of providing a multicultural perspective within the schools will be addressed. Field experiences will be structured to provide students with opportunities to observe the diversity within our society. LEC.

VAE 330. Fundamentals of Art. 3 Hours.
An introduction to art designed for the general university student. Designed to facilitate understanding and viewing works of art. Basic information including elements and principles of art, materials and techniques used by artists, and the function of art in society. LEC.

VAE 341. Instructional Strategies in Art for Elementary Classroom Teachers. 2 Hours.
Child growth and development in art. Materials as they relate to a sequential art education curriculum in the elementary school. Prerequisite: Admission to the School of Education or the education division of the graduate school. LEC.

VAE 395. Community Collaborations in Art Education. 3 Hours. U.
A focused examination of existing community organizations, models, and resources alongside collaborative strategies for working with these entities to achieve common goals for art education. Students in this class will learn of collaborative community models, explore entrepreneurial and other educational initiatives that contribute to the general purpose of art education, and recognize the role of families and other community members in contributing to the arts. LEC.
VAE 410. Instruction and Curriculum II. 3 Hours.
This methods course provides an overview of the professional practices of K-12 art educators. Course content deals with the art education program, K-12, in relationship to the rest of the curriculum. This encompasses goals, objective sequence, courses offered at various levels, finance, staffing and administration. Prerequisite: Junior standing or consent of the instructor. LEC.

VAE 420. Artistic Media and Processes in Art Education. 3 Hours.
Building on course content in VAE 320, this course concentrates on instructional strategies and presentation models in art education. Students examine and explore the media appropriate to teaching art in various settings and levels as well as how art program budgets are derived and impact overall curriculum development. Prerequisite: VAE 320 or permission of instructor. LEC.

VAE 497. Independent Study. 1-3 Hours.
Only one enrollment permitted each semester; a maximum of four hours will apply toward the bachelor’s degree. Prerequisite: Recommendation of advisor and consent of instructor. IND.

VAE 500. Student Teaching. 6 Hours. AE61.
A supervised teaching experience in an approved school setting, with level and subject area to be selected according to the teaching field. Prerequisite: Admission to the student teaching program. FLD.

VAE 520. Instructional Technology in Art Education. 3 Hours.
This course addresses technology that is pertinent to professional art educators. Students use technology to develop a professional portfolio and technology-related resources for teaching art in PreK-12 schools and community settings. LEC.

VAE 530. Art and Design in Daily Life. 3 Hours.
The course aims to develop students’ appreciation of designed objects in contemporary life whether they are historical icons or everyday items in the immediate environment. The instructional materials and activities will assist students in acquiring the knowledge and skills for critically analyzing, discussing, and evaluating objects. Course content is interdisciplinary with a focus on design history. The class is open to all students and is relevant to those who have taken classes in art, design, architecture, and art history. Not open to students with credit in VAE 130. LEC.

VAE 596. Practicum in Teaching Art. 2 Hours.
A supervised art teaching practicum in which students will learn to employ different teaching strategies with children pre-school through high school in the school or museum setting. Prerequisite: VAE 320, VAE 410, VAE 795 or consent of instructor. LEC.

VAE 598. Special Course: ____. 1-5 Hours.
A special course of study to meet current needs of education students; primarily for undergraduates. LEC.

VAE 599. Community Based Project in Art Education. 1-6 Hours.
AE61 / U.
Individual activity and project that serves as an alternate capstone experience to VAE 500 (Student Teaching). Will involve the development of an independent, community-based arts education project developed by the student under the supervision of a VAE faculty member. Prerequisite: Forty credits of Visual Art, fifteen credits of Visual Art Education Courses, and permission of the instructor. IND.

VAE 600. Evaluation and Measurement in Art Education. 3 Hours.
An introduction to the concepts and skills for the development and implementation of evaluation procedures for art education. Topics will include the development of student evaluation, the relationship between instructional objectives and evaluation, various evaluation techniques for art education, grading, and providing grades and feedback (to) students, parents, and schools. Prerequisite: VAE 320 and VAE 410. LEC.

VAE 680. Internship in Teaching Art. 5-16 Hours.
A supervised internship experience leading to initial art teacher certification. The student assumes the total professional role as a teacher of art in an approved school setting. LEC.

VAE 698. Education of Women in the Arts. 2-3 Hours.
This course will examine the education of women in the arts at all levels of schooling (preschool, primary, secondary, and university) and in nonformal settings (art clubs, women’s leagues, tutoring, etc.). The intent is to further a historical and contemporary based understanding of gender characteristics and discrimination as they affect the education of women in the arts. Students enrolled in three hours credit will be required to write a case study on the education of a woman artist. LEC.

VAE 710. Assessment in Art Education. 3 Hours.
The course is designed to introduce students to evaluation procedures in art education as they apply to public school teaching K-12. The material will incorporate methods of evaluating student learning in art, the effectiveness of instruction, the designing of instruments, grading procedures including the provision of feedback to students, parents, and schools. Concepts and skills for both formative and summative evaluation will be related to the development of objectives, instruction, and curriculum development as a whole. LEC.

VAE 716. Teaching Art: ____. 1-4 Hours.
Instructional techniques, methodology, materials, and evaluation. Processes for the specific art area named. May be repeated for credit in different media. LEC.

VAE 750. Introduction to Art Museum Education. 1-4 Hours.
This course provides a general overview to the museum education field. Course readings include current ideas and issues on learning, art education, criticism, the museum in education, and museum education practices. LEC.

VAE 774. Art for Exceptional Children. 2 Hours.
A study of the psychology, philosophy, content, and media in art expression and its relationship to mental and creative growth with exceptional children. Prerequisite: SPED 741, which may be taken concurrently. LEC.

VAE 780. Internship in Teaching Art. 9 Hours.
A supervised internship experience leading to initial art teacher certification. The student assumes the total professional role as a teacher of art in an approved school setting. LEC.

VAE 790. Applications of Technology in Art Education. 1-3 Hours.
The course is designed to provide students with the skills necessary for using and assessing the impact of microcomputers, video recorders, and other technological developments in art education. Prerequisite: TL 601 or equivalent. LEC.

VAE 798. Special Course: ____. 1-5 Hours.
A special course of study to meet current needs of education professionals; primarily for graduate students. LEC.

VAE 800. Visual Art Education Curriculum Development. 1-3 Hours.
A study of research, resources, and media as they relate to learning goals in a sequential art curriculum for use by teachers. The amount of credit reflects the extent of the curriculum being developed and the amount of work involved in the development process. LEC.

VAE 825. Seminar in: ____. 1-4 Hours.
LEC.
VAE 830. Seminar in: ______. 1-4 Hours. LEC.

VAE 842. Teaching Art Criticism. 3 Hours. An examination of the four phases of art criticism (description, analysis, interpretation and judgment) will be followed by practice in using these phases in the development of effective art curriculum for all developmental levels. Prerequisite: PRE 702 and PRE 704 or equivalents. LEC.

VAE 850. Aesthetics, the Arts and Education. 3 Hours. Theoretical introduction to the problems involved in teaching critical appreciation of the arts; examination of materials from aesthetics, art history, and criticism. LEC.

VAE 869. History of Art Education. 3 Hours. A study of the historical development of art education. Prerequisite: Nine hours of education. LEC.

VAE 875. Research in Art Education. 3 Hours. This course examines the issues and procedures commonly used to conduct research in art education in preparation for students' graduate theses or projects. Research methods are adapted and applied to students' professional needs and interests in the form of a research proposal. LEC.

VAE 890. Preparation for the M.A. Examination. 1 Hour. An independent reading course in preparation for the M.A. Examination. The grade will be an S or U, as determined by the performance on the examination. The examination will be evaluated separately. Prerequisite: Permission of the instructor. LEC.

VAE 895. Field Experience in: ______. 1-6 Hours. Supervised and directed experiences in selected professional settings and cooperating agencies. Prerequisite: Permission of instructor. FLD.

VAE 897. Independent Study. 1-4 Hours. Prerequisite: Consent of advisor and instructor. RSH.

VAE 898. Master's Project. 1-4 Hours. RSH.

VAE 899. Master's Thesis. 1-6 Hours. THE.

VAE 900. Supervision and Evaluation of Visual Arts Programs. 3 Hours. A study of the administration of school, museum, and community arts education programs. Topics will include curriculum development, personnel supervision, finance, and the quantitative and qualitative evaluation of arts programs. Prerequisite: TL 703 or equivalent. LEC.

VAE 929. Research in Art Education. 3 Hours. An examination of research methodology in visual arts education. Emphasis will be on philosophical, historical, qualitative, and quantitative research development. Prerequisite: PRE 715 or equivalent. LEC.

VAE 949. Artistic Learning and Development. 3 Hours. Research from psychology, sociology, and anthropology will be examined for its implications for the artistic development of the child. Topics include cross-cultural and age comparisons of children's graphic symbol development, aesthetic judgments, and perceptual skills. Prerequisite: PRE 702 and PRE 704 or equivalents. LEC.

VAE 995. Field Experience in: ______. 1-5 Hours. Supervised and directed experiences in selected educational settings. The advisor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experiences will be prepared independently by the student, a representative of the cooperating agency, and the advisor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. LEC.

VAE 996. College Teaching Experience in: ______. 2 Hours. To meet the college teaching experience requirement for doctoral programs, a student shall engage in a semester long, planned, instructional activity that shall include college classroom teaching under supervision. Planning shall be done with the advisor and/or member of the faculty who will supervise the experience. The activity shall be done under the supervision of a member of the University of Kansas faculty or by an individual or individuals designated by the candidate's committee. RSH.

VAE 997. Individual Study. 1-4 Hours. Prerequisite: Prior graduate course work in the area of study and consent of instructor. RSH.

VAE 998. Seminar in: ______. 1-4 Hours. LEC.

VAE 999. Doctoral Dissertation. 1-15 Hours. THE.

Bachelor of Fine Arts in Visual Art

First-Year Preparation: Foundations

A minimum of 12 hours in foundations courses is required before a student may enroll in further studio classes for a B.F.A., B.A., or B.A.E. degree:

- **ART 101** Drawing I 3
- **ART 102** Drawing II 3
- **ART 103** Art Concepts and Practice 3
- **ART 104** Art Principles and Practice 3

Additional specified prerequisites must be completed before enrollment in advanced visual art studio courses.

The foundations enrollment should be followed for 2 semesters (15 hours each semester):

**Foundations (12)**

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<th>Course</th>
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<tr>
<td>ART 101</td>
<td>Drawing I</td>
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<td>ART 102</td>
<td>Drawing II</td>
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<td>ART 103</td>
<td>Art Concepts and Practice</td>
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<td>ART 104</td>
<td>Art Principles and Practice</td>
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**English (6)**

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<td>ENGL 101</td>
<td>Composition</td>
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<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
</tr>
</tbody>
</table>

**History of Art (6)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA 150</td>
<td>Western Art History I: Ancient Through Medieval Art</td>
</tr>
<tr>
<td>HA 151</td>
<td>Western Art History II: Renaissance to Contemporary Art</td>
</tr>
</tbody>
</table>

Bachelor of Fine Arts in Visual Art Degree Requirements

The Department of Visual Art offers the B.F.A. in visual art, including the areas of ceramics, drawing, expanded media, metal smithing/jewelry, painting, printmaking, sculpture, and textiles/fibers. A total of 120 hours is required for the degree, including 45 junior/senior hours (courses
numbered 300 or higher). 30 of these 45 junior/senior hours must be taken in residence at the University of Kansas. In addition to the 12-hour foundations requirement, a minimum of 48 hours in departmental courses is required, including 2 semesters of directed study.

The Department of Visual Art reserves the right to retain examples of student work and to use images of student work on internet websites and for university publication purposes.

**B.F.A. Major Requirements**

**General Option**

General Education Requirements
Completion of KU Core Requirements (see KU Core)
BFA-specific requirements
Writing Requirement - ENGL 101 and ENGL 102, or placement in and completion of ENGL 102/105 and an additional Goal 2, Outcome 1 course.

**Foundations Studies (12)**
- ART 101: Drawing I (3)
- ART 102: Drawing II (3)
- ART 103: Art Concepts and Practice (3)
- ART 104: Art Principles and Practice (3)

**History of Art (9)**
- HA 150: Western Art History I: Ancient Through Medieval Art (fall only) (3)
- HA 151: Western Art History II: Renaissance to Contemporary Art (spring only) (3)

Non-Western history of art (3)

**HA 300+ level elective (6)**
BFA General students must choose one of the following courses covering art history from 1900-1945:
- HA 380: American History of Photography (3)
- or HA 580: History of Photography (3)
- or HA 453: Progression of Modernism (3)
- or HA 571: Modern Sculpture (3)
- or HA 583: Modern Art of the 1900s (3)
- or HA 588: Modern and Contemporary Visual Arts of Japan (3)

**School of the Arts Elective (3)**
Satisfied by one course from the Dance (DANC), Film & Media Studies (FMS), Theatre (THR), or Visual Art (ART, CER, EXM, METL, PRNT, PRNT, SCUL, TD, VAE) department.

**Electives**
- Additional credit hours of general electives are needed to meet the minimum total hours required for graduation.

**Major Requirements - General Option**

The general option requires 49 major hours, including a minimum of 15 junior/senior hours in the major, a minimum of 15 major hours in residence, and a minimum 2.0 KU junior/senior grade-point average in the major.

**Visual Art Core Courses (18)**
Select one course in 5 of the following areas:

<table>
<thead>
<tr>
<th>Area</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramics</td>
<td>ART 131</td>
<td>3</td>
</tr>
<tr>
<td>Expanded Media</td>
<td>ART 123</td>
<td>3</td>
</tr>
<tr>
<td>Metalsmithing/Jewelry</td>
<td>ART 132</td>
<td>3</td>
</tr>
<tr>
<td>Painting</td>
<td>ART 120</td>
<td>3</td>
</tr>
<tr>
<td>Printmaking</td>
<td>ART 121</td>
<td>3</td>
</tr>
<tr>
<td>Sculpture</td>
<td>ART 122</td>
<td>3</td>
</tr>
<tr>
<td>Textiles/Fibers</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Visual Art Studies (15)**
Select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 130</td>
<td>3</td>
</tr>
<tr>
<td>ART 133</td>
<td>3</td>
</tr>
</tbody>
</table>

**Visual Art Studies (15)**
Select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRWG 203</td>
<td>3</td>
</tr>
<tr>
<td>DRWG 213</td>
<td>3</td>
</tr>
</tbody>
</table>

**Studio Electives (9)**
Select 9 hours

**Senior Studio Requirements (10)**
Prerequisite: 30 hours of studio art courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 540</td>
<td>3</td>
</tr>
<tr>
<td>ART 695</td>
<td>3</td>
</tr>
</tbody>
</table>

**Ceramics Option**

General Education Requirements
Completion of KU Core Requirements (see KU Core)
BFA-specific requirements
Writing Requirement – ENGL 101 and 102, or placement in and completion of ENGL 102/105 and an additional Goal 2 Outcome 1 course.

Foundations Studies (12)
ART 101 Drawing I 3
ART 102 Drawing II 3
ART 103 Art Concepts and Practice 3
ART 104 Art Principles and Practice 3

History of Art (15)
HA 150 Western Art History I: Ancient Through Medieval Art 3
(fall only - HA 150 must be taken before HA 151)
HA 151 Western Art History II: Renaissance to Contemporary Art 3
(spring only)

School of the Arts Elective (3)
Satisfied by 1 course (3 hours) from the Dance (DANC), Film & Media Studies (FMS), Theatre (THR), or Visual Art (ART, CER, EXM, METL, PNTG, PRNT, SCUL, TD, VAE) department.

Electives Additional credit hours of general electives are needed to meet the minimum total hours required for graduation.

Major Requirements - Ceramics Option
The ceramics option requires 48 major hours, including a minimum of 24 junior/senior hours in the major, a minimum of 15 major hours in residence, and a minimum 2.0 KU junior/senior grade-point average in the major.

Ceramics (27)
ART 131 Fundamentals of Ceramics 3
or CER 208 Ceramics I 3
CER 301 Ceramics II 3
CER 402 Ceramics III 3
CER 504 Kilns 3
CER 505 Clay and Glaze Formulation 3
CER 515 Advanced Ceramics I 6
CER 520 Advanced Ceramics II 6

Studio Electives (21)
Select 21 hours

Additional Required Visual Art and Design Electives (6)
(6 hours, not counted toward major)
PHMD elective 3
SCUL 253 Sculpture I 3
or SCUL 349 Metal and Glass Casting

Metalsmithing/Jewelry Option
General Education Requirements
Completion of KU Core Requirements (see KU Core)
BFA-specific requirements

Metalsmithing/Jewelry (39)
ART 132 Fundamentals of Metalsmithing/Jewelry 3
or METL 211 Jewelry 3
METL 301 Introduction to Casting for Jewelry (ART 132 then METL 301 must be completed before taking further METL classes) 3
METL 302 Professional Practices 3
METL 360 Holloware 3
METL 362 Metalsmithing 6
METL 364 Enameling 6
METL 501 Seminar 3
METL 515 Advanced Metals I 6
METL 520 Advanced Metals II 6

Studio Electives (9)
Satisfied by completing 9 hours of coursework with subject code (ART, CER, EXM, METL, PNTG, PRNT, SCUL, TD, VAE, PHMD, INTD, ILLU, INDD, BDS, VISC, ADS) 9

Textiles/Fibers Option
General Education Requirements
Completion of KU Core (see KU Core)
BFA-specific requirements
Writing Requirement – ENGL 101 and 102, or placement in and completion of ENGL 102/105 and an additional Goal 2 Outcome 1 course.

Foundations Studies (12)
- ART 101 Drawing I 3
- ART 102 Drawing II 3
- ART 103 Art Concepts and Practice 3
- ART 104 Art Principles and Practice 3

Additional Foundation Requirements (9 hours, not counted toward major) (9)
- ART 130 Fundamentals of Fiber Forms 3
  or ART 133 Fundamentals of Fibers 3
- TD 314 Introduction to Weaving 3
- TD 315 Textile Handprinting and Resist Processes 3

History of Art (12)
- HA 150 Western Art History I: Ancient Through Medieval Art 3
  (fall only - HA 150 must be taken before HA 151)
- HA 151 Western Art History II: Renaissance to Contemporary Art 3

Non-Western history of art 3

HA Elective 3

School of the Arts Elective (DANC, FMS, THR course) (3) 3

Major Requirements - Textiles/Fibers Option

The textiles/fibers option requires 48 major hours, including a minimum of 30 junior/senior hours in the major, a minimum of 15 major hours in residence, and a minimum 2.0 KU junior/senior grade-point average in the major.

Intermediate Textiles/Fibers Courses (12)
- TD 313 Fiber Forms (required) 3
- TD 316 Screenprinting Textiles (required) 3
- TD 401 Weave Structures 3
  or TD 402 Techniques in Weaving 3
  or TD 403 Intermediate Textile Printing 3
  or TD 404 Surface Design 3
  or TD 414 Experimental Concepts in Weaving 3
- TD 401 Weave Structures 3
  or TD 402 Techniques in Weaving 3
  or TD 403 Intermediate Textile Printing 3
  or TD 404 Surface Design 3
  or TD 414 Experimental Concepts in Weaving 3

Advanced Textiles/Fibers Courses (18) 18
- TD 504 History of Textiles, Lecture 3
- TD 515 Advanced Textiles/Fibers I (Students may sub 3 hours of TD 515 for one of the Textile concentrations listed below) 3
  or TD 503 Advanced Surface Design/Screenprinting 3
  or TD 506 Advanced Fiber Forms 3
  or TD 514 Advanced Techniques in Weaving 3

Bachelor of Fine Arts in History of Art

First-Year Preparation

A minimum of 12 hours in foundations courses is required before a student may enroll in further studio classes for a B.F.A., B.A., or B.A.E. degree:

- ART 101 Drawing I 3
- ART 102 Drawing II 3
- ART 103 Art Concepts and Practice 3
- ART 104 Art Principles and Practice 3

Additional specified prerequisites must be completed before enrollment in advanced visual art studio courses.

The foundations enrollment should be followed for 2 semesters (15 hours each semester):

Foundations (12)
- ART 101 Drawing I 3
- ART 102 Drawing II 3
- ART 103 Art Concepts and Practice 3
- ART 104 Art Principles and Practice 3

English (6)
- ENGL 101 Composition 3
- ENGL 102 Critical Reading and Writing 3
  or placement in and completion of ENGL 102/105 and an additional Goal 2 Outcome 1 course.

History of Art (6)
- HA 150 Western Art History I: Ancient Through Medieval Art 3
- HA 151 Western Art History II: Renaissance to Contemporary Art 3

Bachelor of Fine Arts in History of Art Degree Requirements

A major in the history of art is available to candidates for the B.F.A. degree. This major combines a 30-hour concentration in art history with 18 hours of studio training (beyond the 12 hours of foundation courses). A total of 120 hours is required for the degree, including 45 junior/senior hours (courses numbered 300 or higher). 30 of these 45 junior/senior
hours must be taken in residence at the University of Kansas. The B.A. and B.G.S. degrees (p. 152) are offered by the College of Liberal Arts and Sciences.

## Requirements for the B.F.A. Degree

### Major Program Courses (48)

**History of art:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA 150</td>
<td>Western Art History I: Ancient Through Medieval Art</td>
<td>3</td>
</tr>
<tr>
<td>HA 151</td>
<td>Western Art History II: Renaissance to Contemporary Art</td>
<td>3</td>
</tr>
</tbody>
</table>

Select at least one course at or above the 200 level in each of the following five categories: 15

1. Ancient or medieval art;
2. Renaissance or baroque art;
3. Modern art, which includes 19th- and 20th-century art, American art, and history of photography. HA 261 does not fulfill requirement;
4. East Asian;
5. Non-Western (East Asian or African).

**History of art electives** 9

**Electives in art and design:** Satisfied by completing 18 hours of coursework with subject code (ART, CER, EXM, METL, PNTG, PRNT, SCUL, TD, VAE, PHMD, INTD, ILLU, INDD, BDS, VISC, ADS) 18

### General Education Courses (0)

Completion of KU Core Requirements. (see KU Core section of the catalog)

### Liberal Arts and Sciences/Foundationial Studies Courses (43)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 102</td>
<td>Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART 103</td>
<td>Art Concepts and Practice</td>
<td>3</td>
</tr>
<tr>
<td>ART 104</td>
<td>Art Principles and Practice</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

### Bachelor of Arts in Visual Art

**First-Year Preparation: Foundations**

Students must submit a portfolio to be accepted as a visual art major and to enroll in foundations courses. A minimum of 12 hours in foundations courses is required before a student may enroll in further studio classes for a B.F.A., B.A., or B.A.E. degree:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 102</td>
<td>Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART 103</td>
<td>Art Concepts and Practice</td>
<td>3</td>
</tr>
<tr>
<td>ART 104</td>
<td>Art Principles and Practice</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional specified prerequisites must be completed before enrollment in advanced visual art studio courses.

The foundations enrollment should be followed for 2 semesters (15 hours each semester):

### Foundations (12)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 102</td>
<td>Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART 103</td>
<td>Art Concepts and Practice</td>
<td>3</td>
</tr>
<tr>
<td>ART 104</td>
<td>Art Principles and Practice</td>
<td>3</td>
</tr>
</tbody>
</table>

### English (6)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

### History of art (6)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA 150</td>
<td>Western Art History I: Ancient Through Medieval Art</td>
<td>3</td>
</tr>
<tr>
<td>HA 151</td>
<td>Western Art History II: Renaissance to Contemporary Art</td>
<td>3</td>
</tr>
</tbody>
</table>

### Mathematics (6)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 101</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Second MATH course</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

### Bachelor of Arts in Visual Art

A Bachelor of Arts degree is offered in visual art. A total of 120 hours is required for the degree, including 45 junior/senior hours (courses numbered 300 or higher). 30 of these 45 junior/senior hours must be taken in residence at the University of Kansas.

Liberal Arts and Sciences Requirements

Completion of KU Core Requirements (see KU Core for specific requirements)

Completion of College BA degree specific requirements (see College BA requirements)

### Foundations (12)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 102</td>
<td>Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART 103</td>
<td>Art Concepts and Practice</td>
<td>3</td>
</tr>
<tr>
<td>ART 104</td>
<td>Art Principles and Practice</td>
<td>3</td>
</tr>
</tbody>
</table>

### Visual Art Major (36)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 102</td>
<td>Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART 103</td>
<td>Art Concepts and Practice</td>
<td>3</td>
</tr>
<tr>
<td>ART 104</td>
<td>Art Principles and Practice</td>
<td>3</td>
</tr>
</tbody>
</table>

Visual Art Major Studies

(Including a minimum of 15 junior/senior hours in the major, a minimum of 15 major hours in residence, and a minimum 2.0 KU junior/senior grade-point average in the major)

Visual Art Concentration: (24 hours)

Any Visual Art (ART, CER, EXM, METL, PNTG, PRNT, SCUL, TD, VAE) and Photomedia (PHMD) classes.

### History of Art: (12 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA 150</td>
<td>Western Art History I: Ancient Through Medieval Art</td>
<td>3</td>
</tr>
<tr>
<td>HA 151</td>
<td>Western Art History II: Renaissance to Contemporary Art</td>
<td>3</td>
</tr>
<tr>
<td>HA elective (numbered 300 or higher)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>HA elective (numbered 300 or higher)</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>
Graduation Plan
With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please contact the department for details.

Bachelor of Art Education in Visual Art Education

First-Year Preparation: Foundations
A minimum of 12 hours in foundations courses is required before a student may enroll in further studio classes for a B.F.A., B.A., or B.A.E. degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 102</td>
<td>Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART 103</td>
<td>Art Concepts and Practice</td>
<td>3</td>
</tr>
<tr>
<td>ART 104</td>
<td>Art Principles and Practice</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional specified prerequisites must be completed before enrollment in advanced visual art studio courses.

The foundations enrollment should be followed for 2 semesters (18 hours each semester):

<table>
<thead>
<tr>
<th>Foundations (12)</th>
<th>Art</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 102</td>
<td>Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART 103</td>
<td>Art Concepts and Practice</td>
<td>3</td>
</tr>
<tr>
<td>ART 104</td>
<td>Art Principles and Practice</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>English (6)</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>History of Art (6)</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA 150</td>
<td>Western Art History I: Ancient Through Medieval Art</td>
<td>3</td>
</tr>
<tr>
<td>HA 151</td>
<td>Western Art History II: Renaissance to Contemporary Art</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mathematics (3)</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 101</td>
<td>College Algebra (or higher)</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Communication (3)</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS 130</td>
<td>Speaker-Audience Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health (3)</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSES 260</td>
<td>Personal and Community Health</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Psychology (3)</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 104</td>
<td>General Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Advising
Beginning with the first year, all students intending to become visual art education majors should be advised by faculty in the Department of Visual Art. Consult the department for assignment to an advisor.

Undergraduate Admission
Students who wish to teach art should seek admission to the School of the Arts by submitting a portfolio. Applicants should also consult the Department of Visual Art for assignment of an advisor and requirement information. In the first 2 years, students enroll as art education majors in prerequisites. These prerequisites are necessary for admission to the VAE professional sequence in the junior year:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 101</td>
<td>College Algebra (or higher)</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 104</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>HSES 260</td>
<td>Personal and Community Health</td>
<td>3</td>
</tr>
<tr>
<td>COMS 130</td>
<td>Speaker-Audience Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
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</tr>
<tr>
<td>HA 151</td>
<td>Western Art History II: Renaissance to Contemporary Art</td>
<td>3</td>
</tr>
</tbody>
</table>

Students must apply for admission to the professional sequence upon completing the first semester of the sophomore year. Transfer students with more than 45 hours must apply the first semester at KU. Students may not enroll in the professional sequence before formal approval by VAE. Admission to the professional sequence is based on the following minimum criteria:

1. Cumulative grade-point average of 2.5.
2. Grade-point average of 2.75 in required course work.
3. Minimum scores on the Pre-Professional Skills Test of 172 on the writing test, 173 on the reading test, and 172 on the mathematics test.
4. Successful completion of the application form (typed).
5. Satisfactory faculty evaluations in the areas relevant to visual art education including art and history of art. Each applicant’s applied instructor must complete a special recommendation form.
6. No grade lower than a C in any course in the professional education sequence.

Recommendation for Student Teaching and Internship
The capstone experience of student teaching and internship in art education requires a strong knowledge base particularly in certain content areas. Academic performance in content areas is a predictor of success in this capstone experience. Therefore, it is strongly recommended that students have a minimum grade of B– in all visual art education classes and an academic record with a grade-point average of at least 3.0 in the following areas: visual art education, the history of art, studio art, and education.

Note: Students must complete the student teaching experience with grades of C or higher to continue with their internships.

Note: To be licensed as an art teacher in Kansas, a student must fill out an application, pay a fee, pass all 3 parts of the Pre-Professional Skills Test and the Professional Knowledge component of the National Teachers’ Examination, and complete other specified academic degree requirements. Information is available in 211 J.R. Pearson Hall.

Students who do not meet all criteria may be admitted to the professional sequence on a provisional basis and may enroll in a maximum of 5
credit hours of professional sequence courses during the first term of
the junior year. Students assigned provisional status must complete
all requirements by the end of that term. Candidates are reviewed for
admission twice a year. The deadline for all applications is March 1
for fall or October 1 for spring, by 5 p.m. Submit applications to visual
art education, 300 Art and Design Building. Students who are denied
admission may reapply for the next deadline but must resubmit a
complete application. Students who transfer into the program with more
than 45 credit hours may be admitted to the professional sequence on a
provisional basis but must complete this application by the first deadline
that occurs during their residence at KU. They also must register for
classes that fulfill any deficiencies they might have on arrival at KU.

On admission to the professional sequence, students enroll as visual art
education majors (code AEPS-BAE) and identify their emphases in studio
art. The emphasis must be one in which KU offers the B.F.A. Students
must select appropriate courses in the emphasis in consultation with
the visual art education advisor. To enter the final year of the extended
program, the student must be admitted to Graduate Studies (http://
www.graduated.ku.edu). Regular admission requires a cumulative grade-
point average of 3.0 or higher in the baccalaureate degree curriculum.
Students with cumulative undergraduate grade-point averages of 2.75
may be admitted on probation.

Requirements for the B.A.E. Degree

The Bachelor of Art Education degree requires a minimum of 125 credit
hours distributed among general studies, the major, and professional
education. 45 of the 125 undergraduate credit hours must be taken at the
junior/senior level (courses numbered 300 or higher). 30 of the 45 junior/
senior hours must be taken in residence at the University of
Kansas. The program requires either VAE 500 (Student Teaching), which
leads to PreK-12 licensure, or VAE 599 (Community Based Project in Art
Education), which completes the degree without licensure eligibility.

General Studies in Liberal Arts and Sciences (28-29)

Critical thinking and quantitative literacy (KU Core Goal 1, LO 1) (3) 3
ENGL 101 Composition 3
(Fulfills KU Core Goal 2, LO 1, 1st unit) (3) 3
Written Communication (KU Core Goal 2, LO 1, 2nd unit) (3) 3
COMS 130 Speaker-Audience Communication 3
(Fulfills KU Core Goal 2, LO 2) 3
PSYC 104 General Psychology 3
(Fulfills KU Core Goal 3, Social/Behavioral Science) 3
Natural science with lab (KU Core Goal 3, Natural Science) (4-5) 4-5
MATH 101 College Algebra 3
(Fulfills KU Core Goal 1, LO 2) 3
MATH 105 Introduction to Topics in Mathematics 3
ABSC 150 Community Leadership 3

Teacher Education (40)

PRE 306 Development and Learning of the Adolescent 3
C&T 235 Multicultural Education 3
C&T 359 Basic Processes of Reading 1
ELPS 250 Education and Society 3
SPED 326 Teaching Exceptional Children and Youth in
General Education 3
ELPS 537 The Governance and Organization of Schools 3

VAE 320 Instruction and Curriculum I 3
VAE 395 Community Collaborations in Art Education 3
VAE 410 Instruction and Curriculum II 3
VAE 420 Artistic Media and Processes in Art Education 3
VAE 500 Student Teaching 9
VAE 520 Instructional Technology in Art Education 3

Visual Art (33)

ART 101 Drawing I 3
ART 102 Drawing II 3
ART 103 Art Concepts and Practice 3
ART 104 Art Principles and Practice 3

(When completing the area requirements below, with the exception of
PNTG 263, which is a specific course requirement, any courses with
the following prefixes may be taken: CER, METL, SCUL, EXM, TD,
and for courses in photography, PHMD or ART may apply.)

Ceramics 3
Metalsmithing/Jewelry 3
PNTG 263 Painting I 3
Expanded Media 3
Photography 3
Sculpture 3
Textiles 3

History of Art (12)

HA 150 Western Art History I: Ancient Through Medieval
(Fulfills KU Core Goal 3, Arts/Humanities) 3
HA 151 Western Art History II: Renaissance to
Contemporary Art 3
Non-Western history of art chosen from: HA 266, HA 267, HA 268, or
HA 269 (Fulfills KU Core Goal 4, LO 2) 3
Contemporary art history at the junior/senior level, chosen from:
HA 565, HA 566, HA 567, HA 571 3

Area of Emphasis (9)

Studio art study in 1 area selected from those offered for the B.F.A. in
visual art, design, or history of art (9) Must be taken at the 300 level
or above. (The selected area may be chosen using courses with one
of the following prefixes: DRWG, PNTG, PRNT, SCUL, EXM, METL,
TD, CER, ART, HA, PHMD, ADS, ILLU, INDD, VISG. The following
combinations of areas are also acceptable: DRWG and PNTG; ILLU
and VISG; ART with any of the following: DRWG, PNTG, PRNT,
SCUL, EXM, CER, TD, METL, PHMD. For questions, please consult
with visual art education advisor.)

Additional Non-Licensure Option Elective (3)

Students completing the B.A.E. Degree without licensure must also
take an additional elective at the junior/senior level (3) in any area
in order to meet the University’s minimum junior/senior hour requirement
for degree completion.

Master of Fine Arts in Visual Art

The Department of Visual Art has been authorized by the University and
the Kansas Board of Regents to offer the Master of Fine Arts (M.F.A.) in
Visual Art. The Department of Visual Art offers graduate programs leading
to the Master of Fine Arts degree in studio art. Concentrations include
ceramics, drawing and painting, expanded media, metalsmithing and
jewelry, printmaking, sculpture, and textiles and fibers. The MFA degree in
the Department of Visual Art is a terminal professional studio degree. The program’s goals are to develop each student’s critical thinking and studio skills so that they have the necessary tools and experience to pursue a career as a studio artist and to otherwise participate in the creative community both on a regional and national level.

Introduction

The University of Kansas is a member of the National Association of Schools of Art and Design (http://nasad.arts-accredit.org). The entrance and graduation requirements in this catalog conform to the published guidelines of those organizations.

Graduate Admission - M.F.A.

To be admitted, students must have undergraduate backgrounds judged by the graduate faculty to be appropriate preparation for the specific specialization selected for graduate study. A strong preference exists for applicants whose undergraduate backgrounds are in visual art.

Departmental faculty selection and review committees evaluate each applicant’s transcripts, portfolios, and letters of recommendation to determine their qualifications for admission. The committees expect applicants to have the B.F.A. degree or equivalent experience. In general, committees expect applicants to present about 70 hours of undergraduate credit in studio or related professional courses including about 36 hours of studio credit in a major area, to have maintained an undergraduate overall grade-point average of 3.0 on a 4.0 scale and in the proposed major, and to have had a minimum of 9 hours of credit in art history. The department encourages full-time residence.

Application to the program is competitive, by permission of the Kansas Board of Regents application for admission to graduate programs in Visual Art may be refused if available instructional space does not allow for addition of more students. The deadline for fall admission is January 15.

Submit your graduate application (http://www.graduate.ku.edu) and fee online, print it, and send it along with

1. official transcript of all college and university coursework,
2. statement of purpose,
3. letters of recommendation,
4. digital portfolio,
5. printed image index,
6. application form for financial aid,
7. statement of financial resources (international students) and
8. proof of proficiency in English (international students)

in 1 envelope to the department:

The University of Kansas
Department of Visual Art
Director of Graduate Studies
Art and Design Bldg.
1467 Jayhawk Blvd., Room 300
Lawrence, KS 66045-7531

M.F.A. in Visual Art Degree Requirements

Concentrations in Ceramics, Drawing and Painting, Expanded Media, Fibers, Metalsmithing and Jewelry, Printmaking, and Sculpture

The graduate program consists of 60 semester hours of graduate credit, including thesis exhibition, in courses approved by the graduate director and the graduate thesis committee. A student may concentrate in one or more specializations. When the student has completed 2 semesters, the faculty selection and review committee reviews the student’s work. The graduate director gives the student a written assessment of progress, signed by the committee. At the end of the third semester, the same committee conducts a thesis review that determines whether the student is prepared to begin thesis work, needs additional coursework, or is to be dropped from the program.

Upon approval by the review committee, the candidate begins work toward the thesis. Students not receiving approval may continue to work toward the next review unless denied by the committee. A student who is approved for thesis work may enroll in Thesis in Art. Before thesis enrollment, the student selects a graduate thesis committee consisting of 3 members of the graduate art faculty. The committee advises the student, conducts regularly scheduled reviews of the work, and determines whether the requirements for the thesis have been completed. The graduate director must approve the membership of the graduate thesis committee.

The final departmental requirements are

1. A thesis exhibition of the student’s work,
2. An oral examination, and

The thesis folio includes a statement written by the candidate concerning the work and a visual record of the exhibition. The department reserves the option of selecting and retaining one example of each graduate student’s work. Upon enrolling, the student automatically accepts these requirements and conditions.

Required Courses (60)

| Seminar | 12 |
| Concentration | 23 |
| Studio or general electives | 6 |
| Graduate-level academic electives | 9 |
| Thesis | 10 |

Master of Arts in Visual Art Education

The Department of Visual Art has been authorized by the University and the Kansas Board of Regents to offer the Master of Arts (M.A.) in Visual Art Education. The Visual Art Education graduate program strives to advance students’ understanding of art education with a complement of courses that explores historical studies of art education, art criticism, studio work, and aesthetics. An important goal of the curriculum is the development of a broad perspective of art education through multicultural studies, cognitive approaches in teaching and learning, assessment in teaching, and technological issues that arise in contemporary society.
Students' programs are tailored to their interests for specialties in areas such as studio, art history, evaluation, and others.

**Introduction**

The University of Kansas is a member of the National Association of Schools of Art and Design (http://nasad.arts-accredit.org). The entrance and graduation requirements in this catalog conform to the published guidelines of those organizations.

**Graduate Admission - M.A. Visual Art Education**

**Application deadlines:**
- December 1 - Spring admission
- May 1 - Fall admission

**Admission requirements for regular status:**

1. Entrance into the M.A. degree program requires a bachelor’s degree, from an accredited institution, which encompasses a minimum of 40 semester hours in fine arts studio (courses in drawing, painting, sculpture, design, printmaking, ceramics, metalsmithing/jewelry, weaving, lettering, commercial art, graphic design, constructive design, etc.), 9 hours in history of art, and 8 hours in visual art education. Applicants must have an overall undergraduate grade-point average of at least 3.0 on a 4-point scale.

2. 1 official transcript.

3. A minimum of 3 letters of recommendation from former or current instructors and/or those able to recommend the applicant on the basis of professional experience (e.g., principals, supervisors, or former employers). The letters of recommendation must address the applicant’s potential to take initiative as a graduate student and ability to be a self-starter.


Submit your graduate application (http://www.graduated.ku.edu) and fee online, then print a copy and send it along with:

- 1 official transcript of all college and university coursework,
- Graduate Student Information Questionnaire,
- 3 letters of recommendation,
- Graduate Licensure applicants only, Praxis I test scores
- statement of financial resources (international students) and
- proof of proficiency in English (international students)

in one envelope to the department:

The University of Kansas
Visual Art Education
Director of Graduate Studies
Art and Design Bldg.
1467 Jayhawk Blvd., Room 300
Lawrence, KS 66045-7531

**M.A. in Visual Art Education**

The graduate program includes advanced professional and scholarly study for art educators and teaching licensure for those with baccalaureate degrees in other fields who wish to enter art education licensure typically also requires collateral undergraduate study) and advanced study for individuals in related disciplines. Details may be found in the Visual Art Education M.A. handbook, available from the Department of Visual Art (http://art.ku.edu).

**M.A. Degree Requirements**

At least 15 and no more than 18 hours in visual art education are required. The remainder of the coursework can be in related fields such as history of art, education, psychology, etc. This emphasis is appropriate for the student desiring to improve his or her fine arts knowledge and research skills in art education.

**Thesis Option**

The student completes 9 credit hours of core courses (VAE 800, VAE 869, and VAE 875), additional elective hours, and an independent experimental, descriptive, historical, or philosophical investigation of a topic related to visual art education. A total of 30 credit hours is required.

**Project Option**

The student completes 9 credit hours of core courses (VAE 800, VAE 869, and VAE 875), and additional elective hours. A substantial application of theory, principles, and/or products of visual art education in a pedagogical setting must be documented. A total of 30 credit hours is required.

**Examination Option**

Students take a total of 37 credit hours in required core courses (including VAE 875 Research in Art Education) and elective courses with 36 credit hours in regularly scheduled classes. Students also take a 1-credit-hour course, VAE 890 Preparation for the M.A. Examination, devoted to preparing for a written final examination. Preparation for the examination occurs during the first half of the semester and provides the basis for the course grade. The written examination, taken during the second half of the semester, requires students to demonstrate their knowledge of current issues in the field. If the written exam is deemed unsatisfactory by a majority of the student’s committee, the student will be required to retake the exam. The exact content and format of the second examination will be determined by the student’s committee members.

**Graduate Licensure in Art Education**

Students who seek to be art teachers in public schools (PreK-12) may obtain licensure as part of the M.A. degree. The licensure track is for individuals with especially strong academic and artistic backgrounds who have completed baccalaureate degrees in studio art, design, art history, or other art-related fields. Coursework is taken at the undergraduate and graduate levels. Upon completion, individuals are recommended by the university for PreK-12 art licensure in Kansas and have earned a significant amount of credit required for the M.A. in Visual Art Education. Prospective students must meet all application requirements for the master’s degree to be considered for licensure in art. For further information, contact the Department of Visual Art (http://art.ku.edu) at 785-864-4401.
Business

Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU (see your advisor [http://www.advising.ku.edu] for details). Other years’ catalogs [http://catalog.ku.edu/archive].

Bachelor of Science in Business (p. 218)
Bachelor of Business Administration (p. 224)
Minor in Business (p. 226)
Master of Business Administration (p. 227)
Master of Accounting (p. 233)
Master of Science in Business (p. 235)
Doctor of Philosophy in Business (p. 235)

Introduction

In the School of Business, students acquire a rigorous education that prepares them for positions in a dynamic and competitive global environment.

The University of Kansas School of Business is accredited by the Association to Advance Collegiate Schools of Business International [http://www.aacsb.edu].

Undergraduate Programs

The school offers the Bachelor of Science (p. 218) degree in business on the Lawrence campus and the Bachelor of Business Administration (p. 224) on the KU Edwards Campus.

The undergraduate curriculum develops a foundation for lifelong education and growth. The strength of the program is based not only on the quality of the professional course offerings but also on the offerings of other KU divisions, particularly in the social sciences, natural sciences, and humanities. Students acquire a foundation education in business and management with emphasis on analytical skills and obtain a liberal arts and sciences education from their work outside the school.

The school offers advanced electives in various areas of business. Seven undergraduate majors are available:

• Accounting.
• Business administration.
• Finance.
• Information systems.
• Management and leadership.
• Marketing.
• Supply chain management.

Business concentrations may be earned in entrepreneurship, information systems, international business, and human resources. The baccalaureate programs in the School of Business, and independently the accounting program, are accredited by the Association to Advance Collegiate Schools of Business [http://www.aacsb.edu].

Resources and Opportunities

Study Abroad

The school encourages students to incorporate study abroad into their programs. Student and Academic Services can help students plan study to meet KU requirements while they are abroad. The school works with students and the KU Office of Study Abroad to select programs and courses appropriate to their interests and majors. Contact the Office of Study Abroad [http://www.studyabroad.ku.edu], 108 Lippincott Hall, 785-864-3742.

Job Shadowing

One on One, Jayhawks on the Job, allows business students to shadow a business professional during the course of a workday. The program offers students a daylong experience that enhances their understanding of a particular field and the business world, allows an opportunity for students to learn more about themselves and refine their career goals, and provides an opportunity for students to network with business professionals.

Internship Program

Internships offer students the opportunity to build on, apply, and assess the concepts that are developed through the curriculum and to further professional growth through meaningful real-world job experiences. The internship experience provides many benefits, from enhancing your knowledge of an industry or business field to increasing confidence in yourself and your abilities. Internships offer an opportunity to improve your professional skills, familiarize yourself with the business environment, network with business professionals, and refine your personal and career goals and aspirations. The school representative must approve the internship work experience. Not all positions qualify for internship credit.

Library Resources

The Anschutz Library offers a closed reserve service and reference services including a small print collection. The large collection in Watson Library offers additional reference and research materials. The business/economics bibliographer in the reference department can help business students use the library system. Spencer Research Library has an excellent collection on the history of economic thought and a special collection of business papers and records.

Computer Resources

Wagnon Computer Laboratory

The Wagnon Laboratory in Summerfield Hall is available to business undergraduate and graduate students for classroom assignments and individual research projects. About 46 computers and 30 software programs are available.

Harper Computing Classroom

Equipped with 34 PCs, the Harper room is intended for teaching classes that make heavy use of computers.

Faculty

The school’s faculty consists of 58 professors drawn from first-rank universities throughout the nation. The faculty enjoys a national reputation for research productivity and teaching success.
Graduate Programs

Four graduate degree programs are offered:

- Master of Business Administration (p. 227).
- Master of Science (p. 235).
- Master of Accounting (p. 233).
- Doctor of Philosophy (p. 235).

Four degree programs are offered jointly with other departments:

- Combined MBA/J.D. with the School of Law.
- MBA/Pharm.D. in Pharmacy.
- MBA/Master’s in Management from ESC Clermont in France.
- MBA with a concentration in petroleum management with the School of Engineering.

General admission requirements and the content of each of these programs are discussed on their pages of the online catalog.

Resources and Opportunities

Study Abroad

The school encourages students to incorporate study abroad into their programs. Student and Academic Services can help students plan study to meet KU requirements while they are abroad. The school works with students and the KU Office of Study Abroad to select programs and courses appropriate to their interests and majors. Contact the Office of Study Abroad (http://www.studyabroad.ku.edu), 108 Lippincott Hall, 785-864-3742.

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Faculty

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Undergraduate Advising

The Student and Academic Services (http://www.business.ku.edu/undergrad/current/advising) office, 206 Summerfield Hall, helps students meet their academic goals. Students should take primary responsibility for their academic careers by consulting SAS, becoming familiar with the undergraduate curriculum and graduation requirements, and complying with all guidelines. Advisors help students choose classes and make efficient progress towards graduation. For information, see the school’s website (http://www.business.ku.edu).

Mandatory Advising

Once a student is admitted to the School of Business, he or she must meet with a business advisor at least once a semester. A business advising hold is placed on admitted students’ enrollment each semester and released after the student meets with the advisor.

Graduate Advising

The MBA office in Summerfield Hall coordinates advising for MBA and M.S. students. The MAcc office coordinates advising for MAcc students, and the doctoral office coordinates advising for Ph.D. students. Staff members advise students about program requirements, course prerequisites, and program planning. Students based at the KU Edwards Campus typically receive advising sessions over the phone and by email. Advising sessions are optional.

Undergraduate Scholarships and Financial Aid

The school awards scholarships to current business students annually. The online application (http://www.business.ku.edu) is available during spring semester. Scholarships generally are awarded in midsummer.

To be considered for need-based scholarships, file the Free Application for Federal Student Aid (http://www.fafsa.gov) (FAFSA) by March 1. A few scholarships are available for incoming first-year students. High school students interested in majoring in business should contact Financial Aid and Scholarships (http://financialaid.ku.edu), Strong Hall, 1450 Jayhawk Blvd., Room 50, Lawrence, KS 66045-7518, 785-864-4700, for information about federal- and state-funded financial aid programs.
Graduate Fellowships and Assistantships
For information about graduate assistantships, contact the School of Business (http://www.business.ku.edu).

Visit the Graduate Studies website for information about funding opportunities (http://www.graduate.ku.edu/03-07_student_funding.shtml) for graduate students at KU.

Financial Aid and Scholarships (http://financialaid.ku.edu) administers grants, loans, and need-based financial aid.

Undergraduate University Regulations
For information about university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://policy.ku.edu).

Business Honor Code
Students taking any business course must sign a pledge of academic honesty at the end of all examinations. Upon application to the school, each student must electronically sign an honor code form, available from the School of Business (http://www.business.ku.edu).

Change of School
Admission is competitive. Applications are due February 15 for fall or summer admission and September 15 for spring admission.

Credit/No Credit
A Credit/No Credit option is available to all degree-seeking undergraduates. You may enroll in one course a semester under the option, if the course is not in your major or minor. For more information, visit the KU Policy Library (http://policy.ku.edu).

Warning: Certain undesirable consequences may result from exercising the option. Some schools, scholarship committees, and honorary societies do not accept this grading system and convert grades of No Credit to F when computing grade-point averages.

Credit/No Credit is allowed for electives only. Required professional (business and economics) course and PSYC 104 may not be taken for Credit/No Credit.

Graduation with Distinction and Highest Distinction
Undergraduates whose KU professional grade-point averages rank in the upper 10 percent of their graduating class graduate with distinction. The upper 3 percent of those awarded distinction graduate with highest distinction.

Honor Roll
Undergraduates with grade-point averages of 3.5 who have completed at least 12 hours with letter grades are recognized on the honor roll or dean’s list in fall and spring. An honor roll notation appears on the transcript.

Maximum and Minimum Semester Enrollment
No student may enroll for more than 20 hours a semester, or more than 9 hours in a summer session without permission from an undergraduate advisor.

Nonresidence Study Before the Last 30 Hours
Before the last 30 hours required for the degree, students may, under certain conditions, take courses at other institutions and transfer the credit to KU. Before enrolling in a nonresidence course, check on how your courses will transfer to KU (http://admissions.ku.edu/~admiss/credit/transfer) or complete KU’s standard form, Request for Tentative Evaluation of Transfer Credit, in your dean’s office or in College Student Academic Services for students in the College. After completing the course work, you must request that an official transcript be sent to the Office of Admissions (http://admissions.ku.edu), KU Visitor Center, 1502 Iowa St., Lawrence, KS 66044-7576, 785-864-3911. For transcripts to be official, they must be mailed from the college or university directly to KU. Faxed transcripts are not accepted for posting of transfer credit.

Nonresidence credit includes all credits from another college or university taken after initial enrollment at KU, military service courses, and other undergraduate course work not formally offered in the Schedule of Classes (http://www.classes.ku.edu).

Majors must submit the Request for Tentative Evaluation of Transfer Credit form before they enroll.

Prerequisites and Corequisites
The student is responsible for checking course prerequisites before enrollment. Course rosters are checked before the start of each semester and again after the last day to add classes online. Students who are enrolled in a course without its prerequisites are administratively dropped without notice during the first four weeks of the semester.

Probation
Placed on Probation
An undergraduate student whose cumulative grade-point average, either overall or at KU (in all courses or professional courses), is lower than 2.2 is placed on probation for the following semester.

Continued on Probation
A student on probation is continued on probation for one more semester if the KU semester grade-point average is at least 2.2, but the cumulative grade-point average, either overall or at KU (in all courses or professional courses), is lower than 2.2.

Returned to Good Standing
A student on probation is returned to good standing if the cumulative grade-point average, both overall and at KU (in all courses or professional courses), is at least 2.2.

Dismissed
A student on probation is dismissed for failure to earn a KU grade-point average of at least 2.2 (in all courses and professional courses) in the next semester of enrollment, or if after two consecutive semesters on probation, the cumulative grade-point average, either overall or at KU (in all courses and professional courses), is not at least 2.2. Students are readmitted through the competitive admission process. Those students...
are dropped from all courses for the next semester and must complete a Change of School form.

Required Work in Residence

No baccalaureate degree is granted to a student who has not completed at least 30 semester credit hours of residence courses at KU. No exceptions are granted.

To earn a bachelor’s degree from KU, you must complete the last 30 hours of credit for the degree by resident study. You may petition the dean for a waiver.

After admission to the school, written advance permission of the director of undergraduate programs is required for work taken at another institution to be applied to a student’s degree. Nonresident credits may fill only elective requirements. They may not be used for courses specifically required for graduation.

Transfer of Credit

CredTran (http://admissions.ku.edu/~admiss/credit/transfer) is a transfer course equivalency system that lists more than 2,200 colleges and universities from which KU has accepted transfer courses in the past. If your school or course is not listed, your evaluation will be completed when you are admitted to KU.

Courses completed at other institutions are accepted to fulfill graduation requirements (e.g., in place of specifically prescribed courses), only if they are substantially equivalent as indicated by course description, hours of credit, and prerequisites. For professional courses not listed on CredTran (http://admissions.ku.edu/~admiss/credit/transfer), the student must submit a petition along with a course syllabus to the School of Business. Petition forms are available from Student and Academic Services, 206 Summerfield Hall.

Only transfer grades of C or higher apply toward graduation from the School of Business at KU.

Graduate University Regulations

For information about university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://policy.ku.edu).

Business Honor Code

Students taking any business course must sign a pledge of academic honesty at the end of all examinations. Upon application to the school, each student must electronically sign an honor code form, available from the School of Business (http://www.business.ku.edu).

Credit/No Credit

A Credit/No Credit option is allowed for electives only. Required professional (business and economics) course and PSYC 104 may not be taken for Credit/No Credit.

Business Career Services

The Business Career Services Center (http://www.business.ku.edu/careers) (BCSC) provides a variety of resources including recruiting (on-campus interviews) for full-time and internship positions facilitated through KU Career Connections/Symplicity, an online job and internship database; individual career advising; and a variety of workshops and events—to name a few.

Other BCSC services include

- Individual career advising with trained counselors.
- Business career fair.
- Résumé review.
- Mock interviews and interview preparation assistance.
- Workshops on various career-related topics.
- Online resource libraries.
- Salary information.

The faculty and career services staff are committed to providing a strong student-oriented program to help students develop career objectives and target job opportunities. The BCSC cannot guarantee jobs, but it will make every effort to bring together the job-seeking candidate and potential employers in accordance with their needs, abilities, and interests. Business graduates have been successful in finding employment in their areas of interest. Positions have been available nationwide, regardless of academic area or business degree.

Students are encouraged to register with the BCSC as early as possible. An early start can mean wider access to potential employment opportunities. Registrants’ may include one or more résumés in a web-based database, allowing access by the BCSC and employers. This allows the BCSC to perform résumé referrals quickly and companies to conduct their own résumé searches. Students can update their résumés at any time from any Internet-linked computer.

Statistics on graduates are collected each semester. Information on the number of degrees granted, percentage of graduates employed, and average starting salaries can be found on the School of Business website (http://www.business.ku.edu).

Contact the BCSC for more information at 785-864-5591, fax: 785-864-5078, bscsc@ku.edu.

Courses

ACCT 200. Fundamentals of Financial Accounting. 4 Hours. GE12. Accounting 200 is an introduction to the concepts of business and the measurement systems used to control and evaluate business activities. This course is designed to be of interest to all students regardless of discipline. Prerequisite: Goal 1, Outcome 2 and Goal 2, Outcome 1. LEC.

ACCT 201. Managerial Accounting I. 3 Hours. A continuation of Financial Accounting I. A study of concepts of materials, labor, and overhead control; budget administration; cost accounting systems including standard costing; full costing and direct costing; income determination; differential costing; break-even analysis; accounting statement analysis; and use of return on investment as a basis for management decisions. Prerequisite: ACCT 200. LEC.
ACCT 205. Survey of Accounting. 3 Hours.
This course is an introduction to financial and managerial accounting. It will introduce the concepts of business and the measurement systems used to control and evaluate business activities. It will also explore product costing systems and the use of accounting data as a basis for management planning and decision making. (Not open to students with credit in ACCT 200.) Prerequisite: Goal 1, Outcome 2 and Goal 2, Outcome 1. LEC.

ACCT 300. Special Topics in Accounting: _____, 1-5 Hours.
This is a variable-topic course open to undergraduates meeting the prerequisites for the specific topic being offered. Its purpose is to allow the occasional offering of accounting topics not covered by established courses. Enrollment is not limited to School of Business students. Prerequisite: Determined for each topic by instructor. LEC.

ACCT 303. Introduction to the Accounting Profession. 1 Hour.
This course will focus on Accounting as a profession. Prospective and current accounting students will be exposed to a variety of topics. These include, but are not limited to, career options in Accounting, the CPA exam, ethics in the profession, current issues in Accounting, professional standards, the Accounting major, and the five-year Accounting program. Prerequisite: ACCT 200 or coenrollment in ACCT 200. LEC.

ACCT 311. Information Systems for Accountants. 3 Hours.
This course provides an overview of how to understand, analyze, and control computerized information systems, and is designed to provide the computer tools and knowledge so that today’s business or accounting student will be tomorrow’s successful and complete manager, consultant, accountant, and/or auditor. The topics covered in this course will include computer technology, internal control in a computer environment, computer auditing, systems analysis and design, database systems, networking, electronic commerce, and specific systems applications. Hands-on experience will be obtained through projects and various software packages. This course will count as an advanced business elective. Prerequisite: ACCT 201 and IST 202 or IST 301. Enrollment restricted. LEC.

ACCT 320. Intermediate Accounting I. 3 Hours.
A study of generally accepted accounting principles (GAAP) underlying the preparation and interpretation of general-purpose financial statements with emphasis on the principles of revenue recognition, matching revenues and related costs, and the determination of proper balance sheet valuations of assets and liabilities. The asset side of the balance sheet is the primary emphasis though the entire financial statements are used in examples throughout the course. Prerequisite: ACCT 201. Prerequisite or Corequisite: ACCT 303. LEC.

ACCT 321. Intermediate Accounting for Finance. 3 Hours.
An intermediate accounting course with emphasis on interpretation of general-purpose financial statements and the related disclosure notes. Includes understanding interrelationships among the various financial statements and analyzing the effects of transactions on the financial statements. Common and significant accounts/transactions will be analyzed, especially those relating to the financing and equity sections of the financial statements. Not open to students with credit in ACCT 320 or ACCT 323 or ACCT 410 or ACCT 411. Prerequisite: FIN 310 or FIN 311. Enrollment restricted. LEC.

ACCT 323. Intermediate Accounting I, Honors. 3 Hours.
Interpretation and application of financial accounting standards, with an emphasis on U.S. Generally Accepted Accounting Principles (GAAP) and ancillary treatment of International Financial Reporting Standards (IFRS). General coverage of all financial statements, with specific attention placed upon the balance sheet. A primary focus of the course is on the comprehension of foundational principles, concepts, and theories underlying financial reporting. Only open to students admitted to the University Honors Program, the School of Business Honors Program, or by consent of the instructor. Prerequisite: ACCT 201. Prerequisite or Corequisite: ACCT 303. LEC.

ACCT 325. Managerial Accounting II. 3 Hours.
An analysis of cost systems and their application in the determination, analysis and control of manufacturing and distribution costs. Emphasis is on managerial planning and control. Prerequisite: ACCT 201. Enrollment restricted. LEC.

ACCT 326. Managerial Accounting II, Honors. 3 Hours.
Honors treatment of this course involves an analysis of cost systems and their application in the determination analysis and control of manufacturing and distribution costs. Emphasis is on managerial planning and control. Open only to students admitted to the University Honors Program, the Business Honors Program, or permission of the instructor. Prerequisites: ACCT 201. Enrollment restricted LEC.

ACCT 330. Introduction to Taxation. 3 Hours.
A study of the major concepts related to taxation with emphasis on the federal income tax for individuals including the implications of being a sole proprietor, partner of a partnership, and a corporate shareholder. Major topics covered include: different types of taxes; formation of the tax law; gross income; deductions; the tax formula; tax credits; filing status; tax treatment for capital gains and losses; and selected nontaxable transactions. Prerequisite: ACCT 320 or ACCT 323. Enrollment restricted. LEC.

ACCT 331. Introduction to Taxation, Honors. 3 Hours.
Honors treatment of this course is a study of the major concepts related to taxation with emphasis on the federal income tax for individuals including the implications of being a sole proprietor, partner of a partnership, and a corporate shareholder. Major topics covered include: different types of taxes; formation of the tax law; gross income; deductions; the tax formula; tax credits; filing status; tax treatment for capital gains and losses; and selected nontaxable transactions. Prerequisite: ACCT 320 or ACCT 323. Only open to students admitted to the University Honors Program, the Business Honors Program, or permission of the instructor. LEC.

ACCT 335. Introduction to Income Tax. 3 Hours.
An introduction to basic concepts of income tax and how the tax law is formed. While tax problems of an individual are considered, emphasis is placed on tax factors to consider when conducting a business either as a single proprietor, corporation, or partnership. Not open to students with credit in ACCT 330 or ACCT 331. This course is for non-accounting majors. Prerequisite: ACCT 201. Enrollment restricted. LEC.

ACCT 400. Special Topics in Accounting: _____, 1-5 Hours.
This is a variable-topic seminar. Its purpose is to allow the occasional offering of accounting topics not covered by established courses. Prerequisite: Determined for each topic by the instructor. Enrollment restricted. LEC.

ACCT 410. Intermediate Accounting II. 3 Hours.
A continuation of the study of generally accepted accounting principles (GAAP) underlying the preparation and interpretation of general-purpose financial statements. The focus of this course is on the liability and equity sections of the balance sheet, including such topics as loans, bonds, leases, pensions, accounting for income taxes, equity transactions, employee stock options, earnings per share, and cash flows. Application of many of the authoritative accounting pronouncements is illustrated. Prerequisite: ACCT 320 or ACCT 323. Enrollment restricted. LEC.

ACCT 411. Intermediate Accounting II, Honors. 3 Hours.
Honors treatment of this course is a continuation of the study of generally accepted accounting principles (GAAP) underlying the preparation and...
interpretation of general-purpose financial statements. The focus of this course is on the liability and equity sections of the balance sheet, including such topics as loans, bonds, leases, pensions, accounting for income taxes, equity transactions, employee stock options, earnings per share, and cash flows. Application of many of the authoritative accounting pronouncements is illustrated. Prerequisite: ACCT 320 or ACCT 323. Only open to students admitted to the University Honors Program, the Business Honors Program, or permission of the instructor. LEC.

ACCT 500. Individual Research in Accounting: ____, 1-5 Hours. Individual study of selected topics in business not otherwise available to the student. Topics selected to be determined by the special interests and objectives of the student in consultation with a faculty member who will supervise the reading and research. Prerequisite: FIN 310 or FIN 311, MGMT 310 or MGMT 311, MKTG 310 or MKTG 311, SCM 310 or SCM 311; approval of the Area Director. Enrollment restricted. LEC.

ACCT 515. Accounting Professional Communications, 3 Hours. This course is designed to improve the professional communications skills of students interested in pursuing careers in accounting. Topics covered include communication styles, communication approaches for different styles, listening skills, client interactions, appropriate communication channels, receiving feedback, and presentation skills. Graded on satisfactory/unsatisfactory basis. Prerequisite: ACCT 599 or ACCT 799. Enrollment restricted. LEC.

ACCT 543. Introduction to Auditing, 3 Hours. The fundamental concepts of audit risk, evidence accumulation and materiality are applied to financial statement audits using established accounting principles as the criterion for evaluating fair presentation. Audit objectives and procedures are studied in relation to the opinion which the auditor expresses on clients' financial statements. Financial statement audits are compared with other types of engagements performed by public accountants, and with other types of audits, such as compliance and operational audits. Prerequisite: ACCT 311 and ACCT 410 or ACCT 411. Enrollment restricted. LEC.

ACCT 544. Introduction to Auditing, Honors. 3 Hours. Honors treatment of this course involves the fundamental concepts of audit risk, evidence accumulation and materiality are applied to financial statement audits using established accounting principles as the criterion for evaluating fair presentation. Audit objectives and procedures are studied in relation to the opinion which the auditor expresses on clients' financial statements. Financial statement audits are compared with other types of engagements performed by public accountants, and with other types of audits, such as compliance and operational audits. Only open to students admitted to the University Honors Program, the Business Honors Program, or permission of the instructor. Prerequisite: ACCT 311 and ACCT 410 or ACCT 411. LEC.

ACCT 545. Advanced Taxation, 3 Hours. Introduction to taxation for corporations, partnerships, S corporations and limited liability companies. The course will also include coverage of property transactions, methods of accounting, tax-related investment decisions, and selected tax issues. Prerequisite: ACCT 330 or ACCT 331. Enrollment restricted. LEC.

ACCT 599. Internship in Accounting, 1-3 Hours. Internships provide opportunities for students to combine their academic education with a meaningful experience in the business world. Accounting internships allow students to explore career pathways in accounting, further their professional growth, expand professional networks, and increase the relevancy of their academic course work. The internship course combines job-related activities of the accounting internship position with a set of academic requirements. These requirements include academic assignments as well as a pre- and post-internship seminar held in the semester before and after the semester in which the internship occurs. Internships for credit must be approved by the Director of the Internship Program prior to the internship experience. Students may not receive more than three hours of internship credit from ACCT 599. ACCT 599 may count as an Accounting elective for students majoring in Accounting. Prerequisite: Approval of the internship; two of the following: FIN 310 or FIN 311, MGMT 310 or MGMT 311, MKTG 310 or MKTG 311, SCM 310 or SCM 311. Enrollment restricted. LEC.

ACCT 701. Financial Accounting, 2 Hours. Financial accounting provides information to decision-makers external to the business, such as investors and lenders. The course describes the process through which economic information is captured, validated, and distributed externally in the form of financial statements. It also covers the contents of the major financial statements, focusing on how the various accounts are defined and measured and how the information can be used by external decision-makers. Enrollment restricted. LEC.

ACCT 702. Managerial Accounting, 2 Hours. Managerial accounting provides information to decision-makers within the business, such as supervisors and executives. The course describes the process through which economic information is captured and distributed internally as budgets and other reports. It also covers various uses of managerial accounting information for internal decision-making. These uses include planning for profitable operations, determining costs of products and services, and evaluating performance within an organization. Not open to MAcc students or students with credit in ACCT 325. Prerequisite: ACCT 701. Enrollment restricted. LEC.

ACCT 705. Financial Statement Presentation and Analysis II, 2 Hours. This course covers topics in intermediate-level financial accounting and financial statement analysis. Accounting topics are taught from an external decision-maker's perspective. The course is intended to help students read and understand complex financial statements, and to extract key financial information from a mass of detail. Topics will vary over time but can include financial reporting of various liabilities, derivatives and hedging, investments and acquisitions. Topics also can include forecasting financial statements, and valuation of common stock using accounting data. Not open to MAcc students or students with credit in ACCT 320 or ACCT 323, ACCT 410 or ACCT 411, ACCT 721, or ACCT 722. Prerequisite: ACCT 701. Enrollment restricted. LEC.

ACCT 706. Business Taxation, 3 Hours. An introduction to basic concepts of income tax law with emphasis on business taxation. The factors to consider when conducting a business as a single proprietorship, corporation, S corporation, or partnership are analyzed. Prerequisite: ACCT 701 or equivalent. Enrollment restricted. LEC.

ACCT 708. Accounting and Finance for Professionals, 3 Hours. This course is an introduction to financial and managerial accounting. It also serves as a bridge to basic financial decision-making. It will introduce the concepts of business and the measurement systems used to control and evaluate business activities. It will also explore costing systems and the use of accounting data as a basis for management planning and decision making, using basic tools such as return on investment. Not open to School of Business students. LEC.

ACCT 720. Financial Statement Analysis, 2 Hours. This course covers topics in financial accounting and financial statement analysis. Accounting topics are taught from an external decision-maker's perspective. The course is intended to help students read and understand complex financial statements, and to extract key financial information from a mass of detail. Topics will vary over time but can include analyses of cash flows, quality and persistence of earnings, income recognition,
restructuring, other special charges and off-balance sheet financing. Not open to MAcc students or students with credit in ACCT 320 or ACCT 323, ACCT 410 or ACCT 411, ACCT 721, or ACCT 722. Prerequisite: ACCT 701 or ACCT 810. Enrollment restricted. LEC.

ACCT 721. Advanced Accounting. 3 Hours. A series of topics related mainly to financial accounting for corporations. Includes accounting for acquisitions and consolidations, asset impairments and derivative instruments. Also includes accounting for partnership equity. Prerequisite: Permission of the instructor. Enrollment restricted. LEC.

ACCT 722. Researching Financial Accounting Issues. 3 Hours. This course is intended to help students understand how perceived financial reporting problems are addressed via the financial standard setting process. This includes the roles of standard setting agencies, accounting theory, and political and economic pressures. The course also considers the potentially opposing reporting preferences of managers, investors and analysts. Topics will vary over time but can include convergence of U.S. and international standards, recent and proposed changes to standards, and underlying trends in standard setting (such as increased use of fair value measurements, and principles-based standards). Prerequisite: Admission to the MAcc program. Enrollment restricted. LEC.

ACCT 724. Accounting Theory. 3 Hours. This course examines the economic drivers, competing interests, and regulatory institutions that determine accounting policy choice and the societal role of accounting. By the end of the course, students will have developed a cognitive framework that will enable them to identify and understand the forces that shape financial reporting, firms' reporting decisions, the behavior of financial regulatory bodies, interactions among agents in the capital markets, the behavior of public accounting firms, as well as other relevant issues. The end-goal of this course is to develop in the participants a more advanced and sophisticated perspective of the economic, political, ethical, and social role of accounting. Prerequisite: ACCT 410 or ACCT 411. Enrollment restricted. LEC.

ACCT 726. Advanced Managerial Accounting - Quantitative and Economic Topics. 3 Hours. Through judicious use of quantitative methods including statistical decision theory, this course provides a conceptual analysis of several prominent managerial accounting topics. This course is intended to assist both public accountants and management accountants to understand management decision-making processes and information requirements thereof. Prerequisite: Admission to the MAcc program. Enrollment restricted. LEC.

ACCT 731. Tax Research. 3 Hours. A course designed to develop one's ability to use the research tools available and provide comprehensive coverage of the many aspects of tax research. Emphasis is placed on locating authorities, solving tax problems, and communicating the results. Prerequisite: Admission to the MAcc program. Corequisite: ACCT 545. Enrollment restricted. LEC.

ACCT 732. Taxation for Business Entities. 4 Hours. A study of federal income taxation for corporations, subchapter S corporations, and partnerships. The tax problems associated with formation, operation, distributions, redemptions, reorganizations, and selected special topics will be analyzed. Prerequisite: ACCT 545 and admission to MAcc. Prerequisite or concurrent enrollment in ACCT 731. Enrollment restricted. LEC.

ACCT 733. Tax Planning. 3 Hours. A study of the fundamentals of Federal estate and gift taxation, the income taxation of estates and trusts, and various aspects of family tax planning. Prerequisite: ACCT 545 and admission to the MAcc program. Enrollment restricted. LEC.

ACCT 741. Fraud Examination and Forensic Accounting. 3 Hours. Explores various academic approaches to fraud to include factors learned from other disciplines such as sociology and psychology. Students will review the vast body of knowledge gained by practitioners throughout the world and will attempt to apply these factors to the prevention of financial statement and occupational (employee) fraud. Some of the topics covered include: skimming transactions, identity fraud, computer schemes, money laundering, bribery and kickbacks, and corporate espionage. Prerequisite: ACCT 543 or ACCT 544 or permission of instructor. Enrollment restricted. LEC.

ACCT 742. Advanced Auditing. 3 Hours. Current auditing philosophy, standards, techniques, and professional judgment are extensively investigated and related to auditing activities. Special emphasis is given to the design of audit programs in relation to the client's system of internal control and the effect of such factors as relative risk and materiality. Other topics include auditors' legal liability, professional ethics, the impact of electronic data processing and statistical techniques, and the preparation of auditors' reports and qualifications therein. Prerequisite: Admission to the MAcc program. Enrollment restricted. LEC.

ACCT 743. Accounting Information System Risks and Controls. 3 Hours. Students learn how to perform the risk assessments that auditors use to plan a top-down, risk-based assurance engagement. Using auditing standards and internal control frameworks as a guide, students learn how auditors (a) evaluate market conditions, industry practices, and client business activities to assess the risk of financial misstatement, (b) search potential misstatements by analyzing patterns of fluctuations in related financial statement accounts, and (c) assess the effectiveness of internal controls that protect technology-driven financial reporting processes from errors and irregularities. Prerequisite: Admission to the MAcc program. Enrollment restricted. LEC.

ACCT 745. Specialized Accounting Practices. 3 Hours. This course is an extension of the study of basic financial accounting practices to include specialized industries that have particular or varied forms of GAAP applications and reporting which are not normally covered in basic financial accounting courses. Topics include accounting for banking, retail, insurance, not-for-profit entities, oil and gas, and financial institutions. Typically, this course should be taken by students in the audit track of the MAcc Program. Prerequisite: Admission to the MAcc program. Enrollment restricted. LEC.

ACCT 746. International Financial Reporting Standards I. 2 Hours. International Financial Reporting Standards (IFRS) have become commonplace in nearly every country in the world. Even in the US, the SEC has sanctioned the use of IFRS for reporting purposes by a specific classification of exchange-listed corporations. In addition, the SEC has made a consistent attempt to converge US and international standards since the beginning of the 21st century. There is no question that US GAAP-trained accountants require a working knowledge of international financial reporting standards. LEC.

ACCT 747. International Financial Reporting Standards II. 1 Hour. This course will follow an independent study model with students identifying IFRS topics they wish to study further. Having successfully mastered the basic IFRS materials offered in IFRS I, this course will allow students an opportunity to explore a specific IFRS topic of interest with an in-depth research paper. Topics must be approved in advance. Students will interact with the professor to determine appropriate research material and obtain guidance to their research, the paper and their conclusions.
Students are encouraged to work at their own pace in order to obtain the best possible outcome from their research activity. Graded on satisfactory/unsatisfactory basis. Enrollment restricted. LEC.

ACCT 799. Internship in Accounting. 1-3 Hours.
Internships provide opportunities for students to combine their academic education with a meaningful experience in the business world. Accounting internships allow students to explore career pathways in accounting, further their professional growth, expand professional networks, and increase the relevancy of their academic coursework. The internship course combines job-related activities of the accounting internship position with a set of academic requirements. These requirements include academic assignments as well as a pre- and post-internship seminar held in the semester before and after the semester in which the internship occurs. Internships for credit must be approved by the Director of the Internship Program prior to the internship experience. Students may not receive more than three hours of internship credit. Enrollment restricted and by permission only. FLD.

ACCT 810. Accounting and Financial Management. 4 Hours.
Accounting and Financial Management introduces foundation concepts and analytical tools from accounting and finance and applies them to financial decision making. Topics include accounting information systems, financial statements, financial statement analysis, cash flows, operating and financial risks, valuation of real and financial assets, and the cost of capital. This course is open only to students in the full-time MBA program. LEC.

ACCT 895. Graduate Seminar in Accounting: ______. 0.5-5 Hours.
A variable-topic seminar open only to graduate students meeting the requirements established by faculty members offering the course. Enrollment restricted. LEC.

ACCT 898. Independent Study for Master’s Students. 1-6 Hours.
Individual study of selected current problems in the field of accounting to be adapted to the special interests and objectives of the students and conducted through extensive reading and research. Students must have at least a 3.0 grade point average and be in good academic standing in a graduate business program and must submit a written statement of the proposed project approved by a supervisory faculty member prior to enrollment. RSH.

ACCT 925. Seminar in Contemporary Accounting Theory II. 3 Hours.
(S) Continuation of BUS 740 with emphasis upon the economic and social factors affecting the development of accounting thought. Each student will make both oral and written presentations of his/her original investigation and analysis of contemporary controversial issues. Prerequisite: Consent of PhD advisor. LEC.

ACCT 927. Seminar in Management Accounting. 3 Hours.
(V) The objective of this course is to foster a student’s conception and resolution of substantive issues in the management accounting area. Thus, the course will provide exposure to selected contemporary research topics. Representative topics that will be discussed are: concept of information, information economics, accounting information for planning and control, design of accounting information systems, variance analysis, and cost allocations. Prerequisite: Consent of PhD advisor. LEC.

ACCT 995. Doctoral Seminar in Accounting: _____. 2-5 Hours.
A variable topic seminar open only to graduate students meeting the requirements established by faculty members offering the course. Prerequisite: Consent of instructor. LEC.

ACCT 997. Directed Research in Accounting. 1-5 Hours.
Students will research selected topics in the field of business administration under the direction of a graduate faculty member. Students are expected to report the results of their research by writing a publishable-quality scholarly article. Graded on satisfactory/unsatisfactory basis. Prerequisite: Approval required from supervising graduate faculty member. RSH.

ACCT 998. Independent Study for Doctoral Students. 1-5 Hours.
Individual study of selected current problems in the field of business administration to be adapted to the special interests and objectives of the students and conducted through extensive reading and research. Student must submit written statement of proposed project. Prerequisite: Approval required from supervising faculty member and PhD Team. RSH.

ACCT 999. Doctoral Dissertation. 1-12 Hours.
(V) Individual research work. THE.

BBA 301. Managerial Economics. 3 Hours.
This course uses economic theory and methodology to understand and improve managerial decision making. The focus is on the role of markets in determining business and individual opportunities to create value, the behavior of individual markets reacting to supply and demand forces, and the consequences of alternative market structures and business policies. Course content includes demand, production, cost analysis, supply and demand analysis, price and non-price modes of competition, market structure, and economic efficiency. Prerequisite: Principles of Microeconomics and Principles of Macroeconomics. Enrollment restricted to students admitted to the Bachelor of Business Administration Major. LEC.

BBA 302. Legal Aspects of Business. 3 Hours. GE11.
A course designed to acquaint the student with the basic principles of law that are applicable to business transactions in the modern business world and the legal systems. Prerequisite: Junior standing (60 hours completed). Enrollment restricted to students admitted to the Bachelor of Business Administration Major. LEC.

BBA 303. Organizational Behavior. 3 Hours.
This course serves as an introduction to the study of individual and group behavior within the context of an organization. An objective may be the development of the student’s potential for becoming an effective organization member and manager of people. Experiential learning methods are utilized to involve the student actively. A wide variety of topics and theories may be covered, generally including motivation, leadership, job design, group dynamics, and formal organizational structure and process. Prerequisite: Completion of General Psychology. Enrollment restricted to students admitted to the Bachelor of Business Administration Major. LEC.

BBA 304. Marketing. 3 Hours.
A study of marketing from the point of view of the business firm. Topics include the structure of the marketing system, the nature of marketing management, consumer behavior, marketing research, product policy, channels of distribution policy, and analytical techniques useful to marketing management. Prerequisite: Completion of Principles of Microeconomics, Financial Accounting, and General Psychology. Prior completion or co-enrollment in the required statistics course. Enrollment restricted to students admitted to the Bachelor of Business Administration Major. LEC.

BBA 305. Management Science and Operations Management. 3 Hours.
Introduces some of the most widely used models from management science in business decision making. Topics include decision making under uncertainty, resource allocation models, and production and operations management. Prerequisite: Completion of Introduction to Business Computing and the required statistics course. Enrollment restricted to students admitted to the Bachelor of Business Administration Major. LEC.
BBA 306. Finance. 3 Hours.
This course consists of the analysis of problems relating to estimating the financial needs of an enterprise and to evaluating the alternative means of providing and utilizing both temporary and permanent capital. The relationship of current financial decisions with financial policy is analyzed from the viewpoint of management and the stockholder. Prerequisite: Prior Completion of Financial Accounting and prior completion or enrollment of the required statistics course. Enrollment restricted to students admitted to the Bachelor of Business Administration Major. LEC.

BBA 307. Introduction to International Business. 3 Hours. AE42.
This course provides an overview of the key concepts, analytical frameworks and institutions that underlie international business. Particular attention is paid to the cultural and social diversity present in the world as well as the economic theories that explain the benefits of trade and underpin the agreements governing such international transactions. Prerequisite: Principles of Macroeconomics and admission to the BBA program. LEC.

BBA 308. Business Policy and Strategy. 3 Hours. AE61.
This course exposes students to the role of general management in complex organizations. The cases, conceptual materials, and projects are selected to provide students with opportunities to analyze and formulate strategic decisions that allow businesses to create and sustain competitive advantages. Knowledge and skills gained in previous business courses, including marketing, finance, and quantitative methods, will be applied to problems associated with the totality of organizational strategic activity. Prerequisite: BBA 303, BBA 304, BBA 305, and BBA 306. Enrollment restricted to students admitted to the Bachelor of Business Administration Major. LEC.

BBA 401. Marketing Management and Strategy. 3 Hours.
This course builds upon the principles of marketing introduced in BBA 304 (Marketing) by further developing concepts in such areas as product management, pricing, distribution, promotion, market segmentation, product positioning, and strategic marketing planning. The primary focus of the course is the integration of these concepts to achieve specific marketing and segment goals and objectives. An important component of the course is the application of concepts to realistic marketing problems through the use of comprehensive marketing simulations or in-depth cases that capture the dynamics of the marketing environment. Prerequisite: BBA 304. Enrollment restricted to students admitted to the Bachelor of Business Administration Major. LEC.

BBA 402. Human Resources Management. 3 Hours.
This course addresses the ways that firms manage employment relationships, including staffing, training and development, compensation, performance appraisal, labor-management relations, employment law, career management, and job design. Upon completion of the course, students will be able to identify and address these topics from a general management perspective. Prerequisite: BBA 303. Enrollment restricted to students admitted to the Bachelor of Business Administration Major. LEC.

BBA 403. Ethical Decision Making in Business. 3 Hours. AE51.
This course is designed to provide students with: (a) a grounding in the psychological and philosophical foundations of business ethics; (b) the ability to recognize ethical problems; (c) an exposure to many of the ethically sensitive issues facing corporations and managers in business today (e.g., layoffs, outsourcing, employee whistle-blowing, employee privacy, employee health and safety, marketing and advertising, environmental issues, discrimination, and the global responsibilities of business); and (d) the tools for analyzing and reaching closure on ethical problems. Students will study the role of ethics in the relation of business to employees, consumers, and society. Students in this course will have the opportunity to engage in stimulating class discussions, justify ethical positions in case study analyses, investigate ethical issues in their own future professional lives, and develop and present their solutions for typical ethical problems faced by managers in organizations. Prerequisite: BBA 303. Enrollment restricted to students admitted to the Bachelor of Business Administration Major. LEC.

BBA 404. Entrepreneurship. 3 Hours.
In this course the student examines the disciplines which comprise the critical success factors in entrepreneurship and develops a fundamental understanding of the basic skill set required to manage his/her own business. Learning will be achieved by both study and discussion of key entrepreneurial business issues as well as the critical appraisal of new venture business plans as presented in the text. Readings in entrepreneurship and case studies, contained in the text as well as in video presentations, will be used to illustrate the essential entrepreneurial management issues. Enrollment restricted to students admitted to the Bachelor of Business Administration Major. LEC.

BBA 405. Introduction to Supply Chain Management. 3 Hours.
This course introduces the student to supply chain management. Students are presented the key concepts of supply chain management, the application of these concepts and are provided with the managerial knowledge of supply chain management through class discussions and case studies. Students discover the impact of information technologies, strategic alliances and logistics on supply chain management and the performance implication of supply chain management. Prerequisite: BBA 304, BBA 305, and BBA 306. Enrollment restricted to students admitted to the Bachelor of Business Administration Major. LEC.

BBA 406. Advanced Finance - Principle and Applications. 3 Hours.
This course covers the theory and professional practice in three areas of finance. (1) The processes investors follow in selecting where to place their savings are detailed. (2) The investment and financing issues faced by firms are investigated. (3) The financial intermediaries that facilitate the flow of funds between investors and firms are studied. Prerequisite: BBA 306. Enrollment restricted to students admitted to the Bachelor of Business Administration Major. LEC.

BBA 407. Information Systems Technology Elective: _____. 3 Hours.
This is a variable-topic seminar. Its purpose is to allow the occasional offering of information systems technology topics not covered by established courses. Prerequisite: Determined for each topic by instructor. Enrollment restricted to students admitted to the Bachelor of Business Administration Major. LEC.

BBA 408. Accounting Elective: _____. 3 Hours.
This is a variable-topic seminar. Its purpose is to allow the occasional offering of accounting topics not covered by established courses. Prerequisite: Determined for each topic by instructor. Enrollment restricted to students admitted to the Bachelor of Business Administration Major. LEC.

BBA 410. Project Management. 3 Hours.
This course develops a systems view of business so students can more effectively integrate project management into their business strategy. A common language and knowledge of project management concepts, principles and practices is developed. Students develop an understanding of what project management involves, how it relates to other functional management areas, and its role in an organization’s structure and leadership. Topics are covered in the order they appear in the project lifecycle starting with project selection and bidding and ending with project acceptance and close out. Topics covered in this course include: the importance and role of project management, the contextual nature of projects, logistics issues in project management, and the E-business impact on project management. Prerequisite: BBA 303. Enrollment restricted to student admitted to the BBA program. LEC.
BBA 500. Individual Research in Business. 1-5 Hours.
Individual study of selected topics in business not otherwise available to the student. Topics selected to be determined by the special interests and objectives of the student in consultation with a faculty member who will supervise the reading and research. Prerequisite: Approval of proposed plan of study by the instructor. Enrollment restricted to students admitted to the Bachelor of Business Administration Major. Enrollment restricted. RSH.

BE 301. Managerial Economics. 3 Hours.
This course uses economic theory and methodology to understand and improve managerial decision making. The focus is on the role of markets in determining business and individual opportunities to create value, the behavior of individual markets reacting to supply and demand forces, and the consequences of alternative market structures and business policies. Course content includes demand, production, cost analysis, supply and demand analysis, price and non-price modes of competition, market structure, and economic efficiency. Not open for credit to students in ECON 524. Prerequisite: ECON 142 and ECON 144. LEC.

BE 302. Managerial Economics, Honors. 3 Hours.
Honors treatment of this course includes uses of economic theory and methodology to understand and improve managerial decision making. The focus is on the role of markets in determining business and individual opportunities to create value, the behavior of individual markets reacting to supply and demand forces, and the consequences of alternative market structures and business policies. Course content includes demand, production, cost analysis, supply and demand analysis, price and non-price modes of competition, market structure, and economic efficiency. Not open for credit to students in ECON 524. Prerequisite: ECON 142 and ECON 144. Only open to students admitted to the University Honors Program, the Business Honors Program, or permission of the instructor. LEC.

BE 701. Business Economics. 2 Hours.
This course uses economic theory and methodology to understand and improve managerial decision making. The focus is on the role of markets in determining business and individual opportunities to create value, the behavior of individual markets reacting to supply and demand forces, and the consequences of alternative market structures and business policies. Course content includes demand, production, cost analysis, supply and demand analysis, price and non-price modes of competition, market structure, and economic efficiency. Enrollment restricted. LEC.

BE 709. Independent Study for Master’s Students. 1-6 Hours.
A variable-topic course open to graduate and selected undergraduate students meeting the requirements established by faculty members offering the course. Prerequisite: Determined by the instructor. Enrollment restricted. LEC.

BE 801. Advanced Managerial Economics. 3 Hours.
(F) This course is designed primarily for doctoral candidates in business administration. It will provide a rigorous analytical approach to developing and understanding an integrated economic model of the business firm and its environment. The student will be expected to learn the theory and understand how it can be applied to solve problems in business. Upon completion of the course the student should also possess an understanding of how economic analysis relates to and can be used in his/her own field of research. Masters students may enroll with consent of instructor. LEC.

BLAW 300. Special Topics in Business Law: ______. 1-5 Hours.
This is a variable-topic course open to undergraduates meeting the prerequisites for the specific topic being offered. Its purpose is to allow the occasional offering of business law topics not covered by established courses. Enrollment is not limited to School of Business students. Prerequisite: Determined for each topic by instructor. LEC.
BLAW 301. Legal Aspects of Business. 3 Hours. GE11/GE3S.
A course designed to acquaint the student with the basic principles of law that are applicable to business transactions in the modern business world and the legal systems. Prerequisite: Junior standing (60 hours completed). LEC.

BLAW 302. Legal Aspects of Business, Honors. 3 Hours. GE11/GE3S.
Honors treatment of this course involves acquainting students with the basic principles of law that are applicable to business transactions in the modern business world and the legal systems. Prerequisite: Junior standing (60 hours completed). Only open to students admitted to the University Honors Program, the Business Honors Program, or permission of the instructor. LEC.

BLAW 400. Special Topics in Business Law: ______. 1-5 Hours.
This is a variable-topic seminar. Its purpose is to allow the occasional offering of business law topics not covered by established courses. Prerequisite: Determined for each topic by the instructor. Enrollment restricted. LEC.

BLAW 500. Individual Research in Business Law. 1-5 Hours.
Individual study of selected topics in business law not otherwise available to the student. Topics selected to be determined by the special interests and objectives of the student in consultation with a faculty member who will supervise the reading and research. Prerequisite: BLAW 301 or BLAW 302; 3.0 professional grade point average and approval of proposed plan of study by the instructor. Enrollment restricted. LEC.

BLAW 505. Legal Aspects of the Management Process. 3 Hours.
A course designed to acquaint students with the basic principles of agency relationships, such as partnerships, limited liability companies, and corporations, with special emphasis on the problems encountered by managers and directors in operating a corporation. The course should acquaint a student with how to create and operate a corporation in light of current federal and state enactments. Prerequisite: BLAW 301 or BLAW 302. Enrollment restricted. LEC.

BLAW 510. Legal Aspects of Real Property Transactions. 3 Hours.
This course will address legal matters of concern to property owners, real estate agents and brokers, developers, renters, property managers, contractors, architects, planners, and lenders regarding real estate transactions. Concentrating on the general subjects of (1) the nature of real property, (2) transfer and financing of real estate, (3) land use and regulations, and (4) landlord and tenant relations, the course will address specific topics such as estates and interests in land, forms of ownership, agency and brokerage, and tax attributes of real estate investments, and will consider pertinent statutes and legal documents frequently used in real estate transactions. Prerequisite: BLAW 301 or BLAW 302. Enrollment restricted. LEC.

BLAW 515. Commercial Law. 3 Hours.
An advanced course in legal aspects of business with emphasis on the Uniform Commercial Code. Prerequisite: BLAW 301 or BLAW 302. Enrollment restricted. LEC.

BLAW 525. Negotiations and Dispute Settlement. 3 Hours.
This course will involve the study of the theory and practice of dispute resolution and negotiation in business mediation (facilitated negotiation). Conflict resolution in the workplace, including grievance procedures, will be considered. Students are required to apply concepts studied through role playing simulations. (Same as MGMT 525.) Prerequisite: MGMT 310 or MGMT 311 and BE 301 or BE 302. Enrollment restricted. LEC.

BLAW 701. Introduction to the Legal Environment of Business. 2 Hours.
A course focused on understanding legal rights and duties and ethical responsibilities in the business environment and identifying and addressing legal risks in business decision making. This is an introductory course which includes an overview of several foundational areas of law that are highly relevant to business. LEC.

BLAW 702. Legal Aspects of Business Transactions: Contracts and Torts. 2 Hours.
A course focused primarily on principles of contract and tort law. Contract law and tort law serve as the foundation for many other areas of law that are relevant in the business environment. Prerequisite: BLAW 301 or BLAW 302 or BLAW 701. LEC.

BLAW 703. Legal Aspects of Business Organizations. 3 Hours.
A course focused on the legal attributes of different forms of business organizations, such as partnerships, limited liability companies, and corporations. This course includes a study of the basic principles of agency law. It explores the rights and responsibilities of people and entities (such as partners, stockholders, directors, officers, contractors, employers, and employees) functioning in the organizational environment. Also considered are the interests of third parties, including the public, which brings into focus related topics, such as securities regulations, ethics, and corporate social responsibility. Not open to students with credit in BLAW 505. Prerequisite: BLAW 301 or BLAW 302 or BLAW 701. LEC.

BLAW 704. Commercial Law. 3 Hours.
An examination of the Uniform Commercial Code and related legal topics, such as bankruptcy and property law. Not open to students with credit in BLAW 515. Prerequisite: BLAW 301 or BLAW 302 or BLAW 701. LEC.

BLAW 748. Negotiation and Dispute Resolution. 3 Hours.
This course will include a study of the theory and practice of negotiation and dispute resolution in business contexts. It will focus on the use of alternatives to litigation, such as various forms of arbitration, mediation, and, especially, negotiation. In addition to emphasizing negotiation as a means of resolving disputes, attention will be directed at negotiation of transactions. Appreciation of concepts will be promoted through role play simulations. Not open to students with credit in BLAW 525 or MGMT 525. (Same as MGMT 748.) LEC.

BLAW 895. Graduate Seminar in Business Law: ______. 0.5-5 Hours.
A variable-topic seminar open only to graduate students meeting the requirements established by faculty members offering the course. Enrollment restricted. LEC.

BLAW 898. Independent Study for Master’s Students. 1-6 Hours.
Individual study of selected current problems in the field of business law to be adapted to the special interests and objectives of the students and conducted through extensive reading and research. Students must have at least a 3.0 grade point average and be in good academic standing in a graduate business program and must submit a written statement of the proposed project approved by a supervisory faculty member prior to enrollment. Enrollment restricted. RSH.

BUS 101. Business Majors, Careers and Professional Skills. 3 Hours.
This course acquaints students with the nature of business majors and careers. With this knowledge, students can explore, engage and implement their academic and career interests within business. Students are introduced to the curricula requirements, expectations of business students, possible career paths, and the necessary professional skills in the business environment. Prerequisite: Open only to students with fewer than 60 hours. LEC.
BUS 105. Business Writing. 3 Hours. GE21.
This course explores the theory and practice of written communication in business. Students learn strategies for writing clearly, effectively, and in a professional tone and format within different business contexts that require both expositive and persuasive writing styles. This course focuses entirely on the writing process, including developing ideas, organizing, drafting, revising, and editing. Classes provide students multiple opportunities to write drafts, receive feedback, and revise their work. This is done in the context of analyzing, discussing, and critiquing different forms of business writing. Prerequisite: Goal 2, Outcome 1. LEC.

BUS 110. The First Year Business Experience I. 1 Hour.
This course is designed to connect students to life at KU and to opportunities within the School of Business. Students will learn academic success, personal success in the transition to college, opportunities for leadership development, problem solving, decision making, and business professionalism. Students will also be provided opportunities to create lasting connections with School of Business staff, advisors, and faculty. Experiential learning activities outside of the classroom will be integrated into the course. This course is offered in the fall term only. Enrollment restricted. LEC.

BUS 120. First Year Business Experience II. 1 Hour.
This course will enable students to begin to explore major options in the Business School and career paths in the business world. Topics such as available majors, business professionalism, resumes, cover letters, internships, and team dynamics will be covered. Students will also be provided opportunities to create lasting connections with School of Business staff, advisors, and faculty. Experiential learning activities outside of the classroom will be integrated into the course. This course is offered in the fall term only. Enrollment restricted. LEC.

BUS 200. Business Leadership Seminar. 1 Hour.
This course provides students with structured opportunities to engage in active career and major exploration, support leadership development, build professional skills, and promote self-discovery. The class is held for one hour a week and additional out-of-class activities are required. May be taken more than once; total credit not to exceed four hours. Prerequisite: Admission to the Business Leadership Program. Enrollment is restricted. LEC.

BUS 210. The Second Year Business Experience I. 1 Hour.
This course is designed to connect students to life at KU and to opportunities within the School of Business. Students will learn academic success, personal success in the transition to college, opportunities for leadership development, problem solving, decision making, and business professionalism. Students will also be provided opportunities to create lasting connections with School of Business staff, advisors, and faculty. Experiential learning activities outside of the classroom will be integrated into the course. This course is offered in the fall term only. Enrollment restricted. LEC.

BUS 220. The Second Year Business Experience II. 1 Hour.
This course will enable students to begin to explore major options in the Business School and career paths in the business world. Topics such as available majors, business professionalism, resumes, cover letters, internships, and team dynamics will be covered. Students will also be provided opportunities to create lasting connections with School of Business staff, advisors, and faculty. Experiential learning activities outside the classroom will be integrated into the course. This course is offered in the spring term only. Enrollment restricted. LEC.

BUS 300. Special Topics in Business: ______. 1-5 Hours.
This is a variable-topic course open to undergraduates meeting the prerequisites for the specific topic being offered. Its purpose is to allow the occasional offering of business topics not covered by established courses. Enrollment is not limited to School of Business students. Prerequisite: Determined for each topic by instructor. LEC.

BUS 303. Career Planning and Job-Search Strategies. 1 Hour.
This course will introduce students to the fundamentals of organizing a personal employment search strategy. Emphasis will be placed on the assessment of individual goals and talents, job markets, evaluation, and employment search strategies. It is highly recommended that students take this course during their junior year. Course is graded satisfactory/unsatisfactory. Course counts as an activity course. Prerequisite: Junior standing (60 hours completed). LEC.

BUS 305. Information Sources for Business Research. 1 Hour.
This course is intended to prepare you for the rapidly changing environment of business information retrieval, using both print and electronic information sources. Course sessions will cover both (1) the conceptual analysis, selection, and use of business information sources and (2) research strategies and techniques in locating information on your topic. The course will focus on your ability to develop critical thinking skills in researching your topic throughout the semester. LEC.

BUS 330. Directed Study in Business Topics. 1-3 Hours.
Individual study of selected topics in business administration not otherwise available to non-business majors. Topics selected will be determined by special interest and objectives of the student in consultation with the faculty member who will supervise the directed study or research. Prerequisite: 3.0 grade-point average, major in a field other than business administration and/or accounting, and permission of instructor offering the directed study and of the director of the undergraduate program. IND.

BUS 399. Internship in Business. 1 Hour.
Internships provide opportunities for students to integrate their academic education with a meaningful experience in the business world. Internships allow students to further their professional growth, explore career pathways, expand professional networks, and increase the relevancy of their academic course work. The internship course combines job-related activities of the internship position with a set of academic requirements. These requirements include academic assignments as well as a pre- and post-internship seminar held in the semester before and after the semester in which the internship occurs. Internships for credit must be approved by the coordinator of the internships prior to the internship experience. BUS 399 is limited to one (1) credit hour per offering, but students may count a maximum of two (2) cumulative credit hours of BUS 399 toward degree requirements. Internships must satisfy specific criteria in order to qualify for academic credit. Contact the Business Career Services Center in 125 Summerfield for information regarding the process of having an internship evaluated for academic credit. Prerequisite: Approval of the internship; two of the following: FIN 310 or FIN 311, MGMT 310 or MGMT 311, MKTG 310 or MKTG 311, SCM 310 or SCM 311. Enrollment restricted. LEC.

BUS 400. Special Topics in Business: ______. 1-5 Hours.
A special variable-topic seminar open to seniors and graduate students meeting the requirements established by the faculty members offering the particular seminar. Its purpose is to allow the occasional offering of management-related topics not adequately covered in any regular course available to students of the School of Business. Prerequisite: Determined for each topic by instructor. Enrollment restricted. LEC.
BUS 500. Individual Research in Business. 1-5 Hours.  
Individual study of selected topics in business not otherwise available to the student. Topics selected to be determined by the special interests and objectives of the student in consultation with a faculty member who will supervise the reading and research. Prerequisite: FIN 310 or FIN 311, MGMT 310 or MGMT 311, MKTG 310 or MKTG 311 and SCM 310 or SCM 311; 3.0 professional grade point average and approval of proposed plan of study by the instructor. Enrollment restricted. IND.

BUS 706. Professional Development Skills I. 0.5 Hours.  
A series of workshops for graduate business students which provide foundation and supplemental skill development in such areas as leadership training, career development, communications, negotiations, ethical behavior, technology, business writing, and market-based thinking. Graded on satisfactory/unsatisfactory basis. Open only to full time MBA students. FLD.

BUS 707. Professional Development Skills II. 1 Hour.  
This two day session is a total immersion into successful presentations. Participants learn new ways to develop a winning presentation strategy; learn and practice a proven organizational method; and get valuable individual tips on how to successfully deliver the right message. Each participant delivers four short presentations to the class. Each of those four presentations is video recorded (for the participants use) and the instructor provides private, one-on-one feedback and coaching after each presentation. A continuation of MGMT 706 Professional Development Skills I. Graded on satisfactory/unsatisfactory basis. Prerequisite: BUS 706 or consent of department. FLD.

BUS 795. Special Topics in Business: ______. 2-5 Hours.  
A variable-topic course open to graduate and selected undergraduate students meeting the requirements established by faculty members offering the course. Prerequisite: Determined by the instructor. Enrollment restricted. LEC.

BUS 801. Professional Development Skills. 0.5 Hours.  
A series of workshops for graduate business students which provide foundation and supplemental skill development in such areas as leadership training, career development, communications, negotiations, ethical behavior, technology, business writing, and market-based thinking. Graded on satisfactory/unsatisfactory basis. This course is open only to students in the full-time MBA program. LEC.

BUS 810. Application and Integration Course. 1 Hour.  
The course provides an active learning opportunity to complement classroom learning. Many different enrichment activities can be used to provide an opportunity to apply classroom knowledge to specific situations. Some examples of possible enrichment activities include, but are not limited to case competitions, community consulting activities, communication skills workshops, leadership and team building exercises, intensive simulation. The principal objectives of the course are to enhance "doing" skills and help students turn classroom knowledge into action, to emphasize collaboration and team initiatives, to develop collaborative and cooperative behaviors, and to develop an understanding of how "failure" can ultimately be the best learning tool. Topics will vary depending on the enrichment activity. This course may be repeated for credit. This course is open only to students in the full-time MBA program. LEC.

BUS 825. Internship Program. 1 Hour.  
The Internship Program provides a continuous learning opportunity between the first and second year of MBA studies which compliments the comprehensive, research based in class learning with a full immersion clinical experience. The principal objectives of the course are to acquire a meaningful work related education, witnessing how the classroom instruction translates to practical applications and to develop interpersonal and executional skills. This course provides clinical applications of business problem solving and consulting. The course links the models and theories studied in the classroom with field applications to solve real business problems requiring real time analysis, consideration of practical alternative strategies, determination of sales and profit implications of the recommended course of action. A principal objective is for the student to acquire first-hand industry knowledge and witness varying client management styles. Topics include consulting processes and successful consultant characteristics, hypothesis generation, problem identification and differentiation of root cause vs. symptom, application of market research methods, solution modeling, and presentation of solution. This course is open only to students in the full-time MBA program. LEC.

BUS 840. MBA Co-Op Program. 2 Hours.  
MBA students enrolled in the optional 4th semester of their MBA studies which extends the comprehensive, research based in-class learning into a full immersion clinical experience. The principal objectives of the course are to acquire a meaningful work related education, witnessing how the class instruction translates to practical applications and to develop interpersonal and executional skills in a real-world environment. This course provides clinical applications of business problem solving and consulting. The course links the models and theories studied in the classroom with field applications to solve real business problems requiring real time analysis, consideration of practical alternative strategies, determination of sales, and profit implications of the recommended course of action. A principal objective is for the student to acquire first-hand industry knowledge and witness varying client management styles. Topics include application of consulting processes and identification of consultant characteristics, application of problem identification and differentiation of root cause vs. symptom, application of market research methods, and presentation of solutions. This course is open only to students in their 4th semester of the full-time MBA program. LEC.

BUS 898. Professional Development Skills. 1-6 Hours.  
This course provides foundation and supplemental skill development in such areas as career development, leadership training, and business communications. Graded on satisfactory/unsatisfactory basis. By permission only. LEC.

BUS 899. Master’s Thesis. 3-6 Hours.  
(V) Individual research work. Approval of faculty supervisor required. THE.

BUS 901. Research Issues in Business Administration. 2 Hours.  
(FS) A core course for Ph.D. students (with the exception of Finance and Management) majoring in business administration. Provides a workshop format for discussion of the currently prevalent research methodologies and problems being addressed in the areas of accounting, finance, human resources management, information systems, marketing, decision sciences, organizational behavior, and strategic management. All Ph.D. students and faculty are encouraged to attend workshops of interest. Prerequisite: Admission to the Ph.D. program. LEC.

BUS 902. Teaching Seminar. 1 Hour.  
(F) The objective of this course is to improve the teaching effectiveness of the participants. Highly effective teachers demonstrate their teaching techniques and discuss the reasons underlying their actions. School of Business Ph.D. students are required to take this seminar during the first semester in which they are the instructor of record for a course. LEC.

BUS 903. Responsible Conduct of Research. 2 Hours.  
The major objectives of this doctoral level course on the responsible conduct of research are to build students’ abilities to analyze ethical issues, and to expose students in advance to various issues that may arise while engaging in the research endeavor. Issues will be covered that arise in such areas as research design, data collection and management,
the use of human subjects, data analysis, authorship, publication, peer review, and other aspects of professional practice. LEC.

DSCI 202. Statistics. 4 Hours.
An introduction to statistical inference techniques with emphasis on the application of these techniques to decision making in a firm. Topics include probability theory, random variables, probability distribution functions, estimation, test of hypothesis, regression, correlation, and introduction to statistical process control. Prerequisite: MATH 115. Corequisite: IST 202 (formerly IST 301). LEC.

DSCI 300. Special Topics in Decision Science: ___. 1-5 Hours.
This is a variable-topic course open to undergraduates meeting the prerequisites for the specific topic being offered. Its purpose is to allow the occasional offering of decision science topics not covered by established courses. Enrollment is not limited to School of Business students. Prerequisite: Determined for each topic by instructor. LEC.

DSCI 302. Quantitative Methods and Data Analysis. 3 Hours.
This course will cover quantitative methods and techniques of data analysis that are useful in solving common problems that arise in all the functional areas of business. Upon completion of this course, given a business problem, students will be expected to know how to formulate a mathematical model which is appropriate to the problem, to fit the model to available data, and to interpret the model results to derive actionable insights. Examples of quantitative methods and data analysis that may be taught include: multiple regression, analysis of variance, statistical process control, linear programming, non-linear optimization and decision making under uncertainty. Prerequisite: MATH 115 and DSCI 202 (formerly DSCI 301.) LEC.

DSCI 400. Special Topics in Decision Sciences: ___. 1-5 Hours.
This is a variable-topic seminar. Its purpose is to allow the occasional offering of decision science topics not covered by established courses. Prerequisite: Determined for each topic by instructor. Enrollment restricted. LEC.

DSCI 405. Advanced Production and Operations Management. 4 Hours.
A further study of problems encountered in production from a managerial perspective employing the methodology of management science. Topics included in the course are location of facilities, design of product lines, replacement of facilities, quality control, production planning, production and inventory control, and scheduling. This course is in the Management Science and Operations Management area. Prerequisite: SCM 310 or SCM 311. Enrollment restricted. LEC.

DSCI 410. Advanced Management Science. 3 Hours.
Decision making under uncertainty and resource allocation models were introduced in DSCI 310. These topics will be covered in greater depth in this course. Applications of these models to complex problems in business will be emphasized. Cases illustrating the use of these models will also be covered. This course is in the Management Science and Operations Management area. Prerequisite: SCM 310 or SCM 311. Enrollment restricted. LEC.

DSCI 500. Individual Research in Decision Sciences. 1-5 Hours.
Individual study of selected topics in decision sciences not otherwise available to the student. Topics selected to be determined by the special interests and objectives of the student in consultation with a faculty member who will supervise the reading and research. Prerequisite: FIN 310 or FIN 311, MGMT 310 or MGMT 311, MKTG 310 or MKTG 311 and SCM 310 or SCM 311; 3.0 professional grade point average and approval of proposed plan of study by the instructor. Enrollment restricted. LEC.

DSCI 701. Statistical Decision Making. 2 Hours.
This course provides an introduction to data gathering and analysis with an emphasis on problem solving for decision making and process improvement in a business setting. The role of numerical data in the understanding of business problems and in the evaluation of planned improvements is studied, along with the study of variation commonly occurring in business processes and methods of reducing this variation. Statistical software is used to supplement data analysis and aid in the problem solving. Topics covered may include statistical methods such as exploratory data analysis, graphical analysis, stratification analysis, confidence intervals, correlation, linear regression, and control charts. Enrollment restricted. LEC.

DSCI 710. Business Forecasting Methods and Applications. 3-4 Hours.
A survey of forecasting methods and application. Essential concepts underlying these methods are discussed, including cost and performance characteristics. Criteria for selection of appropriate methods are developed. Issues concerning effective utilization for forecasting in several corporate planning situations are considered. Prerequisite: IST 701. Enrollment restricted. LEC.

DSCI 715. Managing for Quality Improvement. 3 Hours.
This course will take a closer look at various aspects of the total quality theory and its practices. Particular attention will be paid to the foundations of total quality theory including Deming’s 14 principles of management and key tenants of Juran and Crosby. Additional topics include an examination of the continual improvement process in theory and action, strategies for getting started, and issues to address during a transformation into a total quality model of operation. Prerequisite: DSCI 702. Enrollment restricted. LEC.

DSCI 720. Operations Management. 2 Hours.
This course is a survey of the strategic concepts and techniques used in managing the operations function in both the manufacturing and the service sectors. The course has the following principal objectives: to identify different kinds of operations problems and understand their impact on business and to apply basic operations analysis techniques to provide business solutions and to find improvement strategies. Topics covered include process and cycle time analysis, capacity planning, service operation and waiting line management, sales and operations planning, inventory management, and constraint management. Prerequisite: DSCI 701 or DSCI 810. Enrollment restricted. LEC.

DSCI 730. Managing Customer Focused Enterprises. 2 Hours.
An introduction to management principles supporting the concept that a primary goal of a business is to meet the needs of its customers. To accomplish this goal, organizations must design, build, and deliver products and services that meet customer needs in a resource effective manner. Topics covered include process and cycle time analysis, capacity planning, service operation and waiting line management, sales and operations planning, inventory management, and constraint management. Prerequisite: DSCI 701 or DSCI 810. Enrollment restricted. LEC.

DSCI 740. Seminar in Decision Sciences: ___. 3 Hours.
This course will cover theories of decision making under uncertainty and competition. Examples of topics that may be covered are Bayesian decision theory, game theory, habitual domain theory for forming winning strategies and effective decision making. Automated aids for decision making such as expert systems may also be covered. Prerequisite: DSCI 701 and DSCI 702, or consent of instructor. Enrollment restricted. LEC.
DSCI 744. Statistical Process Control and Improvement. 2-3 Hours.
This course deals with process improvement through the reduction and control of variation in business organizations. The result of reduced variation is an improvement of integral organizational functions, a reduction of costs, and a minimization of defects in the market place. Data driven improvement is emphasized. Topics covered include advanced discussion of using control charts for process improvement, and the use of designed experiments in process improvement. Particular emphasis will be given to methods used to analyze a given process, to the use of statistical tools to stabilize an entire process, to understand the natural variability in process output and to reducing process variation. Prerequisite: DSCI 701. Enrollment restricted. LEC.

DSCI 746. Contemporary Issues in Operations Management. 3 Hours.
This course will examine the major manufacturing and the operating strategies used by firms today. A partial list of these strategies include quality improvement, theory of constraints, just-in-time, and manufacturing planning and control systems. Pros and cons of each strategy will be discussed. Implementation issues will also be discussed. Prerequisite: DSCI 702. Enrollment restricted. LEC.

DSCI 795. Special Topics Decision Science: ____. 2-5 Hours.
A variable-topic course open to graduate and selected undergraduate students meeting the requirements established by faculty members offering the course. Prerequisite: Determined by the instructor. Enrollment restricted. LEC.

DSCI 810. Statistics and Decision Tools. 3 Hours.
This course covers basic statistical tools for solving problems in organizations. The principal objectives of the course are to learn a strategy to solve organizational problems, to learn some data gathering and data analysis techniques, to learn how to interpret data and understand variation in data, and to learn how to reduce variation in organizational processes and output. Course content includes data gathering and problem analysis tools, probability distributions and features of distributions (means, standard deviations, Normal distribution, and Binomial distribution), stratification analysis, Pareto analysis, correlation, confidence intervals, simple hypothesis testing, linear regression, and analysis of variance. This course is open only to students in the full-time MBA program. LEC.

DSCI 895. Graduate Seminar in Decision Sciences: ____. 0.5-5 Hours.
A variable-topics seminar open only to graduate students meeting the requirements established by faculty members offering the course. Enrollment restricted. LEC.

DSCI 898. Independent Study for Master’s Students. 1-6 Hours.
Individual study of selected current problems in the field of decision science to be adapted to the special interests and objectives of the students and conducted through extensive reading and research. Students must have at least a 3.0 grade point average and be in good academic standing in a graduate business program and must submit a written statement of the proposed project approved by a supervisory faculty member prior to enrollment. RSH.

DSCI 920. Probability for Business Research. 4 Hours.
(F) This course covers the basic theory of probability and its use for research in the business disciplines. The course is designed primarily for Ph.D. students in the business school. Prerequisite: Doctoral standing and two semesters of calculus, or consent of instructor. LEC.

DSCI 921. Statistics for Business Research. 4 Hours.
(S) This course covers the basic theory of statistics and its use for research in the business disciplines. The course is designed primarily for Ph.D. students in the School of Business. Prerequisite: DSCI 920. LEC.

DSCI 922. Advanced Regression. 3 Hours.
This course presents various statistical tools for undertaking quantitative research in business. The regression model under the full ideal conditions is discussed, along with methodological issues that arise when these ideal conditions are violated, as often occurs in business research. A high degree of theoretical rigor is maintained, along with an emphasis on practical applications through the use of assignments that require data analysis. Prerequisite: DSCI 921 or consent of instructor. LEC.

DSCI 934. Seminar in Probability and Statistics: ____. 3 Hours.
(V) This course will cover advanced topics in probability and statistics with application to various business disciplines. Topics covered may vary and will depend on the instructor. Examples of topics that may be covered are time series models, stochastic processes, uncertainty in artificial intelligence, multivariate statistics, etc. Prerequisite: DSCI 920 and DSCI 921, or consent of instructor. LEC.

DSCI 935. Seminar in Optimization: ____. 3 Hours.
(V) This course will cover basic and advanced topics in optimization theory and applications. Examples of topics that may be covered are linear programming, nonlinear programming, dynamic programming, multiple-criteria decision making, habitual domain theory for forming winning strategies and effective decision making and game theory. Prerequisite: Linear algebra and real analysis or consent of instructor. LEC.

DSCI 936. Management Science Research Seminar. 1 Hour.
The seminar will discuss current research in management science topics such as artificial intelligence, statistics, optimization, decision making, decision support systems, and production/operations management. Topics covered will reflect the research interests of the instructor and participants. Participants are required to lead the discussion for at least one paper of their choice. Graded on a satisfactory/unsatisfactory basis. LEC.

DSCI 995. Doctoral Seminar in Decision Sciences: ____. 2-5 Hours.
A variable topic seminar open only to graduate students meeting the requirements established by faculty members offering the course. Prerequisite: Consent of instructor. LEC.

DSCI 997. Directed Research in Decision Science. 1-5 Hours.
Students will research selected topics in the field of business administration under the direction of a graduate faculty member. Students are expected to report the results of their research by writing a publishable-quality scholarly article. Graded on satisfactory/unsatisfactory basis. Prerequisite: Approval required from supervising graduate faculty member. RSH.

DSCI 998. Independent Study for Doctoral Students. 1-5 Hours.
Individual study of selected current problems in the field of business administration to be adapted to the special interests and objectives of the students and conducted through extensive reading and research. Student must submit written statement of proposed project. Prerequisite: Approval required from supervising faculty member and PhD Team. RSH.

DSCI 999. Doctoral Dissertation. 1-12 Hours.
(V) Individual research work. THE.

ENTR 300. Special Topics in Entrepreneurship: ____. 1-5 Hours. LEC.

ENTR 301. Starting Your Own Business. 3 Hours. AE51.
In this course the student examines the disciplines which comprise the critical success factors in entrepreneurship and develops a fundamental understanding of the basic skill set required to manage his/her own business. The course will emphasize the Entrepreneurial Process in which each of the following disciplines will be introduced so that the
student understands meaning, interrelationship and the application of the subject matter. First the student will be introduced to entrepreneurship and the personal attributes which historically have produced successful entrepreneurs. Further, the student will learn how to evaluate business opportunities via Feasibility Analysis which encompasses industry and competitor analysis, developing an effective business model, building a new venture team, developing an effective marketing plan, assessing the new ventures financial strengths and preparing the proper ethical and legal foundation for the new business. Finally, on completion of the course the student will possess a beginning comprehension for getting financing for the new venture and preparing for the challenges of business growth. Prerequisite: Goal 1, Outcome 2 and Goal 2, Outcome 1. LEC.

ENTR 302. Financing Your Own Business. 3 Hours.
This course introduces the non-business student to the language of business, accounting, and its applications in the financial management of new and small business environments. Students will learn how to account for the various activities of the start-up and early stage new venture as well as the importance, utility and construction of financial statements. Further, students will acquire the ability to construct financial projections for a start-up firm and monitor the financial performance of the growing business with a focus on cash flow management. Finally, students will be introduced to various remedies in the event that performance does not meet expectations. Prerequisite: Goal 1, Outcome 2 and Goal 2, Outcome 1. LEC.

ENTR 303. Marketing Your Own Business. 3 Hours.
This course focuses on the marketing development of new business ideas for small businesses including creating an environment conducive to innovation, recognizing business opportunities, assessing the industry and its potential customer segments, barriers to entry and competitive set. In addition, students will acquire an understanding of the primary marketing tools available to the entrepreneur to drive customer awareness, initial and repeat purchase and the ability to fully integrate each of those tools into a cohesive, integrated marketing plan, all on an extremely limited budget as typifies start up businesses. Upon successful completion of the course, students will understand how to plan an entrepreneurial marketing program, implement it and evaluate its performance. This includes market analysis, segmentation, the marketing mix of product, price, promotion and distribution and marketing strategy, both long term and annually. Prerequisite: ENTR 301 and ENTR 302. LEC.

ENTR 304. Launching Your Own Business. 3 Hours.
This course provides the student with an opportunity to prepare a complete go-to-market business plan for a new venture which leverages the students’ major area of study so that following graduation the student has the option of pursuing self employment in the launch of their own business. The students’ expertise from their area of major study will be combined with the entrepreneurial skills acquired from the prior three courses in this Certificate sequence. Ideally, this course will originate from the students’ school of origin, either selected from a roster of existing qualifying courses or independent study with a faculty member in the students’ field of major study. In the event that the students’ school of major study cannot provide the teaching resources for independent study, it will be provided by the School of Business, Center for Entrepreneurship. If the faculty at the students’ school of origin wants to develop a specific course which complies the Certificate requirements, course preparation funding has been arranged via a grant from the Kauffman Foundation. Prerequisite: ENTR 303. LEC.

ENTR 400. Special Topics in Entrepreneurship: _____. 1-5 Hours.
This is a variable-topic seminar. Its purpose is to allow the occasional offering of entrepreneurship topics not covered by established courses. Prerequisite: Determined for each topic by instructor. Enrollment restricted. LEC.

ENTR 410. Introduction to Entrepreneurship. 3 Hours.
In this course the student examines the disciplines which comprise the critical success factors in entrepreneurship and develops a fundamental understanding of the basic skill set required to manage his/her own business. Learning will be achieved by both study and discussion of key entrepreneurial business issues as well as the critical appraisal of new venture business plans as presented in the text. Readings in entrepreneurship and case studies, contained in the text as well as in video presentations, will be used to illustrate the essential entrepreneurial management issues. Enrollment restricted. LEC.

ENTR 430. Entrepreneurship and Innovation in the Corporate Environment. 3 Hours.
This course explores challenges to entrepreneurship and innovation in large established organizations and how entrepreneurial principles can be applied to drive competitive advantage. Applications include exploration and development of new products, business processes, markets, customers, and organizational structures. The course emphasizes experiential learning through the study of large companies that have successfully implemented entrepreneurial practices. Enrollment restricted. LEC.

ENTR 450. New Venture Creation/Business Plan Development. 3 Hours.
This course builds upon the foundation created by the Introduction to Entrepreneurship course. It will provide the student with two learning opportunities: first, it details the critical success factors of starting a new venture, growing it and finally harvesting it profitably; secondly, this course will provide hands-on instruction regarding the development of a complete and compelling business plan. Students will work as teams on the development of a business plan for the purposes of commercializing an innovative business concept or KU lab-sourced technology. These student teams will also present and defend their business plans at various venues including intercollegiate competitions for the purposes of improving their team interaction skills, their presentation capabilities. Prerequisite: ENTR 410. Enrollment restricted. LEC.

ENTR 470. Entrepreneurial Marketing. 3 Hours.
The course focuses on the development of new business ideas for new or established organizations, creating an environment conducive to innovation, recognizing business opportunities, assessing the industry, potential customers, market segment, barriers to entry and competitor set. The development of each of these subjects will lead to a feasibility analysis which each student will prepare for his/her chosen new venture. This course will also examine the development of the optimal sales and distribution. Additionally, the course will provide an understanding of how to translate the product/service idea to the business concept and marketing positioning. Lastly, students will acquire an understanding of the primary marketing tools available to the entrepreneur to drive customer awareness, initial and repeat purchase and the ability to fully integrate each of those tools into a cohesive, integrated marketing communications program. Prerequisite: ENTR 410 and MKTG 310 or MKTG 311. Enrollment restricted. LEC.

ENTR 480. Management of Small Business. 3 Hours.
This course looks at the unique aspects of owning and managing a small business, family business or franchise, with the owners having close control over operations and management decisions. Students will examine the startup options of buying, starting, or franchising; operations and human resources management; the unique factors of the family business; marketing, including setting prices, choosing a location, developing competitive advantage, positioning, and promotion with limited
ENTR 490. Entrepreneurship in Practice. 3 Hours.
The purpose of this course is to provide a forum for collaborative learning in entrepreneurship and allow students to apply the models and theories learned in previous courses in practical applications to actual entrepreneurial challenges. This course will further unlock and engage the entrepreneurial mindset, better equipping students to a variety of stimuli will be employed to generate discussion including: development of an actual start up business, an online new venture simulation game, analysis of entrepreneurially focused business cases, and development of an entrepreneurial business case. In this course students will learn the many facets of running an entrepreneurial business and what it takes for a business to succeed. Prerequisite: ENTR 410 (MGMT 475) or instructor approval. Enrollment restricted. LEC.

ENTR 500. Individual Research in Entrepreneurship: _____ 1-5 Hours.
Individual study of selected topics in entrepreneurship not otherwise available to the student. Topics selected to be determined by the special interests and objectives of the student in consultation with a faculty member who will supervise the reading and research. Enrollment restricted. RSH.

ENTR 701. Starting Your Own Business. 3 Hours.
In this course the student examines the disciplines which comprise the critical success factors in entrepreneurship and develops a fundamental understanding of the basic skill set required to manage his/her own business. The course will emphasize the Entrepreneurial Process in which each of the following disciplines will be introduced so that the student understands meaning, interrelationship and the application of the subject matter. First the student will be introduced to entrepreneurship and the personal attributes which historically have produced successful entrepreneurs. Further, the student will learn how to evaluate business opportunities via Feasibility Analysis which encompasses industry and competitor analysis, developing an effective business model, building a new venture team, developing an effective marketing plan, assessing the new venture’s financial strengths and preparing the proper ethical and legal foundation for the new business. Finally, on completion of the course the student will possess a beginning comprehension for getting financing for the new venture and preparing for the challenges of business growth. Not open to students in the School of Business. LEC.

ENTR 702. Financing Your Own Business. 3 Hours.
This course introduces the non-business student to the language of business, accounting, and its applications in the financial management of new and small business environments. Students will learn how to account for the various activities of the start-up and early stage new venture as well as the importance, utility and construction of financial statements. Further, students will acquire the ability to construct financial projections for a start-up firm and monitor the financial performance of the growing business with a focus on cash flow management. Finally, students will be introduced to various remedies in the event that performance does not meet expectations. Not open to students in the School of Business. LEC.

ENTR 703. Marketing Your Own Business. 3 Hours.
This course focuses on the marketing development of new business ideas for small businesses including creating an environment conducive to innovation, recognizing business opportunities, assessing the industry and its potential customer segments, barriers to entry and competitive set. In addition, students will acquire an understanding of the primary marketing tools available to the entrepreneur to drive customer awareness, initial and repeat purchase and the ability to fully integrate each of those tools into a cohesive, integrated marketing plan, all on an extremely limited budget as typifies start up businesses. Upon successful completion of the course, students will understand how to plan an entrepreneurial marketing program, implement it and evaluate its performance. This includes market analysis, segmentation, the marketing mix of product, price, promotion and distribution and marketing strategy, both long term and annually. Not open to students in the School of Business. LEC.

ENTR 704. Launching Your Own Business. 3 Hours.
This course provides the student with an opportunity to prepare a complete go-to-market business plan for a new venture which leverages the students’ major area of study so that following graduation the student has the option of pursuing self employment in the launch of their own business. The students’ expertise from their area of major study will be combined with the entrepreneurial skills acquired from the prior three courses in this Certificate sequence. Ideally, this course will originate from the students’ school of origin, either selected from a roster of existing qualifying courses or independent study with a faculty member in the students’ field of major study. In the event that the students’ school of major study cannot provide the teaching resources for independent study, it will be provided by the School of Business, Center for Entrepreneurship. If the faculty at the students’ school of origin wants to develop a specific course which completes the Certificate requirements, course preparation funding has been arranged via a grant from the Kauffman Foundation. Not open to students in the School of Business. Prerequisite: ENTR 703. LEC.

ENTR 750. New Venture Creation/Business Plan Development. 4 Hours.
The purpose of this course is to provide a forum for collaborative learning in entrepreneurship and allow students to apply the models and theories learned in previous courses in practical applications to actual entrepreneurial challenges. This course will further unlock and engage the entrepreneurial mindset, better equipping students to a variety of stimuli will be employed to generate discussion including: development of an actual start up business, an online new venture simulation game, analysis of entrepreneurially focused business cases, and development of an entrepreneurial business case. In this course students will learn the many facets of running an entrepreneurial business and what it takes for a business to succeed. Prerequisite: ENTR 410 (MGMT 475) or instructor approval. Enrollment restricted. LEC.

ENTR 755. New Venture Creation/Business Plan Development. 4 Hours.
This course will focus on identifying and evaluating the business opportunity, the strategies to be developed and implemented as well as entrepreneurial capabilities required for marketplace success. Development of a robust and compelling business concept will be emphasized. Analyses of the industry, competition, the new business points of strategic leverage, creation of an effective business model and funding strategies will be studied. Financing the new venture, sourcing and structuring the required deal capital will be explored and attention to managing rapid growth and exit strategies will be provided. This course is not open to students with credit in ENTR 450. LEC.

ENTR 830. New Venture Practicum. 3 Hours.
This course in entrepreneurship shows the student how to start, grow and harvest a business. Students learn how diverse business disciplines integrate to form an optimal go-to-market plan for a given new business opportunity which maximizes likelihood of success and investor return. They learn how to commercialize a technological or social business opportunity and apply the models and theories acquired from other classes to clinical practice. Topics include identifying new venture opportunities, writing the business plan, validating the market opportunity, developing the business model and go-to-market strategy, preparing financial projections and new venture valuations, raising equity capital, understanding deal structures and terms, negotiating the term sheet, raising debt capital, and presenting the business plan to investors. This course is open to those with admission to a graduate business program. LEC.

ENTR 895. Graduate Seminar Entrepreneurship: ______. 0.5-5 Hours.
A variable-topic seminar open only to graduate students meeting the requirements established by faculty members offering the course. Prerequisite: Consent of instructor. LEC.

ENTR 898. Independent Study for Master’s Students. 1-6 Hours.
Individual study of selected current problems in the field of entrepreneurship to be adapted to the special interests and objectives of the students and conducted through extensive reading and research.
FIN 101. Personal Finance. 3 Hours. GE11/GE12.
This course will provide the tools to help you better understand and improve the financial decisions you’ll make throughout your life. You will learn how to analyze the financial effects of spending and investing decisions and how to use credit well, including credit cards. You will develop an understanding of the basics of mortgages, purchase (rent) versus lease (buy) decisions, savings, investments, and insurance. You will acquire an appreciation of the time value of money that provides a foundation for reasonable financial planning. Given the basic tools and terminology you’ll learn, the course will help you develop solutions to various practical financial problems that you will face. Not open to students who have taken FIN 301. This course is open to all university students. LEC.

FIN 300. Special Topics in Finance: _____, 1-5 Hours.
This is a variable-topic course open to undergraduates meeting the prerequisites for the specific topic being offered. Its purpose is to allow the occasional offering of finance topics not covered by established courses. Enrollment is not limited to School of Business students. Prerequisite: Determined for each topic by instructor. LEC.

FIN 301. Personal Finance. 3 Hours. GE11/GE12.
This course will provide the tools to help you better understand and improve the financial decisions you’ll make throughout your life. You will learn how to analyze the financial effects of spending and investing decisions and how to use credit well, including credit cards. You will develop an understanding of the basics of mortgages, purchase (rent) versus lease (buy) decisions, savings, investments, and insurance. You will acquire an appreciation of the time value of money that provides a foundation for reasonable financial planning. Given the basic tools and terminology you’ll learn, the course will help you develop solutions to various practical financial problems that you will face. Not open to students who have taken FIN 101. This course is open to all university students. LEC.

FIN 302. Finance Scholars I: Introduction to Financial Institutions. 1 Hour.
This course acquaints students with the financial institutions. Topics include a review of major international, national, regional money center institutions, investment management and other related institutions. The management and key revenue generators for these institutions will also be discussed. Enrollment restricted. LEC.

FIN 303. Finance Scholars II: Financial Careers and Institutions. 1 Hour.
This course acquaints students with the careers in financial institutions. Topics include: careers in major international, national, and regional money center institutions; ethical issues related to financial careers; a comparison of recruiting practices in investment banks, investment management, and corporate finance positions. Placement and recruiting practices in those institutions would be reviewed. Enrollment restricted. LEC.

FIN 305. Survey of Finance. 3 Hours.
The purpose of this course is to help the student develop a basic understanding of Finance. Topics covered include (1) financial instruments and the markets in which they are traded, (2) financial planning and analysis, (3) the cost and time-value of money, and (4) the fundamentals of investor decision-making. (Not open to students with credit in FIN 310.) Prerequisite: Goal 1, Outcome 2 and Goal 2, Outcome 1 and ACCT 200 or ACCT 205. LEC.

FIN 310. Finance. 3 Hours.
This course consists of the analysis of problems relating to estimating the financial needs of an enterprise and to evaluating the alternative means of providing and utilizing both temporary and permanent capital. The relationship of current financial decisions with financial policy is analyzed from the viewpoint of management and the stockholder. Prerequisite: Prior completion of ACCT 200; prior completion or co-enrollment in DSCI 202 or DSCI 301. LEC.

FIN 311. Finance, Honors. 3 Hours.
Honors treatment of this course consists of the analysis of problems relating to estimating the financial needs of an enterprise and to evaluating the alternative means of providing and utilizing both temporary and permanent capital. The relationship of current financial decisions with financial policy is analyzed from the viewpoint of management and the stockholder. Only open to students admitted to the University Honors Program, the Business Honors Program, or permission of the instructor. Prerequisite: Prior completion of ACCT 200; prior completion or co-enrollment in DSCI 202 or DSCI 301. LEC.

FIN 400. Special Topics in Finance: _____, 1-5 Hours.
This is a variable-topic seminar. Its purpose is to allow the occasional offering of finance topics not covered by established courses. Prerequisite: Determined for each topic by instructor. Enrollment restricted. LEC.

FIN 410. Investment Theory and Applications. 3 Hours.
This course emphasizes the theoretical and practical aspects of investments. Financial instruments such as common stocks, bonds, options, futures, and mutual funds are analyzed in a theoretical context using efficient market theory, capital market theory, option pricing, and stock valuation models. Experience in practical applications is generally obtained through the use of case studies. Prerequisite: FIN 310 or FIN 311. Enrollment restricted. LEC.

FIN 411. Investment Theory and Applications, Honors. 3 Hours.
Honors treatment of this course emphasizes the theoretical and practical aspects of investments. Financial instruments such as common stocks, bonds, options, futures, and mutual funds are analyzed in a theoretical context using efficient market theory, capital market theory, option pricing, and stock valuation models. Experience in practical applications is generally obtained through the use of case studies. Prerequisite: FIN 310 or FIN 311. Only open to students admitted to the University Honors Program, the Business Honors Program, or permission of the instructor. LEC.

FIN 415. Corporate Finance. 3 Hours.
Building on the concepts of present value, the focus of this course is on the theory of and methods for corporate asset selection. The course includes coverage of important technical issues such as risk analysis, evaluation of mutually exclusive projects, capital rationing, and leasing. Some attention usually will be devoted to the topic of project financing. Prerequisite: FIN 310 or FIN 311. Enrollment restricted. LEC.

FIN 416. Corporate Finance, Honors. 3 Hours.
Honors treatment of this course builds on the concepts of present value. The focus of this course is on the theory of and methods for corporate asset selection. The course includes coverage of important technical issues such as risk analysis, evaluation of mutually exclusive projects, capital rationing, and leasing. Some attention usually will be devoted to the topic of project financing. Prerequisite: FIN 310 or FIN 311. Open only to students admitted to the University Honors Program, the Business Honors Program, or permission of the instructor. LEC.
FIN 417. Business Valuation. 3 Hours.
Apply finance principles to measure and manage the value of companies using a professional’s step-by-step approach. In this course, students estimate free cash flows, economic value added, and cost of capital. They also forecast accounting statements, compare absolute and relative valuation techniques, and evaluate restructuring opportunities and potential flexibility options. Prerequisite: FIN 415 or FIN 416. Enrollment restricted. LEC.

FIN 420. International Finance. 3 Hours.
The economic determinants of exchange rates are discussed. This is followed by an examination of the financing problems faced by the multinational corporation and the international portfolio manager, arising from the international nature of their environment. Topics include spot, forward, futures, and options markets in foreign currency, international risk management, purchasing power parity, interest rate parity, covered interest arbitrage, and contemporary issues in international financial management. Prerequisite: FIN 310 or FIN 311. Enrollment restricted. LEC.

FIN 425. Futures and Options. 3 Hours.
This course examines the use of forwards, futures, SWAPs options, and related financial derivatives for hedging arbitrage, and speculative purposes in the global environment. The course focuses on understanding how firms can manage interest rate risk, exchange rate risk, and commodity price risk using these derivatives. The emphasis is on understanding the motivation issues, and the techniques behind financial engineering with these derivatives, as practiced by firms and individuals to maximize value in global markets. Prerequisite: FIN 310 or FIN 311. Enrollment restricted. LEC.

FIN 430. Financial Markets and Intermediaries. 3 Hours.
Explores the financial institutions that create credit and liquidity for businesses and other borrowers, the financial instruments that facilitate credit and liquidity creation, and the markets in which those instruments are sold or traded. Special emphasis is paid to commercial banks, but non-depository intermediaries such as finance companies, mortgage banks, insurance companies and investment banks are also discussed. Presents and analyzes the workings of money markets, bond markets, commercial loan markets, mortgage markets and foreign exchange markets. Throughout the course, the determination of interest rates, as well as the sources and implications of credit risk, liquidity risk and interest rate risk, are central to the discussion. The course closes with an introduction to risk management at financial intermediaries using on-balance sheet (e.g., loan underwriting, asset-liability management) and off-balance sheet (e.g., asset securitization, interest rate, foreign exchange and credit derivatives) tools. Prerequisite: FIN 310 or FIN 311. Enrollment restricted. LEC.

FIN 435. Commercial Bank Management. 3 Hours.
An in-depth study of commercial banking. The primary focus is the value maximization of the bank, given the legal, technological, macro-economics, and competitive constraints facing bank managers. The course emphasizes bank investment decisions (e.g., underwriting loans), financing decisions (e.g., generating deposits, capital adequacy), and risk-management decisions (hedging interest rate risk, credit risk, liquidity risk, and foreign exchange risk). Ongoing changes in financial markets, information technology, and government regulations, and the importance of these changes for banking business strategies, are stressed throughout the course. Prerequisite: FIN 430 or co-enrollment in FIN 430. Enrollment restricted. LEC.

FIN 440. Insurance. 3 Hours.
The central focus of study is on the role of insurance in business and society. The approach is, in general, from the standpoint of the person confronted with problems of risk management and loss prevention in coping with insurable (pure) risk situations. The course is designed to further the ability of the student to analyze and evaluate programs undertaken to control the loss of income which results from the destruction of property values. Prerequisite: FIN 310 or FIN 311. Enrollment restricted. LEC.

FIN 445. Fixed Income. 3 Hours.
This course is an introduction to bond markets and bond derivatives. Bonds and associated financial derivatives include securities that promise a fixed income stream and by extension all securities whose valuation and hedging are related to interest rates. The objective of this course is to provide students with a guide to financial markets, institutions and instruments associated with debt funds and help them to understand the determinants of the general level and structure of interest rates. The focus of this course is on the concepts and tools that are useful to understand and interpret real world issues related to debt markets. Prerequisite: FIN 415 or FIN 416. Enrollment restricted LEC.

FIN 450. Applied Portfolio Management, Honors. 4 Hours.
Honors treatment of this course provides the student with practical portfolio experience. Students actually and collectively manage funds in an endowment account of the benefit of the University and the School of Business. Experienced instructors, speakers, and financial analysts from Wall Street give the class a hands-on real life experience in analyzing and managing securities. The student will be familiarized with many different applied valuation procedures such as cash flows and growth models in an event driven context, as well as market capitalization techniques. Individual securities and stock options are analyzed on a continuing basis. Prerequisite: FIN 410 or FIN 411. Enrollment by application only. Open only to students admitted to the University Honors Program, the Business Honors Program, or permission of the instructor. LEC.

FIN 454. Portfolio Strategy. 3 Hours.
Investors construct portfolios by choosing allocations across asset classes and by selecting funds or managers within each asset class. This course will (1) examine methods to forecast return and risk across asset classes, including fixed income, equities, real assets, venture capital, buyouts, and hedge fund strategies, (2) describe ways to evaluate the performance of fund managers relative to appropriate benchmarks, and (3) consider optimal allocations among fund managers in various asset classes. Prerequisite: FIN 410 or FIN 411. Enrollment restricted. LEC.

FIN 460. Financial Modeling and Risk Analysis. 3 Hours.
An introduction to the concepts, methodologies, and applications of risk analysis and modeling. This course is designed primarily to develop practical modeling skills with spreadsheet software. To accomplish this, material from across the finance discipline will be covered as well as material from the supply chain management discipline. Examples from corporate finance, investments, financial derivatives, real estate, personal finance, and supply chain management methods will be used to demonstrate modeling. (Same as SCM 418.) Prerequisite: FIN 310 or FIN 311. Enrollment restricted. LEC.

FIN 462. Mergers and Acquisitions. 3 Hours.
This is a course about corporate “deals” - corporate transactions that change who owns a business or who controls it. Naturally, the course covers classical mergers and acquisitions, including the financial, strategic and regulatory issues. However, it also covers corporate governance and control, IPO’s (initial public offerings), financial distress, and venture capital and private equity. Finally, deals require deal-makers - the investment bankers. We'll touch on aspects of investment banking, an industry that majors in finance and MBA’s often work in or have contact with. Prerequisite: FIN 310 or FIN 311. Enrollment restricted. LEC.
FIN 464. Security Analysis. 3 Hours.
A purpose of this course is to offer a well-rounded exposure to the theory and practice of security analysis. The course emphasizes the usefulness of sound investment theory as a backdrop for understanding asset pricing in dynamic financial markets. The course forms a bridge between a student’s initial exposure to investment theory and the practice of stock selection and active portfolio management. Prerequisite: FIN 410 or FIN 411. Enrollment restricted. LEC.

FIN 466. Entrepreneurial Finance. 3 Hours.
The entrepreneurial finance course will focus on valuing and financing young high-growth potential private companies (startup-ups). The objective is for the students to learn how to make investment and financing decisions (and how to distinguish good from bad investments) in an environment characterized by very high degrees of uncertainty and information asymmetry. We will address this topic from two distinct perspectives: the perspective of users (entrepreneurs) and suppliers (venture capitalists and other private equity investors) of capital. In the beginning of the semester we will first take the perspective of the individual entrepreneur (or manager). We will focus on identifying good ideas (evaluating projects using different valuation techniques), separating them from bad ideas, and placing a quantitative value on these opportunities. This part will review different valuation methods used to value start-up companies. We will also deal with issues such as forecasting cash flows of a start-up firm and ways to grow the firm using internal resources. Then we will turn our attention to the next step in the entrepreneurial process - raising capital to take advantage of good opportunities. Specifically we will consider venture capital (independent venture capitalists, angels, and corporate venture capitalists) as a source of financing for start-ups. This part will provide overview of the venture capital industry (players, organizational forms, contracting) and introduce students to the challenges of structuring venture capital deals. In addition, we will cover other ways of raising capital to aid the growth of the entrepreneurial firm. The focus will be on the private debt market as well as other alternative sources of financing for start-up firms (SBA loans, SBICs, mezzanine financing, L/Cs, etc.). Finally, we will study the ways to harvest the ventures (IPOs, acquisitions, LBOs). Prerequisite: FIN 415 or FIN 416. Enrollment restricted. LEC.

FIN 468. Corporate Financial Policy. 3 Hours.
The course will have three primary objectives. First, students will review basic valuation methods, including instruction on the location of relevant resources. Some advanced valuation techniques will be examined, e.g., APV, multiples and capital cash flow. Finally, students will work to apply these techniques to particular corporate financial decisions. Prerequisite: FIN 415 or FIN 416. Enrollment restricted. LEC.

FIN 492. Honors Topics and Problems in Finance: __________. 1-5 Hours.
This honors topics seminar is open only to students meeting the requirements established by faculty members offering the course. Open only to students admitted to the University Honors Program, the Business Honors Program, or permission of the instructor. LEC.

FIN 500. Individual Research in Finance. 1-5 Hours.
Individual study of selected topics in finance not otherwise available to the student. Topics selected to be determined by the special interests and objectives of the student in consultation with a faculty member who will supervise the reading and research. Prerequisite: Approval of proposed plan of study by the instructor. Enrollment restricted. LEC.

FIN 600. Advanced Portfolio Management. 3 Hours.
This course is designed to give students increased practical portfolio experience. Students actually and collectively manage funds in an endowed account of the benefit of the University and the School of Business. Students will analyze portfolio decisions and determine the risk/reward profile of the portfolio. The student will apply many different valuation models to current and potential equity holdings in the portfolio. Individual securities and stock options are analyzed on a continuing basis. Enrollment restricted. LEC.

FIN 701. Financial Management. 2 Hours.
This course provides an overview of the problems associated with the financial management of business firms. The focus is on the practices followed by managers in raising and investing capital so as to maximize value. Prerequisite: ACCT 701. LEC.

FIN 702. Business Finance for Supply Chain Management. 2 Hours.
Adopting the perspective of the CFO, this course focuses on the problems and opportunities, analytic methods, and solutions in the businesses’ (1) working capital management, (2) long-term capital investments, and (3) financing. The unifying theme involves balancing expected return and risk in order to maximize the financial value of the enterprise. LEC.

FIN 710. Investments I. 2 Hours.
This course covers financial instruments and markets used by investment professionals and the key concepts used in the construction and management of equity portfolios. Emphasis is placed on understanding and managing investment risk, on the concept of market efficiency, and the role of financial markets and institutions in shaping the investment environment. Topics include financial instruments; financial markets and institutions; risk and return; portfolio optimization; asset pricing models; and behavioral finance. Prerequisite: FIN 701. Enrollment restricted. LEC.

FIN 711. Investments II. 2 Hours.
This course covers bonds, bond markets, options, futures, and derivative securities. Emphasis is placed on the features, risks and valuation of fixed income and derivative securities. Topics include types of bonds and bond terminology; valuation of bonds; derivatives including options, futures and swaps; and risk, return and diversification. Prerequisite: FIN 710. Enrollment restricted. LEC.

FIN 712. Business Investment. 2 Hours.
This course examines the tools for assessing the value of projects and capital investments, and the use of these tools in financial decision-making in public and private corporations. Topics to be covered include estimating the cost of capital, computing and discounting projected cash flows, capital budgeting, real options, and the intersection between business investment and strategy. Prerequisite: FIN 701. Enrollment restricted. LEC.

FIN 713. Business Financing. 2 Hours.
This course examines how firms finance their projects and investments, and how those corporate financing decisions impact firm value. Topics covered include capital structure, payout policy, security issuance, mergers and acquisitions, and corporate governance. Prerequisite: FIN 712. Enrollment restricted. LEC.

FIN 715. Real Estate Investment Analysis. 2 Hours.
This course stresses the practical applications of real estate analysis that can be drawn from theoretical foundations to assist the real estate manager in long-range planning. Particular emphasis is placed on real estate valuation, financing, conveyance, tax consequences of ownership and the role of government in real estate. Prerequisite: FIN 701. LEC.

FIN 720. Advanced Investments. 2 Hours.
This course covers asset pricing models used by investment professionals to evaluate the performance of actively managed portfolios, such as mutual funds and hedge funds. Emphasis is placed on understanding managerial risk-taking and risk-adjusted performance. Topics include the Capital Asset Pricing Model (CAPM); multi-factor models; statistical analysis of portfolio returns; benchmark portfolios; the risk and
assessments of portfolio performance; and the theory of active portfolio management. Prerequisite: FIN 711. Enrollment restricted. LEC.

FIN 721. Fixed Income. 2 Hours.
This course covers bond markets, bond portfolios, and bond derivatives. Bonds and associated financial derivatives include securities that promise a fixed income stream and by extension all securities whose valuation and hedging are related to interest rates. The objective of this course is to provide students with a guide to financial markets, institutions and instruments associated with bond funds and help them to understand the determinants of the general level and structure of interest rates. Prerequisite: FIN 711. Enrollment restricted. LEC.

FIN 725. Business Valuation. 2 Hours.
This course applies finance principles to measure and manage the company value. In this course students estimate free cash flows, economic value added, and cost of capital. They forecast accounting statements and compare absolute and relative valuation techniques. Prerequisite: FIN 701 or ACCT 810 and ACCT 720. Enrollment restricted. LEC.

FIN 731. Applied Portfolio Management Seminar. 2 Hours.
This course provides the student with practical portfolio experience. Students actually and collectively manage funds in an endowment account for the benefit of the University and the School of Business. Instructors, speakers, and financial analysts from Wall Street give the class experience in analyzing and managing securities. The class covers different applied valuation procedures such as discounted free cash flow models and relative valuation. Individual securities and stock options are analyzed on a continuing basis for inclusion or exclusion in the portfolio. Prerequisite: FIN 711. Enrollment restricted. LEC.

FIN 732. Derivatives Strategies. 2 Hours.
This course covers the use of derivative securities for hedging, arbitrage and speculative purposes. The emphasis is on understanding the motivation, mechanics, valuation, and management techniques behind financial engineering, as practiced by firms and investors to maximize value. Topics can vary but can include swaps, securitization, options properties and trading strategies, portfolio risk management and hedging with options, value-at-risk, real options, and corporate risk management policies such as operational risk and enterprise risk Management. Prerequisite: FIN 711. Enrollment restricted. LEC.

FIN 733. Alternative Investment Strategies. 2 Hours.
This course provides an in-depth understanding of the hedge fund industry and investment strategies. Students will learn how hedge funds are structured, managed, regulated and marketed. Experienced instructors and industry participants will provide current case studies illustrating the primary hedge fund investment strategies, their drivers of return and primary risk attributes. In addition, the course will consider hedge funds from an investor’s perspective and examine fund selection criteria, due diligence and performance measurement. Prerequisite: FIN 711. Enrollment restricted. LEC.

FIN 735. International Finance. 2 Hours.
Markets for foreign exchange and foreign exchange derivatives are examined. This is followed by an exploration of financial decisions faced by multinational corporations and international portfolio managers, and how such decisions are affected by global economics conditions and various international risk factors. Topics can include managing foreign exchange exposure, financing the global firm, foreign direct investment and political risk, multinational capital budgeting, and international portfolio theory and diversification. Prerequisite: FIN 701 or ACCT 810. Enrollment restricted. LEC.

FIN 750. Entrepreneurial Finance. 2 Hours.
This course focuses on the financing of new ventures. It will alternately take the view of (a) the entrepreneurs that create new firms, (b) venture capitalists, and (c) the limited partners and angel investors that provide funding. Key learning objectives include identifying the various financing options for new ventures, and their costs and benefits; understanding the cash flow and control provisions of a term sheet; understanding incentives and conflicts of interest among entrepreneurs, venture capitalists and limited partners; and valuing ventures over their lifecycle. Topics may vary but can include term sheets, venture capital, angel investors, crowdfunding, international venture capital, corporate venture capital, mezzanine financing, and exit strategies (acquisition, buyout, public offering). Prerequisite: FIN 701 or ACCT 810. Enrollment restricted. LEC.

FIN 751. Entrepreneurial Finance II. 2 Hours.
The course focuses on valuing and financing young high-growth potential private companies. A mixture of lectures and cases is used to expose students to various topics in entrepreneurial finance. Topics include financing start-ups through private debt and government sources, mezzanine financing, using strategic alliances as an alternative way to fund start-ups, overview of venture capital in developed countries and emerging markets, harvesting the new ventures through an initial public offering, merger, or a buyout, and the challenges associated with each exit venue. This course is not open to students with credit in FIN 466. Prerequisite: FIN 701. LEC.

FIN 760. Risk Analysis. 2-3 Hours.
An introduction to the concepts, methodologies, and applications of risk analysis and modeling. This course is designed primarily to develop practical modeling skills with spreadsheet software. To accomplish this, material from across the finance discipline will be covered. Examples from corporate finance, investments, financial derivatives, real estate, and personal finance will be used to demonstrate modeling. Prerequisite: DSCI 701 and FIN 701. Enrollment restricted. LEC.

FIN 795. Special Topics in Finance: ______. 2-5 Hours.
A variable-topic course open to graduate and selected undergraduate students meeting the requirements established by faculty members offering the course. Prerequisite: Determined by the instructor. Enrollment restricted. LEC.

FIN 820. Macroeconomics and Financial Markets. 3 Hours.
This course explores the national and global macro economies and the influence of financial markets on decision-making by firms and individuals. Understanding, analyzing, and forecasting economic indicators are key aspects of this course. The objectives of this course are to understand economic indicators and observe their impacts on national and global economies, to appreciate how financial markets aggregate economic information into interest rates and securities prices and thus influence decision-making by firms and individuals, to use data to construct forward-looking economic models, to understand and use economic indicators in short-run business decision-making and long-run business planning, and to appreciate how government policies can enhance or impair the functioning of markets and the behavior of firms and individuals. Topics in the course include economic growth, employment and labor markets, inflation, exchange rates, monetary policy, fiscal policy, capital markets, credit markets, economic indicators, trend analysis and forecasts, the language of the economics, and the financial press. This course is open only to students in the full-time MBA program. LEC.

FIN 821. Business Investment and Valuation. 3 Hours.
This course explores how businesses evaluate investment opportunities and deploy capital to enhance firm value. Principal objectives include identification of incremental cash flows and growth options generated by business investment, application of discounted cash flow techniques to
evaluate investment opportunities and firms, understanding of alternative valuation techniques and their use in the analysis of real options, understanding interactions between a firm's financing structure and its investment policies, and identification of managerial incentives and how a firm's governance structure affects investment policy and firm valuation. Topics include incremental cash flow identification, discounted cash flow techniques, real options analysis, leverage, cost of capital, corporate governance. Prerequisite: ACCT 810. This course is open only to students in the full-time MBA program. LEC.

FIN 830. Investments. 3 Hours. This course introduces theoretical concepts and analytical tools essential to investment management by individual investors and portfolio managers. The goal of this class is to provide MBA students with a structure to address investment problems in a systematic manner. Topics include factors that affect security risk and return, portfolio theory, valuation and selection of financial instruments such as bonds, common stocks, and options, asset allocation in a portfolio framework, and performance evaluation of portfolios and portfolio managers. Principal objectives are to apply financial theory and develop analytical models that explain security risk and return in a portfolio framework, to explain risks and returns associated with alternative asset allocation strategies, to evaluate the performance of portfolios and portfolio managers, and to value securities such as bonds, stocks, and options. Prerequisite: FIN 821. This course is open only to students in the full-time MBA program. LEC.

FIN 831. Financing Business Growth. 3 Hours. This course evaluates alternative means of financing business operations and capital investment. The principal objectives are to evaluate the effects of alternative financial structures on a firm's risk, cost of capital, and valuation; to understand how young entrepreneurial firms raise capital from financiers and financial markets, including sources such as angel investors, bank loans, venture capital, private equity, and initial public offerings; to understand how mature firms raise capital via seasoned equity issuance, corporate bonds, and leases, and how financial terms affect mergers and acquisitions, and to appreciate how firms engage in financial restructuring, including bankruptcy, subsequent to financial distress. Topics include leverage and financial risk, venture capital, private equity, public equity, bond financing, leasing, financial distress. Prerequisite: FIN 821. This course is open only to students in the full-time MBA program. LEC.

FIN 832. Derivatives and Risk Management. 3 Hours. This course focuses on understanding how firms manage interest rate risk, exchange rate risk, and commodity price risk using derivative instruments such as forwards, futures, swaps, and options. The emphasis is on the motivation, issues, and techniques behind financial engineering with these derivatives, as practiced by firms and individuals to maximize value in global markets. The principal objectives are to identify sources of risk to businesses and financial institutions, including commodity price risk, interest rate risk, and exchange rate risk; to understand institutional features and pricing of derivative instruments such as forwards, futures, swaps, and options; to use derivative instruments and other risk management tools to hedge financial and operational risks for both financial and non-financial firms and to appreciate the limitations of risk management and hazards such as "model risk" and counterparty risk. Topics include financial and operating risk assessment; valuation of forwards, futures, swaps, and options; use of derivative instruments and other risk management tools to hedge financial and operational risk; limitations and hazards of risk management. Prerequisite: FIN 821. This course is open only to students in the full-time MBA program. LEC.

FIN 840. Applied Portfolio Management. 4 Hours. This course provides the student with practical portfolio experience. Students actually and collectively manage funds in an endowment account for the benefit of the University and the School of Business. Experienced instructors, speakers, and financial analysts from Wall Street give the class a hands-on real life experience in analyzing and managing securities. The student will be familiarized with many different applied valuation procedures such as cash flows and growth models in an event driven context, as well as market capitalization techniques. Individual securities and stock options are analyzed on a continuing basis for inclusion or exclusion in the portfolio. Prerequisite: FIN 410 or FIN 411 or FIN 710 or ACCT 810. Enrollment by application only. LEC.

FIN 895. Graduate Seminar in Finance. 0.5-5 Hours. A variable-topic seminar open only to graduate students meeting the requirements established by faculty members offering the course. Enrollment restricted. LEC.

FIN 898. Independent Study for Master’s Students. 1-6 Hours. Individual study of selected current problems in the field of finance to be adapted to the special interests and objectives of the students and conducted through extensive reading and research. Students must have at least a 3.0 grade point average and be in good academic standing in a graduate business program and must submit a written statement of the proposed project approved by a supervisory faculty member prior to enrollment. RSH.

FIN 901. Current Research in Finance. 2 Hours. This course provides a seminar format for a discussion of the currently prevalent research topics, methods, and problems being addressed in the area of finance. All first year PhD students in finance will enroll in this course their first semester in the doctoral program. LEC.

FIN 918. Macroeconomics for Research in Business. 3 Hours. (S) This course is designed primarily for doctoral candidates in business administration. The basic Classical and Keynesian macroeconomic models are explored, along with extensions of these models. Concentration is placed on the role of monetary, fiscal, and trade policies, and the dialogues concerning stabilization policy, the unemployment-inflation tradeoff, wealth effects, rational expectations, and international policy issues. The focus is on a comparative static analysis of equilibrium, and the stability of equilibrium. Prerequisite: ECON 522 and MATH 115 and (MATH 116 or MATH 121), or consent of instructor. LEC.

FIN 937. Seminar in Business Finance. 3 Hours. This course is designed to develop the students' analytical abilities. Course material is of a theoretical and empirical nature. Advanced topics in financial management of business firms are covered. Special emphasis is given to long-term financing topics. Prerequisite: FIN 705 (BUS 751) and FIN 706 (BUS 752). LEC.

FIN 938. Seminar in Investments. 3 Hours. A study of advanced topics in investments, capital markets, and portfolio theory. Special emphasis is given to the theory of efficient markets. The course is designed to cover recent analytical and empirical literature in the investment area. Prerequisite: FIN 710 (BUS 753). LEC.

FIN 939. Seminar in Financial Institutions. 3 Hours. A survey of the academic literature in financial institutions. The reading list will vary depending on the instructor. May include both seminal theoretical papers and/or recent empirical studies on the role and importance of financial institutions in market economies. Prerequisite: Consent of Instructor. LEC.
FIN 995. Doctoral Seminar in Finance: ____. 2-5 Hours.
A variable topic seminar open only to graduate students meeting the requirements established by faculty members offering the course. Prerequisite: Consent of instructor. LEC.

FIN 997. Directed Research in Finance. 1-5 Hours.
Students will research selected topics in the field of business administration under the direction of a graduate faculty member. Students are expected to report the results of their research by writing a publishable-quality scholarly article. Graded on satisfactory/unsatisfactory basis. Prerequisite: Approval required from supervising graduate faculty member. RSH.

FIN 998. Independent Study for Doctoral Students. 1-5 Hours.
Individual study of selected current problems in the field of business administration to be adapted to the special interests and objectives of the students and conducted through extensive reading and research. Student must submit written statement of proposed project. Prerequisite: Approval required from supervising faculty member and PhD Team. RSH.

FIN 999. Doctoral Dissertation. 1-12 Hours.
(V) Individual research work. THE.

IBUS 300. Special Topics in International Business: ____. 1-5 Hours.
This is a variable-topic course open to undergraduates meeting the prerequisites for the specific topic being offered. Its purpose is to allow the occasional offering of international business topics not covered by established courses. Enrollment is not limited to School of Business students. Prerequisite: Determined for each topic by instructor. LEC.

IBUS 400. Special Topics in International Business: ____. 1-5 Hours.
This is a variable-topic seminar. Its purpose is to allow the occasional offering of international business topics not covered by established courses. Prerequisite: Determined for each topic by instructor. Enrollment restricted. LEC.

IBUS 410. Introduction to International Business. 3 Hours. AE42.
This course provides an overview of the international business environment and explores its implications for firms and managers. Students will analyze the political, economic, legal and socio-cultural forces that shape the conduct of business in and across divergent cultural and institutional settings and examines theories and trends in international trade and investment from the perspective of a manager doing business across borders. Prerequisite: ECON 144. Enrollment restricted or permission of the instructor. LEC.

IBUS 415. Business in Latin America. 3 Hours.
This course analyzes the unique aspects of the Latin American business environment and the major managerial issues that are likely to confront firms and individuals doing business in the region. The first part of the course develops analytic skills for assessing country environments. The second part of the course focuses on making corporate and managerial decisions in the Latin American context. Prerequisite or Co-requisite: IBUS 410 or permission of the instructor. Enrollment restricted. LEC.

IBUS 425. Business in China. 3 Hours.
This course analyzes the unique aspects of the Chinese business environment and the major managerial issues that are likely to confront firms and individuals doing business in the country. The first part of the course develops knowledge about the country and skills for assessing it as a place for business. The second part of the course focuses on the performance of key management functions in the Chinese context such as marketing, finance, supply chain and human resource management. Prerequisite or Co-requisite: IBUS 410 or permission of the instructor. Enrollment restricted. LEC.

IBUS 462. Comparative and Cross-Cultural Management. 3 Hours.
This course examines in depth how culture, in all its aspects, is the major determinant of successful organizational performance and management practices in the global workplace. This is accomplished by comparing and contrasting various cultural norms and values, and demonstrating how those differences impact business in the areas of communication (verbal and nonverbal), relationship building, the role of the manager, the functioning of teams and group dynamics, negotiation, conflict resolution, and decision making. Students will also examine the influences of culture on legal and governmental considerations in business, organization structures and corporate culture. The basis for cultural norms and comparisons used in this course are drawn from all areas of the world. The emphasis is on developing the awareness and skills necessary for managing multicultural diversity in both domestic and international settings. Prerequisite or Co-requisite: MGMT 310 or MGMT 311 or permission of the instructor. Enrollment restricted. LEC.

IBUS 480. International Management. 3 Hours. AE42.
This course provides an overview of the essential managerial issues that firms and individuals will confront and must master to successfully operate in the international business setting. This is accomplished by introducing the student to an array of practical concepts, analytical frameworks and vital managerial techniques that will be useful to the international manager. Specific topics covered include the role of culture in global business, ethics and social responsibility in a multicultural setting, strategy development and organizational structure models for multinational operations, methods for analyzing and evaluating potential foreign markets and modes for foreign market entry. Also covered is the impact of a global scope of operations on basic management functions including marketing, finance, supply chain and human resource management. Prerequisite or Co-requisite: MGMT 310 or MGMT 311, MKTG 310 or MKTG 311 and FIN 310 or FIN 311 or permission of the instructor. Enrollment restricted. LEC.

IBUS 500. Individual Research in International Business. 1-5 Hours.
Individual study of selected topics in international business not otherwise available to the student. Topics selected to be determined by the special interests and objectives of the student in consultation with a faculty member who will supervise the reading and research. Prerequisite: FIN 310 or FIN 311, MGMT 310 or MGMT 311, MKTG 310 or MKTG 311 and FIN 310 or FIN 311 or permission of the instructor. Enrollment restricted. LEC.

IBUS 700. Managing in a Global Environment. 1 Hour.
This course focuses on economic, social, and political trends in the global environment and examines their implications for national and regional competitiveness. Extensive use will be made of guest speakers from other departments and local companies. Flexibility in format is required to accommodate instructional methods that will include lectures, discussions, cases, and simulations. Graded on a satisfactory/unsatisfactory basis. LEC.

IBUS 701. International Business. 2 Hours.
This course aims to provide an understanding of the basic concepts, institutions, and practices of international business, and their implications for business decision making. Topics include the causes and consequences of globalization, the political, economic, legal and socio-cultural differences across countries, and the institutional arrangements governing cross-border flows of trade, investment and intellectual property. Enrollment restricted. LEC.

This course provides students an opportunity to learn about business in a particular foreign country. Students will travel to the country of interest to visit a variety of companies and meet with their managers to learn
about the unique opportunities and challenges faced by companies operating in that country. Company visits will be selected to include both manufacturing and services firms and to reflect a variety of ownership structures (foreign subsidiaries, locally-owned companies, joint-ventures, etc.). Lectures from faculty at a Chinese host institution will provide specific information on the local business environment and cultural, historical and institutional context. Prerequisite: IBUS 701 or IBUS 820 and IBUS 720. (Please note: This course involves travel abroad and required PRIOR completion of both IBUS 701 and IBUS 720.) Enrollment restricted. LEC.

This course provides students an opportunity to learn about business in Latin America by observing it in practice. Students will travel to a Latin American country to visit a variety of companies and meet with their managers to learn about the unique opportunities and challenges faced by companies operating in Latin America. Company visits will be selected to include both manufacturing and services firms and to reflect a variety of ownership structures (foreign subsidiaries, locally-owned companies, joint-ventures, etc.). Lectures from faculty at a Latin American host institution will provide specific information on the local business environment and cultural, historical and institutional context. Prerequisite: IBUS 701 or IBUS 820 and IBUS 721. (Please note: This course involves travel abroad and required PRIOR completion of both IBUS 701 and IBUS 721.) Enrollment restricted. LEC.

IBUS 742. Business Practices in India. 2-3 Hours.
The class will expose you to economic, political and cultural aspect of this growing market and the impact rapid growth and economic transformation are having on Indian businesses. We will visit businesses, cultural centers and educational institutions in India. Industry leaders and experts will make presentations in India. Enrollment restricted. LEC.

This course provides students an opportunity to learn about business in China by observing it in practice. Students will travel to China to visit a variety of companies and meet with their managers to learn about the unique opportunities and challenges faced by companies operating in China. Company visits will be selected to include both manufacturing and services firms and to reflect a variety of ownership structures (foreign subsidiaries, locally-owned companies, joint-ventures, etc.). Lectures from faculty at a Chinese host institution will provide specific information on the local business environment and cultural, historical and institutional context. Prerequisite: Determined for each topic by instructor. LEC.

IBUS 720. Business in China. 2 Hours.
The course analyzes the unique aspects of the Chinese business environment and the major managerial issues that are likely to confront firms conducting business in the country. The first part of the course reviews the country’s geography, history and culture, and examines its contemporary political process, economic structure, financial system, and legal and social institutions. The second part of the course examines important strategic and operational issues such as market entry, contract negotiation, supply chain management, marketing strategies and techniques, and human resource management. Prerequisite: IBUS 701 or IBUS 820. Enrollment restricted. LEC.

IBUS 721. Business in Latin America. 2 Hours.
This course analyzes the business environment of Latin America and the managerial practices that have evolved in this unique context. Using cases, readings, lectures and videos, the course seeks to cover a broad set of countries, industries and companies as it examines the conduct and performance of business in Latin America. Prerequisite: IBUS 701 or IBUS 820. Enrollment restricted. LEC.

IBUS 722. Business in India: Understanding the Indian Paradox. 2-3 Hours.
The class will use a mix of lectures, guest speakers, cases and assignments to understand the context and contemporary practice of business in India. Topical industries/issues will be covered in the course. The course deals with the challenges related to consumer diversity, human resources, political environment and infrastructure. Unique Indian business practices and models used in rural marketing and supply-chain management will be examined. Enrollment restricted. LEC.

IBUS 730. International Business Strategy. 2 Hours.
This course examines the important managerial issues arising from a firm’s expansion into the international arena and introduces analytical frameworks and management techniques that are essential for an international manager. Specific topics covered include foreign market entry decisions, strategies and organizational structures for managing a multinational corporation, and management of various functional areas (such as production, marketing, finance and human resources) in an international setting. Prerequisite: MGMT 704 and IBUS 701 or IBUS 820. Enrollment restricted. LEC.

IBUS 731. Comparative and Cross-Cultural Management. 2 Hours.
This course explores how culture, in all of its aspects, is a major determinant of organizational practices and performance. We analyze how and why organizational communication and practices vary from one culture to another, as well as why certain values and cultural contexts might make particular management styles more successful than others. Finally, we will investigate the possibilities for transferring certain practices between cultures. Prerequisite: IBUS 701 or IBUS 820. Enrollment restricted. LEC.

IBUS 745. Graduate Seminar in International Business. 0.5-5 Hours.
A variable-topic seminar opens only to graduate students meeting the requirements established by faculty members offering the course. Enrollment restricted. LEC.

IBUS 898. Independent Study for Master’s Students. 1-6 Hours.
Individual study of selected current problems in the field of business management to be adapted to the special interests and objectives of the students and conducted through extensive reading and research. Students must have at least a 3.0 grade point average and be in good academic standing in a graduate business program and must submit a written statement of the proposed project approved by a supervisory faculty member prior to enrollment. RSH.

IBUS 950. Research in International Management and Strategy. 3 Hours.
This seminar surveys the literature, classic and contemporary, that forms the theoretical basis of the international business field. Topics
covered include but are not limited to: (1) institutional issues such as the international framework of trade and investment, crosscountry governance differences, and the role of NGOs; (2) firm-level strategic issues such as choice of market entry modes, international entrepreneurship, and management of multinational enterprises; and (3) group- and individual-level organizational issues such as international staffing and cross-cultural management. Prerequisite: Admission to the Doctoral Program or graduate standing and permission of the instructor. LEC.

**IST 202. Introduction to Information Systems. 3 Hours.**

This course introduces essential components of information systems from an organizational perspective. The course covers the role of information systems in organizations, the technical foundations of information systems, the design and management of information systems, and the effect of information systems on organizations. The course also exposes students to software tools used to solve business problems. Prerequisite: ACCT 201 or coenrollment in ACCT 200. LEC.

**IST 205. Survey of Information Systems. 3 Hours.**

This course focuses on the use of information systems in business. Topics will include components of information systems, types of information systems, development of information systems, and uses and benefits of information systems. Relevant technology issues such as security, privacy and ethics will also be introduced. In addition to content on information systems, the course will cover the basic principles of Microsoft Office. (Not open to students with credit in IST 202 or IST 301.) Prerequisite: ENGL 101 and MATH 101. LEC.

**IST 312. Information Systems for Managers. 3 Hours.**

This course provides an overview of how to understand, analyze, and design computerized information systems, and is designed to provide the computer tools and knowledge so that today's business student will be tomorrow's successful and complete manager and/or consultant. The topics covered in this course include computer technology, internal control in a computer environment, strategic information systems planning, systems analysis and design, database systems, networking, and various software packages. This course will count as an advanced business elective. Not open to students with credit in ACCT 311. Prerequisite: ACCT 201 and IST 202 or IST 301. Enrollment restricted. LEC.

**IST 320. Fundamentals of Software Development. 3 Hours.**

This course provides an introduction to software development concepts and techniques. Students will develop an understanding of the software development process through hands-on programming assignments and projects. The course emphasizes problem solving, initiative, and teamwork within an information systems framework. Prerequisite: IST 202 or IST 301. Enrollment restricted. LEC.

**IST 325. Systems Analysis and Design. 3 Hours.**

This will take students through the entire systems development life cycle from the first contact with a customer through analysis and design to the implementation of the customer’s system. It will introduce the student to the field of systems analysis and design, basic systems analysis tools, and the procedures for conducting systems analysis. Topics covered will include the role of the systems analyst in the organization, concepts, philosophies and trends in systems analysis and design, and tools and techniques for such analysis. Prerequisite: IST 202 or IST 301. Enrollment restricted. LEC.

**IST 326. Database Management Systems. 3 Hours.**

This course introduces the fundamental concepts and implementation of the database development process and relational database systems. The student will be exposed to database development issues, SQL methodology, and entity-relationship models. Prerequisite: IST 202 or IST 301. Enrollment restricted. LEC.

**IST 330. Fundamentals of Business Computer Networking. 3 Hours.**

This course introduces business students to the terms and concepts of networking in the business environment. This course balances practical application and network theory. It examines common architecture models, transmission media, network topologies, and protocols in both local area network (LAN) and wide area network (WAN) environments. The course also delves into the operating characteristics of the Internet and various applicable protocol suites. Conceptual learning is supported by team exercises and projects. Prerequisite: IST 202 or IST 301. Prerequisite or Corequisite: IST 320. Enrollment restricted LEC.

**IST 335. Information Security. 3 Hours.**

This course provides an introduction to a wide range of topics associated with managing the security of information systems and related data in a business environment. Topics addressed include cryptography and security of operating systems, databases, networks. . . both wired and wireless, and telecommunications systems. Security issues are examined related to application development and to the use of the Internet as a business medium. Other elements of security are reviewed: physical security, disaster recovery and business resumption planning, change control, and so forth. On successful completion of the course, each student will be better able to: a. Understand and appreciate risks associated with business information systems infrastructures and the dynamic nature of these threats. b. Evaluate various risks associated with information systems. c. Envision controls that might mitigate these risks. d. Possess the ability to effectively articulate the threats and need for appropriate controls to others, be they higher management, peers, or subordinates. Prerequisite: IST 202 or IST 301. Enrollment restricted. LEC.

**IST 400. Special Topics in Information Systems Technology: _____ 1-5 Hours.**

This is a variable-topic seminar. Its purpose is to allow the occasional offering of information systems technology topics not covered by established courses. Prerequisite: Determined for each topic by instructor. Enrollment restricted. LEC.

**IST 401. Management of Integrated Information Systems/ERP. 3 Hours.**

This course provides an introduction to Enterprise resource planning (ERP) systems. We explore process integration of business-wide functions (controlling, production planning, demand management, sales and distribution) as required and supported by ERP implementations. The objectives of the course include: (1) understanding processes and data needs of different business functions; (2) understanding alternative information systems solutions and the challenges of independent information systems and; (3) understanding ERP systems as solutions to business process integration. (Same as SCM 404.) Prerequisite: IST 202 or IST 301. Enrollment restricted. LEC.

**IST 405. Contemporary Information Technology Topics. 3 Hours.**

This course examines a wide range of innovative information technologies (IT) which have both technical and strategic implications for businesses. These IT innovations affect all functions of businesses. Topics include Web 2.0, Web 3.0, next generation Web, social networking technology, virtual world, pervasive computing, ubiquitous computing, unified communications (unification), IT utility, on-demand computing, grid computing, Web services, service-orientation architecture, business intelligence, data mining, search technology and applications (Google), next generation Web search, virtualization (server, hardware), storage fabrics, open source, IT outsourcing, personal technology, healthcare IT, green IT, security and privacy, Internet policy, regulation global control, and the gap between IT and business (goals and strategies). This course
is available to all undergraduate and graduate students in the business school. Prerequisite: IST 202 or IST 301. Enrollment restricted. LEC.

IST 410. IT Project Management. 3 Hours.
This course provides initial exposure to concepts related to the project management discipline generally, while focusing on management of information technology projects in particular. The course is organized to emphasize core project management knowledge areas developed by the Project Management Institute, and it stresses the benefits of a disciplined, formal project management methodology. Students completing the course will gain an appreciation for the complex nature of projects and be better prepared to be an effective member of project teams encountered in many types of organizations. Prerequisite: IST 202 or IST 301. Enrollment restricted. LEC.

IST 492. Honors Topics and Problems in Information Systems and Technology: _______. 1-5 Hours.
This honors topic seminar is open only to students meeting the requirements established by faculty members offering the course. Open only to students admitted to the University Honors Program, the Business Honors Program, or permission of the instructor. LEC.

IST 500. Individual Research in Information Systems Technology. 1-5 Hours.
Individual study of selected topics in information systems technology not otherwise available to the student. Topics selected to be determined by the special interests and objectives of the student in consultation with a faculty member who will supervise the reading and research. Prerequisite: FIN 310 or FIN 311, MGMT 310 or MGMT 311, MKTG 310 or MKTG 311 and SCM 310 or SCM 311; approval of the Area Director. Enrollment restricted. LEC.

IST 701. Managerial Information Systems. 2 Hours.
This course provides a broad, managerial level introduction to fundamental information technology concepts and terminology and the application of those concepts in business organizations. It addresses a variety of topics including: the Internet, intranets, and extranets; relational database theory; hardware, software, and networking concepts; the system development life cycle, project management; eBusiness/ eCommerce; knowledge management; enterprise resource planning; ethical considerations related to information technology advances; and organizational considerations related to information systems. The course focuses on the knowledge and expertise required for managers to successfully leverage information systems assets in a business setting. LEC.

IST 702. Systems Development. 3 Hours.
This course focuses on the practical issues of system development. A main objective of the course is to teach students system development through programming projects. In addition, the course examines the software engineering issues involved in system development, including usability and design issues, and alternative systems development processes. To enhance the quality of the system developed, the course also looks into software testing and evaluation issues. This course is not open to students with credit in IST 320. Prerequisite: IST 202 or IST 301 or IST 701 or concurrent enrollment in IST 701. Enrollment restricted. LEC.

IST 704. Database Management. 3 Hours.
This course provides insight to the managerial and organizational issues that surround the development and implementation of database systems in organizations. Students will undertake a project that allows them to experience the database development process while learning and practicing modern data modeling techniques. Students will also study the value that databases have to the organization and the impact that databases have on decision-making processes. Students also will study strategic issues that impact database development and will research the latest advances in database management systems and other emerging technology to gain insight on how these advances will impact the future of database development. This course is not open to students with credit in IST 326. Prerequisite: IST 202 or IST 301 or IST 701. Enrollment restricted. LEC.

IST 706. Systems Analysis and Design. 3 Hours.
This course develops skills with regard to the Analysis and Design activities typically encountered in an organizational software development environment. It emphasizes structured project planning, analysis and design techniques, including Project Estimation Methods, Data Flow Diagrams, Entity-Relationship Diagrams, and the application of CASE (Computer-Aided Software Engineering) Tools. The teaching methods will combine classroom experience with an analysis and design case study using role-play techniques to simulate an actual analysis and design scenario. This course is not open to students with credit in IST 325. Prerequisite: IST 202 or IST 301 or IST 701. Enrollment restricted. LEC.

IST 708. Strategic Information Systems Planning. 3 Hours.
This course has two objectives. The first objective is to give graduate students an understanding of the need for high level IT strategy in organizations. This is accomplished through case analysis, the experiential learning of strategic concepts and through interaction with IT executives. IT strategy is explored at the executive levels of an organization. The second objective of the course is to give students experience working on projects/research and presenting materials as is done in developing IT strategy for real organizations. Prerequisite: IST 202 or IST 301 or IST 701. Enrollment restricted. LEC.

IST 709. Business Computer Networking. 3 Hours.
This course will introduce, at a managerial rather than highly technical level, a range of topics associated with security of information systems and related data in a business environment. Topics addressed include selected cryptography concepts and the security of operating systems, databases, networks–both wired and wireless, and telecommunications systems. The course also considers security issues related to application development, including management of the change control process, and to the use of the Internet as a business medium. Students will also address physical security, disaster recovery, business resumption planning, and managerial planning and techniques involved in creating a security conscious organization. This course is not open to students with credit in IST 335. Prerequisite: IST 701. Enrollment restricted. LEC.

IST 712. Information Security. 3 Hours.
This course will introduce, at a managerial rather than highly technical level, a range of topics associated with security of information systems and related data in a business environment. Topics addressed include selected cryptography concepts and the security of operating systems, databases, networks–both wired and wireless, and telecommunications systems. The course also considers security issues related to application development, including management of the change control process, and to the use of the Internet as a business medium. Students will also address physical security, disaster recovery, business resumption planning, and managerial planning and techniques involved in creating a security conscious organization. This course is not open to students with credit in IST 335. Prerequisite: IST 701. Enrollment restricted. LEC.

IST 715. E-Commerce: An Integrative Perspective. 3 Hours.
This course examines how organizations and individuals exploit the Internet and other emerging information technology to conduct business in an information era. This course combines practice and theory to examine successes, failures, and common practices when using information technology for e-commerce activities. Prerequisite: IST 202 or IST 301 or IST 701. Enrollment restricted. LEC.

IST 720. Developments in Software Technology. 3 Hours.
This course is an introduction to object-oriented (OO) technology and the object paradigm. We explore the object paradigm, its benefits
and limitations. Specifically, we study a state-of-art technique for OO modeling. We also apply this technique to the analysis and design of a system, and implement the concepts with OO programming. Students will gain practical experience in OO analysis, design, and implementation through projects with an OO programming language. Prerequisite: IST 702. Enrollment restricted. LEC.

IST 725. Contemporary Information Technology Topics. 3 Hours.
This course examines a wide range of innovative information technologies (IT) which have both technical and strategic implications for businesses. These IT innovations affect all functions of businesses. Topics include Web 2.0, next generation Web, social networking technology, virtual world, pervasive computing, ubiquitous computing, unified communications (unification), IT utility, on-demand computing, grid computing, Web services, service-oriented architecture, business intelligence, data mining, search technology and applications (Google), storage fabrics, open source, IT outsourcing, personal technology, healthcare IT, green IT, security and privacy, Internet policy, regulation, global control, and the gap between IT and business (goals and strategies). This course is not open to students with credit in IST 405. Prerequisite: IST 202 or IST 301 or IST 701. LEC.

IST 730. IT Project Management. 3 Hours.
This course provides initial exposure to concepts related to the project management discipline generally, while focusing on management of information technology projects in particular. The course is organized to emphasize core project management knowledge areas developed by the Project Management Institute, and it stresses the benefits of a disciplined, formal project management methodology. Students completing the course will gain an appreciation for the complex nature of projects and be better prepared to be an effective member of project teams encountered in many types of organizations. This course is not open to students with credit in IST 410. Prerequisite: IST 202 or IST 301 or IST 701. LEC.

IST 799. Internship in Information Systems. 1-3 Hours.
Internships provide opportunities for students to combine their academic education with a meaningful experience in the business world. Accounting internships allow students to explore career pathways in accounting, further their professional growth, expand professional networks, and increase the relevancy of their academic coursework. The internship course combines job-related activities of the accounting internship position with a set of academic requirements. These requirements include academic assignments as well as a pre- and post-internship seminar held in the semester before and after the semester in which the internship occurs. Internships for credit must be approved by the Director of the Internship Program prior to the internship experience. Students may not receive more than three hours of internship credit. Enrollment restricted and by permission only. LEC.

IST 895. Graduate Seminar Information Systems: _____. 0.5-5 Hours.
A variable-topic seminar open only to graduate students meeting the requirements established by faculty members offering the course. Enrollment restricted. LEC.

IST 898. Independent Study for Master’s Students. 1-6 Hours.
(V) Individual study of selected current problems in the field of information systems to be adapted to the special interests and objectives of the students and conducted through extensive reading and research. Students must have at least a 3.0 grade point average and be in good academic standing in a graduate business program and must submit a written statement of the proposed project approved by a supervisory faculty member prior to enrollment. RSH.

IST 996. Doctoral Seminar in Information Systems: _____. 2-5 Hours.
A variable topic seminar open only to graduate students meeting the requirements established by faculty members offering the course. Prerequisite: Consent of instructor. LEC.

IST 997. Directed Research in Information Systems. 1-5 Hours.
Students will research selected topics in the field of business administration under the direction of a graduate faculty member. Students are expected to report the results of their research by writing a publishable-quality scholarly article. Graded on satisfactory/unsatisfactory basis. Prerequisite: Approval required from supervising graduate faculty member. RSH.

IST 998. Independent Study for Doctoral Students. 1-5 Hours.
Individual study of selected current problems in the field of business administration to be adapted to the special interests and objectives of the students and conducted through extensive reading and research. Prerequisite: Approval required from supervising faculty member and PhD Team. RSH.

IST 999. Doctoral Dissertation. 1-12 Hours.
(V) Individual research work. THE.

MGMT 300. Special Topics in Management: _____. 1-5 Hours.
This is a variable-topic course open to undergraduates meeting the prerequisites for the specific topic being offered. Its purpose is to allow the occasional offering of management topics not covered by established courses. Enrollment is not limited to School of Business students. Prerequisite: Determined for each topic by instructor. LEC.

MGMT 305. Survey of Management and Leadership. 3 Hours.
This course is designed to acquaint students with traditional business management ideas, recent management thinking, and the contemporary application of both to the management functions of planning, organizing, leading and controlling. A survey of a wide variety of topics is offered, generally including goal setting, strategy formulation and implementation, managerial decision making, structure and design of organizations, corporate culture, organizational change and development, human resources management, managing diversity, leading, motivation, communication, teamwork, quality control, management control systems, operations and service management, entrepreneurship and small business management, managerial ethics, corporate social responsibility, and management in the global environment. (Not open to students with credit in MGMT 310 or MGMT 311.) Prerequisite: Goal 1, Outcome 2 and Goal 2, Outcome 1. LEC.

MGMT 310. Organizational Behavior. 3 Hours.
This course serves as an introduction to the study of individual and group behavior within the context of an organization. An objective may be the development of the student’s potential for becoming an effective organization member and manager of people. Experiential learning methods are utilized to involve the student actively. A wide variety of topics and theories may be covered, including motivation, leadership, job design, group dynamics, and formal organizational structure and process. Prerequisite: PSYC 104. LEC.

MGMT 311. Organizational Behavior, Honors. 3 Hours.
This course serves as an introduction to the study of individual and group behavior within the context of an organization. An objective may be the development of the student’s potential for becoming an effective organization member and manager of people. Experiential learning methods are utilized to involve the student actively. A wide variety of topics and theories may be covered, generally including motivation, leadership, job design, group dynamics, and formal organizational structure and process. Honors students will be held to especially high expectations in terms of analyzing, evaluating, and creating, with
systematic and continuous emphasis on personal and professional development. Only open to students admitted to the University Honors Program, the School of Business Honors Program, or by consent of the instructor. Prerequisite: PSYC 104. LEC.

MGMT 400. Special Topics in Management: _____. 1-5 Hours.
This is a variable-topic seminar. Its purpose is to allow the occasional offering of management topics not covered by established courses. Prerequisite: Determined for each topic by instructor. Enrollment restricted. LEC.

MGMT 405. Ethical Decision Making in Business. 3 Hours. AE51.
This course is designed to provide students with: (a) a grounding in the psychological and philosophical foundations of business ethics; (b) the ability to recognize ethical problems; (c) an exposure to many of the ethically sensitive issues facing corporations and managers in business today (e.g., layoffs, outsourcing, employee whistle-blowing, employee privacy, employee health and safety, marketing and advertising, environmental issues, discrimination, and the global responsibilities of business); and (d) the tools for analyzing and reaching closure on ethical problems. Students will study the role of ethics in the relation of business to employees, consumers, and society. Students in this course will have the opportunity to engage in stimulating class discussions, justify ethical positions in case study analyses, investigate ethical issues in their own future professional lives, and develop and present their solutions for typical ethical problems faced by managers in organizations. Prerequisite: MGMT 310 or MGMT 311. Enrollment restricted. LEC.

MGMT 410. Human Resources Management. 3 Hours.
This course addresses the ways that firms manage employment relationships, including staffing, training and development, compensation, performance appraisal, labor-management relations, employment law, career management, and job design. Upon completion of the course, students will be able to identify and address these topics from a general management perspective. Prerequisite: MGMT 310 or MGMT 311. Sports Management majors may petition for entry to the course with completion of the following prerequisite: MGMT 305, ECON 142, and an introductory statistics course (DSCI 202 or DSCI 301), HSES 310, MATH 365, PSYC 300). Enrollment restricted. LEC.

MGMT 413. Recruiting and Selecting Effective Employees. 3 Hours.
What makes for a great employee? The answer will depend on the fit between the person and the organization. One size does not fit all. This course covers policies and procedures for recruitment, selection and staffing to enhance organizational effectiveness. Students learn about individual differences, how to measure these differences, and how to ensure the organization’s recruitment and selection processes are reliable, valid, legal and “fair.” Topics will include (i) conducting a job analysis for creating job descriptions, (ii) recruiting candidates, and (iii) setting up selection procedures through initial screening and resume review, the employment interview, general and specific ability tests, personality tests, assessment centers, performance tests, integrity testing, and drug testing. Prerequisite: MGMT 310 or MGMT 311. Enrollment restricted. LEC.

MGMT 416. Training, Development, and Management Careers for Individuals and Organizations. 3 Hours.
The course introduces students to effective approaches for developing training and career management processes that support continuous learning and organizational adaptation. Topics include analyzing training needs, developing training with clear objectives, evaluating outcomes rigorously, and individual and organizational strategies for careers and work/life balance. Prerequisite: MGMT 310 or MGMT 311. Enrollment restricted. LEC.

MGMT 419. Managing Performance and Compensation. 3 Hours.
This course focuses on principles and practices in designing and administering performance management and reward systems. Employee performance measurement at both the individual and group levels is reviewed. Using performance measurement information for administrative decision-making and employee development is discussed. The impact of reward systems on employee recruitment, satisfaction and individual and firm-level performance is examined, including establishing pay structures, individual and group-based pay-for-performance plans, executive pay issues, government influences, and employee benefits. Prerequisite: MGMT 310 or MGMT 311. Enrollment restricted. LEC.

MGMT 431. Legal Environment for Managing Employees. 3 Hours.
The focus of this course is how the legal environment affects the management of employees. The topics covered include laws on employment discrimination, employment-at-will, and negligent hiring, the Occupational Safety and Health Act, the National Labor Relations Act, the Fair Labor Standards Act, and the Family and Medical Leave Act. Prerequisite: MGMT 310 or MGMT 311. Enrollment restricted. LEC.

MGMT 434. International Human Resource Management. 3 Hours.
Whether a company has a domestic or an international footprint, there is little doubt that it is impacted by global competition for markets and for talent. This course increases students’ understanding of core HRM activities as they are conducted in a global context. These activities include staffing, performance management, training and development, compensation, and labor relations. These topics are examined in the light of cultural and institutional differences. Prerequisite: MGMT 310 or MGMT 311. Enrollment restricted. LEC.

MGMT 437. Developing Management Skills. 3 Hours.
This course enhances leadership and other people-related skills of students in order to strengthen their capacity to manage others effectively. The course begins by focusing on self-awareness and self-management. Students also learn systems for classification of people on the basis of personality, behavior and attitudes. Other topics covered include communication skills, time management, techniques for controlling stress, problem solving, reading people’s emotions and intentions more effectively, effective team leadership, coaching and counseling, delegation and empowerment, conflict resolution, motivation, and effective discipline techniques. The focus of the course is on skill acquisition and development. Other pedagogy involves readings, personality and behavior inventories, role-playing, and case analyses. Prerequisite: MGMT 310 or MGMT 311. Enrollment restricted. LEC.

MGMT 455. The Role of the General Manager: Leadership and Management. 3 Hours.
The course focuses on the principles and methods that general managers use to implement strategies, both at the business unit and corporate levels. While stressing the complex nature of the general manager’s job, the organization’s mission, environment, technology, and strategy are discussed as the primary drivers of designing effective organization structures, processes, and management systems. Change processes for realigning the organization’s strategy, structure, processes, and culture are further emphasized, highlighting the role of the general manager as the architect of change. Topics covered include: organization design, transaction costs, behavior and output control; strategic leadership; design of information and reward systems; organizational change and cultural change processes. Prerequisite: MGMT 310 or MGMT 311. Enrollment restricted. LEC.

MGMT 470. Leadership in Business Organizations. 3 Hours.
This course provides the opportunity to learn and practice the behaviors common to business leaders; these include establishing direction, aligning others behind that direction, motivating and inspiring, and generally
promoting organizational change and transformation. Experiential learning will be used to develop skills by having students lead learning teams through a variety of classroom-based exercises and one service learning project of their choosing. Creation of a personal leadership development plan will be a major component of a portfolio of assessments, analyses, and reflections that the student will build throughout the course. A key goal will be establishing a leadership development mindset that will drive students’ future personal and professional development efforts. Prerequisite: MGMT 310 or MGMT 311. Enrollment restricted. LEC.

MGMT 472. Project Management. 3 Hours.
The purpose of this course is to examine business from a project management perspective, to develop a systems view of business rather than a functional view and to lay the foundation for future leaders to more effectively integrate project management into their business strategy. Further, to establish a common language for and a common knowledge of project management concepts, principles, and practices. This course is intended to help students gain an understanding of what project management involves, how it relates to other functional management areas, and its role in an organization’s structure and leadership. This course is made up of topical lectures, article/video analysis, open discussion, in-class experiential exercises and a team-based outside class project. In order to foster good project management habits, topics will be covered in the order they appear in the project lifecycle starting with project selection and bidding and ending with project acceptance and close out. Topics covered in this course include: the importance and role of project management, the contextual nature of projects, logistics issues in project management, and the E-business impact on project management. Prerequisite: MGMT 310 or MGMT 311 and SCM 310 or SCM 311. Enrollment restricted. LEC.

MGMT 485. Business Consulting. 4 Hours.
Business Consulting teaches the skills necessary to become consummate consultants and presents students with live projects incorporating real business challenges requiring real time analysis, consideration of practical alternative strategies, exploration of sales and profit implications of the selected strategy and delivery of a full rationalized recommendation to real clients. Prerequisite: MGMT 310 or MGMT 311. Enrollment restricted. LEC.

MGMT 492. Honors Topics and Problems in Management: ___. 1-5 Hours.
This honors topics seminar is open only to students meeting the requirements established by faculty members offering the course. Open only to students admitted to the University Honors Program, the Business Honors Program, or permission of the instructor. LEC.

The course exposes the student to the role of general management in complex organizations. The cases, conceptual materials, and projects are selected to provide the student with decision-making opportunity in major areas of managerial concern: environmental opportunities and constraints, formulation of business policy, and policy implementation mechanisms. Knowledge and skills gained in previous business courses, including marketing, finance, and quantitative methods, will be applied to problems associated with the totality of organizational activity. Only open to students admitted to the University Honors Program, the Business Honors Program, or permission of the instructor. Prerequisite: FIN 310 or FIN 311; MGMT 310 or MGMT 311; MKTG 310 or MKTG 311 and SCM 310 or SCM 311 and Senior standing (90 hours completed). LEC.

MGMT 500. Individual Research in Management. 1-5 Hours.
Individual study of selected topics in management not otherwise available to the student. Topics selected to be determined by the special interests and objectives of the student in consultation with a faculty member who will supervise the reading and research. Prerequisite: FIN 310 or FIN 311, MGMT 310 or MGMT 311, MKTG 310 or MKTG 311 and SCM 310 or SCM 311; 3.0 professional grade point average and approval of proposed plan of study by the instructor. Enrollment restricted. LEC.

MGMT 525. Negotiations and Dispute Settlement. 3 Hours.
This course involves the study of the theory and practice of dispute resolution and negotiation in business mediation (facilitated negotiation). Conflict resolution in the workplace, including grievance procedures, will be considered. Students are required to apply concepts studied through role playing simulations. (Same as BLAW 525.) Prerequisite: MGMT 310 or MGMT 311 and BE 301 or BE 302. Enrollment restricted. LEC.

MGMT 701. Organizational Behavior. 2 Hours.
This course focuses on human behavior in organizations. It helps the student learn to think systemically and critically about organizations, to appreciate knowledge building in the organization sciences, and to apply that knowledge in the work setting. Topics covered may include: individual differences and motivation, work and group design, leading and decision making, organization design and culture, and organization change and development. LEC.

MGMT 704. Strategic Management. 2 Hours.
Strategic Management has as its primary objective the development of an understanding of the role of general management from both a conceptual and operating standpoint. The course is based on the strategic management framework emphasizing the evaluation of an organization’s strategic situation and the formulation of viable alternative strategies required to deal with the challenges facing the organization. Attention is focused on the development of organizational objectives and the formulation of strategies at the business and operating levels. Prerequisite: MGMT 701, FIN 701, and MKTG 701. Enrollment restricted. LEC.

MGMT 705. Ethical Decision Making in Business. 2 Hours.
This course is designed to provide students with: (a) a grounding in the psychological and philosophical foundations of business ethics; (b) the ability to recognize ethical problems; (c) an exposure to many of the ethically sensitive issues facing corporations and managers today in each of the functional areas of business (management, accounting, finance, information systems, and marketing); and (d) the tools for analyzing and reaching closure on ethical problems. Students will study the role of ethics in the relation to the individual, manager, organization, and global business environment. Students in this course will have the opportunity to engage in stimulating class discussions, justify ethical positions in case study analyses, investigate ethical issues in their own future professional lives, and develop and present their solutions for typical ethical problems faced by managers in organizations after fully exploring the ethical dimensions of both sides of a given issue. Prerequisite: MGMT 701. Enrollment restricted. LEC.
MGMT 710. Leadership Philosophy and Practice. 2 Hours.
This course emphasizes an exploration of ideas about leadership that are practice-oriented. The material covered is based primarily on ethnographic and clinical inquiry rather than social scientific research. A central theme of this material, some of which is philosophical in nature, is the focus on learning and the role of reflection in both the leadership process itself and in the process of developing leaders. Varieties of topics are covered, including foresight, intuition, practical reason, critical thinking, reflective practice, and ethical judgment. A key goal is to move the student into a position where he or she can begin to take control of their own leadership development process. The course is structured so as to give students the opportunity to reflect on their experiences, analyze those experiences using the conceptual material, and then enter into systematic dialogue on these issues with other students and the instructor. The ultimate product of this learning process is the creation of a detailed personal leadership development plan. Prerequisite: MGMT 701. Enrollment restricted. LEC.

MGMT 711. Human Resources Management. 2 Hours.
The purpose of this course is to acquaint students with the rationale and tools for creating a sustainable competitive advantage through human resources. The management of human resources - people and their human capital - is approached from the perspective of the practicing manager as opposed to that of the human resources specialist. The major topics covered include staffing, training and development, performance management, compensation and benefits, job design, facets of employment law, and employee (labor-management) relations. Prerequisite: BE 701, DSCI 701 and MGMT 701. Enrollment restricted. LEC.

MGMT 712. Economic, Environment, and Social Sustainability in Business. 2 Hours.
This course introduces students to conducting business and pursuing organizational goals sustainably. It includes principles (scientific, economic, and cultural) to guide decision-making for sustainability, metrics to assess sustainability [e.g. the integrated or triple bottom line], and the application of sustainability concepts to business functions. Aspects of global environmental sustainability [energy, water, agriculture, resource use and waste] are considered. The use of cases, discussion of best practices, and attention to relevant skills help students gain familiarity with sustainable business practices and develop their capabilities to contribute to firm efforts to operate more sustainably. Enrollment restricted. LEC.

MGMT 713. Managing People: Applications and Skills. 2 Hours.
The goal of this course is to increase the capacity of the student to manage others effectively. It begins by focusing on self-awareness and self-management. Students also learn systems for classification of people on the basis of behavior and attitudes. Topics covered may include time management, problem solving, reading people, coaching and counseling, delegation and empowerment, conflict resolution, motivation and discipline. The focus is on skill acquisition and the learning approaches including readings, inventories, role playing and case analysis. Prerequisite: MGMT 701. Enrollment restricted. LEC.

MGMT 715. Management of Organizations. 3 Hours.
This course examines the evolving concept of management and explores various theories and methods for managing organizations. This course has three purposes: (1) to provide access to important ideas and issues facing general managers, (2) to help the students integrate their knowledge and expand their vision about managing organizations, and (3) to provide a forum for discussion of the issues, challenges, and opportunities lying ahead in a career in management. Prerequisite: MGMT 701. LEC.

MGMT 716. Organizational Change and Development. 3 Hours.
This course examines the mechanisms the organization uses to respond to and initiate changes in its internal and external environments. Specific processes include organization development (OD), intervention theory and research, organizational effectiveness, a variety of proactive change strategies, and the role of the change agent. Prerequisite: MGMT 701. LEC.

MGMT 722. Corporate Strategy. 2 Hours.
The objective of this course is to help students build an understanding of how competitive strategy may lead to the creation and persistence of competitive advantage in diversified firms. In contrast to the core Strategic Management (MGMT 704) course, which is designed to address how firms develop competitive advantage in a single market, this course analyzes how advantage can be created through the configuration and coordination of activities across multiple markets. Examples of corporate strategies include vertical integration, cooperative alliances, corporate diversification, mergers and acquisitions, and so forth. Prerequisite: MGMT 704 or MGMT 830. Enrollment restricted. LEC.

MGMT 723. Advanced Topics in Management of Organizations: _____. 2-5 Hours.
A study of advanced topics in various subfields of Management of Organizations. The course focus, content, and approach will depend upon the particular topics to be covered. Repeatable for different topics. Prerequisite: Variable. LEC.

MGMT 724. Competitive Analysis and Strategy. 2 Hours.
Competitive Analysis and Strategy deals with issues of competition and the formulation of competitive strategy towards creating long-term economic value. This course develops a framework for evaluating industry structures and understanding the dynamics of competition, combining rigor with relevance and applicability. Topics covered include nature of markets and competition, economic value creation, analysis of industries, customers and competitors, identification of capabilities and core competencies, alternative positioning strategies that create value in different environments and factors that lead to the erosion of competitive advantage. In addition, discussion will center around how firms can achieve “dynamic fit,” developing a self-renewing organization that encourages entrepreneurial behavior critical to the formulation and implementation of value creating strategies. LEC.

MGMT 725. Strategic Management of Technological Innovation. 2 Hours.
This course focuses on the dynamics of industries driven by technological innovation. It strives to help students think strategically about appraising and managing technological innovation and new product deployment. Specific topics covered include how innovations emerge, their type and pattern of diffusion, and their meaning to businesses and society. In-depth coverage is given to dominant designs and industry standards, decisions on entry timing of new technologies, resource allocation among multiple attractive innovation projects, and capturing the value created by innovations. Prerequisite: MGMT 704 or MGMT 830. Enrollment restricted. LEC.

MGMT 726. Management of Technology II: Technology and Operations. 2 Hours.
Management of Technology - II: Technology and Operations will focus on the role of technology in management of operations of a company. Research and Development, New Product Development, Operations and the linkages among them will be detailed. Key organizational issues such as business processes, core process designs, and organization of RD and scientific laboratories will be discussed. Information technology as a source of organizational change and adaptation will be summarized. Topics covered include: RD strategy, alliances and management; new
product development; QFD, benchmarking, and early manufacturing involvement; methods to speed up cycle time, concurrent engineering, outsourcing and lead user analysis; manufacturing flexibility, strategy and value chain analysis; Business Processes, core process design; organization of RD laboratories and new venture departments; IT and reengineering. LEC.

MGMT 727. Strategy Implementation. 2 Hours.
The course focuses on the principles and methods of implementing strategies, both at the business unit and corporate levels. Strategy is discussed as the primary driver of organization structure, processes, systems, culture and skills in successful organizations. The role of the general manager as the architect of implementation is highlighted. Topics covered include: different forms of structure, behavior and output controls; organization design, information systems design, reward systems and organizational culture. Prerequisite: MGMT 704 or MGMT 830. Enrollment restricted. LEC.

MGMT 728. Managing Strategic Direction and Change. 2 Hours.
This course focuses on executive actions needed to create and sustain high performance of firms. The vision, credibility, and human skills that executives need to set strategic direction are explored extensively. A major part of the course covers strategic and organizational change practices that can be used to motivate employees to alter their patterns of behavior to meet the shifting needs of the firm's strategy. Emphasis is placed on theories of effective change implementation, mutual engagement and shared diagnosis, organizational redesign, reinforcing new behaviors, organizational culture and change, and the political dynamics of strategic change. Prerequisite: MGMT 704 or MGMT 830. Enrollment restricted. LEC.

MGMT 729. Applied Strategic Management. 2 Hours.
Theories, concepts, and principles of Strategic Management will be applied to a specific industry or industries to enable better understanding of both the industry(ies) and how strategies are developed and perform in that industry. Each student will research a firm in the industry with the objective of uncovering its historical and projected strategic approach to the industry and present the findings to the class. Research materials will include both hard copy and on-line business reference material developed through on-line information searches. Field projects may be required depending upon availability of sites. Projects would then require travel to the site at other than regular class times. See the instructor for details. Prerequisite: Completion of MGMT 704 or equivalent and possession of on line information search skills for LEXIS/NEXIS and other electronic information sources, in addition to traditional library research skills. LEC.

MGMT 730. Business and Social Problems. 3 Hours.
An investigation into the obligations of business as a corporate citizen with special attention paid to current and topical problems. Topics discussed include the efficiency of business as an agent of social change, public expectations for the role of business, and the adequacy of business's performance. Not open to students with credit in MGMT 486. LEC.

MGMT 732. Recruiting and Selecting Effective Employees. 2 Hours.
Building on selected fundamental principles from psychology, economics, and sociology, this course emphasizes the importance of sound measurement practices for the acquisition of effective human talent by organizations. Topics covered include job analysis for selection procedure development, legal and fairness issues, recruitment, initial screening, employment testing, and the employment interview. Prerequisite: MGMT 701 or MGMT 810. Enrollment restricted. LEC.

MGMT 733. Advanced Methods for Selecting Employees. 2 Hours.
This course follows logically from MGMT 732 Recruiting and Selecting Effective Employees, and covers advanced personnel selection procedures including the following: job knowledge tests; cognitive ability tests; personality assessment; integrity testing; performance tests; assessment centers; drug testing. Prerequisite: MGMT 732. LEC.

MGMT 734. Compensation and Rewards. 2 Hours.
This course focuses on principles, policies and practices in designing and administering compensation and reward systems. It covers frameworks and applications useful for achieving organizational effectiveness through pay systems that help promote a competent and committed workforce. Topics include: developing pay structures, formulating and implementing pay level strategies, assessing and managing employee performance, pay-for-performance issues, legal issues, executive compensation and employee benefits. Prerequisite: MGMT 701 or MGMT 810. Enrollment restricted. LEC.

MGMT 735. Compensating and Rewarding Employees: Alternative Approaches. 2 Hours.
The primary focus of this course is on "alternative" compensation and reward systems. After first discussing the factors motivating firms to adopt alternative approaches to pay, these alternative systems will be critically examined. Discussion will focus on: skills/knowledge-based plans; team-based plans; gainsharing/efficiency-based plans; profit-sharing and employee stock ownership plans; market-based (economic value added) plans; and, alternative recognition systems (e.g., spot bonus plans; non-cash awards). Prerequisite: MGMT 701. LEC.

MGMT 736. Developing People and Careers. 2 Hours.
This course is designed with an emphasis on effective talent management for practicing managers and includes individual and organizational perspectives. Topics include assessing training needs; designing, developing, delivering and evaluating training and development investments; and career management planning, strategies and progression, including succession planning. Prerequisite: MGMT 701 or MGMT 810. Enrollment restricted. LEC.

MGMT 737. Career Development and Management. 2 Hours.
This course investigates careers from individual and organizational perspectives with an emphasis on the implications of the current business environment. The organizational perspective includes career planning and pathing, the integration of career systems with other human resource programs, and the nature of the employee-employer relationship. The individual perspective includes career management strategies and skills to cope in the workplace, career theories, and balancing work and non-work. Prerequisite: MGMT 701. LEC.

MGMT 738. Appraising and Managing Employee Performance. 2 Hours.
This course covers the measurement/appraisal of employee performance at the individual and small work group/team levels, and the use of appraisal information in administrative decision-making, employee coaching, employee counseling, and individual/team performance improvement. Prerequisite: MGMT 701 or MGMT 810. Enrollment restricted. LEC.

MGMT 739. International Human Resources Management. 2 Hours.
This course introduces students to the major issues associated with managing people in the context of the global marketplace. The focus is on understanding human resource issues that are unique to international business and strategies for effectively addressing them. These issues include staffing, performance management, compensation and labor relations. These topics are considered in the context of factors such as culture, socio-politics, legal regulations, and education. Prerequisite: MGMT 701 or MGMT 810. Enrollment restricted. LEC.

MGMT 740. Legal Environment for Managing Employees. 2 Hours.
This course examines the legal environment as it affects the management of employees. The focus is on an understanding of employment law
MGMT 744. Managing Human Resources in a Union Environment. 2 Hours.
This course examines managing employees in the context of a labor union. The focus is on the creation of mutual gains and the avoidance of an adversary relationship. A major issue is how human resources can be used for a firm’s competitive advantage in a union context. Topics covered include strategies for dealing with unions, the negotiation of agreements, productivity enhancement, contract administration, and dispute resolution. LEC.

MGMT 745. Advanced Seminar in Human Resources: ______. 2-5 Hours.
A study of advanced topics in various subfields of Human Resources. The course focus, content, and approach will depend upon the particular topics to be covered. Repeatable for different topics. Prerequisite: To be determined by instructor. LEC.

MGMT 748. Negotiation and Dispute Resolution. 3 Hours.
This course will include a study of the theory and practice of negotiation and dispute resolution in business contexts. It will focus on the use of alternatives to litigation, such as various forms of arbitration, mediation, and, especially, negotiation. In addition to emphasizing negotiation as a means of resolving disputes, attention will be directed at negotiation of transactions. Appreciation of concepts will be promoted through role play simulations. Not open to students with credit in BLAW 525 or MGMT 525. (Same as BLAW 748.) LEC.

MGMT 750. Special Topics in Management: ______. 2-5 Hours.
A variable-topic course open to graduate and selected undergraduate students meeting the requirements established by faculty members offering the course. Prerequisite: Determined by the instructor. Enrollment restricted. LEC.

MGMT 810. Managing People. 3 Hours.
This course addresses topics, challenges and processes associated with business-related people issues. The principal objectives are to increase understanding of human and group behavior in organizations; to learn how to effectively motivate and lead individuals and groups; to increase effectiveness in managing oneself and others in team settings; and to increase understanding of human resource (HR) policies and practices that help create and sustain competitive advantage through people. Course topics include individual differences, motivation, groups, leadership, strategic HR, employment law, staffing, compensation, performance management, and training and development. This course is open only to students in the full-time MBA program. LEC.

MGMT 820. Business Law and Ethics. 3 Hours.
This course has two purposes: to explore the relationship between law and business and provides a foundation for further understanding of business relevant laws and to address ethical decision-making and the management of ethics in the workplace. Topics include classifications of law, federalism, court systems, civil judicial process, alternative dispute resolution, ethical analysis tools, recognition of ethical issues, organizational dimensions that impact ethical behavior, and the management of ethical responsibilities in a global business environment. This course is open only to students in the full-time MBA program. LEC.

MGMT 830. Global Strategic Management. 3 Hours.
Global Strategic Management is a capstone Strategic Management course infused with applications to global business. The principal objectives of the course are to learn the basics of strategic decision making and how strategy integrates functional area policies in organizations; to understand how industries affect firm strategies; to understand how firms develop resources and capabilities for competitive advantage; to examine key strategic decisions or areas such as vertical integration, diversification, technology and market entry; and to understand how globalization affects core aspects of strategic business decisions. Topics include firm strategy, industry analysis, resources and capabilities, cost and differentiation advantage, organizing for competitive advantage, strategic change, technology-based competition, multinational strategy, vertical integration, and diversification. This course is open only to students in the full-time MBA program. LEC.

MGMT 831. Consulting Practicum. 3 Hours.
This course provides clinical applications of business problem solving and consulting. The course objectives are to link models and theories with field applications to solve real business problems; to acquire first-hand industry knowledge and witness varying client management styles; to learn time management skills and acquire a practical ‘tool kit’ for diverse business problem solving; to apply problem solving techniques in both corporate and client consulting environments; and to enhance team interaction and leadership capabilities. Topics include consulting processes and successful consultant characteristics, hypothesis generation, problem identification and differentiation of root cause vs. symptom, market research methods, solution modeling, prep and presentation of solution, keys to consulting effectiveness. This course is open to those with admission to a graduate business program. LEC.

MGMT 885. Business Consulting. 4 Hours.
Through experiential learning using live consulting assignments, students will achieve understanding clarity of the linkage between models and theories studied in the classroom and application in the field; direct interaction with clients at sophisticated corporate organizations; and first hand experience in addressing significant business challenges with impactful and strategically correct solutions. Students will enhance their team and leadership skill capabilities through interaction with other team members. This course is not open to students with credit in MGMT 485. LEC.

MGMT 895. Graduate Seminar in Management: _____. 0.5-5 Hours.
A variable-topic seminar open only to graduate students meeting the requirements established by faculty members offering the course. Enrollment restricted. LEC.

MGMT 898. Independent Study for Master’s Students. 1-6 Hours.
Individual study of selected current problems in the field of business management to be adapted to the special interests and objectives of the students and conducted through extensive reading and research. Students must have at least a 3.0 grade point average and be in good academic standing in a graduate business program and must submit a written statement of the proposed project approved by a supervisory faculty member prior to enrollment. RSH.

MGMT 901. Current Research in Management. 1 Hour.
This course provides a workshop format for a discussion of the currently prevalent research topics, methods, and problems being addressed in the areas of human resources management, organizational behavior, and strategic management. All first year PhD students in HRM, OB, and SM will typically enroll in this course their first and second semesters in the doctoral program. Students will enroll in this course with their respective faculty advisors, who will work out a schedule of research seminars that each student must attend and participate in during the semester. Prerequisite: Admission to the School of Business PhD Program in HRM, OB, or SM, or permission of the Management Area Director. LEC.
MGMT 905. Philosophy of the Behavioral and Organizational Sciences. 3 Hours.
An advanced introduction to the philosophy of science relevant to the behavioral and organizational sciences. Introduces the student to contemporary philosophical thought concerning the nature of scientific knowledge and its acquisition. Students will be exposed to classic works in the 20th century movement of thought in the philosophy of science and the philosophy of social science. Subject matter will include the study of logical positivism, anti‐positivist responses such as falsificationism, epistemological anarchism, and Kuhnian relativism, to contemporary neo‐pragmatist, postmodernist, and constructivist developments related to the indeterminacy of knowledge. The method of the course is philosophical; critical thinking, critical discussion, and dialectical exchange will be encouraged. The course is oriented to the interests of social scientists, rather than philosophers. Prerequisite: Admission to the Doctoral Program or graduate standing and permission of the instructor. LEC.

MGMT 906. Behavioral Research Methods. 4 Hours.
This course is designed to develop in students an ability to analyze research reports critically and to provide skills in designing, performing, and reporting original behavioral research. Methodologies ranging from naturalistic field studies to laboratory experiments are reviewed along with various data collection strategies. Students prepare and defend an original research proposal. Recommended to be taken early in the program for Human Resource Management, Organizational Behavior, and Strategic Management doctoral students. Prerequisite: Admission to the Doctoral Program or graduate standing and permission of the instructor. LEC.

MGMT 916. Seminar in Organization Theory. 3 Hours.
This course provides an advanced survey of theories about organizations as entities, their properties, and major processes. Topics include structures, structural change, organizational forms, decentralization, effectiveness, adoption and diffusion processes, concepts and theories of processes, interdependence and recent developments in organizational design and change. Major organization theories are also covered. Students are expected to write a serious research paper. This course is primarily for School of Business Ph.D. students but other advanced graduate students may enroll with the permission of the instructor. Prerequisite: Doctoral standing or masters students with at least one undergraduate or M.B.A. level behavioral science course or consent of instructor. LEC.

MGMT 950. Personnel Selection and Effective Work Performance. 3 Hours.
This seminar focuses on staffing organizations to produce effective performance of work. It covers work performance, recruitment, and virtually all aspects of personnel selection. Topics include but are not limited to the following: measurement issues (reliability, validity, decision-making strategies); validity generalization; legal issues (discrimination, adverse impact); job and work analysis; evaluation of job applicant training and work experience; weighted application blanks and biodata; ability testing; personality assessment; performance tests and assessment centers; other methods of assessment (integrity testing, drug testing, graphology). Typically reading assignments include a substantial textbook plus articles from research journals (e.g., Journal of Applied Psychology, Personnel Psychology). Typically students are required to write a substantial paper on a major aspect of personnel selection approved by the Professor. Prerequisite: Admission to the Doctoral Program or graduate standing and permission of the instructor. LEC.

MGMT 951. Training, Developing, and Managing Careers in Organizations. 3 Hours.
This seminar focuses on the development and maintenance of human capital and career management. A multi‐level perspective is adopted and issues are considered from individual and organizational perspectives within the context of an HR system addressing contemporary workplace challenges. Theoretical and empirical readings will be drawn from OB, HR, and other relevant social sciences. Topics and themes include the processes of (a) training design, from needs assessment, through development, delivery and evaluation, and (b) career development and management. Prerequisite: Admission to the Doctoral Program or graduate standing and permission of the instructor. LEC.

MGMT 952. Strategic Human Resource Management. 3 Hours.
This seminar focuses on macro-level perspectives on managing people for organizational effectiveness. Theoretical and empirical readings will be drawn from the OB, HR, strategy and other relevant literatures (e.g., services marketing) that explore themes related to: (a) human/ social capital and firm success; (b) employee attitudes/behavior and firm success; (c) HR policies/practices and firm success; and (d) contingency perspectives applied to the above, including factors such as national culture, industry, competitive strategy and employee groups. Prerequisite: Admission to the Doctoral Program or graduate standing and permission of the instructor. LEC.

MGMT 953. Designing Effective Work Environments in Organizations. 3 Hours.
This seminar focuses on conceptual and empirical research in organizational behavior that seeks to understand how to achieve organizational effectiveness through establishing positive conditions for employees to flourish. The implications of these conditions for the motivation and ethical behavior of individuals will be discussed. Readings will address the following topics: Person‐Organization Fit, Work Design, Work Teams, Leadership, Psychological Engagement, Decision‐Making, Ethics, and Cross-cultural Dimensions of organization behavior or of the preceding topics. Prerequisite: Admission to the Doctoral Program or graduate standing and permission of the instructor. LEC.

MGMT 954. Individual and Interactionist Perspectives of Organizations. 3 Hours.
This seminar focuses on conceptual and empirical research in organizational behavior that seeks to understand how the interaction between individuals and organizational facets influences their sense-making and identity. The implications of these processes for employees’ well-being, performance, and careers will be discussed. Readings will address the following topics: Social Cognitive Theory, Self-efficacy, Employee Attachment and Job Attitudes, Individual Differences, Careers, Employee Well-being, Emotions, Attribution Theory, Sense-making processes, Identity, Organizational Culture, and Cross-cultural Dimensions/Globalization. Prerequisite: Admission to the Doctoral Program or graduate standing and permission of the instructor. LEC.

MGMT 955. Creativity, Innovation, and Change in Organizations. 3 Hours.
This seminar focuses on theoretical and empirical research that seeks to understand the behavioral aspects of creativity and innovation in organizations. Central to this understanding is how organizations develop and change over time. Readings will include articles on the following topics: Expectancy theory, Goal setting, Intrinsic Motivation, Creativity, Innovation, Organizational Development, Learning, and Change Processes, Power and Politics, Organizational Citizenship Behaviors; and Cross-Cultural Dimensions. Prerequisite: Admission to the Doctoral Program or graduate standing and permission of the instructor. LEC.
MGMT 956. Economic Theories of Strategic Management. 3 Hours.
This seminar surveys the scholarly literature in Strategic Management that is based on economic modeling of human and firm behavior. Topics include but are not limited to Industrial Organization Economics, Transaction Costs Economics, Property Rights Theory, Agency Theory, Resource-Based View and Dynamic Capabilities, and Real Options Theory. Prerequisite: Admission to the Doctoral Program or graduate standing and permission of the instructor. LEC.

MGMT 957. Behavioral Theories of Strategic Management. 3 Hours.
This seminar surveys the scholarly literature in Strategic Management that is based on behavioral, psychological and sociological theories. Topics include but are not limited to the Behavioral Theory of the Firm, Behavioral Models of Strategic Decision Making, Strategy Formation, Strategic Leadership including CEO’s, Boards and Top Management Teams, Organizational Demography, Cognition in Strategic Decision Making, Power Politics in Strategy Development. Prerequisite: Admission to the Doctoral Program or graduate standing and permission of the instructor. LEC.

MGMT 995. Doctoral Seminar in Management: ____. 2-5 Hours.
A variable topic seminar open only to graduate students meeting the requirements established by faculty members offering the course. Prerequisite: Consent of instructor. LEC.

MGMT 997. Directed Research in Management. 1-5 Hours.
Students will research selected topics in the field of management under the direction of a graduate faculty member. Students are expected to report the results of their research by writing a publishable-quality scholarly article. Graded on satisfactory/unsatisfactory basis. Prerequisite: Approval required from supervising graduate faculty member. RSH.

MGMT 998. Independent Study for Doctoral Students. 1-5 Hours.
Individual study of selected current problems in the field of business administration to be adapted to the special interests and objectives of the students and conducted through extensive reading and research. Student must submit written statement of proposed project. Prerequisite: Approval required from supervising faculty member and PhD Team. RSH.

MGMT 999. Doctoral Dissertation. 1-12 Hours.
(V) Individual research work. THE.

MKTG 300. Special Topics in Marketing: _____. 1-5 Hours.
This is a variable-topic course open to undergraduates meeting the prerequisites for the specific topic being offered. Its purpose is to allow the occasional offering of marketing topics not covered by established courses. Enrollment is not limited to School of Business students. Prerequisite: Determined for each topic by instructor. LEC.

MKTG 305. Survey of Marketing. 3 Hours.
This course introduces the student to marketing from the perspective of the business firm. Topics included are the marketing system, consumer and industrial behavior, market segmentation and positioning, product policy, channels of distribution, pricing strategy, sales management, and marketing communications. (Not open to students with credit in MKTG 310 or MKTG 311.) Prerequisite: ENGL 101 and MATH 101. LEC.

MKTG 310. Marketing. 3 Hours.
A study of marketing from the point of view of the business firm. Topics include the structure of the marketing system, the nature of marketing management, consumer behavior, marketing research, product policy, channels of distribution policy, and analytical techniques useful to marketing management. Prerequisite: Completion of ECON 142, ACCT 200, and PSYC 104. Prior completion or co-enrollment in DSCI 202 or DSCI 301. LEC.

MKTG 311. Marketing, Honors. 3 Hours.
Honors treatment of this course involves a study of marketing from the point of view of the business firm. Topics include the nature of marketing management, consumer behavior, marketing research, product policy, channels of distribution policy, marketing communications, pricing, and analytical techniques relevant to marketing management. Only open to students admitted to the University Honors Program, the Business Honors Program, or permission of the instructor. Prerequisite: Completion of ECON 142, ACCT 200, and PSYC 104. Prior completion or co-enrollment in DSCI 202 or DSCI 301. LEC.

MKTG 400. Special Topics in Marketing: ____. 1-5 Hours.
This is a variable-topic seminar. Its purpose is to allow the occasional offering of marketing topics not covered by established courses. Prerequisite: Determined for each topic by instructor. LEC.

MKTG 411. Introduction to Consumer Behavior. 3 Hours.
A study of the buyer’s information acquisition, evaluation, purchasing, and post-purchasing evaluation process. Emphasis is placed upon social psychological theories and their implications on the understanding and prediction of consumers’ behavior. The student, from the standpoint of the marketing manager, will apply behavioral science concepts to the problems of planning, pricing, and promotion decisions. Prerequisite: MKTG 310 or MKTG 311. Enrollment restricted. LEC.

MKTG 412. Introduction to Consumer Behavior, Honors. 3 Hours.
Honors treatment of this course involves study of the buyer’s information acquisition, evaluation, purchasing, and post-purchasing evaluation process. Emphasis is placed upon social psychological theories and their implications on the understanding and prediction of consumers’ behavior. The student, from the standpoint of the marketing manager, will apply behavioral science concepts to the problems of planning, pricing, and promotion decisions. Only open to students admitted to the University Honors Program, the Business Honors Program, or permission of the instructor. Prerequisite: MKTG 310 or MKTG 311. LEC.

MKTG 415. Marketing Research for Managers. 3 Hours.
This course introduces the student to the fundamentals of marketing research and analytical approaches to marketing problems. The material is presented from an applied point of view and is designed to familiarize the student with those aspects of marketing research with which the marketing manager is likely to interact. Prerequisite: MKTG 310 or MKTG 311. Enrollment restricted. LEC.

MKTG 420. Integrated Marketing Communications. 3 Hours.
This course will deal with the use of advertising, personal selling, sales promotion, and public relations as elements in a promotional program. The perspective of the course will be distinctly managerial. Therefore, the emphasis will be upon the efficient use of an organization’s resources to accomplish communication goals through effective promotional strategy. A good part of the course will be spent examining the communication process; the nature of the receiver and how information is processed; determination of promotional objectives; promotional budget; media decisions, and measuring the effectiveness of the promotional campaigns. The goal of the course is to enable the students to better evaluate and devise a marketing communications program for any given product, service, or idea. Prerequisite: MKTG 310 or MKTG 311. Enrollment restricted. LEC.

MKTG 425. Sales Force Management. 3 Hours.
This course, as an advanced marketing elective, is designed to integrate sales force planning into the marketing planning process; to present the necessary tools and skills needed for developing and evaluating a competitive sales function; and to analyze the components of the sales function from a managerial perspective. Specifically, topics include strategic sales planning, forecasting, quotas and compensation plans,
selection and training, time and territory management, motivation, and performance analysis. Pedagogical methods for the course include: lecture, case study, role-playing, micro-computer simulations, and spreadsheet analyses. Prerequisite: MKTG 310 or MKTG 311. Enrollment restricted. LEC.

**MKTG 430. New Product Management. 3 Hours.**
This course deals with the strategies, techniques, and methods used to develop and market a new product. An important aspect of the course deals with anticipating and managing change that can affect a firm’s marketing opportunities and response. Also emphasized is the need for a disciplined process of development. Subjects examined include innovative thinking, identification, and development of marketing opportunities, marketing mix strategies, and implementation. Prerequisite: MKTG 310, MKTG 311 or consent of instructor. Enrollment restricted. LEC.

**MKTG 435. Marketing Strategy. 3 Hours.**
The emphasis of this course is strategic marketing analysis and planning. Concepts and methods for the strategic analysis of product-market definition, segmentation, product positioning, and new product planning are examples of individual subjects that are covered. However, the primary objective is to integrate various topics into a strategic planning framework. An important component of the course is the application of concepts to realistic marketing problems through the use of comprehensive marketing simulations or in-depth cases that capture the dynamics of the marketing environment. Students will learn how to identify markets, assess company strengths and weaknesses, target market segments, analyze competition, and develop specific functional strategies in such areas as product development, pricing, distribution, and promotion. Prerequisite: MKTG 411 or MKTG 412 and MKTG 415. Enrollment restricted. LEC.

**MKTG 440. Global Marketing. 3 Hours.**
Today businesses compete in a global environment. As such, marketing managers must recognize the global nature of their markets and must develop the knowledge background, sensitivity, and skills required to successfully operate in this dynamic setting. This course examines the array of activities required to select, gain entry, and compete in a location other than the “home” country. Also examined is the influence that culture, environment, government regulation, and economic systems can have upon marketing mix decisions (product, price, promotion, distribution) related to localization, standardization, and local adaptation. Prerequisite: MKTG 310 or MKTG 311. Enrollment restricted. LEC.

**MKTG 445. Services Marketing. 3 Hours.**
This course prepares students for careers, which will entail managing businesses in the service sector. This sector includes accounting management consulting, engineering services, environmental services, health care, research, architectural, hotel and restaurant, charitable, and many others. It provides the foundation a student needs so that he or she can move beyond providing technical support to the client and towards managing and developing the business. For a marketing or management student, it provides the foundation they need to be able to find a job, hit the ground running, and advance in a marketing (management) position with companies in the service sector. Prerequisite: MKTG 310 or MKTG 311. Only open to students admitted to the University Honors Program, the Business Honors Program, or permission of the instructor. LEC.

**MKTG 450. Internet Marketing. 3 Hours.**
This course examines how the power of today’s digital technologies can be harnessed to enhance and deploy the marketing function. The course begins with an overview of the key forces shaping the digital environment. It then examines several topics that define and characterize marketing in this new environment. Illustrative topics include web business models, traffic driving strategies, one-to-one marketing, personalization, closed-loop marketing, online support, dynamic pricing, channel redesign, and m-commerce. Throughout, emphasis is placed on linking key concepts to best practices in the field. Prerequisite: MKTG 310 or MKTG 311. Enrollment restricted. LEC.

**MKTG 455. Pricing. 3 Hours.**
The primary objective of this course is to examine the concepts and tools required to effectively manage the pricing function. Both strategic and tactical aspects of pricing will be covered with a view to identify profit-boosting practices across a range of professional contexts - as product managers, business unit managers, management consultants, and entrepreneurs. Prerequisite: MKTG 310 or MKTG 311. Enrollment restricted. LEC.

**MKTG 460. Practicum in Promotional Plan Development. 3 Hours.**
The course is an experiential approach to promotional campaign development with an emphasis on promotional strategy as a single component of the total marketing strategy. Student teams work with actual businesses to address the business’s individual marketing needs. Students conduct environmental and industry analysis and primary and secondary market research to identify target markets, develop a marketing strategy, promotional objectives, product positioning, brand development and ROI measures for a promotional strategy. Students then complete media planning, creative execution, and budgeting and present the project to the business. Prerequisite: MKTG 310 or MKTG 311 and at least two of the following three courses: MKTG 411 or MKTG 412, MKTG 415 or MKTG 416, or MKTG 435. Enrollment restricted. LEC.

**MKTG 465. Customer Relationship Management. 3 Hours.**
This course offers a comprehensive introduction to the strategy and tactics of customer relationship management (CRM). Particular emphasis is given toward identifying the key strategic principles inherent in the customer-centric focus that underlies a successful CRM program. Topics include: Fundamentals of CRM strategy, marketing metrics, customer profitability analysis, choice modeling, techniques for evaluating model performance and applications of CRM to marketing campaign management. Students will be instructed on how to implement the CRM techniques using various software tools and real-world data. (Same as SCM 425.) Prerequisite: MKTG 310 or MKTG 311; SCM 310 or SCM 311. Enrollment restricted. LEC.

**MKTG 500. Individual Research in Marketing. 1-5 Hours.**
Individual study of selected topics in marketing not otherwise available to the student. Topics selected to be determined by the special interests and objectives of the student in consultation with a faculty member who will supervise the readings and research. Prerequisite: FIN 310 or FIN 311, MGMT 310 or MGMT 311, MKTG 310 or MKTG 311 and SCM 310 or SCM 311; 3.0 professional grade point average and approval of proposed plan of study by the instructor. Enrollment restricted. LEC.
MKTG 701. Marketing Management. 2 Hours.
This course examines the marketing function of the firm, primarily from a managerial perspective. The topics examined include: marketing concepts, segmentation, and decisions related to positioning, products, pricing, distribution, and promotion. LEC.

MKTG 702. New Product Management. 3 Hours.
The course is designed to develop an understanding for the need for a disciplined process of development, and to follow the basic steps of opportunity identification, testing, and implementation. It deals with the strategies, techniques, and methods used to develop and market a new product or service. The emphasis is on "learning by doing." The course will focus on the enhancement of innovative thinking, the identification and development of marketing opportunities, entry strategies; and developing the marketing mix for the new product. Not open to students with credit in MKTG 430. Prerequisite: ACCT 702 or MKTG 701 or permission of instructor. Enrollment restricted. LEC.

MKTG 706. Strategic Marketing Planning and Decision-Making. 3 Hours.
This course is a capstone marketing course designed around a strategic marketing planning approach with a clear emphasis upon how to do strategic analysis and planning. Methods for the strategic analysis of business units, product-market definition, segmentation, positioning, and new product planning are examples of topics that will be covered. However, the primary course objective is to integrate the various methods and topics into a strategic planning framework which should enable participants to formulate alternative market planning strategies; to translate organizational mission strategies into the marketing plan; and to conceptualize the formulation, integration, implementation, and control of long-range and short-range planning. Not open to students with credit in MKTG 435. Prerequisite: ACCT 702 or MKTG 701. Enrollment restricted. LEC.

MKTG 707. Metrics and Statistics in Marketing Research. 3 Hours.
An analysis of selected statistical and mathematical techniques that are currently being applied or are potentially applicable to the solution of marketing problems. Extensive use is made of actual studies that have utilized these techniques. Prerequisite: MKTG 415 or MKTG 416 or ACCT 702 or MKTG 701. Enrollment restricted. LEC.

MKTG 709. Sales Force Management. 3 Hours.
In many industries, the sales force is the primary vehicle for taking the product to market. The main objective of this course is to expose students to the concepts, tools, and techniques required to effectively manage this important function. Since the use of personal selling is generally more pronounced within industrial markets, this course will first analyze issues unique to industrial marketing. Topics here include industrial buying behavior, segmentation strategies for industrial markets, life cycle strategies, and managing the pricing function for industrial products. Using this foundation, the next part of the course will cover issues specific to the management of the sales force such as structuring the sales force, sizing the sales force, demand estimation, quota setting, and sales force compensation. Finally, the last part of the course will focus on skills required for professional selling such as handling objections and closing the sales call. Not open to students with credit in MKTG 425. LEC.

MKTG 710. Internet Marketing. 3 Hours.
The internet and digital technologies continue to profoundly impact all aspects of the marketing function. The broad objectives of this course are to better understand how digital technologies create value for customers and profits for companies. Special emphasis will be placed on new opportunities afforded by digital technologies. Specific topics include personalization, closed-loop marketing, online communities, new pricing formats, harnessing dispersed competence, and formulating win-win marketing strategies. Not open to students with credit in MKTG 450. Prerequisite: MKTG 701. Enrollment restricted. LEC.

MKTG 711. Pricing Strategies and Tactics. 3 Hours.
In this course, students are first exposed to the various viewpoints that govern pricing. After introducing pricing as an integral part of the marketing decision process, the course will develop an appreciation of the various tools (for example, consumer behavior and game theory) used to arrive at competitive pricing strategies. Cases will be used to illustrate both the tools and resulting strategies. Illustrative topics include: Value-based pricing, price matching guarantees, predatory pricing, behavioral pricing, interaction of pricing with channel decisions, bundling, and online auctions. While using various methods, care will be taken to differentiate long-term strategies and short-term tactics used by firms. Overall, students will be able to create effective pricing strategies and also understand how pricing policy fits into the overall marketing function of the organization. Not open to students with credit in MKTG 455. Prerequisite: MKTG 701. Enrollment restricted. LEC.

MKTG 712. Services Marketing. 3 Hours.
Unique characteristics associated with services (e.g., intangibility, perishability, and real-time production) necessitate use of a different set of concepts, methods, and frameworks for their effective management. This broad course is designed to fill the knowledge-gap between managing products and managing services. Sample topics covered in this course include managing customer expectations, customer satisfaction measurement, managing service demand, mobilizing people for breakthrough service, managing service recovery, relationship marketing, customer lifetime value analysis, and managing services in a global context. Not open to students with credit in MKTG 445. Prerequisite: MKTG 701. Enrollment restricted. LEC.

MKTG 713. Database Marketing. 3 Hours.
This course introduces the theory and practical implementation of customer relationship management (CRM) strategies using marketing databases. Topics include: fundamentals of CRM strategy, RFM analysis, LTV metrics, logit models, decision tress, techniques for evaluating model performance (e.g., lift charts, ROC) and applications to campaign management. In keeping with the hands-on nature of the course, students will be instructed on how to implement the CRM techniques using various software tools. Not open to students with credit in MKTG 465/SCM 425. Prerequisite: MKTG 704. Enrollment restricted. LEC.

MKTG 714. Discovering & Evaluating New Product Opportunities. 2 Hours.
Rapid shifts in technology and consumer preferences make new products critical to a firm’s portfolio. This course highlights the value of a disciplined approach in bringing new products and services to market. Specific topics covered include models for opportunity identification, understanding customer preferences and perceptions, and gauging market demand. Multidimensional scaling, factor analysis, clustering, preference regression and conjoint analysis are some techniques used in this course. Prerequisite: MKTG 701 or MKTG 810. Enrollment restricted. LEC.

MKTG 715. Consumer Behavior. 2 Hours.
This course is designed to review behavioral science concepts applicable to understanding behavior of consumers in the marketplace. It investigates the specific processes of consumer decision-making and purchasing, and the implications these have for marketing strategy. Topics covered include: effect of internal and external factors on consumer decision making, information processing, learning and memory, attitude formation and change, postpurchase behavior, ethical/social issues, effects on marketing strategy. Prerequisite: MKTG 701. Enrollment restricted. LEC.
MKTG 716. Global Marketing. 2 Hours.
This course is designed to provide a set of conceptual and managerial tools to students for undertaking marketing of products and services on a global scale. The topics covered in the course include economic and financial dimensions in global marketing, social and cultural aspects of the global market environment, regional market characteristics, political and legal issues in global marketing. A significant portion of the course is devoted to the study of competitive analysis and competitive strategy for the global markets, marketing information systems, various strategies for entering global markets, organization, planning and control of global marketing, and marketing mix decisions (product, price, promotion, and distribution) in a global setting. Prerequisite: IBUS 701 and MKTG 701. Enrollment restricted. LEC.

MKTG 717. Integrated Marketing Communications. 2 Hours.
The goal of this course is to enable the student to evaluate and devise a product/service marketing communications program. Emphasis will be placed on the efficient use of resources to accomplish communication goals through effective promotional strategy involving advertising, personal selling, sales promotion and publicity. Topics covered include the communication process, determination of promotional objectives, promotional budgeting, media planning, measuring effectiveness and ethical issues. Prerequisite: MKTG 701. Enrollment restricted. LEC.

MKTG 721. Advanced Topics in Managing Products and Brands. 2 Hours.
This course is designed to explore various marketing issues in managing a portfolio of products in a global marketplace, across multiple product lines. While the course will review marketing strategies concerning pricing, promotions, product liability, and protection of intellectual property rights, it will especially focus on such concepts as brand identity/personality brand extension/leveraging, co-branding, brand loyalty, brand equity, product and brand strategies over the lifecycle of products and brands, and organizational requirements for building successful brands. Prerequisite: MKTG 701 or MKTG 810. Enrollment restricted. LEC.

MKTG 722. Marketing Strategy. 2 Hours.
The emphasis of this course is strategic marketing analysis and planning. Topics examined include (a) Situation and SWOT analyses and how these lead to an understanding of the firm’s sustainable competitive advantage, (b) methods for the identification of segmentation within consumer and business markets, (c) the selection of target segments based upon competitive advantage and value, (d) positioning and differentiation within target segments, and (e) the development of brand strategy and action plans based upon segmentation positioning and differentiation. An important component of the course is the application of concepts to realistic marketing problems that captures the dynamics of marketing environments. Prerequisite: MKTG 701 or MKTG 810. Enrollment restricted. LEC.

MKTG 723. Marketing Research. 2 Hours.
This course engages students in a broad examination of marketing research as practiced in marketing organizations today. Topics include defining business problems and establishing research objectives, choosing among research approaches (survey, qualitative, and secondary designs), gathering data (questionnaires, focus groups/interviews, and online), analyzing research data, and generating actionable results for business decision-making. The emphasis is on practical applications for the marketing professional. Prerequisite: DSCI 701 and DSCI 810. Enrollment restricted. LEC.

MKTG 724. Pricing of Products and Services. 2 Hours.
The objective of this course is to prepare students for addressing strategic and tactical pricing issues and identifying profit-boosting changes in pricing practices. Pricing issues will be examined from various perspectives (e.g., product managers, business unit managers, management consultants, and entrepreneurs). The course will focus on teaching key economic, analytical and behavioral concepts associated with costs, customer behavior and competition. The course will employ economic, analytical, and behavioral concepts to illustrate how pricing decisions can be deployed to capture additional value. It will cover basic topics such as measurement of price sensitivity, segmented pricing, role of costs, and life cycle pricing as well as advanced topics such as dynamic pricing, pricing structures, and pricing under competition. Prerequisite: MKTG 701 or MKTG 810. Enrollment restricted. LEC.

MKTG 810. Marketing Management. 3 Hours.
This course is designed to equip students with basic concepts associated with the marketing function. Principal objectives are to discuss the role of marketing in an organization, to describe the processes of buyer behavior and the impact of these processes on marketing decisions, to develop an understanding of approaches used to segment markets and factors influencing the selection of target markets, and to develop an understanding of elements of the marketing mix (product, price, communications, channels) and factors affecting decisions in these areas. This course is open only to students in the full-time MBA program. LEC.

MKTG 895. Graduate Seminar in Marketing: ______. 0.5-5 Hours.
A variable-topic seminar open only to graduate students meeting the requirements established by faculty members offering the course. Enrollment restricted. LEC.

MKTG 898. Independent Study for Master’s Students. 1-6 Hours.
(V) Individual study of selected current problems in the field of business management to be adapted to the special interests and objectives of the students and conducted through extensive reading and research. Students must have at least a 3.0 grade point average and be in good academic standing in a graduate business program and must submit a written statement of the proposed project approved by a supervisory faculty member prior to enrollment. RSH.

MKTG 950. Advanced Marketing Research. 3 Hours.
This course deals with measurement tools typically used in marketing such as conjoint analysis, multi-dimensional scaling, questionnaire construction, formative and causal indicators of constructs, scale development and testing, reliability and validity issues, and design of complex lab and field experiments. The goal of the course is to equip students with measurement tools to conduct research in academic and applied settings. Prerequisite: Admission to the Doctoral Program or graduate standing and permission of the instructor. LEC.

MKTG 951. Consumer Behavior. 3 Hours.
This seminar provides an overview of the current theories and methodological approaches associated with consumer behavior research. Main topics of the course include attention and information search, consumer memory structure, consumer knowledge, inference making, motivation/goal, consumer attitude and persuasion, judgment and decision making, self-perception and regulation, culture’s influence on consumer behavior, and affect/emotion/mood. The content will be based on literature from multiple disciplines including marketing, psychology, sociology, and economics. Students will be required to critically analyze and synthesize the literature, with a view to formulate research proposals on issues that interest them. Prerequisite: Admission to the Doctoral Program or graduate standing and permission of the instructor. LEC.

MKTG 952. Introduction to Marketing Models. 3 Hours.
There is a rich tradition of using models to represent and analyze various marketing phenomena. An illustrative list of topics include: examining first-mover advantages, understanding response to price, analyzing new pricing formats, compensation design, interaction between marketing investments and stock market response, consumer surplus analysis,
allocation of marketing resources, and decision support systems. Against this backdrop, the objectives of this course are two-fold: (i) to provide a non-technical overview of various modeling approaches employed in marketing, and (ii) apply one or more of these approaches to generate new research. Prerequisite: Admission to the Doctoral Program or graduate standing and permission of the instructor. LEC.

MKTG 953. Marketing Communications. 3 Hours.
This course focuses on fundamentals of marketing communications with a heavy emphasis on message-memory. Some of the topics covered in this course include memory (e.g., elderly adults). Prerequisite: Admission to the Doctoral Program or graduate standing and permission of the instructor. LEC.

MKTG 954. Pricing and Strategy. 3 Hours.
This seminar exposes students to the various analytical approaches to understand and model pricing phenomena by examining the classic as well as contemporary works on pricing. The students will learn how to model strategic interactions in the marketplace using game theory and other analytical tools as well as theories such as auction theory, prospect theory, and mental accounting. Some of the topics covered in this course include price discrimination mechanisms, price as a competitive tool (e.g., entry deterrence), price as a promotional strategy, role of price in channel structure and strategy, and effect of price on consumer choice. Prerequisite: Admission to the Doctoral Program or graduate standing and permission of the instructor. LEC.

MKTG 955. Product Management. 3 Hours.
This course focuses on understanding products and the product development process. Readings are drawn from the literature in marketing, management, decision theory and psychology. Some topics covered in the course include creation and diffusion of innovations, modeling consumers’ perceptions and preferences, brand equity and branding, entry order, sales forecasting, and global product development. Prerequisite: Admission to the Doctoral Program or graduate standing and permission of the instructor. LEC.

MKTG 995. Doctoral Seminar in Marketing: _____. 2-5 Hours.
A variable topic seminar open only to graduate students meeting the requirements established by faculty members offering the course. Prerequisite: Consent of instructor. LEC.

MKTG 997. Directed Research in Marketing. 1-5 Hours.
Students will research selected topics in the field of business administration under the direction of a graduate faculty member. Students are expected to report the results of their research by writing a publishable-quality scholarly article. Graded on satisfactory/unsatisfactory basis. Prerequisite: Approval required from supervising graduate faculty member. RSH.

MKTG 998. Independent Study for Doctoral Students. 1-5 Hours.
Individual study of selected current problems in the field of business administration to be adapted to the special interests and objectives of the students and conducted through extensive reading and research. Student must submit written statement of proposed project. Prerequisite: Approval required from supervising faculty member and PhD Team. RSH.

MKTG 999. Doctoral Dissertation. 1-12 Hours.
(V) Individual research work. THE.

MSCM 820. Marketing Intelligence. 3 Hours.
This course is an introduction to marketing research. The emphasis will be on providing an understanding of the value of marketing research and the tools to engage in the process. The objectives are to understand research planning, types of research and design, to determine appropriate sampling, data collections methods and research methodologies, to understand, apply and interpret fundamental concepts of data analysis and analysis software. Topics covered will include the research process, understanding data sources, qualitative research, measurement and scaling issues, questionnaire design, analysis of data, and the research report. Prerequisite: DSCI 810. This course is open only to students in the full-time MBA program. LEC.

MSCM 830. Understanding Customers. 3 Hours.
This course is designed to review behavioral science concepts applicable to understanding behavior of consumers in the marketplace. It investigates the specific processes of consumer decision making and purchasing, and the implications these have for marketing strategy. The course will cover the internal and external factors that affect consumer decision-making processes; the steps consumers go through before, during and following the purchase decision; theories of attitude formation, methods of attitude-measurement and attitude change. Topics include the effect of external factors (cultures, social class, reference groups, family), effect of internal factors (needs, motives, personality), the extended decision-making process, information processing, learning and memory, attitude formation and change, low-involvement decision making, post-purchase behavior, ethical/social issues, effects on marketing strategy. Prerequisite: MSCM 820. This course is open only to students in the full-time MBA program. LEC.

MSCM 831. Distribution Channels and Global Operations. 3 Hours.
This course addresses the theory and practice of designing distribution channels and global supply chains. The objectives of the course are to provide an understanding of different channels of distribution and the complexities of global operations along with their associated risks and rewards. The course will address topics in transportation, fulfillment, and facility location to support global supply chains. It will develop the ability to design logistics systems and formulate integrated supply chain strategy. The topics also include channels of distribution, warehousing, and global operations management. Prerequisite: SCM 820. This course is open only to students in the full-time MBA program. LEC.

MSCM 832. Marketing Services and Managing Customer Relationships. 3 Hours.
This course is designed to fill the knowledge gap between managing products and managing services. It will help students understand the unique needs and challenges faced by service companies (and those manufacturing companies that rely on services for their differential advantage) in a complex global environment. The primary objective is to provide a set of conceptual and managerial tools for effective management and marketing of services. Broad topics include services characteristics, managing customer expectations, understanding service consumption behavior, service strategy, segmentation positioning, creating service offerings, service quality, managing demand for services, service pricing. Topics pertaining to customer relationships include acquiring and retaining customers, customer profitability lifetime value, customer satisfaction measurement, relationship marketing, and service recovery. Topics pertaining to managing service employees include empowering service employees, employees as living brands; globalization of services; and ethical issues in services marketing. Prerequisite: MSCM 820. This course is open only to students in the full-time MBA program. LEC.

MSCM 835. Survey of Decision Making in Business. 3 Hours.
An introduction to decision making under the uncertainty encountered in business and in everyday life. Covers selected topics in probability, statistics, economics, and operations research, and their application to complex problems in financial management, marketing, operations management, supply chain management, and quality management; as well as risks affecting everyday life, such as personal decisions in regard to career, marriage, and wealth management. (Not open to students
SCM 310. Management Science and Operations Management. 3 Hours.
Introduces some of the most widely used models from management science in business decision making. Topics include decision making under uncertainty, resource allocation models, and production and operations management. (Formerly DSCI 310). Prerequisite: Prior completion or co-enrollment in DSCI 202 or DSCI 301 and IST 202 or IST 301.LEC.

SCM 311. Management Science and Operations Management, Honors. 3 Hours.
Honors treatment of this course introduces some of the most widely used models from management science in business decision making. Topics include decision making under uncertainty, resource allocation models, and production and operations management. Only open to students admitted to the University Honors Program, the Business Honors Program, or permission of the instructor. Prerequisite: Prior completion or co-enrollment in DSCI 202 or DSCI 301 and IST 202 or IST 301. LEC.

SCM 400. Special Topics in Supply Chain Management: _____. 3 Hours.
This is a variable-topic seminar. Its purpose is to allow the occasional offering of supply chain management topics not covered by established courses. Prerequisite: Determined for each topic by instructor. Enrollment restricted. LEC.

SCM 401. Introduction to Supply Chain Management. 3 Hours.
This course introduces the student to supply chain management. Students are presented the key concepts of supply chain management, the application of these concepts and are provided with the managerial knowledge of supply chain management through class discussions and case studies. Students discover the impact of information technologies, strategic alliances and logistics on supply chain management and the performance implication of supply chain management. Prerequisite: SCM 310 or SCM 311, FIN 310 or FIN 311, and MKTG 310 or MKTG 311. Enrollment restricted. LEC.

SCM 402. Procurement and Supplier Management. 3 Hours.
This course involves the study of supply management. Topics covered include the purchasing process, the role of the procurement function within the company, and the evaluation, selection and development of suppliers. The course is also designed to emphasize the importance of negotiations and managing contracts. Prerequisite: SCM 401. Enrollment restricted. LEC.

SCM 403. Logistics, Transportation and Warehouse Management. 3 Hours.
This course discusses the area of physical distribution management of supply chains. Attention is given to managerial responsibilities such as network design, transportation methods, inventory management, warehousing, packaging, and materials handling. Prerequisite: SCM 401. Enrollment restricted. LEC.

SCM 404. Management of Integrated Information System/ERP. 3 Hours.
This course provides an introduction to Enterprise resource planning (ERP) systems. We will evaluate the functions, processes and data requirements of business functions in an integrated framework. The objectives of the course include (1) understanding data needs of different business functions; (2) understanding alternative information systems solutions and the problems in independent information systems and; (3) understanding ERP systems as solutions to integration. (Same as IST 401.) Prerequisite: IST 202 or IST 301. Enrollment restricted LEC.

SCM 410. Capstone in Supply Chain Management. 3 Hours.
Integrating and apply the theories, concepts, and methods taken in previous supply chain management courses through the use of readings, case studies, projects, and industry speakers. Prerequisite: SCM 401 and IST 202 or IST 301. Enrollment restricted. LEC.

SCM 415. Data Analysis and Forecasting. 3 Hours.
This course is concerned with the analysis and interpretation of data encountered in business and economics. One goal of the course is to develop skills in the analysis of data that can be used to solve problems students are likely to encounter on the job. The course attempts to develop an attitude toward data analysis that can be usefully applied in a wide variety of real life situations. A variety of statistical tools are covered. In particular, the multiple regress model is covered with an emphasis on how the model can be used in situations involving economic data. Data analysis techniques are illustrated with examples and case studies using computers. This course is in the management sciences and operations management area. Prerequisite: SCM 310 or SCM 311. Enrollment restricted. LEC.

SCM 416. Supply Chain Modeling and Optimization. 3 Hours.
Design, develop, and use computer decision models for analysis of supply chain operations; computer intensive coursework emphasizing spreadsheet applications. Prerequisite: SCM 401. Enrollment restricted. LEC.

SCM 418. Modeling and Risk Analysis. 3 Hours.
An introduction to the concepts, methodologies, and applications of risk analysis and modeling. This course is designed primarily to develop practical modeling skills with spreadsheet software. To accomplish this, material across the finance discipline will be covered as well as material from the supply chain management discipline. Examples from corporate finance, investments, financial derivatives, real estate, personal finance, and supply chain management methods will be used to demonstrate modeling. (Same as FIN 460.) Prerequisite: FIN 310 or FIN 311. Enrollment restricted. LEC.

SCM 420. Customer Focused Operations Service Management. 3 Hours.
The purpose of this course is to build the conceptual framework which drives an organization striving to operate in a customer-focused mode. This requires an integration of basic principles of marketing and operations in order to define the value-added in each of an organization’s products and/or services, to use this information to define the value-added in work, and to use this definition to improve the actual work. To do this effectively, requires leadership, empowerment, focused data, and a system view. The basic principles of each requirement will be discussed as well as their integration into a unified whole. Prerequisite: SCM 310 or SCM 311 and MKTG 310 or MKTG 311. Enrollment restricted. LEC.

SCM 425. Customer Relationship Management. 3 Hours.
This course introduces the theory and practical implementation of customer relationship management (CRM) strategies using marketing databases. Topics include: fundamentals of CRM strategy, RFM analysis, LTV metrics, logit models, decision tress, hazard models techniques for evaluating model performance (e.g., lift charts, ROC) and applications to campaign management. In keeping with the hands-on nature of the course, students will be instructed on how to implement the CRM techniques using various software tools. (Same as MKTG 465.) Prerequisite: MKTG 310 or MKTG 311; SCM 310 or SCM 311. Enrollment restricted. LEC.

SCM 500. Individual Research in Supply Chain Management. 1-5 Hours.
Individual study of selected topics in supply chain management not otherwise available to the student. Topics selected to be determined by
SCM 701. Introduction to Supply Chain Management. 2 Hours.
This overview course covers a wide set of topics to develop a strategic view of supply chain management and to illustrate its interdisciplinary nature. The course has the following principal objectives: to introduce the strategic and operating issues and decisions involved in managing the operational and supply chain processes within and across firms; to understand the global and interdisciplinary nature of supply chain management; to understand the concept of supply chain coordination by managing information and inventory. Topics covered in the course include supply chain functions, forecasting and demand management, inventory management, managing information flows in supply chains, globalization and outsourcing, and supply chain technologies. Prerequisite/Co-requisite: SCM 701. Enrollment restricted. LEC.

SCM 702. Procurement and Supplier Management. 2-3 Hours.
This course involves the study of supply management. Topics covered include the purchasing process, the role of the procurement function within the company, and the evaluation, selection and development of suppliers. The course is also designed to emphasize the importance of negotiation and managing contracts. Prerequisite: SCM 701. Enrollment restricted to Fort Leavenworth officers. LEC.

SCM 703. Transportation, Logistics Systems. 2-3 Hours.
This course discusses the area of physical distribution management of supply chains. Attention is given to managerial responsibilities such as network design, transportation methods, inventory management, warehousing, packaging and materials handling. Prerequisite/Co-requisite: SCM 701. Enrollment restricted to Fort Leavenworth officers. LEC.

SCM 704. Information Systems for Supply Chain Management. 2-3 Hours.
This course provides an introduction to Enterprise Resource Planning (ERP) systems. We will evaluate the functions processes and data requirements of business functions in an integrated framework. The objectives of the course include (1) understanding data needs of different business functions; (2) understanding alternative information systems solutions and the problems in independent information systems; and (3) understanding (ERP) systems as solution to integration. Prerequisite: SCM 701. Enrollment restricted to Fort Leavenworth officers. LEC.

SCM 710. Capstone in Supply Chain Management. 2-3 Hours.
Integrating and applying the theories, concepts, and methods taken in previous supply chain management courses through the use of readings, case studies, project and industry speakers. Prerequisite: SCM 701. Enrollment restricted to Fort Leavenworth officers. LEC.

SCM 720. Procurement and Supplier Management. 2 Hours.
This course provides the students with an understanding of procurement, strategic sourcing and supplier management. The course has the following principal objectives: to introduce the basic concepts, terminology, tools of purchasing; to provide a conceptual framework of the trends and developments in global sourcing; to understand the techniques of negotiations; and to develop understanding of supplier relationship management. Topics covered in the course include purchasing process, policy, and procedures, purchasing law and ethics, supply management, supplier selection and evaluation, supplier relations management, global sourcing, and negotiations. Prerequisite: SCM 701 or SCM 820. Enrollment restricted. LEC.

SCM 721. Logistics and Distribution Management. 2 Hours.
This course addresses the theory and practice of designing distribution channels and logistics systems. The course has the following principal objectives: to understand how logistics management generates value to customers; to establish a sound foundation in transportation, fulfillment, and facility location to support global supply chains; and to develop the ability to design logistics systems and formulate integrated supply chain strategy, so that all components are not only internally synchronized but also tuned to fit corporate strategy, competitive realities and market needs. Topics covered include transportation fulfillment, inventory management, facility location, warehousing, and global logistics. Prerequisite: SCM 701 or SCM 820. Enrollment restricted. LEC.

SCM 722. Information Systems for Supply Chain Management. 2 Hours.
This course examines information technology (IT) applications in the field of supply chain management, focusing on such issues as the breadth of IT tools and products available to support the planning, implementation and operation of supply chains, the process by which specific applications are selected by companies, and the implementation process. Among the other topics addressed in the course are the integration of IT systems between internal and external supply chain partners and the IT problems typically facing a company post acquisition. Prerequisite: SCM 701 or SCM 820. Enrollment restricted. LEC.

SCM 723. Lean Six Sigma. 2 Hours.
This course addresses the theory and practice of continuous process improvement through lean thinking and six sigma quality improvement. The course has the following principle objectives: to understand the process associated with continuous improvement in manufacturing and service organizations; to understand common tools that are useful in continuous improvement in manufacturing and service organizations; and to gain experience in the practice of continuous improvement. Topics covered include using the scientific method in continuous improvement; tools to understand and reduce variability like control charts, capability analysis, stratification analysis, Pareto analysis, etc; and tools to implement lean thinking like Kanban (pull systems), Takt time (process pacing to customer demand), one piece flow, Jodoka (error proofing), Heijunka (product leveling). Prerequisite: DSCI 701 or DSCI 810. Enrollment restricted. LEC.

SCM 820. Operations and Supply Chain Management. 3 Hours.
This introductory course covers a wide set of topics to develop both strategic and analytical skills in supply chain management. The course will provide a conceptual framework and a set of analytical tools to analyze, coordinate, and improve organizational processes. Objectives of the course include an introduction to the strategic and operating issues and decisions involved in managing the operational and supply chain processes within and across firms; an understanding of the concept of supply chain coordination by managing information and inventory; and to develop a basic understanding of purchasing, supplier relationship management, and outsourcing. Topics include process and cycle time analysis, lean/JIT production system, six sigma, inventory management, managing information flows in supply chains, and purchasing and supply management. This course is open only to students in the full-time MBA program. LEC.

SCM 895. Graduate Seminar in Supply Chain Management: ___.
0.5-5.5 Hours.
A variable-topic seminar open only to graduate students meeting the requirements established by faculty members offering the course. LEC.

SCM 898. Independent Study for Master’s Students. 1-6 Hours.
Individual study of selected current problems in the field of supply chain management to be adapted to the special interests and objectives of
the students and conducted through extensive reading and research. Students must have at least a 3.0 grade point average and be in good academic standing in a graduate business program and must submit a written statement of the proposed project approved by a supervisory faculty member prior to enrollment. RSH.

Bachelor of Science in Business

Since its founding in 1924, the School of Business at the University of Kansas has been committed to shaping tomorrow’s business leaders. The business school holds the gold standard of accreditation in business education, the Association to Advance Collegiate Schools of Business (http://catalog.ku.edu/business/bs/http:///www.aacsb.edu), for both the school and its accounting programs. With its focus on teaching and research, the KU School of Business bridges theory and practice to know where business is going. Learn more at business.ku.edu.

Undergraduate Admission to the School of Business

There are two paths for admission to the School of Business:

1. Freshman admission
2. Competitive admission (standard process)

Freshman Admission

Incoming freshmen are eligible for direct entry to the School of Business. Students must meet all three of the following requirements:

• Achieve 25 or higher ACT composite score (or 1150 or higher SAT in critical reading and math),
• Earn 3.25 or higher high school GPA, and
• Indicate a business major on the application to KU.

BUS 110, BUS 120, BUS 210, and BUS 220 - These courses are designed to connect students to life at KU and to opportunities within the School of Business. Students will learn academic success, personal success in the transition to college, opportunities for leadership development, problem solving, decision making, and business professionalism. Students will also be provided opportunities to create lasting connections with School of Business staff, advisors, and faculty. Experiential learning activities outside of the classroom will be integrated into the course.

Note: Freshman admission is not an option for students who change their major to business or pre-business after enrollment at KU. Students admitted as freshmen must complete the same degree requirements as students who go through the competitive admission process.

Competitive Admission

Students going through the competitive admission process should apply during the semester in which they will complete the minimum requirements for admission. Applicants satisfying these requirements are ranked by academic merit and their professional résumés, then considered for admission to the School of Business based on rank and available space.

Apply online (http://www.business.ku.edu). The deadline is September 15 for spring admission or February 15 for fall admission. Applicants who are not currently KU students must first apply to KU and submit official transcripts for all previous colleges and universities attended to the Office of Admissions (http://admissions.ku.edu) along with the application.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Prebusiness Preparation

Students planning to enter the School of Business as juniors should work toward completing pre-admission requirements during the first two years. Every student contemplating a major in the school should enroll in a mathematics course during the first semester at KU. It is highly recommended that students complete PSYC 104. Students must take the following courses before admission to the school:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 200</td>
<td>Fundamentals of Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 201</td>
<td>Managerial Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>IST 202</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>DSCI 202</td>
<td>Statistics</td>
<td>4</td>
</tr>
<tr>
<td>ECON 142</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 144</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>

See the Office of Admissions (http://admissions.ku.edu) for more information.

Minimum Requirements

To satisfy minimum standards for admission to the School of Business, a student must

1. Complete 60 college credit hours including ACCT 200, ACCT 201, IST 202, DSCI 202, ECON 142, and ECON 144 (or their equivalents). It is strongly recommended that PSYC 104 and a Culture and Society (SC) course also be completed.

2. Achieve a minimum grade-point average of 2.5 in
   a. all course work,
   b. all professional course work (business and economics),
   c. all KU course work, and
   d. all KU professional course work.

Because admission is competitive, students who meet the minimum admission standards may not be admitted.

Guaranteed admission to the School of Business is possible when achievement of a grade-point average of 3.0 in all professional course work (business and economics) has been met at the time of application (in addition to the minimum requirements listed above).

Transfer Students

Transfer students may find it to their advantage to enter KU before the junior year, because some required courses may be available only at KU. Students attending Kansas community colleges should consult their advisors and a KU School of Business advisor about course equivalents and articulation agreements to ensure progress toward the degree. The Office of Admissions provides a guide (http://admissions.ku.edu/~admiss/credit/transfer) to how classes at your current or former school transfer to KU. You must submit official transcripts of course work completed.
to the Office of Admissions (http://admissions.ku.edu) before a final determination can be made.

At least 30 hours of junior/senior professional course work must be completed at KU (courses in residence) for the student to be eligible for graduation. As of fall 2008, only transfer grades of C or higher apply toward graduation from the KU School of Business.

64-Hour Rule
A maximum of 64 hours of community college course work can be applied toward a KU business degree. All subsequent credit hours earned at a community college or other 2-year institution add an equivalent number of hours to the 120-hour minimum required to graduate.

10-Year Rule
Transfer business credits are limited to a 10-year span in which they can be considered equivalent to a KU School of Business course and satisfy any corresponding requirement. This 10-year limit begins on the date of completion of the credit. After 10 years, transfer business credits are treated as elective business credit, and a course repeat or update may be necessary.

Tentative Evaluation of Credit
Before enrolling in a non-KU course, students must submit KU’s standard Request for Tentative Evaluation of Credit form to Student and Academic Services (http://www.business.ku.edu/undergrad/current/advising) for approval.

Readmission
Students must submit an application for readmission to KU if their lapse in attendance is one semester or more. See the Office of Admissions for more information. Students may be readmitted to the School of Business if they left the school in good standing and it has been less than 5 years since they last attended.

5-Year Rule
If a student does not complete the business degree within 5 years of last attendance, the student must reapply through the competitive admission process. Students also must complete degree requirements in effect at the time of readmission to the business school regardless of the initial program.

Dismissal
Students who have been dismissed from the school must reapply through the competitive admission process.

Bachelor of Science in Business Degree Requirements
The School of Business offers a Bachelor of Science in Business (B.S.B.) with majors in accounting, business administration, finance, information systems, management and leadership, marketing, and supply chain management. Each major consists of the following components: general education courses, core business classes, international dimension requirement, major courses, and advanced business electives. Degree requirements are subject to change. It is the student’s responsibility to stay informed of requirements. To receive the B.S. in business degree, a student must complete the degree requirements in effect at the time he or she is admitted to the school.

General Education Requirements
In addition to the university’s Core requirements, all business majors are required to take:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>MATH 115</td>
<td>Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 121</td>
<td>Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 104</td>
<td>General Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Natural Science with lab

Requirements for All Majors

International Dimension Requirement
The International Dimension Requirement (IDR) is required of all students graduating from the KU School of Business. To complete the IDR, students must choose one of the following options:

Option 1. Foreign Language
Complete through the fourth level (intermediate II) of courses in a modern foreign language or earn equivalent proficiency as determined by the appropriate language department. International students who have completed the English proficiency requirement through the Applied English Center (http://www.aec.ku.edu) may use this to fulfill Option 1.

Option 2. International Studies
6 credit hours of courses completed in one or a combination of the following categories:

1. (a) Study abroad credit hours from any study abroad program approved by KU.

2. (b) Contemporary regional/international studies/international business courses must be selected from a list available online (http://www.business.ku.edu/Undergraduate-Advising) and may be double-counted to meet General Education requirements. Courses in this category may be doubled-counted toward the corresponding business major and/or concentration.

Core Courses and Capstone Course
After admission to the School of Business, all majors must complete the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE 301</td>
<td>Managerial Economics</td>
<td>3</td>
</tr>
<tr>
<td>BLAW 301</td>
<td>Legal Aspects of Business</td>
<td>3</td>
</tr>
<tr>
<td>FIN 310</td>
<td>Finance</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 310</td>
<td>Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 310</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>SCM 310</td>
<td>Management Science and Operations Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Capstone Course (3)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 498</td>
<td>Business Policy and Strategy</td>
<td>3</td>
</tr>
</tbody>
</table>

Majors
Within the Bachelor of Science in Business degree, students may earn major(s) in accounting, business administration, finance, information systems, management and leadership, marketing, or supply chain
management. In addition to the core courses and capstone course, students must complete the core courses for the major.

Program guides are available on the school's website (http://www.business.ku.edu/academics).

**Accounting Major**

The KU accounting program develops students with superior management and accounting skills and a well-rounded education in the liberal arts. This program produces qualified graduates who are responsive to the needs of the profession in academia, government, industry, and public accounting. The primary objectives are to produce entrepreneurs with a fundamental understanding of accounting, provide an adequate foundation for graduate study in accounting, and provide an adequate foundation for securing positions in private accounting and industry. Those seeking positions in public accounting may need 150 hours of college credit (state requirements vary) and should consider the Master of Accounting program.

All accounting majors must complete 6 hours of advanced business electives. ABE courses are numbered 320 and higher and have prerequisites.

The accounting major must complete the following core courses with a grade-point average of at least 2.5:

**Accounting (25)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 303</td>
<td>Introduction to the Accounting Profession</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 311</td>
<td>Information Systems for Accountants</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 320</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 325</td>
<td>Managerial Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 330</td>
<td>Introduction to Taxation</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 410</td>
<td>Intermediate Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 543</td>
<td>Introduction to Auditing</td>
<td>3</td>
</tr>
</tbody>
</table>

Advanced business electives 6

**Business Administration Major**

This major offers a broad interdisciplinary approach. Discovering solutions to complex problems in a globalized marketplace requires a multidisciplinary and integrated approach. The major prepares students for a variety of job markets and career paths. The program is flexible, allowing students to develop in-depth skills in such areas as accounting, business law, finance, information systems, management and leadership, marketing, and supply chain management.

This major changes the way students learn by shifting the emphasis from the traditional, discipline-based approach to a more comprehensive, integrative approach to business problems and opportunities. Students acquire the skills, attitudes, and flexibility needed to be competitive in a global marketplace. Students can expect to live in a dynamic world where a series of career changes over a lifetime is probable and where change and the unknown are inevitable. In such a world, proficiency in a number of related disciplines becomes a survival tool.

Creativity is enhanced by knowledge of related disciplines, and new insights are gained by applying the methods of one discipline to another. This program offers students the academic tools and interdisciplinary perspective that allow them to prosper in a business environment. Concentrations in entrepreneurship, human resource management, information systems, international business, and supply chain management are available.

The major requires 21 hours of advanced business credit from courses numbered 320 or above. The 21 hours must be distributed across at least three prefixes, with a minimum of 3 hours in each of the three prefixes selected: ACCT, BLAW, DSCI, ENTR, FIN, IBUS, IST, MGMT, MKTG, and SCM.

The student must satisfy all business graduation requirements for the B.S. and have a grade-point average of at least 2.2 in the 21 advanced business credit hours selected for the major.

**Finance Major**

Students with finance majors often pursue careers in commercial or investment banking or become internal financial managers for corporations or government entities. The program is concerned with such areas as

1. Investments and asset pricing—the behavior and determinants of security prices, including stocks, bonds, options, and futures;
2. Corporate finance—the financing and investment decisions of firms;
3. Corporate governance—how best to govern corporations while enhancing both corporate accountability and the creation of wealth;
4. The management and regulation of financial institutions; and
5. International finance.

Majors also take courses in accounting, economics, and the liberal arts. The finance major must complete the following core courses with a grade-point average of at least 2.5:

**Finance (24)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 321</td>
<td>Intermediate Accounting for Finance</td>
<td>3</td>
</tr>
<tr>
<td>or ACCT 410</td>
<td>Intermediate Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>FIN 410</td>
<td>Investment Theory and Applications</td>
<td>3</td>
</tr>
<tr>
<td>FIN 415</td>
<td>Corporate Finance</td>
<td>3</td>
</tr>
<tr>
<td>FIN 430</td>
<td>Financial Markets and Intermediaries</td>
<td>3</td>
</tr>
<tr>
<td>FIN 400 or higher electives</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

**Information Systems Major**

The information systems major exposes students to a range of studies focused on the effective use of information technologies in settings typical of business, governmental, and not-for-profit organizations. Students gain a comprehensive understanding of specific technologies as well as an appreciation of challenges involved with the application of such technologies in dynamic environments. The major equips graduates with both technical and managerial skill sets needed to begin careers in major business and governmental entities or with major information systems consulting firms.

The information systems major must complete the following core courses with a grade-point average of at least 2.5:

**Information Systems (21)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST 320</td>
<td>Fundamentals of Software Development</td>
<td>3</td>
</tr>
<tr>
<td>IST 325</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>IST 326</td>
<td>Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>IST 330</td>
<td>Fundamentals of Business Computer Networking</td>
<td>3</td>
</tr>
</tbody>
</table>
Management and Leadership Major

The management and leadership major gives students the knowledge and skills to be successful leaders and managers of people and organizations. Students learn to design and modify organizational structure, strategy, and processes to enhance organization performance in a socially and ethically responsible manner. They learn how to influence and direct change through a better understanding of organization politics, vision, and values. Students learn to influence and lead others effectively through skill development in communication, motivation, and conflict resolution. They develop self-awareness and an appreciation for individual differences, leading to more successful work relations. They learn to lead and follow in team settings and to use team-based problem-solving skills. Students learn to create competent and committed teams and organizations through the use of effective systems for employee hiring, development, compensation, and performance management. They also learn about the challenges of competing globally, including how to adapt organizational structures, processes, and functions such as production, marketing, finance, and human resources so that they function more effectively cross-culturally. Student learning is enhanced through supporting activities such as clubs, consulting projects, case competitions, and study abroad opportunities.

The management and leadership major must complete the following core courses with a grade-point average of at least 2.5:

Management and Leadership (21)

- MGMT 410 Human Resources Management 3
- MGMT 437 Developing Management Skills 3
- MGMT 455 The Role of the General Manager: Leadership and Management 3
- IBUS 480 International Management 3

Select three of the following:

- Courses at the 400 level or above with ENTR, MGMT, or IBUS as a prefix 9
- BLAW 505 Legal Aspects of the Management Process

Marketing Major

The marketing major gives students the concepts and tools needed to succeed as marketing managers skilled in the creation, evaluation, and refinement of marketing programs that lead to valuable exchanges between channel partners, firms, and customers. Core concepts and tools are primarily provided through four required foundation courses: Marketing Management, Consumer Behavior, Marketing Research, and Marketing Strategy. The major offers numerous electives to reflect the breadth of the marketing function and to allow students to tailor their programs to individual preferences and career goals. Such opportunities as the marketing club, consulting projects, case competitions, and study abroad further enhance the learning experience.

The marketing major must complete the following core courses with a grade-point average of at least 2.5:

Marketing (21)

- MKTG 411 Introduction to Consumer Behavior 3
- MKTG 415 Marketing Research for Managers 3
- MKTG 435 Marketing Strategy 3
- MKTG 400 or higher electives 12

Supply Chain Management Major

Supply chain management professionals integrate the flow of materials, finances, and information from suppliers, manufacturers, wholesalers, distributors, and retailers to the final consumer and back again. The major gives students the basic skills to do this work. The demand for professionals in the field is rapidly growing as firms realize improved efficiency from good SCM practices. The field continues to evolve to become a proactive, strategic enterprise, often with global partners. Students typically have opportunities for internships and other experiential activities with businesses while they are in the program. The major offers a set of required core courses and electives.

The supply chain management major must complete the following core courses with a grade-point average of at least 2.5:

Supply Chain Management (21)

- SCM 401 Introduction to Supply Chain Management 3
- SCM 402 Procurement and Supplier Management 3
- SCM 403 Logistics, Transportation and Warehouse Management 3
- SCM 404 Management of Integrated Information System/ERP 3
- SCM-related electives 9

Business Concentrations

Students may choose to complete a business concentration. Concentrations require a minimum of 12 hours and are available in entrepreneurship, information systems, international business, and human resources. For specific concentration requirements, see the school's website (http://www.business.ku.edu).

C.P.A. Certification

For more information on requirements to sit for the C.P.A. examination and to qualify for the certificate and permit to practice with reduced experience, visit the CPA Requirements page (http://www.business.ku.edu/masters/accounting/cpa). See also the Master of Accounting (p. 233) section of the online catalog.

School of Business Undergraduate Program

Freshman Year

KU Core Requirements
- PSYC 104 General Psychology (Social Science) 3
- Natural Science: one course and one lab science
- Mathematics: through calculus I

Sophomore Year

- ACCT 200 Fundamentals of Financial Accounting 4
- ACCT 201 Managerial Accounting I 3
- ACCT 303 Introduction to the Accounting Profession (Accounting Majors Only) 1
- DSCI 202 Statistics 4
- IST 202 Introduction to Information Systems 3
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 142</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 144</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td><strong>Junior/Senior Year</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BE 301</td>
<td>Managerial Economics</td>
<td>3</td>
</tr>
<tr>
<td>BLAW 301</td>
<td>Legal Aspects of Business</td>
<td>3</td>
</tr>
<tr>
<td>FIN 310</td>
<td>Finance</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 310</td>
<td>Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 310</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>SCM 310</td>
<td>Management Science and Operations Management</td>
<td>3</td>
</tr>
<tr>
<td><strong>Accounting Major:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCT 320</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 325</td>
<td>Managerial Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 330</td>
<td>Introduction to Taxation</td>
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<td>Intermediate Accounting II</td>
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</tr>
<tr>
<td>ACCT 543</td>
<td>Introduction to Auditing</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 311</td>
<td>Information Systems for Accountants</td>
<td>3</td>
</tr>
<tr>
<td><strong>and 6 hours of advanced business electives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Business Administration Major:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 hours of advanced business courses numbered 320 or above distributed across three of the following prefixes with a minimum of 3 hours in each: ACCT, BLAW, DSCI, ENTR, FIN, IBUS, IST, MGMT, MKTG, SCM</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Finance Major:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCT 321</td>
<td>Intermediate Accounting for Finance</td>
<td>3</td>
</tr>
<tr>
<td>or ACCT 410</td>
<td>Intermediate Accounting II</td>
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<td>FIN 410</td>
<td>Investment Theory and Applications</td>
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<td>Corporate Finance</td>
<td>3</td>
</tr>
<tr>
<td>FIN 430</td>
<td>Financial Markets and Intermediaries</td>
<td>3</td>
</tr>
<tr>
<td><strong>and 12 hours numbered FIN 400 and above</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Information Systems Major:</strong></td>
<td></td>
<td></td>
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<td>IST 320</td>
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<td>Systems Analysis and Design</td>
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</tr>
<tr>
<td>IST 326</td>
<td>Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>IST 410</td>
<td>IT Project Management</td>
<td>3</td>
</tr>
<tr>
<td>IST 330</td>
<td>Fundamentals of Business Computer Networking</td>
<td>3</td>
</tr>
<tr>
<td><strong>and 6 hours numbered IST 400 and above</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Management and Leadership Major:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MGMT 410</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 437</td>
<td>Developing Management Skills</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 455</td>
<td>The Role of the General Manager: Leadership and</td>
<td>3</td>
</tr>
<tr>
<td>IBUS 480</td>
<td>Management</td>
<td>3</td>
</tr>
<tr>
<td><strong>and 9 hours numbered 400 or higher with MGMT, ENTR, or IBUS as a prefix, or BLAW 505</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Marketing Major:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MKTG 411</td>
<td>Introduction to Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 415</td>
<td>Marketing Research for Managers</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 435</td>
<td>Marketing Strategy</td>
<td>3</td>
</tr>
<tr>
<td><strong>and 12 hours numbered MKTG 400 and above</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Supply Chain Management Major:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCM 401</td>
<td>Introduction to Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>SCM 402</td>
<td>Procurement and Supplier Management</td>
<td>3</td>
</tr>
<tr>
<td>SCM 403</td>
<td>Logistics, Transportation and Warehouse Management</td>
<td></td>
</tr>
<tr>
<td>SCM 404</td>
<td>Management of Integrated Information System/ERP</td>
<td>3</td>
</tr>
<tr>
<td><strong>and 9 hours of SCM-related electives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Residence Requirement:</strong></td>
<td>30 hours of professional course work (BUS and ECON) must be completed after admission to the School of Business</td>
<td></td>
</tr>
<tr>
<td>MGMT 498</td>
<td>Business Policy and Strategy</td>
<td>3</td>
</tr>
<tr>
<td><strong>International Dimension Requirement:</strong></td>
<td>see options under Requirements for All Majors</td>
<td></td>
</tr>
</tbody>
</table>

This chart depicts the approximate order in which students complete the requirements for a B.S. in Business degree.

**Graduation Requirements**

**Hours Required for Graduation**

A minimum of 120 credit hours is required for graduation. Of the 120 hours, a student must earn at least 45 junior/senior hours and 30 residency hours (business and economics completed at KU after admission to the school). At least 50 percent of all professional course work must be completed at KU for the student to be eligible for graduation.

- The 120-hour minimum to graduate is increased by the following:
  - More than 4 hours in physical education courses (HSES 112 and below).
  - More than 4 hours of music organization courses.
  - Any repeated courses for which a student has already received credit.
  - All subsequent credits earned at a community college or other 2-year institution after a student has completed a total of 64 community college credit hours.

**Grade-Point Average Required for Graduation**

To be eligible to graduate from the School of Business with any major, a student must earn a grade-point average of 2.2 in

1. Total hours attempted from all schools (including Independent Study through KU Continuing Education),
2. All professional (business and economics) courses attempted from all schools,
3. Total hours attempted at KU, and
4. All professional hours attempted at KU.

Accounting, finance, information systems, management and leadership, marketing, and supply chain management majors also must earn minimum grade-point averages of 2.5 in their respective core courses.

**Independent Study Through KU Continuing Education**

After admission to the school, students may complete up to 30 hours of Independent Study through KU Continuing Education. Prior approval from the school is recommended.
Entrepreneurship Certificate

The Certificate in Entrepreneurship is a series of new courses designed to help undergraduates and graduate students start, finance, plan, and launch their own business in their major or favorite subject. You will learn how to be your own boss, realize your dream job and acquire wealth by becoming an entrepreneur with the following courses:

ENTR 301. Starting Your Own Business. 3 Hours. AE61.
In this course the student examines the disciplines which comprise the critical success factors in entrepreneurship and develops a fundamental understanding of the basic skill set required to manage his/her own business. The course will emphasize the Entrepreneurial Process in which each of the following disciplines will be introduced so that the student understands meaning, interrelationship and the application of the subject matter. First the student will be introduced to entrepreneurship and the personal attributes which historically have produced successful entrepreneurs. Further, the student will learn how to evaluate business opportunities via Feasibility Analysis which encompasses industry and competitor analysis, developing an effective business model, building a new venture team, developing an effective marketing plan, assessing the new ventures financial strengths and preparing the proper ethical and legal foundation for the new business. Finally, on completion of the course the student will possess a beginning comprehension for getting financing for the new venture and preparing for the challenges of business growth. Prerequisite: Goal 1, Outcome 2 and Goal 2, Outcome 1. LEC.

ENTR 302. Financing Your Own Business. 3 Hours.
This course introduces the non-business student to the language of business, accounting, and its applications in the financial management of new and small business environments. Students will learn how to account for the various activities of the start-up and early stage new venture as well as the importance, utility and construction of financial statements. Further, students will acquire the ability to construct financial projections for a start-up firm and monitor the financial performance of the growing business with a focus on cash flow management. Finally, students will be introduced to various remedies in the event that performance does not meet expectations. Prerequisite: Goal 1, Outcome 2 and Goal 2, Outcome 1. LEC.

ENTR 303. Marketing Your Own Business. 3 Hours.
This course focuses on the marketing development of new business ideas for small businesses including creating an environment conducive to innovation, recognizing business opportunities, assessing the industry and its potential customer segments, barriers to entry and competitive set. In addition, students will acquire an understanding of the primary marketing tools available to the entrepreneur to drive customer awareness, initial and repeat purchase and the ability to fully integrate each of those tools into a cohesive, integrated marketing plan, all on an extremely limited budget as typifies start up businesses. Upon successful completion of the course, students will understand how to plan an entrepreneurial marketing program, implement it and evaluate its performance. This includes market analysis, segmentation, the marketing mix of product, price, promotion and distribution and marketing strategy, both long term and annually. Prerequisite: ENTR 301 and ENTR 302. LEC.

ENTR 304. Launching Your Own Business. 3 Hours.
This course provides the student with an opportunity to prepare a complete go-to-market business plan for a new venture which leverages the students’ major area of study so that following graduation the student has the option of pursuing self employment in the launch of their own business. The students’ expertise from their area of major study will be combined with the entrepreneurial skills acquired from the prior three courses in this Certificate sequence. Ideally, this course will originate from the students’ school of origin, either selected from a roster of existing qualifying courses or independent study with a faculty member in the students’ field of major study. In the event that the students’ school of major study cannot provide the teaching resources for independent study, it will be provided by the School of Business, Center for Entrepreneurship. If the faculty at the students’ school of origin wants to develop a specific course which completes the Certificate requirements, course preparation funding has been arranged via a grant from the Kauffman Foundation. Prerequisite: ENTR 303. LEC.

ENTR 701. Starting Your Own Business. 3 Hours.
In this course the student examines the disciplines which comprise the critical success factors in entrepreneurship and develops a fundamental understanding of the basic skill set required to manage his/her own business. The course will emphasize the Entrepreneurial Process in which each of the following disciplines will be introduced so that the student understands meaning, interrelationship and the application of the subject matter. First the student will be introduced to entrepreneurship and the personal attributes which historically have produced successful entrepreneurs. Further, the student will learn how to evaluate business opportunities via Feasibility Analysis which encompasses industry and competitor analysis, developing an effective business model, building a new venture team, developing an effective marketing plan, assessing the new venture’s financial strengths and preparing the proper ethical and legal foundation for the new business. Finally, on completion of the course the student will possess a beginning comprehension for getting financing for the new venture and preparing for the challenges of business growth. Not open to students in the School of Business. LEC.

ENTR 702. Financing Your Own Business. 3 Hours.
This course introduces the non-business student to the language of business, accounting, and its applications in the financial management of new and small business environments. Students will learn how to account for the various activities of the start-up and early stage new venture as well as the importance, utility and construction of financial statements. Further, students will acquire the ability to construct financial projections for a start-up firm and monitor the financial performance of the growing business with a focus on cash flow management. Finally, students will be introduced to various remedies in the event that performance does not meet expectations. Not open to students in the School of Business. LEC.

ENTR 703. Marketing Your Own Business. 3 Hours.
This course focuses on the marketing development of new business ideas for small businesses including creating an environment conducive to innovation, recognizing business opportunities, assessing the industry and its potential customer segments, barriers to entry and competitive set. In addition, students will acquire an understanding of the primary marketing tools available to the entrepreneur to drive customer awareness, initial and repeat purchase and the ability to fully integrate each of those tools into a cohesive, integrated marketing plan, all on an extremely limited budget as typifies start up businesses. Upon successful completion of the course, students will understand how to plan an entrepreneurial marketing program, implement it and evaluate its performance. This includes market analysis, segmentation, the marketing mix of product, price, promotion and distribution and marketing strategy, both long term and annually. Not open to students in the School of Business. LEC.

ENTR 704. Launching Your Own Business. 3 Hours.
This course provides the student with an opportunity to prepare a complete go-to-market business plan for a new venture which leverages the students’ major area of study so that following graduation the student has the option of pursuing self employment in the launch of their own business. The students’ expertise from their area of major study will be combined with the entrepreneurial skills acquired from the prior three courses in this Certificate sequence. Ideally, this course will originate from the students’ school of origin, either selected from a roster of existing qualifying courses or independent study with a faculty member in the students’ field of major study. In the event that the students’ school of major study cannot provide the teaching resources for independent study, it will be provided by the School of Business, Center for Entrepreneurship. If the faculty at the students’ school of origin wants to develop a specific course which completes the Certificate requirements, course preparation funding has been arranged via a grant from the Kauffman Foundation. Prerequisite: ENTR 303. LEC.
courses in this Certificate sequence. Ideally, this course will originate from the students’ school of origin, either selected from a roster of existing qualifying courses or independent study with a faculty member in the students’ field of major study. In the event that the students’ school of major study cannot provide the teaching resources for independent study, it will be provided by the School of Business, Center for Entrepreneurship. If the faculty at the students’ school of origin wants to develop a specific course which completes the Certificate requirements, course preparation funding has been arranged via a grant from the Kauffman Foundation. Not open to students in the School of Business. Prerequisite: ENTR 703. LEC.

University Honors Program

Prebusiness majors who meet admission requirements for the University Honors Program (http://www.honors.ku.edu) are strongly encouraged to participate in it. Its small, challenging classes provide an excellent opportunity for business majors to develop a strong base in liberal arts and sciences. Because its requirements fit well with the school’s distribution requirements, the program fits easily into the normal 4-year program.

Undergraduate Business Honors Program

The Business Honors Program allows an elite cadre of undergraduate business school students to participate in a special set of enrichments. Graduating with business honors requires that the students admitted to the programs complete at least 12 hours of business honors classes. They will also be expected to be deeply involved in the life of the school, routinely assuming leadership positions and taking advantage of experiential learning opportunities.

Dean’s Certificate in International Business

This certificate is awarded to undergraduates who achieve a superior level of expertise in international business. Dean’s certificate forms may be obtained from Student and Academic Services (http://www.business.ku.edu/undergrad/current/advising). Requirements are

- Advanced foreign language study through Intermediate II (as defined by the relevant department) and the business language course where available (prerequisites may apply).
- Standardized foreign language proficiency test with a score of Intermediate High or above.
- 2 area studies courses (an approved list of courses is available on the school’s website) focusing on a single geographic area related to language competency completed with a B or higher in each course (cannot be double-counted with general education requirements).
- At least 3 advanced international business electives completed with a B or higher in each course.
- A study abroad experience or an internationally oriented internship specifically approved for this certificate in the geographic area corresponding to the language and area study courses.

Bachelor of Business Administration

Business Administration B.B.A.

The Bachelor of Business Administration (BBA) exposes students to a broad range of topics such as business law, economics, finance, management, marketing and international business. The accredited BBA program curriculum provides a strong professional education within a broad liberal arts context.

Program outcomes include strong verbal and written communication skills, an aptitude for technology, data analysis proficiency, a global perspective on business and the ability to maintain good professional relationships. Flexible course schedules make it easy for full-time employees to earn their degrees as part-time students.

Accredited

The KU School of Business is proud to be accredited by the Association to Advance Collegiate Schools of Business (http://www.aacsb.edu/accreditation). AACSB accreditation is the gold standard of quality in the world of business education.

Requirements

Ideal candidates are individuals wanting to gain business theory, practical knowledge and professional skills in preparation for careers as business leaders. Those interested should have earned an associate’s degree or equivalent credit hours and are looking to complete requirements for a bachelor’s degree.

This program is funded by the Education and Research Triangle (http://edwardscampus.drupal.ku.edu/johnson-county-education-research-triangle) initiative.

B.B.A. Admission

Admission is competitive. Students should apply during the semester in which they will complete the minimum requirements for admission and after gaining admission to KU. The application is available on the Edwards Campus website (http://www.business.ku.edu/edwards-campus-bba). Deadlines are December 1 for spring, May 1 for summer, and July 1 for fall entry. Students who meet the minimum admission standards are not guaranteed admission.

Minimum Requirements

The minimum requirements for competitive admission are as follows:

1. Complete 60 or more credit hours, which must include the following courses (or their equivalents):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>MATH 101</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Statistics (with prerequisite MATH 101)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PSYC 104</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>One Culture and Society (SC) course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCT 200</td>
<td>Fundamentals of Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 201</td>
<td>Managerial Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ECON 142</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>
2. Achieve a minimum grade-point average of 2.5 in
   a. all course work.
   b. all professional course work (business and economics).
   c. all KU course work.
   d. all KU professional course work.

3. After admission to KU (http://admissions.ku.edu/apply), submit the B.B.A. application and a professional résumé by the application deadline.

### Transfer Students

Transfer students may find it to their advantage to enter KU before the junior year, because some required courses may be available only at KU. Students attending Kansas community colleges should consult their advisors and a KU School of Business advisor about course equivalents and articulation agreements to ensure progress toward the degree. The Office of Admissions provides a guide (http://admissions.ku.edu/~admiss/credit/transfer) to how classes at your current or former school transfer to KU. You must submit official transcripts of course work completed to the Office of Admissions (http://admissions.ku.edu) before a final determination can be made.

At least 30 hours of junior/senior professional course work must be completed at KU (courses in residence) for the student to be eligible for graduation. As of fall 2008, only transfer grades of C or higher apply toward graduation from the KU School of Business.

### 64-Hour Rule

A maximum of 64 hours of community college course work can be applied toward a KU business degree. All subsequent credit hours earned at a community college or other 2-year institution add an equivalent number of hours to the 120-hour minimum required to graduate.

### 10-Year Rule

Transfer business credits are limited to a 10-year span in which they can be considered equivalent to a KU School of Business course and satisfy any corresponding requirement. This 10-year limit begins on the date of completion of the credit. After 10 years, transfer business credits are treated as elective business credit, and a course repeat or update may be necessary.

### Tentative Evaluation of Credit

Before enrolling in a non-KU course, students must submit KU’s standard Request for Tentative Evaluation of Credit form to Student and Academic Services (http://www.business.ku.edu/undergrad/current/advising) for approval.

### Readmission

Students must submit an application for readmission to KU if their lapse in attendance is one semester or more. See the Office of Admissions (http://admissions.ku.edu) for more information. Students may be readmitted to the School of Business if they left the school in good standing and it has been less than 5 years since they last attended.

### Bachelor of Business Administration Degree Requirements

#### KU Edwards Campus

This program for students who want to attain practical knowledge, business theory, and professional skills in preparation for careers as business leaders. It covers a broad range of topics including business law, economics, finance, management and leadership, marketing, and international business. Calculus is not required.

Offered exclusively at the KU Edwards Campus (http://edwardscampus.ku.edu), 12600 Quivira Rd., Overland Park, KS 66213, this program responds to the needs and goals of nontraditional part-time students. In addition to the 39 credit hours listed below, School of Business graduation requirements apply. Contact Chris Claussen, 913-897-8419, for information and advising.

#### B.B.A. Curriculum

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBA 301</td>
<td>Managerial Economics</td>
<td>3</td>
</tr>
<tr>
<td>BBA 302</td>
<td>Legal Aspects of Business</td>
<td>3</td>
</tr>
<tr>
<td>BBA 303</td>
<td>Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>BBA 304</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BBA 305</td>
<td>Management Science and Operations</td>
<td>3</td>
</tr>
<tr>
<td>BBA 306</td>
<td>Finance</td>
<td>3</td>
</tr>
<tr>
<td>BBA 307</td>
<td>Introduction to International Business</td>
<td>3</td>
</tr>
<tr>
<td>BBA 308</td>
<td>Business Policy and Strategy</td>
<td>3</td>
</tr>
<tr>
<td>BBA electives:</td>
<td>Information Systems Technology Elective: _____</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>BBA 401 Marketing Management and Strategy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BBA 402 Human Resources Management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BBA 403 Ethical Decision Making in Business</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BBA 404 Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BBA 405 Introduction to Supply Chain Management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BBA 406 Advanced Finance - Principle and Applications</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BBA 407 Information Systems Technology Elective: _____</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BBA 408 Accounting Elective: _____</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BBA 410 Project Management</td>
<td></td>
</tr>
</tbody>
</table>

Please visit the B.B.A. website (http://edwardscampus.ku.edu/prospective/undergraduate/business_administration.shtml) for further information.
Graduation Requirements

Grade-Point Average Required for Graduation
To be eligible to graduate from the School of Business, a student must earn a grade-point average of 2.2 in:

1. Total hours attempted from all schools (including Independent Study through KU Continuing Education),
2. All professional (business and economics) courses attempted from all schools,
3. Total hours attempted at KU, and
4. All professional hours attempted at KU.

B.B.A. candidates must achieve a 2.5 grade-point average in the 21 credit hours that include BBA 307, BBA 308, and the 5 BBA electives.

Transfer Credit
At least 30 hours of junior/senior professional course work must be completed at KU (courses in residence) for the student to be eligible for graduation. As of fall 2008, only transfer grades of C or higher apply toward graduation from the KU School of Business.

64-Hour Rule
A maximum of 64 hours of community college course work can be applied toward a KU business degree. All subsequent credit hours earned at a community college or other 2-year institution add an equivalent number of hours to the 120-hour minimum required to graduate.

10-Year Rule
Transfer business credits are limited to a 10-year span in which they can be considered equivalent to a KU School of Business course and satisfy any corresponding requirement. This 10-year limit begins on the date of completion of the credit. After ten years, transfer business credits are treated as elective business credit, and a course repeat or update may be necessary.

Tentative Evaluation of Credit
Before enrolling in a non-KU course, students must submit KU’s standard Request for Tentative Evaluation of Credit form to Student and Academic Services (http://www.business.ku.edu/undergrad/current/advising) for approval.

Independent Study Through KU Continuing Education
After admission to the school, students may complete up to 30 hours of Independent Study (http://www.independentstudy.ku.edu) through KU Continuing Education. Prior approval from the school is recommended.

University Honors Program
Prebusiness majors who meet admission requirements for the University Honors Program (http://www.honors.ku.edu) are strongly encouraged to participate in it. Its small, challenging classes provide an excellent opportunity for business majors to develop a strong base in liberal arts and sciences. Because its requirements fit well with the school’s distribution requirements, the program fits easily into the normal 4-year program.

Undergraduate Business Honors Program
The Business Honors Program allows an elite cadre of undergraduate business school students to participate in a special set of enrichments. Graduating with business honors requires that the students admitted to the programs complete at least 12 hours of business honors classes. They will also be expected to be deeply involved in the life of the school, routinely assuming leadership positions and taking advantage of experiential learning opportunities.

Dean’s Certificate in International Business
This certificate is awarded to undergraduates who achieve a superior level of expertise in international business. Dean’s certificate forms may be obtained from Student and Academic Services (http://www.business.ku.edu/undergrad/current/advising). Requirements are:

- Advanced foreign language study through Intermediate II (as defined by the relevant department) and the business language course where available (prerequisites may apply).
- Standardized foreign language proficiency test with a score of Intermediate High or above.
- Two area studies courses (an approved list of courses is available on the school’s website) focusing on a single geographic area related to language competency completed with a B or higher in each course (cannot be double-counted with general education requirements).
- At least three advanced international business electives completed with a B or higher in each course.
- A study abroad experience or an internationally oriented internship specifically approved for this certificate in the geographic area corresponding to the language and area study courses.

Minor in Business

Introduction
In the School of Business, students acquire a rigorous education that prepares them for positions in a dynamic and competitive global environment.

The University of Kansas School of Business is accredited by the Association to Advance Collegiate Schools of Business International (http://www.aacsb.edu).

Requirements for the Minor in Business
The business minor program complements nonbusiness majors by providing a general overview of accounting, information systems, finance, management and leadership, marketing, and decision sciences.

The minor requires completion of 18 hours (6 courses) with a cumulative grade-point average of 2.0 or higher in these courses. All business minor courses must be taken for a grade; credit/no credit is not permitted.

Students must declare the business minor by completing the declaration of minor form (http://www.business.ku.edu/undergrad/minor/declare) and are strongly encouraged to do so as early as possible.

ACCT 205 Survey of Accounting
or ACCT 200 Fundamentals of Financial Accounting
The Master of Business Administration program is open to graduates from a school or areas other than business administration. It also provides an opportunity for continued study in management for graduates from a school or department of business. The only prerequisite coursework is college algebra or its equivalent.

**Admission to MBA Programs**

MBA programs are open to those who have earned baccalaureate degrees from accredited colleges or universities and whose undergraduate academic records, scores on the required standardized examination, and prior work experience indicate that they have the capability to complete the program. Admission to all programs in business is reviewed by the MBA Admissions Committee.

Applicants for MBA graduate programs must take the Graduate Management Admission Test (http://www.mba.com/mba) administered by Pearson VUE. The GMAT is administered in most foreign countries and by appointment at designated testing centers throughout the United States. The test typically is taken during the academic year before the term for which admission is sought. MBA/J.D. applicants must take the GMAT; the Law School Admission Test is not accepted in lieu of the GMAT.

Students whose native language is not English or who have not completed a degree from a college or university in the United States, Great Britain, Canada, or Australia must also have a score of at least 600 for the MBA program on the Test of English as a Foreign Language. A minimum score of 57 on each of the three sections of the TOEFL is required. For students taking the computerized version of the TOEFL, an overall score of 250 is required, with a minimum score of 23 on each of the 3 sections of the test.

All applications for admission to the MBA programs must include:

1. Graduate application (http://www.graduate.ku.edu);
2. 3 essays;
3. An official transcript from each college or university that conferred a degree;
4. 2 letters of recommendation from faculty members and/or employers;
5. Scores on the GMAT and scores on the TOEFL if required;
6. A $65 nonrefundable application fee; and
7. A current résumé.

Completed applications are reviewed by the MBA committee and action is taken on them on a rolling basis. Each applicant is notified by email of the action taken on his or her application.

Admission to any graduate program in business is subject to and in accordance with all rules and regulations of the University of Kansas. See Admission in the Graduate Studies (http://catalog.ku.edu/201314/schools/gs/admission) section of the online catalog for more information.

Submit your graduate application online (http://www.graduate.ku.edu). Send original transcripts of all completed college and university coursework and all other requested application materials to the School of Business MBA Office:

The University of Kansas
School of Business
MBA Admissions Coordinator
Summerfield Hall
1300 Sunnyside Ave., Room 124
Lawrence, KS 66045-7543
MBA Admission

The MBA Admissions Committee reviews all applications. The required and preferred criteria are:

1. Baccalaureate degree from an accredited college or university or the equivalent. Specific coursework in business administration is not required.
2. Proficiency in mathematics at the college algebra level
3. 2 years of work experience preferred.
4. A $65 nonrefundable application fee.
5. Selection is based on high promise of success in graduate study in business administration, as indicated by a combination of
   a. Prior academic performance;
   b. Scores on the Graduate Management Admission Test (GMAT);
   c. Scores on the Test of English as a Foreign Language, if appropriate;
   d. Prior work experience;
   e. 2 letters of recommendation from employers or professors;
   f. A current résumé
   g. Evidence of leadership

Submit your graduate application online (http://www.graduate.ku.edu). Send official transcripts of all completed college and university coursework and all other requested application materials to the School of Business MBA Office.

Combined Degrees

Combined MBA and JD

This program combines in 4 years of study the 3-year Juris Doctor (p. 760) program offered by the School of Law (http://www.law.ku.edu) and the Full-Time MBA program offered by the School of Business. It entails 40 hours of MBA coursework and 76 hours of law coursework. It is for students who plan to engage in corporate law practice or enter business using law training as background. It offers training in the convergent fields of business management and law.

Students must meet the admission requirements of each school and should be admitted by both the School of Law and the School of Business before entering the second year. The Law School Admission Test and the Graduate Management Admission Test are required. A student who decides to enter the program after beginning the first year in the School of Law or in the MBA program should discuss the plan with the associate dean or program director of each school as early as possible. No student may be admitted to the joint program after completing more than two full semesters in either the JD or the MBA curriculum. Diplomas are awarded concurrently by each school at the conclusion of the joint degree program requirements.

The joint MBA/JD is open to those who have earned baccalaureate degrees from accredited colleges or universities and whose undergraduate academic records indicate that they have the capability to complete both programs. All students in the combined program must complete a minimum of 40 credit hours of graduate work in business.

The School of Business follows general Graduate Studies regulations requiring a 3.0 cumulative grade-point average for all coursework counted toward any master’s degree. The School of Law requires a minimum cumulative grade-point average of 2.0 (C) in all law school work. Grades received in any law courses credited toward fulfillment of the MBA degree requirements are incorporated into the MBA grade-point average, which ultimately must be 3.0 for the awarding of the MBA degree.

Dual MBA and M.Arch. Degree Program

The Master of Business Administration/Master of Architecture dual degree program is designed particularly for students intending to pursue leadership opportunities in architecture, development, or construction. Students completing the dual degree program earn an MBA from the KU School of Business (http://www.business.ku.edu) and an M.Arch. from the KU School of Architecture, Design and Planning (http://www.sadp.ku.edu).

Students complete 106 credit hours in the Master of Architecture (p. 10) program and 34 credit hours in the School of Business. Prospective dual degree students must already be students in the Master of Architecture program and must apply and be accepted by the School of Business. New students must complete the architecture curriculum before starting the MBA curriculum and must declare their intention before completing the first year of the architecture curriculum. Typically, the MBA is completed during the final year of study. Degrees are granted concurrently.

Combined MBA and Pharm.D.

This dual degree program allows students to earn an MBA from the School of Business (http://www.business.ku.edu) and a Doctor of Pharmacy (p. 2005) from the School of Pharmacy (http://www.pharm.ku.edu) by extending their professional graduate study. The MBA/Pharm.D. program is tethered to the Working Professional Program at the Edwards Campus. Students take 32 hours to complete the MBA portion of this dual degree. Students gain competence and expertise in the complementary fields of business management and pharmacy. It is particularly appropriate for those intending to manage a retail or health-system pharmacy or assume a leadership role in the pharmaceutical industry or in managed health care.

Prospective students must submit an application and be accepted to the School of Pharmacy first. Pharmacy students are recommended to the MBA program by the Associate Dean of Pharmacy. Students must meet the prerequisites of and be accepted by both schools. Degrees are granted concurrently.

MBA with a Concentration in Petroleum Management

The MBA program with a concentration in petroleum management is offered full time on the Lawrence campus. This is a specially designed course of study. It meets the requirements of active-duty U.S. Naval Supply Corps officers who usually are assigned to billets requiring this training upon completion of study at KU. Other students interested in the intersection of the management of fuels and business are also encouraged to participate in this program. Students typically take a minimum of 68 hours of coursework during this two-year program, including MBA courses and engineering courses.

Master of Business Administration

The Master of Business Administration degree program meets the educational needs of persons seeking positions with managerial responsibilities in both the public and the private sectors. KU’s program emphasizes broad concepts of business administration but
provides options for graduate certificates in specific areas of business management.

KU offers two MBA programs: one for full-time students, who take their courses on the Lawrence campus, and one for working professional students, who take courses in the evenings at the KU Edwards Campus (http://edwardscampus.ku.edu) in Overland Park. The two programs are tailored to meet the different needs of students. Full-time students typically are committed to a career change. Working professional students generally seek to enhance their career paths while remaining fully employed.

Full-Time MBA Degree Program

The full-time MBA program features an emphasis on cohort learning. The community building begins with orientation and is integrated throughout the program. The Full-Time MBA program in Lawrence requires 50 credit hours over 16 months. An optional fourth semester is offered. Students are admitted to the program only once a year in the fall semester. Requirements are designed for a person holding a baccalaureate degree in any field, with no specific course requirements in business and related areas. Transfer credit is not accepted to this program.

The 50 hours in the MBA program consist of 31 credit hours in ten core classes, seven credit hours of application classes, and 12 credit hours of specialized track classes. Prior to the beginning of the second semester, students select a track of either Finance or Marketing/Supply Chain Management.

MBA Degree Requirements

Year 1

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours Spring</th>
<th>Hours Summer</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core:</td>
<td>16 Core:</td>
<td>12 Students must enroll in an internship program.</td>
<td></td>
</tr>
<tr>
<td>DSCI 810</td>
<td>FIN 820</td>
<td>BUS 825</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 810</td>
<td>SCM 820</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCT 810</td>
<td>IBUS 820</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MKTG 810</td>
<td>MGMT 820</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BE 810</td>
<td>Application:</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Application:</td>
<td>1.5</td>
<td>BUS 810</td>
<td></td>
</tr>
<tr>
<td>BUS 810</td>
<td>BUS 801</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 801</td>
<td>Track Choice</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MSCM 820 or FIN 821</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>17.5</td>
<td>16.5</td>
<td>3</td>
</tr>
</tbody>
</table>

Year 2

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core:</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 830</td>
<td></td>
</tr>
<tr>
<td>Application:</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 831 or ENTR 830</td>
<td></td>
</tr>
<tr>
<td>Track Choice:</td>
<td>9</td>
</tr>
<tr>
<td>MSCM 830 or FIN 832</td>
<td></td>
</tr>
</tbody>
</table>

Working Professional MBA Degree Program

KU Edwards Campus

The Working Professional MBA program in Kansas City is located at 12600 Quivira Rd., Overland Park. The Working Professional MBA program at the KU Edwards Campus requires a total of 42 credit hours. All classes in the Working Professional program are 2 hours. The credits are allocated as follows: 24 hours of 12 core classes, 8 hours of advanced core classes, and one completed certificate program or other electives to total 42 credit hours. Core and Advanced Core Classes cannot be waived or substituted. Up to 6 hours may be transferred in as elective content if pre-approved by the MBA team.

MBA Degree Requirements

Required Core Classes (24)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 701</td>
<td>Financial Accounting</td>
<td>2</td>
</tr>
<tr>
<td>DSCI 701</td>
<td>Statistical Decision Making</td>
<td>2</td>
</tr>
<tr>
<td>MGMT 701</td>
<td>Organizational Behavior</td>
<td>2</td>
</tr>
<tr>
<td>FIN 701</td>
<td>Financial Management</td>
<td>2</td>
</tr>
<tr>
<td>BLAW 701</td>
<td>Introduction to the Legal Environment of Business</td>
<td>2</td>
</tr>
<tr>
<td>IST 701</td>
<td>Managerial Information Systems</td>
<td>2</td>
</tr>
<tr>
<td>MKTG 701</td>
<td>Marketing Management</td>
<td>2</td>
</tr>
<tr>
<td>BE 701</td>
<td>Business Economics</td>
<td>2</td>
</tr>
<tr>
<td>SCM 701</td>
<td>Introduction to Supply Chain Management</td>
<td>2</td>
</tr>
<tr>
<td>MKTG 705</td>
<td>Ethical Decision Making in Business</td>
<td>2</td>
</tr>
<tr>
<td>IBUS 701</td>
<td>International Business</td>
<td>2</td>
</tr>
<tr>
<td>MGMT 704</td>
<td>Strategic Management</td>
<td>2</td>
</tr>
</tbody>
</table>

Required Advanced Core Classes (8)

Each student must select one of the following three areas: 8

Finance Advanced Core:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 710</td>
<td>Investments I</td>
</tr>
<tr>
<td>FIN 711</td>
<td>Investments II</td>
</tr>
<tr>
<td>FIN 712</td>
<td>Business Investment</td>
</tr>
<tr>
<td>FIN 713</td>
<td>Business Financing</td>
</tr>
</tbody>
</table>

Management Advanced Core:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 710</td>
<td>Leadership Philosophy and Practice</td>
</tr>
<tr>
<td>MGMT 711</td>
<td>Human Resources Management</td>
</tr>
<tr>
<td>MGMT 712</td>
<td>Economic, Environment, and Social Sustainability in Business</td>
</tr>
<tr>
<td>MGMT 713</td>
<td>Managing People: Applications and Skills</td>
</tr>
</tbody>
</table>

Marketing Advanced Core:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 714</td>
<td>Discovering &amp; Evaluating New Product Opportunities</td>
</tr>
<tr>
<td>MGMT 715</td>
<td>Consumer Behavior</td>
</tr>
</tbody>
</table>
Certificate Programs

Certificates in business at the graduate level offer an opportunity to pursue a specific skill set in an in-depth and focused manner.

MBA Certificates are designed to work in tandem with the Working Professional MBA program, but may also be taken as a “stand-alone.” Some certificates require a previous MBA or specific course prerequisites. Others may be taken with only a bachelor’s degree. Prerequisites for each certificate program vary and must be taken in addition to the concentration courses.

Current students in the MBA program are encouraged, but not required, to complete a certificate. Certificates provide official recognition on their transcript of an area of study. All of these certificates require 10 credit hours for completion.

Human Resources Management

- The increase in the importance of intellectual and human capital for business success has elevated the value of effective people management. The goal of this certificate is to provide depth and breadth of knowledge in policies and practices in the core areas of HRM: Staffing, performance management, compensation, rewards and training and development. The certificate will also build competence in HRM in the global arena.

The completion of this business certificate program affords students a record of an academic accomplishment in the Human Resources Management area. This certificate is open to current MBAs, MBA alumni, and others not currently pursuing an MBA. An accredited bachelor’s degree is necessary for admission.

Prerequisite courses for the HRM concentration: MGMT 711 Human Resources Management or MGMT 810 Managing People or equivalent MBA level HR course.

Required Courses

MGMT 732 - Recruiting and Selecting Effective Employees
MGMT 734 - Compensation and Rewards
MGMT 738 - Developing People and Careers
MGMT 740 - Appraising and Managing Employee Performance
MGMT 741 - International Human Resources Management

Faculty Coordinator

James Guthrie
jguthrie@ku.edu

Admission Deadline

One month prior to the semester start: July 10th for August or December 10th for January start.

Application Requirements

- Online Application Data Form (http://www.graduate.ku.edu/apply)
- $30 application fee, payable online
- Official Transcript (if current KU MBA student, an Advising Report from “KYOU” may be uploaded)
- Essay - What is your Rationale for attaining this Certificate? (for non-KU MBAs only)
- Letter from your Advisor acknowledging your participation in the certificate program (for current or former KU MBA students, a permission letter will be provided for you)

International Business Management

Managing operations in a global environment differs from that of a single country perspective. Global businesses must simultaneously cope with management issues in multiple markets and multiple constituencies. Students engaged in the International Business certificate will learn to address differing cultural values in human resources, marketing and other areas. Students will also be able to participate in a short-term study abroad class.

The completion of a business certificate program in International Business affords students a record of an academic accomplishment in the International Business Management area. This certificate is open to current MBAs, MBA alumni, and others not currently pursuing an MBA. An accredited bachelors degree is necessary for admission.

Prerequisites for the International Business Certificate include: IBUS 701 International Business, IBUS 820 International Business, MGMT 704 Strategic Management or equivalent MBA level course. Two courses in this certificate are offered as electives in other certificates, MGMT 741 International Human Resources Management and FIN 735 International Finance. MKTG 716 is offered as part of the Advanced Core in Marketing. These courses have separate pre-requisites that must be followed.

Required Courses

IBUS 730 - International Business Strategy
IBUS 731 - Comparative and Cross-Cultural Management

Choose three of the following courses:

IBUS 720 - Business in China
IBUS 721 - Business in Latin America
IBUS 740 - Business Practices in China (Involves study abroad and requires IBUS 720 as a prerequisite)
IBUS 741 - Business Practices in Latin America (Involves study abroad and requires IBUS 721 as a prerequisite)
IBUS 895 - Graduate Seminar in International Business: (Topic)
FIN 735 - International Finance
MGMT 741 - International Human Resources Management
MKTG 716 - Global Marketing

Faculty Coordinator

Dennis Karney
dkarney@ku.edu
**Admission Deadline**

One month prior to the semester start: July 10th for August or December 10th for January start.

**Application Requirements**

- Online Application Data Form (http://www.graduate.ku.edu/apply)
- $30 application fee, payable online
- Official Transcript (if current student, an Advising Report from “KYOU” may be uploaded)
- Essay - What is your Rationale for attaining this Certificate? (for non-KU MBAs only)
- Current KU Students: A letter from your Advisor acknowledging your participation in the certificate program (for current MBA students, a permission letter will be provided for you)

**Investments**

- The investment certificate will provide students a broad understanding of many different financial instruments and markets. Topics range from start-up financing through alternative investments such as hedge funds and derivatives and everything in between. Evaluation of investment decisions and risk management are important topics covered for each investment type. The investment certificate covers topics in portfolio management, security analysis and other financial services.

The completion of a business certificate program affords students a record of an academic accomplishment in the Investments area. This certificate is open only to current MBAs and MBA alumni.

Several courses in this certificate are offered as electives in other certificates, FIN 735 International Finance is offered in the International Business Management certificate, FIN 750 Entrepreneurial Finance, FIN 725 Business Valuation, FIN 735 International Finance, FIN 732 Derivative Strategies and FIN 731 Applied Portfolio Management Seminar are also offered in the Valuation certificate. Pre-requisites for individual courses must be followed.

**Required Courses**

FIN 720 - Advanced Investments

FIN 721 - Fixed Income

Choose three of the following courses:

FIN 725 - Business Valuation

FIN 731 - Applied Portfolio Management Seminar

FIN 732 - Derivative Strategies

FIN 733 - Alternative Investment Strategies

FIN 735 - International Finance

FIN 750 - Entrepreneurial Finance

**Faculty Coordinator**

Christopher Anderson
cwanderson@ku.edu

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**Marketing**

- Companies rely on customers as the foundation of their business. In this certificate students will learn how to discover what customers want, how to evaluate new opportunities, and effective means of reaching new customers. Marketing research tools provide students an opportunity to learn the latest research and how to evaluate the effectiveness of marketing campaigns.

The completion of a business certificate program affords students a record of an academic accomplishment in the Marketing area. This certificate is open to current MBAs, MBA alumni, and others not currently pursuing an MBA. A bachelors degree is necessary for admission.

**Required Courses**

MKTG 714 – Discovering and Evaluating New Product Opportunities

MKTG 721 - Advanced Topics in Managing Products and Brands

MKTG 722 - Marketing Strategy

MKTG 723 - Marketing Research

MKTG 724 - Pricing of Products and Services

**Faculty Coordinator**

Sanjay Mishra
smishra@ku.edu

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**Admission Deadline**

One month prior to the semester start: July 10th for August or December 10th for January start.

**Application Requirements**

- Online Application Data Form (http://www.graduate.ku.edu/apply)
- $30 application fee, payable online
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- Essay - What is your Rationale for attaining this Certificate? (for non-KU MBAs only)
• Current KU Students: A letter from your Advisor acknowledging your participation in the certificate program (for current MBA students, a permission letter will be provided for you)

**Strategic Management**

• Understanding of strategic management enables students to be successful in top management positions in organizations or in running their own businesses. Students learn critical skills in understanding industries and global competition, developing sustainable competitive advantages, recognizing business opportunities and understanding how technology affects competition. Students completing the certificate will have strong strategic thinking skills and will be able to develop strategic plans that will make their organizations more successful and thus advancing their careers.

The completion of a business certificate program affords students a record of an academic accomplishment in the Strategic Management area. This certificate is open to current MBAs, MBA alumni, and others not currently pursuing an MBA. A bachelors degree is necessary for admission.

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>IBUS 730</td>
<td>International Business Strategy</td>
</tr>
<tr>
<td>MGMT 722</td>
<td>Corporate Strategy</td>
</tr>
<tr>
<td>MGMT 725</td>
<td>Strategic Management of Technological Innovation</td>
</tr>
<tr>
<td>MGMT 727</td>
<td>Strategy Implementation</td>
</tr>
<tr>
<td>MGMT 728</td>
<td>Managing Strategic Direction and Change</td>
</tr>
</tbody>
</table>

**Faculty Coordinator**

Vince Barker
vbarker@ku.edu

**Admission Deadline**

One month prior to the semester start: July 10th for August or December 10th for January start.

**Application Requirements**

• Online Application Data Form (http://www.graduate.ku.edu/apply)
• $30 application fee, payable online
• Official Transcript (if current student, an Advising Report from “KYOU” may be uploaded)
• Essay - What is your Rationale for attaining this Certificate? (for non-KU MBAs only)
• Current KU Students: A letter from your Advisor acknowledging your participation in the certificate program (for current MBA students, a permission letter will be provided for you)

**Supply Chain Management**

• Supply Chain strategies are the critical to efficient organizations. Effective market coverage and availability of products at the right locations are key components of business success. A certificate in supply chain management provides a student with a broad understanding of the issues and key technical tools in logistics, scheduling and multi-national topics to manage a supply chain.

The completion of a business certificate program affords students a record of an academic accomplishment in the Supply Chain Management area. This certificate is open to current MBAs, MBA alumni, and others not currently pursuing an MBA. A bachelors degree is necessary for admission.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSCI 720</td>
<td>Operations Management</td>
</tr>
<tr>
<td>SCM 720</td>
<td>Procurement and Supplier Management</td>
</tr>
<tr>
<td>SCM 721</td>
<td>Logistics and Distribution Management</td>
</tr>
<tr>
<td>SCM 722</td>
<td>Information Systems for Supply Chain Management</td>
</tr>
<tr>
<td>SCM 723</td>
<td>Lean Six Sigma</td>
</tr>
</tbody>
</table>

**Faculty Coordinator**

Steve Hillmer
hillmer@ku.edu

**Admission Deadline**

One month prior to the semester start: July 10th for August or December 10th for January start.

**Application Requirements**

• Online Application Data Form (http://www.graduate.ku.edu/apply)
• $30 application fee, payable online
• Official Transcript (if current student, an Advising Report from “KYOU” may be uploaded)
• Essay - What is your Rationale for attaining this Certificate? (for non-KU MBAs only)
• Current KU Students: A letter from your Advisor acknowledging your participation in the certificate program (for current MBA students, a permission letter will be provided for you)

**Valuation**

• The understanding of valuation is an important topic in corporate finance, investment management, real estate, banking and many other areas of financial services. Students will learn a variety of valuation techniques for different types of assets, such as equity valuation, valuation effects of mergers and acquisitions, real estate valuation, fixed income valuation, derivative value. In addition to valuation theory, students will have many opportunities to apply the theories in practice.

The completion of a business certificate program affords students a record of an academic accomplishment in the Valuation area. This certificate is open only to current MBAs and MBA alumni.

Several courses in this certificate are offered as electives in other certificates. FIN 735 International Finance, FIN 750 Entrepreneurial Finance, FIN 732 Derivative Strategies, and FIN 731 Applied Portfolio Management Seminar.
Required Courses
ACCT 720 - Financial Statement Analysis
FIN 725 - Business Valuation

Choose three of the following courses:
FIN 732 Derivatives and Risk Management
FIN 731 Applied Portfolio Management Seminar
FIN 735 - International Finance
FIN 750 - Entrepreneurial Finance

Faculty Coordinator
Catherine Shenoy
cshenoy@ku.edu

Admission Deadline
One month prior to the semester start: July 10th for August or December 10th for January start.

Application Requirements
• Online Application Data Form (http://www.graduate.ku.edu/apply)
• $30 application fee, payable online
• Official Transcript (if current student, an Advising Report from “KYOU” may be uploaded)
• Essay- What is your Rationale for attaining this Certificate? (for non-KU MBAs only)
• Current KU Students: A letter from your Advisor acknowledging your participation in the certificate program (for current MBA students, a permission letter will be provided for you)

Master of Accounting

Introduction
In the School of Business, students acquire a rigorous education that prepares them for positions in a dynamic and competitive global environment.

The University of Kansas School of Business is accredited by the Association for the Advancement of Collegiate Schools of Business International (http://www.aacsb.edu).

Baccalaureate Preparation
The Master of Accounting program offers a 1-year degree for students with baccalaureate degrees in accounting equivalent to that required for accreditation by the AACSBl. Deficiencies in the undergraduate program result in additional hours being required for the degree.

Admission to Master’s Programs
All graduate programs are open to those who have earned baccalaureate degrees from accredited colleges or universities and whose undergraduate academic records, scores on the required standardized examination, and prior work experience indicate that they have the capability to complete the program. Admission to all programs in business is limited on the basis of space, facilities, faculty, and other resources.

Applicants for all graduate programs must take the Graduate Management Admission Test (http://www.mba.com/mba) given by Pearson VUE. The GMAT is administered in most foreign countries and by appointment at designated testing centers throughout the United States. The test is typically taken during the academic year before the term for which admission is sought. MBA/JD applicants must take the GMAT; the Law School Admission Test is not accepted in lieu of the GMAT.

Students whose native language is not English or who have not completed a degree from a college or university in the United States, Great Britain, Canada, or Australia must also have a score of at least 570 (600 for the MBA program) on the Test of English as a Foreign Language. A minimum score of 57 on each of the three sections of the TOEFL is required. For students taking the computerized version of the TOEFL, an overall score of 230 is required (250 for the MBA program), with a minimum score of 23 on each of the 3 sections of the test.

All applications for admission to the MBA, M.S., or MAcc programs must include:
1. Graduate application (http://www.graduate.ku.edu);
2. 3 essays;
3. 1 official transcript of each college and university record;
4. 2 letters of recommendation from faculty members and/or employers;
5. Scores on the GMAT and scores on the TOEFL if required;
6. A $65 nonrefundable application fee;
7. A current résumé; and
8. A signed academic honor code statement.

Completed applications are reviewed by committee, and action is taken on them periodically throughout the year. Each applicant is notified by letter of the action taken on his or her application.

All admissions to any graduate program in business are subject to and in accordance with all rules and regulations. See Admission in the Graduate Studies (p. 2059) section of the online catalog for more information.

Submit your graduate application online (http://www.graduate.ku.edu). Send original transcripts of all completed college and university coursework and all other requested application materials to the school:

The University of Kansas School of Business
MAcc Applications
Summerfield Hall, Room 350
1300 Sunnyside Ave.
Lawrence, KS 66045-7534

Master of Accounting
The Master of Accounting offers students an opportunity to study accounting topics in greater detail than at the undergraduate level. MAcc students must complete a track in one of 4 areas:
• Advisory and Consulting Services (ACS)
• Assurance
• Corporate
To receive a well-rounded business education, students take electives in other business areas such as business law, information systems, and finance. In addition, the program gives students the opportunity to improve writing, oral presentation, and interpersonal skills needed for a successful career in accounting and information systems.

**MAcc Degree Requirements**

1. Candidates for the MAcc degree who have undergraduate degrees in accounting from KU or other schools with equivalent undergraduate accounting programs must complete at least 30 semester credit hours of course work. Students may count 6 hours of credit at the 500-600 level toward the MAcc degree provided that the credit is not applied to the undergraduate degree.
2. Candidates with undergraduate degrees in business without an accounting major must complete additional hours of undergraduate accounting classes.
3. Candidates without undergraduate degrees in business or accounting must complete additional hours of core/business and undergraduate accounting classes.

**MAcc Requirements**

Required for students with undergraduate accounting or business degrees:

**Tracks**

Students must choose a track from one of the following areas:

### Advisory and Consulting Services (ACS)

**Required:**
- ACCT 743 Accounting Information System Risks and Controls 3
- IST 730 IT Project Management 3
- MGMT 885 Business Consulting 4
  or MGMT 831 Consulting Practicum

Select at least three of the following:
- ACCT 741 Fraud Examination and Forensic Accounting
- ACCT 895 Graduate Seminar in Accounting: _____ (International Financial Reporting Standards I)
- ACCT 895 Graduate Seminar in Accounting: _____ (Accounting Professional Ethics)
- ACCT 895 Graduate Seminar in Accounting: _____ (Internal Audit)
- IST 704 Database Management
- IST 706 Systems Analysis and Design
- IST 708 Strategic Information Systems Planning
- IST 709 Business Computer Networking
- IST 712 Information Security
- IST 725 Contemporary Information Technology Topics
- IST 895 Graduate Seminar Information Systems: _____
- FIN 895 Graduate Seminar in Finance: _____ (Corporate Valuation)

### Corporate

**Required:**
- ACCT 721 Advanced Accounting 3
- ACCT 743 Accounting Information System Risks and Controls 3
- FIN 895 Graduate Seminar in Finance: _____ (Corporate Valuation) 3

Select at least two of the following:
- ACCT 722 Researching Financial Accounting Issues
- ACCT 724 Accounting Theory
- ACCT 726 Advanced Managerial Accounting - Quantitative and Economic Topics
- ACCT 741 Fraud Examination and Forensic Accounting
- ACCT 745 Specialized Accounting Practices
- ACCT 895 Graduate Seminar in Accounting: _____ (International Financial Reporting Standards I)
- ACCT 895 Graduate Seminar in Accounting: _____ (Accounting Professional Ethics)
- ACCT 895 Graduate Seminar in Accounting: _____ (Internal Audit)

Select at least one of the following:
- IST 706 Systems Analysis and Design
- IST 725 Contemporary Information Technology Topics
- IST 730 IT Project Management
- IST 895 Graduate Seminar Information Systems: _____ (ERP Systems)

### Tax

**Required:**
- ACCT 545 Advanced Taxation 3
The Master of Science degree program is for students who have completed a baccalaureate degree in business or a related degree as prescribed by the Association to Advance Collegiate Schools of Business and want to do concentrated study in a specific business area. Deficiencies in a student’s undergraduate program result in additional hours being required for the degree. These are determined before or at the time of initial enrollment.

A concentration in supply chain management is offered. Supply chain management is only available to U.S. Army majors, or major-eligible captains stationed at Fort Leavenworth in Leavenworth, Kan. The program is lock-step, 24 credit hours from KU and must be completed in 2 semesters. Six hours of credit are afforded students from concurrent course work at Command and General Staff College.

Baccalaureate Preparation

The Master of Science in business requires a baccalaureate degree in business equivalent to that required for accreditation by the American Assembly of Collegiate Schools of Business. Deficiencies in the undergraduate program result in additional hours being required for the degree. A concentration in supply chain management is offered.

Admission to Master’s Programs

All graduate programs are open to those who have earned baccalaureate degrees from accredited colleges or universities and whose undergraduate academic records, scores on the required standardized examination, and prior work experience indicate that they have the capability to complete the program. Admission to all programs in business is limited on the basis of space, facilities, faculty, and other resources.

Students whose native language is not English or who have not completed a degree from a college or university in the United States, Great Britain, Canada, or Australia must also have a score of at least 570 (600 for the M.B.A. program) on the Test of English as a Foreign Language. A minimum score of 57 on each of the three sections of the TOEFL is required. For students taking the computerized version of the TOEFL, an overall score of 230 is required (250 for the M.B.A. program), with a minimum score of 23 on each of the 3 sections of the test.

All applications for admission to the M.S. programs must include

1. Graduate application (http://www.graduate.ku.edu);
2. 1 official transcript of each college and university record;
3. Scores on the TOEFL if required;
4. A current résumé; and

Completed applications are reviewed by committee, and action is taken on them periodically throughout the year. Each applicant is notified by Graduate Studies of the action taken on his or her application.

All admissions to any graduate program in business are subject to and in accordance with all rules and regulations. See Admission (p. 2059) in the Graduate Studies section of the online catalog for more information.

Submit your graduate application online (http://www.graduate.ku.edu). Send original transcripts of all completed college and university course work and all other requested application materials to the school:

The University of Kansas
School of Business
Admissions Coordinator
Summerfield Hall
1300 Sunnyside Ave., Room 124
Lawrence, KS 66045-7534

M.S. Degree Requirements

Candidates must complete a minimum of 30 semester hours of graduate credit. Students must fulfill the following requirements:

1. Earn credit in required courses toward a concentration in Supply chain management.
2. Complete a capstone course.
3. Pass a comprehensive examination in the concentration, prepared and evaluated by at least three Graduate Faculty members in the area.

Undergraduate prerequisites that were not completed during the undergraduate program must be taken during initial enrollment and do not count toward fulfillment of the degree requirement of 30 hours.

Doctor of Philosophy in Business

School of Business
Summerfield Hall
1300 Sunnyside Ave.
Lawrence, KS 66045
785-864-3841
bschoolphd@ku.edu
Charly Edmonds, Director, Ph.D. Program
785-864-3841

Financial Aid

Students admitted to the Ph.D. program receive financial assistance. Contingent on satisfactory progress and availability of funds, the school provides financial assistance to most students for the first 4 years of their
programs. Financial assistance is available in varying degrees through assistantships, fellowships, grants, loans, and employment.

**Assistantships**

During the first year, most doctoral students are appointed as research or teaching assistants. Many doctoral students also receive dissertation fellowships while writing their dissertations. During 2012-13, a graduate teaching assistantship paid about $1,800 a month, and a 50-percent-time graduate research assistantship paid about $1,800 a month plus tuition and fees. Appointment as a graduate teaching assistant at 40-percent time or more entitles the student to a 100-percent tuition waiver.

For non-native speakers of English, appointment as a graduate teaching assistant is only made after the student passes the SPEAK test or the Test of Spoken English administered by KU’s Applied English Center (http://www.aec.ku.edu).

**Fellowships and Grants**

The School of Business has been successful in nominating doctoral students for fellowships and grants from sources outside the school. Business students have received awards from the Richard D. Irwin Foundation, Kauffman Foundation, the American Institute of Certified Public Accountants, Beta Gamma Sigma, the American Accounting Association, Accounting Doctoral Scholars, and KU. Several dissertation fellowships normally are awarded annually. These awards allow the student to receive support for a semester while working on his or her dissertation.

The School of Business maintains active files on these and other sources of fellowships and grants, recommends qualified students for the awards, and works closely with students in submitting application materials.

Visit the Graduate Studies website for information about other funding opportunities (http://www.graduate.ku.edu/03-07_student_funding.shtml) for graduate students at KU.

**Financial Aid and Scholarships** (http://financialaid.ku.edu)

**Strong Hall**

1450 Jayhawk Blvd., Room 50

Lawrence, KS 66045-7518

785-864-4700

**Ph.D. Admission**

The applicant must hold at least a bachelor’s degree from an accredited college or university. No specific undergraduate preparation in business is required.

The applicant must demonstrate competence as a scholar through a high level of previous academic performance and high percentile scores on the Graduate Management Admission Test or Graduate Record Examination. Scores may not be older than five years at the time of application. In addition, international applicants must present high scores on the Test of English as a Foreign Language, or IELTS.

Finally, the applicant must demonstrate the ability for doctoral study in business, either by a record of achievement in previous professional or academic experience, including research and scholarship, or through letters of recommendation and a personal interview.

These requirements are intended only as suggestions for minimum admission standards. They should not be construed as a guarantee of admission to the Ph.D. program.

A $65 nonrefundable application fee, payable to the University of Kansas, must accompany all applications.

Submit your graduate application online (http://www.graduate.ku.edu).

**Doctor of Philosophy in Business**

The program is designed for students who wish to become scholar-teachers. It develops the capacity for original research and effective teaching by providing mastery of the knowledge in a particular field, a thorough understanding of research methodology, the ability to communicate effectively, and the motivation for continuing self-education. Students must specialize in a concentration and develop a broad knowledge of other areas of business and their interrelationships in the management function.

As of fall 2013, 42 students were enrolled in the Ph.D. program. The program will continue to be limited in size so each student can work closely with faculty members to receive substantial individual attention.

**Ph.D. Degree Requirements**

By the end of the third semester of the aspirant’s program (excluding summer sessions), an aspirant must complete the following qualifier requirements. All aspirants must demonstrate some proficiency in doing original research of publishable quality and some proficiency in teaching.

**Human Resources Management, Organizational Behavior, and Strategic Management**

Ph.D. students must take the following:

- MGMT 905 Philosophy of the Behavioral and Organizational Sciences: 3
- MGMT 906 Behavioral Research Methods: 4
- MGMT 916 Seminar in Organization Theory: 3
- Select one of the following in microeconomic theory: 3
- BE 917 Advanced Managerial Economics
- BE 701 Business Economics
- ECON 700 Survey of Microeconomics

**Finance**

Ph.D. students must take the following:

2-course sequence in probability and statistical methods. Satisfied by the following, or equivalent courses in other departments:

- DSCI 920 Probability for Business Research: 8
- & DSCI 921 and Statistics for Business Research

Finance students must also take one course in regression:

- DSCI 922 Advanced Regression: 3

**Accounting, Decision Sciences, Information Systems, and Marketing**

Ph.D. students must take the following:

2-course sequence in probability and statistical methods. Satisfied by the following, or equivalent courses in other departments:
These courses should be completed in the first 2 years of a student’s program. In addition, students must take area-specific core courses defined by their area group. At or before the end of the aspirant’s third semester in the program, a qualifier assessment team, composed of five faculty members, holistically determines whether or not a student continues in the program.

The aspirant for the Ph.D. in business administration must have an area of concentration, supporting areas, and preparation in research methodology.

**Concentration**

Each aspirant, with the assistance of her or his faculty advisor and the area faculty, selects an area of concentration from the traditional business disciplines of accounting, finance, human resources management, decision sciences, marketing, organizational behavior, and strategic management. An aspirant also may propose an interdisciplinary concentration that is a combination of these disciplines, or may include emphases such as international business, law, and economics. The aspirant must take at least five advanced courses in the concentration. These courses may include those offered outside the School of Business.

**Supporting Areas**

Course work in the area of concentration is supplemented and strengthened by study in one or two supporting areas. A supporting area is one that supplements and complements the concentration. The aspirant satisfies the supporting area requirement by taking at least 4 advanced courses in the supporting areas (at least 2 courses in each of 2 supporting areas or at least 4 courses in 1 supporting area). Courses recommended for preparation for the qualifier assessment may not be included in satisfying the supporting area requirement.

**Probation and Dismissal Guidelines**

To be in good standing, a student must maintain a 3.0 cumulative grade-point average; if the grade-point average falls below 3.0, the student is placed on probation. This is followed by a letter to the student confirming the probation and explaining the student’s options.

A student is placed on probation for 1 academic semester. If the cumulative grade-point average has not risen to 3.0 in the next semester of enrollment (excluding summers), the student can either be dismissed or allowed to continue on probation. Continued probation requires the area director for the student’s concentration to write a letter to the Ph.D. team explaining why the student should be allowed to continue.

A graduate student can be dismissed on recommendation of the area director for the student’s concentration. Usually a graduate student is dismissed because of a low grade-point average; however, failure of examinations or failure to make satisfactory progress toward the degree is also cause for dismissal. Academic dismissal should occur before a semester begins; but if a student is dismissed during the semester, the dismissal is effective only at the end of the semester in which the Ph.D. team gives notification of dismissal.

**Research Methodology**

When preparing for the qualifier assessment, area groups should ensure that the student’s program includes adequate preparation in research methodology.

**Responsible Scholarship**

Students in the first year must enroll in BUS 903 Responsible Conduct of Research. This course builds students’ abilities to analyze ethical issues and introduces students to various issues that may arise while engaging in the research endeavor.

Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current Lawrence and Edwards Campus policies on Doctoral Research Skills and Responsible Scholarship are listed in the KU Policy Library.

**Teaching**

Students enroll in BUS 902 Teaching Seminar during the first semester in which they teach independently. Before the completion of the Ph.D. program, all students also must have teaching experience equivalent to teaching at least 2 undergraduate courses independently in 2 different semesters.

**Examinations**

To advance to candidacy, the student must pass a written-oral comprehensive examination in the concentration. Finally, the student must pass an oral defense of the dissertation research proposal and the dissertation.
Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU (see your advisor (http://www.advising.ku.edu) for details).

Other years' catalogs

Curriculum and Teaching (p. 301)
Bachelor of Science in Education (p. 346)
Master of Arts in Curriculum and Instruction (p. 400)
Master of Science in Education in Curriculum and Instruction (p. 402)
Doctor of Education in Curriculum and Instruction (p. 403)
Doctor of Philosophy in Curriculum and Instruction (p. 404)

Educational Leadership and Policy Studies (p. 406)
Master of Science in Education in Educational Leadership and Policy Studies (p. 412)
Doctor of Education in Educational Leadership and Policy Studies (p. 415)
Doctor of Philosophy in Educational Leadership and Policy Studies (p. 417)

Health, Sport, and Exercise Sciences (p. 418)
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Bachelor of Science in Athletic Training, Exercise Science & Sport Management (p. 433)
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Special Education (p. 458)
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Doctor of Education in Special Education (p. 471)
Doctor of Philosophy in Special Education (p. 472)

Introduction
The primary mission of the School of Education (http://www.soe.ku.edu) is to prepare educators as leaders. Within the university, the School of Education serves Kansas, the nation, and the world by

1. Preparing individuals to be leaders and practitioners in education and related human-service fields,
2. Expanding and deepening understanding of education as a fundamental human endeavor, and
3. Helping society define and respond to its educational responsibilities and challenges.

To accomplish this mission, the School of Education

1. Offers an extensive curriculum leading to academic degrees and professional licensure,
2. Requires faculty and students to engage in scholarship, and
3. Provides a range of professional services to schools, other institutions, and individuals.

The components of preparing educators as leaders that frame this mission for our initial programs are

1. Research and best practice,
2. Content and pedagogical knowledge, and
3. Professionalism.

These three themes build our conceptual framework.

Mission Statement
View the mission statement (http://www.soe.ku.edu/about) of the School of Education.

Undergraduate Degree Programs

Degree and Licensure Requirements for Teacher Education Students
 Completion of the Teacher Education Program requires 4 years. After completing a minimum of 120 approved hours and the requirements for the specific teacher licensure program, the student receives a bachelor’s degree and is eligible for a Kansas teaching license.

Majors are available in the following teaching fields:

- Unified Early Childhood (Birth-Grade 3)
- Elementary (K-6)
- Secondary English (6-12)
- Middle Mathematics (5-8)
- Secondary History and Government (6-12)
- Middle Science (5-8)
- Foreign languages (Chinese, French, German, Japanese, Latin, Russian, Spanish) (PreK-12)
- Health and Physical Education (PreK-12)

Endorsements are available in the following areas:

- English for Speakers of Other Languages (ESOL)
- Special Education
Graduate Degree Programs

Master’s Degree Programs

Master’s degrees are granted on satisfactory completion of not less than 1 academic year, or its equivalent, of graduate study. The school provides 3 options for the master’s degree:

- The thesis option,
- The project option, and
- A minimum 36-credit-hour study option.

At least 20 of the credit hours required for master’s programs must be in regular course work, as contrasted with independent study and similar enrollments. Students pursuing the 36-credit program option must have 26 hours in regular course work. All master’s programs require a graduate class in research and evaluation methods, successfully completed during the first 12 hours. As part of the requirement for the degree, the candidate must pass a final oral or written examination. A candidate’s advisor and two additional members of the Graduate Faculty constitute the examining committee for the thesis or project options. The department prepares and evaluates the written examination for the credit-hour degree option.

To ensure continuity of progress and currency of knowledge, there is a 7-year time limit for completion of master’s degree requirements. The Graduate Division has the authority to grant a 1-year extension for compelling reasons, on recommendation of the department/committee. If more than 8 years are requested, the appropriate appeals body of the school considers petitions for further extensions and, where evidence of continuous progress, currency of knowledge, and other reasons are compelling, may grant further extensions.

Note: Because substantive and procedural differences exist among the programs, some may have more stringent policies on time extensions. Students should inquire about the specific policies in effect in the department or program in which they intend to study.

Note: To be eligible for the degree, a student pursuing the thesis option must deposit signed title and acceptance pages and a signed ETD Release form and complete all other requirements before the degree requirements submission deadline in the graduate academic calendar. Graduate Studies establishes the degree submission deadline each year. Please see the Graduate Studies website for more information.

Master of Arts

A candidate for the Master of Arts degree completes work both in education and in a teaching area (other than physical education). For students who choose the thesis or project option, a minimum of 30 hours of graduate credit is required for this degree, of which no fewer than 10 and no more than 15 hours must be earned in the teaching area. Some work must be elected in at least 2 of the approved graduate program areas in the School of Education. The candidate must complete a thesis related to the teaching area (6 hours maximum credit applicable to degree requirements) or complete the nonthesis option by enrolling in Master’s Project (4 hours applicable to degree requirements). While enrolled, the candidate submits a research paper related to the teaching area to the advisor. Check with the department for specific course requirements for the 36-hour master’s degree option.

Master of Science

A candidate for the degree of Master of Science in Counseling Psychology earns a concentration in mental health counseling. A minimum of 60 credit hours is required for this degree, about 50 of which...
are prescribed, with the rest made up of electives approved by the student's advisor. The candidate must complete a Master's Thesis (3 hours maximum credit applicable to degree requirements), or complete a Master's Project (3 hours applicable to degree requirements), or complete a written comprehensive examination. Check with the department for specific course requirements for the 60-hour master's degree.

**Master of Science in Education**

A candidate for the degree of Master of Science in Education selects 1 of the program areas as a concentration for graduate study. A minimum of 30 credit hours is required, of which no fewer than 10 hours must be in the concentration. Credit in Thesis or Master's Project may not be included in these 10 hours. The candidate must elect course work in at least 2 graduate program areas outside the major concentration. Normally, these courses would be in the School of Education. The candidate must complete a thesis in the concentration (6 hours maximum credit applicable to degree requirements) or complete the nonthesis option by enrolling in Master's Project (4 hours applicable to degree requirements). While enrolled, the candidate submits a research paper related to the specialization to the advisor. Check with the department for specific course requirements for the 36-hour master's degree option.

**Specialist in Education Degree Program**

The Specialist in Education program consists of 2 years of full-time graduate study (about 70 semester credit hours) followed by a third year of internship. Students completing the program are licensed for early childhood through grade 12 if they obtain 100 hours of applied experience with young children and their families in practica or internship.

**Doctoral Degree Programs**

**Doctoral Degree Admission Policies**

The application for admission to graduate studies and the Graduate Division of the School of Education (http://www.soe.ku.edu) for doctoral study must specify the major program area. Materials included with the application form usually consist of:

1. Official transcripts of undergraduate- and graduate-level courses indicating grade-point average,
2. Letters of recommendation and/or survey-type evaluation forms from previous instructors and professional colleagues,
3. Personal statements about professional goals,
4. Representative writings and/or other media samples related to the proposed area,
5. A résumé of professional experience, and
6. Scores from the verbal, quantitative, and writing sections of the Graduate Record Examination.

Each department in the Graduate Division has determined the specific information and scores required for admission. Contact the graduate advisor of the department that offers the major for instructions about completing the application for admission.

In general, applicants with 3.5 grade-point averages on a 4.0 scale for the first 30 graduate-level hours (e.g., master's degree), scores at the 50th percentile across the 3 GRE subtests, and validated strengths on the additional indicators are viable candidates for admission. However, this profile is intended only as an example and should not be construed as a guarantee of admission to a doctoral program. Several programs have limited student admissions because of the need to balance faculty resources with the demands of maintaining high-quality teaching, scholarship, and professional service activities.

Departments offering doctoral programs may recommend provisional admission of a student who has not met the criteria or prerequisites to do advanced graduate-level work. Provisional admission requires the satisfactory completion (e.g., with a 3.5 grade-point average) of 12 or more hours in regularly scheduled graduate courses, at least half of which must come from core areas. After the completion of the provisional program, the department recommends to the Graduate Division that the student:

1. Be transferred to regular status or
2. Be allowed to continue for another 9 hours or
3. Be dropped from the program.

**Doctor of Education**

The Doctor of Education is awarded upon completion of 3 years of advanced training in both the theory and the practice of education. It is a professional degree intended primarily for practitioners in education rather than for researchers, for whom the Ph.D. is the appropriate degree plan. The Ed.D. is offered in curriculum and instruction, educational administration, higher education, and special education.

**Advisory Committee**

A student admitted to study for the Ed.D. is considered an aspirant for the degree until the comprehensive examination has been passed. After passing this examination, the student is considered a candidate for the degree. Each student must have an advisory committee of at least 3 members of the Graduate Faculty. One member of the committee serves as the chair. The student meets with this committee before completing 12 hours of course work to plan and approve formally an appropriate program leading to the Ed.D. The approved program, signed by members of the committee and the student, is placed in the student's file in the School of Education Graduate Division office.

**Requirements**

Students must acquaint themselves thoroughly with departmental requirements for the degree, which may be in addition to general requirements and those of the School of Education. Consistent with Graduate Studies' general regulations, it is each student's responsibility to know and observe all university, school, departmental, and academic program regulations and procedures relating to the graduate program. In no case will a regulation be waived or an exception be granted because a student pleads ignorance of, or contends he or she was not informed of, requirements, regulations, procedures, or deadlines. Responsibility for following all policies and meeting all requirements and deadlines rests with the student.

1. **Time Limit**
   To ensure continuity of progress and currency of knowledge, doctoral degree students normally complete all requirements for the degree in 8 years after first enrollment in a program leading directly to a doctoral degree. Coursework submitted to complete doctoral degree requirements must be completed within school or departmental time limits or extensions thereto. The Graduate Division has the authority to grant a 1 year extension of the normal 8-year time limit for compelling reasons, on the written advice of the dissertation committee. If more than 9 years are requested, the appropriate appeals body of the school considers petitions for extensions and, where evidence of continuous progress, currency of knowledge, and other reasons are compelling, may grant further
extensions. There is a 10-year limit on combined master's and doctoral degree programs.

**Note:** Because substantive and procedural differences exist among the programs, some may have more stringent policies on time extensions. Students should inquire about the specific policies in effect in the department or program in which they intend to study.

A Leave of Absence may be granted upon request to the graduate program in advance of leave. A leave of absence may be granted in extraordinary circumstances (e.g. cases of illness, emergency, financial hardship, military leave), to pursue family responsibilities, or to pursue full-time activities related to long-range professional goals. Appropriate documentation related to these extraordinary circumstances may be requested from the student directly. Evidence of progress towards degree will also be a determining factor in the decision to grant an exception. The time taken for a leave of absence does not count against the student’s time to degree. However, if the total time for the leave extends more than 5 years, the student will lose his/her place in the program and must reapply for admission.

2. **Period of Continuous Study**

The student must spend the equivalent of 3 academic years, including the time spent attaining the master’s degree, in a period of continuous study at this or another approved university. During the time the student is engaged in the Ed.D. program at KU, 1 of the following options must be satisfied:

a. 2 consecutive semesters, 1 of which may be a summer session, of full-time enrollment in regularly scheduled courses normally at the program’s home campus. (Full time equals 9 hours in fall or spring and 6 hours in summer.)

b. 2 consecutive semesters of at least 6 hours and an adjacent summer session of at least 3 hours, all in regularly scheduled courses at the program’s home campus.

c. 3 consecutive semester enrollments (excluding summer session) of at least 6 hours each in regularly scheduled courses on the program’s home campus.

d. 18 hours taken during the period encompassed by 2 consecutive summer sessions with enrollment in each of the four semesters: summer, fall, spring, summer.

e. 27 hours taken during any 5 consecutive semesters (including summer sessions) with enrollment in each semester. During this period, the student must be employed full-time in a field directly related to the student’s academic major.

These options include the following stipulations:

- Only course work taken after the first year of graduate study, that is, after the master’s degree or its equivalent, may satisfy the period-of-continuous-study requirement.

- Dissertation, individual study, field experience, and off-campus practicum hours may not be included in the stated minimal requirements.

- For all enrollments of 8 hours or more, 1 course may be taken away from the program’s home campus, e.g., on the KU Edwards Campus, if need can be demonstrated from a scheduling standpoint.

For options (b), (c), and (d), at least quarter-time, appropriately related, professional involvement on or off campus is required. The period of continuous study is not merely a requirement measured in hours of enrollment or of credit in courses counted toward a degree but may include other academic and professional activities appropriate to the field of study.

The student, with the help of the advisory committee, must file in the Graduate Division office a period-of-continuous-study plan congruent with School of Education requirements before the beginning of the formal period of continuous study. This plan may be filed as a part of the overall program plan.

The period-of-continuous-study requirement for the Ed.D. ensures a minimum period of bona fide on-campus study and related academic and professional involvement. Because of the particular professional nature of the degree, appropriately related professional endeavors may include off-campus activities. However, the credit-hour elements of the requirement must be fulfilled by course work on the program’s home campus. (Note the exceptions above.) Exceptional circumstances or plans must be approved in advance on an individual basis by petition to the Graduate Division of the School of Education.

3. **Program Area**

All candidates for the Ed.D. must complete a minimum of 27 credit hours in their major area, excluding credits used to fulfill Research Skills, Dissertation, and the doctoral practicum requirements. Coursework completed at KU or at another institution as part of a previous graduate degree, cannot be used to meet the credit hour requirements for this degree.

4. **Research Skills**

Upon admission to doctoral study, students who have not completed a research and evaluation methods course for the education master’s degree must take the course, e.g., PRE 715, during the first doctoral enrollment. The course used to fulfill this requirement, whether taken at KU or at another institution, does not count toward any doctoral requirements.

Before being admitted to the comprehensive examination, students must present satisfactory evidence that they possess the professional research skills of advanced practitioners in their concentrations by meeting the following research skills requirements: Complete a minimum of 9 hours of graduate study in 1 or more supporting areas that develop skills relevant to understanding, promoting, and evaluating professional practice. Supporting areas may include statistics, assessment and evaluation, qualitative methods, or historical or philosophical methods. Up to 6 hours, excluding credit hours for the required master’s course in research methods and evaluation, whether taken at KU or elsewhere, may be waived using prior B-level or higher graduate course work. Research skills requirements vary among programs to meet the individual needs of students. The student must secure the most recent information on research skills requirements from the appropriate department.

The research skills requirements chosen by the student must be approved and passed upon by the advisory committee. The chair must file the results in the School of Education Graduate Division office on the appropriate form so that they may be recorded on the student’s permanent record.

**Responsible Conduct of Research:** All students must satisfy departmental and university requirements regarding the responsible conduct of research. Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current Lawrence and Edwards Campus policies on Doctoral Research Skills and Responsible Scholarship (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm) are listed in the KU Policy Library.
5. Doctoral Practicum Enrollment

Ed.D. aspirants must complete at least 1 structured 3-credit-hour practicum in a supervised internship setting. A description of the practicum prepared by the student and approved by the advisory committee must be filed with the department and the graduate records office. Specific requirements for this practicum experience are available from students' departments.

6. Comprehensive Examination

The comprehensive examination should be scheduled after the student has completed the research skills requirements and all, or a major portion, of the course work for the concentration. The department must request the School of Education Graduate Division office to schedule the comprehensive examination. This request must be made at least two weeks before the date of the written portion of the examination.

The examining committee must consist of at least 5 members (usually including the advisory committee). All must be graduate faculty, and 3 of the 5 must be regular faculty from the student's home department.

The student passes the comprehensive examination if a majority of the official examining committee (including the chair) approves the student's performance. The grade on this examination is Honors, Satisfactory, or Unsatisfactory. If the aspirant fails the comprehensive examination, he or she may be allowed, upon the department's recommendation, to repeat it, but it may not be taken more than 3 times. In any case, the student may not repeat the oral examination until at least 90 days have elapsed since the last unsuccessful attempt.

Note: Students in Ed.D. programs must pass both written and oral components of the comprehensive examination. Satisfactory performance on the written component must be attained before the oral component may be attempted. To fail either component is to fail the examination. All members of the student's comprehensive examination committee are involved in the evaluation process. The written component of the comprehensive examination, like the oral, focuses on advanced knowledge in the major and any appropriately related areas. The focus of the examination is the ability to relate this knowledge to tasks and problems faced by practitioners. The duration of the entire written component of the comprehensive examination is to be a minimum of 16 hours. If a student passes the written component but fails the oral, the examining committee determines whether both components or only the oral must be repeated, after the minimum 90-day interim period.

7. Dissertation Committee and Proposal

Doctoral aspirants may begin work on the dissertation after they complete the equivalent of one full-time semester of doctoral study in regular student status and may use their research practicum experience in preparation for the dissertation. However, students may first enroll in dissertation credit hours only during the semester in which they take their comprehensive examinations. Dissertation hours taken during that semester count toward the minimum of 12 hours of dissertation enrollment only if the examinations are passed during that same semester.

Upon passing the comprehensive examination, the aspirant becomes a candidate for the Doctor of Education degree. Based on recommendations of the candidate's department, the Graduate Division designates the candidate's dissertation committee at this time. The dissertation proposal committee must consist of at least 3 members (usually including the advisory committee) and may include members from other departments and, on occasion, from outside the university. All committee members are to be members of the graduate faculty. A committee member from outside the university becomes an ad hoc member of the graduate faculty. The dissertation proposal must be read by all members of the dissertation committee. One copy of the approved dissertation proposal, signed by all members of the dissertation committee, must be submitted (with the appropriate form) to the School of Education Graduate Division office.

8. Continuous Enrollment

After passing the comprehensive examination, the candidate must be continuously enrolled, including summer sessions, until the degree is completed. Each enrollment must reflect as accurately as possible the candidate's demands on faculty time and university facilities. A student must be continuously enrolled in accordance with the following schedule: Until the degree is completed or until 18 post-comprehensive hours have been completed (whichever comes first), the student must enroll for a minimum of 6 hours a semester and 3 hours during summer session. Students who have not completed the degree after completing 18 hours of post-comprehensive enrollment must continue to enroll for the amount of credit that best reflects their demands on faculty time and university resources each semester and each summer session until they pass the final oral examination.

Post-comprehensive enrollment may include enrollment during the semester or summer session in which the comprehensive examination has been passed. Students may enroll for dissertation hours as well as other courses when the examination is taken. Students who do not pass the examination cannot apply dissertation hours to degree requirements. The candidate may petition the School of Education Graduate Division for a leave of absence during the period between the comprehensive examination and the final oral examination. Again, specific degree programs may have more stringent rules than general requirements.

9. Dissertation

The candidate must present a dissertation that exhibits the application of existing knowledge in the major field of professional study. Ed.D. candidates may satisfy the dissertation requirement by completing a comprehensive, critical assessment of the relevant literature on a major educational issue or problem. This study should demonstrate the application of existing knowledge to the author's area of professional practice. Various styles and formats for theses and dissertations are acceptable. The format and style of a student's thesis or dissertation is left to the discretion of the student and the advisor, but format and style options may be constrained or dictated by the policy of the department from which the student is to receive the degree. The dissertation is prepared under the direction of the dissertation committee. The minimum number of dissertation hours in the Ed.D program is 12. Instructions regarding the proper form of the final document may be obtained from the School of Education Graduate Division office.

10. Final Oral Examination

When the dissertation has been tentatively accepted by the dissertation committee, the chair of the dissertation committee may request the School of Education Graduate Division office to schedule the final oral examination. This request must be made at least two weeks before the desired examination date. At least five months must have elapsed between the successful completion of the comprehensive examination and the date of the final oral examination. Upon approval by the Graduate Division, the final oral examination is scheduled at the time and the place designated in the request and publicly announced. Although the dissertation committee is responsible for the certification of the candidate, any
member of the Graduate Faculty may be present at the examination and may participate in the questioning. The official examining committee consists of at least five members, including the dissertation committee. At least one member must be from a department other than the candidate’s major department. This member is called the Outside committee member and represents Graduate Studies.

The final examination must be partly oral and may be wholly so. The examination covers the dissertation and the concentration. The candidate passes the final examination if a majority of the official examining committee (including the chair) approves the candidate’s performance. When the final oral examination has been passed, the dissertation committee reports a grade of Honors, Satisfactory, or Unsatisfactory. Candidates who fail the final oral examination may be allowed to repeat it upon the recommendation of the dissertation committee.

11. **Dissertation Copies**

When the final oral examination has been passed and the dissertation has been signed by the members of the dissertation committee, a title page and acceptance page with original signatures and the ETD Release form are to be delivered to the Graduate Division so that completion of degree requirements may be officially certified.

### Doctor of Philosophy with a Major in Education

The Doctor of Philosophy degree is awarded for mastering a field of scholarship, learning the methods of investigation appropriate to that field, and completing a substantial piece of original research. The degree is intended to produce highly competent scholars who are prepared to be university faculty members and other professionals, to conduct and evaluate original research, to teach at the college/university level, and to provide discipline-related leadership to the field and to the public. The Ph.D. is offered in all education graduate programs.

Although the courses and the research leading to the Ph.D. are necessarily specialized, the attainment of this degree should not be an isolated event in the enterprise of learning. The aspirant for the Ph.D. is expected to be a well-educated person and should have acquired a broad base of general knowledge, both as preparation for more advanced work and as a means of knowing how the concentration is related to other fields of human thought.

### Advisory Committee

A student admitted to study for the Ph.D. is known as an aspirant for the degree until the comprehensive examination has been passed. After passing this examination, the student is known as a candidate for the degree. Each student must have an advisory committee consisting of at least three members of the Graduate Faculty. One member of the committee serves as the chair. One member must be from the graduate department representing the student’s minor area if the student’s program or department requires a minor area. The student meets with this committee before completing 12 hours of course work to plan and approve formally an appropriate program leading to the Ph.D. The approved program, signed by members of the committee and the student, is placed in the student’s file in the School of Education Graduate Division office.

### Requirements

Students must acquaint themselves thoroughly with departmental requirements for the degree, which may be in addition to general requirements and those of the School of Education. Consistent with Graduate Studies’ general regulations, it is the student’s responsibility to know and observe all university, school, departmental, and academic program regulations and procedures relating to the graduate program. In no case will a regulation be waived or an exception be granted because a student pleads ignorance of, or contends that he or she was not informed of, requirements, regulations, procedures, or deadlines. Responsibility for following all policies and meeting all requirements and deadlines rests with the student.

1. **Time Limit**

   To ensure continuity of progress and currency of knowledge, doctoral degree students normally complete all requirements for the degree in 8 years after first enrollment in a program leading directly to a doctoral degree. Coursework submitted to complete doctoral degree requirements must be completed within school or departmental time limits or extensions thereto. The Graduate Division has the authority to grant a 1-year extension of the normal 8-year time limit for compelling reasons, on the written advice of the dissertation committee. If more than 9 years are requested, the appropriate appeals body of the school considers petitions for extensions and, where evidence of continuous progress, currency of knowledge, and other reasons are compelling, may grant further extensions. There is a 10-year limit on combined master’s and doctoral degree programs.

   **Note:** Because substantive and procedural differences exist among the programs, some may have more stringent policies on time extensions. Students should inquire about the specific policies in effect in the department or program in which they intend to study.

A Leave of Absence may be granted upon request to the graduate program in advance of leave. A leave of absence may be granted in extraordinary circumstances (e.g., cases of illness, emergency, financial hardship, military leave), to pursue family responsibilities, or to pursue full-time activities related to long-range professional goals. Appropriate documentation related to these extraordinary circumstances may be requested from the student directly. Evidence of progress towards degree will also be a determining factor in the decision to grant an exception. The time taken for a leave of absence does not count against the student’s time to degree. However, if the total time for the leave extends more than 5 years, the student will lose his/her place in the program and must reapply for admission.

2. **Resident Study**

   The student must spend the equivalent of 3 academic years, including the time spent attaining the master’s degree, in resident study at this or another approved university. Because general requirements do not specify a minimum number of hours for the degree, no transfer of credits is appropriate. Departments do, however, consider relevant prior graduate work in setting up programs of study leading to the doctorate.

   **Residence Requirement.** 2 semesters (which may include 1 summer session), usually consecutive, must be spent in resident study at KU. The period of resident study may begin with the student’s first semester of doctoral study but it must be completed prior to the semester in which the comprehensive exams are taken. Residence is not merely a period measured in hours. During this period the student must be involved full time in academic pursuits, which may include up to half-time on-campus teaching or research, or under certain circumstances, a greater percentage of research if it is directed specifically toward the student’s degree objectives. Such activities permit commensurate decreases in the hourly enrollment minima. The student must continue to be enrolled in at least 6 hours under any special conditions. Increased research involvement must
be fully supported and documented by the dissertation advisor as contributing to the student’s dissertation. The research work must be performed under the direct supervision of the student’s advisor, if on campus, or with adequate liaison, if off campus. Special circumstances such as internal employment for more than half time as a teaching or research assistant, or as another type of university employee, must have advance approval on an individual basis by petition to the Graduate Division of the School of Education. The student, with the help of the advisory committee, must file in the Graduate Division office a residence plan congruent with School of Education requirements before the beginning of the formal residence period. This plan may be filed as a part of the overall program plan. Because residence is not merely a requirement measured in hours of enrollment or of credit in courses toward a degree, the plan may include other academic and professional activities appropriate to the field of study.

**Note:** Hourly enrollment requirements must be met through courses at the program’s home campus, and if appropriate internal employment is not involved, at least 9 hours must be in regularly scheduled courses.

### 3. Program Area

In applying for doctoral study, the student specifies a program area in which formal classes and research work are to be done and in which she or he expects to become a scholar. A minimum of 36 credit hours is required in the major area, excluding credits used to fulfill research skills and the dissertation requirements. The doctoral core requirement (EDUC 800) may be included as part of the major if it is consistent with the student’s area of study and if doing so is supported by the student’s department and doctoral committee. Fifty-percent of the student’s major must be 800-level or above (18 credit hours). The program must include at least 6 credit hours outside of the student’s home department, not including courses required to fulfill the student’s research skills component or the doctoral core (EDUC 800).

**Note:** Course work completed at KU or at another institution as part of a previous graduate degree, cannot be used to meet the credit hour requirements for this degree. Upon admission to doctoral study, students who have not completed a research and evaluation methods course for the education master’s degree must take the course, e.g. PRE 715, during the first doctoral enrollment. The course taken to fulfill this requirement, whether taken at KU or at another institution, does not count toward any doctoral requirements.

### 4. Core Requirement

All students are required to complete EDUC 800: Education as a Field of Scholarship, in their first year of doctoral enrollment.

### 5. Teaching Experience

In addition to the requirements above, the student must satisfactorily complete at least 1 semester of supervised college teaching experience under the direction of a KU faculty member. This may be completed during the semester in which the student takes the comprehensive examination, but ordinarily it should be completed before admission to the comprehensive examination.

### 6. Research Skills

Before being admitted to the comprehensive examination, the student must have completed the research skills requirements established for the degree. Specific research skills requirements vary with department and program, but all reflect the expectation of a significant research skills component distinct from the dissertation but strongly supportive of it. The Ph.D. research skills requirement includes completion of at least 12 graduate hours relevant to the aspirant’s research: statistics, measurement and assessment, qualitative methods, historical and philosophical methods, or foreign language (a reading knowledge in one foreign language is equivalent to 6 hours of credit). Up to 6 hours, excluding credit hours for the required master’s course in research methods and evaluation, whether taken at KU or elsewhere, may be waived using prior B-level or higher graduate course work. A statement concerning specific research skills should be secured from the student’s major department. At least 9 of the 12 credit hours must be 800 level or above. The 12 credit hours cannot include PRE 715 or its program equivalent. When the student has met the requirements for research skills, the committee chair must report this to the Graduate Division on the appropriate form, certifying that the student is prepared to proceed to the comprehensive oral examination. If a program requires research skills that are tested separately rather than integrally with the program, the completion of each requirement should be reported immediately to the Graduate Division so that it may be recorded on the student’s permanent record.

Some commonly used skills are listed under Doctoral Degree Requirements, Doctor of Philosophy (p. 2059), Research Skills and Responsible Scholarship in the Graduate Studies section of the online catalog.

**Responsible Conduct of Research:** All students must satisfy departmental and university requirements regarding the responsible conduct of research. In order to meet this requirement, students are required to complete EDUC 800 Education as a Field of Scholarship, in their first years of doctorate enrollment.

### 7. Comprehensive Examination

When a Ph.D. aspirant has completed the major portion of the course work at a satisfactory level and has completed the research skills requirement and all other departmental requirements prerequisite to the comprehensive examination, the department asks the School of Education Graduate Division office to schedule the comprehensive examination. This request must be made at least 2 weeks before the date of the written portion of the examination. Students must be enrolled when they take the exam. The examining committee must consist of at least 5 members (usually including the advisory committee). All must be graduate faculty, and 3 of the 5 must be regular faculty from the student’s home department. The comprehensive examination consists of both written and oral parts and covers the major area pursued by the student, as well as the minor area, if one is required by the student’s program. The student passes the comprehensive examination if a majority of the official examining committee (including the chair) approves the student’s performance. The grade on this examination is Honors, Satisfactory, or Unsatisfactory. An aspirant who receives a grade of Unsatisfactory may be allowed, upon the recommendation of the department, to repeat it, but it may not be taken more than 3 times. The aspirant may not repeat the oral examination until at least 90 days have elapsed since the last unsuccessful attempt.

**Note:** Students in Ph.D. education programs must pass both written and oral components of the comprehensive examination. Satisfactory performance on the written component must be attained before the oral component may be attempted. To fail either component is to fail the examination. All 5 members of the student’s comprehensive examination committee are involved in the evaluation process. The written component of the comprehensive examination, like the oral, focuses on advanced knowledge in the major and any appropriate related areas. To pass, the student must be evaluated as having responded satisfactorily to questions in the major areas. If a student fails any portion of the written
comprehensive component, a failure of the examination is recorded. The examining committee determines if the entire written component of the examination, or only the failed portion(s), must be retaken. The entire written component lasts a minimum of 16 hours. If a student passes the written component but fails the oral, the examining committee determines if both components or only the oral must be repeated, after the minimum 90-day interim period.

8. Dissertation Committee and Proposal
Doctoral aspirants may begin work on the dissertation after they complete the equivalent of one full-time semester of doctoral study in regular student status and may use their research practicum experience in preparation for the dissertation. However, students may first enroll in dissertation credit hours only during the semester in which they take their comprehensive examinations. Dissertation hours taken during that semester count toward the minimum of 18 hours of dissertation credit only if the examinations are passed during that same semester.

Upon passing the comprehensive examination, the aspirant becomes a candidate for the Ph.D. The Graduate Division, using the recommendations of the candidate’s department, designates the dissertation committee at this time. This committee consists of at least 3 members (usually including the advisory committee) and may include members from outside the university. All committee members are to be members of the Graduate Faculty. A committee member from outside the university becomes an Ad Hoc member of the Graduate Faculty.

The dissertation proposal must be read by all members of the dissertation committee. One copy of the approved dissertation proposal, signed by all members of the dissertation committee, must be submitted (with the appropriate form) to the School of Education Graduate Division office.

9. Continuous Enrollment
After passing the comprehensive examination, the candidate must be continuously enrolled, including summer sessions, until the degree is completed. A student must be continuously enrolled in accordance with the following schedule: Until the degree is completed or until 18 post-comprehensive hours have been completed (whichever comes first), the student must enroll for at least 6 hours a semester and 3 hours a summer session. Students who have not completed the degree after completing 18 hours of post-comprehensive enrollment must continue to enroll for the amount of credit that best reflects their demands on faculty time and university resources each semester and each summer session until they pass the final oral examination.

Post-comprehensive enrollment may include enrollment during the semester or summer session in which the comprehensive examination has been passed. Students may enroll for dissertation hours as well as other courses when the examination is taken. Students who do not pass the examination cannot apply dissertation hours to degree requirements. Under certain conditions, the candidate may petition the School of Education Graduate Division for a leave of absence during the period between the comprehensive examination and the final oral examination.

10. Dissertation
The candidate must present a dissertation showing the results of original research. The dissertation for the Ph.D. considers applied or basic concerns and results in conclusions that have broad theoretical implications. Various styles and formats for theses and dissertations are acceptable. The format and style of a student’s thesis or dissertation is left to the discretion of the student and the advisor, but format and style options may be constrained or dictated by Graduate Studies policies. The dissertation is prepared under the direction of the dissertation committee. The norm for dissertation enrollment is about 24 credit hours. The minimum number of dissertation hours in the Ph.D. program is 18. Instructions regarding the proper form of the final document may be obtained from the School of Education Graduate Division office.

11. Final Oral Examination
When the dissertation has been tentatively accepted by the dissertation committee, the chair of the dissertation committee may request the School of Education Graduate Division office to schedule the final oral examination. This request must be made at least two weeks before the desired examination date. At least five months must have elapsed between the successful completion of the comprehensive examination and the date of the final oral examination.

The examining committee must consist of at least five members (usually including the advisory committee). All must be graduate faculty, and three of the five must be regular faculty from the students home department.

The final examination must be partly oral and may be wholly so. The examination covers the dissertation and the candidate’s concentration area and, if appropriate, minor area. The candidate passes the final examination if a majority of the official examining committee members (including the chair) approves the candidate’s performance. When the final oral examination has been passed, the dissertation committee reports a grade of Honors, Satisfactory, or Unsatisfactory. Candidates who fail the final oral examination may be allowed to repeat it upon the recommendation of the dissertation committee.

12. Dissertation Copies
When the final oral examination has been passed and the dissertation has been signed by the members of the dissertation committee, a title page and acceptance page with original signatures and ETD Release form are to be delivered to the Graduate Division so that completion of degree requirements may be officially certified.

Licensure: Added Endorsements
At least 8 hours of the required course work must be completed at KU if it is to be the recommending institution for adding endorsements to the teaching license. For information about adding endorsements, contact the School of Education at 785-864-3726.

Undergraduate Programs
The School of Education offers programs that lead to teacher licensure in health & physical education, unified early childhood and at the elementary, middle, and secondary levels, as well as nonlicensure options in athletic training, community health, sport management or exercise science (pre-physical therapy, cardiac rehabilitation, and strength and conditioning).

Students planning to teach must complete programs composed of 3 major parts: General Education (requirements completed primarily in the first 2 years), Major (content areas in which students are specializing), and Professional Education (course work that helps them to understand students as learners and to communicate knowledge effectively).

On admission, students who plan to major in health and physical education report to the Department of Health, Sport, and Exercise Sciences (p. 418). Students who plan to teach all other subjects and in elementary education and unified early childhood are in the Department
of Curriculum and Teaching (p. 301). Course requirements for each of the three parts of the Teacher Education Programs are listed under departmental headings.

University Honors Program
The school encourages qualified students to participate in the University Honors Program (http://www.honors.ku.edu).

Data from the Title II Report
The Title II Report (http://www.soe.ku.edu/about/accreditation) provides information about the performance of KU School of Education teacher education program students on required state examinations. This data is part of the Title II report required by the federal government. 98 percent of KU teacher education students passed the required state licensure examinations in academic year 2009-10.

Special Programs and Facilities
The School of Education provides these programs and facilities for students, faculty, and, in many cases, the public. Most facilities offer graduate students opportunities for assistantship, laboratory, and research experiences related to their programs of study. Contact the individual programs for information.

Applied Physiology Laboratory and Fitness Evaluation Clinic
This teaching and research laboratory in stress physiology, Robinson Center, 1301 Sunnyside Ave., Room 101, Lawrence, KS 66045-7520, assesses physical function through physiological tests. Fitness parameters of physical education majors and students in health, sport, and exercise sciences classes are assessed routinely. Demonstrations of physiological and biochemical concepts are performed for exercise physiology classes. Research on the physiological ramifications of exercise stress is conducted. Graduate and undergraduate students assist in service and research projects.

Beach Center on Disability
The Beach Center, Haworth Hall, 1200 Sunnyside Ave., Room 3136, Lawrence, KS 66045-7566, is funded by the National Institute for Disability and Rehabilitation Research, Office of Special Education and Rehabilitative Services, U.S. Department of Education. It is the only federally funded center in the nation conducting research with families with disabilities. The center is involved in research and training projects addressing family well-being across the life span. Projects are guided by six fundamental beliefs about families: positive contributions, great expectations, full citizenship, choices, inherent strengths, and relationships.

Center for Economic Education
The center, 431 J.R. Pearson Hall, works to increase the economic literacy of pre-service and in-service teachers through credit and noncredit teaching and consultation in economic education. It maintains a library of current materials on economic/consumer education.

Center for Educational Testing and Evaluation
The center, 735 J.R. Pearson Hall, engages in research and service in educational assessment and program evaluation. Issues in educational testing are studied and projects are designed and carried out to examine school effectiveness, personnel/student evaluation, and policy implications of educational testing and assessment. There are opportunities for assistantships for interested and qualified students.

Center for Psychoeducational Services
CPS, 130 J.R. Pearson Hall, is a training site for students in the Department of Psychology and Research in Education. CPS is staffed by student clinicians in school psychology and counseling psychology who earn credit while they gain practical experience working directly with clients. CPS is a self-sustaining, nonprofit agency.

Center for Research on Learning
The center, 521 J.R. Pearson Hall, conducts research centered on solving problems that limit individuals' quality of life and their ability to learn and perform in school, work, home, or the community. It serves as the parent organization for 7 research institutes: Advanced Learning Technologies (ALTEC), Division of Adult Studies, e-Learning Design Lab, Institute for Health and Disability Policy Studies, Institute for Research on Adolescent Learning, Kansas Coaching Project, Professional Development Research Institute, and Transition Coalition.

Advanced Learning Technology in Education
The Advanced Learning Technologies project at the KU Center for Research on Learning, 239 J.R. Pearson Hall, uses the most advanced and innovative technologies available to improve teaching and learning. Faculty and students in ALTEC come from a range of disciplines and programs, including the School of Education, the School of Journalism and Mass Communications, the School of Engineering, the School of Music, and the School of the Arts. This collection of talent gives ALTEC broad capabilities including advanced networking and telecommunication expertise, instructional design, data harvesting and warehousing, distance education experience, and programming.

ALTEC is committed to developing new technologies to empower learners of all types and ages and to redefining the learning experience through innovative resources. ALTEC partners with those who recognize the tremendous capabilities available through electronic strategies for dissemination, communication, and collaboration. They provide support in the development of the initiative, interpreting the intent of the content authors with the latest in design, development, and delivery. ALTEC maintains its partnership with an individual project by contributing specific resources required through the phases of implementation, including design, development, maintenance, and evaluation.

Institute for Educational Research and Public Service
The Institute for Educational Research and Public Service, 320 J.R. Pearson Hall, serves both the School of Education faculty members and the state of Kansas. This institute has a two-fold mission. The first part of this mission is to provide faculty with infrastructure support for its research. The support includes assistance with identifying funding sources, proposal development, and grant administration. The second part of the institute’s mission is to help schools and other educational agencies respond to initiatives that are educationally beneficial to the state and that contribute to the teaching, research, and service missions of the school. The institute also houses the Assembly of Equity Programs, TRIO programs, and the Kansas Enrichment Network. At the heart of these programs lies an interest in promoting educational opportunity for youth and young adults in the state.
Kinesiology/Biomechanics Laboratory

The laboratory, Robinson Center, 1301 Sunnyside Ave., Room 101, Lawrence, KS 66045-7520, analyzes human motion. The primary emphasis is on computer-aided cinematographical analysis, but other research tools such as electromyography (EMG), electrogoniometry, stroboscopy, and force plates are used. Major attention is given to the study of efficient movement techniques, equipment design, strength, flexibility, and body types.

Learning Resource and Technology Center

The center, 110 J.R. Pearson Hall, serves faculty and students of the school and the public. Its resources include the Curriculum Laboratory, professional books and journals, K-12 textbooks, curriculum guides and course outlines from school districts throughout the country, selected reference and reserve materials, and mediated instructional packages for pre-service and in-service teacher education. It supports teaching, research, and service involving educational applications of media and microcomputers. Teacher education students develop skills in operating media equipment and producing materials to support their teaching. A representative cross section of instructional equipment found in schools is available, along with emerging technologies used in distance learning and interactive video instruction. The center offers production support for instructional materials and research support for design, evaluation, use, and dissemination of instructional technology.

Microcomputer Laboratories

Microcomputer laboratories in Joseph R. Pearson Hall and Robinson and Dole Centers prepare students to use computers in administrative, instructional, and research applications. The laboratories offer a range of equipment found in schools, including PC and Macintosh computers. Computers are networked to KU’s backbone and resources such as scanners, laser printers, CD-ROM, CD, and DVD players. The laboratories contain application, programming, data management, data analysis, and instructional software that can be used for all grade levels and disciplines.

School of Education Student Organization

Reach to Teach is open to all students interested in careers in education. Information is available in the Welcome Center, 208 J.R. Pearson Hall.

Graduate Programs

To facilitate preparation for specific types of professional service and teaching, graduate study in education has been organized into the program areas encompassed by these departments:

- Curriculum and Teaching (p. 301) includes programs in curriculum and instruction, including the fields relating to elementary and secondary education.
- Educational Leadership and Policy Studies (p. 406) comprises programs in educational administration, social and cultural studies in education, higher education, and educational technology.
- Health, Sport, and Exercise Sciences (p. 418) offers areas of study in exercise science, health science, pedagogy, and sports studies.
- Psychology and Research in Education (p. 439) offers programs in counseling psychology, school psychology, and educational psychology and research.
- Special Education (p. 458) conducts graduate degree programs in autism spectrum disorders, early childhood unified, high-incidence disabilities, low-incidence/significant intellectual disabilities, and secondary transition education and services.

Further information on graduate study may be found on the departmental sections of the online catalog.

Most graduate students are expected to complete work in education areas other than their program areas, as well as in liberal arts or other noneducation areas. The amount of such work depends on the degree sought and the major area. A student must be enrolled for the period during which the comprehensive or final examination is taken. Full-time graduate student enrollment in the School of Education is 9 graduate credit hours or the equivalent.

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School of Education Student Organization

Reach to Teach is open to all students interested in careers in education. Information is available in the Welcome Center, 208 J.R. Pearson Hall.

Undergraduate Advising

Early in the first year, prospective students in all areas should make appointments with a pre-education advisor at the Advising Center (http://soe.ku.edu/advising) in 208 J.R. Pearson Hall (Welcome Center) to ensure fulfillment of admission requirements and to plan efficient programs of study. Education staff members advise pre-education students individually and in group sessions.

Walk-in appointments are available through the Welcome Center (http://soe.ku.edu/advising), 208 J.R. Pearson Hall. Call 785-864-9616 to make an appointment to meet with an advisor.

Graduate Advising

Graduate advising is done at the department and program level. For more information, please contact the director of graduate studies in your department or program.

All education students have a graduate advisor and should know and be in contact with the advisor to whom they have been assigned. Students who are unsure of their advisor should contact their academic department or an advisor for information.
Undergraduate Scholarships and Financial Aid

In addition to scholarships and financial aid administered by Financial Aid and Scholarships (http://affordability.ku.edu/steps/index.shtml), the school administers a number of special scholarships. Online applications are available in early December each year. The deadline is mid-February; contact the school (http://www.soe.ku.edu) for the specific date.

Graduate Fellowships and Assistantships

For information about graduate assistantships, contact the School of Education (http://www.soe.ku.edu).

Visit the Graduate Studies website for information about funding opportunities (http://www.graduate.ku.edu/funding-opportunities) for graduate students at KU.

Financial Aid and Scholarships (http://affordability.ku.edu/steps/index.shtml) administers grants, loans, and need-based financial aid.

Undergraduate University Regulations

For information about university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://www.policy.ku.edu).

Absences

A student with excessive absences may be withdrawn from the course by the dean.

Change of School

To change from one school to another, you must submit a Change of School form in the dean’s office of the school you plan to enter. Follow the deadlines on the form.

- Students are admitted to C&T programs once a year; online applications are due September 16 for spring semester.
- Students are admitted to the HSES teaching and community health programs once a year; online applications are due February 4 for next fall semester.
- Students are admitted to the HSES athletic training program once a year; online applications are due February 4 and paper applications are due May 1 for fall semester.
- Students are admitted to HSES exercise science and sport management programs twice a year; applications are due February 4 for fall and September 16 for spring semester.

Consult the School of Education Welcome Center, 208 J.R. Pearson Hall, 785-864-3726, for information.

Course Substitutions

Course substitutions in any program may require approval of the advisor, department, and associate dean. In addition, some requests must be approved by the school curriculum committee. Approval requires submission of a written petition initiated by the student and approved by the advisor. The associate dean communicates the action taken to the advisor and the student. A copy is placed in the student’s file.

Credit/No Credit

A Credit/No Credit option is available to all degree-seeking undergraduates. You may enroll in one course a semester under the option, if the course is not in your major or minor. For more information, visit the KU Policy Library (https://documents.ku.edu/policies/governance/USRR.htm#art2sec12).

Warning: Certain undesirable consequences may result from exercising the option. Some schools, scholarship committees, and honorary societies do not accept this grading system and convert grades of No Credit to F when computing grade-point averages.

Students planning to enter education programs who are not formally admitted to the school are strongly discouraged from taking any course required for graduation for Credit/No Credit.

Any course not required for graduation and up to 6 hours of courses required for graduation may be taken for Credit/No Credit. No more than 6 hours of courses required for graduation may be taken for Credit/No Credit.

Graduation with Distinction and Highest Distinction

Students who rank in the upper 10 percent of their graduating class graduate with distinction. The upper third of those awarded distinction graduate with highest distinction. Grade-point averages are based on total credits (KU and transfer credit). To be considered for distinction, students must have completed a minimum of 75 hours at KU. The list is compiled each spring and includes July, December, and May graduates.

Honor Roll

Students with grade-point averages of 3.75 who have completed at least 12 hours with letter grades are recognized on the honor roll or dean’s list in fall and spring. An Honor Roll notation appears on the transcript.

Maximum and Minimum Semester Enrollment

A 12-hour enrollment is a minimum full-time enrollment. Enrollment for more than 19 hours during fall or spring semesters or more than 9 hours during the summer session requires special permission from the associate dean and is not considered unless the student has demonstrated academic ability and has the advisor’s approval.

Maximum Community College Credit Allowed

A maximum of 64 community college hours may be counted toward a student’s degree.

Probation

Placed on Probation

Students must maintain a minimum cumulative grade-point average of at least 2.75. Students whose cumulative grade-point averages are below 2.75 at the end of any semester are placed on academic probation.

Dismissed

If at the end of the following semester (spring or fall) the cumulative grade-point average is not 2.75 or above, the student is dismissed.
from the school. Those students are dropped from all courses for the next semester and required to complete a Change of School form to enroll. They are not allowed to enroll in any courses restricted to School of Education students until they are reinstated. Students admitted provisionally who don’t fulfill specified criteria for admission revert to the school in which they were previously enrolled. In these cases, only courses restricted for School of Education students are dropped from the student’s schedule.

Readmission after Dismissal

Programs are subject to change. Within 1 year of dismissal, if the cumulative grade-point average is at least 2.75, students are readmitted to the program to which they had been admitted. After 1 year, students who wish to follow the program to which they had been admitted must submit a petition to the associate dean. If the petition is denied, students must follow the current program (if different from the one to which they had been admitted).

Required Work in Residence

To be eligible for the B.S.E. degree, a student must complete at least 30 hours at KU at least 30 hours after being admitted to the school. Up to 6 hours of work done at another institution may be accepted as part of the last 30 hours. Before enrolling in a nonresident course, the student should complete a Request for Tentative Evaluation of Credit in 208 J.R. Pearson Hall. After completing the course, the student must request that an official transcript be sent to KU.

Transfer of Credit

CredTran (http://admissions.ku.edu/apply/credits) is a transfer course equivalency system that lists more than 2,200 colleges and universities from which KU has accepted transfer courses in the past. If your school or course is not listed, your evaluation will be completed when you are admitted to KU.

Courses completed at other institutions are accepted to fulfill graduation requirements (e.g., in place of specifically prescribed courses), only if they are substantially equivalent as indicated by course description. At least 62 hours must be completed at an upper-division institution.

Graduate University Regulations

For information about university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://www.policy.ku.edu).

Credit/No Credit

The Credit/No Credit option is authorized for graduate students. For graduate students, the grade of CR will be received for grades of C and above, and the grade of NC (no credit) will be received for grades of C- and below.

As outlined in USRR 2.2.7.6, no course graded CR or NC can count toward the satisfaction of the requirements for a graduate degree or a graduate certificate. This prohibition includes any courses taken to meet the Research Skills and Responsible Scholarship requirement.

Please see the Research Skills and Responsible Scholarship policy for more information.

Master’s Degree Programs

Master’s degrees are granted on satisfactory completion of not less than 1 academic year, or its equivalent, of graduate study. The school provides 3 options for the master’s degree:

- The thesis option,
- The project option, and
- A minimum 36-graduate-credit-hour study option.

At least 20 of the credit hours required for master’s programs must be in regular course work, as contrasted with independent study and similar enrollments. Students pursuing the 36-hour program option must have 26 hours in regular course work. All master’s programs require a graduate class in research and evaluation methods, successfully completed during the first 12 hours. As part of the requirement for the degree, the candidate must pass a final oral or written examination. A candidate’s advisor and two additional members of the Graduate Faculty constitute the examining committee for the thesis or project options. The department prepares and evaluates the written examination for the credit-hour degree option.

To ensure continuity of progress and currency of knowledge, there is a 7-year time limit for completion of master’s degree requirements. The Graduate Division has the authority to grant a 1 year extension for compelling reasons, on recommendation of the department/committee. If more than 8 years are requested, the appropriate appeals body of the school considers petitions for further extensions and, where evidence of continuous progress, currency of knowledge, and other reasons are compelling, may grant further extensions.

Note: Because substantive and procedural differences exist among the programs, some may have more stringent policies on time extensions. Students should inquire about the specific policies in effect in the department or program in which they intend to study.

Note: To be eligible for the degree, a student pursuing the thesis option must deposit signed title and acceptance pages and a signed ETD Release form and complete all other requirements before the degree requirements submission deadline in the graduate academic calendar. Graduate Studies establishes the degree submission deadline each year. Please see the Graduate Studies website for more information.

Master of Arts

A candidate for the Master of Arts degree completes work both in education and in a teaching area (other than physical education). For students who choose the thesis or project option, a minimum of 30 hours of graduate credit is required for this degree, of which no fewer than 10 and no more than 15 hours must be earned in the teaching area. Some work must be elected in at least 2 of the approved graduate program areas in the School of Education. The candidate must complete a thesis related to the teaching area (6 hours maximum credit applicable to degree requirements) or complete the nonthesis option by enrolling in Master’s Project (4 hours applicable to degree requirements). While enrolled, the candidate submits a research paper related to the teaching area to the advisor. Check with the department for specific course requirements for the 36-hour master’s degree option.

Master of Science

A candidate for the degree of Master of Science in Counseling Psychology earns a concentration in mental health counseling. A minimum of 60 credit hours is required for this degree, about 50 of which are prescribed, with the rest made up of electives approved by the student’s advisor. The candidate must complete a Master’s Thesis (3
hours maximum credit applicable to degree requirements), or complete a Master’s Project (3 hours applicable to degree requirements), or complete a written comprehensive examination. Check with the department for specific course requirements for the 60-hour master’s degree.

**Master of Science in Education**

A candidate for the degree of Master of Science in Education selects 1 of the program areas as a concentration for graduate study. A minimum of 30 credit hours is required, of which no fewer than 10 hours must be in the concentration. Credit in Thesis or Master’s Project may not be included in these 10 hours. The candidate must elect course work in at least 2 graduate program areas outside the major concentration. Normally, these courses would be in the School of Education. The candidate must complete a thesis in the concentration (6 hours maximum credit applicable to degree requirements) or complete the nonthesis option by enrolling in Master’s Project (4 hours applicable to degree requirements). While enrolled, the candidate submits a research paper related to the specialization to the advisor. Check with the department for specific course requirements for the 36-hour master’s degree option.

**Specialist in Education Degree Program**

The Specialist in Education program consists of 2 years of full-time graduate study (about 70 semester credit hours) followed by a third year of internship. Students completing the program are licensed for early childhood through grade 12 if they obtain 100 hours of applied experience with young children and their families in practica or internship.

**Doctoral Degree Programs**

**Doctoral Degree Admission Policies**

The application for admission to graduate studies and the Graduate Division of the School of Education for doctoral study must specify the major program area. Materials included with the application form usually consist of:

1. Official transcripts of undergraduate- and graduate-level courses indicating grade-point average,
2. Letters of recommendation and/or survey-type evaluation forms from previous instructors and professional colleagues,
3. Personal statements about professional goals,
4. Representative writings and/or other media samples related to the proposed area,
5. A résumé of professional experience, and
6. Scores from the verbal, quantitative, and writing sections of the Graduate Record Examination.

Each department in the Graduate Division has determined the specific information and scores required for admission. Contact the graduate advisor of the department that offers the major for instructions about completing the application for admission.

In general, applicants with 3.5 grade-point averages on a 4.0 scale for the first 30 graduate-level hours (e.g., master’s degree), scores at the 50th percentile across the 3 GRE subtests, and validated strengths on the additional indicators are viable candidates for admission. However, this profile is intended only as an example and should not be construed as a guarantee of admission to a doctoral program. Several programs have limited student admissions because of the need to balance faculty resources with the demands of maintaining high-quality teaching, scholarship, and professional service activities.

Departments offering doctoral programs may recommend provisional admission of a student who has not met the criteria or prerequisites to do advanced graduate-level work. Provisional admission requires the satisfactory completion (e.g., with a 3.5 grade-point average) of 12 or more hours in regularly scheduled graduate courses, at least half of which must come from core areas. After the completion of the provisional program, the department recommends to the Graduate Division that the student:

1. Be transferred to regular status or
2. Be allowed to continue for another 9 hours or
3. Be dropped from the program.

**Doctor of Education**

The Doctor of Education is awarded upon completion of 3 years of advanced training in both the theory and the practice of education. It is a professional degree intended primarily for practitioners in education rather than for researchers, for whom the Ph.D. is the appropriate degree plan. The Ed.D. is offered in curriculum and instruction, educational administration, higher education, and special education.

**Advisory Committee**

A student admitted to study for the Ed.D. is considered an aspirant for the degree until the comprehensive examination has been passed. After passing this examination, the student is considered a candidate for the degree. Each student must have an advisory committee of at least 3 members of the Graduate Faculty. One member of the committee serves as the chair. The student meets with this committee before completing 12 hours of course work to plan and approve formally an appropriate program leading to the Ed.D. The approved program, signed by members of the committee and the student, is placed in the student’s file in the School of Education Graduate Division office.

**Requirements**

Students must acquaint themselves thoroughly with departmental requirements for the degree, which may be in addition to general requirements and those of the School of Education. Consistent with Graduate Studies’ general regulations, it is each student’s responsibility to know and observe all university, school, departmental, and academic program regulations and procedures relating to the graduate program. In no case will a regulation be waived or an exception be granted because a student pleads ignorance of, or contends he or she was not informed of, requirements, regulations, procedures, or deadlines. Responsibility for following all policies and meeting all requirements and deadlines rests with the student.

1. **Time Limit**

   To ensure continuity of progress and currency of knowledge, doctoral degree students normally complete all requirements for the degree in 8 years after first enrollment in a program leading directly to a doctoral degree. Coursework submitted to complete doctoral degree requirements must be completed within school or departmental time limits or extensions thereto. The Graduate Division has the authority to grant a 1 year extension of the normal 8-year time limit for compelling reasons, on the written advice of the dissertation committee. If more than 9 years are requested, the appropriate appeals body of the school considers petitions for extensions and, where evidence of continuous progress, currency of knowledge, and other reasons are compelling, may grant further extensions. There is a 10-year limit on combined master’s and doctoral degree programs.
Note: Because substantive and procedural differences exist among the programs, some may have more stringent policies on time extensions. Students should inquire about the specific policies in effect in the department or program in which they intend to study. A Leave of Absence may be granted upon request to the graduate program in advance of leave. A leave of absence may be granted in extraordinary circumstances (e.g., cases of illness, emergency, financial hardship, military leave), to pursue family responsibilities, or to pursue full-time activities related to long-range professional goals. Appropriate documentation related to these extraordinary circumstances may be requested from the student directly. Evidence of progress towards degree will also be a determining factor in the decision to grant an exception. The time taken for a leave of absence does not count against the student’s time to degree. However, if the total time for the leave extends more than 5 years, the student will lose his/her place in the program and must reapply for admission.

2. Period of Continuous Study
The student must spend the equivalent of 3 academic years, including the time spent attaining the master’s degree, in a period of continuous study at this or another approved university. During the time the student is engaged in the Ed.D. program at KU, 1 of the following options must be satisfied:

- 2 consecutive semesters, 1 of which may be a summer session, of full-time enrollment in regularly scheduled courses normally at the program’s home campus. (Full time equals 9 hours in fall or spring and 6 hours in summer: 2 consecutive semesters of at least 6 hours and an adjacent summer session of at least 3 hours, all in regularly scheduled courses at the program’s home campus. 3 consecutive semester enrollments (excluding summer session) of at least 6 hours each in regularly scheduled courses on the program’s home campus. 18 hours taken during the period encompassed by 2 consecutive summer sessions with enrollment in each of the four semesters: summer, fall, spring, summer: 27 hours taken during any 5 consecutive semesters (including summer sessions) with enrollment in each semester. During this period, the student must be employed full-time in a field directly related to the student’s academic major. Only course work taken after the first year of graduate study, that is, after the master’s degree or its equivalent, may satisfy the period-of-continuous-study requirement.

- Dissertation, individual study, field experience, and off-campus practicum hours may not be included in the stated minimal requirements. For all enrollments of 8 hours or more, 1 course may be taken away from the program’s home campus, e.g., on the KU Edwards Campus, if need can be demonstrated from a scheduling standpoint.

Program Area
All candidates for the Ed.D. must complete a minimum of 27 credit hours in their major area, excluding credits used to fulfill Research Skills, Dissertation, and the doctoral practicum requirements. coursework completed at KU or at another institution as part of a previous graduate degree, cannot be used to meet the credit hour requirements for this degree.

3. Research Skills
Upon admission to doctoral study, students who have not completed a research and evaluation methods course for the education master’s degree must take the course, e.g., PRE 715, during the first doctoral enrollment. The course used to fulfill this requirement, whether taken at KU or at another institution, does not count toward any doctoral requirements.

Before being admitted to the comprehensive examination, students must present satisfactory evidence that they possess the professional research skills of advanced practitioners in their concentrations by meeting the following research skills requirements: Complete a minimum of 9 hours of graduate study in 1 or more supporting areas that develop skills relevant to understanding, promoting, and evaluating professional practice. Supporting areas may include statistics, assessment and evaluation, qualitative methods, or historical or philosophical methods. Up to 6 hours, excluding credit hours for the required master’s course in research methods and evaluation, whether taken at KU or elsewhere, may be waived using prior B-level or higher graduate course work. Research skills requirements vary among programs to meet the individual needs of students. The student must secure the most recent information on research skills requirements from the appropriate department.

The research skills requirements chosen by the student must be approved and passed upon by the advisory committee. The chair must file the results in the School of Education Graduate Division office on the appropriate form so that they may be recorded on the student’s permanent record.

Responsible Conduct of Research: All students must satisfy departmental and university requirements regarding the responsible conduct of research. Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current Lawrence and Edwards Campus policies on Doctoral Research Skills and Responsible Campus policies are listed in the KU Policy Library.

4. Doctoral Practicum Enrollment
Ed.D. aspirants must complete at least 1 structured 3-credit-hour practicum in a supervised internship setting. A description of the practicum prepared by the student and approved by the advisory committee must be filed with the department and the graduate records office. Specific requirements for this practicum experience are available from students’ departments.

5. Comprehensive Examination
The comprehensive examination should be scheduled after the student has completed the research skills requirements and all, or a major portion, of the course work for the concentration. The department must request the School of Education Graduate Division office to schedule the comprehensive examination. This request must be made at least two weeks before the date of the written portion of the examination.

The examining committee must consist of at least 5 members (usually including the advisory committee). All must be graduate faculty, and 3 of the 5 must be regular faculty from the student’s home department.

The student passes the comprehensive examination if a majority of the official examining committee (including the chair) approves the student’s performance. The grade on this examination is Honors, Satisfactory, or Unsatisfactory. If the aspirant fails the comprehensive examination, he or she may be allowed, upon the department’s recommendation, to repeat it, but it may not be taken more than 3 times. In any case, the student may not repeat the oral examination until at least 90 days have elapsed since the last unsuccessful attempt.

Note: Students in Ed.D. programs must pass both written and oral components of the comprehensive examination. Satisfactory performance on the written component must be attained before the oral component may be attempted. To fail either component is to fail the examination. All members of the student’s comprehensive examination committee are involved in the evaluation process. The written component of the comprehensive examination, like the oral, focuses on advanced knowledge in the major and any appropriately
related areas. The focus of the examination is the ability to relate this knowledge to tasks and problems faced by practitioners. The duration of the entire written component of the comprehensive examination is to be a minimum of 16 hours. If a student passes the written component but fails the oral, the examining committee determines whether both components or only the oral must be repeated, after the minimum 90-day interim period.

6. Dissertation Committee and Proposal

Doctoral aspirants may begin work on the dissertation after they complete the equivalent of one full-time semester of doctoral study in regular student status and may use their research practicum experience in preparation for the dissertation. However, students may first enroll in dissertation credit hours only during the semester in which they take their comprehensive examinations. Dissertation hours taken during that semester count toward the minimum of 12 hours of dissertation enrollment only if the examinations are passed during that same semester.

Upon passing the comprehensive examination, the aspirant becomes a candidate for the Doctor of Education degree. Based on recommendations of the candidate’s department, the Graduate Division designates the candidate’s dissertation committee at this time. The dissertation proposal committee must consist of at least 3 members (usually including the advisory committee) and may include members from other departments and, on occasion, from outside the university. All committee members are to be members of the graduate faculty. A committee member from outside the university becomes an ad hoc member of the graduate faculty. The dissertation proposal must be read by all members of the dissertation committee. One copy of the approved dissertation proposal, signed by all members of the dissertation committee, must be submitted (with the appropriate form) to the School of Education Graduate Division office.

7. Continuous Enrollment

After passing the comprehensive examination, the candidate must be continuously enrolled, including summer sessions, until the degree is completed. Each enrollment must reflect as accurately as possible the candidate’s demands on faculty time and university facilities. A student must be continuously enrolled in accordance with the following schedule: Until the degree is completed or until 18 post-comprehensive hours have been completed (whichever comes first), the student must enroll for a minimum of 6 hours a semester and 3 hours during summer session. Students who have not completed the degree after completing 18 hours of post-comprehensive enrollment must continue to enroll for the amount of credit that best reflects their demands on faculty time and university resources each semester and each summer session until they pass the final oral examination.

Post-comprehensive enrollment may include enrollment during the semester or summer session in which the comprehensive examination has been passed. Students may enroll for dissertation hours as well as other courses when the examination is taken. Students who do not pass the examination cannot apply dissertation hours to degree requirements. The candidate may petition the School of Education Graduate Division for a leave of absence during the period between the comprehensive examination and the final oral examination. Again, specific degree programs may have more stringent rules than general requirements.

8. Dissertation

The candidate must present a dissertation that exhibits the application of existing knowledge in the major field of professional study. Ed.D. candidates may satisfy the dissertation requirement by completing a comprehensive, critical assessment of the relevant literature on a major educational issue or problem. This study should demonstrate the application of existing knowledge to the author’s area of professional practice. Various styles and formats for theses and dissertations are acceptable. The format and style of a student’s thesis or dissertation is left to the discretion of the student and the advisor, but format and style options may be constrained or dictated by the policy of the department from which the student is to receive the degree. The dissertation is prepared under the direction of the dissertation committee. The minimum number of dissertation hours in the Ed.D program is 12. Instructions regarding the proper form of the final document may be obtained from the School of Education Graduate Division office.

9. Final Oral Examination

When the dissertation has been tentatively accepted by the dissertation committee, the chair of the dissertation committee may request the School of Education Graduate Division office to schedule the final oral examination. This request must be made at least two weeks before the desired examination date. At least five months must have elapsed between the successful completion of the comprehensive examination and the date of the final oral examination. Upon approval by the Graduate Division, the final oral examination is scheduled at the time and the place designated in the request and publicly announced. Although the dissertation committee is responsible for the certification of the candidate, any member of the Graduate Faculty may be present at the examination and may participate in the questioning.

The final oral examination must be partly oral and may be wholly so. The examination covers the dissertation and the concentration. The candidate passes the final examination if a majority of the official examining committee (including the chair) approves the candidate’s performance. When the final oral examination has been passed, the dissertation committee reports a grade of Honors, Satisfactory, or Unsatisfactory. Candidates who fail the final oral examination may be allowed to repeat it upon the recommendation of the dissertation committee.

10. Dissertation Copies

When the final oral examination has been passed and the dissertation has been signed by the members of the dissertation committee, a title page and acceptance page with original signatures and the ETD Release form are to be delivered to the Graduate Division so that completion of degree requirements may be officially certified.

Doctor of Philosophy with a Major in Education

The Doctor of Philosophy degree is awarded for mastering a field of scholarship, learning the methods of investigation appropriate to that field, and completing a substantial piece of original research. The degree is intended to produce highly competent scholars who are prepared to be university faculty members and other professionals, to conduct and evaluate original research, to teach at the college/university level, and to provide discipline-related leadership to the field and to the public. The Ph.D. is offered in all education graduate programs.

Although the courses and the research leading to the Ph.D. are necessarily specialized, the attainment of this degree should not be an
isolated event in the enterprise of learning. The aspirant for the Ph.D. is expected to be a well-educated person and should have acquired a broad base of general knowledge, both as preparation for more advanced work and as a means of knowing how the concentration is related to other fields of human thought.

Advisory Committee
A student admitted to study for the Ph.D. is known as an aspirant for the degree until the comprehensive examination has been passed. After passing this examination, the student is known as a candidate for the degree. Each student must have an advisory committee consisting of at least three members of the Graduate Faculty. One member of the committee serves as the chair. One member must be from the graduate department representing the student’s minor area if the student’s program or department requires a minor area. The student meets with this committee before completing 12 hours of course work to plan and approve formally an appropriate program leading to the Ph.D. The approved program, signed by members of the committee and the student, is placed in the student’s file in the School of Education Graduate Division office.

Requirements
Students must acquaint themselves thoroughly with departmental requirements for the degree, which may be in addition to general requirements and those of the School of Education. Consistent with Graduate Studies’ general regulations, it is the student’s responsibility to know and observe all university, school, departmental, and academic program regulations and procedures relating to the graduate program. In no case will a regulation be waived or an exception be granted because a student pleads ignorance of, or contends that he or she was not informed of, requirements, regulations, procedures, or deadlines. Responsibility for following all policies and meeting all requirements and deadlines rests with the student.

1. Time Limit
To ensure continuity of progress and currency of knowledge, doctoral degree students normally complete all requirements for the degree in 8 years after first enrollment in a program leading directly to a doctoral degree. Coursework submitted to complete doctoral degree requirements must be completed within school or departmental time limits or extensions thereto. The Graduate Division has the authority to grant a 1-year extension of the normal 8-year time limit for compelling reasons, on the written advice of the dissertation committee. If more than 9 years are requested, the appropriate appeals body of the school considers petitions for extensions and, where evidence of continuous progress, currency of knowledge, and other reasons are compelling, may grant further extensions. There is a 10-year limit on combined master’s and doctoral degree programs.

Note: Because substantive and procedural differences exist among the programs, some may have more stringent policies on time extensions. Students should inquire about the specific policies in effect in the department or program in which they intend to study. A Leave of Absence may be granted upon request to the graduate program in advance of leave. A leave of absence may be granted in extraordinary circumstances (e.g. cases of illness, emergency, financial hardship, military leave), to pursue family responsibilities, or to pursue full-time activities related to long-range professional goals. Appropriate documentation related to these extraordinary circumstances may be requested from the student directly. Evidence of progress towards degree will also be a determining factor in the decision to grant an exception. The time taken for a leave of absence does not count against the student’s time to degree. However, if the total time for the leave extends more than 5 years, the student will lose his/her place in the program and must reapply for admission.

2. Resident Study
The student must spend the equivalent of 3 academic years, including the time spent attaining the master’s degree, in resident study at this or another approved university. Because general requirements do not specify a minimum number of hours for the degree, no transfer of credits is appropriate. Departments do, however, consider relevant prior graduate work in setting up programs of study leading to the doctorate.

Residence Requirement. 2 semesters (which may include 1 summer session), usually consecutive, must be spent in resident study at KU. The period of resident study may begin with the student’s first semester of doctoral study but it must be completed prior to the semester in which the comprehensive exams are taken. Residence is not merely a period measured in hours. During this period the student must be involved full time in academic pursuits, which may include up to half-time on-campus teaching or research, or under certain circumstances, a greater percentage of research if it is directed specifically toward the student’s degree objectives. Such activities permit commensurate decreases in the hourly enrollment minima. The student must continue to be enrolled in at least 6 hours under any special conditions. Increased research involvement must be fully supported and documented by the dissertation advisor as contributing to the student’s dissertation. The research work must be performed under the direct supervision of the student’s advisor, if on campus, or with adequate liaison, if off campus. Special circumstances such as internal employment for more than half time as a teaching or research assistant, or as another type of university employee, must have advance approval on an individual basis by petition to the Graduate Division of the School of Education. The student, with the help of the advisory committee, must file in the Graduate Division office a residence plan congruent with School of Education requirements before the beginning of the formal residence period. This plan may be filed as a part of the overall program plan. Because residence is not merely a requirement measured in hours of enrollment or of credit in courses toward a degree, the plan may include other academic and professional activities appropriate to the field of study.

Note: Hourly enrollment requirements must be met through courses at the program’s home campus, and if appropriate internal employment is not involved, at least 9 hours must be in regularly scheduled courses.

3. Program Area
In applying for doctoral study, the student specifies a program area in which formal classes and research work are to be done and in which she or he expects to become a scholar. A minimum of 36 credit hours is required in the major area, excluding credits used to fulfill research skills and the dissertation requirements. The doctoral core requirement (EDUC 800) may be included as part of the major if it is consistent with the student’s area of study and if doing so is supported by the student’s department and doctoral committee. Fifty-percent of the student’s major must be 800-level or above (18 credit hours). The program must include at least 6 credit hours outside of the student’s home department, not including courses required to fulfill the student’s research skills component or the doctoral core (EDUC 800).
Note: Course work completed at KU or at another institution as part of a previous graduate degree, cannot be used to meet the credit hour requirements for this degree. Upon admission to doctoral study, students who have not completed a research and evaluation methods course for the education master’s degree must take the course, e.g. PRE 715, during the first doctoral enrollment. The course taken to fulfill this requirement, whether taken at KU or at another institution, does not count toward any doctoral requirements.

4. Core Requirement
All students are required to complete EDUC 800: Education as a Field of Scholarship, in their first year of doctoral enrollment.

5. Teaching Experience
In addition to the requirements above, the student must satisfactorily complete at least 1 semester of supervised college teaching experience under the direction of a KU faculty member. This may be completed during the semester in which the student takes the comprehensive examination, but ordinarily it should be completed before admission to the comprehensive examination.

6. Research Skills
Before being admitted to the comprehensive examination, the student must have completed the research skills requirements established for the degree. Specific research skills requirements vary with department and program, but all reflect the expectation of a significant research skills component distinct from the dissertation but strongly supportive of it. The Ph.D. research skills requirement includes completion of at least 12 graduate hours relevant to the aspirant’s research: statistics, measurement and assessment, qualitative methods, historical and philosophical methods, or foreign language (a reading knowledge in one foreign language is equivalent to 6 hours of credit). Up to 6 hours, excluding credit hours for the required master’s course in research methods and evaluation, whether taken at KU or elsewhere, may be waived using prior B-level or higher graduate course work. A statement concerning specific research skills should be secured from the student’s major department. At least 9 of the 12 credit hours must be 800 level or above. The 12 credit hours cannot include PRE 715 or its program equivalent.

When the student has met the requirements for research skills, the committee chair must report this to the Graduate Division on the appropriate form, certifying that the student is prepared to proceed to the comprehensive oral examination. If a program requires research skills that are tested separately rather than integrally with the program, the completion of each requirement should be reported immediately to the Graduate Division so that it may be recorded on the student’s permanent record.

Some commonly used skills are listed under Doctoral Degree Requirements, Doctor of Philosophy, Research Skills and Responsible Scholarship in the Graduate Studies section of the online catalog.

Responsible Conduct of Research: All students must satisfy departmental and university requirements regarding the responsible conduct of research. In order to meet this requirement, students are required to complete EDUC 800 Education as a Field of Scholarship, in their first years of doctorate enrollment.

7. Comprehensive Examination
When a Ph.D. aspirant has completed the major portion of the course work at a satisfactory level and has completed the research skills requirement and all other departmental requirements prerequisite to the comprehensive examination, the department asks the School of Education Graduate Division office to schedule the comprehensive examination. This request must be made at least 2 weeks before the date of the written portion of the examination. Students must be enrolled when they take the exam. The examining committee must consist of at least 5 members (usually including the advisory committee). All must be graduate faculty, and 3 of the 5 must be regular faculty from the student’s home department.

The comprehensive examination consists of both written and oral parts and covers the major area pursued by the student, as well as the minor area, if one is required by the student’s program. The student passes the comprehensive examination if a majority of the official examining committee (including the chair) approves the student’s performance. The grade on this examination is Honors, Satisfactory, or Unsatisfactory. An aspirant who receives a grade of Unsatisfactory may be allowed, upon the recommendation of the department, to repeat it, but it may not be taken more than 3 times. The aspirant may not repeat the oral examination until at least 90 days have elapsed since the last unsuccessful attempt. Note: Students in Ph.D. education programs must pass both written and oral components of the comprehensive examination. Satisfactory performance on the written component must be attained before the oral component may be attempted. To fail either component is to fail the examination. All 5 members of the student’s comprehensive examination committee are involved in the evaluation process. The written component of the comprehensive examination, like the oral, focuses on advanced knowledge in the major and any appropriate related areas. To pass, the student must be evaluated as having responded satisfactorily to questions in the major areas. If a student fails any portion of the written comprehensive component, a failure of the examination is recorded. The examining committee determines if the entire written component of the examination, or only the failed portion(s), must be retaken. The entire written component lasts a minimum of 16 hours. If a student passes the written component but fails the oral, the examining committee determines if both components or only the oral must be repeated, after the minimum 90-day interim period.

8. Dissertation Committee and Proposal
Doctoral aspirants may begin work on the dissertation after they complete the equivalent of one full-time semester of doctoral study in regular student status and may use their research practicum experience in preparation for the dissertation. However, students may first enroll in dissertation credit hours only during the semester in which they take their comprehensive examinations. Dissertation hours taken during that semester count toward the minimum of 18 hours of dissertation credit only if the examinations are passed during that same semester.

Upon passing the comprehensive examination, the aspirant becomes a candidate for the Ph.D. The Graduate Division, using the recommendations of the candidate’s department, designates the dissertation committee at this time. This committee consists of at least 3 members (usually including the advisory committee) and may include members from outside the university. All committee members are to be members of the Graduate Faculty. A committee member from outside the university becomes an Ad Hoc member of the Graduate Faculty.

The dissertation proposal must be read by all members of the dissertation committee. One copy of the approved dissertation proposal, signed by all members of the dissertation committee, must be submitted (with the appropriate form) to the School of Education Graduate Division office.

9. Continuous Enrollment
After passing the comprehensive examination, the candidate must be continuously enrolled, including summer sessions, until the degree is completed. A student must be continuously enrolled in accordance with the following schedule: Until the degree is completed or until 18 post-comprehensive hours have been completed (whichever comes first), the student must enroll for at least 6 hours a semester and 3 hours a summer session. Students who have not completed the degree after completing 18 hours of post-comprehensive enrollment must continue to enroll for the amount of credit that best reflects their demands on faculty time and university resources each semester and each summer session until they pass the final oral examination.

Post-comprehensive enrollment may include enrollment during the semester or summer session in which the comprehensive examination has been passed. Students may enroll for dissertation hours as well as other courses when the examination is taken. Students who do not pass the examination cannot apply dissertation hours to degree requirements. Under certain conditions, the candidate may petition the School of Education Graduate Division for a leave of absence during the period between the comprehensive examination and the final oral examination.

10. Dissertation

The candidate must present a dissertation showing the results of original research. The dissertation for the Ph.D. considers applied or basic concerns and results in conclusions that have broad theoretical implications. Various styles and formats for theses and dissertations are acceptable. The format and style of a student’s thesis or dissertation is left to the discretion of the student and the advisor, but format and style options may be constrained or dictated by Graduate Studies policies. The dissertation is prepared under the direction of the dissertation committee. The norm for dissertation enrollment is about 24 credit hours. The minimum number of dissertation hours in the Ph.D. program is 18. Instructions regarding the proper form of the final document may be obtained from the School of Education Graduate Division office.

11. Final Oral Examination

When the dissertation has been tentatively accepted by the dissertation committee, the chair of the dissertation committee may request the School of Education Graduate Division office to schedule the final oral examination. This request must be made at least two weeks before the desired examination date. At least five months must have elapsed between the successful completion of the comprehensive examination and the date of the final oral examination.

The examining committee must consist of at least five members (usually including the advisory committee). All must be graduate faculty, and three of the five must be regular faculty from the students home department.

The final examination must be partly oral and may be wholly so. The examination covers the dissertation and the candidate’s concentration area and, if appropriate, minor area. The candidate passes the final examination if a majority of the official examining committee members (including the chair) approves the candidate’s performance. When the final oral examination has been passed, the dissertation committee reports a grade of Honors, Satisfactory, or Unsatisfactory. Candidates who fail the final oral examination may be allowed to repeat it upon the recommendation of the dissertation committee.

12. Dissertation Copies

When the final oral examination has been passed and the dissertation has been signed by the members of the dissertation committee, a title page and acceptance page with original signatures and ETD Release form are to be delivered to the Graduate Division so that completion of degree requirements may be officially certified.

Licensure: Added Endorsements

At least 8 hours of the required course work must be completed at KU if it is to be the recommending institution for adding endorsements to the teaching license. For information about adding endorsements, contact the School of Education at 785-864-3726.

University Career Center

The University Career Center (http://www.kucareerhawk.com/s/762/start.aspx), 110 Burge Union, 785-864-3624, provides career counseling and services for all KU students, including students in the School of Education.

Curriculum and Teaching Courses

C&T 100. Introduction to the Education Profession. 3 Hours.

This course is designed to acquaint students with the profession of education by helping to increase an awareness of the role and characteristics of an effective teacher. Large and small group activities and assignments are dispersed throughout the semester to facilitate these outcomes. Students will be involved in observation of and participation with teachers and pupils in public school classrooms, which complement course activities and assignments. Students will work with a mentor pre-service teacher from the KU School of Education to provide discussions about each of the course objectives. CT 100 is a pre-professional course. Successful completion of the course does not guarantee eventual admission to the School of Education’s Teacher Education Program. LEC.

C&T 200. Making Connections Between Schools and Community. 3 Hours.

This course is designed to increase the students’ awareness of learning in the classroom and to familiarize them with the role of the school and the community. Institutions and resources that support children and families will be addressed through large and small group sessions and field experiences. Emphasis is given to the diverse nature of schools, communities, and their populations. In addition, the course will acquaint students with the School of Education programs, admissions procedures, and curriculum offerings. Successful completion of this course does not guarantee eventual admission of the School of Education’s Teacher Education Program. Prerequisite: Successful completion of CT 100. LEC.

C&T 235. Multicultural Education. 3 Hours. AE41.

The course is designed to provide the student with an awareness of and sensitivity of the concept of multicultural education. Topics related to the rationale for and processes of providing a multicultural perspective within the schools will be addressed. Field experiences will be structured to provide students with opportunities to observe the diversity within the educational setting. LEC.

C&T 322. Curriculum and the Learner in the Elementary School. 3 Hours.

Building on the experiences in CT 100 and CT 200, this course will focus on the learner in the elementary setting. Learning occurs as a result of interaction among learners, teacher and subject matter in the classroom within a school in a community. The impact of the interactions of these students of learning of young children is studied in this course. Emphasis is given to the factors that influence curriculum decision-making, and methods that are considered in elementary grades curriculum and how it
C&T 324. Curriculum Learner in the Middle School and High School. 3 Hours.
Building on experiences in CT 100 and CT 200, this course will focus on the learner within the high school setting. Learning occurs in a classroom within a school in a community, and the nature and structure of these settings as well as their impact on learning is studied in this course. Emphasis is given to the curriculum, the factors that influence the curriculum, and the ways that goals for high school students are reflected in the high school curriculum. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 330. Instructional Approaches for ESOL Learners in the Elementary/Early Childhood Classroom. 3 Hours.
Teaching English as a Second or Additional Language/Bilingual Education is designed to provide preservice elementary teachers with an understanding of the history and methodology of teaching English to speakers of other languages, both as a foreign language and as an additional language within American English settings. Future ESL/EFL/EB teachers will be prepared to develop the investigative, decision-making, and reflective teaching skills needed to work with English language learners of elementary age, to impart language instruction in the appropriate context. Emphasis is placed on developing a clear understanding of who English language learners are; what programs and services are or should be available to the ESOLs/EBs; the critical pedagogical aspects of teaching ESL/EFL/EB; and the preparation of teaching materials for classroom use. Prerequisite: Admission to the teacher education program. LEC.

C&T 331. Instructional Approaches for ESOL Learners in the Middle/Secondary Classroom. 3 Hours.
This course is designed to provide preservice middle/secondary discipline specific teachers with an understanding of the history and methodology of teaching English to speakers of other languages, both as a foreign language and as an additional language within American English settings. Future ESL/EFL/EB teachers will be prepared to develop the investigative, decision-making, and reflective teaching skills needed to work with English language learners of all ages, and to impart language instruction in the appropriate context. Emphasis is placed on developing a clear understanding of who English language learners are; what programs and services are or should be available to the ESOLs/EBs; the critical pedagogical aspects of teaching ESL/EFL/EB; and the preparation of teaching materials for classroom use. Prerequisite: Admission to the teacher education program. LEC.

C&T 335. Curriculum and Instruction in Middle and Secondary History and Government Classrooms. 3 Hours.
The purpose of this course is to help prepare students to teach social studies in the middle and secondary grades. Prerequisite: Admission to the teacher education program. LEC.

C&T 344. Children’s Literature in the Elementary School. 2 Hours.
A study of literature (poetry, folk literature, fiction, and nonfiction) appropriate for elementary school children with a focus on contemporary children’s books. Emphasis will be on selection of literature based on child development, literary quality, curriculum, and pluralism and the engagement of children in literature experiences from the interactive, reader response, and critical perspectives. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 347. Social Studies in the Elementary Classroom. 3 Hours.
A study of curricula, instructional strategies, and classroom organization for social studies education K-6. Emphasis is placed on the effective implementation of social studies programs in classroom settings.

C&T 349. Science in the Elementary Classroom. 3 Hours.
In this course, you will develop an understanding of how children learn science and why science education is important. You will examine effective approaches to teaching, instructional materials, and student assessment and will learn how to plan and implement a science unit. The course will emphasize a guided-inquiry approach to science instruction appropriate for the abilities and interests of children in grades K-6. Prerequisite: Admission to the School of Education.

C&T 350. Instructional Approaches for ESOL Learners in the Elementary/Early Childhood Classroom. 3 Hours.
This course is a study of the curriculum, instructional strategies, and classroom organization for mathematics in grades K-6. Emphasis is placed on the effective implementation of mathematics programs in classroom settings. Prerequisite: Admission to the School of Education.

C&T 351. Mathematics for the Elementary Classroom. 3 Hours.
This course is designed to provide preservice middle/secondary discipline specific teachers with an understanding of the history and methodology of teaching mathematics in grades K-6. Emphasis is delivered. Prerequisite: Admission to the School of Education in elementary, middle, or secondary, or the Unified Early Childhood programs.

C&T 352. Literacy Instruction in the Primary Grades (K-3). 3 Hours.
This course is intended to develop the attitudes, knowledge, and skills necessary to effectively instruct primary grades (K-3) children through the development of literacy skills: reading, writing, listening, speaking, and handwriting. The major goals of this course are for the prospective teacher to develop an understanding of literacy development of the primary-grades child, current literacy theories, and the ability to work with a number of approaches to promote literacy learning and a positive attitude toward literacy in all primary-grades students who may have different needs due to language, culture, learning challenges, and/or differing stages of development. This course is to be taken concurrently with CT 353, Literacy Practicum in the Primary Grades. Prerequisite: Admission to the Teacher Education Program.

C&T 353. Literacy Practicum in the Primary Grades. 1 Hour.
This supervised practicum is intended to allow the pre-service teacher to apply the knowledge gained in CT 352, Literacy Instruction in the primary grades (K-3), by teaching children in the primary grades. To be taken concurrently with CT 352 Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 354. Literacy Instruction in the Intermediate Grades. 2 Hours.
This course is intended to develop the attitudes, knowledge, and skills necessary to effectively instruct intermediate-grades children (4-6) through the development of literacy skills: reading, writing, listening, speaking, and spelling. The major goals of this course are for the prospective teacher to develop an understanding of literacy development of the intermediate-grades child, current literacy theories, and the ability to work with a number of approaches to promote literacy learning and a positive attitude toward literacy in all intermediate-grades students who may have different needs due to language, culture, learning challenges, and/or differing stages of development. Prerequisite: Admission to the Teacher Education Program. This course is to be taken concurrently with CT 355, Literacy Practicum in the Intermediate Grades. LEC.

C&T 355. Literacy Practicum in the Intermediate Grades (4-6). 1 Hour.
This supervised practicum is intended to allow the preservice teacher to apply the knowledge gained in CT 354, Literacy Instruction in the intermediate grades (4-6), by teaching children in the intermediate grades. To be taken concurrently with CT 354. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 359. Basic Processes of Reading. 1 Hour.
An introduction to reading in relation to specific areas of art, music and health and physical education. Focus on specialized vocabulary and literature related to each area. Introduction of specific strategies to teach vocabulary and comprehension and to integrated units of study.
Prerequisite: Admission to certification program in music education, art education, health education, or physical education. LEC.

C&T 360. Knowing and Learning in Mathematics and Science. 3 Hours.
This course focuses on issues of what it means to learn and know science and mathematics. What are the standards for knowing we will use? How is knowing and learning structured and how does what we know change and develop? For the science and mathematics educator, what are the tensions between general, cross-disciplinary characterizations of knowing (e.g., intelligence) and the specifics of coming to understand powerful ideas in mathematics and science? What are the links between knowing and developing in learning theory, and the content and evolution of scientific ideas. Also, current issues and tensions in education will be discussed, especially as it relates to mathematics and science instruction. LEC.

C&T 366. Classroom Interactions in Mathematics and Science. 3 Hours.
To make prospective teachers aware of multiple models of teaching (including direct instruction, inquiry teaching and use of small groups); the advantages, disadvantages and uses of each; and what each model requires of teachers. To allow prospective teachers to explore ways of probing student understanding through authentic assessment, evaluating student understanding through student artifacts, and enhancing student understanding through lesson plans built around models of how people learn. To make prospective teachers aware of equity and diversity issues in classroom teaching and ways of ensuring that all students have an opportunity to learn. To make students aware of the proficiencies for licensure recognized by UKanTeach and Kansas State Board of Education and facilitate students' demonstration and documentation of these through their development of a professional portfolio. To develop students' capacity to identify and evaluate best teaching practices as presented in research literature. Prerequisite: CT 360. LEC.

C&T 420. Teaching Kansas Government and Contemporary Public Policy Issues: ___. 3 Hours.
A study of the constitution, organization, functions, and processes of Kansas government, of contemporary public policy issues with local, state and national implications, and of strategies for teaching these in middle and secondary classrooms. Prerequisite: Admission to the School of Education and POLS 110. LEC.

C&T 421. Economics for Elementary Teachers. 3 Hours.
The focus of this course is to introduce and develop understanding of economic concepts and principles in those preparing to teach elementary education. This course presents students primarily with basic economic content and, secondarily, with information on developmentally appropriate economics for elementary age students. Emphasis will be placed on micro and macroeconomic concepts, including the economic problem, resources, scarcity, economic decision-making, opportunity cost, economic systems, price, exchange and money, markets, supply and demand, production, market failures and the role of government, and international trade. Open only to School of Education students enrolled in the elementary education program. LEC.

C&T 422. Teaching Economics and Secondary Social Studies. 2 Hours.
The purpose of the course is to prepare secondary social studies education students to teach the major economic concepts, issues and systems in the United States and other nations in preparation for teacher licensure in the State of Kansas. Prerequisite: Admission to the Secondary History and Government teacher education licensure program. LEC.

C&T 430. Teaching Literature for Young Adults. 3 Hours.
Teaching literature (novel, short story, poetry, drama, nonfiction) suitable for students in the middle school, the junior high school, and the senior high school. Ethnic literature, censorship, bibliographies, and other relevant sources of information about books for young adults will be studied. Prerequisite: Admission to the School of Education. LEC.

C&T 441. Teaching Social Studies in the Middle/Secondary Schools. 3 Hours.
Study of curriculum development and instructional strategies appropriate for teaching social studies in grades 5-12. Prerequisite: CT 323 or CT 324 or permission of instructor. LEC.

C&T 448. Reading and Writing Across the Curriculum. 3 Hours.
Content area teachers do far more than impart information to students. They play an important role in guiding middle/secondary students as they use reading and writing as tools for learning. This course includes an overview of the state and national reading and writing scores of adolescents. Students will then be introduced to the basic processes or ways in which individuals may learn to read and write. The course continues with a focus on the instructional strategies and materials that promote the development of reading and writing in the context of teaching new information. Additionally, the course emphasizes the informal methods educators can use, on an on-going basis, to diagnose their students ability to comprehend content material. Finally, appropriate fix-up strategies will be modeled. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 460. Project Based Instruction in Mathematics and Science. 3 Hours.
This course will have three essential components. The first will be a theory driven perspective accounting for what we know of how people learn and how project-based instruction may be our best choice for bridging the gap between theory and practice. The second component will be a technological component that will assist the enrolled students in developing their own project-based unit. The third component will be a field component consisting of two parts: 1) observation of well-implemented project-based instruction in local schools and 2) implementation of project-based instruction with area high school students on a study trip to Flint Hills. Prerequisite: CT 360. LEC.

C&T 489. Advanced Teaching Practicum. 1 Hour.
This supervised practicum is intended to allow the pre-service teacher to apply knowledge gained in SPED 507; CT 448, ELPS 537; and CT 540, CT 541, CT 542, CT 543 and CT 544: Advanced (Content Area) Methods by teaching children in the middle/secondary grades. To be taken concurrently with SPED 507; CT 448, ELPS 537; and CT 540, CT 541, CT 542, CT 543 and CT 544: Advanced (Content Area) Methods. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 490. Student Teaching. 6 Hours.
A supervised teaching experience in an approved school setting, with level and subject area to be selected according to the teaching field. Prerequisite: Successful completion of fall practicum experiences and demonstration of appropriate professional dispositions. LEC.

C&T 491. TESOL Practicum for Kansas State Endorsement. 3 Hours.
The TESOL Practicum allows individuals to gain supervised experience in Teaching English to Speakers of Other Languages (TESOL) for a professional KSDE ESOL endorsement and advancement. Prerequisite: Completion of all TESOL endorsement courses. LEC.

C&T 494. Internship. 6 Hours.
A supervised internship experience leading to initial certification. The student assumes the total professional role as a teacher in an approved school setting, with level and subject area to be selected according to
the teaching field. Prerequisite: Successful completion of all practicum experiences and demonstration of appropriate professional dispositions. LEC.

C&T 495. Seminar: Developing the Teaching Portfolio. 3 Hours. This course serves to instruct students in the research, teaching, and writing components of developing a teaching portfolio. The seminar will provide a forum for discussion and deeper exploration into topics and issues related to working in the school setting, teaching, and developing a professional teaching philosophy. Course is graded on a satisfactory/fail basis. Prerequisite: Enrollment in Student Teaching or Internship during the Spring semester. LEC.

C&T 497. Independent Study in: ______. 1-2 Hours. Only one enrollment permitted each semester. A maximum of four hours will apply toward the bachelor’s degree. Prerequisite: Recommendation of advisor and consent of instructor. IND.

C&T 499. Bachelor’s Project. 4-6 Hours. A formal report of some aspect of the field experience that relates formal learning and in situ experience to program planning, implementation, and evaluation. Topic will be selected in consultation with the project advisor. Prerequisite: CT490 and CT 491 (CT 491 may be taken concurrently). IND.

C&T 500. Student Teaching in: ______. 1-6 Hours. A supervised teaching experience in an approved school setting, with level and subject area to be selected according to the teaching field. Prerequisite: Admission to the Student Teaching program. FLD.

C&T 501. Student Teaching Practicum in: ______. 1-6 Hours. A supervised classroom teaching experience under the direction of an experienced teacher and in close relationship with a university supervisor. Prerequisite: Admission to the Graduate Certification Program and approval of advisor. FLD.

C&T 503. International Perspectives in Primary and Secondary Education. 3 Hours. This course is for an advanced undergraduate or graduate student seeking to gain experience in the preparation of resource materials for international education environments. The course is designed to provide focused study of curriculum development and instructional strategies appropriate for teaching in middle/secondary classrooms. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 509. Special Course: ______. 1-5 Hours. AE61. A special course of study to meet current needs of education students, primarily for undergraduates. LEC.

C&T 510. Curriculum and Instruction in Middle and Secondary Science Classrooms. 3 Hours. A study of philosophy, objectives, curriculum, instructional strategies, and evaluation in teaching foreign language at the K-12 levels. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 530. Curriculum and Instruction in Foreign Language Classrooms. 3 Hours. A study of philosophy, objectives, curriculum, instructional strategies, and evaluation in teaching foreign language at the K-12 levels. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 533. Curriculum and Instruction in Middle & Secondary English/Language Classrooms. 3 Hours. A study of philosophy, objectives, curriculum, instructional strategies, and evaluation in teaching English/Language Arts in grades 5-12. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 534. Curriculum and Instruction in Middle and Secondary Schools. 3 Hours. A study of philosophy, objectives, curriculum, instructional strategies, and evaluation in teaching English/Language Arts in grades 5-12. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 536. Special Course: ______. 1-5 Hours. AE61. A special course of study to meet current needs of education students, primarily for undergraduates. LEC.

C&T 537. Curriculum and Instruction in Middle and Secondary Science Classrooms. 3 Hours. The purpose of this course is to help you prepare to teach science in the middle and secondary grades. The instructor designed the class sessions and learning tasks to enable you to make progress toward achieving the Kansas Science Teaching Standards and Kansas Professional Education Standards. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 539. Curriculum and Instruction in Middle and Secondary Mathematics Classrooms. 3 Hours. This course is designed to provide focused study of curriculum development and instructional strategies appropriate for teaching mathematics in grades 5-12. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 540. Advanced Practices in Teaching English in the Middle and Secondary Schools. 3 Hours. The course is designed to provide continued study of curriculum development and instructional strategies appropriate for teaching English/Language Arts in grades 5-12 and as a final readiness for the undergraduate student teaching experience. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 541. Advanced Practices in Teaching Social Studies in Middle/Secondary Schools. 3 Hours. Advanced study of curriculum development and instructional strategies appropriate for teaching social studies in grades 6-12 and application of learning in a middle/secondary classroom. Prerequisite: CT 335; SPED 326 and, CT 324 LEC.

C&T 542. Advanced Practices in Teaching Science in the Middle and Secondary Schools. 3 Hours. This course is designed as a final readiness for the semester-long student teaching experience and the Kansas Performance Teaching Portfolio to be completed during that student teaching experience. The course deals with the analysis, adaptation, and application of varied instructional designs to implement curricula in specific science areas in grades 5-12. Prerequisite: Admission to the middle-level licensure program in science education at the undergraduate level or one of the graduate licensure programs in middle/secondary science. Successful completion of CT 537. LEC.

C&T 543. Advanced Practices in Teaching Mathematics in the Middle and Secondary Schools. 3 Hours. The course is designed to provide continued study of curriculum development and instructional strategies appropriate for teaching mathematics in grades 5-12 and as a final readiness for the undergraduate of GLP student teaching experience. Prerequisite: Admission to the middle-level licensure program in mathematics education at the undergraduate level or the GLP in middle or secondary mathematics. Successful completion of CT 539. LEC.

C&T 544. Advanced Practices: Siting Foreign Language Content, Dispositions, Skills and Tools Language Classroom. 3 Hours. This is an advanced Foreign Language methods course that focuses on the critical importance of the socio-linguistic environment of foreign language classrooms. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 598. Special Course: ______. 1-5 Hours. AE61. A special course of study to meet current needs of education students, primarily for undergraduates. LEC.

C&T 620. Teaching English as a Second Language/Bilingual Education. 3 Hours. The purpose of this course is to study the objectives and methods of ESL/Bilingual education. Students will examine methods and techniques of teaching: listening, speaking, reading, and writing in the ESL/Bilingual Education settings. The course will also emphasize the importance of culture in second language teaching, and self-evaluation of teaching
and instructional materials. Undergraduate course that will meet with CT 820 Teaching English as a Second Language/Bilingual Education. Prerequisite: Admission to the School of Education. LEC.

CT 621. Diagnosis and Remediation in Second Language Education. 3 Hours.
This course provides an overview of diagnostic techniques and instruments used to identify and remediate specific learning difficulties associated with normal second language development in the area of listening, speaking, reading, and writing. The course includes a review of research concerning assessment as it relates to error analysis in the second language context. Prerequisite: Admission to the School of Education. LEC.

CT 622. Second Language Acquisition. 3 Hours.
This course provides an intensive review of the theory and research base of second language acquisition. Particular attention is given to the influence of research trends in linguistics and psychology on second language education theory and practice. Current trends in second language education are examined in light of the historical theory base. Prerequisite: Admission to the School of Education. LEC.

CT 630. Understanding the Nature of Talent in Children and Youth. 3 Hours.
This course addresses the social, cognitive, affective, and other developmental aspects of talent as manifested in children and youth with high potential. The course provides an opportunity to examine characteristics, strengths, and needs of children and their families. The course focuses on the foundational aspects of gifted/talented education: educational and political history of the field, etiology of extraordinary potential, and identification and assessment techniques, instruments, and systems. Included in the course are relevant research, policies and regulations, services, and information resources. Prerequisite: SPED 325, SPED 425, SPED 431, SPED 725 or equivalent. LEC.

CT 631. Teaching for Talent Development. 3 Hours.
The course introduces key theories and basic principles of curriculum development and introduction for students with high potential and/or high achievement. Frameworks and models for modifying general education content, cognitive processes, and learning outcomes are applied to enhancing talent development. The course addresses affective considerations, peer relations, and working with families. Prerequisite: CT 630 or CT 730. LEC.

CT 649. An International Teaching Experience. 3 Hours.
This study abroad focuses on professional growth in teaching and understanding education based on an international experience. Students learn about curriculum and teaching from an international perspective, and engage in professional discussions with Italian teachers and administrators. Students engage in culturally responsive teaching in preschool-secondary settings, they participate in family and community activities/events, and they visit renowned museums and cities. Prerequisite: Application through the Office of Study Abroad and interview with the director. LEC.

CT 702. Alignment of Curriculum, Instruction, and Assessment. 3 Hours.
The course focuses on standards-based education reform and the relation between standards, curricula, assessments and instruction. Since the inception of No Child Left Behind in 2001, many classroom teachers have felt constricted by standards-based practices in the classroom. A significant emphasis of the course will be on the implications of high-stakes accountability. This course will explore the historical foundations of the standards movement as well as current research on connecting standards to instructional practices. The course also will explore ways in which teachers can be accountable to the standards without losing creativity in their individual classrooms. LEC.

CT 706. Social Studies in the Middle School. 3 Hours.
The purpose of this course is to offer preservice and practicing middle grades educators the following: (1) an overview of the historical and philosophical antecedents of social studies education; (2) a brief review of the developmental characteristics of early adolescence; (3) the specifics of a citizenship education program specifically designed for middle grades social studies; and (4) a range of time-tested ideas for challenging young adolescents with academic experiences that address their unique developmental profile and capture their imaginations for active, responsible citizenship. LEC.

CT 707. Project Based Instruction. 3 Hours.
This course will emphasize exploring, designing, and evaluating materials and pedagogy to work toward the design of project-based curriculum and instruction. Topics focus on the principles of project-based instruction as well as multiple models for its use in the classroom. LEC.

CT 708. Understanding Research in Education. 3 Hours.
This course introduces the concepts and skills involved in understanding and analyzing research in education and related areas. The course provides an overview of basic, general knowledge of various research methodologies. Students should expect to study much of this material in greater depth through additional course work before being fully prepared to conduct independent research. However, this course should enhance their ability to locate, read, comprehend, and critically analyze research articles and reports. Topics in the course include quantitative and qualitative methods and designs, historical and descriptive research, and program evaluation. (This course fulfills the requirement of a research methods course in the first 12 hours of graduate study.) LEC.

CT 709. Foundations of Curriculum and Instruction. 3 Hours.
Basic concepts and processes of curriculum and instruction, including theories, planning models, resources for decision-making, current trends, research, and proposals for improvement of curriculum and instruction. LEC.

CT 710. Writing, Language, and Learning. 3 Hours.
This course will situate issues about writing and learning in the context of more general inquiry about language and learning. We will read research related to classroom discourse and the teaching of writing in secondary classrooms. We will then connect this body of research to the teaching of English in middle/secondary classrooms. LEC.

CT 711. Teaching Young Adult Literature (Grades 7-12). 3 Hours.
A study of the characteristics of adolescents with respect to their interest and reading habits; criteria for choosing books for junior and senior high school in-class and out-of-class reading; selection of materials; methods for helping poor readers; literary discrimination and appreciation; censorship; ethnic literature; techniques for presenting literary selection in class. Wide reading among best of current and classical literature. LEC.

CT 730. Understanding Talent. 3 Hours.
This course addresses the social, cognitive, affective, and other developmental aspects of talent as manifested in children and youth with high potential. The course provides an opportunity to examine characteristics, strengths, and needs of these children and their families. The course focuses on the foundational aspects of gifted/talented education: educational and political history of the field, etiology of extraordinary potential, and identification and assessment techniques, instruments, and systems. Included in the course are relevant research, policies and regulations, services, and information resources. Prerequisite: SPED 425, SPED 431, SPED 725, or equivalent introductory course on exceptional children and youth. LEC.
C&T 731. Teaching for Talent Development. 3 Hours.
The course introduces key theories and basic principles of curriculum development and introduction for students with high potential and/or high achievement. Frameworks and models for modifying general education content, cognitive processes, and learning outcomes are applied to enhancing talent development. The course addresses affective considerations, peer relations, and working with families. Prerequisite: CT 644 or CT 730 or equivalent course on exceptional children and youth. LEC.

C&T 732. Teaching for Talent in General Education Settings. 3 Hours.
This course is for classroom teachers concerned about meeting the needs of students with high potential in their classrooms. Students will be introduced to various curriculum models and teaching strategies commonly employed in special programs for gifted/talented students. There will be opportunities to apply gifted education models to modify existing curriculum or to develop new curricula which enhances the abilities of all students. Prerequisite: CT 644 or CT 730 or equivalent introductory course on exceptional children and youth. LEC.

C&T 733. Practicum in Gifted and Talented Education. 1-10 Hours.
A course designed to provide experiences for students to work intensively and to teach identified gifted and high potential students in educational settings. Students will develop competencies relative to implementing individual group and individual education plans through a variety of instructional alternatives. Arranged service delivery options are possible. Prerequisite: CT 645, CT 731, CT 732, or equivalent course. FLD.

C&T 734. Integration of Instruction in the Elementary School. 2 Hours.
A study of the rationale for correlation instruction in language arts, reading, math, science, and social studies and practical strategies for integrating instruction throughout the elementary school curriculum. LEC.

C&T 738. Applied Research in the Classroom. 3 Hours.
This course is designed to facilitate the implementation and completion of an action research project during the internship experience. Prerequisite: Successful completion of student teaching. LEC.

C&T 739. Internship in Teaching: ___. 1-15 Hours.
A supervised internship experience leading to initial certification. The student assumes the total professional role as a teacher in an approved school setting, with level and subject area to be selected according to the teaching field. Prerequisite: CT 500 and CT 736 appropriate to the student’s teaching level and area, or equivalent. FLD.

C&T 740. Foundations of Reading: Process, Theory, and Instruction. 3 Hours.
It is the purpose of this course to introduce students to the foundations of the reading process, developmental levels, theory, models, and procedures at the emergent, elementary, and secondary levels. Elements of cultural, linguistic, and ethnic diversity that affect the reading process are included. Students work with research related to the reading process, remediation, and assessment. LEC.

C&T 741. Comprehension and Study Strategies for Use with Multiple Texts. 3 Hours.
It is the purpose of this course to examine research, theory, and practice in reading comprehension. Emphasis is placed on the application of strategies for various text types (expository, narrative, persuasive, and technical) for teaching reading comprehension and study skills across content areas in the K-12 classrooms. Prerequisite: CT 740 or permission of the instructor. LEC.

C&T 742. Language and Literature in the Reading Program. 3 Hours.
A study of linguistic and literary aspects of reading instruction, focusing on language and cognitive development as they relate to reading. Emphasis will be on approaches for differentiating reading instruction to provide for less proficient to gifted readers, research and issues related to reader response, techniques for assessing children’s reading attitudes and interests, procedures for selecting literature, and strategies for integrating literature into the elementary school reading program. Prerequisite: CT 740 or permission of instructor. LEC.

C&T 743. Writing and Spelling Development and Instruction. 3 Hours.
A study of the research base on writing, spelling, speaking, and listening for teaching the language arts; an overview of development in writing and spelling, the writing and spelling processes and instruction, and strategies for integrating the language arts. Prerequisite: Admission to a masters program within the School of Education, CT 740 or permission of the instructor. LEC.

C&T 744. Teaching Literature to Children. 3 Hours.
An opportunity to survey the broad range of trade books published for children; criteria for book selection; children’s reading interests and tastes; illustrations of children’s books; sources for selecting literature; poetry; the role of children’s literature in today’s elementary curriculum. LEC.

C&T 745. Reading and the English Language Learner. 3 Hours. LEC.

C&T 747. Reading Strategies for Expository Text. 3 Hours.
A study of the need of teaching reading in content areas, factors involved in the reading process, and basic and advanced reading and study skills to be taught. Teachers may concentrate upon the study of ways of teaching reading in one or more of the following: language arts, social studies, sciences, mathematics, art, music, home economics, industrial arts, business education, or physical education. Prerequisite: Admission to the Transition to Teaching Program. LEC.

C&T 748. Reading and Writing Across the Curriculum. 3 Hours.
In CT 748, preserve content teachers, who have had no previous literacy courses, are introduced to the basic processes of reading and to instructional strategies and materials that promote the development of reading, writing, and studying in the context of teaching new information. Additionally, we discuss the ways in which teachers diagnose, in an informal, on-going basis, their students’ abilities to comprehend the material they are teaching. LEC.

C&T 749. An International Teaching Experience. 3 Hours.
This study abroad focuses on professional growth in teaching and understanding education based on an international experience. Students learn about curriculum and teaching from an international perspective, and engage in professional discussions with Italian teachers and administrators. Students engage in culturally responsive teaching in preschool-secondary settings, they participate in family and community activities/events, and they visit renowned museums and cities. Prerequisite: Application through the Office of Study Abroad and interview with the director. LEC.

C&T 750. Connecting Research to Classroom Practice in Elementary Mathematics and Science. 3 Hours.
The primary purpose of this course is to examine current research on issues important to elementary mathematics and science programs. The course will explore issues important to the classroom practices of elementary mathematics and science teachers. Provides a broad background for understanding current issues related to elementary mathematics and science curriculum, instruction, and assessment. LEC.

C&T 752. Teaching Mathematics in the Urban Middle/Secondary School. 3 Hours.
The purpose of this course is to help urban teachers plan, organize, teach, and assess mathematics learning in the middle and secondary grades. The Kansas Teaching Standards (in Professional Education
and in Mathematics Teaching) identify the knowledge and abilities addressed in this course. The instructors designed the class sessions and learning tasks to enable participants to make progress toward achieving the Kansas Teaching Standards. It is the participant’s responsibility to acquire the knowledge and abilities and to demonstrate the progress being made toward meeting the Standards. A mathematics teaching portfolio is the tool used to document progress toward achieving the Standards. Prerequisite: Admission to the Transition to Teaching Program or permission of instructor. LEC.

C&T 753. Teaching Science in the Urban Middle/Secondary School. 3 Hours.
The purpose of this course is to help urban teachers plan, organize, teach, and assess science learning in the middle and secondary grades. The Kansas Teaching Standards (in Professional Education and in Science Teaching) identify the knowledge and abilities addressed in this course. The instructors designed the class sessions and learning tasks to enable participants to make progress toward achieving the Kansas Teaching Standards. It is the participant’s responsibility to acquire the knowledge and abilities and to demonstrate the progress being made toward meeting the Standards. A science teaching portfolio is the tool used to document progress toward achieving the Standards. Prerequisite: Admission to the Transition to Teaching Program or permission of instructor. LEC.

C&T 760. Modern Approaches to Elementary Social Studies. 3 Hours.
A study of the purpose, content, psychology, and materials and methods for teaching the social sciences in the elementary school. Emphasis on principles and procedures for combining the social studies with other areas of the curriculum in broad unit instruction. Prerequisite: Nine hours of Education including educational psychology. LEC.

C&T 762. Modern Approaches to Middle/Secondary Social Studies. 3 Hours.
The purpose of the course is to offer preservice and practicing K-12 social studies educators the following: (1) an overview of theoretical bases for social studies education and of the social studies and discipline specific curriculum standards; (2) a review of the major curricular and extracurricular K-12 social studies programs; (3) strategies for the design, implementation, and evaluation of social studies programs; and (4) experience with the design, implementation, and/or evaluation of a social studies program. Prerequisite: Nine hours of Education including educational psychology. LEC.

C&T 763. Economic Education. 2-3 Hours.
An examination of the concepts, theories, and resource materials utilized in teaching economics in the K-12 curriculum. Particular attention is given to the functional integration of economic concepts into the elementary and secondary social studies curriculum. The use of economic resource material is considered. Participants develop projects for use in their own classrooms. LEC.

C&T 764. Teaching Economics in: _____. 3 Hours.
A critical analysis of the relationship between economics and a designated school subject selected from history, geography, or consumer education; a determination of the economic concepts that can be appropriately integrated into the particular discipline; and a comprehensive search of the particular curriculum area to identify the most effective and efficient points at which the economic concepts can be integrated. Prerequisite: CT 763. LEC.

C&T 765. Teaching with Community, Contemporary, and Primary Resources. 3 Hours.
A practical course designed for grades 4-12 teachers who wish to utilize community-based, mass media, and/or primary resources. The course focuses on the use of community resources such as local historical societies, museums, and government agencies; on the use of mass media such as newspapers, magazines, organizations’ newsletters, television, and film; and on the use of primary resources such as artifacts, documents, recordings, and oral historians. Participants receive sample resources from each of the three areas along with accompanying activities. LEC.

C&T 797. Special Project in: _____. 2 Hours.
Implementation of the curriculum project planned in CT 734 or CT 735; implementation and assessment of the special project will occur during the internship. Prerequisite: CT 734, CT 735, and CT 736. RSH.

C&T 798. Special Course: _____. 1-5 Hours.
A special course of study to meet current needs of education professionals--primarily for graduate students. LEC.

C&T 800. Foundations of Curriculum Development. 3 Hours.
This course is designed for students to gain a functional understanding of the historical, philosophical, political, psychological, and cultural factors which affect the designing and implementation of curriculum at several levels: the individual classroom, the team, the school, the larger administrative unit, the state, and the nation. Prerequisite: CT 709 or permission of instructor. LEC.

C&T 801. Planning for School Improvement. 2-3 Hours.
The course will emphasize the latest research and practice related to school improvement. Students will function as a member of a school improvement team to assimilate and synthesize research and practice into the development, revision, and/or assessment of a school improvement plan for a specific school site. Corequisite: Enrollment in the summer institute on school improvement. LEC.

C&T 802. Curriculum Planning for Educational Settings. 3 Hours.
A focus on organizing and managing curriculum development in educational settings. Such curricular decisions as writing philosophies, setting goals and objectives, selecting and organizing content, and designing and monitoring evaluation procedures will be emphasized. Providing leadership for the collaborative process of curriculum planning in organizational settings will receive attention. Prerequisite: CT 709, admission to Building Principal Certification program, or permission of instructor. LEC.

C&T 803. Differentiating Curriculum and Instruction. 3 Hours.
This course is designed for educators interested in expanding curriculum and instruction to accommodate diverse learners in the classroom, K-12. Topics include: models, methods, and resources for differentiating curriculum and instruction, designing and modifying differentiated curriculum, evaluating student learning, and introducing students, parents and colleagues to differentiation. An evidence-based, practical course for teachers, administrators, and support personnel. Prerequisite: Admission to Graduate School. LEC.

C&T 804. Trends and Issues in Middle Level Education. 3 Hours.
Information from current research, area specialists and exemplary practitioners will be used to extend appropriate teaching strategies and supplement background knowledge on special topics related to social, emotional and physical development as it relates to the curricula and young adolescents. LEC.

C&T 805. Planning Instruction and Instructional Strategies in Urban Settings. 3 Hours.
This course will prepare students to become cognizant of the particular contextual variables that pertain to the urban setting, engage in instructional planning utilizing pertinent instructional strategies for urban classrooms. Students will become familiar with conceptual frameworks appropriate to education in the urban environment, review research
on education in the urban setting, and discuss goals and options for effectively coping with the demands of the urban classroom. FLD.

C&T 806. Instructional Strategies and Models. 3 Hours.
Analysis of models of teaching which represent distinct orientations toward students and how they learn. The application of these models is complemented by the study of research evidence on effective teaching strategies. Prerequisite: CT 709. LEC.

C&T 807. Multicultural Education. 3 Hours.
In order to provide the student with an understanding of multicultural education, the course will examine the effects of such issues as ethnicity in America, the melting pot theory, separatism, cultural pluralism, legal issues, and bilingual education upon the curriculum and instruction in today’s classrooms. It will include an evaluation of materials for bias and stereotypes. Field experiences are a part of this course. LEC.

C&T 808. Qualitative Research: Curriculum Inquiry. 3 Hours.
Curriculum Inquiry provides an opportunity to reflect, explore, understand, and broaden perspectives of curriculum through examining the theories, methodologies, strategies, and design of qualitative research. This course is designed to develop a common understanding of the major elements of qualitative research, while offering each student an opportunity to examine research topics and methods of personal interest, with particular attention to curricular issues. The course also includes practical experience with various modes of data collection and analysis. LEC.

C&T 809. Creative Thinking and Learning. 3 Hours.
This course provides an opportunity to investigate the nature of the creative process in educational settings. The knowledge base for the course builds from foundations of creativity, principles and theories of identifying and enhancing creative production, and affective learner variables. The course blends classic and contemporary works in creativity, and features the application of theories and models of the origins and development of creativity to promoting creative thinking and learning among children, youth and adults. Participants learn about, apply, and adapt techniques for defining and identifying creative potential and for encouraging creative thinking in educational settings. Prerequisite: Admission to graduate school. LEC.

C&T 810. Issues in Teaching Language Arts. 3 Hours.
A study of present curricula in junior and senior high school English and speech; current thinking in grammar and usage; language development in oral and written communication; problems of teaching reading and literature in the junior and senior high school; construction and reorganization of language arts courses. Students will be permitted to make an intensive study of an individual problem relating to more effective instruction in the language arts. LEC.

C&T 820. Teaching English as a Second Language/Bilingual Education. 3 Hours.
The purpose of this course is to study the objectives and methods of ESL/Bilingual education. Students will examine methods and techniques of teaching: listening, speaking, reading, and writing in the ESL/Bilingual Education settings. The course will also emphasize the importance of culture in second language teaching, and self-evaluation of teaching and instructional materials. Prerequisite or Corequisite: CT 709. LEC.

C&T 821. Diagnosis and Remediation in Second Language Education. 3 Hours.
This course provides an overview of diagnostic techniques and instruments used to identify and remediate specific learning difficulties associated with normal second language development in the area of listening, speaking, reading, and writing. The course includes a review of research concerning assessment as it relates to error analysis in the second language context. Corequisite: CT 820. LEC.

C&T 822. Second Language Acquisition. 3 Hours.
This course provides an intensive review of the theory and research base of second language acquisition. Particular attention is given to the influence of research trends in linguistics and psychology on second language education theory and practice. Current trends in second language education are examined in light of the historical theory base. Prerequisite: CT 820. LEC.

C&T 823. Developing Intercultural Awareness in the Second Language Classroom. 3 Hours.
This course includes the study of the interrelationship of language and culture and the use of multicultural training techniques to develop cultural awareness and positive attitudes in the second language classroom. Emphasis is on the integration of culture in the second language curriculum. Prerequisite: CT 820 or CT 803. LEC.

C&T 824. Problems in Second Language Instruction. 3 Hours.
This course presents a study of curricula and instruction in the second language setting at all levels with emphasis on educational research concerning these issues. Particular attention is given to developing competency in locating and utilizing sources of information and to preparing the research document. The course facilitates practical problem solving in the second language learning context. Prerequisite: CT 820. LEC.

C&T 825. Practicum in Teaching English as a Second Language/Bilingual Education. 3 Hours.
This course provides a supervised teaching experience in a setting appropriate to the goals of the prospective ESL/Bilingual teacher: elementary, secondary, or adult. Particular attention is given to lesson planning, classroom management, and the development of self-evaluation techniques. This course will also emphasize structured classroom observation prior to teaching and techniques for developing and maintaining positive working relationships with other professionals in the school setting. Prerequisite: CT 820, CT 821, and CT 822 or CT 824. FLD.

C&T 826. Language Analysis for Language Teachers. 3 Hours.
This course offers pre- and in-service teachers the basic foundations of language analysis necessary for the teaching of second/foreign languages. The course covers basic linguistic topics common to all human languages (grammatical, phonological, and semantic aspects) with the intent to help teachers understand and address common languages problems that students face when learning English as a second/foreign language. LEC.

C&T 827. Teaching Second/Foreign Language Pronunciation. 3 Hours.
The objective of this course is to give prospective language teachers the requisite theoretical and practical background for making decisions concerning pronunciation teaching. This course provides second and foreign language teachers with the necessary knowledge and skills to address the teaching of pronunciation in the foreign language classroom. After a review of theoretical and practical research dealing with universal human speech perception and production, implications for the design of appropriate strategies and lessons to teaching pronunciation, both at the segmental and suprasegmental levels, are addressed. Prerequisite: CT 444, CT 820/CT 822. LEC.

C&T 828. Language and Identity. 3 Hours.
This interdisciplinary seminar explores the interrelationship between language and identity, and the role of language in developing identities of second language learners. LEC.
C&T 830. Classroom Applications of Assessment Information. 1 Hour.
The primary purpose of this course is to examine classroom-based practices for identifying intellectual and creative potential in school-aged children and youth, and to apply that information to classroom instruction as well as to individual education planning. Particular attention is paid to populations who are traditionally underserved due to language status, ethnicity, socio-economic status, geography, or multiple exceptionality. Parent and student roles are also emphasized. An evidence-based practice course for teachers, administrators, and support personnel. Prerequisite: Admission to Graduate School. LEC.

C&T 831. Personal Dimensions of Talent. 1 Hour.
The course focuses on affective aspects of individuals with high potential. Particular attention is paid to populations who are traditionally underserved due to ethnicity, socio-economic status, geography, or multiple exceptionality. The course focuses on theories, models and methods for understanding and addressing the successful personal development of talented individuals, supporting families, and personal issues linked to high potential. An evidence-based practice course for teachers, administrators, and support personnel. Prerequisite: Admission to Graduate School in Education. LEC.

C&T 840. Emergent Literacy and Beginning Reading. 3 Hours.
A study of emergent literacy through the beginning stages of literacy development. Course content focuses on the history, theory, and research that supports instructional reading practices for children Pre-kindergarten through grade 2. Prerequisite: CT 740, CT 741, or permission of instructor. LEC.

C&T 841. Early Intervention in Reading Practicum. 3 Hours.
A case study approach to the instruction of children in need of early intervention in reading. Requires assessment, instruction, and case reports of tutored children. Prerequisite: CT 740, CT 741, CT 840, or permission of instructor. FLD.

C&T 842. Supporting Striving Readers: Adolescent through Adult. 3 Hours.
A study of the characteristics and multiple causes of reading and writing difficulties, principles and procedures for diagnosing and remediating reading difficulties, how to provide individual and group intervention strategies, communicate diagnostic information, and gain awareness of the impact of research on instructional decision-making for students with reading difficulties. Prerequisite: Admission to a masters program within the School of Education, CT 740, CT 741, CT 840, and CT 841, or permission of instructor. LEC.

C&T 843. Supporting Striving Readers Practicum. 3 Hours.
Case study approach to the treatment of pre-adolescent through adults with reading disabilities. Requires diagnostic testing of the learner, compilation of case study reports, and participating in staffing for the purpose of designing remedial reading programs. Students also participate in implementation of remedial programs with pre-adolescent through adults through tutoring in either a clinical setting or a public school setting. Prerequisite: Admission to a masters program within the School of Education, CT 740, CT 741, CT 840, CT 841, CT 842, or permission of instructor. LEC.

C&T 844. The Reading Program: Coordination and Supervision. 3 Hours.
An overview of the role of the reading coordinator/supervisor and that individual’s responsibility for the components of a balanced reading program. Emphasis will be given to assessment of the reading program, strategies for change, improving the reading program, in-service programs, working with other school personnel, providing services, and public relations. Prerequisite: CT 740, CT 741, CT 840, CT 841, CT 842, and CT 843. LEC.

C&T 845. Reading Specialist Internship. 1-2 Hours.
Supervised and directed experiences to develop the necessary instructional and leadership competencies of a reading specialist. Activities will include district and building level needs assessment, data analysis, professional development of teachers and paraprofessionals, and cooperative planning with teachers and administrators around issues of literacy instruction and achievement. Prerequisite: Completion (at the University of Kansas) of course requirements for the Reading Specialist program. The Reading Specialist course requirements may be a part of a graduate degree. FLD.

C&T 850. Seminar in Science and Mathematics Educational Research. 3 Hours.
The primary purpose of this course is to examine literature in science and mathematics education in order to better understand research in these fields from both a historical and contemporary perspective. The process of examining literature in these fields will be used to help understand how to plan, conduct, and evaluate research in science and math education. This course emphasizes both qualitative and quantitative research in science and math education. LEC.

C&T 851. Modern Approaches to Middle/Secondary School Mathematics. 3 Hours.
A study of aspects of curriculum and instruction in middle/secondary school mathematics programs, including research on teaching and learning mathematics. Prerequisite: Teaching experience in middle-level or high school mathematics or permission of instructor. LEC.

C&T 852. Instruction in Mathematics and Science. 3 Hours.
In this course, students will explore a variety of research-based instructional theories, models, and strategies for teaching and learning of mathematics and science. They will apply and evaluate the usage of one instructional strategy in an action research project in their classrooms. Prerequisite: CT 709. LEC.

C&T 853. Connecting Research to Classroom Practice in Middle/Secondary Science. 3 Hours.
This course will explore current research on issues important to middle and high school science teachers so they can use research to support and improve their classroom practice. Prerequisite: Teaching experience in middle level or high school science or permission of instructor. LEC.

C&T 854. Assessment and Evaluation in Science and Mathematics. 3 Hours.
The primary purpose of this course is to examine assessment and evaluation in science and mathematics, including assessment of students, teachers, schools, and educational programs. The course will examine technical characteristics of various assessment methods including both traditional and alternative methods. In addition and alternative methods. In addition, the course will analyze and discuss various controversial issues in assessment such as authentic assessment, and large scale assessment, and large scale assessments, assessment for accountability, and equity issues. LEC.

C&T 855. Curriculum in Science and Mathematics. 3 Hours.
A survey of the concepts and processes that provide the focus of modern science and mathematics curriculum will be central to the course. Students develop a standards-based framework for a school science or mathematics program. The course includes an analysis of national and state recommendations for the reform of science and mathematics education in the context of our state and local educational systems, which is applied by evaluating exemplary instructional materials and activities appropriate for classroom use. Prerequisite: CT 709. LEC.
C&T 856. Practicum in Science Education. 1-3 Hours.
Intensive supervised experience working with improvement of science curriculum and/or instruction in an educational setting. Credit in any one semester may range from one to three hours; and total credit may not exceed three hours. Prerequisite: Two graduate courses in science education and prior consent of practicum supervisor. FLD.

C&T 857. Practicum in Mathematics Education. 1-3 Hours.
Intensive supervised experience working with improvement of mathematics curriculum and/or instruction in an educational setting. Credit in any one semester may range from one to three hours; and total credit may not exceed three hours. Prerequisite: Two graduate courses in mathematics education and prior consent of practicum supervisor. FLD.

C&T 858. Connecting Research to Classroom Practice in Middle/Secondary Mathematics. 3 Hours.
This course will explore current research on issues important to middle and high school mathematics teachers so they can use research to support and improve their classroom practice. Prerequisite: Teaching experience in middle level or high school mathematics or permission of instructor. LEC.

C&T 859. Issues in Mathematics or Science Education: ____. 1-3 Hours.
A study of issues in a particular area of mathematics or science education. The course may be repeated for different topics. Prerequisite: Admission to graduate study. LEC.

C&T 860. Topics in Teaching and Learning Social Studies: ____. 3 Hours.
An examination of current topics and issues from social science perspectives. Special emphasis is given to effective integration of one of the social sciences, such as anthropology, geography, political science, science technology and society, and these topics affect issues of curriculum at both elementary and secondary levels. Students will need to confer with the instructor of record to determine which topic will be the current focus of the course. LEC.

C&T 861. Curriculum and Assessment in Social Studies Programs K-12. 3 Hours.
The purpose of the course is to offer preservice and practicing K-12 social studies educators the following: (1) an overview of theoretical bases for social studies education and of the social studies and discipline specific curriculum standards; (2) a review of the major curricular and extracurricular K-12 social studies programs; (3) strategies for the design, implementation, and evaluation of social studies programs; and (4) experience with the design, implementation, and/or evaluation of a social studies program. LEC.

C&T 862. Trends and Issues in Social Studies Instruction. 3 Hours.
A study of trends and issues relating to, and needed changes in the content, organization, emphasis, resources and equipment, methods, devices and evaluation in the social studies. Consideration of related problems such as achieving meaning and understanding, providing for individual differences, providing motivation, the cooperative assignment and socialized recitation. Students will be permitted to concentrate on those problems of particular interest to them. Prerequisite: Nine hours of Education including educational psychology. LEC.

C&T 863. Curriculum Development in Economic Education. 3 Hours.
Extension and application of economic concepts and theories through integration into the scope and sequence of the school curriculum. The process will include the development and field testing of a project that utilizes appropriate concepts, materials, community resources and techniques for integrating economics into the total curriculum. Prerequisite: CT 763. LEC.

C&T 864. International Issues in the K-12 Classroom. 3 Hours.
An examination of current international topics and issues from an economic education perspective. Special emphasis is given to effective integration of global topics and issues into the curriculum at both elementary and secondary levels. Students survey and analyze economic education resource materials and develop international lessons for use in their own classrooms. This course is offered during summer term, locally, and as a study abroad option. This course has been offered two times previously as TL 798-summer 1993 at the Regents Center and in Great Britain. LEC.

C&T 865. Practicum in Social Science Education. 3 Hours.
Intensive supervised experience working with improvement of social science curriculum and/or instruction in an educational setting. Credit in any one semester may range from one to three hours; and total credit may not exceed three hours. Prerequisite: Two graduate courses in social science education and prior consent of practicum supervisor. FLD.

C&T 866. Master's Thesis. 1-6 Hours.
The thesis. A master's thesis is a formal written account of the comprehensive research conducted by a graduate student. The thesis is an independent study by an individual student under the direction of a faculty advisor. The thesis must be approved by the candidate’s advisor and the department. The thesis must be completed within three years of the student’s initial registration. Prerequisite: Completion of all course work with at least a 3.0 GPA.

C&T 867. Practicum in Social Studies. 1-3 Hours.
Intensive supervised experience working with improvement of social studies curriculum and/or instruction in an educational setting. Credit in any one semester may range from one to three hours; and total credit may not exceed three hours. Prerequisite: Two graduate courses in social studies education and prior consent of practicum supervisor. FLD.

C&T 868. Connecting Research to Classroom Practice in Social Studies. 3 Hours.
The purpose of the course is to explore readings on effective practice and current research on issues important to social studies teachers. Knowledge gained from the exploration of readings will be used to develop a plan and implementation procedures for improving classroom practice. Prerequisite: Teaching experience in social studies education or permission of the instructor. LEC.

C&T 896. Seminar in: ____. 1-4 Hours.
LEC.

C&T 897. Independent Study. 1-4 Hours.
Prerequisite: Consent of advisor and instructor. RSH.

C&T 898. Master's Project. 1-4 Hours.
RSH.

C&T 899. Master's Thesis. 1-6 Hours.
The thesis. A master's thesis is a formal written account of the comprehensive research conducted by a graduate student. The thesis is an independent study by an individual student under the direction of a faculty advisor. The thesis must be approved by the candidate’s advisor and the department. The thesis must be completed within three years of the student’s initial registration. Prerequisite: Completion of all course work with at least a 3.0 GPA.

C&T 900. Current Trends & Issues in Curriculum & Instruction. 3 Hours.
The course, taught as a capstone seminar, will provide a review of current trends and issues in theories, practices, and events within curricular and instructional efforts in American education. Topics studied may include constructivism, connectivism in the digital age, contemporary theories and theorists such as Vygotsky, online instruction and the Internet's potential and growth, the new Cult of Efficiency, stigmatization and standardized testing, and charter schools. Student composition of each class will influence the final syllabus, which may include other topics reflective of student interests and goals. The class is designed for those in the final course phase of their doctoral studies. Students in their first or second semester of their programs will not be encouraged to enroll in the class. LEC.

C&T 901. Contemporary Research of Teaching Effectiveness. 3 Hours.
A review of recent research on the conceptualization, measurement, and improvement of teaching effectiveness. Particular attention is given to the history of efforts to improve teaching, to the reasons why such efforts have often been unsuccessful, and to the recent contributions of the "micro-criteria" approach to the problem. LEC.

C&T 903. Curriculum Supervision. 3 Hours.
An intensive study of the theoretical and research bases for curriculum supervision and improvement. Topics include models and practices in supervision and staff development, skills and instruments used in curriculum assessment, coordination of both human and material resources, and the dynamics of change strategies. LEC.

C&T 904. Philosophical Questions in Curriculum and Teaching. 3 Hours.
This course addresses philosophical questions pertaining to curriculum and teaching across a range of educational contexts. These questions center on epistemology, ethics, and the assumptions underlying
alternative approaches to research in education. Students completing this course should be able to engage in philosophical inquiry and apply relevant philosophical literature and principles to the examination of curriculum and teaching. LEC.

C&T 905. Teacher Education in the U.S.. 2 Hours.
A study of the development, issues, and programs for the preparation of teachers. Open to all regular graduate students. LEC.

C&T 906. Qualitative and Curriculum Inquiry: Analysis and Interpretation. 3 Hours.
Supports novice researchers in extending their understanding of the theoretical frameworks underlying qualitative research, qualitative methodologies, the research process and its relationships with curriculum inquiry. During the course we will discuss various forms of qualitative research methods, approaches to research, and perspectives in methodology relative to curriculum inquiry. We will explore the intertwining of data generation, analysis, and writing. In addition, we will focus on refining data generation techniques, strategies for data analysis, data interpretation, and various forms of reporting/writing. Prior coursework: Introduction to a graduate level qualitative research course or permission from the instructor. Prerequisite: Introduction to a graduate level qualitative research course or permission from the instructor. LEC.

C&T 907. Critical Pedagogies. 3 Hours.
This course examines the theories and practices of several educational orientations that comprise “critical pedagogy.” Students examine the historical roots and evolution of this broad orientation toward education. Recurring themes in the class are relations between knowledge and curriculum, the school and society, and teachers and students. Students completing the course should be able to analyze educational phenomena through a critical theoretical lens. Open to all doctoral students and advanced masters students with instructor permission. LEC.

C&T 910. Research Seminar in English Education. 3 Hours.
This course will focus on both the conduct and findings of research related to English/Language Arts Education. Its purpose will be to foster discussion among students concerning paradigms that have shaped the field of English/Language Arts as well as encourage critique of the ways in which these paradigms are enacted in research. In this course, each student will develop a reading list on a topic of interest related to research in English/Language Arts Education and/or pursue the writing of an individual research proposal. Prerequisite: Admission to master’s or doctoral program in CT, emphasis in English/Language Arts Education. LEC.

C&T 940. Evaluation of Research in Reading. 3 Hours.
LEC.

C&T 944. Diagnosis and Evaluation of Instruction in Higher Education. 2-3 Hours.
The course will focus on (1) a review of the practical and theoretical problems of developing, in institutions of higher education, programs for the diagnosis and/or evaluation of classroom instruction, including use of videotape feedback for diagnosis, and the development of surveys for evaluation for diagnosis of teaching, and (2) the importance of careful administrative and review procedures as the evaluation of teaching becomes more formal and consequential. Three hours of credit will be awarded to those enrolled in the laboratory section of the course. LEC.

C&T 951. Research and Evaluation in Mathematics and Science. 3 Hours.
This course introduces students to the processes of planning, conducting, and evaluating mathematics and science research and evaluation in education. This course emphasizes the methods and techniques used in both quantitative mathematics and science research and evaluation methodologies. Prerequisite: A PRE course in statistics. LEC.

C&T 960. Theory and Research in Social Studies Education. 3 Hours.
The purpose of this graduate level course is to stimulate and communicate systematic research and thinking in Social Studies Education. Its purpose is to foster the creation and exchange of ideas and research findings that will expand knowledge about purposes, conditions, and effects of schooling and education about society and social relations. LEC.

C&T 968. Readings in Economic Education Research. 3 Hours.
A survey of research in elementary, secondary, and higher education economic education. After initial, mutual readings, and discussions, class members will determine a list of broad research questions around which we will focus our readings. Each student is responsible for developing a reading list on one of the topics and reporting on selected readings. Class meetings will focus on summarizing and critiquing published research. Purpose of this course is to prepare doctoral students for comprehensive examinations and dissertation research. LEC.

C&T 994. Advanced Topics: ____. 1-3 Hours.
A special course of study to meet current needs of education professionals -- primarily for post-master’s level students. LEC.

C&T 995. Field Experience in: ____. 1-5 Hours.
Supervised and directed experiences in selected educational settings. The advisor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experiences will be prepared independently by the student, a representative of the cooperating agencies, and the advisor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. FLD.

C&T 996. College Teaching Experience in: ____. 2 Hours.
To meet the college teaching experience requirement for doctoral programs, a student shall engage in a semester-long, planned, instructional activity that shall include college classroom teaching under supervision. Planning shall be done with the advisor and/or the member of the faculty who will supervise the experience. The activity shall be done under the supervision of a member of the University of Kansas faculty or by an individual or individuals designated by the candidate’s committee. FLD.

C&T 997. Individual Study. 1-4 Hours.
Prerequisite: Prior graduate course work in the area of study and consent of instructor. RSH.

C&T 998. Seminar in: ____. 1-4 Hours.
LEC.

C&T 999. Doctoral Dissertation. 1-15 Hours.
THE.

Deaf Education Courses

DE 702. Intermediate Signing Exact English. 3 Hours.
Intermediate vocabulary (700 words) for basic school routines and subjects will be taught using curricular materials to practice SEE 2 vocabulary and affix markers. Two college sign classes of any kind. LEC.

DE 717. Pidgin Sign English/American Sign Language. 3 Hours.
An intermediate level, educationally oriented vocabulary (450 words) taught in PSE/ASL. Comparison of literally and conceptually signed sentences. Prerequisite: Any sign course, admittance into Deaf Education Masters Program. LEC.
DE 808. Family Focus With Young Hearing-Impaired Children. 3 Hours.
Focus on the family as the primary teachers of deaf and hard-of-hearing infants and toddlers. The purpose of the class is twofold: to develop an understanding of the effect of deafness and to develop skills to deal with its intervention. Future teachers, early-childhood specialists, and related service providers will participate in discussion, simulations, and applied exercises in acquiring course competencies. Prerequisite: Sign class of any type. LEC.

Educ Leadership Policy Stds Courses

ELPS 200. Making Connections Between Schools and Community. 3 Hours.
This course is designed to increase the students' awareness of learning in the classroom and to familiarize them with the role of the school and the community. Institutions and resources that support children and families will be addressed through large and small group sessions and field experiences. Emphasis is given to the diverse nature of schools, communities, and their populations. In addition, the course will acclimate students with the School of Education programs, admissions procedures, and curriculum offerings. Successful completion of this course does not guarantee eventual admission of the School of Education's Teacher Education Program. Prerequisite: Successful completion of CT 100. LEC.

ELPS 250. Education and Society. 3 Hours. AE41/AE51.
This course provides students with an introduction to key ideas and socio-historical forces that have shaped the contemporary educational system in the United States, drawing upon the disciplines of the historical, philosophical, and social foundations of education. The development of school and community relations will be a point of emphasis. LEC.

ELPS 301. Educational Technology in Elementary-Middle Education. 3 Hours.
The focus of this course is on developing integration strategies and acquiring computer skills for using instructional technology and educational software, digital media, and information technologies appropriate to elementary and middle school teaching environments. Students will gain expertise in (a) the selection of appropriate instructional technologies and digital media for use in the classroom; (b) production of technology-based instructional materials; and (c) the evaluation and validation of a variety of electronic information sources. Prerequisite: Admission to the Teacher Education Program. LEC.

ELPS 302. Educational Technology in Middle/Secondary Education. 3 Hours.
The focus of this course is on developing integration strategies and acquiring computer skills for using instructional technology and educational software, digital media, and information technologies appropriate to middle school and high school teaching environments. Students will gain expertise in (a) the selection of appropriate instructional technologies and digital media for use in the classroom; (b) production of technology-based instructional materials; and (c) the evaluation and validation of a variety of electronic information sources. Prerequisite: Admission to the Teacher Education Program. LEC.

ELPS 437. Politics and Governance of Public Schools. 3 Hours.
This course introduces students not pursuing K-12 teaching or administrative positions to the organizational and legal foundations of the American educational system. LEC.

ELPS 450. Foundations of Education. 3 Hours.
A historical approach to the major social and philosophical foundations of American education, with an emphasis on the relation of educational theory to classroom practice. LEC.

ELPS 490. Senior Internship I. 4 Hours.
Supervised field experience in an on-site educational setting that provides the student an opportunity to study and participate in the professional activities of a designated educational setting with emphasis on the planning, implementation, and evaluation of such activities. Regular conferences with faculty to evaluate student progress will be scheduled. Prerequisite: Admission to the non-certificate baccalaureate program. LEC.

ELPS 491. Senior Internship II. 4 Hours.
Supervised field experience in an on-site educational setting with increasing emphasis placed on an integration of formal learning and in site experience. Regular conferences with faculty will be scheduled. Prerequisite: Admission to the non-certificate baccalaureate program. FLD.

ELPS 497. Independent Study in:. 1-2 Hours.
Only one enrollment permitted each semester. A maximum of four hours will apply toward the bachelor's degree. Prerequisite: Recommendation of advisor and consent of instructor. IND.

ELPS 537. The Governance and Organization of Schools. 3 Hours.
The course provides the prospective teacher with an overview of the legal foundations of the American educational system including the ways schools and school districts are organized and run; the role of various levels of government and various governmental and educational officials in controlling education; the rights of students and teachers; the terms, conditions, and responsibilities of teacher employment. Prerequisite: Admission to the Teacher Education Program. LEC.

ELPS 540. Ethics in Education. 3 Hours.
This course examines practices and policies occurring in k-12 and postsecondary educational institutions through the lenses provided by ethics. During the semester, we will read, discuss, and write about ethics in education from both theoretical and practical perspectives. Prerequisite: Junior standing or higher. The course is suitable for advanced undergraduate and master's degree seeking students. LEC.

ELPS 550. Childhood and Youth in America. 3 Hours.
A study of the changing role and character of childhood and youth as stages of life in the context of American educational and cultural history. LEC.

ELPS 598. Special Course:. 1-5 Hours.
A special course of study to meet current needs of education students, primarily for undergraduates. LEC.

ELPS 627. Growing Up in Urbanizing America. 3 Hours.
A study of the changing role and character of childhood and youth as stages of life in the context of American urban and social history, with particular attention to education and human development. Prerequisite: Junior standing or higher. LEC.

ELPS 652. Residential Staff Skill Enhancement and Administration. 2-3 Hours.
This special course of study in residential staff skill enhancement and administration is an exploration of concepts and skills necessary for becoming an effective paraprofessional staff member in a residential living unit. Each class session will include presentations and experiential learning on topics to develop or improve interpersonal skills and skill in dealing with special concerns. The course is required or recommended for all residence and scholarship hall staff and open to upperclass or graduate students interested in student personnel work. LEC.

ELPS 715. Understanding Research in Education. 3 Hours.
This course introduces the concepts and skills involved in understanding and analyzing research in education and related areas. The course
ELPS 750. Principalship. 3 Hours.
An introduction to the role, responsibilities, expectations and major duties of elementary, middle, and high school building administrators. Students are presented typical problems faced by school administrators through simulations and role playing and are expected, through reflection and discussion, to develop viable solutions. LEC.

ELPS 751. Educational Finance. 3 Hours.
A description and analysis of national, state, and local strategies for the financial support of education, utilizing social, economic, legal, and political frameworks. Particular attention to the principles of revenue acquisition and distribution at the local and state level for public school operations, with analysis of how these principles apply to Kansas. Designed for the wide variety of educational practitioners regardless of organizational and degree levels. Prerequisite: Admission to graduate study. LEC.

ELPS 752. Education Law. 3 Hours.
A study of legal principles and issues affecting educational policy making and practice with emphasis on student and teacher rights, equity, and the administration of schools. Prerequisite: Admission to graduate study. LEC.

ELPS 753. Introduction to Personnel Administration in Education. 3 Hours.
An overview of the theory and practice of personnel administration. The course focuses on the processes of recruitment, selection, training and development, evaluation, compensation, equal employment opportunity, and labor relations. LEC.

ELPS 754. Analysis of Administrative Problems. 3 Hours.
An introduction to various methods of problem identification; strategies of information gathering; schemes for the analysis of qualitative and quantitative data; models of problem resolution and decision making; and communication methods appropriate for differing audiences. Students will build basic computer, library, decision and communication skills useful in future administrative practice and subsequent coursework. LEC.

ELPS 755. Human Resource Management. 3 Hours.
An overview of the theory and practice of personnel administration. The course focuses on the processes of recruitment, selection, compensation, placement, and development of personnel in the school setting. LEC.

ELPS 756. Education in American Society. 3 Hours.
A study of the roles and goals of education in the United States, the interrelationships among schools and students, teachers, administrators, and parents, and the culture of schools. LEC.

ELPS 760. Integration of Educational Technology. 3 Hours.
This course focuses on strategies for integrating educational technology in K-12 schools, universities, government or industry. Topics include applying technology in: a) understanding basic technology operations b) planning and designing learning experiences, c) curriculum development, d) assessment and evaluation e) productivity and professional practices, and considering f) social, ethical, legal, and human issues. Students produce a comprehensive electronic portfolio that describes the theoretical perspectives that guide their technology integrations strategies and evidence that demonstrates their competencies. LEC.

ELPS 772. Philosophical Problems in Comparative Education. 3 Hours.
A study of significant philosophical problems encountered when comparing educational systems. Special emphasis on the implications of axiological analysis for educational theory and practice in different areas of the world. Relationships among the social sciences, philosophy, and the international or cross-cultural venture in education. The importance of systematic value-theory in comparative research and international education. LEC.

ELPS 773. School and Society in Comparative Education. 3 Hours.
Analysis of the role of social science in comparative education as perceived by different philosophies or schools of thought, such as Marxism, phenomenology, empiricism, pragmatism, and linguistic analysis. LEC.

ELPS 774. Modern Educational Theorists. 3 Hours.
An in-depth study of prominent European thinkers who have contributed to educational theory and practice (e.g., Rousseau, Pestalozzi, Herbert, Froebel, Montessori, Nietzsche, Freud, Piaget, Ortega Gasset, etc.). Prerequisite: ELPS 770 or ELPS 771 is recommended. LEC.

ELPS 777. Problems in Contemporary Educational Theory. 3 Hours.
Select explorations into such provocative and problematic trends in current educational theory as Marxism, behaviorism, phenomenology, existentialism, analytic philosophy, hedonism, nonverbal education, etc. Prerequisite: ELPS 770 or ELPS 771 is recommended. LEC.

ELPS 780. Introduction to Higher Education Administration. 3 Hours.
This course is designed for beginning master's degree students and for doctoral students who have had no previous administrative experience in college or university settings. Students will be introduced to the function and responsibilities of major administrative divisions of a college or university and to the major tasks of administration: planning, programming, budgeting, staffing, managing. An emphasis will be placed on current issues facing higher education and students will be introduced to the major journals of the field. As part of the course requirements, students will spend some time familiarizing themselves with one or more administrative offices on a college campus. Prerequisite: Admission to higher education at the graduate level. LEC.

ELPS 781. Student Affairs Administration in Higher Education. 3 Hours.
This course is designed to include the study of the history and development of student personnel services in higher education, the role and function of the student affairs administrator, contemporary issues and problems, and an understanding of the organization and role of student affairs administration within higher education settings. Prerequisite: Admission to the higher education program or permission of instructor. LEC.

ELPS 798. Special Course:. 1-5 Hours.
A special course of study to meet current needs of education professionals -- primarily for graduate students. LEC.

ELPS 810. Educational Media Development. 3 Hours.
Media surrounds today's learning environments. How can you effectively engage learners with multimedia, meaningful interactions, and motivational strategies? This course will take a hands-on practical approach to creating interactive educational multimedia products including, but not limited to, digital images, movies, podcast, Web publishing and educational games. Also, students will learn about the underlying learning theories of educational media development. LEC.
ELPS 811. Constructivist Learning Technologies. 3 Hours.
This course explores the design and use of new educational technologies to support constructivist learning. Throughout the course, students will (1) get hands-on experiences with emerging educational technologies, (2) examine how the underlying learning theories are reified into concrete learning environments, and (3) analyze how the affordances of new technologies (e.g., modeling and visualization) can facilitate the constructivist learning processes. This course is suitable for students who wish to develop greater knowledge about the ways emerging computer technologies can empower constructivist learning. Prerequisite: CT 770. LEC.

ELPS 812. Design of Educational Technology. 3 Hours.
This course introduces instructional design theory and production techniques for developing educational technology resources and systems. Students apply their understandings of design and education theories as they work in teams to develop real-world applications of educational technology for specific clients. LEC.

ELPS 820. Practicum in Educational Technology. 1-3 Hours.
Supervised practice in a media center in selection, classifying, designing, producing, and/or managing instructional materials. Prerequisite: CT 770 and CT 871. FLD.

ELPS 830. Foundations of Multicultural Education. 3 Hours.
This class provides students with an understanding of multicultural education as an instructional concept, educational reform movement, and systemic process meant to ensure educational equity for all people, especially those who have been inadequately served and/or historically discriminated against because of their racial/ethnic or linguistic backgrounds, gender or sexual orientation, socio-economic status, and special needs. Students will examine different theoretical approaches that inform the practice of multicultural education and explore the contributions of various social sciences to the field. LEC.

ELPS 831. Sociology of Education. 3 Hours.
This course will provide an introduction to the sociology of education. This course is designed to fulfill the doctoral core requirement for social, historical and philosophical foundations of education. Specific topics will include: conflict over the purposes of education; how those purposes are-or are not-translated into actual classroom life; how educational systems have developed historically, how status, and more specifically race, class and gender relations, affect student experiences; and contemporary policy and reform movements. LEC.

ELPS 832. History of Educational Thought. 3 Hours.
An examination of the major ideas that have shaped practice in the schools. Emphasis is placed on assisting the student with the development of a coherent and consistent personal philosophy of education upon which administrative practice can be based. LEC.

ELPS 833. Social Context of Urban Education. 3 Hours.
This course examines education in urban communities through the foundational disciplines of history, philosophy, and the social sciences. Particular attention is given to ways in which the changing social and political contexts of American cities affect the educational process. LEC.

ELPS 834. History and Philosophy of Education. 3 Hours.
A comprehensive study of influential persons and movements in the development of educational thought, Eastern and Western, from ancient times to the present. Emphasis on those ideas and historical roots which are relevant to contemporary issues in teaching and school administration. LEC.

ELPS 835. Philosophy of Education. 3 Hours.
An analytic inquiry into basic philosophical positions and issues relevant to education. The difference between ELPS 770 and ELPS 771 is that the latter is topically arranged and does not necessarily follow a historical sequence; it normally proceeds by problems and schools of thought. LEC.

ELPS 837. History of Education and Culture in America. 3 Hours.
A study of the relation between education and culture in America from colonial times to the present. American schools are considered in the wider context of cultural and social change. LEC.

ELPS 838. History of Childhood and Youth in America. 3 Hours.
An exploration of changing attitudes toward children and youth, their subjective experience, their impact on adults, and the conditions that shaped their development. Special attention will be given to the relationship between the changing nature of childhood as a social and cultural category and the development of the education profession. LEC.

ELPS 839. Historical Inquiry in Education. 3 Hours.
This course will provide an introduction to the methodology of historical research in education. This course is designed to fulfill the doctoral core requirement for research methods in education for students interested in doing this type of research. Specific topics will include: the historiography of education; working with primary and secondary documents; oral history as method and documentation; quantitative approaches to history; constructing historical narratives; the question of interpretation. LEC.

ELPS 850. Educational Facilities. 3 Hours.
A study of the principles and processes of developing functional educational facilities. Special emphasis placed on the educational planning that precedes and provides the basis for architectural planning. Among topics considered are plant utilization analysis, enrollment projections, site and equipment needs, fiscal and legal constraints, environmental factors, and the development of educational specifications. Designed for both building and central office level administrators. Prerequisite: Admission to graduate study. LEC.

ELPS 851. Supervision of Student Teaching. 2 Hours.
A study of the organization and functions of student-teaching programs. Emphasis on the development of effective interpersonal relationships among school administrators, cooperating teachers, university supervisors, and student teachers. Designed for both administrative and instructional personnel. Prerequisite: Admission to graduate study. LEC.

ELPS 852. School Resource Management. 3 Hours.
An examination of the sources and uses of fiscal resources in education including underlying concepts from economic theory, the impact of values on fiscal policy, state funding formulas, and school budgeting and accounting practices. LEC.

ELPS 853. Staff Evaluation and Development. 3 Hours.
An examination of current trends in personnel evaluation with a focus on clinical supervision and adult development. Students will participate in simulation exercises to develop skills in classroom observation, conferencing techniques, evaluation of teaching artifacts, and the construction of staff development plans. LEC.

ELPS 854. The Student in Society. 3 Hours.
A study of children and youth with particular emphasis on demographic characteristics of the population served by schools and implications of those characteristics for schools and schooling. LEC.

ELPS 855. Teacher Evaluation. 3 Hours.
Teacher Evaluation is based on clinical, empirical and theoretical information related to effective teacher evaluation behavior from the administrative perspective. It is intended to provide exposure to competencies essential to effective evaluation of teaching performance. Evaluation knowledge, skill and performance are acquired and developed through reading, discussion, active teaching of content related to teacher evaluation and practicing observation, recording and conferencing
skills. A variety of approaches is considered, but behaviorally-anchored measurement of teaching behavior is emphasized. Opportunities and needs for improvement are identified with the assistance of video-taped diagnosis of conferencing behavior. Prerequisite: Two of the following: ELPS 750, ELPS 752, ELPS 753, or CT 840. LEC.

ELPS 856. Law and Special Education. 3 Hours.
This course focuses on laws that apply to special education. The American legal system, particularly in respect to special education, the constitutional and statutory provisions of federal and state law and the judicial decisions interpreting those laws are reviewed. The course relates equal protection, procedural due process, and substantive due process doctrines to school practices affecting disabled children and examines the sex principles of P.L. 94-142 and similar principles in state legislation. This course is not the equivalent of or a substitute for ELPS 752. (Same as SPED 851.) Prerequisite: ELPS 750 or permission of instructor. LEC.

ELPS 857. Disabled Citizens, Public Policy and Policy Analysis. 3 Hours.
To train students to analyze public policy that affects disabled citizens, various models of analysis are brought to bear on federal policy (education, transportation, housing, institutionalization, protection and advocacy, medical assistance, employment, vocational rehabilitation and others). Not valid for core requirement in history and/or philosophy of education. (Same as SPED 852.) Prerequisite: ELPS 851 or permission of instructor. LEC.

ELPS 858. Professional Ethics, Public Values and Disabled Citizens. 3 Hours.
This course addresses the issues that professionals (educators, physicians, allied health providers, attorneys and others) and families of disabled people face in the context of public values and attitudes and rules of law. The issues include, without limitation, education, treatment and non-treatment. Not valid for core requirement in history and/or philosophy of education. (Same as SPED 853.) Prerequisite: ELPS 750, SPED 851, SPED 852 or permission of instructor. LEC.

ELPS 870. Philosophy of Education II. 3 Hours.
An exploration of select areas in philosophy, such as emphasis on value-theory or epistemology or metaphysics, and their implications for educational theory. Normally a limited number of authors will also be selected for monographic treatment. Prerequisite: ELPS 770 or ELPS 771 is recommended. LEC.

ELPS 871. Introduction to Qualitative Research. 3 Hours.
An introduction to the foundations of and techniques associated with qualitative research methods. Students will practice interview and participant observation skills and will analyze and interpret data. Additional topics include crafting qualitative research questions, ethics of fieldwork, and establishing trustworthiness of data. Common traditions of qualitative methods employed in education and other related fields will be introduced. LEC.

ELPS 880. The Community/Junior College. 3 Hours.
A survey of the history and development of the community/junior college. Particular emphasis will be given to the student, the faculty, the curricula, administration, and finance. The course is intended to provide a general understanding of the operation and concerns of today’s community/junior college for the current or potential community/junior college staff member. LEC.

ELPS 881. Seminar in Leadership. 3 Hours.
The purpose of this seminar is to explore leadership in education, particularly higher education, from a variety of perspectives. Readings come from a variety of disciplinary perspectives, such as sociology, organizational behavior, and psychology. We consider various aspects of leadership and analyze the leader from a symbolic perspective, as a manager of meaning and critical change agent. We then challenge ourselves to deconstruct our leadership realities with the help of several critical perspectives as we prepare to examine who the leaders are as well as who they will, and need to, be in the educational organizations of tomorrow. LEC.

ELPS 882. Higher Education in the United States. 3 Hours.
The purpose of the course is to acquaint students in higher education, and students from other areas who intend to work in the post-secondary setting, with the history, philosophy and development of higher education in the United States. The course focuses on three periods: 1) the founding of Harvard to 1965; 2) dissent, disruption, and change, 1965-1979; and 3) the future and crucial issues, the 1980’s. European higher education and its early influence on higher education in the United States is also examined. LEC.

ELPS 883. The College Student. 3 Hours.
The characteristics of college students; impact of college on student behavior, changing attitudes, values, beliefs, and the implications of recent research on traditional and new students for instructional and administrative practices. LEC.

ELPS 884. Research on College Students. 3 Hours.
Examination of the American college student from societal, development, research, and institutional perspectives and to review the policy implications of these findings for college and university administrators and faculty. Topics include research and theory concerning the college student experience, the diverse nature of the student body and its implications for institutional policy and practice, and formulation of individual philosophies and priorities applicable to working with college students. LEC.

ELPS 885. Assessment and Program Evaluation in Higher Education. 3 Hours.
Nature, objectives, and basic procedures of assessment and program evaluation as applied to the various aspects of higher education settings. In addition to basic procedures for evaluating programs, topics covered include accreditation, program review, benchmarking, student outcomes assessment, and evaluation of teaching in colleges and universities. Prerequisite: ELPS 715 or equivalent. LEC.

ELPS 886. Theory into Practice in Higher Education. 3 Hours.
This course is required as a final course for all master’s students in higher education. It is designed to prepare students for professional life after graduation. Using a case study approach, students will examine the reality of practice in a variety of higher educational settings including relevant political and ethical factors. Prerequisite: Higher education students in last semester of master’s coursework. LEC.

ELPS 893. Advanced Building Leadership Internship. 2 Hours.
Supervised and directed experiences to enhance the necessary leadership skills of a building/district leaders. Activities will include building/district level resource assessment, data analysis, professional development of teachers/principals (and district level professionals), and cooperative planning with teachers and administrators around responsibilities of curriculum, instruction, resource management and student achievement. Prerequisite: Completion (at the University of Kansas) of all certification program (MS/EdD) requirements for the Building/District Leadership Licenses. FLD.

ELPS 895. Internship. 1-5 Hours.
The on site development of the skills necessary to effectively function as a school building leader. Activities will be tailored to the needs of individual students in consultation with a university advisor and a field advisor. FLD.

ELPS 896. Seminar in:. 1-4 Hours.
ELPS 897. Independent Study. 1-4 Hours.
Prerequisite: Consent of advisor and instructor. IND.

ELPS 898. Master’s Project. 1-4 Hours.
RSH.

ELPS 899. Master’s Thesis. 1-6 Hours.
THE.

ELPS 948. Research in Education Policy and Leadership. 3 Hours.
This course is an introduction to methods of inquiry in education policy and leadership studies. It is designed to help doctoral students explore possible research interests, formulate research questions, and to review a rich variety of approaches to inquiry in the field of education. Specific topics include: interview- and observation-driven studies, ethnography, feminist and narrative methods, legal and historical methods, questionnaire-driven studies, quantitative evaluation studies, and studies using administrative and large national data sources. LEC.

ELPS 950. Educational Policy Making and Reform. 3 Hours.
An analysis of patterns of influence, organizations, and governmental agencies which impact education at the community, state and national levels. Particular emphasis is placed on analysis of policy development process and the relationship of policy to administration. Recommended to students in educational administration and higher education. LEC.

ELPS 951. Supervision of Instruction. 3 Hours.
A study of the principles and techniques necessary for coordinating, monitoring, and improving the educational programs of elementary and secondary schools. LEC.

ELPS 952. School Finance: Policy and Practice. 3 Hours.
The objective of this course is to understand the financial systems and mechanisms used by states in the funding of elementary and secondary education in the United States. In simple language, we will be concerned with five basic issues: (1) Where the money comes from; (2) How it is redistributed; (3) How it is spent; (4) The relative effectiveness of spending decisions including selected international comparisons; and (5) How the previous four financial activities participate in a common financial ecology. The course provides an overview of theory and concepts central to the understanding of school finance with an emphasis on policy issues. It also examines the mechanics of school finance funding in light of state policies. LEC.

ELPS 953. District Human Resource Management. 3 Hours.
An in-depth study of theory and research in personnel administration. The focus will be on current literature dealing with empirical assessments of personnel theory and techniques. Specific concepts to be considered include the following: educator characteristics, job analysis and design, personnel recruitment, selection and evaluation techniques, staffing and development, and labor relations. Prerequisite: ELPS 753 or its equivalent. LEC.

ELPS 954. Sociology of Educational Organizations. 3 Hours.
This class is an overview of basic and advanced sociological and political theories of organization, with specific application to issues and problems in K-12 education. It is designed for graduate students and practicing educational leaders and administrators who intend to utilize research on organizations in their studies of the governance of schools, the sociology and politics of education, and education policy. The topics covered include the origins and nature of modern bureaucracy, formal structure and function, organizational control, transaction cost economics, population ecology, resource dependence, the new institutionalism, organizational effectiveness and legitimacy, organizational culture, power and politics, and change. LEC.

ELPS 955. District Business Management. 3 Hours.
This course emphasizes skills for effective and efficient business and financial management of school districts in a Kansas or Missouri context. Basic topics include: Short range and long range financial planning, analysis of financial statements, budget preparation, fund accounting and financial reporting, contracting of services including transportation and food services, staff salaries and benefits and insurance. The course also includes a number of strategic methods for institutional planning including: Cost Benefit Analysis, Cost Effectiveness Analysis, and enrollment, revenue and expenditure forecasting techniques. Prerequisite: ELPS 952. LEC.

ELPS 956. District Leadership. 3 Hours.
The focus of the course is the role of the public school district superintendent. Organized study will include assigned readings, lectures, guest speakers, discussion, and the completion of a study project. The course will include consideration of such topics as boardmanship, community relations, district leadership, professional accountability, district maintenance and operations, professional employment and relationships with other agencies. The course is designed to serve the needs of those graduate students pursuing advanced study with the intention of completing requirements for district certification. Some students will also find the field appealing as an area for dissertation research. Prerequisite: Doctoral status in education administration or permission of instructor. LEC.

ELPS 957. Educational Policy, Ethics and Law. 3 Hours.
Course focuses on use of legal and moral reasoning in analysis of educational policy issues. Specific topics will vary depending on interests of instructor and students and current controversy. Examples of possible topics to be included: school desegregation, teacher collective bargaining, separation of church and school, equal educational opportunity. Prerequisite: ELPS 752, equivalent, or consent of instructor. LEC.

ELPS 958. American Educational Reform Movements: Past and Present. 3 Hours.
An examination of the origin, nature, and consequences of educational reform in the United States. The primary goal is to attain a balanced evaluation of current educational reform. LEC.

ELPS 959. Organization and Administration of Services for Exceptional Children. 3 Hours.
To aid administrators and prospective administrators responsible for organizing and administering programs of education for exceptional children, state and federal guidelines and regulations, legal aspects and financing of special education, planning a program, administering special services. (Same as SPED 971.) Prerequisite: Nine hours of Education including educational psychology and SPED 725. LEC.

ELPS 960. Specialist Project. 1-4 Hours.
RSH.

ELPS 970. Theory and Research in Administration. 3 Hours.
A survey of the theoretical and empirical literature in educational administration and the methods used to investigate these content areas. Major emphasis is devoted to developing research skills applicable in practice and to the identification of possible generic topics suitable for future dissertation work. LEC.

ELPS 971. Comparative Education. 2 Hours.
A factual, descriptive, and analytical study of national systems of formal education, or schooling, as exemplified in contemporary educational establishments. Organizational and administrative policies and teaching practices, with emphasis on Germany, France, England, U.S.S.R., People’s Republic of China and Japan. Other nations may be examined
ELPS 972. Educational Problems in Latin America. 3 Hours. Designed to meet the needs of students majoring in Latin American studies or interested in the area. Development of an awareness of the concept of cross-cultural confluence with Latin America as it relates to education. Survey of the main problems confronted by Latin American educational systems and examination of the difficulties experienced by North American educators when confronted with such problems. LEC.

ELPS 975. Education, Technology and Social Change. 3 Hours. This interdisciplinary course provides an opportunity to read, reflect upon, and discuss ideas drawn from the emerging field of Science and Technology Studies (STS) in connection with education. Its focus is the interrelationships between technology, society, and education (defined broadly to include non-school and adult learning settings). It explores how knowledge, expertise, and authority are constructed within and across social and cultural groups, with particular attention social and economic inequality. It also considers the relationship between emerging technologies, educational experiences and the nature of "the self" in society, among other issues. Prerequisite: Admission to ELPS doctoral program, or permission of instructor. LEC.

ELPS 980. Postsecondary Finance. 3 Hours. This course is designed for advanced doctoral students in higher education, particularly those who will be preparing unit budgets or budget presentations and those who make and implement fiscal policy (e.g., financial aid offers). The course material covers different types of college and university budgeting -- incremental, zero-based and formula -- and their impact on university revenues; statewide coordination and its impact on programs, program duplication and funding; retrenchment and quality issues; the legislative role in budget preparation; unified and comparative management systems (e.g., WICHE and NCHEMS); and the impact of federal contracting and student aid policies. LEC.

ELPS 981. Higher Education Law. 3 Hours. An overview of the developing law of higher education, with emphasis on and analysis of employer-employee relationships, student-faculty/administration relationships, and the impact of federal and state regulation on these relationships. LEC.

ELPS 982. Faculty in Higher Education. 3 Hours. This course considers the role and circumstances of faculty in higher education including variations among different types of institutions. Topics include the history and demographics of the professoriate, the academic work environment and labor market, the role of faculty in institutional governance and policy making, and the social and political context of academia. LEC.

ELPS 983. Curriculum Innovation in Higher Education. 3 Hours. A study of contemporary post-secondary curriculum with particular emphasis on the nature of curriculum, the organization and structure of academic programs, the nature of change in academic communities and exemplary innovative institutions. LEC.

ELPS 984. Teacher Education in the United States. 2 Hours. A study of the development, issues, and programs for the preparation of teachers. Open to all regular graduate students. LEC.

ELPS 985. Evaluations of Programs in Higher Education. 2 Hours. Nature, objectives, and basic procedures of evaluation as applied to the various aspects of higher education. Open to all regular graduate students. LEC.

ELPS 986. The Governance and Administration of Higher Education. 3 Hours. A theory-based course aimed at providing an understanding of the governance and administration of academic institutions -- particularly universities. Emphasis is directed toward an analysis of decision-making in these complex organizations. LEC.

ELPS 993. Advanced District Leadership Internship. 2 Hours. Supervised and directed experiences to enhance the necessary leadership skills of a building/district leaders. Activities will include building/district level resource assessment, data analysis, professional development of teachers/principals (and district level professionals), and cooperative planning with teachers and administrators around responsibilities of curriculum, instruction, resource management and student achievement. Prerequisite: Completion (at the University of Kansas) of all certification program (MS/EdD) requirements for the Building/District Leadership Licenses. FLD.

ELPS 994. Advanced Topics:. 1-3 Hours. A special course of study to meet current needs of education professionals -- primarily for post-master's level students. LEC.

ELPS 995. Field Experience in:. 1-5 Hours. Supervised and directed experiences in selected educational settings. The advisor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experience will be prepared independently by the student, a representative of the cooperating agencies, and the advisor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. FLD.

ELPS 996. College Teaching Experience in: ____. 2 Hours. To meet the college teaching experience requirement for doctoral programs, a student shall engage in a semester-long, planned, instructional activity that shall include college classroom teaching under supervision. Planning shall be done with the advisor and/or the member of the faculty who will supervise the experience. The activity shall be done under the supervision of a member of the University of Kansas faculty or by an individual or individuals designated by the candidate's committee. FLD.

ELPS 997. Individual Study. 1-4 Hours. Prerequisite: Prior graduate course work in the area of study and consent of instructor. RSH.

ELPS 998. Seminar in:. 1-4 Hours. LEC.

ELPS 999. Doctoral Dissertation. 1-15 Hours. THE.

Education Courses

EDUC 800. Education as a Field of Scholarship. 3 Hours. An intensive interdisciplinary examination of classic and current scholarship in education, for students in Ph.D. programs in the School of Education. It surveys the interdisciplinary range of scholarship and inquiry in education, as preparation for careers in research. The course features discussion of exemplary studies, both for their contributions to various fields, but also with regard to research methods, related ethical issues and the responsible conduct of research. Prerequisite: Admission to Ph.D. in Education Program. LEC.
Health Sport Exercise Sci Courses

HSES 104. Physical Activity in: _____ 0.5-1 Hours.
(An accurate description of the activity or activities will be given in the Timetable.) Graded on a satisfactory/unsatisfactory basis. ACT.

HSES 108. Basic Skill Instruction in: _____ 0.5-2 Hours.
(An accurate description of the activity or activities will be given in the Timetable.) ACT.

HSES 110. Intermediate Skill Instruction in: _____ 0.5-2 Hours.
(An accurate description of the activity or activities will be given in the Timetable.) ACT.

HSES 112. Advanced Skill Instruction in: _____ 0.5-2 Hours.
(An accurate description of the activity or activities will be given in the Timetable.) ACT.

HSES 200. Coaching Certification for Youth Sports. 2 Hours.
This course will examine theories, practices, methods and techniques used to coach youth sports. Emphasis will be upon training, conditioning, sports psychology, nutrition, organization and management as prescribed by the National Federation of Interscholastic Coaches’ Education Program. Students will have an opportunity to receive coaching certification. Prerequisite: Open to physical education majors, or by consent of instructor. Students must pass the National Federation of Interscholastic Coaches’ Education Program (NFICEP) examination before exiting the course. LEC.

HSES 201. Team Sports. 2 Hours.
This course will deal with Soccer, Touch Football, Basketball, Softball, and Volleyball. Practice in construction of lesson plans and unit plans, skill performance and peer teaching practicum are emphasized in each of the areas of team sports. Class meets three days per week with one hour being a laboratory session. Prerequisite: Basic fitness and knowledge of the activities. Open to HSES majors and minors, or by consent of instructor. LEC.

HSES 202. Individual and Dual Sports. 2 Hours.
Instruction and analysis in individual sports such as track and field, bowling or archery, and dual sports such as tennis, badminton or handball. Development of sport skills and rule knowledge are emphasized. Prerequisite: Basic fitness and knowledge of the activities. Prerequisite: Open to pre-HSES and HSES majors, or by consent of instructor. LEC.

HSES 204. Gymnastics. 2 Hours.
Instruction and analysis in the eleven gymnastics events for men and women. Skill performance, spotting and teaching techniques, lesson and unit plan construction, and teaching practicum constitute the basic focus of this course. Class meets three days per week with one hour being a laboratory session. Prerequisite: Basic fitness and gymnastics/tumbling experience. Open to HSES majors and minors, or by consent of instructor. LEC.

HSES 210. Instruction and Analysis in: _____ 1-16 Hours.
Study of the skills to be included in the instruction of the indicated activities and the analysis of skill performance involved. Presentation of instructional techniques and practice in construction of lesson and unit plans are included for each activity. Open to majors in physical education only. The activities included in the major program are as follows: (a) Swimming (b) Folk and Square Dance (c) Modern Dance and Women’s Gymnastics (d) Weight-Training and Men’s Gymnastics (e) Soccer-Speedball, Volleyball, Wrestling (f) Field Hockey, Soccer-Speedball, Volleyball (g) Golf, Tennis, Badminton, Archery (h) Basketball, Softball, Flag Football, Team Handball (i) Track and Field, Handball-Paddleball, Fencing. Prerequisite: Basic fitness and basic skill in the course activities shown through competency tests and/or credit in basic skill courses in the appropriate activity. LAB.

HSES 214. Physical Education Activities for Elementary School Children. 3 Hours.
This course will introduce the student to a variety of physical education activities that are appropriate for children in grades K-6. Age appropriate activities demonstrated in this course include: individual and group games, self testing games, stunts and tumbling experiences, physical fitness, modified sports, and movement exploration. Class participation will be expected for all students. Prerequisite: Open to pre-HPE and HPE majors. LEC.

HSES 218. Lifeguard Training. 2 Hours.
The course involves American Red Cross certification in lifeguarding which includes rescue techniques and safety procedures. It also includes first aid and CPR certifications. Each student will be asked to identify common hazards associated with various types of aquatic facilities and develop skills necessary to recognize a person in a distress or drowning situation and to effectively rescue that person. This course will help each student to understand the lifeguard/employer and lifeguard/patron relationship as well as provide explanations, demonstrations, practice and review of the rescue skills essential for lifeguards. Prerequisite: HSES 112 Advanced Skill Instruction in Swimming or consent of instructor. LEC.

HSES 220. Officiating of: _____ 1 Hour.
A study of the rules and techniques of officiating. Students will officiate during laboratory sessions. The activities offered in officiating are: basketball, football, gymnastics, softball, swimming, track and field, and volleyball. Prerequisite: Basic competency in the sport to be officiated, or consent of instructor. LEC.

HSES 222. Water Safety Instruction. 2 Hours.
This course is designed to train instructor candidates to teach American Red Cross Swimming and Water Safety courses. Through practice teaching sessions, students will plan and organize skill development utilizing the various educational methods and approaches applicable to swimming and water safety instruction. Students will also learn the correct swimming styles taught by the Red Cross. Prerequisite: HSES 112 Advanced Skill Instruction in Swimming or consent of instructor. LEC.

HSES 224. Lifeguard Training Instructor. 2 Hours.
This course is designed as a lecture/laboratory course, meeting for one hour three days per week. Each instructor candidate (student) will have an opportunity for skill development necessary to instruct American Red Cross Lifeguard Training courses. Through practice teaching sessions, emphasis will be placed on enforcing safety precautions, identifying errors, providing effective instruction, and skills correction. After successful completion of this course, the student will be certified to instruct the following American Red Cross Aquatic courses: (1) lifeguard training, (2) waterfront lifeguarding, (3) CPR for professional rescue, and (4) community first aid. Prerequisite: HSES 218 or lifeguard training. LEC.

HSES 236. Practicum in: _____ 1-3 Hours.
A description of the activities offered will be provided in the Timetable. Prerequisite: Consent of instructor. FLD.

HSES 240. The Coaching of Football. 2 Hours.
A complete study of the theoretical aspects of the fundamentals of football. Study of defensive and offensive tactics for each position. Prerequisite: Sophomore standing. LEC.

HSES 244. Introduction to Physical Education and Sport Studies. 3 Hours.
The study of the history, foundational concepts, and current principles of physical education and sport programs. LEC.
HSES 248. First Aid. 2 Hours.
This course is designed to teach emergency treatment of injuries, wounds, hemorrhage, burns, and poisoning. Emphasis is placed on the techniques of rescue breathing, CPR, and emergency bandaging. American Red Cross certification is included. LEC.

HSES 250. Introduction to Athletic Training. 3 Hours.
The introductory study of the prevention, immediate care, and treatment of athletic related injuries and illnesses. This course is designed for Athletic Training majors to cover the basic competencies of injury/illness recognition as well as discuss the various strategies for the prevention, evaluation, and care of injuries to the physically active. Prerequisite: Instructor consent and concurrent enrollment in HSES 251. LEC.

HSES 251. Introduction to Athletic Training Practicum. 1 Hour.
This course is designed to introduce the practical skills and psychomotor clinical competencies of the beginning student-athlete trainer. Emphasis will be placed on basic Athletic Training procedures including but not limited to preventative taping, bracing, and padding techniques as well as various other procedures and techniques related to the prevention, care, and management of athletic related injuries/illnesses. Prerequisite: Completed or enrolled in Human Anatomy, First Aid/CPR (or proof of current certification). Concurrent enrollment in HSES 250 or transfer credit. Open to Athletic Training majors only. LEC.

HSES 252. The Coaching of Basketball. 2 Hours.
Theory of basketball, including methods of teaching fundamentals; individual and team offense and defense; various styles of play and methods of coaching. Prerequisite: Sophomore standing. LEC.

HSES 260. Personal and Community Health. 3 Hours.
Emphasis on healthful and intelligent living and the application of the fundamental principles of health. LEC.

HSES 262. Life Skills Training for Intercollegiate Athletics. 2 Hours.
This course will focus on issues surrounding drug use, testing, and prevention in sports and will incorporate life skills training in the areas of career transition, stress and time management, performance enhancement, strategic learning skills, and the dynamics of communication and leadership. LEC.

HSES 264. The Coaching of Individual Sports. 2 Hours.
An analysis of coaching techniques and study of materials for the coaching of gymnastics, swimming, golf, tennis, and wrestling. LEC.

HSES 269. Introduction to Exercise Science. 3 Hours.
A study of the various components of physical fitness and the wellness and the implications for developing programs to promote good health and fitness. Lectures and laboratory sessions will be centered on practical knowledge and experiences designed to help individuals enhance their own health, as well as develop sound programs for others. The topics discussed include cardiovascular fitness, body composition, muscular strength, flexibility, evaluation of fitness components, training program design, nutrition, weight management, and facts and fallacies of nutrition and fitness. LEC.

HSES 289. Introduction to Sport Management. 3 Hours.
This course provides an overview of the field of sport management including the principles of leadership and management the fundamentals of personnel management, financial management, marketing, strategic planning, sport ethics, sport law, time management, stress management, facility management, and event management applied to sport settings. LEC.

HSES 290. Safety Education. 3 Hours.
A survey of safety problems as they exist in society today, with emphasis on preventive, corrective, and compensatory procedures. LEC.

Emphasis will be on instructional techniques that are used for the inclusion of all students in health and physical education learning experiences. Students will develop an understanding of how to deliver health and physical education activities that may be part of an individual education program. As a part of this course, a practicum experience of 30 hours in a public school adaptive physical education setting will be required. LEC.

HSES 305. Methods of Strength Training and Conditioning. 3 Hours.
This course will provide the students with the scientific principles and the hands-on experience to develop resistance exercise and related conditioning programs for a wide range of populations, including those focusing on general fitness, therapeutic rehabilitation and sport performance. Prerequisite: Anatomy, Physiology, admission to the Exercise Science or Athletic Training undergraduate programs, or permission of instructor. LEC.

HSES 308. Drugs and Diseases in Society. 3 Hours.
This course is an overview of human disease processes as well as legal and illegal use of drugs and narcotics for treatment or recreational purposes. Both communicable and degenerative diseases will be covered with regards to prevention, transmission, effects, management, and treatment. Legal drugs and illegal drugs will be discussed with regards to their treatment or abuse potential, legislative issues, and consumer education. Reflective thinking will be used to formulate improved perspectives on the roles of drugs and diseases in society. Prerequisite: Admission to Community Health Program or consent of instructor. LEC.

HSES 310. Research and Data Analysis in Health, Sport, and Exercise Sciences. 3 Hours.
This course provides formal instruction in the areas of test administration, general statistics, and basic research design. Emphasis will be placed upon the interpretation of statistical data, evaluation of data, and basic methodologies utilized in health, sport, and exercise sciences research. Data collection, analysis, and evaluation will be an integral part of the class. Prerequisite: Admission to the School of Education. LEC.

HSES 315. Health and Fitness Technology. 2 Hours.
The course will prepare health and physical education majors to use technology effectively to enhance teaching and learning. Students will explore the use of technology appropriate for communication, organization, instruction, and assessment in health and physical education classrooms. Prerequisite: Admission to the HPE Teacher Licensure Program. LEC.

HSES 320. Methods of Teaching Physical Education. 3 Hours.
This course provides a systematic approach to the development of effective teaching skills in physical education. Students receive practical and field experiences that enable them to observe and practice managerial, instructional, and interpersonal skills necessary to produce student learning in K-12 physical education classrooms. Prerequisite: Admission to the HSES Teacher Certification Program. LEC.

HSES 330. Principles of Nutrition and Health. 3 Hours.
This course will provide an introduction to the basic principles of nutrition, with an emphasis on application of these principles to improve overall health. Topics include: guidelines for a balanced diet, Index of Nutritional Quality, energy requirements and balance, weight management and obesity, nutritional quackery, sports nutrition, nutrition for children and elderly, and eating disorders. LEC.

HSES 340. Instructional Strategies in Motor Development. 2 Hours.
This course is designed to provide students with an examination of current theories of motor development throughout the life cycle. Emphasis is
HSES 341. Instructional Strategies in Physical Education for Elementary Classroom Teachers. 1 Hour.
The application of child growth and development principles to physical education. The use of materials as related to a sequential physical education curriculum in the elementary school will also be included. Prerequisite: Prior or concurrent enrollment in CT 322 or equivalent. LEC.

HSES 350. Care and Prevention of Athletic Injuries. 3 Hours.
The introductory study of the prevention, immediate care, and treatment of athletic related injuries and illnesses. This course is designed to cover the basic fundamentals of injury/illness recognition as well as discuss the various strategies for the prevention and care of injuries to the physically active. Prerequisite: Courses in Human Anatomy and First Aid. LEC.

HSES 351. Foundations of Athletic Training. 1 Hour.
This course is designed to introduce the practical skills and psychomotor clinical competencies of the beginning student-athletic trainer. Emphasis will be placed on basic athletic training procedures including but not limited to preventative taping, bracing, and padding techniques as well as various other procedures and techniques related to the prevention, care, and management of athletic related injuries/illnesses. Prerequisite: Human Anatomy, First Aid, concurrent enrollment in HSES 350. Open to Athletic Training majors only. LEC.

HSES 352. Therapeutic Modalities. 3 Hours.
This course presents the theoretical and physiological foundations of pain and inflammation. Discussion of therapeutic agents to treat pain and inflammation are presented along with progressive planning and implementation of a comprehensive treatment for injuries/illnesses sustained by physically active individuals. Prerequisite: Admission into the Athletic Training Education program and HSES 250 or the transfer equivalent. LEC.

HSES 353. Athletic Training Practicum I. 2 Hours.
This course provides a practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury/illness evaluation during their clinical and field experience. Specific skills addressed in HSES 352 will be practiced, applied, and mastered during this experience. Prerequisite: Admission to Athletic Training Education program and concurrent enrollment in HSES 352. FLD.

HSES 354. Lower Extremity Evaluation. 3 Hours.
This course provides a comprehensive study of the techniques used by the Athletic Trainer in regard to the assessment and evaluation of athletic injuries/illnesses of the lower extremity. Procedures for reporting and evaluating injuries/illnesses will be discussed so that appropriate injury management and referral may take place. The etiologic factors common to athletic injuries, as well as specific signs and symptoms of various athletic related pathological conditions will be discussed. Prerequisite: Admission to the Athletic Training Program, HSES 352, and HSES 353. LEC.

HSES 355. Athletic Training Practicum II. 2 Hours.
This course provides a practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury/illness evaluation during their clinical and field experience. Specific skills addressed in HSES 354 will be practiced, applied, and mastered during this experience. Prerequisite: Admission to Athletic Training Education program and concurrent enrollment in HSES 354. FLD.

HSES 358. Creative Movement and Dance Appreciation. 3 Hours.
An appreciation for dance will be developed through the study of the pioneers of dance and the critique of local dance performances. Students will experience the following types of dance: creative movement, basic rhythms, ballroom dance, and folk and square dance. Prerequisite: Admission to the School of Education. LEC.

HSES 359. Kinesiology. 3 Hours.
This course is designed primarily for students in the field of exercise science who already have taken an introductory course in human anatomy and who need a more detailed exposure to concepts of functional movement anatomy. This course will provide a detailed study of the skeletal and muscular systems to include identification of the origin, insertion, and action of the major muscles of the human body. Students will become proficient in the use of directional and movement terminology used to describe movement and be able to identify the plane/axis as well as the agonist and antagonist muscles involved in a movement. Prerequisite: A course in human anatomy, admission to School of Education. LEC.

HSES 365. Peer Health Education. 3 Hours.
The course is designed to train students in peer health education, as peer health educators in college settings, and as trainers, training adolescents in community health settings for grades 6-12 peer health education. Subject content and teaching methodologies will be emphasized in the ten content areas of health with special emphasis on alcohol, drugs, tobacco, stress reduction, mental health and human sexuality. Prerequisite: HSES 260 or instructor consent. LEC.

HSES 366. Sociology of Sport. 3 Hours.
A survey of the current literature concerning the scope of sociology in the sport, the interaction of people in sport, the social systems controlling sport, and the small group dynamics in sport. Prerequisite: Admission to Sport Management program or permission of instructor. LEC.

HSES 367. The Coaching of Volleyball. 2 Hours.
Theory of volleyball, including methods of teaching fundamentals, individual and team offense and defense. Various styles of play and methods of coaching. Efficient performance of the skills during game conditions will be emphasized. LEC.

HSES 368. The Coaching of Softball. 2 Hours.
Theory and fundamentals of coaching softball. Methods of coaching, as well as team offense, defense, and strategies will be stressed. Efficient performance of the skills during game conditions will be emphasized. Prerequisite: Consent of instructor. LEC.

HSES 369. Neuromuscular Exercise Physiology and Motor Control. 3 Hours.
This course explores the control of human movement from an exercise neurophysiology perspective. Emphasis will be placed on understanding the interactions between the nervous system and muscular systems in the control of muscle force/power production and the control of movement under a variety of contexts. These contexts include responses and adaptations to exercise training, the aging process, and in a variety of neuromuscular disorders. Prerequisite: BIOL 240 and BIOL 246. LEC.

HSES 370. Functional Movement Anatomy. 3 Hours.
This course will provide a detailed study of the techniques used by the Athletic Trainer in regard to the assessment and evaluation of athletic injuries/illnesses of the lower extremity. Procedures for reporting and evaluating injuries/illnesses will be discussed so that appropriate injury management and referral may take place. The etiologic factors common to athletic injuries, as well as specific signs and symptoms of various athletic related pathological conditions will be discussed. Prerequisite: Admission to the Athletic Training Program, HSES 352, and HSES 353. LEC.

HSES 371. The Coaching of Softball. 2 Hours.
Theory and fundamentals of coaching softball. Methods of coaching, as well as team offense, defense, and strategies will be stressed. Efficient performance of the skills during game conditions will be emphasized. Prerequisite: Consent of instructor. LEC.

HSES 372. Sociology of Sport. 3 Hours.
A survey of the current literature concerning the scope of sociology in sport, the interaction of people in sport, the social systems controlling sport, and the small group dynamics in sport. Prerequisite: Admission to Sport Management program or permission of instructor. LEC.

HSES 373. Sport Ethics. 3 Hours.
This course will help students develop their abilities to reason morally through an examination within competitive sports of ethical theories, moral values, intimidation, gamesmanship, and violence, eligibility, elimination, winning, commercialization, racial equity, performance-enhancing drugs, and technology. Students will develop a personal philosophy of sport and
learn how to apply a principled decision-making process to issues in sport. Prerequisite: Admission to Sport Management program or permission of instructor. LEC.

**HSES 382. Sport Facilities and Event Management. 3 Hours.**
This course will provide students with a solid grasp of the fundamental skills in sport facility and event management and the knowledge base to apply those skills in a real world environment. Students will learn about planning, designing and financing the construction of new sport facilities, sport facility management of regular and special events, sporting event planning and game day operations. Prerequisite: Admission to the Sport Management program or permission of instructor. LEC.

**HSES 384. Sport Law. 3 Hours.**
This course is intended to introduce undergraduate students to the major legal issues in amateur and professional sports including dispute resolution, tort law, contract law, constitutional law, statutory law, labor and antitrust law and intellectual law. Students will also learn about risk management, gender equity, the Americans with Disabilities Act and agency law and sports agents. Prerequisite: Admission to Sport Management program or permission of instructor. LEC.

**HSES 385. Psychological Aspects of Exercise. 3 Hours.**
This course is designed for students interested in optimizing motivation and adherence to exercise among individuals in a wide range of physical activity settings (e.g., health clubs, corporate fitness, and physical therapy/rehab). The course content will include a review of the literature highlighting the psychological benefits of exercise, the theoretical advances in understanding the psychological aspects influencing individuals' participation in physical activity, and an introduction to strategies and techniques for professionals attempting to foster motivation and adherence to exercise among their clients. Prerequisite: Admission to the Community Health program or instructor consent. LEC.

**HSES 390. The Coaching of Track and Field. 2 Hours.**
Designed to acquaint the student with the fundamentals of track and field athletics. LEC.

**HSES 395. Concepts in Health and Wellness. 3 Hours.**
This is designed as an introductory course into the profession of School and Community Health Education. Regardless of a person's areas of specialization in Health Education, there are commonalities shared by all of us who are charged with the responsibility of providing education about health. Course emphasis will focus on: defining health education; history of health education; roles and competencies of health educators; theoretical bases for the profession; planning, implementing, administering, and evaluating health programs; settings for health education; future issues. Prerequisite: HSES 260. LEC.

**HSES 403. Health Behavior Theory. 3 Hours.**
This class will be an introduction to the primary models and theories used in health behavior research and health promotion practice. These models and theories undergird the development of successful health-related programs and interventions, and will help guide educators in the development of innovative and effective programming. The course will cover individual, interpersonal, community-level, and ecological theories, and students will have the opportunity to apply these theories to health behaviors of interest. LEC.

**HSES 410. Program Design in Physical Education. 3 Hours.**
The study of physical education curriculum models and extraclass programs appropriate for students in grades PK-12. Students will receive practical and field experiences related to program design and implementation. They will learn techniques appropriate for program evaluation as well as the assessment of student sport skills and fitness. Prerequisite: Admission to the HSES Teacher Certification Program. LEC.

**HSES 418. Health Aspects of Aging. 3 Hours.**
This course will consist of a Holistic Health approach to the various components of the aging process. Special emphasis will be placed on the demographic aspects of aging; normal aging changes and deviations in the aging process (pathophysiology); the relationship between mental and physical health, and the implications for the promotion of risk reduction and prevention principles that can effectively improve the quality of life for older individuals. Prerequisite: A course in personal and community health. LEC.

**HSES 434. Consumer Health. 3 Hours.**
This course will be a comprehensive examination of the factors involved in the selection of health products and services. Topics of discussion will be: protection laws and services, fraudulent practices and products, consumerism, and traditional and alternative health care. There will also be an in-depth examination of how to assess and evaluate health based products that are available to consumers. Prerequisite: Admission to the Community Health Program or consent of instructor. LEC.

**HSES 440. Applied Sport and Performance Psychology. 3 Hours.**
This course will examine the psychological principles and techniques that are applied to improve sport performance and other fields of achievement (e.g., exercise and wellness, music, and academics). Special attention will be given to psychological aspects of injury and rehabilitation, psychological conditioning, psychological training methods, coaching philosophy, the social psychology of team members, and components of peak performances. LEC.

**HSES 453. Communicable and Degenerative Diseases. 3 Hours.**
This course is designed to introduce the student to the study of the basic concepts/principles of disease process. Special emphasis will be placed on the etiology, origin, symptoms, treatment, body defenses, primary prevention, host, agent, (microbes) and environmental factors affecting disease occurrence, prevention and control measures. Topical application of the fundamental concepts of microbiology in school/community health practice will be critically discussed. The natural history of disease and disease classification will be highlighted. Many disease topics (both communicable and chronic, degenerative diseases) will be discussed. Prerequisite: A course in personal and community health. LEC.

**HSES 455. Manual Therapy Techniques and Emergency Care Instructor Training. 3 Hours.**
The purpose of the course is to train students in a Manual Therapy Technique for use in the clinical setting. The course is also designed to certify students as instructors in American Red Cross First Aid, CPR and AED courses as well as instructors for the CPR/AED for the Healthcare Provider. Prerequisite: Completion of HSES 352, HSES 354, HSES 456 and HSES 459 or equivalency from an accredited Athletic Training Education Program or have current First Aid and CPR/AED for the Healthcare Provider certification. LEC.

**HSES 456. Upper Extremity Evaluation. 3 Hours.**
The comprehensive study of the techniques used by the Athletic Trainer in regard to the assessment and evaluation of athletic injuries/illnesses of the upper extremity, head, and spine. Procedures for evaluating and reporting injuries/illnesses will be discussed as well as etiological factors and common signs/symptoms of various related pathological conditions. The purpose of this course is to prepare students with the skills necessary to accurately recognize the signs/symptoms of injuries and conditions in order to determine the nature and severity of the problems as well as establishing a proper care plan and medical referral when appropriate. Prerequisite: Admission into the Athletic Training Education Program, HSES 354, and HSES 355. LEC.
HSES 457. Athletic Training Practicum III. 2 Hours.
This course provides a practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury assessment and evaluation through a variety of techniques during their clinical and field experience. Specific skills addressed in HSES 456 will be practiced, applied, and mastered during this experience. Prerequisite: Admission into the Athletic Training Education program and concurrent enrollment in HSES 456. LEC.

HSES 458. General Medical/Pharmacology. 2 Hours.
This course will cover the general medical conditions/illnesses and pharmacological considerations commonly encountered in the field of Athletic Training. Prerequisite: Admission into the Athletic Training Education Program, HSES 456, and HSES 457. LEC.

HSES 459. Rehabilitation. 3 Hours.
This course discusses the planning involved and the implementation of a comprehensive rehabilitation program for injuries/illnesses sustained by the competitive athlete. Prerequisite: Admission into the Athletic Training program, HSES 456, and HSES 457. LEC.

HSES 460. Athletic Training Practicum IV. 2 Hours.
This course provides a practical experience for the athletic training student. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills obtained during previous coursework as well as apply rehabilitation skills obtained in HSES 459. Prerequisite: Admission into the Athletic Training Education program, HSES 457, and concurrent enrollment in HSES 459. LEC.

HSES 461. Organization and Administration of Athletic Training. 2 Hours.
This course discusses the planning, coordinating, and supervising of all administrative components of an athletic training program. This includes public relations, athletic health counseling, and coach advisement about athletes’ health matters. Prerequisite: Admission to the Athletic Training Education program, HSES 459 and HSES 460, and concurrent enrollment in HSES 562. LEC.

HSES 462. Athletic Training Practicum V. 2 Hours.
This course will provide a practical hands-on experience for the athletic training students enrolled in HSES 561. Prerequisite: Admission into the Athletic Training Education Program and concurrent enrollment in HSES 561. LFLD.

HSES 463. Senior Capstone in Athletic Training. 2 Hours.
This course is designed to allow senior Athletic Training Students to review previous content and prepare for the BOC certification exam as well as explore areas of professional development. Prerequisite: Admission into the Athletic Training program, HSES 561, and HSES 562. LEC.

HSES 464. Athletic Training Practicum VI. 2 Hours.
This course will provide a culminating practical experience for the athletic training students enrolled in HSES 563. Prerequisite: Admission into the Athletic Training Education program and concurrent enrollment in HSES 536. LFLD.

HSES 465. Program Assessment and Evaluation. 3 Hours.
This course will offer an introduction and hands-on application of program assessment and evaluation techniques in health education. As health educators and program planners, we are required not only to develop innovative programs and interventions to address community- and school-based health concerns, but also to give evidence that our efforts are both adequate and effective. Successful program assessment and evaluation incorporate knowledge of basic research methods as well as the theoretical understanding of health behaviors. LEC.

HSES 466. Program Planning in Health Education. 3 Hours.
This course is designed to provide the students with an in-depth knowledge of proven health planning models that can be used for program development and intervention. Students will learn how to develop attainable program goals and objectives which will allow programs and interventions to evolve into useful forms of community based health education. Prerequisite: Students must be admitted to the School of Education and the Community Health Program. LEC.

HSES 470. Introduction to Biomechanics. 3 Hours.
The course is designed to cover a basic understanding of the anatomical and mechanical principles of human movement. Areas covered will be joint and segmental movement, muscle actions, time-displacement motion description, forces causing or inhibiting motion, and stability. Special attention will be given to the application of the theoretical concepts in movement activities. Prerequisite: Anatomy, admission to the Exercise Science program, or permission of instructor. LEC.

HSES 472. Exercise Physiology. 3 Hours.
A fundamental study of the physiological adjustments that occur within the body during exercise. The presentation of this material is particularly oriented toward a basic understanding of the physiological systems as they are affected by the activity of a normal coaching or teaching situation. The physiological values of exercise are also stressed. Prerequisite: Three hours of physiology. LEC.

HSES 473. Clinical Fitness Evaluation Techniques. 3 Hours.
This course will provide the student with the knowledge and skills to assess components of physical fitness in adults including cardiorespiratory fitness, body composition, strength, and flexibility. In addition, specific emphasis will be placed on the development of exercise and weight management prescriptions. Students completing the course will have the skills to take the Health Fitness Instructor Certification exam given by the American College of Sports Medicine. Prerequisite: Exercise physiology or equivalent. LEC.

HSES 474. Exercise Biochemistry. 3 Hours.
This course will examine the processes that underlies the use and production of energy for exercise. Topics that will be explored include glycojenolysis and glycolysis in muscle, cellular oxidation of pyruvate, lipid metabolism, metabolism of proteins and amino acids, molecular biology, neural and endocrine control of metabolism, and local fatigue during exercise. Emphasis will be placed on carbohydrates, protein, and lipid metabolism and the acute and chronic effects that exercise has on these processes. Prerequisite: HSES 472. LEC.

HSES 480. Physical Activity and Exercise Management Individuals with Disabilities. 3 Hours. AE41.
An in-depth study of how physical activity and exercise can be a part of the treatment plan for people who have chronic disease or a disability. A variety of physical activity and exercise intervention programs and models will be presented and discussed, as well as protocols for baseline testing and post-treatment testing. A portion of this course will focus on how physical activity and exercise can prevent motor functioning deterioration in people who have a disability or limited functional movement. Prerequisite: Admission to the School of Education Exercise Science or Athletic Training programs and a course in human anatomy and physiology, or consent of instructor. LEC.

HSES 482. Drugs in Society. 3 Hours.
This course is designed to provide an in-depth exposure to basic drug classification, pharmacological effects, causes of drug abuse to society,
common treatment modalities, and effective prevention/intervention strategies. In addition, consumer issues related to drug use, drug legislation, and drug education programs for school and community implementation will be discussed. Prerequisite: A course in personal and community health or consent of instructor. LEC.

HSES 483. Sport Finance and Economics. 3 Hours.
This course will help students gain an understanding of the critical importance of budgeting and financing sports-related industries based on sound financial principles and methods of financial control. Students will learn how economic principles shape the major national industry of sport. Prerequisite: Admission to Sport Management program or permission of instructor and completion of or concurrent registration in FIN 305 or FIN 310. LEC.

HSES 485. Sport Communication. 3 Hours.
This course examines the complex and evolving field of sport communication including personal, organizational, and external perspectives of sport communication. LEC.

HSES 486. Sport Marketing. 3 Hours.
This course is intended to provide undergraduate students with basic knowledge and competencies in definitions of marketing and sport marketing, understanding the unique aspects of sport marketing, marketing planning process, consumer demographics and psychographics, the marketing mix, segmentation and target marketing, marketing proposal preparation, sponsorship, endorsement, merchandising, fundraising, marketing goals and objectives, sport consumer and consumer behavior, industry segmentation, special events, ticket sales and their use in promotion, the role of the media, television marketing ratings and shares and venue and event marketing. The proposed content of this course will address each of these expectations. Prerequisite: Admission to the Sport Management program or permission of instructor. LEC.

HSES 487. Personnel Management in Sport. 3 Hours.
This course provides students with an overview of the requisite communication skills and concepts of leadership and management as they relate to sport managers. Students will learn how leadership and management practitioners, utilizing effective communication techniques, shape successful sport organizations. Additional emphasis will be placed on building and nurturing relationships with people as a key to effective management. Prerequisite: Admission to Sport Management program or permission of instructor. LEC.

HSES 488. Pre-Internship Seminar. 1 Hour.
This course will prepare students for their actual semester-long internship experience. Students will be provided with background information on available internship sites to assist in their site-selection decision. Students will learn about different management styles they may encounter, the traits and characteristics of effective and productive employees, common rules of the workplace and internship experiences of previous HSES Interns. Prerequisite: All HSES students must be in final semester prior to Internship. LEC.

HSES 489. Health and Human Sexuality. 3 Hours.
The course is designed to encompass the various components of human sexuality as well as to demonstrate applicable teaching techniques for sex education. Included in the content of the course are: human sexual response, sexually transmitted diseases, family planning, sex roles, rape, sexual preferences, and topics such as sexuality and the handicapped, sexuality and the mass media, and sexuality and the church. Teaching techniques such as values clarification, non-verbal communications, role playing, tape recordings, and problem solving are demonstrated with appropriate topics. LEC.

HSES 497. Independent Study. 1-3 Hours.
Only one enrollment permitted each semester; a maximum of six hours will apply toward the bachelor's degree. This course cannot be taken as a substitute for a required course. Prerequisite: Recommendation of advisor and consent of instructor and department chairperson. IND.

HSES 499. Internship in Sport Management. 2-16 Hours. AE61.
A full-time work experience in the sport industry (40 hours per week). This experience is actual work in a sport management setting in which management practices are applied. Student interns are directed and evaluated by a faculty member with appropriate supervision by an on-site professional. Student interns must keep an accurate accounting of hours with a performance work diary. Grades/credit for the internship are determined by a faculty member with input from the on-site supervisor. Prerequisite: Completion of all Sport Management coursework. Admission to the Sport Management Internship program. FLD.

HSES 500. Student Teaching in:______. 14 Hours. GE11.
A supervised teaching experience in an approved school setting, teaching physical education at the elementary level and health and physical education at the secondary level. The student must teach 8 weeks at the elementary level and 8 weeks at the secondary level. Prerequisite: A cumulative GPA of 2.75 or higher and admission to the HSES teacher certification program. FLD.

HSES 501. Seminar in Teaching Health and Physical Education. 2 Hours. AE61.
Student teachers will learn to analyze teaching styles and instructional methods that apply and/or relate to their student teaching experience. Discussions of various teaching practices will be facilitated by the university supervisor with input from the student teachers. Topics will include: curriculum, teaching methods, discipline, safety, equipment, and communicating with teachers, parents, and students. Prerequisite: Admission to the HSES Teacher Certification Program. LEC.

HSES 502. Camp Leadership and Counseling. 2 Hours.
Involves a complete study of the organization and administration of the various types of camps. It is designed to familiarize the student with camp leadership responsibilities; the development of the camp, the program involving camp crafts, outdoor cookery, hikes and outings, singing, and simple guidance of the individual camper. Prerequisite: General psychology plus three hours in sociology. LEC.

HSES 515. Assessment of Motor Development and Motor Control of Exceptional Children. 3 Hours.
Standardized motor assessment tools appropriate for use with exceptional children with motor difficulty will be critiqued and practiced. A battery of tests to measure developmental lag or structural deviation will be selected and administered to determine the motor control of exceptional children and the results will be interpreted. Prerequisite: Six hours of physical education course work. LEC.

HSES 528. Techniques of Athletic Training - 1 Lower Extremity. 3 Hours.
This course provides a comprehensive study of the techniques used by the Athletic Trainer in regard to the assessment and evaluation of athletic injuries/illnesses of the lower extremity, abdomen, and thorax, as well as the study of common illnesses/diseases that affect the physically active. Procedures for reporting and evaluating injuries/illnesses will be discussed so that appropriate injury management and referral may take place. The etiological factors common to athletic injuries, as well as specific signs and symptoms of various athletic related pathological conditions, will be discussed. Prerequisite: Human Anatomy, Human Anatomy Lab, Care and Prevention of Athletic Injuries, and admission to the Athletic Training Program. LEC.
HSES 529. Techniques of Athletic Training - II Upper Extremity. 3 Hours.
The comprehensive study of the techniques used by the Athletic Trainer in regard to the assessment and evaluation of athletic injuries/illnesses of the upper extremity, head, and spine. Procedures for evaluating and reporting injuries/illnesses will be discussed as well as etiological factors and common signs/symptoms of various related pathological conditions. The purpose of this course is to prepare students with the skills necessary to accurately recognize the signs/symptoms of injuries and conditions in order to determine the nature and severity of the problem as well as establishing a proper care plan and medical referral when appropriate. Prerequisite: HSES 528 Techniques of Athletic Training - I Lower Extremity. LEC.

HSES 565. Methods and Materials in Health Education. 3 Hours.
Emphasis is placed on the presentation and preparation of health topics along with the recommended resources and materials available. The teaching method is emphasized and student participation is stressed. Students will observe health teachers in the public schools and identify and discuss these methods as they relate to the methods present in the class. Prerequisite: Admission to HPED teacher certification program or consent of instructor. LEC.

HSES 573. Introduction to Health Education. 3 Hours.
This course will provide an overview of the various health education professions. Topics emphasized in the course are: the nature of health education, in-depth description of community health, the school health program, and identifying program and services of voluntary and services of voluntary and official health and welfare organizations. Prerequisite: Admission to the School of Education and the Community Health Program. LEC.

HSES 578. Health Internship Seminar. 2 Hours.
Students enrolled in the internship will learn how to analyze professional health environments, examine intervention programs, and understand models used to develop health based programs. Discussions surrounding the internship experience will be facilitated by the health education faculty. Topics will relate to all phases of the internship experience. The intent of this course is to better prepare the student for entering the health profession. Discussions will be held on conflict resolution in the work place, professional development, professional behavior and etiquette. Prerequisite: Concurrent enrollment in HSES 580 Internship in Health. LEC.

HSES 580. Internship in:_____. 2-16 Hours.
A supervised internship experience in an approved setting. The specific type of internship experience and the credits for that particular experience will be outlined in the appropriate program of the student. Prerequisite: Admission to a HSES Internship Program. FLD.

HSES 581. Athletic Training Practicum I: Recognition and Evaluation. 4 Hours.
This course provides a practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury/illness evaluation, and the management and treatment of athletic injuries through a variety of therapeutic modalities during their clinical and field experience. Specific skills addressed in HSES 529 and HSES 654 will be practiced, applied, and mastered during this experience. Prerequisite: HSES 581 and concurrent enrollment in HSES 529 and HSES 654. LEC.

HSES 583. Athletic Training Practicum III: Rehabilitation. 4 Hours.
This course provides a practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury rehabilitation/reconditioning through a variety of therapeutic exercise techniques during their clinical and field experience. Specific skills addressed in HSES 529 will be practiced, applied, and mastered during this experience. Prerequisite: HSES 582 and concurrent enrollment in HSES 529. LEC.

HSES 584. Athletic Training Practicum IV: Senior Sport Experience. 4 Hours.
This course provides a culminating practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills obtained during previous coursework as well as apply administrative and management skills obtained in HSES 585. This course is intended to allow the Senior student more freedom and responsibility in decision making regarding the health care of an athletic team. Prerequisite: HSES 583, concurrent enrollment in HSES 585. LEC.

HSES 598. Special Course:_____. 1-5 Hours.
A special course of study to explore current trends and issues in health and physical education - primarily for undergraduates. LEC.

HSES 605. Administering Health Related Programs. 3 Hours.
This course will consist of an analysis of administration as it relates to both school and community health programs. The focus will be on administrative models and techniques used to establish and maintain sound health programs in school and community settings. Prerequisite: Six hours of health education or consent of instructor. LEC.

HSES 671. Applied Biomechanics. 3 Hours.
This course will examine the qualitative biomechanical analysis of human movement directed towards the goals of performance improvement and injury prevention and rehabilitation. Specifically, this course will provide students with a basis knowledge of the biomechanical foundations of human movement, the knowledge and skills necessary to complete a systematic analysis and evaluation of human motor performance, and the ability to determine and provide interventions that are likely to improve movement in athletic, clinical, educational, and work environments. Prerequisite: A course in human anatomy, admission to the HSES Teacher Certification Program or consent of instructor. LEC.

HSES 714. Motor Development During Growth. 3 Hours.
Motor development in childhood and adolescence and its relationship to physical growth. Factors influencing motor learning and development will be explored. This course provides basic understanding of the neuromuscular changes and abilities of children and adolescents. Prerequisite: A course in kinesiology and anatomy. LEC.

HSES 715. Understanding Research in HSES. 3 Hours.
This course introduces the concepts and skills involved in understanding and analyzing research in education and related areas. The course
provides an overview of basic, general knowledge of various research methodologies. Students should expect to study much of this material in greater depth through additional work before being fully prepared to conduct independent research. However, this course should enhance their ability to locate, read, comprehend, and critically analyze research articles and reports. Topics in the course include quantitative and qualitative methods and designs, historical and descriptive research, and program evaluation. (This course fulfills the requirement of a research methods course in the first 12 hours of graduate study.) Prerequisite: Must be an admitted HSES graduate student. LEC.

HSES 730. Advanced Concepts in Nutrition. 3 Hours.
A study of the nutritional factors that affect health at all ages. Specific nutritional needs and effects of deficiency states on health will also be addressed. The course will also include the physiological and biochemical mechanisms involved in the use of nutrients for human growth and development as well as the production of energy through the metabolic process. Prerequisite: HSES 330 or equivalent experience and permission of instructor. LEC.

HSES 771. Internship in Exercise Science. 6 Hours.
A supervised internship experience in an approved exercise science setting. Students will gain experience through a hands-on approach via clinical and/or research settings. The specific type of internship experience will be agreed upon by the student and their academic advisor. Prerequisite: Successful completion of at least 24 graduate credit hours. LEC.

HSES 777. Practicum in Health Education and Wellness Promotion. 1-3 Hours.
This course is designed to provide practical community health experiences in health education and wellness promotion, including: assessment, planning, implementation and program evaluation. With approval of the instructor, students may choose their practicum focus in any of the ten content areas of health: mental and emotional, family living, growth and development, nutrition, personal health, alcohol tobacco and other drugs, communicable and chronic diseases, injury prevention and safety, consumer health and environmental health. Prerequisite: Enrolled in graduate school and consent of the instructor. LAB.

HSES 779. Physiology of Functional Aging. 3 Hours.
The course has been designed to address issues and concepts relating to the biological aging process as a foundation for physical performance, general fitness, and health status. The biological concepts are applied to the human physiological aging process and the systems involved as well as the possible interventions that may effect that process. The several theories associated with physiological aging are also addressed as related to the physiological systems and current research that may impact the understanding of these theories. Prerequisite: A course in basic biology. LEC.

HSES 780. Internship in Teaching Physical Education: _____ 1-16 Hours.
A supervised internship experience leading to initial physical education teacher certification. The student assumes the total professional role as a teacher of physical education in an approved school setting. FLD.

HSES 795. Traditions and Principles in Health Education. 3 Hours.
This course is designed to explore the philosophy and principles which provide the foundation of health education as an academic discipline. Specific topics include: history of the profession, theories of health behavior and behavior change, principles of learning applied to health communications, health promotion practices, professional preparation, and the integration of philosophical and ethical ideals into program planning and implementation. LEC.

HSES 798. Special Course: _____. 1-5 Hours.
A special course of in-depth study exploring current trends and issues in health and physical education - primarily for undergraduates. LEC.

HSES 801. Sport Facilities. 3 Hours.
The purpose of this course is to study current developments and trends in the financing, programming, design, and construction of facilities for intercollegiate athletics and professional sports. Prerequisite: Admitted to graduate school. A course in the administration/management of sport or consent of the instructor. LEC.

HSES 803. Health Behavior Theory. 3 Hours.
Given that theories of health behavior drive research and practice in health education, the purpose of this course is to familiarize students with the major theories and planning models related to health behavior change. Particular focus will be applied to the role of theory in health promotion and critical analysis of the application of theory to guide research practices. Prerequisite: Health major or consent of the instructor. LEC.

HSES 804. Sport Psychology. 3 Hours.
This course is designed to introduce students to the current research and theoretical perspectives in the sport psychology literature. Specifically, students will gain a broad understanding of the three major areas of sport psychology: social psychology (e.g., motivation), performance enhancement (e.g., mental skills training), and psycho-physiology (e.g., impact of anxiety on performance). Prerequisite: Admission in the health program or consent of the instructor. LEC.

HSES 805. Laboratory Experiments and Analysis--Exercise Physiology. 3 Hours.
Students will learn the techniques of operating various types of laboratory equipment and will conduct small-scale lab experiments in areas such as respiration, circulation, metabolism, strength, neuromuscular function, cardiac function, and body composition. Special emphasis will be placed on laboratory techniques of assessing physical fitness. Prerequisite: A course in exercise physiology. LAB.

HSES 806. Stress Management. 3 Hours.
The long range objectives of this course are to assist students in gaining stress management knowledge; to help them to formulate improved perspectives on various stress management techniques; and consequently apply the developing constructs in their lives with a sense of purpose and self-responsibility. Prerequisite: Two courses in health education or consent of instructor. LEC.

HSES 807. Current Literature in Exercise Physiology. 2 Hours.
A wide range of topics from the exercise physiology literature will be discussed. Instructor and students will present reports to the group centered on current research findings with discussion aimed at application of these results to physical exercise and training. Prerequisite: A basic course in exercise physiology or consent of instructor. LEC.

HSES 808. Biomechanics of Human Movement. 3 Hours.
This course will examine the movements and the structure and function of human beings by means of the methods of mechanics. An emphasis will be placed on the two primary goals of biomechanics: performance improvement and injury prevention and rehabilitation. Topics to be covered include the kinematics and kinetics of human movement, muscle mechanics, bone and joint mechanics, and the biomechanics of musculoskeletal injury. Prerequisite: Courses in calculus, physics, anatomy, and biomechanics, or consent of instructor. LEC.

HSES 810. Advanced Exercise Physiology. 3 Hours.
An advanced study of the physiological and biomechanical aspects of muscular, cardiovascular, and respiratory function as the human is engaging in exercise. The topics of energy metabolism, hormones, and
nutrition as related to exercise also are presented. Prerequisite: A basic course in exercise physiology. LEC.

HSES 812. Current Issues in Health. 3 Hours.
This course is designed to review and discuss current issues in various health related areas. The focus will be on relevant issues and topics that are guiding and directing the health profession. The range of topics discussed will vary from popular literature to scientific research and cover such areas as health education, community health, and health over the lifespan. Students in the course will be expected to report, discuss, and interact with each other concerning the issues as they are reported. Prerequisite: A graduate course in health or consent of the instructor. LEC.

HSES 814. Implementing Health Programs. 3 Hours.
The purpose of this course is to explore planning models used for designing, implementing and managing health promotion programs. Students will be trained to develop objectives, assess determinants, select methods and strategies, pre-test program materials, and adopt and implement promotional plans. Problem based and community based learning experiences will be provided. Prerequisite: A health major or permission from the instructor. LEC.

HSES 817. Practical Aspects of Aerobic and Resistance Training. 3 Hours.
This course will be a discussion of various concepts related to aerobic and resistance training. By the end of the semester, the student should be able to demonstrate an understanding of information presented in this course by achieving satisfactory evaluations of presentations, papers, and an examination of the following topics: energy metabolism, general adaptations of aerobic and resistance training, exercise techniques for aerobic and resistance training, periodization of training, testing and evaluation of aerobic and resistance training performance, and exercise prescription for aerobic and resistance training. Prerequisite: Undergraduate course in exercise physiology or consent of instructor. LEC.

HSES 818. Legal Aspects of Public Health Education. 3 Hours.
This course is designed to enhance understanding of the variety of legal issues which affect health educators and their audiences. Specifically, this course will survey federal, state, and local public health laws and regulations which may prescribe health education content and the health educator’s actions. Legislation will be analyzed and the practical impact of the health educator upon the legislative process will be emphasized. Prerequisite: A course in community health or consent of instructor. LEC.

HSES 823. Behavior Modification in Health and Exercise. 3 Hours.
This course will examine the behavioral principles that influence health and exercise practices. Theories of human behavior, reinforcement theory, and models of self-esteem will serve as the foundation for understanding behavior change. Society influences will be strongly emphasized. Course topics will include exercise determinants, motivation, media representation, negative behaviors, self-efficacy, social support, and effective promotion strategies. Prerequisite: Admitted to Graduate School or consent of instructor. LEC.

HSES 824. Epidemiology and Concepts of Disease Causation. 3 Hours.
This course involves the study of the etiology and natural history of infectious and non-infectious diseases including vector control, host defenses and resistance, investigation of disease outbreaks, mental health and public health. The course deals with detailed analytic and descriptive epidemiology and their implications for improving our understanding of health and diseases; epidemiologic consequences of nuclear war and retrospective and prospective approaches in epidemiological research. Contemporary developmental methods for disease prevention will be critically reviewed. Prerequisite: HSES 573, or equivalent, or consent of instructor. LEC.

HSES 825. Skeletal Muscle Physiology. 3 Hours.
This course will provide the student with an in-depth study of the structure and development, contractile mechanics, and neuromuscular system as it relates to the skeletal musculature. Structure and Development - muscle fiber, motor neuron, neuromuscular junction, muscle receptors, muscle formation, development of muscle innervation. Putting Muscles to Work - ion channels, pumps, and binding proteins, axoplasmic transport, resting and action potentials, neuromuscular transmission, muscle contraction, motor units, exercise, muscle metabolism. The Adaptable Neuromuscular System - fatigue, loss of muscle innervation, recovery of muscle innervation, neurotrophism, disuse, muscle training, injury and repair, aging. Prerequisite: HSES 810 or equivalent. LEC.

HSES 828. Sport Finance. 3 Hours.
A study of the principles and applications of finance and economics in the sport industry. Strategic financial planning as a part of management responsibilities is highlighted. Prerequisite: Admitted to Graduate School. LEC.

HSES 830. Socio-Cultural Dimensions of Sport. 3 Hours.
Current literature concerning the impact of American social values and cultural patterns of sport and physical activity will be studied. Critiques of related research involving sport and social institutions, and socio-cultural groups in sport will be emphasized. Prerequisite: A course in Sociology of Sport or consent of instructor. LEC.

HSES 831. Ethics in the Sport Industry. 3 Hours.
This course is designed to help students learn to make morally reasoned decisions in various sport settings. This course will help prepare students to respond more responsibly when faced with challenging ethical dilemmas and guide them in learning to serve as role models for ethical conduct. LEC.

HSES 832. Physical Education Instructional and Assessment Methods. 3 Hours.
The study of research-based instructional and assessment methods appropriate for PK-12 physical education. Managerial, instructional, and supervisory skills will be developed. Traditional and alternative assessment tools will be discussed. Readings, observations (live and video), and practice teaching will prepare students to complete a practical experience and an action research project in a PK-12 school. Prerequisite: Admission to Graduate School. LEC.

HSES 833. Public Health Aspects of Exercise. 3 Hours.
This course describes the timeline for physiologic adaptations to long-term physical activity. It describes the effects of physical activity on chronic disease. It describes, from a population perspective, the effects of physical activity on the health of the nation. Prerequisite: 12 hours of HSES courses, or equivalent, or consent of instructor. LEC.

HSES 836. Physical Education Curriculum Models. 3 Hours.
An examination of the elements and processes of curriculum construction in physical education for elementary, secondary, and post-secondary institution, and the institutional and professional issues that affect these processes. A study of contemporary curricula structures in regard to planning, implementation, and evaluation of K-12 curricula and professional preparation curricula in physical education programs. Prerequisite: A course in physical education curriculum, or equivalent. LEC.

HSES 840. Organizational Behavior in Sport. 3 Hours.
This course utilizes a micro perspective to analyze the behavior and culture within sport organizations. Specifically, the student will study and learn how to apply management and leadership theories that have the
potential to shape the work environment and will discuss how current topics in organizational behavior are particularly relevant to the sport industry. Prerequisite: Admitted to Graduate School. Consent of the instructor. LEC.

**HSES 842. Sports Marketing. 3 Hours.**
This course helps students gain a deeper understanding of sport marketing by examining in-depth the sport marketing mix of product, price, place, and promotion as well as marketing research, marketing strategy, market segmentation, branding, sponsorships, licensing, venue and event marketing, public relations, and global sport marketing. LEC.

**HSES 850. Analysis Techniques for Health, Sport, and Exercise Sciences Laboratory and Field Data. 3 Hours.**
Techniques for analyzing data gathered in Health, Sport, and Exercise Sciences laboratories and field studies will be presented in this course. Techniques for the recording of raw data, appropriate organization of raw data, selection of test for analysis of data, use of computer software, and computer programming for analysis and reporting results of the data will also be included. Prerequisite: PRE 710, PRE 720, or PRE 725. LEC.

**HSES 866. Contemporary Trends in Elementary and Secondary Physical Education. 3 Hours.**
An in-depth study into the research and other forms of literature will be made to study and examine the latest trends in elementary and secondary school physical education. Games, activities, dances, and rhythms will be presented and discussed relative to developmental levels of students grades K-12. Prerequisite: A methods course in teaching physical education or consent of instructor. LEC.

**HSES 872. Exercise and the Cardiovascular System. 3 Hours.**
This course will be a discussion of various concepts specifically related to exercise and the cardiovascular system. By the end of the semester, the student should be able to demonstrate an understanding of the interaction of exercise and cardiovascular system by achieving satisfactory evaluations on examinations, abstracts, and classroom presentations. The following topics will be discussed as they relate specifically to exercise: homeostasis and cardiovascular transport mechanisms, basic structure and function; characteristics of cardiac cells; the heart as a pump; the peripheral vascular system; vascular control; venous return and cardiac output; regulation of arterial pressure; cardiovascular responses to stress; and cardiovascular function in pathological situations. Prerequisite: Undergraduate course in exercise physiology or consent of instructor. LEC.

**HSES 880. Internship in Sport Management. 1-10 Hours.**
This course will provide for supervised and directed experiences in selected sport management settings. The graduate advisor will schedule observations of the internship, as well as regular conferences with the student. Written summaries and evaluations of the internship will be prepared by the student, the agency supervisor, and the university graduate faculty member. Prerequisite: Admission to the Graduate Program in Sport Management. FLD.

**HSES 884. Legal Aspects of Sport. 3 Hours.**
This course is intended to introduce graduate students to the basic concepts of the American legal system and the application of them to intercollegiate and professional sports. Particular emphasis will be given to risk management and preventive law. Other topics include: governance issues in intercollegiate and professional sports, contract law, employment discrimination, labor relations and collective bargaining, agency law and athlete agents, regulation of participation in intercollegiate and high school athletics, sport facility and event issues, participant liability issues, product liability issues, premises and spectator liability, participant violence in sports, and intellectual property law. Prerequisite: Admission to graduate program in School of Education LEC.

**HSES 890. Seminar in HSES. 3 Hours.**
This course is designed to provide a general research seminar learning experience for graduate students in HSES. In particular, students will learn about faculty research activities and interests from a variety of specialty areas both within KU and outside of KU. Through faculty and guest presentations, students will be exposed to a variety of design and methodologies used to conduct research in the specialty areas of HSES. LEC.

**HSES 892. Psychology of Physical Activity. 3 Hours.**
This course is designed for students interested in optimizing motivation and adherence to exercise among individuals in a wide range of physical activity settings (e.g., health clubs, corporate fitness, physical therapy). The course content includes a review of the literature highlighting the psychological benefits of exercise, the theoretical advances in understanding the psychological aspects of individuals’ participation in physical activity, and strategies and techniques for professionals attempting to foster motivation and adherence to exercise among their clients/members. Prerequisite: Admission in the health program or consent of the instructor. LEC.

**HSES 897. Independent Study. 1-4 Hours.**
Prerequisite: Consent of advisor and instructor. RSH.

**HSES 898. Master's Project. 1-4 Hours.**
RSH.

**HSES 899. Master's Thesis. 1-6 Hours.**
THE.

**HSES 905. Advanced Concepts in Health Education. 3 Hours.**
This course is designed as an in-depth study of the pedagogy of health education. It is concerned with the effects of various health education models, new materials, and innovative teaching techniques. The effectiveness of various media such as films, slides, transparencies, microcomputers, and assessment tools will be analyzed. Research concerning innovations in education will be investigated along with a study of future trends in the field. Timely issues of controversy about health education practices and the effectiveness of values clarification activities will also be discussed. LEC.

**HSES 906. Scientific Dimensions of Exercise and Health. 3 Hours.**
This course will include an in-depth examination of metabolic and endocrine principles as they relate to physical exercise and training. Specific topics will include: substrate utilization in exercise, metabolic controls, muscle biochemistry, body composition, nutritional aspects and hormonal influences in exercise. Both instructor and students will report on the most current literature relating to the topics. Prerequisite: Human biodynamics or a course in biochemistry. LEC.

**HSES 926. Grant and Research Proposal Writing. 3 Hours.**
This is a course for students to examine the sources and areas which provide financial support for research projects. The areas of study include types of research funding available on a local, state, and federal level, the elements and design of writing a proposal and strategies involved in securing financial support for research. A focus for the course will center upon preparing a research proposal for funding. Prerequisite: PRE 710. LEC.

**HSES 940. Biometrics Laboratory and Field Data. 3 Hours.**
This course focuses on the interdisciplinary nature of this relationship and reviews the physiological, sociological, psychological, and behavioral factors involved. Prerequisite: Fifteen hours of graduate
level course work in health or physical education and admission to health
or physical education doctoral program. LEC.

HSES 980. Advanced Topics: ______. 1-3 Hours.
A special course of study to meet current needs of education professionals -- primarily for post-master's level students. LEC.

HSES 981. Current Issues in Health and Physical Education. 3 Hours.
This course will explore the latest philosophical issues and controversies which are impacting the fields of health, physical education, and athletics. The student will explore the current and future ramifications of each issue and its potential effects on the profession. Prerequisite: Admission to the Health, Sport, and Exercise Sciences Doctoral Program. LEC.

HSES 990. Doctoral Seminar. 3 Hours.
This seminar based course will be designed to prepare the doctoral student for academic careers or careers in industry after they graduate. The topics covered will be promotion and tenure procedures and expectations, including but not limited to teaching, responsible conduct of research, professional ethics, historical ethical issues, evaluation of ethical dilemmas, and service expectations at research intensive institutions, regional comprehensive institutions and small liberal arts colleges. Industry career options will be discussed and guest speakers from various disciplines will be brought in to discuss options and expectations with this career path. Prerequisite: Doctoral student or permission of the instructor. LEC.

HSES 995. Field Experience in: ______. 1-5 Hours.
Supervised and directed experiences in selected educational settings. The advisor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experiences will be prepared independently by the student, a representative of the cooperating agency, and the advisor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. FLD.

HSES 996. College Teaching Experience in: ______. 3 Hours.
To meet the college teaching experience requirement for doctoral programs, a student shall engage in a semester long, planned, instructional activity that shall include college classroom teaching under supervision. Planning shall be done with the advisor and/or member of the faculty who will supervise the experience. The activity shall be done under the supervision of a member of the University of Kansas faculty or by an individual or individuals designated by the candidate’s committee. FLD.

HSES 997. Individual Study. 1-4 Hours.
Prerequisite: Prior graduate course work in the area of study and consent of instructor. RSH.

HSES 999. Doctoral Dissertation. 1-15 Hours.
THE.

Psychology Research in Educ Courses

PRE 106. Multicultural Student Leadership Seminar. 2 Hours.
This course will introduce students of color to leadership theory and develop personal skills in the areas of organizational, career, and community leadership. Topics covered include public speaking, group process, time management, and discussion of the special challenges for leaders of color. Prerequisite: Must have taken Hawk Link PRE 101 and fewer than 60 hours credit from the University of Kansas. LEC.

PRE 210. Career and Life Planning: Decision-Making for College Students. 3 Hours.
The purpose of this course is to assist college students in career and life planning choices by first understanding the current theories of career decision-making and then by applying those theories to their own choices. The course will meet twice each week, the first being a lecture session, with the second session consisting of smaller groups of six to eight students. Students will be exposed to information related to the career development process, factors that affect the career choice process, knowledge of work environments, sex role socialization, career and decision making processes, and how to approach the job search. Experiential learnings will include exercises related to values clarification, self understanding, knowledge of interests, competencies and personality characteristics, decision making, use of career information, and implementing a plan of action. Weekly course assignments will include activities in class and homework units. Prerequisite: Enrollment in this course is limited to students with fewer than 60 hours of college credit. LEC.

PRE 305. Development and Learning of the Child. 3 Hours. GE3S.
An introduction to the study of children’s thinking, behavior, and development in school, home, and community settings. Classic and contemporary theories of developmental and educational psychology will be addressed; these theories will provide a foundation for thinking about important contemporary issues in child development. Specific topics covered will include research methods for studying children’s development, cognitive development, intelligence, language, emotional development, aggression, moral development, and family and peer relationships. Emphasis will be placed on the study of individuals and groups, describing the process of development, and considering educational implications of theory and research. LEC.

PRE 306. Development and Learning of the Adolescent. 3 Hours. GE3S.
An introduction to the psychological study of adolescents and their behavior in the middle and high school setting. Theories of learning, motivation, and physical, cognitive, emotional and social development and their relevance to educational processes in secondary schools will be examined. Emphasis will be placed on observing and studying individuals and groups and describing their characteristics and the process of development, as well as considering implications for instructional strategies appropriate at the secondary level. Prerequisite: Admission to the Teacher Education Program. LEC.

PRE 450. Introduction to Counseling Psychology. 3 Hours.
An historical and contemporary overview of the science and practice of counseling psychology, including trends in the roles and functions of counseling psychology practitioners, the research and scientific foundations of counseling practice, the psychological theories of counseling and psychotherapy that guide professional practice, and the ethical and professional issues confronting counseling practitioners. Prerequisite: PSYC 104. LEC.

PRE 455. Managing and Motivating Learners in the Pre K-6th Grade Classroom. 3 Hours.
This course is designed to help elementary preservice teachers organize an enriched learning environment and develop strategies for managing and motivating students to help them become better and more responsible learners. Prerequisite: CT 322, PRE 305 or equivalent. LEC.

PRE 456. Managing and Motivating Learners in the Middle and Secondary Classroom. 3 Hours.
This course is designed to help middle and secondary preservice teachers organize an enriched learning environment and develop strategies for managing and motivating students to help them become better and more responsible learners. Prerequisite: CT 324, PRE 306 or equivalent. LEC.

PRE 497. Independent Study. 1-2 Hours.
Only one enrollment permitted each semester, a maximum of four hours will apply toward the bachelor's degree. Graded on a satisfactory/
unsatisfactory basis. Prerequisite: Recommendation of advisor and consent of instructor. IND.

PRE 515. Research Methods for McNair Scholars. 3 Hours.
This course provides participants in the McNair Scholars program with an understanding of research methods appropriate to their field so they can write proposals for their summer research projects. Prerequisite: Acceptance into the McNair Scholars Program. LEC.

PRE 520. Classroom Assessment. 3 Hours.
This course is an introduction to the concepts and skills required to develop and evaluate various forms of formal and informal classroom assessments to determine student learning and teacher instructional effectiveness. LEC.

PRE 575. Internship Exploration. 1-5 Hours. AE61.
This course provides academic credit for a supervised practical experience in an occupational area of interest. In addition to the work-related activity, students will complete reading and writing assignments, participate in on-line discussion and create a final portfolio of internship accomplishments. Credit hours (1-5) are based on number of hours at internship site in agreement with instructor. Prerequisite: Secured internship of 8 hours per week or more for semester in which student will be enrolled in the course; permission from instructor. FLD.

PRE 580. Positive Psychology. 3 Hours.
An introduction to the core assumptions and research findings associated with human strengths and positive emotions. Also an exploration of interventions and applications informed by positive psychology in counseling and psychotherapy, and its application to school, work, family and other close relationships. (Same as PSYC 598.) Prerequisite: PSYC 104 or consent of instructor. LEC.

PRE 598. Special Course: ____. 1-5 Hours. AE61.
A special course of study to meet current needs of education students--primarily for undergraduates. LEC.

PRE 700. Advanced Educational Psychology: Development and Education of the Adolescent. 2-3 Hours.
An introduction, from a psychological perspective, to topics and problems in the development of adolescents and youth, with emphasis on application to educational issues. Note: To be offered annually. LEC.

PRE 702. Advanced Educational Psychology: The Development and Education of the Child. 3 Hours.
Study of children from a cognitive developmental perspective. Changes in children are examined in light of environmental influences including social factors, educational practices, and child-rearing as they interact with conditions internal to children. Key issues include the study of cognition, language, motives, social-emotional issues, the self, and the problem of developmental delays. A major concern is the role of adults in supporting positive development, particularly in educational settings. LEC.

PRE 703. Constructive Classroom Discipline. 3 Hours.
This course will examine concepts and techniques of constructive classroom management. Various theoretical orientations including humanism and behaviorism will be considered. Emphasis will be on the identification of strategies that teachers can use (1) to facilitate an environment that reduces the likelihood of misbehavior occurring, and (2) to cope constructively with individuals and groups of children to resolve difficulties that arise in the classroom. The class should have value to classroom teachers, school psychologists, counselors, and other school consultants. LEC.

PRE 704. Advanced Educational Psychology: Learning Processes in Education. 3 Hours.
A study of the mental processes that influence learning and comprehension. The scope of the course will include individuals at all developmental levels and in a variety of educational settings. Key issues include the study of language, memory, concepts, motivation and social factors affecting learning processes. LEC.

PRE 705. Human Development through the Lifespan. 3 Hours.
This course will cover the social, emotional, psychological, and cognitive changes that occur from conception through death. Methodological issues will also be addressed. Prerequisite: A graduate or undergraduate course in psychology. LEC.

PRE 710. Introduction to Statistical Analysis. 3 Hours.
Emphasis on the conceptual underpinnings of statistical analysis of educational data. Includes univariate and bivariate descriptive statistics, sampling distributions, statistical estimation, hypothesis testing and procedures in testing statistical hypothesis for one and two sample designs. Prerequisite: Concurrent enrollment in PRE 711 required, or with the permission of instructor on the basis of knowledge of statistical packages presented in PRE 711. LEC.

PRE 711. Lab for Introduction to Statistical Analysis. 1 Hour.
Creation and manipulation of data sets. Analysis of data with statistical packages, with an emphasis on descriptive statistics, graphical procedures, and univariate parametric methods. Graded on a satisfactory/fail basis. Prerequisite: Concurrent enrollment in PRE 710 or PRE 811 or with the permission of the instructor. LAB.

PRE 715. Understanding Research in Education. 3 Hours.
This course introduces the concepts and skills involved in understanding and analyzing research in education and related areas. The course provides an overview of basic, general knowledge of various research methodologies. Students should expect to study much of this material in greater depth through additional course work before being fully prepared to conduct independent research. However this course should enhance their ability to locate, read, comprehend, and critically analyze research articles and reports. Topics in the course include quantitative and qualitative methods and designs, historical and descriptive research, and program evaluation. (This course fulfills the requirement of a research methods course in the first 12 hours of graduate study.) LEC.

PRE 725. Educational Measurement. 3 Hours.
The course is an introduction to the application of the concepts of reliability, validity, and practicality to the development, selection, use, and interpretation of tests and other measuring instruments in the field of education. The concepts of norm referenced and criterion referenced tests; the interpretation and use of norms; standard scores, percentiles, quotients, and grade equivalents are among the topics covered. An understanding of the role of measurement in evaluation, diagnosis, selection and placement is included. LEC.

PRE 740. Counseling and Interviewing Skills. 3 Hours.
An experiential and performance based course having three major objectives: 1) the acquisition of basic counseling skills and strategies by means of microcounseling training; 2) learning to use these skills effectivley and appropriately in a simulated counseling session; 3) the students’ understanding of their personal characteristics and how these characteristics relate to functioning as an effective helping professional. This course should normally be taken at the earliest possible time in the student’s program. Open to counseling majors. Non-majors may be admitted only by permission of the instructor, if space permits. Prerequisite: Written consent of laboratory coordinator. LEC.
PRE 742. Counseling Theory and Techniques. 3 Hours.
An introductory examination of several major theories of counseling and therapy including psychodynamic views, person-centered, behavioral, and cognitive-behavioral approaches. Attention given to research reviews and factors various theories have in common. Designed for graduate students in counseling psychology or allied fields. Prerequisite: Graduate student status or permission of the instructor. LEC.

PRE 760. Ethics, Law, and Professional Issues in School Psychology. 3 Hours.
This course is intended to introduce the student to a) ethical principles, standards, and issues in the profession of psychology; b) legal issues involved in the practice of school psychology; c) problem-solving models to solve ethical and ethical-legal dilemmas; d) roles and functions of a school psychologist; and e) current topics in the field of school psychology. Prerequisite: Permission of the instructor. LEC.

PRE 770. Developmental Psychopathology: Diagnosis, Intervention, and Prevention. 3 Hours.
Foundations of child and adolescent psychopathology from a developmental and educational perspective. Classification, assessment, and etiology of clinical disorders. Examination of risk and protective factors associated with these various disorders. Coverage of empirically-based intervention strategies and prevention programs. Graduate student standing. LEC.

PRE 790. Research and Evaluation Proposal Development. 3 Hours.
A course for students designing a research or evaluation proposal leading to data collection. Specific topics considered include formulating a problem for study, reviewing the literature, and selecting appropriate research and evaluation designs, instrumentation, and data analysis issues. The goal of the course is to aid students in the preparation of research proposals at the master's level. LEC.

PRE 797. Independent Readings and Research in: ______. 1-3 Hours.
Opportunity for students to participate in supervised reading and research in special topics of interest (for which regularly scheduled courses are not given). Topics and credit are arranged by advisement: May not be used to substitute for regularly scheduled course offerings. Intended for students with appropriate undergraduate or graduate preparation but without extensive graduate course background in the area of proposed study. (Students with extensive graduate work should enroll in PRE 497; undergraduate students may enroll in PRE 497.) Graded on a satisfactory/unsatisfactory basis. RSH.

PRE 798. Special Course: ______. 1-5 Hours.
A special course of study to meet current needs of education professionals--primarily for graduate students. Course is graded on a satisfactory/fail basis. LEC.

PRE 800. Development during Youth and Adulthood. 3 Hours.
An examination from a life-span perspective of major issues affecting changes after adolescence. Topics include intelligence, identity, intimacy, the role of work, and moral concepts. Theoretical issues, research findings, and educational and social policy implications will be examined. Students will prepare papers on significant issues in the field and survey extensively the research and theoretical literature. Prerequisite: Prior enrollment in a course on naturalistic or experimental research methods. LEC.

PRE 803. Computer Applications for Statistical Analyses. 3 Hours.
Computer applications for a variety of statistical techniques. Emphasis may be with applications on microcomputers and/or mainframe. Prerequisite: PRE 810 or PRE 811 or equivalent course. LEC.

PRE 805. Individual Intelligence Testing. 1-3 Hours.
Supervised experience in the administration, scoring, and interpretation of the major individual intelligence tests for children, adolescents, and adults. Other areas to be covered in this course will include models of intelligence and factors influencing intelligence; measurement characteristics of instruments used to assess cognitive abilities; ethical and legal issues in the use of intelligence tests; and the use of cognitive assessments for identification and diagnosis. Prerequisite: Permission of instructor. LEC.

PRE 806. Issues in Human Growth and Development. 3 Hours.
An overview and analysis of selected issues in the field of human growth and development. The focus will be on current issues of a theoretical and methodological nature that affect the field of developmental psychology and applications to social and educational settings. Prerequisite: Prior completion of a course in developmental psychology. LEC.

PRE 807. Theories and Research in Human Learning. 3 Hours.
An overview of important models, principles and research findings related to the learning process. Attention is given to theories of learning and information processing which attempt to explain perceptual behavior, verbal learning and memory and social learning processes. Emphasis is placed on student development of research proposals in the area of human learning and achievement. Prerequisite: Permission of instructor. LEC.

PRE 810. Regression Analysis. 3 Hours.
Multiple correlation/regression techniques, including polynomials, analysis of interactions, dummy coding, non-orthogonal analysis of variance, and analysis of covariance. Prerequisite: PRE 710 or equivalent course. LEC.

PRE 811. Analysis of Variance. 3 Hours.
Analysis of variance techniques including one-way ANOVA, planned and post hoc comparisons, multway ANOVA, repeated measures ANOVA, and mixed designs. Prerequisite: PRE 710 and PRE 711. LEC.

PRE 812. Meta-Analysis. 3 Hours.
Statistical methods to summarize results from multiple studies. Prerequisite: PRE 811. LEC.

PRE 814. Nonparametric Statistics. 3 Hours.
Methods of analysis for nominal and ranked data, multiway contingency table analysis. Prerequisite: PRE 811. LEC.

PRE 816. Evaluating School Programs. 3 Hours.
Methods and procedures for evaluating educational programs. Attention is given to the development and evaluation of goals and objectives, creation of designs to monitor processes and outcomes, utilization of test and measurement systems for assessing outcomes, establishing evaluation standards and criteria, and application of statistical analyses. Prerequisite: PRE 710 or equivalent. LEC.

PRE 822. Educational Scales, Questionnaires, and Sampling. 3 Hours.
Development, construction, validation and scaling of noncognitive instruments including questionnaires, surveys, checklists, rating scales and unobtrusive measures. The sampling methodology is emphasized. Item construction and analysis and the development of subscales are stressed. Prerequisite: PRE 720 or PRE 725 and PRE 710. LEC.

PRE 830. Individual and Group Assessment. 3 Hours.
A consideration of basic concepts pertaining to selection and interpretation of both standardized and non-standardized assessment procedures and devices with attention given to communicating assessment information within the context of the counseling relationship. Prerequisite: PRE 725 or comparable undergraduate principles of measurement course. LEC.
PRE 835. Clinical Techniques in Academic Assessment and Intervention. 3 Hours.
Students will learn techniques of formal and informal assessment of academic skills in school-aged students. In addition, students will learn consultation and intervention approaches and strategies for use with students who have academic delays. This course has a field-based practicum component. Prerequisite: Graduate student standing in the School Psychology program and permission of instructor. LEC.

PRE 840. Guidance and Counseling in the Public Schools. 3 Hours.
This course is designed to provide information about the organization and administration of guidance and counseling programs in the public schools. Non-majors wishing to know more about the role of the counselor can be admitted with approval of the instructor. LEC.

PRE 842. Counseling Practicum (Elementary, Secondary, Counseling Psychology). 6 Hours.
This course is taken as one of the last courses in the master’s degree counseling program. The primary purpose of the course is for the student to develop individual counseling skills while functioning in a counseling setting. In addition to individual skills, students are also encouraged to participate in group counseling and other counseling related activities within the particular counseling setting. Students enroll in practicum for the level most closely related to their professional goals, i.e., elementary, secondary, counseling psychology. Graded on a satisfactory/fail basis. Prerequisite: PRE 740, PRE 742, and PRE 880, and prior or concurrent enrollment in PRE 830, PRE 840, PRE 844, and PRE 846. Pre-enrollment with practicum coordinator. Students currently on academic probation will not be allowed to enroll in practicum. LEC.

PRE 844. Theory of Group Counseling. 3 Hours.
Focuses on issues in group counseling. Topics covered are types of groups, theoretical orientation of groups, stages of group development, group leadership, selection of members, ethical issues, and effectiveness of groups. Prerequisite: Students must be admitted to the Program in Counseling Psychology. Nonmajors must have prior written consent of instructor. LEC.

PRE 846. Career Development. 3 Hours.
Stresses the importance of career development in education, with an emphasis on developmental life planning. Course includes topics such as delivery systems, utility of career development theory, sexism and racism in career development and counseling, the effects of sex role socialization, nature of the world of work, evaluation of career information, use of career information in individual and group counseling, and the role of empirical research in career development theory and practice. LEC.

PRE 850. Human Relationship Skills in the Classroom. 3 Hours.
The purpose of this course is to provide educators with an awareness and skill training in basic human relationship/communication skills. The course is focused on skills that provide educators with effective communication skills for working with students, educators, and parents. LEC.

PRE 855. Psychoeducational Clinic I: Assessment, Consultation, and Intervention. 3 Hours.
This is a practical course where students apply previous learning and gain experience in assessment and intervention with children, families, and school consultation. Team collaboration, peer review, and case conferences are essential elements of this course. Students work with clients in the on campus learning center under supervision. Topical seminars also are included throughout the semester. Prerequisite: Graduate student standing in the School Psychology program and permission of instructor. LEC.

PRE 860. Assessment of Behavior Problems and Personality. 3 Hours.
The purpose of this course is to examine appropriate assessment techniques for the evaluation of behavior problems. Interview procedures, behavioral observation strategies, behavior rating scales and checklists, self-report inventories, and rational theoretical techniques will be introduced. The intent is to place these assessment approaches in their theoretical contexts and to discuss how they could be used by pupil personnel specialists to understand the problem behavior and plan interventions to enhance students’ personal adjustment and achievement in the classroom. Prerequisite: PRE 770, graduate standing in the school of psychology program, or permission of instructor. LEC.

PRE 865. Psychoeducational Clinic 2: Assessment, Consultation, and Intervention. 3 Hours.
A continuation of School Psychology Clinic I where students will be performing the same activities at a higher level of autonomy and independence. Prerequisite: Graduate student standing in the School Psychology program, PRE 855, and permission of instructor. LEC.

PRE 870. Quantitative Methods for Research in Educational Policy and Leadership. 3 Hours.
This course addresses the conceptual basis of statistical analysis with an emphasis on applied data analysis. The use of descriptive statistics, distributions, graphic displays, hypothesis testing, group comparison, and analyses of relationships among variables to explore research questions in education will be covered. This course is designed specifically for Ed.D. students in the School of Education. Students in other degree programs may not enroll. Prerequisite: This course is open only to Ed.D. students in the School of Education. LEC.

PRE 871. Crisis and Disaster Counseling. 3 Hours.
This course provides advanced training in Crisis and Disaster Counseling to graduate students in the helping professions, providing students with the foundation, knowledge, and skills to effectively help those in crisis. Practical guidelines, specific intervention strategies, treatment principles, legal and ethical responsibilities, and self-care regarding crisis work will be discussed and integrated. Prerequisite: PRE 740 and PRE 742; or consent from instructor. LEC.

PRE 875. Individual and Cultural Differences in Counseling Psychology. 3 Hours.
Examines the role of culture in human behavior and its influence in counseling theories, practice, and research. The course will assist students develop multicultural awareness, understanding, and skills in working with people from diverse racial, social, cultural, and individual backgrounds. The course will provide opportunities for self examination of cultural assumptions/values in order to develop multicultural competence. Prerequisite: PRE 742 or equivalent. LEC.

PRE 880. Ethical and Legal Issues in Professional Psychology. 3 Hours.
An examination of legal, ethical, and professional standards and issues affecting the practice of professional psychology. Topics include legislative regulation of professional psychology, ethical standards and codes of conduct for psychology and related mental health professions, standards of professional practice, and issue of practice liability and risk management. LEC.

PRE 882. History and Systems of Psychology. 3 Hours.
A historical survey of the evolution of concepts, theories, and systems of thought in psychology with an emphasis on their relationship to contemporary issues in psychological theory, research, and practice. Prerequisite: Graduate standing in PRE or consent of the instructor. LEC.
PRE 885. Projective Assessment. 3 Hours.
The major goal of the course is to integrate information about a person from one or more projective tests into a useful summary. The projective assessment instruments to be used include the Rorschach (using the Exner system of scoring and interpretation), the Thematic Apperception Test, and projective drawings (e.g., Draw-A-Person test). Prerequisite: At least one graduate-level course in measurement and one graduate course in assessment plus consent of the instructor. LEC.

PRE 890. Diagnosis and Psychopathology. 3 Hours.
An examination of psychological disorders from a counseling psychology perspective that emphasizes strengths. The course will cover the current version of the Diagnostic and Statistical Manual (DSM), as well as alternative taxonomies, exploring personality as it ranges from normal personality styles to personality disorders, as well as Axis I disorders.
The emphasis is on identifying and assessing these phenomena and understanding possible behavioral and treatment implications.
Prerequisite: Degree seeking status in Counseling Psychology or consent of instructor. LEC.

PRE 893. Internship in School Counseling. 2 Hours.
Two consecutive enrollments covering a period of one academic year. During this time the student prepares a portfolio of skills competencies, classroom guidance programs presented, and other experiences appropriate to the student’s school level. Supervision will be conducted on an individual basis and will include a minimum of two site visits per semester.
Prerequisite: Must have school counseling position and a completed Masters degree from K.U. in School Counseling. FLD.

PRE 895. Field Experience in: ____. 1-5 Hours.
Supervised and directed experiences in selected educational or mental health settings. The campus-based instructor will schedule regular observations of the field experience and conferences with the student.
Written summaries and evaluations of the field experiences will be prepared independently by the student, a representative of the cooperating agency, and the campus-based instructor.
Open only to advanced students.
Field experience credit in any one semester may not exceed five hours, and total credit in this and additional field experience enrollments may not exceed eight hours.
Graded on a satisfactory/fail basis.
Prerequisite: PRE 842 and consent of the practicum coordinator. FLD.

PRE 896. Seminar in: ____. 1-3 Hours.
Prerequisite: Permission of instructor. LEC.

PRE 897. Independent Study. 1-4 Hours.
Graded on a satisfactory/unsatisfactory basis.
Prerequisite: Consent of advisor and instructor. RSH.

PRE 898. Master’s Project. 1-4 Hours.
Prerequisite: Prior or concurrent enrollment in PRE 710, PRE 715, or PRE 790. RSH.

PRE 899. Master’s Thesis. 1-6 Hours.
Prerequisite: Prior or concurrent enrollment in PRE 710. THE.

PRE 900. Legal, Ethical, and Professional Issues in Professional Psychology. 3 Hours.
This proseminar is designed to examine the major legal and ethical principles and areas of concern that affect professional psychology.
The course will also examine the historical development of professional psychology and current issues that affect the future direction of research and practice.
Prerequisite: Doctoral status in counseling, clinical, clinical child, or school psychology, or consent of the instructor. LEC.

PRE 901. Research Practicum in: ____. 1-3 Hours.
This course is designed to give students experience in conducting research. It is expected that students will take this course for at least two consecutive semesters.
Prerequisite: Doctoral student status in a program in the Department of Psychology and Research in Education. RSH.

PRE 902. Research Methodology in Education. 3 Hours.
An examination and study of the problems and procedures which relate to the validity of research methods.
Emphasis will be placed on reading the current literature on research methodology.
Students are required to develop a research proposal.
Prerequisite: PRE 811 and PRE 720 or PRE 725. LEC.

PRE 905. Multivariate Analysis. 3 Hours.
Multivariate analysis of variance, discriminant analysis, logistic regression, and exploratory factor analysis.
Prerequisite: PRE 810, PRE 811 and experience with a statistical software package. LEC.

PRE 906. Structural Equation Modeling I. 3 Hours.
The purpose of this course is to introduce students to Structural Equation Modeling (SEM).
Topics to be covered include matrix algebra, correlation/covariance, regression, Path analysis, exploratory and confirmatory factor analysis, full structural equation models and multi-group models.
Students will be exposed to the various statistical software programs available for SEM and will be expected to become proficient in utilizing EQS.
Prerequisite: PRE 710 or equivalent course. LEC.

PRE 907. The Psychology of Instruction and Human Learning. 4 Hours.
A study of research and theory in the areas of cognitive learning and of instruction, including such topics as motivation, problem solving, discovery learning, conceptualization, theory construction and task analysis.
Emphasis placed on independent learning experiences and field-based experimentation with pilot study.
Prerequisite: PRE 807 and PRE 715 or permission of instructor. LEC.

PRE 908. Structural Equation Modeling II. 3 Hours.
The purpose of this course is to introduce students to advanced topics in Structural Equation Modeling.
Topics to be covered include multi-level models, latent growth models, mixture models and approaches to handling missing and/or non-normal data.
Students will be exposed to the various statistical software programs and will be expected to become proficient in utilizing EQS.
Prerequisite: PRE 906 or equivalent course. LEC.

PRE 910. Practicum in School Psychology. 3 Hours.
Supervised practice in the application of psychological theory of educational problems.
Includes work useful with exceptional children as well as experience in the application of such areas as mental hygiene and learning theory to problems involving the total school population.
(See SPED 801.) Prerequisite: Permission of advisor and instructor. LEC.

PRE 911. Advanced Practicum in School Psychology. 3 Hours.
A continuation of PRE 910 with special emphasis on remedial techniques associated with learning difficulties.
(See SPED 802.) Prerequisite: PRE 910 and permission of advisor and instructor. LEC.

PRE 916. Educational Evaluation: Theory and Practice. 3 Hours.
The course will treat an intensive critical study of various views of evaluation as it exists opposite the experimental research process, emphasizing the operational definitions of objectives, existing models, taxonomies, and structure, and goals and methods of obtaining and summarizing evaluation data.
Prerequisite: PRE 710 and PRE 816 or equivalents or permission of instructor. LEC.
PRE 918. Seminar in Current Issues and Trends in: _____. 1-3 Hours.
An examination of selected current issues and trends. (This course fulfills
the requirement by the School of Education for a course in current issues
and trends.) Prerequisite: Doctoral student status in a program in the
Department of Psychology and Research in Education. LEC.

PRE 921. Theory and Applications of Educational Measurement. 3
Hours.
Application of theory including classical theories of reliability and validity,
latenet-trait theories, item sampling, and factor analysis to problems in
teachers' educational development and use in areas such as evaluation,
research, placement, and selection. Prerequisite: PRE 725 and PRE 811.
LEC.

PRE 922. Item Response Theory. 3 Hours.
Theoretical foundations and practical applications of item response theory
in educational measurement. Prerequisite: PRE 921. LEC.

PRE 923. Advanced Theory and Applications of Item Response
Theory. 3 Hours.
This course is designed to acquaint students with knowledge of advanced
theory and applications in the field of item response theory (IRT). Topics
to be covered include: advanced IRT models for dichotomous and
polytomous, multidimensional, rater effects, and testlet-based item
response data, estimation of parameters for these models and related
software, and goodness of fit tests. The course will also focus on some
advanced applications using these models, including test development,
test score equating, differential item functioning, scoring and score
reporting, Monte Carlo simulation studies, and innovative test designs.
Prerequisite: PRE 922 or equivalent course. LEC.

PRE 925. Computer Programming and Applications for Educational
Research, Measurement and Statistics. 3 Hours.
The purpose of this course is to provide advanced students in the areas
of educational research, psychometrics, and statistics with techniques
for computer programming, analysis, and carrying out research using
computer simulations. The topics covered are: Programming with Fortran
languages, data manipulation and management, analysis, simulation
of data according to statistical and psychometric models, numerical
techniques for matrix operations, sampling from distributions, solutions
for non-linear equations, and Markov-Chain Monte-Carlo techniques.
There are no prerequisites for this course, but those students who have
coursework through the multivariate statistics level will benefit most
from this course. Other suggested courses include those related to
psychological and educational measurement, classical test theory, item
response theory, and research methods. LEC.

PRE 926. Hierarchical Linear Modeling. 3 Hours.
This course provides students with an introductory background in the
basic principles and applications of hierarchical linear modeling (HLM).
The course will review both the conceptual issues and methodological
issues in using hierarchical linear modeling by working step-by-step with
real data sets. Prerequisite: PRE 810 Regression Analysis (formerly PRE
904). LEC.

PRE 931. Computer-Based Testing. 3 Hours.
Computer-based testing holds the promise of increasing test validity and
reliability while reducing the logistical problems associated with large-
scale assessment. This seminar will provide an overview of what we have
learned about administering tests on computer between the 1960s and
today. The focus will be on measurement issues, but depending on class
interest topics will vary. A prior course in item response theory is desirable
but not required. Prerequisite: PRE 725 or equivalent course. LEC.

PRE 932. Diagnostic Testing. 3 Hours.
There is a great demand for more useful, more actionable test scores.
Traditional large-scale group administered tests do not provide this kind
of information due to low reliabilities of, or high inter-correlations among,
sub-scores. This course will explore approaches used by individually
administered tests to provide diagnostic information, new psychometric
models that hold promise of providing better diagnostic information, and
implications for test design. A primary focus will be on how psychometric
models can be used with diagnostic subscores that are more reliable and
less correlated than traditional approaches. Prerequisite: PRE 922 or
equivalent course. LEC.

PRE 940. Advanced Studies in Educational Psychology and
Research. 3 Hours.
A course designed to offer a comprehensive view of the field of
educational psychology and research. The course will treat a series
of thematic areas with a focus on latest developments and emerging
theories in learning, development and quantitative methods. Intended for
post-master’s level students. Prerequisite: Prior graduate level course
work in development, learning, measurement, and statistics. LEC.

PRE 945. Clinical Supervision and Consultation. 3 Hours.
This course is designed to provide students with a knowledge foundation
of clinical supervision and consultation theories and models, modes/
formats of supervision, the supervisory/consulting relationship, legal and
ethical considerations in the provision of supervision/consultation, and
supervision research issues. Prerequisite: PRE 948. LEC.

PRE 947. Specialist Research. 1-4 Hours.
RSH.

PRE 948. Advanced Practicum I. 3 Hours.
Designed to be the initial advanced practicum for first year doctoral
students. Attention is directed to development of a broad range of basic
and advanced skills. Graded on a satisfactory/fail basis. Prerequisite: PRE
842 or equivalent. LEC.

PRE 949. Advanced Practicum II. 3 Hours.
Intensive counseling practice, including group and individual supervision,
that may be taken either through Counseling and Psychological Services
or an approved site outside of the university. Focus is on the acquisition
and demonstration of advanced counseling skills. Two consecutive
semesters (Fall, Spring) of enrollment are required of doctoral students.
Responsibility to the site is for a continuous nine months, with fall
semester responsibilities ending on the first day of spring semester
classes. A grade of incomplete will be granted at the end of the regular fall
graduation period, with the regular fall grade being granted after completion
of fall semester responsibilities. Graded on a satisfactory/fail basis.
Prerequisite: Satisfactory completion of PRE 948 and prior or concurrent
enrollment in PRE 951. LEC.

PRE 950. Cognitive Theory and Strategies in Counseling
Psychology. 3 Hours.
An examination of historical and contemporary cognitive theories and
strategies used in the practice of counseling psychology. Consideration
of theoretical positions and issues, research functions, assessment
strategies, and application of techniques. Prerequisite: PRE doctoral
student status or consent of instructor. LEC.

PRE 951. Psychodiagnostic Assessment. 3 Hours.
Survey of selected psychodiagnostic instruments currently in use and
their administration, scoring, and interpretation. Emphasis will also be
placed on the use of the clinical interview as an assessment tool, case
counselorization/diagnosis, and integrative report writing. Prerequisite:
Completion of PRE 830 and degree-seeking status in Counseling
Psychology or consent of instructor. LEC.
PRE 952. Advanced Counseling Theory and Research. 3 Hours.
An advanced treatment of theory, research, and practice issues central to Counseling Psychology. Topics include theoretical and research paradigms in Counseling Psychology; the relationship of theory and research to practice; and evidence on factors influencing counseling processes and outcomes. Prerequisite: Counseling Psychology doctoral student status or consent of instructor. LEC.

PRE 953. Interactional Perspectives on Counseling and Personality. 3 Hours.
A study of personality and therapeutic change from systems, interactional, and communications perspectives, with implications for research and assessment in counseling. Designed for graduate students at the specialist and doctoral levels. Prerequisite: Counseling Psychology doctoral student status or consent of instructor. LEC.

PRE 954. Vocational Psychology. 3 Hours.
A survey of the major career development theories in counseling psychology. Models and methods of career counseling will be reviewed and integrated from the different theoretical perspectives. The empirical support of each theory and needed research will be identified. The course will include presentation of theories of career development and their specific applicability in counseling. The career development of special groups (women, the culturally different, non-whites) will be studied as well as alternative methods of delivery in career development and counseling. Prerequisite: Completion of PRE 846 or equivalent, and Ph.D. degree-seeking status in Counseling Psychology or consent of instructor. LEC.

PRE 955. Research Methods in Counseling Psychology. 3 Hours.
This course is a foundational course in research methods and design in counseling psychology. The course covers (a) design type and threats to design validity, (b) the formulation of research problems, (c) research instrumentation/measures, (d) data analytic methods, (e) interpreting data, and (f) ethical issues, research integrity, and the responsible conduct of research. Prerequisite: PRE 710 and PRE 711 or equivalent. Doctoral student in Counseling Psychology or consent of instructor. LEC.

PRE 956. Theory of Couples and Family Counseling. 3 Hours.
A survey of the major career development theories in counseling psychology. Models and methods of career counseling will be reviewed and integrated from the different theoretical perspectives. The empirical support of each theory and needed research will be identified. The course will include presentation of theories of career development and their specific applicability in counseling. The career development of special groups (women, the culturally different, non-whites) will be studied as well as alternative methods of delivery in career development and counseling. Prerequisite: Completion of PRE 846 or equivalent, and Ph.D. degree-seeking status in Counseling Psychology or consent of instructor. LEC.

PRE 957. Therapeutic Intervention: Home and School. 3 Hours.
The course includes a review of literature and theory as well as supervised practice. Therapeutic intervention is broadly conceived, including individual and group counseling, and parent and teacher consultation. The importance of the family-school relationship is stressed. Prerequisite: Permission of instructor and completion of course on counseling. LEC.

PRE 980. Advanced Topics: ____. 1-3 Hours.
a special course of study to meet current need of education professionals--primarily for post-master’s level students. LEC.

PRE 990. Internship in Counseling Psychology. 1 Hour.
Three consecutive enrollments, covering a minimum of eleven months of experience in an approved counseling psychology field setting. Supervision and directed experiences coordinated by the student’s adviser, the program training director, and internship setting supervisors. Required of all counseling psychology doctoral students. Prerequisite: Doctoral degree-seeking status in counseling psychology, completion of Ph.D. comprehensive examinations, and consent of counseling psychology faculty. FLD.

PRE 991. Ed.S. Internship. 1-5 Hours.
This course has two components: 1) a supervised experience as a practicing school psychologist, and 2) a group supervision class emphasizing case presentations and other integrative practice elements. The student functions as a provisionally certified school psychologist. Prerequisite: Completion of Ed.S. degree. FLD.

PRE 992. Ph.D. Internship in School Psychology. 5 Hours.
This is a one year, supervised experience in an approved setting. The structure and content of the experience follows guidelines of several professional organizations including The American Psychological Association and the National Association of School Psychologists. Prerequisite: Approval of School Psychology committee. FLD.

PRE 995. Field Experience in: ____. 1-5 Hours.
Supervised and directed experiences in selected educational settings. The advisor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experiences will be prepared independently by the student, a representative of the cooperating agency, and the advisor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. FLD.

PRE 996. College Teaching Experience in: ____. 1-5 Hours.
To meet the college teaching experience requirement for doctoral programs, a student shall engage in a semester long, planned, instructional activity that shall include college classroom teaching under supervision. Planning shall be done with the advisor and/or member of the faculty who will supervise the experience. The activity shall be done under the supervision of a member of the University of Kansas faculty or by an individual or individuals designated by the candidate’s committee. FLD.

PRE 997. Individual Study. 1-4 Hours.
Prerequisite: Prior graduate course work in the area of study and consent of instructor. Course is graded on a satisfactory/fail basis. LEC.

PRE 998. Seminar in: _____. 1-4 Hours.
Course is graded on a satisfactory/fail basis. LEC.
PRE 999. Doctoral Dissertation. 1-15 Hours.
THE.

Special Education Courses

SPED 261. Families and Professional Partnerships. 3 Hours.
This course provides information on issues and practices related to working together in partnership with families of young children including those who have a young child with special needs. Emphasis will be placed on taking a family systems prospective and a family-centered approach to family support. Strategies for effective communication for the purpose of information sharing and collaborative planning with families are provided. Relevant current scientifically based evidence will be reviewed and discussed pertaining to these topics. LEC.

SPED 326. Teaching Exceptional Children and Youth in General Education. 3 Hours.
This course is designed for general education teacher trainees. It will provide them information about students with disabilities that they will have in their classrooms and the law governing special education and its implications for them as general educators. The course will address Individualized Educational Plans that are developed for students with disabilities and how general educators contribute to these plans. Students will learn about planning instruction that is differentiated to meet various learner needs, universal design principles and instructional tools, providing meaningful access to general education classrooms and curriculum for students with disabilities and designing and delivering appropriate accommodations and modifications to assist student learning. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 362. Introduction to Early Education and Early Childhood Special Education. 3 Hours.
This course is designed to provide an overview of the field of early education including early childhood education and early childhood special education. The historical, philosophical, research-base, policy and legal foundations for the field are discussed to provide the students with the knowledge to become an advocate for early learning opportunities (birth through grade 3) for all children and their families. LEC.

SPED 425. Introduction to Exceptional Children and Youth. 3 Hours.
Designed for regular education teacher trainees, those in training for support roles in public schools and/or residential facilities (music educators/therapists, speech clinicians, etc.), and others interested in providing services for exceptional children and youth. Emphasis on the learning and adjustment problems of exceptional children and youth. Includes fieldwork experiences in residential and/or public school settings. LEC.

SPED 431. Introduction to the Exceptional Child/Adolescent. 1 Hour.
The course is designed to provide the student with knowledge of and direct experiences within instructional settings that include one or more exceptional children. Structured experiences will be provided to (a) ensure mastery of skills in differentiating normal from atypical patterns of behavior in children or adolescents, (b) promote acquisition of skill in understanding the educational needs of exceptional learners as well as the procedures used to identify and provide instruction for them, (c) ensure the generalization of communication skills to the unique needs of exceptional learners in instructional settings, and (d) promote a positive attitude toward atypical students. LEC.

SPED 439. Student Teaching: Unified Early Childhood. 1-6 Hours.
A supervised student teaching experience leading to initial teaching licensure in Kansas Unified Early Childhood (birth through grade 3). The student assumes the professional role as a teacher in an approved inclusive early childhood infant/toddler or preschool. Prerequisite: Admission to the Unified Early Childhood program. Approved application of intent to student teach. LEC.

SPED 497. Independent Study. 1-2 Hours.
Only one enrollment permitted each semester, a maximum of four hours will apply toward a bachelor’s degree. Prerequisite: Recommendation of advisor and consent of instructor. IND.

SPED 500. Introduction to Sign Language. 3 Hours.
This is an introductory course in Sign Language and includes ASL and English sign vocabulary, a description of all manual sign systems, medical aspects of hearing loss, communication and language, and Deaf culture and community. LEC.

This course will cover the development of American Sign Language and its application within the Deaf Community. It is based on the functional-notational approach to learning sign language. This approach organizes language around communicative purposes of everyday interaction. LEC.

SPED 502. American Sign Language II (ASL II). 3 Hours.
This is the second level course in American Sign Language and its application within the Deaf Community. It is based on the functional-notational approach to learning sign language. This approach organizes language around communicative purposes of everyday interaction. Prerequisite: SPED 501. LEC.

SPED 503. American Sign Language III (ASL III). 3 Hours.
This is the third level course in American Sign Language. The primary objective of the American Sign Language III “Signing Naturally” Level 2 curriculum is for students to continue using the two basic language skills: visual listening and signing. Prerequisite: SPED 502. LEC.

SPED 504. American Sign Language IV (ASL IV). 3 Hours.
This is the fourth level course in American Sign Language. The primary objective of the American Sign Language IV “Signing Naturally” Level 3 curriculum is for students to continue using the two basic language skills -- visual listening and signing. Prerequisite: SPED 503. LEC.

SPED 506. Advanced Practices for Children with Disabilities in the Elementary General Education Classroom. 3 Hours.
This course is designed to enable novice teachers to master and apply the instructional and communicative skills that will facilitate appropriate and productive inclusion of children and youth with exceptionalities within general education classrooms and other school settings. Specific research-based strategies in curriculum content acquisition (content enhancements, learning strategies, classwide-peer tutoring), and specific research-based strategies in behavior management will be learned and applied to real teaching experiences. Novice teachers will learn about collaborative structures found in schools to support student learning in general education settings (co-teaching, collaborative consultation, teacher/student support teams) and roles and responsibilities of teachers within these structures. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 507. Advanced Practices for Children with Disabilities Middle/Secondary General Education Classroom. 3 Hours.
This course is designed to enable novice teachers to master and apply the instructional and communicative skills that will facilitate appropriate and productive inclusion of middle and secondary age students with disabilities within general education classrooms and other school settings. Specific research-based strategies in curriculum content acquisition (content enhancements, learning strategies, classwide-peer tutoring), and specific research-based strategies in behavior management will be learned and applied to real teaching experiences. Novice teachers will learn about collaborative structures found in schools to support student learning in general education settings (co-teaching,
collaborative consultation, teacher/student support teams) and roles and responsibilities of teachers within these structures. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 598. Special Course: ____. 1-5 Hours.
A special course of study designed to meet current needs of education students; primarily for undergraduates. LEC.

SPED 631. Characteristics of Students Needing an Adaptive Curriculum. 3 Hours.
This course is designed as an introduction to the definition, characteristics, causes, assessment, and specific remedial techniques for students needing an adaptive curriculum. The needs for specialized services to meet specific learning and/or behavioral needs will be presented. Students will learn about the history of serving children and youth with high incidence disabilities associated with specific learning, emotional/behavioral, mild mental retardation and a range of physical and health needs. Key individuals in the research of specific disabilities associated with these needs and how they helped expand our understanding of who these individuals are and how to address specific needs, will also be addressed. Learning characteristics will be addressed in relation to why and how specialized instruction can meet the learning and developmental needs of these individuals, specifically in the areas of instructional and assistive technology. LEC.

SPED 632. Characteristics of Students Needing a Functional Curriculum. 3 Hours.
This introductory course provides an overview of the characteristics of learners with significant support needs. Students will learn to define and understand various classification systems and the implications of: low-incidence disabilities, significant cognitive disability, various vision and/or hearing impairments, including deaf-blindness motor disabilities, and health impairments. Students will be introduced to various etiologies: pre-, peri-, and post-natal causes, syndromes and chromosomal disorders, and biomedical causes of severe disability. Additional content includes anatomy of sensory organs, interpretation of pertinent medical reports, assessment procedures, and in school settings considerations (e.g., orientation and mobility, cochlear implants, medications, tube feeding, physical therapy, occupational therapy). Prerequisite: An introductory course in special education. LEC.

SPED 633. Characteristics of Learners with Hearing Loss -- Deaf Studies. 3 Hours.
Deaf Studies is the basic characteristics course for both the Master’s degree in Deaf Education and for Kansas and Missouri endorsement in Deaf/HOH. The course includes medical aspects/etiology of hearing loss, history, pertinent laws, Deaf culture and community, issues in assessment and psychology, language and sign systems, multicultural education, multiple disabilities and hearing loss, and specific issues in the field. LEC.

SPED 635. Characteristics of Children and Youth with Disabilities: _____ 3 Hours.
Social, cognitive, emotional, and other developmental aspects associated with children and youth identified with learning disabilities, behavior disorders, and mental retardation are covered by this course. Characteristics, special needs, and service delivery approaches are compared and contrasted. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 641. Methods & Assessment: Literacy Interventions Struggling Learners & Students with Disabilities. 3 Hours.
This course will provide in depth learning experiences targeting literacy; both reading and writing. Students will learn about assessment tools and assessment systems used in tiered support frameworks to determine the required intensity of literacy support and instruction needed by children/adolescents with adaptive special education needs, and will learn about evidence-based instructional approaches and curriculum developed for students with disabilities and struggling students in general. The course is intended for persons working toward the Kansas teaching license in teaching students needing an adapted curriculum. Prerequisite: SPED 730, admittance into the Adaptive program in the Department of Special Education, or permission of the instructor. LEC.

SPED 642. Methods and Assessment: Life Skills and Community-Based Instruction. 3 Hours.
This course will provide an overview of assessment and instructional practices contributing to community-referenced planning, community-based instruction and life skills instruction. Students will conduct ecological inventories and other student-referenced assessments, design community-based instructional programs, ecologically valid and age-appropriate to facilitate mastery of skills essential for community and social inclusions, explore best practices in community-based instructional programs, including family and student involvement, transportation, and administrative and policy support. Undergraduate students will be provided a model and extended scaffolding with a few sample case studies with which to work. Students who have completed SPED 642 cannot enroll in SPED 742. The course is intended for persons working toward the Kansas teaching license in teaching students needing a functional curriculum. Prerequisite: SPED 326. LEC.

SPED 644. Assessment and Instructional Methods I: Learners with Hearing Loss. 3 Hours.
This course will provide an introduction to appropriate instructional methodology for teaching students who are deaf or hard of hearing at the early childhood, elementary, and secondary levels. Upon completion students will be familiar with legal issues, teaming, assessment, IEP development, curriculum planning, instructional methods, and transition. LEC.

SPED 650. Constructing Early Childhood Curriculum. 3 Hours.
Students in this course will learn to design, implement and evaluate developmentally appropriate curricula and programs for children from birth through kindergarten. Issues of curriculum design and assessment are introduced as interrelated processes that include structuring learning environments and experiences that are responsive to children’s interests and abilities. Students analyze and evaluate curriculum that focuses on the five developmental domains a) social emotional development; b) cognitive development; c) language and communication development; d) adaptive behavior development; and e) gross and fine motor development and in addition the content domains of literacy, science, math, and fine art. Strategies for developing learning opportunities that are appropriate for young children, including children with special needs and children from diverse cultural, ethnic and linguistic backgrounds, will be explored. Prerequisite: Admission to School of Education UEC program. LEC.

SPED 660. Education of Children and Youth with Disabillities I: ____. 3 Hours.
This is a methods course that covers instructional approaches and procedures that offer developmentally appropriate, effective and inclusive early intervention for preschool and kindergarten age children who experience developmental delays, disabling conditions or who are at-risk for developmental problems and disabilities. It is directed toward: (a) “how” to teach, or the technical components of developing and delivering effective instruction that provide access to the general early childhood curriculum within recognized approaches to early childhood education for young children, and (b) the “what” to teach, or the selection of developmentally and individually appropriate child objectives as well as specific materials and specialized instructional approaches. The relationship of instructional planning to state and federal mandates will also be considered. The course is primarily intended for persons who are currently working toward certification in the ECSE program area.
Prerequisite: SPED 425 or SPED 725, and SPED 735, which can be taken concurrently. LEC.

SPED 661. Supporting Children with Significant Learning and Behavioral Challenges. 3 Hours.
Students in this course will gain knowledge of the causes, and intervention and support approaches for young children with multiple and significant disabilities including neurological impairments, physical disabilities, sensory impairments, significant developmental disabilities and challenging behavior. Emphasis is placed on environmental adaptations and direct instructional techniques to maximize independence as determined through systematic ecological inventories tailored to the individual child's strengths and needs. Information is also provided on assistive technology designed to provide appropriate supports. Functional behavioral assessment procedures, proactive intervention strategies, and developing collaborative support plans will be studied. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 663. Assessment Strategies in Early Education. 3 Hours.
Examines the practice of gathering information for the purpose of making individual referral and instructional decisions for infants, toddlers, and young children with and without special needs. Discusses effective informal assessment techniques and emphasizes an ecological approach to gathering information. Introduces standardized assessment and screening instruments and provides an overview of the purposes and limitations of such tests. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 664. Inclusive Strategies and Intervention for Infants and Toddlers. 3 Hours.
Emphasizes curriculum development and early intervention provision for infants and toddlers through the planning of appropriate learning experiences, the design of learning environments, developing Individual Family Service Plans (IFSP), promoting collaboration among families and the use of various methods of enhancing the child's development across the five (social-emotional, adaptive, cognitive, physical/movement, communication) development domains. The role of the educator/early interventionist in relation to the family and the child is examined. Curriculum resources and intervention strategies for infants and toddlers with special needs are reviewed with emphasis on interdisciplinary planning and implementation. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 665. Inclusive Strategies and Intervention for Preschoolers. 3 Hours.
Provides the opportunity for students to develop and evaluate inclusive environments for young children. This course emphasizes meeting the needs of all young children through an integrated approach to planning, implementing and assessing instruction in all areas; linking assessment information to individualized instruction; developing Individual Educational Plans (IEPs) and promoting collaboration among families, schools and communities. Service delivery systems and transitions between early childhood programs are reviewed in relation to curriculum. Curriculum development for early childhood content areas (literacy and language, numeracy, science, social studies, physical education and the arts) and domains (language, social/emotional, physical, and cognitive) will be explored. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 666. Field Experience Infant/Toddler. 1 Hour.
This supervised field experience is intended to allow the pre-service teacher to apply the knowledge gained in SPED 664 Inclusive Strategies and Intervention for Preschoolers, by working with infants and toddlers in early intervention settings/programs. To be taken concurrently SPED 665. Prerequisite: Admission to the Teacher Education Program. FLD.

SPED 668. Field Experience Infant/Toddler. 1 Hour.
This supervised field experience is intended to allow the pre-service teacher to apply the knowledge gained SPED 664 Inclusive Strategies and Intervention for Infants and Toddlers, by working with infants and toddlers in early intervention settings/programs. To be taken concurrently SPED 664. Prerequisite: Admission to the Teacher Education Program. FLD.

SPED 672. Field Experiences with Exceptional Children and Youth: ______. 3 Hours.
A course designed to provide experiences for students to participate with exceptional children in public schools and/or residential facilities and with professional personnel associated with the lives of exceptional students including special education teachers, child care workers, therapists, etc. Students will have opportunities to participate as aides, tutors, and instructors with individual and small groups of exceptional youth in one or more placements. Through weekly meetings with the instructor students are guided to relate their experiences to the needs and services for exceptional children and youth. Prerequisite: SPED 635. FLD.

SPED 675. Practicum with Children and Youth with Disabilities: ______. 1-10 Hours.
Intensive and direct teaching experiences with children and youth with disabilities in educational settings. The course is differentiated from SPED 775 through the amount of scaffolding undergraduate students will receive when demonstrating skill application (e.g., undergraduates report and receive feedback on practicum experiences on a more frequent basis, reduced data collection requirements, more emphasis on cooperating teacher providing guidance, etc.). This practicum is a requirement for provisional endorsement according to KSDE. Students who have completed SPED 675 cannot enroll in SPED 775 within the same curricular area. Prerequisite: SPED 326. LEC.

SPED 700. Introduction to Sign Language. 3 Hours.
This is an introductory course in Sign Language and includes ASL and English sign vocabulary, a description of all manual sign systems, medical aspects of hearing loss, communication and language, and Deaf culture and community. LEC.

SPED 701. American Sign Language I (ASL I). 3 Hours.
This course will cover the development of American Sign Language and its application within the Deaf Community. It is based on the functional-notational approach to learning sign language. This approach organizes language around communicative purposes of everyday interaction. LEC.

SPED 702. American Sign Language II (ASL II). 3 Hours.
This is the second level course American Sign Language and its application within the Deaf Community. It is based on the functional-notational approach to learning sign language. This approach organizes language around communicative purposes of everyday interaction. Prerequisite: SPED 701. LEC.

SPED 703. American Sign Language III (ASL III). 3 Hours.
This is the third level course in American Sign Language. The primary objective of the American Sign Language III “Signing Naturally” Level 2 curriculum is for students to continue using the two basic language skills: visual listening and signing. Prerequisite: SPED 702. LEC.

SPED 704. American Sign Language IV (ASL IV). 3 Hours.
This is the fourth level course in American Sign Language. The primary objective of the American Sign Language IV “Signing Naturally” Level 3 curriculum is for students to continue using the two basic language skills -- visual listening and signing. Prerequisite: SPED 703. LEC.
SPED 706. Advanced Practices for Children with Disabilities in the Elementary General Education Classroom. 3 Hours.
This course is designed to enable novice teachers to master and apply the instructional and communicative skills that will facilitate appropriate and productive inclusion of children and youth with exceptionalities within general education classrooms and other school settings. Specific research-based strategies in curriculum content acquisition (content enhancements, learning strategies, classwide-peer tutoring), and specific research-based strategies in behavior management will be learned and applied to real teaching experiences. Novice teachers will learn about collaborative structures found in schools to support student learning in general education settings (co-teaching, collaborative consultation, teacher/student support teams) and roles and responsibilities of teachers within these structures. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 707. Advanced Practices for Adolescents with Disabilities in the Middle/Secondary General Classroom. 3 Hours.
This course is designed to enable novice teachers to master and apply the instructional and communicative skills that will facilitate appropriate and productive inclusion of middle and secondary age students with disabilities within general education classrooms and other school settings. Specific research-based strategies in curriculum content acquisition (content enhancements, learning strategies, classwide-peer tutoring), and specific research-based strategies in behavior management will be learned and applied to real teaching experiences. Novice teachers will learn about collaborative structures found in schools to support student learning in general education settings (co-teaching, collaborative consultation, teacher/student support teams) and roles and responsibilities of teachers within these structures. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 708. Introduction to Hearing Impaired. 2 Hours.
A study of hearing defects and methods of diagnosis. The course also covers remedial work which teachers can use in treating such defects and meeting problems of hearing defective children. Prerequisite: Nine hours of education including educational psychology. LEC.

SPED 710. Methods of Teaching Language to the Deaf I. 3 Hours.
The effects of hearing loss on language acquisition and development. Systems for teaching language to individuals with hearing loss are introduced. Prerequisite: Course in normal language development and nine hours of education including educational psychology. LEC.

SPED 715. Understanding Research in Education. 3 Hours.
This course introduces concepts and skills involved in understanding and analyzing research in special education. The course provides an overview of basic, general knowledge of various research methodologies. In addition, this course will teach students to locate, read, comprehend, and critically analyze research articles and reports. Students will become familiar with the principles of educational research to become good "consumers" of this research. LEC.

SPED 717. Exceptional Children in Regular Classrooms. 3 Hours.
This course is designed to explore the relationship between regular and special education. Educational service delivery systems for exceptional children are identified and analyzed. Emphasis is placed upon procedures and services that regular class teachers can use to provide instructional services to exceptional children assigned to regular classrooms. Procedures for enabling normal children to understand and appreciate the interaction with children who exhibit physical and behavioral variance from established norms are conveyed. Especially for regular class teachers and students desiring a career in teaching exceptional children. Will be offered by designated area sections or as a general overview of several areas. LEC.

SPED 718. Instructional Planning for Children and Youth with Disabilities: ______. 1-3 Hours.
This course provides knowledge and skills to select, adapt, and sequence instructional methods and materials to facilitate general education curriculum mastery. LEC.

SPED 719. Learning and Technology. 1 Hour.
The central framework of "human learning" provides a context for understanding technology-based educational innovations. The lessons in this course explore how various "features of learning" and "features of technology" intersect. They discuss realistic options for improving the learning of students, and the learning of teachers, as they use technology in education. (Life-span range of levels.) LEC.

SPED 724. Data-Driven Instructional Decision Making. 1 Hour.
The lessons in this course present research-based methods for monitoring student behavior and academic progress. They explain how teachers may use this information to evaluate current and plan future instructional and behavioral interventions following a decision making model. It is also explored how computer and information management technology tools support and facilitate the collection, storage, and analysis of observational data. LEC.

SPED 725. Introduction to the Psychology and Education of Children and Youth with Disabilities. 3 Hours.
This course provides an overview of current practices in the identification, placement, and education of students with disabilities. This course emphasizes on patterns of social, cognitive, language, and physical development. Social, political, and economic advocacy issues are also addressed. Prerequisite: One course in Child Development. LEC.

SPED 726. Exceptionality and Technology. 1 Hour.
Technology has the potential to dramatically improve the education and quality of life for people with disabilities. This course presents you with a basic foundation for understanding technology in special education, a functional model for selecting the best technology applications for students with special needs, and strategies for applying your knowledge to practical situations. LEC.

SPED 727. Designing Instruction for Diverse Learners. 3 Hours.
This course explores design, development, and implementation of technology-based solutions for struggling learners in the preK-12 instructional environment. Throughout the course, students will (1) gain an understanding of the Principles of Universal Design for Learning, (2) examine how technology has and can be developed in a manner to meet multiple needs, especially those with disabilities, and (3) analyze how professionals can identify and assess what technology-based solution would meet the needs of a particular individual or group of individuals. LEC.

SPED 729. Introduction to Computing in Special Education. 3 Hours.
This course is designed to provide an introduction to basic concepts of computer literacy, with particular emphasis on the uses of microcomputers in educational settings for individuals with special needs. Topics include an overview of computing specific to the needs of individuals with special needs including: a) applications and the impact of computers on society; b) an introduction to computer hardware and associated concepts; c) introductory programming concepts; d) a survey of instructional and instructional-support applications of computers including examples of related software; e) software evaluation techniques; and f) an overview of resources in educational computing. Students will acquire hands-on operating experience with microcomputers through scheduled laboratory periods. LEC.
SPED 730. Characteristics, Methods & Assessment: Intro Struggling Learners & Students High- Incidence Disabilities. 3 Hours.
The course is designed as an introduction to the characteristics, assessment and identification process, and initial instructional and behavioral interventions needed in meeting the needs of students with high-incidence disabilities under the Kansas Adaptive Teacher Education Standards. The needs for specialized services to meet specific learning and/or behavioral needs will be presented. Frameworks for instruction and conceptualizing best practice will be introduced including the principles of Universal Design for Learning and the Multi-Tier System of Support. The role of the educator in identifying, understanding and implementing evidence-based practices is also examined. Curriculum resources and intervention strategies for students with high-incidence disabilities will be introduced with emphasis on tiered planning and implementation. The course is intended for persons working toward the Kansas teaching endorsement in the Special Education Adaptation Area. Prerequisite: Admittance into the Adaptive endorsement teacher education program in the Department of Special Education or permission of the instructor. LEC.

SPED 731. Supporting Children with Significant Learning and Behavioral Concerns. 3 Hours.
Students in this course will gain knowledge of the causes, and intervention and support approaches for young children birth through 5 years with significant support needs. These include young learners with multiple and significant disabilities including neurological impairments, physical disabilities, sensory impairments including dual sensory impairments, complex health care needs, significant developmental disabilities and challenging behavior. Emphasis is placed on environmental adaptations and direct instructional techniques to maximize independence as determined through systematic ecological inventories tailored to the individual child's strengths and needs. Information is also provided on assistive technology designed to provide appropriate supports. Functional behavioral assessment procedures, proactive intervention strategies, and developing collaborative support plans will be studied. Prerequisite: Admittance into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. SPED 752 or its equivalent, SPED 734 or its equivalent, and SPED 755 or its equivalent. LEC.

SPED 733. Characteristics of Learners with Hearing Loss -- Deaf Studies. 3 Hours.
Deaf Studies is the basic characteristics course for both the Master's degree in Deaf Education and for Kansas and Missouri endorsement in Deaf/HOH. The course includes medical aspects/etiology of hearing loss, history, pertinent laws, Deaf culture and community, issues in assessment and psychology, language and sign systems, multicultural education, multiple disabilities and hearing loss, and specific issues in the field. LEC.

SPED 734. Inclusive Strategies and Intervention for Infants and Toddlers: ____. 3 Hours.
Emphasizes curriculum development and early intervention provision for infants and toddlers through the planning of appropriate learning experiences, the design of learning environments, developing Individual Family Service Plans (IFSP), promoting collaboration among families and the use of various methods of enhancing the child's development across the five (social-emotional, adaptive, cognitive, physical, communication) developmental domains. The role of the educator/early interventionist in relation to the family and the child is examined. Curriculum resources and intervention strategies for infants and toddlers with special needs are reviewed with emphasis on interdisciplinary planning and implementation. Prerequisite: Admittance into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. LEC.

SPED 735. Characteristics of Children and Youth with Disabilities: ____. 3 Hours.
Social, cognitive, emotional, and other developmental aspects associated with children and youth identified with learning disabilities, behavior disorders, and mental retardation are covered by this course. Characteristics, special needs, and service delivery approaches are compared and contrasted. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 738. Unified Early Childhood Applied Research. 1 Hour.
This seminar is designed to facilitate the UEC teacher candidate's completion of a Teaching Work Sample during the UEC Student Teaching experience. The purpose of the seminar together with the UEC student teaching experience is to provide the UEC teacher candidate with the opportunity to study and experience the fundamentals of teaching young children with and without disabilities with the aim of evolving a set of values, principles, and skills which will guide future early education teaching situations. Prerequisite: Admission to UEC Student Teaching. Corequisite: SPED 739 UEC Student Teaching. LEC.

SPED 739. Early Childhood Unified Student Teaching/Practicum. 1-6 Hours.
A supervised student teaching experience leading to initial teaching licensure in unified early childhood (birth through grade 3). The student assumes the total professional role as a teacher in an approved inclusive early childhood program to include infant/toddler, preschool or kindergarten. Prerequisite: Admission to UEC Student Teaching. Corequisite: SPED 738 UEC Unified Early Childhood Applied Research. FLD.

SPED 740. Managing Classroom Behavior of Exceptional Children and Youth. 3 Hours.
Designed to acquaint regular and special education teachers, principals, school psychologists, counselors, and speech pathologists with principles and application of classroom management techniques applicable to exceptional children and youth. Methods of changing inappropriate behaviors and prompting the acquisition of adaptive behaviors through positive management procedures will be stressed. Includes an introduction to behavior analysis. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 741. Methods & Assessment: Literacy Interventions Struggling Learners & Students High- Incidence Disabilities. 3 Hours.
This course will provide in depth learning experiences targeting literacy; both reading and writing. Students will learn about assessment tools and assessment systems used in tiered support frameworks to determine the required intensity of literacy support and instruction needed by children/adolescents with adaptive special education needs, and will learn about evidence-based instructional approaches and curriculum developed for students with disabilities and struggling students in general. The course is intended for persons working toward the Kansas teaching license in teaching students needing an adapted curriculum. Prerequisite: SPED 730, admittance into the Adaptive program in the Department of Special Education, or permission of the instructor. LEC.

SPED 742. Methods and Assessment: Life Skills and Community-Based Instruction. 3 Hours.
This course will provide an overview of assessment and instructional practices contributing to community-referenced planning, community-based instruction, and life skills instruction. Students will conduct ecological inventories and other student-referenced assessments, design community-based instructional programs, ecologically valid and age-appropriate to facilitate mastery of skills essential for community and social inclusion, explore best practices in community based instructional programs, including family and student involvement, transportation, and administrative and policy support. Students who have completed SPED
742 cannot enroll in SPED 642. The course is intended for persons working toward the Kansas teaching license in teaching students needing a functional curriculum. Prerequisite: SPED 735, admittance into the Functional program in the Department of Special Education, or permission of the instructor. LEC.

SPED 743. Methods: Functional Behavioral Assessment, Positive Behavior Support and Classroom Management. 3 Hours.
This course provides a problem-solving approach and the framework for teaching and assessment strategies to develop pro-social behavior in students with disabilities and their typical peers in classrooms and whole school contexts. Students assess problem behavior, discover the functions of problem behavior, and learn pro-social alternatives in home, school, and community settings. Prerequisite: SPED 631 or SPED 731, and SPED 632 or SPED 732. LEC.

SPED 744. Assessment and Instructional Methods I: Learners with Hearing Loss. 3 Hours.
This course will provide an introduction to appropriate instructional methodology for teaching students who are deaf or hard of hearing at the early childhood, elementary, and secondary levels. Upon completion students will be familiar with legal issues, teaming, assessment, IEP development, curriculum planning, instructional methods, and transition. LEC.

SPED 745. Audiology and Aural Rehabilitation. 3 Hours.
This course will provide a broad overview of the components of an aural rehabilitation service delivery model including audiological diagnostics and assessment, selection and fitting of a variety of listening devices, and intervention strategies for auditory training and speech perception training. The emphasis of this course will be on the aural habilitation of children; therefore, each of the components of an aural (re)habilitation plan will be considered in relation to the needs of individual children and their families. LEC.

SPED 750. Curriculum and Methods in Early Childhood. 3 Hours.
This is a curriculum and methods course that addresses how to design, implement and evaluate developmentally appropriate curricula and programs for children from birth to six years of age. Issues of curriculum design and assessment are introduced as interrelated processes that include structuring learning environments and experiences that are responsive to children’s interests and abilities. Strategies for developing learning opportunities that are appropriate for young children, including children with special needs and children from diverse cultural, ethnic and linguistic backgrounds, will be explored. Students analyze and evaluate curriculum that focuses on facilitating progress in the domains of a) social emotional development; b) cognitive development; c) language and communication development; d) adaptive behavior development and e) gross and fine motor development. Students also analyze and evaluate curriculum standards and frameworks for the young child’s acquisition of concepts, skills and dispositions that support the development of early competencies and interest in literacy, mathematics, the sciences, social studies, the arts and individual and group sports. Prerequisite: Admission into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. LEC.

This course is designed for teachers seeking the Adaptive certification to teach students with High-Incidence Disabilities (Adaptive). Students will learn how to select, administer, score, and interpret formal and informal assessments; make data-based instructional decisions for students with specific learning disabilities, with social and emotional needs and disorders in behavior, mild mental retardation, and/or who experience other chronic health impairments. Individually chosen and administered tests, as well as high-stakes assessments, and will be discussed. Prerequisite: SPED 631 or SPED 731. LEC.

SPED 752. Overview of Early Childhood and Early Childhood Special Education. 3 Hours.
The course serves as an introduction to the profession including historical, philosophical, social and psychological foundations, awareness of value, ethical and legal issues, staff relations and the importance of becoming an advocate for children and families. Students will analyze/interpret trends in early education, including diversity, early childhood special education, family centered practices, legislation, public policy, and developmentally appropriate practice. The two key professional organizations, National Association for the Education of Young Children (NAEYC) and Division of Early Childhood for the Council for Exceptional Children (DEC), recommended practices serve as the foundation for understanding the roles, knowledge and competencies of the early educator. Prerequisite: Admittance into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. LEC.

SPED 753. Assessment in Early Education. 3 Hours.
This course examines the practice of gathering information for the purpose of making individual referral and instructional decisions for infants, toddlers, and young children with and without special needs. Discusses effective informal assessment techniques and emphasizes an ecological approach to gathering information. Introduces standardized assessment and screening instruments and provides an overview of the purposes and limitations of such tests. Prerequisite: Admittance into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. LEC.

SPED 755. Inclusive Strategies and Interventions for Preschoolers: _____ . 3 Hours.
This is a methods course that covers instructional approaches and procedures that offer developmentally appropriate, effective and inclusive early intervention for preschool and kindergarten age children who experience developmental delays, disabling conditions or who are at-risk for developmental problems and disabilities. It is directed toward: (a) "how" to teach, or the technical components of developing and delivering effective instruction that provide access to the general early childhood curriculum within recognized approaches to early childhood education for young children, and (b) the "what" to teach, or the selection of developmentally and individually appropriate child objectives as well as specific materials and specialized instructional approaches. The relationship of instructional planning to state and federal mandates will also be considered. The course is primarily intended for persons who are currently working toward certification in the ECSE program area. Prerequisite: Admittance into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. SPED 752 (may be taken concurrently). LEC.

SPED 760. Introduction to Autism Spectrum Disorders. 3 Hours.
An introductory graduate-level course on autism spectrum disorders. It addresses characteristics of children and youth with autism spectrum disorders; trends and issues associated with autism spectrum disorders; and effective practices and strategies for structuring, managing, and promoting social skill development and social interactions among learners with autism spectrum disorders. LEC.
The purpose of this course is to provide an introduction to positive behavioral support (PBS). The lessons contained within this course include an overview of positive behavioral support, the basics of behavior, an introduction to specific positive behavioral support strategies, and a lesson on preventing problem behavior. LEC.

This course introduces current functional assessment methods that are used to build effective behavioral support plans. A strong functional assessment is at the heart of Positive Behavioral Support. After completing this course, you will have a better understanding of how to implement functional assessment methods in your classroom. LEC.

SPED 763. Development and Implementation of PBS Plans. 1 Hour.
A positive behavioral support plan (PBS) describes how features of the environment associated with problem behavior will be modified, what and how skills and strategies will be taught, and how individuals supporting a student will respond to both positive and problematic behavior. This course contains lessons on designing PBS plans, implementing PBS plans, and modifying and assessing PBS plans. LEC.

SPED 764. Intervention Strategies for PBS-I. 1 Hour.
The purpose of this course is to introduce interventions that can be used as part of a comprehensive positive behavioral support plan. An effective positive behavioral support plan contains multiple intervention strategies that address the function maintaining a student's problem behavior. This course contains lessons addressing setting events, antecedent interventions, replacing problem behavior, and consequence interventions. LEC.

SPED 765. Intervention Strategies for PBS-II. 1 Hour.
The purpose of this course is to introduce three types of interventions that can be used in positive behavioral support. An effective positive behavioral support plan contains multiple intervention strategies that address the function maintaining a student's problem behavior. This course contains a lesson on social skills education, crisis prevention, and interventions addressing physiological factors that influence a student's problem behavior. LEC.

SPED 766. Redesigning Environmental Systems. 1 Hour.
The purpose of this course is to describe how positive behavioral support can be used to redesign the environment at a systems level. Considering the larger issues within a system including the broader environment, the values and beliefs held by staff, policies and procedures that promote ongoing learning, and collaborative problem solving processes within a school will improve implementation of long-term positive behavioral support efforts. This course contains lessons on classroom management, staff development, and school-wide discipline. LEC.

SPED 767. Creating Positive Lifestyles through PBS. 1 Hour.
One of the most important outcomes of a positive behavioral support plan is an increase in the quality of life for both the student and everyone within the student's social network. The purpose of this course is to introduce topics related to creating positive lifestyles including person-centered planning, self-determination, and quality of life. LEC.

SPED 772. Participation with Children and Youth with Disabilities: _____. 3 Hours.
A course designed to provide field experiences with children and youth with disabilities in settings where educational services are provided. Students work directly with professionals such as special education teachers, general education teachers, therapists and other support personnel. Students participate as aides, tutors, and instructors with individual and small groups of children and youth. Ongoing meetings with supervisors are designed to facilitate both reflection and strategic learning. LEC.

SPED 774. Education of Secondary and Post-Secondary Level Exceptional Students: ___. 1-3 Hours.
A course based on the problems and needs of secondary and post-secondary level handicapped students with a focus on curriculum alternatives (academic and vocational), instructional planning options, instructional methods and materials and educational and community resources. The focus is on both mildly and moderately handicapped students. Prerequisite: Appropriate section of SPED 735 which may be taken concurrently. LEC.

SPED 775. Practicum with Children and Youth with Disabilities: _____. 1-10 Hours.
Intensive diverse and direct teaching experiences with children and youth with disabilities in educational settings. This practicum is a requirement for provisional endorsement according to KSDE. Students who have completed SPED 775 cannot enroll in SPED 675 within the same curricular area. Prerequisite: Varies by topic. LEC.

SPED 785. Application of Assessment Information for Exceptional Children and Youth. 3 Hours.
An analysis of information derived from assessment instruments and procedures appropriate to measuring the social and cognitive development of exceptional children and youth. Provides experiences in determining assessment data required in the development of individualized educational programs (IEP). Attention is also given to the design of informal assessment procedures, specific to the needs of exceptional children and youth. Experience is provided in the preparation and presentation of assessment data for use in instructional planning conferences. Prerequisite: An undergraduate or graduate course in educational measurement, and SPED 760. LEC.

SPED 793. Psychology of Deafness. 2 Hours.
Reviews of the literature pertaining to psychological evaluations of the deaf and hard of hearing. Divergent views of deafness, type and degree of deafness are considered. Prerequisite: SPED 791. LEC.

SPED 798. Special Course: _____. 1-5 Hours.
A special course designed to address topical issues. LEC.

SPED 800. Classroom Intervention for Language Disorders of Handicapped Learners. 3 Hours.
Emphasis is given to milestones in normal language acquisition and variations from norms demonstrated by handicapped learners. Attention is also given to theoretical approaches to language training, formal and informal language assessment techniques, and instructional methods. Students design individualized instructional plans for incorporating language into the daily curriculum for handicapped learners. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 801. Practicum in School Psychology. 4 Hours.
Supervised practice in the application of psychological theory to educational problems. Includes work useful with exceptional children as well as experiences in the application of such areas as mental hygiene and learning theory to problems involving the total school population. (Same as PRE 910.) Prerequisite: Permission of advisor and instructor. FLD.

SPED 802. Advanced Practicum in School Psychology. 4 Hours.
A continuation of SPED 801 with special emphasis on remedial techniques associated with learning difficulties. (Same as PRE 911.) Prerequisite: SPED 801 and permission of advisor and instructor. FLD.
SPED 804. Designing Online Instruction for E-Learning Environments. 3 Hours.
The focus of the course is on the status of e-learning at the K-12 and postsecondary levels and the process of designing content for e-learning applications. Attention will be given to design features, content structuring, instructional management, evaluation, and collaboration in the process of working with technicians in the process of developing online curriculum and instruction. Prerequisite: None. A background in education is preferred. LEC.

SPED 805. Practicum in Individual Intelligence Testing. 4 Hours.
Practicum training, by arrangement, in administration and interpretation of test results for school situations with particular emphasis on the Stanford-Binet. Prerequisite: Permission of instructor. FLD.

SPED 809. Language Assessment and Instruction II: Learners with Hearing Loss. 3-6 Hours.
This course covers assessment and instruction of speech skills for students who are deaf or hard of hearing. A historical review of the emphasis placed on speech development in deaf students will be provided. Students will learn formal and informal methods of assessment, developmental order and classification systems for English language sounds, and visual, auditory, and tactile facilitation techniques. Auditory training programs and techniques will be emphasized. LEC.

SPED 810. Speech Assessment and Instruction III: Learners with Hearing Loss. 3-6 Hours.
The purpose of this course is to prepare students to provide effective language assessment and instruction to students who are deaf or hard of hearing. This course focuses on the effect of hearing loss on assessment, language and reading, communication options, and instructional strategies. LEC.

SPED 811. Methods of Teaching Elementary School Subjects to the Deaf. 3 Hours.
Focus is on development of skills in adapting materials and methods of teaching science, math, social studies, spelling, and writing to hearing impaired students. Emphasis is placed on problems, trends and procedures used in career education specifically for the hearing impaired. Prerequisite: SPED 711. LEC.

SPED 812. Instructional Approaches in Inclusive Elementary Settings. 2 Hours.
This advanced method course provides curriculum design and instructional procedures appropriate for students at the elementary and middle school levels, including functional academic, social, and home and community life skills. NOTE: This is a 2 credit course to be offered during the first 8 weeks of a semester. It will precede SPED 814 in the same semester. Prerequisite: SPED 614 or SPED 714: Learning Styles and Instructional Accommodations. LEC.

SPED 814. Instructional Approaches in Inclusive Secondary Settings. 2 Hours.
This advanced method course provides curriculum design and instructional procedures for students at the secondary level, including career preparation and transition from school to adult life in the community. Prerequisite: SPED 614 or SPED 714: Learning Styles and Instructional Accommodations. LEC.

SPED 839. Management Principles and Assessment Procedures for the Young or Severely Handicapped. 2-3 Hours.
Examines basic learning procedures and techniques that are essential to programming efforts with the severely or young handicapped. Includes assessment scales, writing instructional programs, measuring operant behavior and evaluating operant behavior. Task and concept analysis related to treatment programs. Prerequisite: Students in the Early Childhood for the Handicapped program must enroll in one hour of practicum, SPED 775. Students in the Severely Handicapped Program must have completed SPED 726. LEC.

SPED 840. Program Planning in Special Education-Early Childhood. 3 Hours.
This course is designed to provide knowledge and skills to implement federal and state development mandates for special education and related services programs for young children from birth to five. It covers procedures for developing, implementing, and evaluating (a) instructional accountability for these children’s participation in the general early childhood curriculum, (b) relationships between general and special early education personnel and programs; (c) roles and responsibilities; (d) interdisciplinary team planning including families; (e) coordinating, educating, and supervising paraeducators; and (f) general management responsibilities associated with instruction of young children with disabilities. Prerequisite: SPED 760 or SPED 860, which may be taken concurrently. LEC.

This course is designed for graduate students enrolled in the Masters of Science Program with an emphasis in school-age populations primarily with high mild disabilities or seeking to obtain a license to teach students needing an adapted curriculum in Kansas. Course experiences focus on how to identify and implement evidenced-based practices designed to increase the success of students with mild disabilities in mathematics, social studies, science, and language arts through their participation in general and special education classrooms primarily in grades 4-12. This course emphasizes practices associated with understanding and evaluating curricular demands, monitoring student progress in content-area courses, providing tiered supports and accommodations in teaching, using assessment and grading alternatives, and incorporating the principles of explicit and strategic instruction to design instruction that will promote and enhance content-area learning. The course is intended for persons working toward the Kansas teaching license in teaching students needing an adapted curriculum. Prerequisite: SPED 730, SPED 741, admittance into the High Incidence Disabilities program in the Department of Special Education, or permission of the instructor. LEC.

SPED 842. Advanced Methods: Strategies for Students with Significant Sensory, Motor, and Health Needs. 2 Hours.
In this course, students learn assessment techniques and instructional strategies for teaching learners with sensory and/or motor impairments and complex medical needs. Students will learn use of residual and alternative senses; proper positioning and transfer for students with motor impairments, nutrition, hydration, and medical monitoring, and seizure activity. Students will develop appropriate goals and objectives in the sensory and motor areas, incorporate related services into inclusive educational settings, embed sensory and motor skills training into the general education curriculum, adapt materials and apply assistive technologies. Prerequisite: SPED 632 or SPED 732, and SPED 742. LEC.

SPED 843. Advanced Methods&Assessment:Strategies for Students with Significant Behavior, Social&Emotional Need. 3 Hours.
This course is designed to introduce educators and related service professionals to prevention and intervention related to a broad range of antisocial, aggressive, and behavioral problems. Approaches focus on understanding and addressing the precipitating factors related to inappropriate behavior, short-term approaches for immediate crises, and problem-solving strategies for longer-term change. Course content will include antisocial, aggressive, and violent behavior; options for classroom interventions; school and system-oriented interventions, and ethical and legal issues involved in various prevention and intervention
approaches. Class work will focus on literature, research-based intervention approaches, and case work illustrating specific approaches and programs. Prerequisite: SPED 631 or SPED 731, SPED 741, and SPED 743. LEC.

SPED 844. Advanced Methods: Nonsymbolic and Symbolic Communication Assessment and Augmentation Strategies. 3 Hours. This advanced course examines current principles and practices in the development of multi-modal communication programs for students who do not spontaneously use speech for effective communication. It provides a framework upon which communication programming decisions can be based and interventions and strategies can be developed. Prerequisite: SPED 632 or SPED 732, and SPED 742. LEC.

SPED 850. Curriculum Planning for Exceptional Children and Youth. 3 Hours. Provides experiences in applying information on identifying learning and behavioral characteristics of exceptional children and youth. Practices in adapting curriculum materials to meet the needs of the handicapped. Prerequisite: SPED 725 and SPED 735. LEC.

SPED 851. Law and Special Education. 3 Hours. This course focuses on laws that apply to special education, especially “Individuals with Disabilities Education Act” and “No Child Left Behind Act.” The American legal system, particularly in respect to special education, the constitutional and statutory provisions of federal and state law, and judicial decisions interpreting those laws are reviewed. The course relates equal protection, procedural due process, and substantive due process doctrines to school practices affecting students with disabilities and examines the six principles of P. L. 94-142 and similar principles in state legislation. (Same as ELPS 856.) LEC.

SPED 852. Citizens with Disabilities, Public Policy, and Policy Analysis. 3 Hours. Students to analyze public policy that affects citizens with disabilities, various models of analysis are brought to bear on federal policy (e.g., education, transportation, housing, institutionalization, protection and advocacy, medical assistance, employment, vocational rehabilitation, and others). This course is not valid for core requirement in history and/or philosophy of education. (Same as ELPS 857.) Prerequisite: SPED 851 or permission of instructor. LEC.

SPED 853. Professional Ethics, Public Values, and Citizens with Disabilities. 3 Hours. This course addresses the issues that professionals (e.g., educators, physicians, allied health providers, attorneys, and others) and families of persons with disabilities face in the context of public values, attitudes, and rules of law. The issues include education, treatment and nontreatment. This course is not valid for core requirement in history and/or philosophy of education. (Same as ELPS 858.) Prerequisite: SPED 850, SPED 852 or permission of instructor. LEC.

SPED 854. Family and Interprofessional Collaboration in Special Education. 3 Hours. This course is designed to provide knowledge and skills to implement federal and state mandates for special education and related services programs as they relate to building and maintaining relationships with families of students with disabilities, and developing effective school programs. It covers procedures for developing, implementing, and evaluating (a) instructional accountability for special education students’ participation in district and state assessment; (b) relationships between general and special education personnel and programs; (c) roles and responsibilities; (d) interdisciplinary team planning including families; (e) coordinating, educating, and supervising paraeducators; and (f) general management responsibilities associated with instruction of children and youth with disabilities. Course topics will include collaboration in schools, community systems and families, historical perspectives of family life and school involvement, effective relationships between home, school, community, communication among professionals and with families, school-based programs, home-based programs, and multicultural considerations. Prerequisite: SPED 631 or SPED 731, or SPED 632 or SPED 732, or SPED 735. LEC.

SPED 856. Transition Education and Services from Childhood through Adulthood. 3 Hours. The purpose of this course is to provide a background in career development and transition education for persons with disabilities from middle school through adulthood. Emphasis is placed on IDEA requirements for transition services, career development and transition processes, transition services assessment, secondary special education curricular implications, career development and transition service needs, collaborative services in schools and communities to promote quality transition services, and issues and trends in transition education and services. LEC.

SPED 857. Vocational Training and Employment. 3 Hours. This course is designed to provide graduate students in special education and related areas with an overview of employment and vocational models for adolescents and young adults with disabilities. Emphasis is placed upon theory and practice related to career development, supported employment, working with businesses, and school and community vocational training models. Prerequisite: SPED 856 or SPED 858. LEC.

SPED 858. Assessment for Transition Planning. 3 Hours. This course is designed to provide a review of psychometric principles and their utility as a foundation for quality assessment in transition assessment and planning for youth with disabilities. Formal and informal assessments across a range of transition planning areas are reviewed and evaluated. Skills in curriculum-based assessment, rating scales, situational assessment, and functional assessment are emphasized. Prerequisite: SPED 856 or permission of instructor. LEC.

SPED 859. Interagency Services for Transition to Adulthood. 3 Hours. The purpose of this course is to provide an overview of interagency and community services and systems for adolescents and young adults with disabilities. Emphasis is placed on theory and practice related to interagency collaboration; systems change efforts in transition services; and state-of-art practices regarding supporting individuals with disabilities in community employment, living, socialization, community participation, and other areas of adult life. Prerequisite: SPED 856. LEC.

SPED 860. Education of Children and Youth with Disabilities II: Transition. 3 Hours. This course is designed to prepare students to implement specialized alternative strategies for individualized group instruction. Methods for developing and implementing overall treatment/educational programs, planning or selecting curriculum/service models for programs, and developing instructional materials are emphasized. Procedures for managing classroom staff and service resources, coordinating educational programs with families, other service personnel and program support staff, and monitoring overall program effectiveness are addressed. Prerequisite: SPED 760. LEC.

SPED 874. Planning for Adult Outcomes. 1-3 Hours. The problems, trends, issues, and procedures used in planning life skills, occupational and vocational skills, and transition from school to adult living for persons with disabilities. Separate sections will be organized by topics pertaining to career/vocational development, assessment, and transition programs and services. These will include: (a) transitions from early childhood to adulthood, (B) application of assessment information,
SPED 875. Practicum with Children and Youth with Disabilities: _____ 1-10 Hours.
This course is designed to provide intensive field work and direct teaching experiences with children and youth with disabilities in educational, residential, and clinical settings. Prerequisite: SPED 725. LEC.

SPED 879. Conferencing with Parents of Exceptional Children and Youth: _____ 3 Hours.
A course to develop knowledge and skills in the techniques of interviewing and conferencing, with special application to the professional, legal and ethical problems related to working with parents of exceptional children. Prerequisite: SPED 725 or SPED 775. LEC.

SPED 880. Coordination and Supervision of Services for Exceptional Children. 3 Hours.
An analysis of the role of the special education coordinator and supervisor. Particular attention will be given to: program development; planning, organizing, and delivering inservice training; personnel recruitment, selection, and evaluation; program management; and program evaluation. Students will relate the topical content to their specific area of expertise in special education. Prerequisite: SPED 425 or SPED 725 and six additional semester hours in special education. LEC.

SPED 890. Interdisciplinary Programming for Children and Youth with Disabilities. 3 Hours.
This course is designed to provide students a survey of disciplines which contribute to care and treatment of students with disabilities. Emphasis on professional roles, team participation, case management, and reporting and follow up. Disciplines include medicine, education, audiometry, psychology, speech pathology, occupational therapy, physical therapy, music therapy, and social work. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 896. Capstone Adaptive Program Seminar. 3 Hours.
This course is designed to be a culminating experience for Adaptive Program students who choose to complete their masters programs with a comprehensive masters examination instead of one of the other program options (i.e., project or thesis). Students will complete this course during the final semester of their programs. Participants will review current issues, evidence-based practices, home-school considerations, state and federal regulations, and Kansas standards regarding appropriate education for students with mild to moderate disabilities (i.e., Adaptive category designation). The course is a prerequisite for the departmental comprehensive examination in the Adaptive area. LEC.

SPED 897. Independent Study. 1-4 Hours.
Prerequisite: Consent of advisor and instructor. RSH.

SPED 898. Master’s Project. 1-4 Hours.
RSH.

SPED 899. Master’s Thesis. 1-6 Hours.
THE.

SPED 910. Advanced Application of Behavioral Management Techniques to Exceptional Children and Youth. 3 Hours.
Theory and principles of behavioral analysis. Emphasis will be given to observation, measurement, recording, and visual display techniques. Other topics include maintenance and generalization of behavior change. Students will be provided experience in the design and carrying out of research studies related to exceptional children and youth using principles and methods of behavioral analysis. Prerequisite: SPED 425 or SPED 725 and SPED 839. LEC.

SPED 915. Advanced Curriculum Development for Children and Youth with Disabilities. 3 Hours.
This course is designed to provide principles of development, needs assessment, evaluation and dissemination applied to curriculum products. Analysis of organizational and conceptual features of major curriculum development projects for students with disabilities are addressed; participants design curriculum procedures. Prerequisite: Twelve semester hours in special education and a general curriculum course. LEC.

SPED 920. Management of Instructional Resources for Exceptional Children and Youth. 3 Hours.
Designed for individuals with responsibilities for the operation of instructional resource centers and educational programs serving exceptional children and youth. Experiences relate to: selection, acquisition, circulation, and management of special education instructional media/materials and the delivery of inservice training specific to their skills. Prerequisite: Professional preparation and/or experience in the Education of Exceptional Children and Youth and CI 616, Introduction to Educational Communications. LEC.

SPED 925. Medical Aspects of Handicapping Conditions. 3 Hours.
The organization of this course follows the chronology of an individual’s total development from genetic origin through fetal development, perinatal, infancy, childhood, and adolescence. Emphasis is given to etiology and implications of handicapping conditions on development. Attention is given to prevention, treatment, and habilitation or rehabilitation of various conditions. Prerequisite: SPED 725. LEC.

SPED 949. Specialist Research. 1-4 Hours.
RSH.

SPED 950. Civic Professionalism. 3 Hours.
This course is concerned with the relationship between professions and society in a democracy, and specifically, with the ethics and practices associated with the professions of education, special education, and other disability-related fields. Models of professionalism are compared and advantages of civic professionalism for individuals with disabilities and their families, the professions, and society as a whole are explored. Lessons drawn from disagreements over questions such as the nature and social consequences of the professions are used to broaden understanding of what professionalism could and should be in a democracy. Prerequisite: Admission to doctoral program. LEC.

SPED 970. Problems of Exceptionality: _____ 3 Hours.
An extensive analysis of the literature and research pertinent to issues in a given disability. Separate sections are organized for various disabilities. Students may enroll in more than one section as a part of a graduate program. Prerequisite: Three courses in special education or permission of instructor. LEC.

SPED 971. Organization and Administration of Services for Children and Youth with Disabilities. 3 Hours.
This course is designed to prepare administrators and prospective administrators for organizing and administering educational programs for students with disabilities. Major topics include a review of current trends in special education, state and federal guidelines and regulations, legal and financing aspects of special education, program planning, and administration of special services. (Same as ELPS 959.) Prerequisite: Nine hours of education including educational psychology and SPED 725. LEC.

SPED 972. Issues and Trends in Special Education I. 2 Hours.
This course is designed to assist first-year special education doctoral students organize and synthesize a conceptual and substantive map of the field of special education and introduce them to corresponding faculty research interests and resources. Emphasis is placed on the
academic writing expectations and resources of the field, university, and department, and on building a cohort of students to address common issues and to provide a foundation for peer support throughout the doctoral program. Prerequisite: Admission to special education doctoral program or permission of instructor. LEC.

SPED 973. Issues and Trends in Special Education II. 2 Hours.
This capstone seminar is designed to assist advanced doctoral students synthesize and evaluate information on a broad range of current and historically significant special education issues and trends in preparation for comprehensive examinations and future professional roles. Substantively, its primary focus is issues and trends that affect the entire field or cut across several areas of study and practice. Its secondary focus is significant issues and trends that affect particular categorical or functional sub-areas of study and practice within the field. Prerequisite: Completion of nine doctoral courses in special education, including 4 of 6 departmental Core courses. LEC.

SPED 974. Issues and Trends: Students with Learning Disabilities. 3 Hours.
This doctoral level course will explore current issues related to characteristics, educational methods and curricula, and questions, problems, concerns and movements connected to the education of children and youth with learning disabilities, emotional/behavioral disorders and autism spectrum disorders. Prerequisite: Doctoral program admission or permission of instructor. LEC.

SPED 975. Advanced Practicum with Children and Youth with Disabilities: _____. 1-10 Hours.
Advanced development of conceptual and practical field-based skills. Prerequisite: SPED 775. FLD.

SPED 977. Learning Disabilities/Behavior Disorders Issues II. 3 Hours.
This course is designed to provide students an opportunity to engage in an extensive analysis of the literature and research pertinent to critical issues in the field of learning and behavioral exceptionality. Prerequisite: SPED 970 LD/BD Issues I; SPED 972 Trends and Issues in Special Education I. LEC.

SPED 980. Advanced Topics: _____. 1-3 Hours.
A special course of study to meet current needs of education professionals -- primarily for post-master's level students. LEC.

SPED 981. Leadership and Systems Change. 3 Hours.
This course is designed to provide students with an overview of seminal leadership and systems change literature. Students analyze and apply the literature at the teacher, family, school building, district, state, and federal levels. Strategies for developing and mobilizing stakeholders to support the process of change will be covered. Prerequisite: Admission to doctoral program. LEC.

SPED 982. Preparing Future Faculty. 3 Hours.
This course is designed to give students an introduction and overview of academic life and the roles and responsibilities of an academic career. Its primary purpose is to help develop a realistic perspective of the expectations of academic life and the competencies required for a successful start in an academic career. Organized around the broad themes of understanding the academy, faculty life and work, and academic career paths, course content addresses the roles and responsibilities of faculty life in different types of institutions and the issues faculty face as they pursue their academic careers. The course offers an opportunity for students to critically review their doctoral program in the context of preparing them for a successful start in an academic career and to explore options for academic career choices. Prerequisite: Doctoral program admission. LEC.

SPED 983. Proposal Development. 3 Hours.
This course is designed to teach a broad array of strategies associated with the development of successful proposals that will generate funds to support programmatic work. Among the topics covered in this course are sources of funding, strategies for conceptualizing and writing proposals, collaboration strategies, proposal peer-review process, and integrating proposal development activities into other professional responsibilities. Prerequisite: Admission to doctoral program and PRE 710. LEC.

SPED 984. School Reform and School Community Partnerships. 3 Hours.
This is an interprofessional course in public policy and school reform that is concerned with current policy and systems transformations in education and child/family services, including educational, social and health service systems and the movement toward school-linked service integration strategies and family partnerships, called the "community school" movement. Issues connected with comprehensive school reform including the role of special education and mental health in this process will be emphasized. Particular emphasis will be placed on urban, multicultural issues affecting community schools. Prerequisite: Doctoral program admission or permission of instructor. LEC.

SPED 985. Naturalistic Research. 3 Hours.
This course is designed to develop skills in naturalistic or constructivist research, while situating it theoretically within the broader framework of modern and postmodern social inquiry, and exploring its social, political and ethical implications. The course develops students' skills in using this form of interpretive qualitative research, provides a theoretical framework for selecting inquiry paradigms, compares and contrasts positivist and constructivist inquiry, and reviews social and political implications of constructivist inquiry. Prerequisite: Six hours of statistics, measurement, and/or large or small group research design. LEC.

SPED 986. Trends and Issues Associated with Online Instruction. 3 Hours.
The course examines the opportunities, challenges, cautions, and demands of web-based instruction in higher education. It explores the policy implications of web-based instruction, development of collaborative teaching skills utilizing telecommunications resources, and the design and technical aspects of online instruction. Particular attention is given to the implications of online instruction for accommodating needs presented by diverse learners through strategies such as universal designs. Prerequisite: Admission to doctoral program or permission of instructor. LEC.

SPED 990. Small Sample Empirical Research Methods. 3 Hours.
This course provides a detailed examination of research methods for advancing knowledge and validating hypothetically useful treatments in situations in which sufficient sample sizes to conduct formal experiments are lacking, the question of interest is better addressed by multiple observations of treatment effects over time, and/or the question is best addressed by taking a variety of observations of a single unit of interest. Specifically, two small sample research methods will be examined in depth with examples and practical application experience: interrupted time series design for small samples ("single case" design), and Yin's empirical case study method. Prerequisite: Doctoral program admission or permission of instructor. LEC.

SPED 991. Family Outcomes in Special Education. 3 Hours.
This course focuses on analyzing and synthesizing research literature focusing on intermediate outcomes (e.g., family-professional partnerships) and long-term outcomes (e.g., family quality of life) related to families of children, youth, and adults with disabilities. Key family theories are discussed and applied in the development and implementation of interventions that have potential to increase intermediate and long-term
family outcomes. Prerequisite: Three courses in special education or permission of instructor. LEC.

SPED 992. Seminar in Early Childhood/Intervention. 3 Hours.
This seminar examines research to support evidence-based practices that currently exist in the areas of early intervention and early childhood special education. The primary objective is to learn how to read and critically analyze studies that form the evidence base for several early intervention and early childhood special education practices. Primary goals of the class include the development of skills for evaluating research studies in early intervention and early childhood special education, and increasing knowledge of evidence-based practices in the early intervention literature. Prerequisite: Three courses in special education or permission of instructor. LEC.

SPED 995. Field Experience in: _____ 1-5 Hours.
Supervised and directed experiences in selected educational settings. Instructors conduct regular observations and conference with students. Written summaries and evaluations of field experiences are prepared independently by the student, a representative of the cooperating agency, and the instructor. Open only to advanced students and field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. FLD.

SPED 996. College Teaching Experience. 2 Hours.
This course is designed to prepare students for college teaching. Enrolled students shall engage in semester-long, planned, instruction that includes college classroom teaching under supervision. Planning shall be done with a member of the faculty who will supervise the experience. FLD.

SPED 997. Individual Study. 1-4 Hours.
Prerequisite: Prior graduate course work in the area of study and consent of instructor. RSH.

SPED 998. Seminar in: _____ 1-4 Hours.
LEC.

SPED 999. Doctoral Dissertation. 1-15 Hours.
THE.

Department of Curriculum and Teaching

Curriculum and Teaching

The Department of Curriculum and Teaching (http://ct.soe.ku.edu) offers undergraduate programs that lead to teacher licensure in unified early childhood and at the elementary, middle, and secondary levels and a broad range of graduate professional programs in curriculum and instruction that promote the professional and intellectual development of practitioners and scholars in this field at all levels of education. The faculty is known for its field leadership and commitment to high-quality education for youth and adults in a variety of educational settings, innovative field-based research, and preparation of highly effective program graduates.

Curriculum and Teaching

Undergraduate Programs

The Academic Catalog is a guideline for policies and procedures in the School of Education. However, academic program requirements change. Students are strongly encouraged to check the school’s website (http://www.soe.ku.edu) and the department for the most current information.

This catalog is in effect for undergraduates admitted to the School of Education for 2014-15.

Students planning to teach must complete programs composed of 3 major parts:

- **General Education** (requirements completed primarily in the first two years),
- **Major** (content areas in which students are specializing), and
- **Professional Education** (course work that helps them to understand students as learners and to communicate knowledge effectively).

Non–Western Culture Requirement

The Kansas State Board of Education requires students seeking licensure to study both Western and non-Western cultures. To meet the non-Western culture requirement, students must complete at least one course classified as NW. This requirement also may count in the appropriate category (behavioral science, social sciences, or arts/humanities) of the general education requirements.

View the list of non-Western culture courses.

Undergraduate Advising

After undergraduate admission, advisors are assigned according to students’ intended licensure levels and teaching fields. The advisor’s name appears in each student’s letter of acceptance or is available from the SOE Advising Center.

Curriculum and Teaching

Graduate Programs

The department offers a broad range of graduate professional programs in curriculum and instruction. Students should contact the appropriate program advisor for specific program requirements. Information about the department faculty is in the Faculty/Staff section of the department’s website.

For complete program information, visit the Department of Curriculum and Teaching (http://ct.soe.ku.edu) or send an inquiry to ctedepartment@ku.edu.

**Note:** Degree requirements are subject to change. Prospective and current students should obtain the current degree requirements from the department.

Programs in curriculum and instruction prepare students to complete advanced degrees by addressing critical issues in learning, teaching, and curriculum, from local to global levels.

The **Master of Arts** with a major in education and **Master of Science in Education** are available for students who hold the bachelor’s degree and seek to advance their knowledge and skills in their professional areas or areas of interest. The **Doctor of Education** and **Doctor of Philosophy** with a major in curriculum and instruction are for students who plan to pursue employment at the college level or assume major leadership positions in schools.

An initial licensure program is also available to students who already hold the bachelor’s degree and want to teach foreign language, mathematics, or science. The **Graduate Licensure Program** combines graduate and undergraduate courses including a semester-long student teaching...
experience that helps students obtain the initial teaching license while completing the Master of Science in Education degree.


Graduate classes are taught on the main campus in Lawrence and on the KU Edwards Campus (http://edwardscampus.ku.edu) in Overland Park in suburban Kansas City about 40 miles from Lawrence. Master’s and doctoral students can expect to complete some graduate work on each campus.

Graduate Advising

When application materials are processed and program requirements are met, an advisor is assigned according to the student’s interest. Each student should consult the assigned advisor during each enrollment period.

Doctoral candidates should develop a program plan at the first enrollment or promptly thereafter. A copy of this program should be filed with the Graduate Division of the School of Education. Basic and applied research skills, including statistics, research design, and related requirements appropriate to the degree, are required for the Ph.D. and Ed.D. Specific descriptions of research options may be obtained from the department (http://ct.soe.ku.edu).

Curriculum and Teaching Courses

C&T 100. Introduction to the Education Profession. 3 Hours.
This course is designed to acquaint students with the profession of education by helping to increase an awareness of the role and characteristics of an effective teacher. Large and small group activities and assignments are dispersed throughout the semester to facilitate these outcomes. Students will be involved in observation of and participation with teachers and pupils in public school classrooms, which complement course activities and assignments. Students will work with a mentor pre-service teacher from the KU School of Education to provide discussions about each of the course objectives. Ct 100 is a pre-professional course. Successful completion of the course does not guarantee eventual admission to the School of Education’s Teacher Education Program. LEC.

C&T 200. Making Connections Between Schools and Community. 3 Hours.
This course is designed to increase the students’ awareness of learning in the classroom and to familiarize them with the role of the school and the community. Institutions and resources that support children and families will be addressed through large and small group sessions and field experiences. Emphasis is given to the diverse nature of schools, communities, and their populations. In addition, the course will acclimate students with the School of Education programs, admissions procedures, and curriculum offerings. Successful completion of this course does not guarantee eventual admission of the School of Education’s Teacher Education Program. Prerequisite: Successful completion of CT 100. LEC.

C&T 235. Multicultural Education. 3 Hours. AE41.
The course is designed to provide the student with an awareness of and sensitivity of the concept of multicultural education. Topics related to the rationale for and processes of providing a multicultural perspective within the schools will be addressed. Field experiences will be structured to provide students with opportunities to observe the diversity within the educational setting. LEC.

C&T 322. Curriculum and the Learner in the Elementary School. 3 Hours.
Building on the experiences in CT 100 and CT 200, this course will focus on the learner in the elementary setting. Learning occurs as a result of interaction among learners, teacher and subject matter in the classroom within a school in a community. The impact of the interactions of these students of learning of young children is studied in this course. Emphasis is given to the factors that influence curriculum decision-making, methods that are considered in elementary grades curriculum and how it is delivered. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 324. Curriculum Learner in the Middle School and High School. 3 Hours.
Building on experiences in CT 100 and CT 200, this course will focus on the learner within the high school setting. Learning occurs in a classroom within a school in a community, and the nature and structure of these settings as well as their impact on learning is studied in this course. Emphasis is given to the curriculum, the factors that influence the curriculum, and the ways that goals for high school students are reflected in the high school curriculum. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 330. Instructional Approaches for ESOL Learners in the Elementary/Early Childhood Classroom. 3 Hours.
Teaching English as a Second or Additional Language/Bilingual Education is designed to provide preservice elementary teachers with an understanding of the history and methodology of teaching English to speakers of other languages, both as a foreign language and as an additional language within American English settings. Future ESL/EFL/EB teachers will be prepared to develop the investigative, decision-making, and reflective teaching skills needed to work with English language learners of elementary age, and to impart language instruction in the appropriate context. Emphasis is placed on developing a clear understanding of who English language learners are; what programs and services are-or should be-available to the ESOLs/EBs; the critical pedagogical aspects of teaching ESL/EFL/EB; and the preparation of teaching materials for classroom use. Prerequisite: Admission to the teacher education program. LEC.

C&T 331. Instructional Approaches for ESOL Learners in the Middle/Secondary Classroom. 3 Hours.
This course is designed to provide preservice middle/secondary discipline specific teachers with an understanding of the history and methodology of teaching English to speakers of other languages, both as a foreign language and as an additional language within American English settings. Future ESL/EFL/EB teachers will be prepared to develop the investigative, decision-making, and reflective teachings skills needed to work with English language learners of all ages, and to impart language instruction in the appropriate context. Emphasis is placed on developing a clear understanding of who English language learners are; what programs and services are-or should be- available to the ESOLs/EBs; the critical pedagogical aspects of teaching ESL/EFL/EB; and the preparation of teaching materials for classroom use. Prerequisite: Admission to the teacher education program. LEC.

C&T 335. Curriculum and Instruction in Middle and Secondary History and Government Classrooms. 3 Hours.
The purpose of this course is to help prepare students to teach social studies in the middle and secondary grades. Prerequisite: Admission to the teacher education program. LEC.
C&T 344. Children's Literature in the Elementary School. 2 Hours.
A study of literature (poetry, folk literature, fiction, and nonfiction) appropriate for elementary school children with a focus on contemporary children's books. Emphasis will be on selection of literature based on child development, literary quality, curriculum, and pluralism and the engagement of children in literature experiences from the interactive, reader response, and critical perspectives. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 347. Social Studies in the Elementary Classroom. 3 Hours.
A study of curricula, instructional strategies, and classroom organization for social studies education K-6. Emphasis is placed on the effective implementation of social studies programs in classroom settings. Prerequisite: Admission to the School of Education in elementary, middle, or secondary, or the Unified Early Childhood programs. LEC.

C&T 349. Science in the Elementary Classroom. 3 Hours.
In this course, you will develop an understanding of how children learn science and why science education is important. You will examine effective approaches to teaching, instructional materials, and student assessment and will learn how to plan and implement a science unit. The course will emphasize a guided-inquiry approach to science instruction appropriate for the abilities and interests of children in grades K-6. Prerequisite: Admission to the School of Education. LEC.

C&T 351. Mathematics for the Elementary Classroom. 3 Hours.
This course is a study of the curriculum, instructional strategies, and classroom organization for mathematics in grades K-6. Emphasis is placed on the effective implementation of mathematics programs in classroom settings. Prerequisite: Admission to the School of Education. LEC.

C&T 352. Literacy Instruction in the Primary Grades (K-3). 3 Hours.
This course is intended to develop the attitudes, knowledge, and skills necessary to effectively instruct primary grades (K-3) children through the development of literacy skills: reading, writing, listening, speaking, spelling, and handwriting. The major goals of this course are for the prospective teacher to develop an understanding of literacy development of the primary-grades child, current literacy theories, and the ability to work with a number of approaches to promote literacy learning and a positive attitude toward literacy in all primary-grades students who may have different needs due to language, culture, learning challenges, and/or differing stages of development. This course is to be taken concurrently with CT 353, Literacy Practicum in the Primary Grades. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 353. Literacy Practicum in the Primary Grades. 1 Hour.
This supervised practicum is intended to allow the pre-service teacher to apply the knowledge gained in CT 352, Literacy Instruction in the primary grades (K-3), by teaching children in the primary grades. To be taken concurrently with CT 352. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 354. Literacy Instruction in the Intermediate Grades. 2 Hours.
This course is intended to develop the attitudes, knowledge, and skills necessary to effectively instruct intermediate-grades children (4-6) through the development of literacy skills: reading, writing, listening, speaking, and spelling. The major goals of this course are for the prospective teacher to develop an understanding of literacy development of the intermediate-grades child, current literacy theories, and the ability to work with a number of approaches to promote literacy learning and a positive attitude toward literacy in all intermediate-grades students who may have different needs due to language, culture, learning challenges, and/or differing stages of development. Prerequisite: Admission to the Teacher Education Program. This course is to be taken concurrently with CT 355, Literacy Practicum in the Intermediate Grades. LEC.

C&T 355. Literacy Practicum in the Intermediate Grades (4-6). 1 Hour.
This supervised practicum is intended to allow the preservice teacher to apply the knowledge gained in CT 354, Literacy Instruction in the intermediate grades (4-6), by teaching children in the intermediate grades. To be taken concurrently with CT 354. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 359. Basic Processes of Reading. 1 Hour.
An introduction to reading in relation to specific areas of art, music and health and physical education. Focus on specialized vocabulary and literature related to each area. Introduction of specific strategies to teach vocabulary and comprehension and to integrated units of study. Prerequisite: Admission to certification program in music education, art education, health education, or physical education. LEC.

C&T 360. Knowing and Learning in Mathematics and Science. 3 Hours.
This course focuses on issues of what it means to learn and know science and mathematics. What are the standards for knowing we will use? How is knowing and learning structured and how does what we know change and develop? For the science and mathematics educator, what are the tensions between general, cross-disciplinary characterizations of knowing (e.g. intelligence) and the specifics of coming to understand powerful ideas in mathematics and science? What are the links between knowing and developing in learning theory, and the content and evolution of scientific ideas. Also, current issues and tensions in education will be discussed, especially as it relates to mathematics and science instruction. LEC.

C&T 366. Classroom Interactions in Mathematics and Science. 3 Hours.
To make prospective teachers aware of multiple models of teaching (including direct instruction, inquiry teaching and use of small groups); the advantages, disadvantages and uses of each; and what each model requires of teachers. To allow prospective teachers to explore ways of probing student understanding through authentic assessment, evaluating student understanding through student artifacts, and enhancing student understanding through lesson plans built around models of how people learn. To make prospective teachers aware of equity and diversity issues in classroom teaching and ways of ensuring that all students have an opportunity to learn. To make students aware of the proficiencies for licensure recognized by UKanTeach and Kansas State Board of Education and facilitate students' demonstration and documentation of these through development of a professional portfolio. To develop students' capacity to identify and evaluate best teaching practices as presented in research literature. Prerequisite: CT 360. LEC.

C&T 420. Teaching Kansas Government and Contemporary Public Policy Issues. 3 Hours.
A study of the constitution, organization, functions, and processes of Kansas government, of contemporary public policy issues with local, state and national implications, and of strategies for teaching these in middle and secondary classrooms. Prerequisite: Admission to the School of Education and POLS 110. LEC.

C&T 421. Economics for Elementary Teachers. 3 Hours.
The focus of this course is to introduce and develop understanding of economic concepts and principles in those preparing to teach elementary education. This course presents students primarily with basic economic content and, secondarily, with information on developmentally appropriate economics for elementary age students. Emphasis will be placed on micro and macroeconomic concepts, including the economic problem, resources, scarcity, economic decision-making, opportunity cost, economic systems, price, exchange and money, markets, supply and demand, production, market failures and the role of government, and
international trade. Open only to School of Education students enrolled in the elementary education program. LEC.

C&T 422. Teaching Economics and Secondary Social Studies. 2 Hours.
The purpose of the course is to prepare secondary social studies education students to teach the major economic concepts, issues and systems in the United States and other nations in preparation for teacher licensure in the State of Kansas. Prerequisite: Admission to the Secondary History and Government teacher education licensure program. LEC.

C&T 430. Teaching Literature for Young Adults. 3 Hours.
Teaching literature (novel, short story, poetry, drama, nonfiction) suitable for students in the middle school, the junior high school, and the senior high school. Ethnic literature, censorship, bibliographies, and other relevant sources of information about books for young adults will be studied. Prerequisite: Admission to the School of Education. LEC.

C&T 441. Teaching Social Studies in the Middle/Secondary Schools. 3 Hours.
Study of curriculum development and instructional strategies appropriate for teaching social studies in grades 5-12. Prerequisite: CT 323 or CT 324 or permission of instructor. LEC.

C&T 448. Reading and Writing Across the Curriculum. 3 Hours.
Content area teachers do far more than impart information to students. They play an important role in guiding middle/secondary students as they use reading and writing as tools for learning. This course includes an overview of the state and national reading and writing scores of adolescents. Students will then be introduced to the basic processes or ways in which individuals may learn to read and write. The course continues with a focus on the instructional strategies and materials that promote the development of reading and writing in the context of teaching new information. Additionally, the course emphasizes the informal methods educators can use, on an on-going basis, to diagnose their students ability to comprehend content material. Finally, appropriate fix-up strategies will be modeled. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 460. Project Based Instruction in Mathematics and Science. 3 Hours.
This course will have three essential components. The first will be a theory driven perspective accounting for what we know of how people learn and how project-based instruction may be our best choice for bridging the gap between theory and practice. The second component will be a technological component that will assist the enrolled students in developing their own project-based unit. The third component will be a field component consisting of two parts: 1) observation of well-implemented project-based instruction in local schools and 2) implementation of project-based instruction with area high school students on a study trip to Flint Hills. Prerequisite: CT 360. LEC.

C&T 489. Advanced Teaching Practicum. 1 Hour.
This supervised practicum is intended to allow the pre-service teacher to apply knowledge gained in SPED 507; CT 448, ELPS 537; and CT 540, CT 541, CT 542, CT 543 and CT 544: Advanced (Content Area) Methods by teaching children in the middle/secondary grades. To be taken concurrently with SPED 507; CT 448, ELPS 537; and CT 540, CT 541, CT 542, CT 543 and CT 544: Advanced (Content Area) Methods. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 490. Student Teaching. 6 Hours.
A supervised teaching experience in an approved school setting, with level and subject area to be selected according to the teaching field.
C&T 530. Curriculum and Instruction in Foreign Language Classrooms. 3 Hours.
A study of philosophy, objectives, curriculum, instructional strategies, and evaluation in teaching foreign language at the K-12 levels. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 533. Curriculum and Instruction in Middle & Secondary English/Language Arts Classrooms. 3 Hours.
This is an English/Language Arts methods course that focuses on curriculum development and instructional strategies appropriate for teaching English/Language Arts in grades 5-12. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 537. Curriculum and Instruction in Middle and Secondary Science Classrooms. 3 Hours.
The purpose of this course is to help you prepare to teach science in the middle and secondary grades. The instructor designed the class sessions and learning tasks to enable you to make progress toward achieving the Kansas Science Teaching Standards and Kansas Professional Education Standards. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 539. Curriculum and Instruction in Middle and Secondary Mathematics Classrooms. 3 Hours.
This course is designed to provide focused study of curriculum development and instructional strategies appropriate for teaching mathematics in grades 5-12. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 540. Advanced Practices in Teaching English in the Middle and Secondary Schools. 3 Hours.
The course is designed to provide continued study of curriculum development and instructional strategies appropriate for teaching English/Language Arts in grades 5-12 and as a final readiness for the undergraduate student teaching experience. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 541. Advanced Practices in Teaching Social Studies in Middle/Secondary Schools. 3 Hours.
Advanced study of curriculum development and instructional strategies appropriate for teaching social studies in grades 6-12 and application of learning in a middle/secondary classroom. Prerequisite: CT 335; SPED 326 and, CT 324 LEC.

C&T 542. Advanced Practices in Teaching Science in the Middle and Secondary Schools. 3 Hours.
This course is designed as a final readiness for the semester-long student teaching experience and the Kansas Performance Teaching Portfolio to be completed during that student teaching experience. The course deals with the analysis, adaptation, and application of varied instructional designs to implement curricula in specific science areas in grades 5-12. Prerequisite: Admission to the middle-level licensure program in science education at the undergraduate level or one of the graduate licensure programs in middle/secondary science. Successful completion of CT 537. LEC.

C&T 543. Advanced Practices in Teaching Mathematics in the Middle and Secondary Schools. 3 Hours.
The course is designed to provide continued study of curriculum development and instructional strategies appropriate for teaching mathematics in grades 5-12 and as a final readiness for the undergraduate of GLP student teaching experience. Prerequisite: Admission to the middle-level licensure program in mathematics education at the undergraduate level or the GLP in middle or secondary mathematics. Successful completion of CT 539. LEC.

C&T 544. Advanced Practices: Situating Foreign Language Content, Dispositions, Skills&Tools Language Classroom. 3 Hours.
This is an advanced Foreign Language methods course that focuses on the critical importance of the socio-linguistic environment of foreign language classrooms. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 598. Special Course: _____. 1-5 Hours. AES1.
A special course of study to meet current needs of education students, primarily for undergraduates. LEC.

C&T 620. Teaching English as a Second Language/Bilingual Education. 3 Hours.
The purpose of this course is to study the objectives and methods of ESL/Bilingual education. Students will examine methods and techniques of teaching: listening, speaking, reading, and writing in the ESL/Bilingual Education settings. The course will also emphasize the importance of culture in second language teaching, and self-evaluation of teaching and instructional materials. Undergraduate course that will meet with CT 820 Teaching English as a Second Language/Bilingual Education. Prerequisite: Admission to the School of Education. LEC.

C&T 621. Diagnosis and Remediation in Second Language Education. 3 Hours.
This course provides an overview of diagnostic techniques and instruments used to identify and remediate specific learning difficulties associated with normal second language development in the area of listening, speaking, reading, and writing. The course includes a review of research concerning assessment as it relates to error analysis in the second language context. Prerequisite: Admission to the School of Education. LEC.

C&T 622. Second Language Acquisition. 3 Hours.
This course provides an intensive review of the theory and research base of second language acquisition. Particular attention is given to the influence of research trends in linguistics and psychology on second language education theory and practice. Current trends in second language education are examined in light of the historical theory base. Prerequisite: Admission to the School of Education. LEC.

C&T 630. Understanding the Nature of Talent in Children and Youth. 3 Hours.
This course addresses the social, cognitive, affective, and other developmental aspects of talent as manifested in children and youth with high potential. The course provides an opportunity to examine characteristics, strengths, and needs of children and their families. The course focuses on the foundational aspects of gifted/talented education: educational and political history of the field, etiology of extraordinary potential, and identification and assessment techniques, instruments, and systems. Included in the course are relevant research, policies and regulations, services, and information resources. Prerequisite: SPED 325, SPED 425, SPED 431, SPED 725 or equivalent. LEC.

C&T 631. Teaching for Talent Development. 3 Hours.
The course introduces key theories and basic principles of curriculum development and introduction for students with high potential and/or high achievement. Frameworks and models for modifying general education content, cognitive processes, and learning outcomes are applied to enhancing talent development. The course addresses affective considerations, peer relations, and working with families. Prerequisite: CT 630 or CT 730. LEC.

C&T 649. An International Teaching Experience. 3 Hours.
This study abroad focuses on professional growth in teaching and understanding education based on an international experience. Students learn about curriculum and teaching from an international
perspective, and engage in professional discussions with Italian teachers and administrators. Students engage in culturally responsive teaching in preschool-secondary settings, they participate in family and community activities/events, and they visit renowned museums and cities. Prerequisite: Application through the Office of Study Abroad and interview with the director. LEC.

C&T 702. Alignment of Curriculum, Instruction, and Assessment. 3 Hours.
The course focuses on standards-based education reform and the relation between standards, curricula, assessments and instruction. Since the inception of No Child Left Behind in 2001, many classroom teachers have felt constricted by standards-based practices in the classroom. A significant emphasis of the course will be on the implications of high-stakes accountability. This course will explore the historical foundations of the standards movement as well as current research on connecting standards to instructional practices. The course also will explore ways in which teachers can be accountable to the standards without losing creativity in their individual classrooms. LEC.

C&T 706. Social Studies in the Middle School. 3 Hours.
The purpose of this course is to offer preservice and practicing middle grades educators the following: (1) an overview of the historical and philosophical antecedents of social studies education; (2) a brief review of the developmental characteristics of early adolescence; (3) the specifics of a citizenship education program specifically designed for middle grades social studies; and (4) a range of time-tested ideas for challenging young adolescents with academic experiences that address their unique developmental profile and capture their imaginations for active, responsible citizenship. LEC.

C&T 707. Project Based Instruction. 3 Hours.
This course will emphasize exploring, designing, and evaluating materials and pedagogy to work toward the design of project-based curriculum and instruction. Topics focus on the principles of project-based instruction as well as multiple models for its use in the classroom. LEC.

C&T 708. Understanding Research in Education. 3 Hours.
This course introduces the concepts and skills involved in understanding and analyzing research in education and related areas. The course provides an overview of basic, general knowledge of various research methodologies. Students should expect to study much of this material in greater depth through additional course work before being fully prepared to conduct independent research. However, this course should enhance their ability to locate, read, comprehend, and critically analyze research articles and reports. Topics in the course include quantitative and qualitative methods and designs, historical and descriptive research, and program evaluation. (This course fulfills the requirement of a research methods course in the first 12 hours of graduate study.) LEC.

C&T 709. Foundations of Curriculum and Instruction. 3 Hours.
Basic concepts and processes of curriculum and instruction, including theories, planning models, resources for decision-making, current trends, research, and proposals for improvement of curriculum and instruction. LEC.

C&T 710. Writing, Language, and Learning. 3 Hours.
This course will situate issues about writing and learning in the context of more general inquiry about language and learning. We will read research related to classroom discourse and the teaching of writing in secondary classrooms. We will then connect this body of research to the teaching of English in middle/secondary classrooms. LEC.

C&T 711. Teaching Young Adult Literature (Grades 7-12). 3 Hours.
A study of the characteristics of adolescents with respect to their interest and reading habits; criteria for choosing books for junior and senior high school in-class and out-of-class reading; selection of materials; methods for helping poor readers; literary discrimination and appreciation; censorship; ethnic literature; techniques for presenting literary selection in class. Wide reading among best of current and classical literature. LEC.

C&T 730. Understanding Talent. 3 Hours.
This course addresses the social, cognitive, affective, and other developmental aspects of talent as manifested in children and youth with high potential. The course provides an opportunity to examine characteristics, strengths, and needs of these children and their families. The course focuses on the foundational aspects of gifted/talented education: educational and political history of the field, etiology of extraordinary potential, and identification and assessment techniques, instruments, and systems. Included in the course are relevant research, policies and regulations, services, and information resources. Prerequisite: SPED 425, SPED 431, SPED 725, or equivalent introductory course on exceptional children and youth. LEC.

C&T 731. Teaching for Talent Development. 3 Hours.
The course introduces key theories and basic principles of curriculum development and introduction for students with high potential and/or high achievement. Frameworks and models for modifying general education content, cognitive processes, and learning outcomes are applied to enhancing talent development. The course addresses affective considerations, peer relations, and working with families. Prerequisite: CT 644 or CT 730 or equivalent introductory course on exceptional children and youth. LEC.

C&T 732. Teaching for Talent in General Education Settings. 3 Hours.
This course is designed for classroom teachers concerned about meeting the needs of students with high potential in their classrooms. Students will be introduced to various curriculum models and teaching strategies commonly employed in special programs for gifted/talented students. There will be opportunities to apply gifted education models to modify existing curriculum or to develop new curricula which enhances the abilities of all students. Prerequisite: CT 644 or CT 730 or equivalent introductory course on exceptional children and youth. LEC.

C&T 733. Practicum in Gifted and Talented Education. 1-10 Hours.
A course designed to provide experiences for students to work intensively and to teach identified gifted and high potential students in educational settings. Students will develop competencies relative to implementing individual group and individual education plans through a variety of instructional alternatives. Arranged service delivery options are possible. Prerequisite: CT 645, CT 731, CT 732, or equivalent course. FLD.

C&T 734. Integration of Instruction in the Elementary School. 2 Hours.
A study of the rationale for correlation instruction in language arts, reading, math, science, and social studies and practical strategies for integrating instruction throughout the elementary school curriculum. LEC.

C&T 738. Applied Research in the Classroom. 3 Hours.
This course is designed to facilitate the implementation and completion of an action research project during the internship experience. Prerequisite: Successful completion of student teaching. LEC.

C&T 739. Internship in Teaching: ______. 1-15 Hours.
A supervised internship experience leading to initial certification. The student assumes the total professional role as a teacher in an approved school setting, with level and subject area to be selected according to the teaching field. Prerequisite: CT 500 and CT 736 appropriate to the student’s teaching level and area, or equivalent. FLD.
C&T 740. Foundations of Reading: Process, Theory, and Instruction. 3 Hours.
It is the purpose of this course to introduce students to the foundations of the reading process, developmental levels, theory, models, and procedures at the emergent, elementary, and secondary levels. Elements of cultural, linguistic, and ethnic diversity that affect the reading process are included. Students work with research related to the reading process, remediation, and assessment. LEC.

C&T 741. Comprehension and Study Strategies for Use with Multiple Texts. 3 Hours.
It is the purpose of this course to examine research, theory, and practice in reading comprehension. Emphasis is placed on the application of strategies for various text types (expository, narrative, persuasive, and technical) for teaching reading comprehension and study skills across content areas in the K-12 classrooms. Prerequisite: CT 740 or permission of the instructor. LEC.

C&T 742. Language and Literature in the Reading Program. 3 Hours.
A study of linguistic and literary aspects of reading instruction, focusing on language and cognitive development as they relate to reading. Emphasis will be on approaches for differentiating reading instruction to provide for less proficient to gifted readers, research and issues related to reader response, techniques for assessing children’s reading attitudes and interests, procedures for selecting literature, and strategies for integrating literature into the elementary school reading program. Prerequisite: CT 740 or permission of instructor. LEC.

C&T 743. Writing and Spelling Development and Instruction. 3 Hours.
A study of the research base on writing, spelling, speaking, and listening for teaching the language arts; an overview of development in writing and spelling, the writing and spelling processes and instruction, and strategies for integrating the language arts. Prerequisite: Admission to a masters program within the School of Education, CT 740 or permission of the instructor. LEC.

C&T 744. Teaching Literature to Children. 3 Hours.
An opportunity to survey the broad range of trade books published for children; criteria for book selection; children’s reading interests and tastes; illustrations of children’s books; sources for selecting literature; poetry; the role of children’s literature in today’s elementary curriculum. LEC.

C&T 745. Reading and the English Language Learner. 3 Hours. LEC.

C&T 747. Reading Strategies for Expository Text. 3 Hours.
A study of the need of teaching reading in content areas, factors involved in the reading process, and basic and advanced reading and study skills to be taught. Teachers may concentrate upon the study of ways of teaching reading in one or more of the following: language arts, social studies, sciences, mathematics, art, music, home economics, industrial arts, business education, or physical education. Prerequisite: Admission to the Transition to Teaching Program. LEC.

C&T 748. Reading and Writing Across the Curriculum. 3 Hours.
In CT 748, preservice content teachers, who have had no previous literacy courses, are introduced to the basic processes of reading and to instructional strategies and materials that promote the development of reading, writing, and studying in the context of teaching new information. Additionally, we discuss the ways in which teachers diagnose, in an informal, on-going basis, their students’ abilities to comprehend the material they are teaching. LEC.

C&T 749. An International Teaching Experience. 3 Hours.
This study abroad focuses on professional growth in teaching and understanding education based on an international experience. Students learn about curriculum and teaching from an international perspective, and engage in professional discussions with Italian teachers and administrators. Students engage in culturally responsive teaching in preschool-secondary settings, they participate in family and community activities/events, and they visit renowned museums and cities. Prerequisite: Application through the Office of Study Abroad and interview with the director. LEC.

C&T 750. Connecting Research to Classroom Practice in Elementary Mathematics and Science. 3 Hours.
The primary purpose of this course is to examine current research on issues important to elementary mathematics and science programs. The course will explore issues important to the classroom practices of elementary mathematics and science teachers. Provides a broad background for understanding current issues related to elementary mathematics and science curriculum, instruction, and assessment. LEC.

C&T 752. Teaching Mathematics in the Urban Middle/Secondary School. 3 Hours.
The purpose of this course is to help urban teachers plan, organize, teach, and assess mathematics learning in the middle and secondary grades. The Kansas Teaching Standards (in Professional Education and in Mathematics Teaching) identify the knowledge and abilities addressed in this course. The instructors designed the class sessions and learning tasks to enable participants to make progress toward achieving the Kansas Teaching Standards. It is the participant’s responsibility to acquire the knowledge and abilities and to demonstrate the progress being made toward meeting the Standards. A mathematics teaching portfolio is the tool used to document progress toward achieving the Standards. Prerequisite: Admission to the Transition to Teaching Program or permission of instructor. LEC.

C&T 753. Teaching Science in the Urban Middle/Secondary School. 3 Hours.
The purpose of this course is to help urban teachers plan, organize, teach, and assess science learning in the middle and secondary grades. The Kansas Teaching Standards (in Professional Education and in Science Teaching) identify the knowledge and abilities addressed in this course. The instructors designed the class sessions and learning tasks to enable participants to make progress toward achieving the Kansas Teaching Standards. It is the participant’s responsibility to acquire the knowledge and abilities and to demonstrate the progress being made toward meeting the Standards. A science teaching portfolio is the tool used to document progress toward achieving the Standards. Prerequisite: Admission to the Transition to Teaching Program or permission of instructor. LEC.

C&T 760. Modern Approaches to Elementary Social Studies. 3 Hours.
A study of the purpose, content, psychology, and materials and methods for teaching the social sciences in the elementary school. Emphasis on principles and procedures for combining the social studies with other areas of the curriculum in broad unit instruction. Prerequisite: Nine hours of Education including educational psychology. LEC.

C&T 762. Modern Approaches to Middle/Secondary Social Studies. 3 Hours.
The purpose of the course is to offer preservice and practicing K-12 social studies educators the following: (1) an overview of theoretical bases for social studies education and of the social studies and discipline specific curriculum standards; (2) a review of the major curricular and extracurricular K-12 social studies programs; (3) strategies for the design, implementation, and evaluation of social studies programs; and (4) experience with the design, implementation, and/or evaluation of a social studies program. Prerequisite: Nine hours of Education including educational psychology. LEC.
C&T 763. Economic Education. 2-3 Hours.
An examination of the concepts, theories, and resource materials utilized in teaching economics in the K-12 curriculum. Particular attention is given to the functional integration of economic concepts into the elementary and secondary social studies curriculum. The use of economic resource material is considered. Participants develop projects for use in their own classrooms. LEC.

C&T 764. Teaching Economics in: ____, 3 Hours.
A critical analysis of the relationship between economics and a designated school subject selected from history, geography, or consumer education; a determination of the economic concepts that can be appropriately integrated into the particular discipline; and a comprehensive search of the particular curriculum area to identify the most effective and efficient points at which the economic concepts can be integrated. Prerequisite: CT 763. LEC.

C&T 765. Teaching with Community, Contemporary, and Primary Resources. 3 Hours.
A practical course designed for grades 4-12 teachers who wish to utilize community-based, mass media, and/or primary resources. The course focuses on the use of community resources such as local historical societies, museums, and government agencies; on the use of mass media such as newspapers, magazines, organizations' newsletters, television, and film; and on the use of primary resources such as artifacts, documents, recordings, and oral historians. Participants receive sample resources from each of the three areas along with accompanying activities. LEC.

C&T 797. Special Project in: ____, 2 Hours.
Implementation of the curriculum project planned in CT 734 or CT 735; implementation and assessment of the special project will occur during the internship. Prerequisite: CT 734, CT 735, and CT 736. RSH.

C&T 798. Special Course: ____, 1-5 Hours.
A special course of study to meet current needs of education professionals—primarily for graduate students. LEC.

C&T 800. Foundations of Curriculum Development. 3 Hours.
This course is designed for students to gain a functional understanding of the historical, philosophical, political, psychological, and cultural factors which affect the designing and implementation of curriculum at several levels: the individual classroom, the team, the school, the larger administrative unit, the state, and the nation. Prerequisite: CT 709 or permission of instructor. LEC.

C&T 801. Planning for School Improvement. 2-3 Hours.
The course will emphasize the latest research and practice related to school improvement. Students will function as a member of a school improvement team to assimilate and synthesize research and practice into the development, revision, and/or assessment of a school improvement plan for a specific school site. Corequisite: Enrollment in the summer institute on school improvement. LEC.

C&T 802. Curriculum Planning for Educational Settings. 3 Hours.
A focus on organizing and managing curriculum development in educational settings. Such curricular decisions as writing philosophies, setting goals and objectives, selecting and organizing content, and designing and monitoring evaluation procedures will be emphasized. Providing leadership for the collaborative process of curriculum planning in organizational settings will receive attention. Prerequisite: CT 709, admission to Building Principal Certification program, or permission of instructor. LEC.

C&T 803. Differentiating Curriculum and Instruction. 3 Hours.
This course is designed for educators interested in expanding curriculum and instruction to accommodate diverse learners in the classroom, K-12. Topics include: models, methods, and resources for differentiating curriculum and instruction, designing and modifying differentiated curriculum, evaluating student learning, and introducing students, parents and colleagues to differentiation. An evidence-based, practical course for teachers, administrators, and support personnel. Prerequisite: Admission to Graduate School. LEC.

C&T 804. Trends and Issues in Middle Level Education. 3 Hours.
Information from current research, area specialists and exemplary practitioners will be used to extend appropriate teaching strategies and supplement background knowledge on special topics related to social, emotional and physical development as it relates to the curricula and young adolescents. LEC.

C&T 805. Planning Instruction and Instructional Strategies in Urban Settings. 3 Hours.
This course will prepare students to become cognizant of the particular contextual variables that pertain to the urban setting, engage in instructional planning utilizing pertinent instructional strategies for urban classrooms. Students will become familiar with conceptual frameworks appropriate to education in the urban environment, review research on education in the urban setting, and discuss goals and options for effectively coping with the demands of the urban classroom. FLD.

C&T 806. Instructional Strategies and Models. 3 Hours.
Analysis of models of teaching which represent distinct orientations toward students and how they learn. The application of these models is complemented by the study of research evidence on effective teaching strategies. Prerequisite: CT 709. LEC.

C&T 807. Multicultural Education. 3 Hours.
In order to provide the student with an understanding of multicultural education, the course will examine the effects of such issues as ethnicity in America, the melting pot theory, separatism, cultural pluralism, legal issues, and bilingual education upon the curriculum and instruction in today’s classrooms. It will include an evaluation of materials for bias and stereotypes. Field experiences are a part of this course. LEC.

C&T 808. Qualitative Research: Curriculum Inquiry. 3 Hours.
Curriculum Inquiry provides an opportunity to reflect, explore, understand, and broaden perspectives of curriculum through examining the theories, methodologies, strategies, and design of qualitative research. This course is designed to develop a common understanding of the major elements of qualitative research, while offering each student an opportunity to examine research topics and methods of personal interest, with particular attention to curricular issues. The course also includes practical experience with various modes of data collection and analysis. LEC.

C&T 809. Creative Thinking and Learning. 3 Hours.
This course provides an opportunity to investigate the nature of the creative process in educational settings. The knowledge base for the course builds from foundations of creativity, principles and theories of identifying and enhancing creative production, and affective learner variables. The course blends classic and contemporary works in creativity, and features the application of theories and models of the origins and development of creativity to promoting creative thinking and learning among children, youth and adults. Participants learn about, apply, and adapt techniques for defining and identifying creative potential and for encouraging creative thinking in educational settings. Prerequisite: Admission to graduate school. LEC.

C&T 810. Issues in Teaching Language Arts. 3 Hours.
A study of present curricula in junior and senior high school English and speech; current thinking in grammar and usage; language development in oral and written communication; problems of teaching reading and literature in the junior and senior high school; construction and
reorganization of language arts courses. Students will be permitted to make an intensive study of an individual problem relating to more effective instruction in the language arts. LEC.

C&T 820. Teaching English as a Second Language/Bilingual Education. 3 Hours.
The purpose of this course is to study the objectives and methods of ESL/Bilingual education. Students will examine methods and techniques of teaching: listening, speaking, reading, and writing in the ESL/Bilingual Education settings. The course will also emphasize the importance of culture in second language teaching, and self-evaluation of teaching and instructional materials. Prerequisite or Corequisite: CT 709. LEC.

C&T 821. Diagnosis and Remediation in Second Language Education. 3 Hours.
This course provides an overview of diagnostic techniques and instruments used to identify and remediate specific learning difficulties associated with normal second language development in the area of listening, speaking, reading, and writing. The course includes a review of research concerning assessment as it relates to error analysis in the second language context. Corequisite: CT 820. LEC.

C&T 822. Second Language Acquisition. 3 Hours.
This course provides an intensive review of the theory and research base of second language acquisition. Particular attention is given to the influence of research trends in linguistics and psychology on second language education theory and practice. Current trends in second language education are examined in light of the historical theory base. Prerequisite: CT 820. LEC.

C&T 823. Developing Intercultural Awareness in the Second Language Classroom. 3 Hours.
This course includes the study of the interrelationship of language and culture and the use of multicultural training techniques to develop cultural awareness and positive attitudes in the second language classroom. Emphasis is on the integration of culture in the second language curriculum. Prerequisite: CT 820 or CT 803. LEC.

C&T 824. Problems in Second Language Instruction. 3 Hours.
This course presents a study of curricula and instruction in the second language setting at all levels with emphasis on educational research concerning these issues. Particular attention is given to developing competency in locating and utilizing sources of information and to preparing the research document. The course facilitates practical problem solving in the second language learning context. Prerequisite: CT 820. LEC.

C&T 825. Practicum in Teaching English as a Second Language/Bilingual Education. 3 Hours.
This course provides a supervised teaching experience in a setting appropriate to the goals of the prospective ESL/Bilingual teacher: elementary, secondary, or adult. Particular attention is given to lesson planning, classroom management, and the development of self-evaluation techniques. This course will also emphasize structured classroom observation prior to teaching and techniques for developing and maintaining positive working relationships with other professionals in the school setting. Prerequisite: CT 820, CT 821, and CT 822 or CT 824. FLD.

C&T 826. Language Analysis for Language Teachers. 3 Hours.
This course offers pre- and in-service teachers the basic foundations of language analysis necessary for the teaching of second/foreign languages. The course covers basic linguistic topics common to all human languages (grammatical, phonological, and semantic aspects) with the intent to help teachers understand and address common language problems that students face when learning English as a second/foreign language. LEC.

C&T 827. Teaching Second/Foreign Language Pronunciation. 3 Hours.
The objective of this course is to give prospective language teachers the requisite theoretical and practical background for making decisions concerning pronunciation teaching. This course provides second and foreign language teachers with the necessary knowledge and skills to address the teaching of pronunciation in the foreign/second language classroom. After a review of theoretical and practical research dealing with universal human speech perception and production, implications for the design of appropriate strategies and lessons to teaching pronunciation, both at the segmental and suprasegmental levels, are addressed. Prerequisite: CT 444, CT 820/CT 822. LEC.

C&T 828. Language and Identity. 3 Hours.
This interdisciplinary seminar explores the interrelationship between language and identity, and the role of language in developing identities of second language learners. LEC.

C&T 830. Classroom Applications of Assessment Information. 1 Hour.
The primary purpose of this course is to examine classroom-based practices for identifying intellectual and creative potential in school-aged children and youth, and to apply that information to classroom instruction as well as to individual education planning. Particular attention is paid to populations who are traditionally underserved due to language status, ethnicity, socio-economic status, geography, or multiple exceptionality. Parent and student roles are also emphasized. An evidence-based practice course for teachers, administrators, and support personnel. Prerequisite: Admission to Graduate School. LEC.

C&T 831. Personal Dimensions of Talent. 1 Hour.
The course focuses on affective aspects of individuals with high potential. Particular attention is paid to populations who are traditionally underserved due to ethnicity, socio-economic status, geography, or multiple exceptionality. The course focuses on theories, models and methods for understanding and addressing the successful personal development of talented individuals, supporting families, and personal issues linked to high potential. An evidence-based practice course for teachers, administrators, and support personnel. Prerequisite: Admission to Graduate School in Education. LEC.

C&T 840. Emergent Literacy and Beginning Reading. 3 Hours.
A study of emergent literacy through the beginning stages of literacy development. Course content focuses on the history, theory, and research that supports instructional reading practices for children Pre-kindergarten through grade 2. Prerequisite: CT 740, CT 741, or permission of instructor. LEC.

C&T 841. Early Intervention in Reading Practicum. 3 Hours.
A case study approach to the instruction of children in need of early intervention in reading. Requires assessment, instruction, and case reports of tutored children. Prerequisite: CT 740, CT 741, CT 840, or permission of instructor. FLD.

C&T 842. Supporting Striving Readers: Adolescent through Adult. 3 Hours.
A study of the characteristics and multiple causes of reading and writing difficulties, principles and procedures for diagnosing and remediating reading difficulties, how to provide individual and group intervention strategies, communicate diagnostic information, and gain awareness of the impact of research on instructional decision-making for students with reading difficulties. Prerequisite: Admission to a masters program...
within the School of Education, CT 740, CT 741, CT 840, and CT 841, or permission of instructor. LEC.

C&T 843. Supporting Striving Readers Practicum. 3 Hours.
Case study approach to the treatment of pre-adolescent through adults with reading disabilities. Requires diagnostic testing of the learner, compilation of case study reports, and participating in staffing for the purpose of designing remedial reading programs. Students also participate in implementation of remedial programs with pre-adolescent through adults through tutoring in either a clinical setting or a public school setting. Prerequisite: Admission to a masters program within the School of Education, CT 740, CT 741, CT 840, CT 841, CT 842, or permission of instructor. LEC.

C&T 844. The Reading Program: Coordination and Supervision. 3 Hours.
An overview of the role of the reading coordinator/ supervisor and that individual’s responsibility for the components of a balanced reading program. Emphasis will be given to assessment of the reading program, strategies for change, improving the reading program, in- service programs, working with other school personnel, providing services, and public relations. Prerequisite: CT 740, CT 741, CT 840, CT 841, CT 842, and CT 843. LEC.

C&T 845. Reading Specialist Internship. 1-2 Hours.
Supervised and directed experiences to develop the necessary instructional and leadership competencies of a reading specialist. Activities will include district and building level needs assessment, data analysis, professional development of teachers and paraprofessionals, and cooperative planning with teachers and administrators around issues of literacy instruction and achievement. Prerequisite: Completion (at the University of Kansas) of course requirements for the Reading Specialist program. The Reading Specialist course requirements may be a part of a graduate degree. FLD.

C&T 850. Seminar in Science and Mathematics Educational Research. 3 Hours.
The primary purpose of this course is to examine literature in science and mathematics education in order to better understand research in these fields from both a historical and contemporary perspective. The process of examining literature in these fields will be used to help understand how to plan, conduct, and evaluate research in science and math education. This course emphasizes both qualitative and quantitative research in science and math education. LEC.

C&T 851. Modern Approaches to Middle/Secondary School Mathematics. 3 Hours.
A study of aspects of curriculum and instruction in middle/secondary school mathematics programs, including research on teaching and learning mathematics. Prerequisite: Teaching experience in middle-level or high school mathematics or permission of instructor. LEC.

C&T 852. Instruction in Mathematics and Science. 3 Hours.
In this course, students will explore a variety of research-based instructional theories, models, and strategies for teaching and learning of mathematics and science. They will apply and evaluate the usage of one instructional strategy in an action research project in their classrooms. Prerequisite: CT 709. LEC.

C&T 853. Connecting Research to Classroom Practice in Middle/ Secondary Science. 3 Hours.
This course will explore current research on issues important to middle and high school science teachers so they can use research to support and improve their classroom practice. Prerequisite: Teaching experience in middle level or high school science or permission of instructor. LEC.

C&T 854. Assessment and Evaluation in Science and Mathematics. 3 Hours.
The primary purpose of this course is to examine assessment and evaluation in science and mathematics, including assessment of students, teachers, schools, and educational programs. The course will examine technical characteristics of various assessment methods including both traditional and alternative methods. In addition and alternative methods. In addition, the course will analyze and discuss various controversial issues in assessment such as authentic assessment, and large scale assessment, and large scale assessments, assessment for accountability, and equity issues. LEC.

C&T 855. Curriculum in Science and Mathematics. 3 Hours.
A survey of the concepts and processes that provide the focus of modern science and mathematics curricula will be central to the course. Students develop a standards-based framework for a school science or mathematics program. The course includes an analysis of national and state recommendations for the reform of science and mathematics education in the context of our state and local educational systems, which is applied by evaluating exemplary instructional materials and activities appropriate for classroom use. Prerequisite: CT 709. LEC.

C&T 856. Practicum in Science Education. 1-3 Hours.
Intensive supervised experience working with improvement of science curriculum and/or instruction in an educational setting. Credit in any one semester may range from one to three hours; and total credit may not exceed three hours. Prerequisite: Two graduate courses in science education and prior consent of practicum supervisor. FLD.

C&T 857. Practicum in Mathematics Education. 1-3 Hours.
Intensive supervised experience working with improvement of mathematics curriculum and/or instruction in an educational setting. Credit in any one semester may range from one to three hours; and total credit may not exceed three hours. Prerequisite: Two graduate courses in mathematics education and prior consent of practicum supervisor. FLD.

C&T 858. Connecting Research to Classroom Practice in Middle/ Secondary Mathematics. 3 Hours.
This course will explore current research on issues important to middle and high school mathematics teachers so they can use research to support and improve their classroom practice. Prerequisite: Teaching experience in middle level or high school mathematics or permission of instructor. LEC.

C&T 859. Issues in Mathematics or Science Education: ______. 1-3 Hours.
A study of issues in a particular area of mathematics or science education. The course may be repeated for different topics. Prerequisite: Admission to graduate study. LEC.

C&T 860. Topics in Teaching and Learning Social Studies: ______. 3 Hours.
An examination of current topics and issues from social science perspectives. Special emphasis is given to effective integration of one of the social sciences, such as anthropology, geography, political science, science technology and society, and these topics affect issues of curriculum at both elementary and secondary levels. Students will need to confer with the instructor of record to determine which topic will be the current focus of the course. LEC.

C&T 861. Curriculum and Assessment in Social Studies Programs K-12. 3 Hours.
The purpose of the course is to offer preservice and practicing K-12 social studies educators the following: (1) an overview of theoretical bases for social studies education and of the social studies and discipline specific curriculum standards; (2) a review of the major curricular and
extracurricular K-12 social studies programs; (3) strategies for the design, implementation, and evaluation of social studies programs; and (4) experience with the design, implementation, and/or evaluation of a social studies program. LEC.

C&T 862. Trends and Issues in Social Studies Instruction. 3 Hours.
A study of trends and issues relating to, and needed changes in the content, organization, emphasis, resources and equipment, methods, devices and evaluation in the social studies. Consideration of related problems such as achieving meaning and understanding, providing for individual differences, providing motivation, the cooperative assignment and socialized recitation. Students will be permitted to concentrate on those problems of particular interest to them. Prerequisite: Nine hours of Education including educational psychology. LEC.

C&T 863. Curriculum Development in Economic Education. 3 Hours.
Extension and application of economic concepts and theories through integration into the scope and sequence of the school curriculum. The process will include the development and field testing of a project that utilizes appropriate concepts, materials, community resources and techniques for integrating economics into the total curriculum. Prerequisite: CT 763. LEC.

C&T 864. International Issues in the K-12 Classroom. 3 Hours.
An examination of current international topics and issues from an economic education perspective. Special emphasis is given to effective integration of global topics and issues into the curriculum at both elementary and secondary levels. Students survey and analyze economic education resource materials and develop international lessons for use in their own classrooms. This course is offered during summer term, locally, and as a study abroad option. This course has been offered two times previously as TL 798-summer 1993 at the Regents Center and in Great Britain. LEC.

C&T 866. Connecting Research to Classroom Practice in Social Studies. 3 Hours.
The purpose of the course is to explore readings on effective practice and current research on issues important to social studies teachers. Knowledge gained from the exploration of readings will be used to develop a plan and implementation procedures for improving classroom practice. Prerequisite: Teaching experience in social studies education or permission of the instructor. LEC.

C&T 896. Seminar in: ______. 1-4 Hours.
LEC.

C&T 897. Independent Study. 1-4 Hours.
Prerequisite: Consent of advisor and instructor. RSH.

C&T 898. Master’s Project. 1-4 Hours.
RSH.

C&T 899. Master’s Thesis. 1-6 Hours.
THE.

C&T 900. Current Trends & Issues in Curriculum & Instruction. 3 Hours.
The course, taught as a capstone seminar, will provide a review of current trends and issues in theories, practices, and events within curricular and instructional efforts in American education. Topics studied may include constructivism, connectivism in the digital age, contemporary theories and theorists such as Vygotsky, online instruction and the Internet’s potential and growth, the new Cult of Efficiency, stigmatization and standardized testing, and charter schools. Student composition of each class will influence the final syllabus, which may include other topics reflective of student interests and goals. The class is designed for those in the final course phase of their doctoral studies. Students in their first or second semester of their programs will not be encouraged to enroll in the class. LEC.

C&T 901. Contemporary Research of Teaching Effectiveness. 3 Hours.
A review of recent research on the conceptualization, measurement, and improvement of teaching effectiveness. Particular attention is given to the history of efforts to improve teaching, to the reasons why such efforts have often been unsuccessful, and to the recent contributions of the “micro-criteria” approach to the problem. LEC.

C&T 903. Curriculum Supervision. 3 Hours.
An intensive study of the theoretical and research bases for curriculum supervision and improvement. Topics include models and practices in supervision and staff development, skills and instruments used in curriculum assessment, coordination of both human and material resources, and the dynamics of change strategies. LEC.

C&T 904. Philosophical Questions in Curriculum and Teaching. 3 Hours.
This course addresses philosophical questions pertaining to curriculum and teaching across a range of educational contexts. These questions center on epistemology, ethics, and the assumptions underlying alternative approaches to research in education. Students completing this course should be able to engage in philosophical inquiry and apply relevant philosophical literature and principles to the examination of curriculum and teaching. LEC.

C&T 905. Teacher Education in the U.S.. 2 Hours.
A study of the development, issues, and programs for the preparation of teachers. Open to all regular graduate students. LEC.

C&T 906. Qualitative and Curriculum Inquiry: Analysis and Interpretation. 3 Hours.
Supports novice researchers in extending their understanding of the theoretical frameworks underlying qualitative research, qualitative methodologies, the research process and its relationship with curriculum inquiry. During the course we will discuss various forms of qualitative research methods, approaches to research, and perspectives in methodology relate to curriculum inquiry. We will explore the intertwining of data generation, analysis, and writing. In addition, we will focus on refining data generation techniques, strategies for data analysis, data interpretation, and various forms of reporting/writing. Prior coursework: Introduction to a graduate level qualitative research course or permission from the instructor. Prerequisite: Introduction to a graduate level qualitative research course or permission from the instructor. LEC.

C&T 907. Critical Pedagogies. 3 Hours.
This course examines the theories and practices of several educational orientations that comprise "critical pedagogy." Students examine the historical roots and evolution of this broad orientation toward education. Recurring themes in the class are relations between knowledge and curriculum, the school and society, and teachers and students. Students completing the course should be able to analyze educational phenomena through a critical theoretical lens. Open to all doctoral students and advanced masters students with instructor permission. LEC.

C&T 910. Research Seminar in English Education. 3 Hours.
This course will focus on both the conduct and findings of research related to English/Language Arts Education. Its purpose will be to foster discussion among students concerning paradigms that have shaped the field of English/Language Arts as well as encourage critique of the ways in which these paradigms are enacted in research. In this course, each student will develop a reading list on a topic of interest related to research in English/Language Arts Education and/or pursue the writing of an individual research proposal. Prerequisite: Admission to master’s or
doctoral program in CT, emphasis in English/Language Arts Education. LEC.

C&T 940. Evaluation of Research in Reading. 3 Hours.
LEC.

C&T 944. Diagnosis and Evaluation of Instruction in Higher Education. 2-3 Hours.
The course will focus on (1) a review of the practical and theoretical problems of developing, in institutions of higher education, programs for the diagnosis and/or evaluation of classroom instruction, including use of videotape feedback for diagnosis, and the development of surveys for evaluation for diagnosis of teaching, and (2) the importance of careful administrative and review procedures as the evaluation of teaching becomes more formal and consequential. Three hours of credit will be awarded to those enrolled in the laboratory section of the course. LEC.

C&T 951. Research and Evaluation in Mathematics and Science. 3 Hours.
This course introduces students to the processes of planning, conducting, and evaluating mathematics and science research and evaluation in education. This course emphasizes the methods and techniques used in both quantitative mathematics and science research and evaluation methodologies. Prerequisite: A PRE course in statistics. LEC.

C&T 960. Theory and Research in Social Studies Education. 3 Hours.
The purpose of this graduate level course is to stimulate and communicate systematic research and thinking in Social Studies Education. Its purpose is to foster the creation and exchange of ideas and research findings that will expand knowledge about purposes, conditions, and effects of schooling and education about society and social relations. LEC.

C&T 968. Readings in Economic Education Research. 3 Hours.
A survey of research in elementary, secondary, and higher education economic education. After initial, mutual readings, and discussions, class members will determine a list of broad research questions around which we will focus our readings. Each student is responsible for developing a reading list on one of the topics and reporting on selected readings. Class meetings will focus on summarizing and critiquing published research. Purpose of this course is to prepare doctoral students for comprehensive examinations and dissertation research. LEC.

C&T 994. Advanced Topics: _____, 1-3 Hours.
A special course of study to meet current needs of education professionals -- primarily for post-master’s level students. LEC.

C&T 995. Field Experience in: _____, 1-5 Hours.
Supervised and directed experiences in selected educational settings. The advisor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experiences will be prepared independently by the student, a representative of the cooperating agencies, and the advisor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. FLD.

C&T 996. College Teaching Experience in: _____, 2 Hours.
To meet the college teaching experience requirement for doctoral programs, a student shall engage in a semester-long, planned, instructional activity that shall include college classroom teaching under supervision. Planning shall be done with the advisor and/or the member of the faculty who will supervise the experience. The activity shall be done under the supervision of a member of the University of Kansas faculty or by an individual or individuals designated by the candidate’s committee. FLD.

C&T 997. Individual Study. 1-4 Hours.
Prerequisite: Prior graduate course work in the area of study and consent of instructor. RSH.

C&T 998. Seminar in: _____, 1-4 Hours.
LEC.

C&T 999. Doctoral Dissertation. 1-15 Hours.
THE.

Deaf Education Courses

DE 702. Intermediate Signing Exact English. 3 Hours.
Intermediate vocabulary (700 words) for basic school routines and subjects will be taught using curricular materials to practice SEE 2 vocabulary and affix markers. Two college sign classes of any kind. LEC.

DE 717. Pidgin Sign English/American Sign Language. 3 Hours.
An intermediate level, educationally oriented vocabulary (450 words) taught in PSE/ASL. Comparison of literally and conceptually signed sentences. Prerequisite: Any sign course, admittance into Deaf Education Masters Program. LEC.

DE 808. Family Focus With Young Hearing-Impaired Children. 3 Hours.
Focus on the family as the primary teachers of deaf and hard-of-hearing infants and toddlers. The purpose of the class is twofold: to develop an understanding of the effect of deafness and to develop skills to deal with its intervention. Future teachers, early-childhood specialists, and related service providers will participate in discussion, simulations, and applied exercises in acquiring course competencies. Prerequisite: Sign class of any type. LEC.

Educ Leadership Policy Stds Courses

ELPS 200. Making Connections Between Schools and Community. 3 Hours.
This course is designed to increase the students’ awareness of learning in the classroom and to familiarize them with the role of the school and the community. Institutions and resources that support children and families will be addressed through large and small group sessions and field experiences. Emphasis is given to the diverse nature of schools, communities, and their populations. In addition, the course will acclimate students with the School of Education programs, admissions procedures, and curriculum offerings. Successful completion of this course does not guarantee eventual admission of the School of Education’s Teacher Education Program. Prerequisite: Successful completion of CT 100. LEC.

ELPS 250. Education and Society. 3 Hours. AE41/AE51.
This course provides students with an introduction to key ideas and socio-historical forces that have shaped the contemporary educational system in the United States, drawing upon the disciplines of the historical, philosophical, and social foundations of education. The development of school and community relations will be a point of emphasis. LEC.

ELPS 301. Educational Technology in Elementary-Middle Education. 3 Hours.
The focus of this course is on developing integration strategies and acquiring computer skills for using instructional technology and educational software, digital media, and information technologies appropriate to elementary and middle school teaching environments. Students will gain expertise in (a) the selection of appropriate instructional technologies and digital media for use in the classroom; (b) production of technology-based instructional materials; and (c) the evaluation and validation of a variety of electronic information sources. Prerequisite: Admission to the Teacher Education Program. LEC.
ELPS 302. Educational Technology in Middle/Secondary Education. 3 Hours.
The focus of this course is on developing integration strategies and acquiring computer skills for using instructional technology and educational software, digital media, and information technologies appropriate to middle school and high school teaching environments. Students will gain expertise in (a) the selection of appropriate instructional technologies and digital media for use in the classroom; (b) production of technology-based instructional materials; and (c) the evaluation and validation of a variety of electronic information sources. Prerequisite: Admission to the Teacher Education Program. LEC.

ELPS 437. Politics and Governance of Public Schools. 3 Hours.
This course introduces students not pursuing K-12 teaching or administrative positions to the organizational and legal foundations of the American educational system. LEC.

ELPS 450. Foundations of Education. 3 Hours.
A historical approach to the major social and philosophical foundations of American education, with an emphasis on the relation of educational theory to classroom practice. LEC.

ELPS 490. Senior Internship I. 4 Hours.
Supervised field experience in an on-site educational setting that provides the student an opportunity to study and participate in the professional activities of a designated educational setting with emphasis on the planning, implementation, and evaluation of such activities. Regular conferences with faculty to evaluate student progress will be scheduled. Prerequisite: Admission to the non-certificate baccalaureate program. LEC.

ELPS 491. Senior Internship II. 4 Hours.
Supervised field experience in an on-site educational setting with increasing emphasis placed on an integration of formal learning and in site experience. Regular conferences with faculty will be scheduled. Prerequisite: Admission to the non-certificate baccalaureate program. FLD.

ELPS 497. Independent Study in. 1-2 Hours.
Only one enrollment permitted each semester. A maximum of four hours will apply toward the bachelor’s degree. Prerequisite: Recommendation of advisor and consent of instructor. IND.

ELPS 537. The Governance and Organization of Schools. 3 Hours.
The course provides the prospective teacher with an overview of the legal foundations of the American educational system including the ways schools and school districts are organized and run; the role of various levels of government and various governmental and educational officials in controlling education; the rights of students and teachers; the terms, conditions, and responsibilities of teacher employment. Prerequisite: Admission to the Teacher Education Program. LEC.

ELPS 540. Ethics in Education. 3 Hours.
This course examines practices and policies occurring in K-12 and postsecondary educational institutions through the lenses provided by ethics. During the semester, we will read, discuss, and write about ethics in education from both theoretical and practical perspectives. Prerequisite: Junior standing or higher. The course is suitable for advanced undergraduate and master’s degree seeking students. LEC.

ELPS 550. Childhood and Youth in America. 3 Hours.
A study of the changing role and character of childhood and youth as stages of life in the context of American educational and cultural history. LEC.

ELPS 598. Special Course: 1-5 Hours.
A special course of study to meet current needs of education students, primarily for undergraduates. LEC.

ELPS 627. Growing Up in Urbanizing America. 3 Hours.
A study of the changing role and character of childhood and youth as stages of life in the context of American urban and social history, with particular attention to education and human development. Prerequisite: Junior standing or higher. LEC.

ELPS 652. Residential Staff Skill Enhancement and Administration. 2-3 Hours.
This special course of study in residential staff skill enhancement and administration is an exploration of concepts and skills necessary for becoming an effective paraprofessional staff member in a residential living unit. Each class session will include presentations and experiential learning on topics to develop or improve interpersonal skills and skill in dealing with special concerns. The course is required or recommended for all residence and scholarship hall staff and open to upperclass or graduate students interested in student personnel work. LEC.

ELPS 715. Understanding Research in Education. 3 Hours.
This course introduces the concepts and skills involved in understanding and analyzing research in education and related areas. The course provides an overview of basic, general knowledge of various research methodologies. Students should expect to study much of this material in greater depth through additional course work before being prepared to conduct independent research. However, this course should enhance their ability to locate, read, comprehend, and critically analyze research articles and reports. Topics in the course include quantitative and qualitative methods and designs, historical and descriptive research, and program evaluation. Prerequisite: Admission to graduate standing in the School of Education. LEC.

ELPS 750. Principalship. 3 Hours.
An introduction to the role, responsibilities, expectations and major duties of elementary, middle, and high school building administrators. Students are presented typical problems faced by school administrators through simulations and role playing and are expected, through reflection and discussion, to develop viable solutions. LEC.

ELPS 751. Educational Finance. 3 Hours.
A description and analysis of national, state, and local strategies for the financial support of education, utilizing social, economic, legal, and political frameworks. Particular attention to the principles of revenue acquisition and distribution at the local and state level for public school operations, with analysis of how these principles apply to Kansas. Designed for the wide variety of educational practitioners regardless of organizational and degree levels. Prerequisite: Admission to graduate study. LEC.

ELPS 752. Education Law. 3 Hours.
A study of legal principles and issues affecting educational policy making and practice with emphasis on student and teacher rights, equity, and the administration of schools. Prerequisite: Admission to graduate study. LEC.

ELPS 753. Introduction to Personnel Administration in Education. 3 Hours.
An overview of the theory and practice of personnel administration. The course focuses on the processes of recruitment, selection, training and development, evaluation, compensation, equal employment opportunity, and labor relations. LEC.

ELPS 754. Analysis of Administrative Problems. 3 Hours.
An introduction to various methods of problem identification; strategies of information gathering; schemes for the analysis of qualitative and quantitative data; models of problem resolution and decision making; and
ELPS 755. Human Resource Management. 3 Hours.  
An overview of the theory and practice of the management, recruitment, selection, compensation, placement, and development of personnel in the school setting. LEC.

ELPS 757. Education in American Society. 3 Hours.  
A study of the roles and goals of education in the United States, the interrelationships among schools and students, teachers, administrators, and parents, and the culture of schools. LEC.

ELPS 760. Integration of Educational Technology. 3 Hours.  
This course focuses on strategies for integrating educational technology in K-12 schools, universities, government or industry. Topics include applying technology in: a) understanding basic technology operations b) planning and designing learning experiences, c) curriculum development, d) assessment and evaluation e) productivity and professional practices, and considering f) social, ethical, legal, and human issues. Students produce a comprehensive electronic portfolio that describes the theoretical perspectives that guide their technology integrations strategies and evidence that demonstrates their competencies. LEC.

ELPS 772. Philosophical Problems in Comparative Education. 3 Hours.  
A study of significant philosophical problems encountered when comparing educational systems. Special emphasis on the implications of axiological analysis for educational theory and practice in different areas of the world. Relationships among the social sciences, philosophy, and the international or cross-cultural venture in education. The importance of systematic value-theory in comparative research and international education. LEC.

ELPS 773. School and Society in Comparative Education. 3 Hours.  
Analysis of the role of social science in comparative education as perceived by different philosophies or schools of thought, such as Marxism, phenomenology, empiricism, pragmatism, and linguistic analysis. LEC.

ELPS 774. Modern Educational Theorists. 3 Hours.  
An in-depth study of prominent European thinkers who have contributed to educational theory and practice (e.g., Rousseau, Pestalozzi, Herbert, Froebel, Montessori, Nietzsche, Freud, Piaget, Ortega Gasset, etc.). Prerequisite: ELPS 770 or ELPS 771 is recommended. LEC.

ELPS 777. Problems in Contemporary Educational Theory. 3 Hours.  
Select explorations into such provocative and problematic trends in current educational theory as Marxism, behaviorism, phenomenology, existentialism, analytic philosophy, hedonism, nonverbal education, etc. Prerequisite: ELPS 770 or ELPS 771 is recommended. LEC.

ELPS 780. Introduction to Higher Education Administration. 3 Hours.  
This course is designed for beginning master’s degree students and for doctoral students who have had no previous administrative experience in college or university settings. Students will be introduced to the function and responsibilities of major administrative divisions of a college or university and to the major tasks of administration: planning, programming, budgeting, staffing, managing. An emphasis will be placed on current issues facing higher education and students will be introduced to the major journals of the field. As part of the course requirements, students will spend some time familiarizing themselves with one or more administrative offices on a college campus. Prerequisite: Admission to study in higher education at the graduate level. LEC.

ELPS 781. Student Affairs Administration in Higher Education. 3 Hours.  
This course is designed to include the study of the history and development of student personnel services in higher education, the role and function of the student affairs administrator, contemporary issues and problems, and an understanding of the organization and role of student affairs administration within higher education settings. Prerequisite: Admission to the higher education program or permission of instructor. LEC.

ELPS 789. Special Course:. 1-5 Hours.  
A special course of study to meet current needs of education professionals -- primarily for graduate students. LEC.

ELPS 810. Educational Media Development. 3 Hours.  
Media surrounds today’s learning environments. How can you effectively engage learners with multimedia, meaningful interactions, and motivational strategies? This course will take a hands-on practical approach to creating interactive educational multimedia products including, but not limited to, digital images, movies, podcast, Web publishing and educational games. Also, students will learn about the underlying learning theories of educational media development. LEC.

ELPS 811. Constructivist Learning Technologies. 3 Hours.  
This course explores the design and use of new educational technologies to support constructivist learning. Throughout the course, students will (1) get hands-on experiences with emerging educational technologies, (2) examine how the underlying learning theories are reified into concrete learning environments, and (3) analyze how the affordances of new technologies (e.g., modeling and visualization) can facilitate the constructivist learning processes. This course is suitable for students who wish to develop greater knowledge about the ways emerging computer technologies can empower constructivist learning. Prerequisite: CT 770. LEC.

ELPS 812. Design of Educational Technology. 3 Hours.  
This course introduces instructional design theory and production techniques for developing educational technology resources and systems. Students apply their understandings of design and education theories as they work in teams to develop real-world applications of educational technology for specific clients. LEC.

ELPS 820. Practicum in Educational Technology. 1-3 Hours.  
Supervised practice in a media center in selection, classifying, designing, producing, and/or managing instructional materials. Prerequisite: CT 770 and CT 871. FLD.

ELPS 830. Foundations of Multicultural Education. 3 Hours.  
This class provides students with an understanding multicultural education as an instructional concept, educational reform movement, and systemic process meant to ensure educational equity for all people, especially those who have been inadequately served and/or historically discriminated against because of their racial/ethnic or linguistic backgrounds, gender or sexual orientation, socio-economic status, and special needs. Students will examine different theoretical approaches that inform the practice of multicultural education and explore the contribution of various social sciences to the field. LEC.

ELPS 831. Sociology of Education. 3 Hours.  
This course will provide an introduction to the sociology of education. This course is designed to fulfill the doctoral core requirement for social, historical and philosophical foundations of education. Specific topics will include: conflict over the purposes of education; how those purposes are or are not-translated into actual classroom life; how educational systems have developed historically, how status, and more specifically race, class
ELPS 832. History of Educational Thought. 3 Hours.
An examination of the major ideas that have shaped practice in the schools. Emphasis is placed on assisting the student with the development of a coherent and consistent personal philosophy of education upon which administrative practice can be based. LEC.

ELPS 833. Social Context of Urban Education. 3 Hours.
This course examines education in urban communities through the foundational disciplines of history, philosophy, and the social sciences. Particular attention is given to ways in which the changing social and political contexts of American cities affect the educational process. LEC.

ELPS 834. History and Philosophy of Education. 3 Hours.
A comprehensive study of influential persons and movements in the development of educational thought. Eastern and Western, from ancient times to the present. Emphasis on those ideas and historical roots which are relevant to contemporary issues in teaching and school administration. LEC.

ELPS 835. Philosophy of Education. 3 Hours.
An analytic inquiry into basic philosophical positions and issues relevant to education. The difference between ELPS 770 and ELPS 771 is that the latter is topically arranged and does not necessarily follow a historical sequence; it normally proceeds by problems and schools of thought. LEC.

ELPS 837. History of Education and Culture in America. 3 Hours.
A study of the relation between education and culture in America from colonial times to the present. American schools are considered in the wider context of cultural and social change. LEC.

ELPS 838. History of Childhood and Youth in America. 3 Hours.
An exploration of changing attitudes toward children and youth, their subjective experience, their impact on adults, and the conditions that shaped their development. Special attention will be given to the relationship between the changing nature of childhood as a social and cultural category and the development of the education profession. LEC.

ELPS 839. Historical Inquiry in Education. 3 Hours.
This course will provide an introduction to the methodology of historical research in education. This course is designed to fulfill the doctoral core requirement for research methods in education for students interested in doing this type of research. Specific topics will include: the historiography of education; working with primary and secondary documents; oral history as method and documentation, qualitative approaches to history; constructing historical narratives; the question of interpretation. LEC.

ELPS 850. Educational Facilities. 3 Hours.
A study of the principles and processes of developing functional educational facilities. Special emphasis placed on the educational planning that precedes and provides the basis for architectural planning. Among topics considered are plant utilization analysis, enrollment projections, site and equipment needs, fiscal and legal constraints, environmental factors, and the development of educational specifications. Designed for both building and central office level administrators. Prerequisite: Admission to graduate study. LEC.

ELPS 851. Supervision of Student Teaching. 2 Hours.
A study of the organization and functions of student-teaching programs. Emphasis on the development of effective interpersonal relationships among school administrators, cooperating teachers, university supervisors, and student teachers. Designed for both administrative and instructional personnel. Prerequisite: Admission to graduate study. LEC.

ELPS 852. School Resource Management. 3 Hours.
An examination of the sources and uses of fiscal resources in education including underlying concepts from economic theory, the impact of values on fiscal policy, state funding formulas, and school budgeting and accounting practices. LEC.

ELPS 853. Staff Evaluation and Development. 3 Hours.
An examination of current trends in personnel evaluation with a focus on clinical supervision and adult development. Students will participate in simulation exercises to develop skills in classroom observation, conferencing techniques, evaluation of teaching artifacts, and the construction of staff development plans. LEC.

ELPS 854. The Student in Society. 3 Hours.
A study of children and youth with particular emphasis on demographic characteristics of the population served by schools and implications of those characteristics for schools and schooling. LEC.

ELPS 855. Teacher Evaluation. 3 Hours.
Teacher Evaluation is based on clinical, empirical and theoretical information related to effective teacher evaluation behavior from the administrative perspective. It is intended to provide exposure to competencies essential to effective evaluation of teaching performance. Evaluation knowledge, skill and performance are acquired and developed through reading, discussion, active teaching of content related to teacher evaluation and practicing observation, recording and conferencing skills. A variety of approaches is considered, but behaviorally-anchored measurement of teaching behavior is emphasized. Opportunities and needs for improvement are identified with the assistance of video-taped diagnosis of conferencing behavior. Prerequisite: Two of the following: ELPS 750, ELPS 752, ELPS 753, or CT 840. LEC.

ELPS 856. Law and Special Education. 3 Hours.
This course focuses on special education. The American legal system, particularly in respect to special education, the constitutional and statutory provisions of federal and state law and the judicial decisions interpreting those laws are reviewed. This course is the equivalent of or a substitute for ELPS 752. (Same as SPED 851.) Prerequisite: SPED 750 or permission of instructor. LEC.

ELPS 857. Disabled Citizens, Public Policy and Policy Analysis. 3 Hours.
The American legal system, particularly in respect to special education, the constitutional and statutory provisions of federal and state law and the judicial decisions interpreting those laws are reviewed. This course is the equivalent of or a substitute for ELPS 752. (Same as SPED 851.) Prerequisite: SPED 851 or SPED 750 or permission of instructor. LEC.

ELPS 858. Professional Ethics, Public Values and Disabled Citizens. 3 Hours.
To train students to analyze public policy that affects disabled citizens, various models of analysis are brought to bear on federal policy (education, transportation, housing, institutionalization, protection and advocacy, medical assistance, employment, vocational rehabilitation and others). Not valid for core requirement in history and/or philosophy of education. (Same as SPED 852.) Prerequisite: SPED 851 or SPED 750 or permission of instructor. LEC.

ELPS 870. Philosophy of Education II. 3 Hours.
An exploration of select areas in philosophy, such as emphasis on value-theory or epistemology or metaphysics, and their implications for
ELPS 871. Introduction to Qualitative Research. 3 Hours.
An introduction to the foundations of and techniques associated with qualitative research methods. Students will practice interview and participant observation skills and will analyze and interpret data. Additional topics include crafting qualitative research questions, ethics of fieldwork, and establishing trustworthiness of data. Common traditions of qualitative methods employed in education and other related fields will be introduced. LEC.

ELPS 880. The Community/Junior College. 3 Hours.
A survey of the history and development of the community/junior college. Particular emphasis will be given to the student, the faculty, the curricula, administration, and finance. The course is intended to provide a general understanding of the operation and concerns of today's community/junior college for the current or potential community/junior college staff member. LEC.

ELPS 881. Seminar in Leadership. 3 Hours.
The purpose of this seminar is to explore leadership in education, particularly higher education, from a variety of perspectives. Readings come from a variety of disciplinary perspectives, such as sociology, organizational behavior, and psychology. We consider various aspects of leadership and analyze the leader from a symbolic perspective, as a manager of meaning and critical change agent. We then challenge ourselves to deconstruct our leadership realities with the help of several critical perspectives as we prepare to examine who the leaders are as well as who they will, and need to, be in the educational organizations of tomorrow. LEC.

ELPS 882. Higher Education in the United States. 3 Hours.
The purpose of the course is to acquaint students in higher education, and students from other areas who intend to work in the post-secondary setting, with the history, philosophy and development of higher education in the United States. The course focuses on three periods: 1) the founding of Harvard to 1965; 2) dissent, disruption, and change, 1965-1979; and 3) the future and crucial issues, the 1980's. European higher education and its early influence on higher education in the United States is also examined. LEC.

ELPS 883. The College Student. 3 Hours.
The characteristics of college students; impact of college on student behavior, changing attitudes, values, beliefs, and the implications of recent research on traditional and new students for instructional and administrative practices. LEC.

ELPS 884. Research on College Students. 3 Hours.
Examination of the American college student from societal, development, research, and institutional perspectives and to review the policy implications of these findings for college and university administrators and faculty. Topics include research and theory concerning the college student experience, the diverse nature of the student body and its implications for institutional policy and practice, and formulation of individual philosophies and priorities applicable to working with college students. LEC.

ELPS 885. Assessment and Program Evaluation in Higher Education. 3 Hours.
Nature, objectives, and basic procedures of assessment and program evaluation as applied to the various aspects of higher education settings. In addition to basic procedures for evaluating programs, topics covered include accreditation, program review, benchmarking, student outcomes assessment, and evaluation of teaching in colleges and universities. Prerequisite: ELPS 715 or equivalent. LEC.

ELPS 886. Theory into Practice in Higher Education. 3 Hours.
This course is required as a final course for all master's students in higher education. It is designed to prepare students for professional life after graduation. Using a case study approach, students will examine the reality of practice in a variety of higher educational settings including relevant political and ethical factors. Prerequisite: Higher education students in last semester of master's coursework. LEC.

ELPS 893. Advanced Building Leadership Internship. 2 Hours.
Supervised and directed experiences to enhance the necessary leadership skills of a building/district leaders. Activities will include building/district level resource assessment, data analysis, professional development of teachers/principals (and district level professionals), and cooperative planning with teachers and administrators around responsibilities of curriculum, instruction, resource management and student achievement. Prerequisite: Completion (at the University of Kansas) of all certification program (MS/EdD) requirements for the Building/District Leadership Licenses. FLD.

ELPS 895. Internship. 1-5 Hours.
The on site development of the skills necessary to effectively function as a school building leader. Activities will be tailored to the needs of individual students in consultation with a university advisor and a field advisor. FLD.

ELPS 896. Seminar in: 1-4 Hours.
LEC.

ELPS 897. Independent Study. 1-4 Hours.
Prerequisite: Consent of advisor and instructor. IND.

ELPS 898. Master's Project. 1-4 Hours.
RSH.

ELPS 899. Master's Thesis. 1-6 Hours.
THE.

ELPS 948. Research in Education Policy and Leadership. 3 Hours.
This course is an introduction to methods of inquiry in education policy and leadership studies. It is designed to help doctoral students explore possible research interests, formulate research questions, and to review a rich variety of approaches to inquiry in the field of education. Specific topics include: interview- and observation-driven studies, ethnography, feminist and narrative methods, legal and historical methods, questionnaire-driven studies, quantitative evaluation studies, and studies using administrative and large national data sources. LEC.

ELPS 950. Educational Policy Making and Reform. 3 Hours.
An analysis of patterns of influence, organizations, and governmental agencies which impact education at the community, state and national levels. Particular emphasis is placed on analysis of policy development process and the relationship of policy to administration. Recommended to students in educational administration and higher education. LEC.

ELPS 951. Supervision of Instruction. 3 Hours.
A study of the principles and techniques necessary for coordinating, monitoring, and improving the educational programs of elementary and secondary schools. LEC.

ELPS 952. School Finance: Policy and Practice. 3 Hours.
The objective of this course is to understand the financial systems and mechanisms used by states in the funding of elementary and secondary education in the United States. In simple language, we will be concerned with five basic issues: (1) Where the money comes from; (2) How it is redistributed; (3) How it is spent; (4) The relative effectiveness of spending decisions including selected international comparisons; and (5) How the previous four financial activities participate in a common financial ecology. The course provides an overview of theory and concepts central to the understanding of school finance with an emphasis on policy issues.
It also examines the mechanics of school finance funding in light of state policies. LEC.

ELPS 953. District Human Resource Management. 3 Hours.
An in-depth study of theory and research in personnel administration. The focus will be on current literature dealing with empirical assessments of personnel theory and techniques. Specific concepts to be considered include the following: educator characteristics, job analysis and design, personnel recruitment, selection and evaluation techniques, staffing and development, and labor relations. Prerequisite: ELPS 753 or its equivalent. LEC.

ELPS 954. Sociology of Educational Organizations. 3 Hours.
This class is an overview of basic and advanced sociological and political theories of organization, with specific application to issues and problems in K-12 education. It is designed for graduate students and practicing educational leaders and administrators who intend to utilize research on organizations in their studies of the governance of schools, the sociology and politics of education, and education policy. The topics covered include the origins and nature of modern bureaucracy, formal structure and function, organizational control, transaction cost economics, population ecology, resource dependence, the new institutionalism, organizational effectiveness and legitimacy, organizational culture, power and politics, and change. LEC.

ELPS 955. District Business Management. 3 Hours.
This course emphasizes skills for effective and efficient business and financial management of school districts in a Kansas or Missouri context. Basic topics include: Short range and long range financial planning, analysis of financial statements, budget preparation, fund accounting and financial reporting, contracting of services including transportation and food services, staff salaries and benefits and insurance. The course also includes a number of strategic methods for institutional planning including: Cost Benefit Analysis, Cost Effectiveness Analysis, and enrollment, revenue and expenditure forecasting techniques. Prerequisite: ELPS 952. LEC.

ELPS 956. District Leadership. 3 Hours.
The focus of the course is the role of the public school district superintendent. Organized study will include assigned readings, lectures, guest speakers, discussion, and the completion of a study project. The course will include consideration of such topics as boardmanship, community relations, district leadership, professional accountability, district maintenance and operations, professional employment and relationships with other agencies. The course is designed to serve the needs of those graduate students pursuing advanced study with the intention of completing requirements for district certification. Some students will also find the field appealing as an area for dissertation research. Prerequisite: Doctoral status in education administration or permission of instructor. LEC.

ELPS 957. Educational Policy, Ethics and Law. 3 Hours.
Course focuses on use of legal and moral reasoning in analysis of educational policy issues. Specific topics will vary depending on interests of instructor and students and current controversy. Examples of possible topics to be included: school desegregation, teacher collective bargaining, separation of church and school, equal educational opportunity. Prerequisite: ELPS 752, equivalent, or consent of instructor. LEC.

ELPS 958. American Educational Reform Movements: Past and Present. 3 Hours.
An examination of the origin, nature, and consequences of educational reform in the United States. The primary goal is to attain a balanced evaluation of current educational reform. LEC.

ELPS 959. Organization and Administration of Services for Exceptional Children. 3 Hours.
To aid administrators and prospective administrators responsible for organizing and administering programs of education for exceptional children, state and federal guidelines and regulations, legal aspects and financing of special education, planning a program, administering special services. (Same as SPED 971.) Prerequisite: Nine hours of Education including educational psychology and SPED 725. LEC.

ELPS 960. Specialist Project. 1-4 Hours.

ELPS 970. Theory and Research in Administration. 3 Hours.
A survey of the theoretical and empirical literature in educational administration and the methods used to investigate these content areas. Major emphasis is devoted to developing research skills applicable in practice and to the identification of possible generic topics suitable for future dissertation work. LEC.

ELPS 971. Comparative Education. 2 Hours.
A factual, descriptive, and analytical study of national systems of formal education, or schooling, as exemplified in contemporary educational establishments. Organizational and administrative policies and teaching practices, with emphasis on Germany, France, England, U.S.S.R., People’s Republic of China and Japan. Other nations may be examined on an individual project basis. The difference between ELPS 971 and ELPS 772 is the philosophical emphasis of the latter. LEC.

ELPS 972. Educational Problems in Latin America. 3 Hours.
Designed to meet the needs of students majoring in Latin American studies or interested in the area. Development of an awareness of the concept of cross-cultural confluence with Latin America as it relates to education. Survey of the main problems confronted by Latin American educational systems and examination of the difficulties experienced by North American educators when confronted with such problems. LEC.

ELPS 975. Education, Technology and Social Change. 3 Hours.
This interdisciplinary course provides an opportunity to read, reflect upon, and discuss ideas drawn from the emerging field of Science and Technology Studies (STS) in connection with education. Its focus is the interrelationships between technology, society, and education (defined broadly to include non-school and adult learning settings). It explores how knowledge, expertise, and authority are constructed within and across social and cultural groups, with particular attention social and economic inequality. It also considers the relationship between emerging technologies, educational experiences and the nature of “the self” in society, among other issues. Prerequisite: Admission to ELPS doctoral program, or permission of instructor. LEC.

ELPS 980. Postsecondary Finance. 3 Hours.
This course is designed for advanced doctoral students in higher education, particularly those who will be preparing unit budgets or budget presentations and those who make and implement fiscal policy (e.g., financial aid offers). The course material covers different types of college and university budgeting -- incremental, zero-based and formula -- and their impact on university revenues; statewide coordination and its impact on programs, program duplication and funding; retrenchment and quality issues; the legislative role in budget preparation; unified and comparative management systems (e.g., WICHE and NCHEMS); and the impact of federal contracting and student aid policies. LEC.

ELPS 981. Higher Education Law. 3 Hours.
An overview of the developing law of higher education, with emphasis on and analysis of employer-employee relationships, student-faculty/ administration relationships, and the impact of federal and state regulation on these relationships. LEC.
ELPS 982. Faculty in Higher Education. 3 Hours.
This course considers the role and circumstances of faculty in higher education, including variations among different types of institutions. Topics include the history and demographics of the professoriate, the academic work environment and labor market, the role of faculty in institutional governance and policy making, and the social and political context of academia. LEC.

ELPS 983. Curriculum Innovation in Higher Education. 3 Hours.
A study of contemporary post-secondary curriculum with particular emphasis on the nature of curriculum, the organization and structure of academic programs, the nature of change in academic communities and exemplary innovative institutions. LEC.

ELPS 984. Teacher Education in the United States. 2 Hours.
A study of the development, issues, and programs for the preparation of teachers. Open to all regular graduate students. LEC.

ELPS 985. Evaluations of Programs in Higher Education. 2 Hours.
Nature, objectives, and basic procedures of evaluation as applied to the various aspects of higher education. Open to all regular graduate students. LEC.

ELPS 986. The Governance and Administration of Higher Education. 3 Hours.
A theory-based course aimed at providing an understanding of the governance and administration of academic institutions -- particularly universities. Emphasis is directed toward an analysis of decision-making in these complex organizations. LEC.

ELPS 993. Advanced District Leadership Internship. 2 Hours.
Supervised and directed experiences to enhance the necessary leadership skills of a building/district leader. Activities will include building/district level resource assessment, data analysis, professional development of teachers/principals (and district level professionals), and cooperative planning with teachers and administrators around responsibilities of curriculum, instruction, resource management and student achievement. Prerequisite: Completion (at the University of Kansas) of all certification program (MS/EdD) requirements for the Building/District Leadership Licenses. FLD.

ELPS 994. Advanced Topics: 1-3 Hours.
A special course of study to meet current needs of education professionals -- primarily for post-master's level students. LEC.

ELPS 995. Field Experience in: 1-5 Hours.
Supervised and directed experiences in selected educational settings. The advisor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experience will be prepared independently by the student, a representative of the cooperating agencies, and the advisor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. FLD.

ELPS 996. College Teaching Experience in: 2 Hours.
To meet the college teaching experience requirement for doctoral programs, a student shall engage in a semester-long, planned, instructional activity that shall include college classroom teaching under supervision. Planning shall be done with the advisor and/or the member of the faculty who will supervise the experience. The activity shall be done under the supervision of a member of the University of Kansas faculty or by an individual or individuals designated by the candidate's committee. FLD.

ELPS 997. Individual Study. 1-4 Hours.
Prerequisite: Prior graduate course work in the area of study and consent of instructor. RSH.

ELPS 998. Seminar in: 1-4 Hours.
LEC.

ELPS 999. Doctoral Dissertation. 1-15 Hours.
THE.

Education Courses
EDUC 800. Education as a Field of Scholarship. 3 Hours.
An intensive interdisciplinary examination of classic and current scholarship in education, for students in Ph.D. programs in the School of Education. It surveys the interdisciplinary range of scholarship and inquiry in education, as preparation for careers in research. The course features discussion of exemplary studies, both for their contributions to various fields, but also with regard to research methods, related ethical issues and the responsible conduct of research. Prerequisite: Admission to Ph.D. in Education Program. LEC.

Health Sport Exercise Sci Courses
HSES 104. Physical Activity in: 0.5-1 Hours.
(An accurate description of the activity or activities will be given in the Timetable.) Graded on a satisfactory/unsatisfactory basis. ACT.

HSES 108. Basic Skill Instruction in: 0.5-2 Hours.
(An accurate description of the activity or activities will be given in the Timetable.) ACT.

HSES 110. Intermediate Skill Instruction in: 0.5-2 Hours.
(An accurate description of the activity or activities will be given in the Timetable.) ACT.

HSES 112. Advanced Skill Instruction in: 0.5-2 Hours.
(An accurate description of the activity or activities will be given in the Timetable.) ACT.

HSES 200. Coaching Certification for Youth Sports. 2 Hours.
This course will examine theories, practices, methods and techniques used to coach youth sports. Emphasis will be upon training, conditioning, sports psychology, nutrition, organization and management as prescribed by the National Federation of Interscholastic Coaches' Education Program. Students will have opportunity to receive coaching certification. Prerequisite: Open to physical education majors, or by consent of instructor. Students must pass the National Federation of Interscholastic Coaches' Education Program (NFICEP) examination before exiting the course. LEC.

HSES 201. Team Sports. 2 Hours.
This course will deal with Soccer, Touch Football, Basketball, Softball, and Volleyball. Practice in construction of lesson plans and unit plans, skill performance and peer teaching practicum are emphasized in each of the areas of team sports. Class meets three days per week with one hour being a laboratory session. Prerequisite: Basic fitness and knowledge of the activities. Open to HSES majors and minors, or by consent of instructor. LEC.

HSES 202. Individual and Dual Sports. 2 Hours.
Instruction and analysis in individual sports such as track and field, bowling or archery, and dual sports such as tennis, badminton or handball. Development of sport skills and rule knowledge are emphasized. Prerequisite: Basic fitness and knowledge of the activities. Prerequisite: Open to pre-HSES and HSES majors, or by consent of instructor. LEC.

HSES 204. Gymnastics. 2 Hours.
Instruction and analysis in the eleven gymnastics events for men and women. Skill performance, spotting and teaching techniques, lesson and unit plan construction, and teaching practicum constitute the basic focus
of this course. Class meets three days per week with one hour being a laboratory session. Prerequisite: Basic fitness and gymnastics/tumbling experience. Open to HSES majors and minors, or by consent of instructor. LEC.

HSES 210. Instruction and Analysis in: ______. 1-16 Hours.
Study of the skills to be included in the instruction of the indicated activities and the analysis of skill performance involved. Presentation of instructional techniques and practice in construction of lesson and unit plans are included for each activity. Open to majors in physical education only. The activities included in the major program are as follows: (a) Swimming (b) Folk and Square Dance (c) Modern Dance and Women's Gymnastics (d) Weight-Training and Men's Gymnastics (e) Soccer-Speedball, Volleyball, Wrestling (f) Field Hockey, Soccer-Speedball, Volleyball (g) Golf, Tennis, Badminton, Archery (h) Basketball, Softball, Flag Football, Team Handball (i) Track and Field, Handball-Paddleball, Fencing. Prerequisite: Basic fitness and basic skill in the course activities shown through competency tests and/or credit in basic skill courses in the appropriate activity. LAB.

HSES 214. Physical Education Activities for Elementary School Children. 3 Hours.
This course will introduce the student to a variety of physical education activities that are appropriate for children in grades K-6. Age appropriate activities demonstrated in this course include: individual and group games, self testing games, stunts and tumbling experiences, physical fitness, modified sports, and movement exploration. Class participation will be expected for all students. Prerequisite: Open to pre-HPE and HPE majors. LEC.

HSES 218. Lifeguard Training. 2 Hours.
The course involves American Red Cross certification in lifeguarding which includes rescue techniques and safety procedures. It also includes first aid and CPR certifications. Each student will be asked to identify common hazards associated with various types of aquatic facilities and develop skills necessary to recognize a person in a distress or drowning situation and to effectively rescue that person. This course will help each student to understand the lifeguard/employer and lifeguard/patron relationship as well as provide explanations, demonstrations, practice and review of the rescue skills essential for lifeguards. Prerequisite: HSES 112 Advanced Skill Instruction in Swimming or consent of instructor. LEC.

HSES 220. Officiating of: ______. 1 Hour.
A study of the rules and techniques of officiating. Students will officiate during laboratory sessions. The activities offered in officiating are: basketball, football, gymnastics, softball, swimming, track and field, and volleyball. Prerequisite: Basic competency in the sport to be officiated, or consent of instructor. LEC.

HSES 222. Water Safety Instruction. 2 Hours.
This course is designed to train instructor candidates to teach American Red Cross Swimming and Water Safety courses. Through practice teaching sessions, students will plan and organize skill development utilizing the various educational methods and approaches applicable to swimming and water safety instruction. Students will also learn the correct swimming styles taught by the Red Cross. Prerequisite: HSES 112 Advanced Skill Instruction in Swimming or consent of instructor. LEC.

HSES 224. Lifeguard Training Instructor. 2 Hours.
This course is designed as a lecture/laboratory course, meeting for one hour three days per week. Each instructor candidate (student) will have an opportunity for skill development necessary to instruct American Red Cross Lifeguard Training courses. Through practice teaching sessions, emphasis will be placed on enforcing safety precautions, identifying errors, providing effective instruction, and skills correction. After successful completion of this course, the student will be certified to instruct the following American Red Cross Aquatic courses: (1) lifeguard training, (2) waterfront lifeguarding, (3) CPR for professional rescue, and (4) community first aid. Prerequisite: HSES 218 or lifeguard training. LEC.

HSES 236. Practicum in: ______. 1-3 Hours.
A description of the activities offered will be provided in the Timetable. Prerequisite: Consent of instructor. FLD.

HSES 240. The Coaching of Football. 2 Hours.
A complete study of the theoretical aspects of the fundamentals of football. Study of defensive and offensive tactics for each position. Prerequisite: Sophomore standing. LEC.

HSES 244. Introduction to Physical Education and Sport Studies. 3 Hours.
The study of the history, foundational concepts, and current principles of physical education and sport programs. LEC.

HSES 248. First Aid. 2 Hours.
This course is designed to teach emergency treatment of injuries, wounds, hemorrhage, burns, and poisoning. Emphasis is placed on the techniques of rescue breathing, CPR, and emergency bandaging. American Red Cross certification is included. LEC.

HSES 250. Introduction to Athletic Training. 3 Hours.
The introductory study of the prevention, immediate care, and treatment of athletic related injuries and illnesses. This course is designed for Athletic Training majors to cover the basic competencies of injury/illness recognition as well as discuss the various strategies for the prevention, evaluation, and care of injuries to the physically active. Prerequisite: Instructor consent and concurrent enrollment in HSES 251. LEC.

HSES 251. Introduction to Athletic Training Practicum. 1 Hour.
This course is designed to introduce the practical skills and psychomotor clinical competencies of the beginning student-athlete trainer. Emphasis will be placed on basic Athletic Training procedures including but not limited to preventative taping, bracing, and padding techniques as well as various other procedures and techniques related to the prevention, care, and management of athletic related injuries/illnesses. Prerequisite: Completed or enrolled in Human Anatomy, First Aid/CPR (or proof of current certification). Concurrent enrollment in HSES 250 or transfer credit. Open to Athletic Training majors only. LEC.

HSES 252. The Coaching of Basketball. 2 Hours.
Theory of basketball, including methods of teaching fundamentals; individual and team offense and defense; various styles of play and methods of coaching. Prerequisite: Sophomore standing. LEC.

HSES 260. Personal and Community Health. 3 Hours.
Emphasis on healthful and intelligent living and the application of the fundamental principles of health. LEC.

HSES 262. Life Skills Training for Intercollegiate Athletics. 2 Hours.
This course will focus on issues surrounding drug use, testing, and prevention in sports and will incorporate life skills training in the areas of career transition, stress and time management, performance enhancement, strategic learning skills, and the dynamics of communication and leadership. LEC.

HSES 264. The Coaching of Individual Sports. 2 Hours.
An analysis of coaching techniques and study of materials for the coaching of gymnastics, swimming, golf, tennis, and wrestling. LEC.

HSES 269. Introduction to Exercise Science. 3 Hours.
A study of the various components of physical fitness and the wellness and the implications for developing programs to promote good health and fitness. Lectures and laboratory sessions will be centered on practical knowledge and experiences designed to help individuals enhance their own health, as well as develop sound programs for others. The topics
discussed include cardiovascular fitness, body composition, muscular strength, flexibility, evaluation of fitness components, training program design, nutrition, weight management, and facts and fallacies of nutrition and fitness. LEC.

**HSES 289. Introduction to Sport Management. 3 Hours.**
This course provides an overview of the field of sport management including the principles of leadership and management and the fundamentals of personnel management, financial management, marketing, strategic planning, sport ethics, sport law, time management, stress management, facility management, and event management applied to sport settings. LEC.

**HSES 290. Safety Education. 3 Hours.**
A survey of safety problems as they exist in society today, with emphasis on preventive, corrective, and compensatory procedures. LEC.

**HSES 302. Practicum in Adaptive Health and Physical Education for Elementary and Secondary Students. 2 Hours.**
Emphasis will be on instructional techniques that are used for the inclusion of all students in health and physical education learning experiences. Students will develop an understanding of how to deliver health and physical education activities that may be part of an individual education program. As a part of this course, a practicum experience of 30 hours in a public school adaptive physical education setting will be required. LEC.

**HSES 305. Methods of Strength Training and Conditioning. 3 Hours.**
This course will provide the students with the scientific principles and the hands-on experience to develop resistance exercise and related conditioning programs for a wide range of populations, including those focusing on general fitness, therapeutic rehabilitation and sport performance. Prerequisite: Anatomy, Physiology, admission to the Exercise Science or Athletic Training undergraduate programs, or permission of instructor. LEC.

**HSES 308. Drugs and Diseases in Society. 3 Hours.**
This course is an overview of human disease processes as well as legal and illegal use of drugs and narcotics for treatment or recreational purposes. Both communicable and degenerative diseases will be covered with regards to prevention, transmission, effects, management, and treatment. Legal drugs and illegal drugs will be discussed with regards to their treatment or abuse potential, legislative issues, and consumer education. Reflective thinking will be used to formulate improved perspectives on the roles of drugs and diseases in society. Prerequisite: Admission to Community Health Program or consent of instructor. LEC.

**HSES 310. Research and Data Analysis in Health, Sport, and Exercise Sciences. 3 Hours.**
This course provides formal instruction in the areas of test administration, general statistics, and basic research design. Emphasis will be placed upon the interpretation of statistical data, evaluation of data, and basic methodologies utilized in health, sport, and exercise sciences research. Data collection, analysis, and evaluation will be an integral part of the class. Prerequisite: Admission to the School of Education. LEC.

**HSES 315. Health and Fitness Technology. 2 Hours.**
The course will prepare health and physical education majors to use technology effectively to enhance teaching and learning. Students will explore the use of technology appropriate for communication, organization, instruction, and assessment in health and physical education classrooms. Prerequisite: Admission to the HPE Teacher Licensure Program. LEC.

**HSES 320. Methods of Teaching Physical Education. 3 Hours.**
This course provides a systematic approach to the development of effective teaching skills in physical education. Students receive practical and field experiences that enable them to observe and practice managerial, instructional, and interpersonal skills necessary to produce student learning in K-12 physical education classrooms. Prerequisite: Admission to the HSES Teacher Certification Program. LEC.

**HSES 330. Principles of Nutrition and Health. 3 Hours.**
This course will provide an introduction to the basic principles of nutrition, with an emphasis on application of these principles to improve overall health. Topics include: guidelines for a balanced diet, index of nutritional quality, energy requirements and balance, weight management and obesity, nutritional quackery, sports nutrition, nutrition for children and elderly, and eating disorders. LEC.

**HSES 340. Instructional Strategies in Motor Development. 2 Hours.**
This course is designed to provide students with an examination of current theories of motor development throughout the life cycle. Emphasis is placed on content regarding the development of fundamental motor skills, physical growth and development, and assessment. Prerequisite: Admission to the HSES Teacher Certification Program. LEC.

**HSES 341. Instructional Strategies in Physical Education for Elementary Classroom Teachers. 1 Hour.**
The application of child growth and development principles to physical education. The use of materials as related to a sequential physical education curriculum in the elementary school will also be included. Prerequisite: Prior or concurrent enrollment in CT 322 or equivalent. LEC.

**HSES 350. Care and Prevention of Athletic Injuries. 3 Hours.**
The introductory study of the prevention, immediate care, and treatment of athletic related injuries and illnesses. This course is designed to cover the basic fundamentals of injury/illness recognition as well as discuss the various strategies for the prevention and care of injuries to the physically active. Prerequisite: Courses in Human Anatomy and First Aid. LEC.

**HSES 351. Foundations of Athletic Training. 1 Hour.**
This course is designed to introduce the practical skills and psychomotor clinical competencies of the beginning student-athletic trainer. Emphasis will be placed on basic athletic training procedures including but not limited to preventative taping, bracing, and padding techniques as well as various other procedures and techniques related to the prevention, care, and management of athletic related injuries/illnesses. Prerequisite: Human Anatomy, First Aid, concurrent enrollment in HSES 350. Open to Athletic Training majors only. LEC.

**HSES 352. Therapeutic Modalities. 3 Hours.**
This course presents the theoretical and physiological foundations of pain and inflammation. Discussion of therapeutic agents to treat pain and inflammation are presented along with progressive planning and implementation of a comprehensive treatment for injuries/illnesses sustained by physically active individuals. Prerequisite: Admission into the Athletic Training Education program and HSES 250 or the transfer equivalent. LEC.

**HSES 353. Athletic Training Practicum I. 2 Hours.**
This course provides a practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury/illness evaluation during their clinical and field experience. Specific skills addressed in HSES 352 will be practiced, applied, and mastered during this experience. Prerequisite: Admission to Athletic Training Education program and concurrent enrollment in HSES 352. FLD.

**HSES 354. Lower Extremity Evaluation. 3 Hours.**
This course provides a comprehensive study of the techniques used by the Athletic Trainer in regard to the assessment and evaluation of athletic
injuries/illnesses of the lower extremity. Procedures for reporting and evaluating injuries/illnesses will be discussed so that appropriate injury management and referral may take place. The etiological factors common to athletic injuries, as well as specific signs and symptoms of various athletic related pathological conditions will be discussed. Prerequisite: Admission to the Athletic Training Program, HSES 352, and HSES 353. LEC.

HSES 355. Athletic Training Practicum II. 2 Hours.
This course provides a practical experience for the student-athlete trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury/illness evaluation during their clinical and field experience. Specific skills addressed in HSES 354 will be practiced, applied, and mastered during this experience. Prerequisite: Admission to Athletic Training Education program and concurrent enrollment in HSES 354. FLD.

HSES 358. Creative Movement and Dance Appreciation. 3 Hours.
An appreciation for dance will be developed through the study of the pioneers of dance and the critique of local dance performances. Students will experience the following types of dance: creative movement, basic rhythms, ballroom dance, and folk and square dance. Prerequisite: Admission to the School of Education. LEC.

HSES 365. Peer Health Education. 3 Hours.
The course is designed to train students in peer health education, as peer health educators in college settings, and as trainers, training adolescents in community health settings for grades 6-12 peer health education. Subject content and teaching methodologies will be emphasized in the ten content areas of health with special emphasis on alcohol, drugs, tobacco, stress reduction, mental health and human sexuality. Prerequisite: HSES 260 or instructor consent. LEC.

HSES 369. Kinesiology. 3 Hours.
This course is designed primarily for students in the field of exercise science who already have taken an introductory course in human anatomy and who need a more detailed exposure to concepts of functional movement anatomy. This course will provide a detailed study of the skeletal and muscular systems to include identification of the origin, insertion, and action of the major muscles of the human body. Students will become proficient in the use of directional and movement terminology used to describe movement and be able to identify the plane/axis as well as the agonist and antagonist muscles involved in a movement. Prerequisite: A course in human anatomy, admission to School of Education. LEC.

HSES 375. Neuromuscular Exercise Physiology and Motor Control. 3 Hours.
This course explores the control of human movement from an exercise neuropsychology perspective. Emphasis will be placed on the understanding the interactions between the nervous system and muscular systems in the control of muscle force/power production and the control of movement under a variety of contexts. These contexts include responses and adaptations to exercise training, the aging process, and in a variety of neuromuscular disorders. Prerequisite: BIOL 240 and BIOL 246. LEC.

HSES 378. The Coaching of Volleyball. 2 Hours.
Theory of volleyball, including methods of teaching fundamentals, individual and team offense and defense. Various styles of play and methods of coaching. Efficient performance of the skills during game conditions will be emphasized. LEC.

HSES 379. The Coaching of Softball. 2 Hours.
Theory and fundamentals of coaching softball. Methods of coaching, as well as team offense, defense, and strategies will be stressed. Efficient performance of the skills during game conditions will be emphasized. Prerequisite: Consent of instructor. LEC.

HSES 380. Sociology of Sport. 3 Hours.
A survey of the current literature concerning the scope of sociology in sport, the interaction of people in sport, the social systems controlling sport, and the small group dynamics in sport. Prerequisite: Admission to Sport Management program or permission of instructor. LEC.

HSES 381. Sport Ethics. 3 Hours.
This course will help students develop their abilities to reason morally through an examination within competitive sports of ethical theories, moral values, intimidation, gamesmanship, and violence, eligibility, elimination, winning, commercialization, racial equity, performance-enhancing drugs, and technology. Students will develop a personal philosophy of sport and learn how to apply a principled decision-making process to issues in sport. Prerequisite: Admission to Sport Management program or permission of instructor. LEC.

HSES 382. Sport Facilities and Event Management. 3 Hours.
This course will provide students with a solid grasp of the fundamental skills in sport facility and event management and the knowledge base to apply those skills in a real world environment. Students will learn about planning, designing and financing the construction of new sport facilities, sport facility management of regular and special events, sporting event planning and game day operations. Prerequisite: Admission in the Sport Management program or permission of instructor. LEC.

HSES 384. Sport Law. 3 Hours.
This course is intended to introduce undergraduate students to the major legal issues in amateur and professional sports including dispute resolution, tort law, contract law, constitutional law, statutory law, labor and antitrust law and intellectual law. Students will also learn about risk management, gender equity, the Americans with Disabilities Act and agency law and sports agents. Prerequisite: Admission to Sport Management program or permission of instructor. LEC.

HSES 385. Psychological Aspects of Exercise. 3 Hours.
This course is designed for students interested in optimizing motivation and adherence to exercise among individuals in a wide range of physical activity settings (e.g., health clubs, corporate fitness, and physical therapy/rehab). The course content will include a review of the literature highlighting the psychological benefits of exercise, the theoretical advances in understanding the psychological aspects influencing individuals’ participation in physical activity, and an introduction to strategies and techniques for professionals attempting to foster motivation and adherence to exercise among their clients. Prerequisite: Admission to the Community Health program or instructor consent. LEC.

HSES 390. The Coaching of Track and Field. 2 Hours.
Designed to acquaint the student with the fundamentals of track and field athletics. LEC.

HSES 395. Concepts in Health and Wellness. 3 Hours.
This is designed as an introductory course into the profession of School and Community Health Education. Regardless of a person’s areas of specialization in Health Education, there are commonalities shared by all of us who are charged with the responsibility of providing education about health. Course emphasis will focus on: defining health education; history of health education; roles and competencies of health educators; theoretical bases for the profession; planning, implementing, administering, and evaluating health programs; settings for health education; future issues. Prerequisite: HSES 260. LEC.
HSES 403. Health Behavior Theory. 3 Hours.
This class will be an introduction to the primary models and theories used in health behavior research and health promotion practice. These models and theories undergird the development of successful health-related programs and interventions, and will help guide educators in the development of innovative and effective programming. The course will cover individual, interpersonal, community-level, and ecological theories, and students will have the opportunity to apply these theories to health behaviors of interest. LEC.

HSES 410. Program Design in Physical Education. 3 Hours.
The study of physical education curriculum models and extraclass programs appropriate for students in grades PK-12. Students will receive practical and field experiences related to program design and implementation. They will learn techniques appropriate for program evaluation as well as the assessment of student sport skills and fitness. Prerequisite: Admission to the HSES Teacher Certification Program. LEC.

HSES 418. Health Aspects of Aging. 3 Hours.
This course will consist of a Holistic Health approach to the various components of the aging process. Special emphasis will be placed on the demographic aspects of aging; normal aging changes and deviations in the aging process (pathophysiology); the relationship between mental and physical health, and the implications for the promotion of risk reduction and prevention principles that can effectively improve the quality of life for older individuals. Prerequisite: A course in personal and community health. LEC.

HSES 434. Consumer Health. 3 Hours.
This course will be a comprehensive examination of the factors involved in the selection of health products and services. Topics of discussion will be: protection laws and services, fraudulent practices and products, consumerism, and traditional and alternative health care. There will also be an in-depth examination of how to assess and evaluate health based products that are available to consumers. Prerequisite: Admission to the Community Health Program or consent of instructor. LEC.

HSES 440. Applied Sport and Performance Psychology. 3 Hours.
This course will examine the psychological principles and techniques that are applied to improve sport performance and other fields of achievement (e.g., exercise and wellness, music, and academics). Special attention will be given to psychological aspects of injury and rehabilitation, psychological conditioning, psychological training methods, coaching philosophy, the social psychology of team members, and components of peak performances. LEC.

HSES 453. Communicable and Degenerative Diseases. 3 Hours.
This course is designed to introduce the student to the study of the basic concepts/principles of disease process. Special emphasis will be placed on the etiology, origin, symptoms, treatment, body defenses, primary prevention, host, agent, (microbes) and environmental factors affecting disease occurrence, prevention and control measures. Topical application of the fundamental concepts of microbiology in school/community health practice will be critically discussed. The natural history of disease and disease classification will be highlighted. Many disease topics (both communicable and chronic, degenerative diseases) will be discussed. Prerequisite: A course in personal and community health. LEC.

HSES 455. Manual Therapy Techniques and Emergency Care Instructor Training. 3 Hours.
The purpose of the course is to train students in a Manual Therapy Technique for use in the clinical setting. The course is also designed to certify students as instructors in American Red Cross First Aid, CPR and AED courses as well as instructors for the CPR/AED for the Healthcare Provider. Prerequisite: Completion of HSES 352, HSES 354, HSES 456 and HSES 459 or equivalency from an accredited Athletic Training Education Program or have current First Aid and CPR/AED for the Healthcare Provider certification. LEC.

HSES 456. Upper Extremity Evaluation. 3 Hours.
The comprehensive study of the techniques used by the Athletic Trainer in regard to the assessment and evaluation of athletic injuries/illnesses of the upper extremity, head, and spine. Procedures for evaluating and reporting injuries/illnesses will be discussed as well as etiological factors and common signs/symptoms of various related pathological conditions. The purpose of this course is to prepare students with the skills necessary to accurately recognize the signs/symptoms of injuries and conditions in order to determine the nature and severity of the problems as well as establishing a proper care plan and medical referral when appropriate. Prerequisite: Admission into the Athletic Training Education program, HSES 354, and HSES 355. LEC.

HSES 457. Athletic Training Practicum III. 2 Hours.
This course provides a practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certifies Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury assessment and evaluation through a variety of techniques during their clinical and field experience. Specific skills addressed in HSES 456 will be practiced, applied, and mastered during this experience. Prerequisite: Admission into the Athletic Training Education program and concurrent enrollment in HSES 456. FLD.

HSES 458. General Medical/Pharmacology. 2 Hours.
This course will cover the general medical conditions/illnesses and pharmacological considerations commonly encountered in the field of Athletic Training. Prerequisite: Admission into the Athletic Training Education Program, HSES 456, and HSES 457. LEC.

HSES 459. Rehabilitation. 3 Hours.
This course discusses the planning involved and the implementation of a comprehensive rehabilitation program for injuries/illnesses sustained by the competitive athlete. Prerequisite: Admission into the Athletic Training program, HSES 456, and HSES 457. LEC.

HSES 460. Athletic Training Practicum IV. 2 Hours.
This course provides a practical experience for the athletic training student. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills obtained during previous coursework as well as apply rehabilitation skills obtained in HSES 459. Prerequisite: Admission into the Athletic Training Education program, HSES 457, and concurrent enrollment in HSES 459. FLD.

HSES 461. Organization and Administration of Athletic Training. 2 Hours.
This course discusses the planning, coordinating, and supervising of all administrative components of an athletic training program. This includes public relations, athletic health counseling, and coach advisement about athletes’ health matters. Prerequisite: Admission to the Athletic Training Education program, HSES 459 and HSES 460, and concurrent enrollment in HSES 562. LEC.

HSES 462. Athletic Training Practicum V. 2 Hours.
This course will provide a practical hands-on experience for the athletic training students enrolled in HSES 561. Prerequisite: Admission into the Athletic Training Education Program and concurrent enrollment in HSES 561. FLD.

HSES 463. Senior Capstone in Athletic Training. 2 Hours.
This course is designed to allow senior Athletic Training Students to review previous content and prepare for the BOC certification exam.
as well as explore areas of professional development. Prerequisite: Admission into the Athletic Training program, HSES 561, and HSES 562. LEC.

HSES 464. Athletic Training Practicum VI. 2 Hours.
This course will provide a culminating practical experience for the athletic training students enrolled in HSES 563. Prerequisite: Admission into the Athletic Training Education program and concurrent enrollment in HSES 536. FLD.

HSES 465. Program Assessment and Evaluation. 3 Hours.
This course will offer an introduction and hands-on application of program assessment and evaluation techniques in health education. As health educators and program planners, we are required not only to develop innovative programs and interventions to address community- and school-based health concerns, but also to give evidence that our efforts are both adequate and effective. Successful program assessment and evaluation incorporate knowledge of basic research methods as well as the theoretical understanding of health behaviors. LEC.

HSES 466. Program Planning in Health Education. 3 Hours.
This course is designed to provide the students with an in-depth knowledge of proven health planning models that can be used for program development and intervention. Students will learn how to develop attainable program goals and objectives which will allow programs and interventions to evolve into useful forms of community-based health education. Prerequisite: Students must be admitted to the School of Education and the Community Health Program. LEC.

HSES 470. Introduction to Biomechanics. 3 Hours.
The course is designed to cover a basic understanding of the anatomical and mechanical principles of human movement. Areas covered will be joint and segmental movement, muscle actions, time-displacement motion description, forces causing or inhibiting motion, and stability. Special attention will be given to the application of the theoretical concepts in movement activities. Prerequisite: Anatomy, admission to the Exercise Science program, or permission of instructor. LEC.

HSES 472. Exercise Physiology. 3 Hours.
A fundamental study of the physiological adjustments that occur within the body during exercise. The presentation of this material is particularly oriented toward a basic understanding of the physiological systems as they are affected by the activity of a normal coaching or teaching situation. The physiological values of exercise are also stressed. Prerequisite: Three hours of physiology. LEC.

HSES 473. Clinical Fitness Evaluation Techniques. 3 Hours.
This course will provide the student with the knowledge and skills to assess components of physical fitness in adults including cardiorespiratory fitness, body composition, strength, and flexibility. In addition, specific emphasis will be placed on the development of exercise and weight management prescriptions. Students completing the course will have the skills to take the Health Fitness Instructor Certification exam given by the American College of Sports Medicine. Prerequisite: Exercise physiology or equivalent. LEC.

HSES 474. Exercise Biochemistry. 3 Hours.
This course will examine the processes that underlie the use and production of energy for exercise. Topics that will be explored include glycogenolysis and glycolysis in muscle, cellular oxidation of pyruvate, lipid metabolism, metabolism of proteins and amino acids, molecular biology, neural and endocrine control of metabolism, and local fatigue during exercise. Emphasis will be placed on carbohydrates, protein, and lipid metabolism and the acute and chronic effects that exercise has on these processes. Prerequisite: HSES 472. LEC.

HSES 480. Physical Activity and Exercise Management Individuals with Disabilities. 3 Hours. AE41.
An in-depth study of how physical activity and exercise can be a part of the treatment plan for people who have chronic disease or a disability. A variety of physical activity and exercise intervention programs and models will be presented and discussed, as well as protocols for baseline testing and post-treatment testing. A portion of this course will focus on how physical activity and exercise can prevent motor functioning deterioration in people who have a disability or limited functional movement. Prerequisite: Admission to the School of Education Exercise Science or Athletic Training programs and a course in human anatomy and physiology, or consent of instructor. LEC.

HSES 482. Drugs in Society. 3 Hours.
This course is designed to provide an in-depth exposure to basic drug classification, pharmacological effects, causes of drug abuse to society, common treatment modalities, and effective prevention/intervention strategies. In addition, consumer issues related to drug use, drug legislation, and drug education programs for school and community implementation will be discussed. Prerequisite: A course in personal and community health or consent of instructor. LEC.

HSES 483. Sport Finance and Economics. 3 Hours.
This course will help students gain an understanding of the critical importance of budgeting and financing sports-related industries based on sound financial principles and methods of financial control. Students will learn how economic principles shape the major national industry of sport. Prerequisite: Admission to Sport Management program or permission of instructor and completion of or concurrent registration in FIN 305 or FIN 310. LEC.

HSES 485. Sport Communication. 3 Hours.
This course examines the complex and evolving field of sport communication including personal, organizational, and external perspectives of sport communication. LEC.

HSES 486. Sport Marketing. 3 Hours.
This course is intended to provide undergraduate students with basic knowledge and competencies in definitions of marketing and sport marketing, understanding the unique aspects of sport marketing, marketing planning process, consumer demographics and psychographics, the marketing mix, segmentation and target marketing, marketing proposal preparation, sponsorship, endorsement, merchandising, fundraising, marketing goals and objectives, sport consumer and consumer behavior, industry segmentation, special events, ticket sales and their use in promotion, the role of the media, television marketing ratings and shares and venue and event marketing. The proposed content of this course will address each of these expectations. Prerequisite: Admission to the Sport Management program or permission of instructor. LEC.

HSES 487. Personnel Management in Sport. 3 Hours.
This course provides students with an overview of the requisite communication skills and concepts of leadership and management as they relate to sport managers. Students will learn how leadership and management practitioners, utilizing effective communication techniques, shape successful sport organizations. Additional emphasis will be placed on building and nurturing relationships with people as a key to effective management. Prerequisite: Admission to Sport Management program or permission of instructor. LEC.

HSES 488. Pre-Internship Seminar. 1 Hour.
This course will prepare students for their actual semester-long Internship experience. Students will be provided with background information on available internship sites to assist in their site-selection decision. Students will learn about different management styles they may encounter, the
traits and characteristics of effective and productive employees, common rules of the workplace and internship experiences of previous HSES Interns. Prerequisite: All HSES students must be in final semester prior to Internship. LEC.

HSES 489. Health and Human Sexuality. 3 Hours.
The course is designed to encompass the various components of human sexuality as well as to demonstrate applicable teaching techniques for sex education. Included in the content of the course are: human sexual response, sexually transmitted diseases, family planning, sex roles, rape, sexual preferences, and topics such as sexuality and the handicapped, sexuality and the mass media, and sexuality and the church. Teaching techniques such as values clarification, non-verbal communications, role playing, tape recordings, and problem solving are demonstrated with appropriate topics. LEC.

HSES 497. Independent Study. 1-3 Hours.
Only one enrollment permitted each semester; a maximum of six hours will apply toward the bachelor's degree. This course cannot be taken as a substitute for a required course. Prerequisite: Recommendation of advisor and consent of instructor and department chairperson. IND.

HSES 499. Internship in Sport Management. 2-16 Hours. AE61.
A full-time work experience in the sport industry (40 hours per week). This experience is actual work in a sport management setting in which management practices are applied. Student interns are directed and evaluated by a faculty member with appropriate supervision by an on-site professional. Student interns must keep an accurate accounting of hours with a performance work diary. Grades/credit for the internship are determined by a faculty member with input from the on-site supervisor. Prerequisite: Completion of all Sport Management coursework. Admission to the Sport Management Internship program. FLD.

HSES 500. Student Teaching in: ____. 14 Hours. GE11.
A supervised teaching experience in an approved school setting, teaching physical education at the elementary level and health and physical education at the secondary level. The student must teach 8 weeks at the elementary level and 8 weeks at the secondary level. Prerequisite: A cumulative GPA of 2.75 or higher and admission to the HSES teacher certification program. FLD.

HSES 501. Seminar in Teaching Health and Physical Education. 2 Hours. AE61.
Student teachers will learn to analyze teaching styles and instructional methods that apply and/or relate to their student teaching experience. Discussions of various teaching practices will be facilitated by the university supervisor with input from the student teachers. Topics will include: curriculum, teaching methods, discipline, safety, equipment, and communicating with teachers, parents, and students. Prerequisite: Admission to the HSES Teacher Certification Program. LEC.

HSES 502. Camp Leadership and Counseling. 2 Hours.
Involves a complete study of the organization and administration of the various types of camps. It is designed to familiarize the student with camp leadership responsibilities; the development of the camp, the program involving camp crafts, outdoor cookery, hikes and outings, singing, and simple guidance of the individual camper. Prerequisite: General psychology plus three hours in sociology. LEC.

HSES 515. Assessment of Motor Development and Motor Control of Exceptional Children. 3 Hours.
Standardized motor assessment tools appropriate for use with exceptional children with motor difficulty will be critiqued and practiced. A battery of tests to measure developmental lag or structural deviation will be selected and administered to determine the motor control of exceptional children and the results will be interpreted. Prerequisite: Six hours of physical education course work. LEC.

HSES 528. Techniques of Athletic Training - I Lower Extremity. 3 Hours.
This course provides a comprehensive study of the techniques used by the Athletic Trainer in regard to the assessment and evaluation of athletic injuries/illnesses of the lower extremity, abdomen, and thorax, as well as the study of common illnesses/diseases that affect the physically active. Procedures for reporting and evaluating injuries/illnesses will be discussed so that appropriate injury management and referral may take place. The etiological factors common to athletic injuries, as well as specific signs and symptoms of various athletic related pathological conditions, will be discussed. Prerequisite: Human Anatomy, Human Anatomy Lab, Care and Prevention of Athletic Injuries, and admission to the Athletic Training Program. LEC.

HSES 529. Techniques of Athletic Training - II Upper Extremity. 3 Hours.
The comprehensive study of the techniques used by the Athletic Trainer in regard to the assessment and evaluation of athletic injuries/illnesses of the upper extremity, head, and spine. Procedures for evaluating and reporting injuries/illnesses will be discussed as well as etiological factors and common signs/symptoms of various related pathological conditions. The purpose of this course is to prepare students with the skills necessary to accurately recognize the signs/symptoms of injuries and conditions in order to determine the nature and severity of the problem as well as establishing a proper care plan and medical referral when appropriate. Prerequisite: HSES 528 Techniques of Athletic Training - I Lower Extremity. LEC.

HSES 556. Methods and Materials in Health Education. 3 Hours.
Emphasis is placed on the presentation and preparation of health topics along with the recommended resources and materials available. The teaching method is emphasized and student participation is stressed. Students will observe health teachers in the public schools and identify and discuss these methods as they relate to the methods present in the class. Prerequisite: Admission to HPED teacher certification program or consent of instructor. LEC.

HSES 573. Introduction to Health Education. 3 Hours.
This course will provide an overview the various health education professions. Topics emphasized in the course are: the nature of health education, an in-depth description of community health, the school health program, and identifying program and services of voluntary and services of voluntary and official health and welfare organizations. Prerequisite: Admission to the School of Education and the Community Health Program. LEC.

HSES 578. Health Internship Seminar. 2 Hours.
Students enrolled in the internship will learn how to analyze professional health environments, examine intervention programs, and understand models used to develop health based programs. Discussions surrounding the internship experience will be facilitated by the health education faculty. Topics will relate to all phases of the internship experience. The intent of this course is to better prepare the student for entering the health profession. Discussions will be held on conflict resolution in the work place, professional development, professional behavior and etiquette. Prerequisite: Concurrent enrollment in HSES 580 Internship in Health. LEC.

HSES 580. Internship in: ____. 2-16 Hours.
A supervised internship experience in an approved setting. The specific type of internship experience and the credits for that particular experience will be outlined in the appropriate program of the student. Prerequisite: Admission to a HSES Internship Program. FLD.
HSES 581. Athletic Training Practicum I: Recognition and Evaluation. 4 Hours.
This course provides a practical experience for the student-athlete trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury/illness recognition and evaluation during their clinical and field experience. Specific skills addressed in HSES 529 and HSES 654 will be practiced, applied, and mastered during this experience. Prerequisite: Admission to the Athletic Training program. Concurrent enrollment in HSES 529. LEC.

HSES 582. Athletic Training Practicum II: Management and Treatment. 4 Hours.
This course provides a practical experience for the student-athlete trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury/illness evaluation, and the management and treatment of athletic injuries through a variety of therapeutic modalities during their clinical and field experience. Specific skills addressed in HSES 529 and HSES 654 will be practiced, applied, and mastered during this experience. Prerequisite: HSES 581 and concurrent enrollment in HSES 529 and HSES 654. LEC.

HSES 583. Athletic Training Practicum III: Rehabilitation. 4 Hours.
This course provides a practical experience for the student-athlete trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury rehabilitation/reconditioning through a variety of therapeutic exercise techniques during their clinical and field experience. Specific skills addressed in HSES 656 will be practiced, applied, and mastered during this experience. Prerequisite: HSES 582 and concurrent enrollment in HSES 529 and HSES 654. LEC.

HSES 584. Athletic Training Practicum IV: Senior Sport Experience. 4 Hours.
This course provides a culminating practical experience for the student-athlete trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills obtained during previous coursework as well as apply administrative and management skills obtained in HSES 658. This course is intended to allow the senior student more freedom and responsibility in decision making regarding the health care of an athletic team. Prerequisite: HSES 583, concurrent enrollment in HSES 658. LEC.

HSES 598. Special Course: ______. 1-5 Hours.
A special course of study to explore current trends and issues in health and physical education - primarily for undergraduates. LEC.

HSES 605. Administering Health Related Programs. 3 Hours.
This course will consist of an analysis of administration as it relates to both school and community health programs. The focus will be on administrative models and techniques used to establish and maintain sound health programs in school and community settings. Prerequisite: Six hours of health education or consent of instructor. LEC.

HSES 671. Applied Biomechanics. 3 Hours.
This course will examine the qualitative biomechanical analysis of human movement directed towards the goals of performance improvement and injury prevention and rehabilitation. Specifically, this course will provide students with a basis knowledge of the biomechanical foundations of human movement, the knowledge and skills necessary to complete a systematic analysis and evaluation of human motor performance, and the ability to determine and provide interventions that are likely to improve movement in athletic, clinical, educational, and work environments. Prerequisite: A course in human anatomy, admission to the HSES Teacher Certification Program or consent of instructor. LEC.

HSES 714. Motor Development During Growth. 3 Hours.
Motor development in childhood and adolescence and its relationship to physical growth. Factors influencing motor learning and development will be explored. This course provides basic understanding of the neuromuscular changes and abilities of children and adolescents. Prerequisite: A course in kinesiology and anatomy. LEC.

HSES 715. Understanding Research in HSES. 3 Hours.
This course introduces the concepts and skills involved in understanding and analyzing research in education and related areas. The course provides an overview of basic, general knowledge of various research methodologies. Students should expect to study much of this material in greater depth through additional work before being fully prepared to conduct independent research. However, this course should enhance their ability to locate, read, comprehend, and critically analyze research articles and reports. Topics in the course include quantitative and qualitative methods and designs, historical and descriptive research, and program evaluation. (This course fulfills the requirement of a research methods course in the first 12 hours of graduate study.) Prerequisite: Must be an admitted HSES graduate student. LEC.

HSES 730. Advanced Concepts in Nutrition. 3 Hours.
A study of the nutritional factors that affect health at all ages. Specific nutritional needs and effects of deficiency states on health will also be addressed. The course will also include the physiological and biochemical mechanisms involved in the use of nutrients for human growth and development as well as the production of energy through the metabolic process. Prerequisite: HSES 330 or equivalent experience and permission of instructor. LEC.

HSES 771. Internship in Exercise Science. 6 Hours.
A supervised internship experience in an approved exercise science setting. Students will gain experience through a hands-on approach via clinical and/or research settings. The specific type of internship experience will be agreed upon by the student and their academic advisor. Prerequisite: Successful completion of at least 24 graduate credit hours. LEC.

HSES 777. Practicum in Health Education and Wellness Promotion. 1-3 Hours.
This course is designed to provide practical community health experiences in health education and wellness promotion, including: assessment, planning, implementation and program evaluation. With approval of the instructor, students may choose their practicum focus in any of the ten content areas of health: mental and emotional, family living, growth and development, nutrition, personal health, alcohol tobacco and other drugs, communicable and chronic diseases, injury prevention and safety, consumer health and environmental health. Prerequisite: Enrolled in graduate school and consent of the instructor. LEC.

HSES 779. Physiology of Functional Aging. 3 Hours.
The course has been designed to address issues and concepts relating to the biological aging process as a foundation for physical performance, general fitness, and health status. The biological concepts are applied to the human physiological aging process and the systems involved as well as the possible interventions that may effect that process. The several theories associated with physiological aging are also addressed as related to the physiological systems and current research that may impact the
understanding of these theories. Prerequisite: A course in basic biology. LEC.

**HSES 780. Internship in Teaching Physical Education: _____ 1-16 Hours.**
A supervised internship experience leading to initial physical education teacher certification. The student assumes the total professional role as a teacher of physical education in an approved school setting. LFD.

**HSES 795. Traditions and Principles in Health Education. 3 Hours.**
This course is designed to explore the philosophy and principles which provide the foundation of health education as an academic discipline. Specific topics include: history of the profession, theories of health behavior and behavior change, principles of learning applied to health communications, health promotion practices, professional preparation, and the integration of philosophical and ethical ideals into program planning and implementation. LEC.

**HSES 798. Special Course: _____ 1-5 Hours.**
A special course of in-depth study exploring current trends and issues in health and physical education - primarily for undergraduates. LEC.

**HSES 801. Sport Facilities. 3 Hours.**
The purpose of this course is to study current developments and trends in the financing, programming, design, and construction of facilities for intercollegiate athletics and professional sports. Prerequisite: Admitted to graduate school. A course in the administration/management of sport or consent of the instructor. LEC.

**HSES 803. Health Behavior Theory. 3 Hours.**
Given that theories of health behavior drive research and practice in health education, the purpose of this course is to familiarize students with the major theories and planning models related to health behavior change. Particular focus will be applied to the role of theory in health promotion and critical analysis of the application of theory to guide research practices. Prerequisite: Health major or consent of the instructor. LEC.

**HSES 804. Sport Psychology. 3 Hours.**
This course is designed to introduce students to the current research and theoretical perspectives in the sport psychology literature. Specifically, students will gain a broad understanding of the three major areas of sport psychology: social psychology (e.g., motivation), performance enhancement (e.g., mental skills training), and psycho-physiology (e.g., impact of anxiety on performance). Prerequisite: Admission in the health program or consent of the instructor. LEC.

**HSES 805. Laboratory Experiments and Analysis--Exercise Physiology. 3 Hours.**
Students will learn the techniques of operating various types of laboratory equipment and will conduct small-scale lab experiments in areas such as respiration, circulation, metabolism, strength, neuromuscular function, cardiac function, and body composition. Special emphasis will be placed on laboratory techniques of assessing physical fitness. Prerequisite: A course in exercise physiology. LAB.

**HSES 806. Stress Management. 3 Hours.**
The long range objectives of this course are to assist students in gaining stress management knowledge; to help them to formulate improved perspectives on various stress management techniques; and consequently apply the developing constructs in their lives with a sense of purpose and self-responsibility. Prerequisite: Two courses in health education or consent of instructor. LEC.

**HSES 807. Current Literature in Exercise Physiology. 2 Hours.**
A wide range of topics from the exercise physiology literature will be discussed. Instructor and students will present reports to the group centered on current research findings with discussion aimed at application of these results to physical exercise and training. Prerequisite: A basic course in exercise physiology or consent of instructor. LEC.

**HSES 808. Biomechanics of Human Movement. 3 Hours.**
This course will examine the movements and the structure and function of human beings by means of the methods of mechanics. An emphasis will be placed on the two primary goals of biomechanics: performance improvement and injury prevention and rehabilitation. Topics to be covered include the kinematics and kinetics of human movement, muscle mechanics, bone and joint mechanics, and the biomechanics of musculoskeletal injury. Prerequisite: Courses in calculus, physics, anatomy, and biomechanics, or consent of instructor. LEC.

**HSES 810. Advanced Exercise Physiology. 3 Hours.**
An advanced study of the physiological and biomechanical aspects of muscular, cardiovascular, and respiratory function as the human is engaging in exercise. The topics of energy metabolism, hormones, and nutrition as related to exercise also are presented. Prerequisite: A basic course in exercise physiology. LEC.

**HSES 812. Current Issues in Health. 3 Hours.**
This course is designed to review and discuss current issues in various health related areas. The focus will be on relevant issues and topics that are guiding and directing the health profession. The range of topics discussed will vary from popular literature to scientific research and cover such areas as health education, community health, and health over the lifespan. Students in the course will be expected to report, discuss, and interact with each other concerning the issues as they are reported. Prerequisite: A graduate course in health or consent of the instructor. LEC.

**HSES 814. Implementing Health Programs. 3 Hours.**
The purpose of this course is to explore planning models used for designing, implementing and managing health promotion programs. Students will be trained to develop objectives, assess determinants, select methods and strategies, pre-test program materials, and adopt and implement promotional plans. Problem based and community based learning experiences will be provided. Prerequisite: A health major or permission from the instructor. LEC.

**HSES 817. Practical Aspects of Aerobic and Resistance Training. 3 Hours.**
This course will be a discussion of various concepts related to aerobic and resistance training. By the end of the semester, the student should be able to demonstrate an understanding of information presented in this course by achieving satisfactory evaluations of presentations, papers, and an examination of the following topics: energy metabolism, general adaptations of aerobic and resistance training, exercise techniques for aerobic and resistance training, periodization of training, testing and evaluation of aerobic and resistance training performance, and exercise prescription for aerobic and resistance training. Prerequisite: Undergraduate course in exercise physiology or consent of instructor. LEC.

**HSES 818. Legal Aspects of Public Health Education. 3 Hours.**
This course is designed to enhance understanding of the variety of legal issues which affect health educators and their audiences. Specifically, this course will survey federal, state, and local public health laws and regulations which may proscribe health education content and the health educator’s actions. Legislation will be analyzed and the practical impact of the health educator upon the legislative process will be emphasized. Prerequisite: A course in community health or consent of instructor. LEC.
HSES 823. Behavior Modification in Health and Exercise. 3 Hours.
This course will examine the behavioral principles that influence health and exercise practices. Theories of human behavior, reinforcement theory, and models of self-esteem will serve as the foundation for studying behavior change. Society influences will be strongly emphasized. Course topics will include exercise determinants, motivation, media representation, negative behaviors, self-efficacy, social support, and effective promotion strategies. Prerequisite: Admitted to Graduate School or consent of instructor. LEC.

HSES 824. Epidemiology and Concepts of Disease Causation. 3 Hours.
This course involves the study of the etiology and natural history of infectious and non-infectious diseases including vector control, host defenses and resistance, investigation of disease outbreaks, mental health and public health. The course deals with detailed analytic and descriptive epidemiology and their implications for improving our understanding of health and diseases; epidemiologic consequences of nuclear war and retrospective and prospective approaches in epidemiological research. Contemporary developmental methods for disease prevention will be critically reviewed. Prerequisite: HSES 573, or equivalent, or consent of instructor. LEC.

HSES 825. Skeletal Muscle Physiology. 3 Hours.
This course will provide the student with an in-depth study of the structure and development, contractile mechanics, and neuromuscular system as it relates to the skeletal musculature. Structure and Development - muscle fiber, motor neuron, neuromuscular junction, muscle receptors, muscle formation, development of muscle innervation. Putting Muscles to Work - ion channels, pumps, and binding proteins, axoplasmic transport, resting and action potentials, neuromuscular transmission, muscle contraction, motor units, exercise, muscle metabolism. The Adaptable Neuromuscular System - fatigue, loss of muscle innervation, recovery of muscle innervation, neurotrophism, disuse, muscle training, injury and repair, aging. Prerequisite: HSES 810 or equivalent. LEC.

HSES 828. Sport Finance. 3 Hours.
A study of the principles and applications of finance and economics in the sport industry. Strategic financial planning as a part of managements responsibilities is highlighted. Prerequisite: Admitted to Graduate School. LEC.

HSES 830. Socio-Cultural Dimensions of Sport. 3 Hours.
Current literature concerning the impact of American social values and cultural patterns of sport and physical activity will be studied. Critiques of related research involving sport and social institutions, and socio-cultural groups in sport will be emphasized. Prerequisite: A course in Sociology of Sport or consent of instructor. LEC.

HSES 831. Ethics in the Sport Industry. 3 Hours.
This course is designed to help students learn to make morally reasoned decisions in various sport settings. This course will help prepare students to respond more responsibly when faced with challenging ethical dilemmas and guide them in learning to serve as role models for ethical conduct. LEC.

HSES 832. Physical Education Instructional and Assessment Methods. 3 Hours.
The study of research-based instructional and assessment methods appropriate for PK-12 physical education. Managerial, instructional, and supervisory skills will be developed. Traditional and alternative assessment tools will be discussed. Readings, observations (live and video), and practice teaching will prepare students to complete a practical experience and an action research project in a PK-12 school. Prerequisite: Admission to Graduate School. LEC.

HSES 833. Public Health Aspects of Exercise. 3 Hours.
This course describes the timeline for physiologic adaptations to long-term physical activity. It describes the effects of physical activity on chronic disease. It describes, from a population perspective, the effects of physical activity on the health of the nation. Prerequisite: 12 hours of HSES courses, or equivalent, or consent of instructor. LEC.

HSES 836. Physical Education Curriculum Models. 3 Hours.
An examination of the elements and processes of curriculum construction in physical education for elementary, secondary, and post-secondary institution, and the institutional and professional issues that affect these processes. A study of contemporary curricula structures in regard to planning, implementation, and evaluation of K-12 curricula and professional preparation curricula in physical education programs. Prerequisite: A course in physical education curriculum, or equivalent. LEC.

HSES 840. Organizational Behavior in Sport. 3 Hours.
This course utilizes a micro perspective to analyze the behavior and culture within sport organizations. Specifically, the student will study and learn how to apply management and leadership theories that have the potential to shape the work environment and will discuss how current topics in organizational behavior are particularly relevant to the sport industry. Prerequisite: Admitted to Graduate School. Consent of the instructor. LEC.

HSES 842. Sports Marketing. 3 Hours.
This course helps students gain a deeper understanding of sport marketing by examining in-depth the sport marketing mix of product, price, place, and promotion as well as marketing research, marketing strategy, market segmentation, branding, sponsorships, licensing, venue and event marketing, public relations, and global sport marketing. LEC.

HSES 850. Analysis Techniques for Health, Sport, and Exercise Sciences Laboratory and Field Data. 3 Hours.
Techniques for analyzing data gathered in Health, Sport, and Exercise Sciences laboratories and field studies will be presented in this course. Techniques for the recording of raw data, appropriate organization of raw data, selection of test for analysis of data, use of computer software, and computer programming for analysis and reporting results of the data will also be included. Prerequisite: PRE 710, PRE 720, or PRE 725. LEC.

HSES 866. Contemporary Trends in Elementary and Secondary Physical Education. 3 Hours.
An in-depth study into the research and other forms of literature will be made to study and examine the latest trends in elementary and secondary school physical education. Games, activities, dances, and rhythms will be presented and discussed relative to developmental levels of students grades K-12. Prerequisite: A methods course in teaching physical education or consent of instructor. LEC.

HSES 872. Exercise and the Cardiovascular System. 3 Hours.
This course will be a discussion of various concepts specifically related to exercise and the cardiovascular system. By the end of the semester, the student should be able to demonstrate an understanding of the interaction of exercise and cardiovascular system by achieving satisfactory evaluations on examinations, abstracts, and classroom presentations. The following topics will be discussed as they relate specifically to exercise: homeostasis and cardiovascular transport mechanisms, basic structure and function; characteristics of cardiac cells; the heart as a pump; the peripheral vascular system; vascular control; venous return and cardiac output; regulation of arterial pressure; cardiovascular responses to stress; and cardiovascular function in pathological situations. Prerequisite: Undergraduate course in exercise physiology or consent of instructor. LEC.
HSES 880. Internship in Sport Management. 1-10 Hours.
This course will provide for supervised and directed experiences in selected sport management settings. The graduate advisor will schedule observations of the internship, as well as regular conferences with the student. Written summaries and evaluations of the internship will be prepared by the student, the agency supervisor, and the university graduate faculty member. Prerequisite: Admission to the Graduate Program in Sport Management. FLD.

HSES 884. Legal Aspects of Sport. 3 Hours.
This course is intended to introduce graduate students to the basic concepts of the American legal system and the application of them to intercollegiate and professional sports. Particular emphasis will be given to risk management and preventive law. Other topics include: governance issues in intercollegiate and professional sports, contract law, employment discrimination, labor relations and collective bargaining, agency law and athlete agents, regulation of participation in intercollegiate and high school athletics, sport facility and event issues, participant liability issues, product liability issues, premises and spectator liability, participant violence in sports, and intellectual property law. Prerequisite: Admission to graduate program in School of Education LEC.

HSES 890. Seminar in HSES. 3 Hours.
This course is designed to provide a general research seminar learning experience for graduate students in HSES. In particular, students will learn about faculty research activities and interests from a variety of specialty areas both within KU and outside of KU. Through faculty and guest presentations, students will be exposed to a variety of design and methodologies used to conduct research in the specialty areas of HSES. LEC.

HSES 892. Psychology of Physical Activity. 3 Hours.
This course is designed for students interested in optimizing motivation and adherence to exercise among individuals in a wide range of physical activity settings (e.g., health clubs, corporate fitness, physical therapy). The course content includes a review of the literature highlighting the psychological benefits of exercise, the theoretical advances in understanding the psychological aspects of individuals’ participation in physical activity, and strategies and techniques for professionals attempting to foster motivation and adherence to exercise among their clients/members. Prerequisite: Admission in the health program or consent of the instructor. LEC.

HSES 897. Independent Study. 1-4 Hours.
Prerequisite: Consent of advisor and instructor. RSH.

HSES 898. Master’s Project. 1-4 Hours.
RSH.

HSES 899. Master’s Thesis. 1-6 Hours.
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HSES 905. Advanced Concepts in Health Education. 3 Hours.
This course is designed as an in-depth study of the pedagogy of health education. It is concerned with the effects of various health education models, new materials, and innovative teaching techniques. The effectiveness of various media such as films, slides, transparencies, microcomputers, and assessment tools will be analyzed. Research concerning innovations in education will be investigated along with a study of future trends in the field. Timely issues of controversy about health education practices and the effectiveness of values clarification activities will also be discussed. LEC.

HSES 910. Biochemistry of Exercise. 3 Hours.
This course will include an in-depth examination of metabolic and endocrine principles as they relate to physical exercise and training. Specific topics will include: substrate utilization in exercise, metabolic controls, muscle biochemistry, body composition, nutritional aspects and hormonal influences in exercise. Both instructor and students will report on the most current literature relating to the topics. Prerequisite: Human biodynamics or a course in biochemistry. LEC.

HSES 926. Grant and Research Proposal Writing. 3 Hours.
This is a course for students to examine the sources and areas which provide financial support for research projects. The areas of study include types of research funding available on a local, state, and federal level, the elements and design of writing a proposal and strategies involved in securing financial support for research. A focus for the course will center upon preparing a research proposal for funding. Prerequisite: PRE 710. LEC.

HSES 940. Scientific Dimensions of Exercise and Health. 3 Hours.
This course has been designed to bring together the many scientific factors relating exercise and physical activity to health and human function. The course focuses on the interdisciplinary nature of this relationship and reviews the physiological, sociological, psychological, and behavioral factors involved. Prerequisite: Fifteen hours of graduate level course work in health or physical education and admission to health or physical education doctoral program. LEC.

HSES 980. Advanced Topics: , 1-3 Hours.
A special course of study to meet current needs of education professionals -- primarily for post-master’s level students. LEC.

HSES 981. Current Issues in Health and Physical Education. 3 Hours.
This course will explore the latest philosophical issues and controversies which are impacting the fields of health, physical education, and athletics. The student will explore the current and future ramifications of each issue and its potential effects on the profession. Prerequisite: Admission to the Health, Sport, and Exercise Sciences Doctoral Program. LEC.

HSES 990. Doctoral Seminar. 3 Hours.
This seminar based course will be designed to prepare the doctoral student for academic careers or careers in industry after they graduate. The topics covered will be promotion and tenure procedures and expectations, including but not limited to teaching, responsible conduct of research, professional ethics, historical ethical issues, evaluation of ethical dilemmas, and service expectations at research intensive institutions, regional comprehensive institutions and small liberal arts colleges. Industry career options will be discussed and guest speakers from various disciplines will be brought in to discuss options and expectations with this career path. Prerequisite: Doctoral student or permission of the instructor. LEC.

HSES 995. Field Experience in: , 1-5 Hours.
Supervised and directed experiences in selected educational settings. The advisor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experiences will be prepared independently by the student, a representative of the cooperating agency, and the advisor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. FLD.

HSES 996. College Teaching Experience in: , 3 Hours.
To meet the college teaching experience requirement for doctoral programs, a student shall engage in a semester long, planned, instructional activity that shall include college classroom teaching under supervision. Planning shall be done with the advisor and/or member of the faculty who will supervise the experience. The activity shall be done under the supervision of a member of the University of Kansas faculty or by an individual or individuals designated by the candidate’s committee. FLD.
### HSES 997. Individual Study. 1-4 Hours.
Prerequisite: Prior graduate course work in the area of study and consent of instructor. RSH.

### HSES 999. Doctoral Dissertation. 1-15 Hours.

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### Psychology Research in Educ Courses

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>PRE 106</td>
<td>Multicultural Student Leadership Seminar</td>
<td>2 Hours</td>
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<tr>
<td>PRE 210</td>
<td>Career and Life Planning: Decision-Making for College Students</td>
<td>3 Hours</td>
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The purpose of this course is to assist college students in career and life planning choices by first understanding the current theories of career decision-making and then by applying those theories to their own choices. The course will meet twice each week, the first being a lecture session, with the second session consisting of smaller groups of six to eight students. Students will be exposed to information related to the career development process, factors that affect the career choice process, knowledge of work environments, sex role socialization, career and decision making processes, and how to approach the job search. Experiential learnings will include exercises related to values clarification, self understanding, knowledge of interests, competencies and personality characteristics, decision making, use of career information, and implementing a plan of action. Weekly course assignments will include activities in class and homework units. Prerequisite: Enrollment in this course is limited to students with fewer than 60 hours of college credit. LEC.

PRE 305. Development and Learning of the Child. 3 Hours. GE3S.
An introduction to the study of children’s thinking, behavior, and development in school, home, and community settings. Classic and contemporary theories of developmental and educational psychology will be addressed; these theories will provide a foundation for thinking about important contemporary issues in child development. Specific topics covered will include research methods for studying children’s development, cognitive development, intelligence, language, emotional development, aggression, moral development, and family and peer relationships. Emphasis will be placed on the study of individuals and groups, describing the process of development, and considering educational implications of theory and research. LEC.

PRE 306. Development and Learning of the Adolescent. 3 Hours. GE3S.
An introduction to the psychological study of adolescents and their behavior in the middle and high school setting. Theories of learning, motivation, and physical, cognitive, emotional, and social development and their relevance to educational processes in secondary schools will be examined. Emphasis will be placed on observing and studying individuals and groups and describing their characteristics and the process of development, as well as considering implications for instructional strategies appropriate at the secondary level. Prerequisite: Admission to the Teacher Education Program. LEC.

PRE 450. Introduction to Counseling Psychology. 3 Hours.
An historical and contemporary overview of the science and practice of counseling psychology, including trends in the roles and functions of counseling psychology practitioners, the research and scientific foundations of counseling practice, the psychological theories of counseling and psychotherapy that guide professional practice, and the ethical and professional issues confronting counseling practitioners. Prerequisite: PSYC 104. LEC.

PRE 455. Managing and Motivating Learners in the Pre K-6th Grade Classroom. 3 Hours.
This course is designed to help elementary preservice teachers organize an enriched learning environment and develop strategies for managing and motivating students to help them become better and more responsible learners. Prerequisite: CT 322, PRE 305 or equivalent. LEC.

PRE 456. Managing and Motivating Learners in the Middle and Secondary Classroom. 3 Hours.
This course is designed to help middle and secondary preservice teachers organize an enriched learning environment and develop strategies for managing and motivating students to help them become better and more responsible learners. Prerequisite: CT 324, PRE 306 or equivalent. LEC.

PRE 497. Independent Study. 1-2 Hours.
Only one enrollment permitted each semester, a maximum of four hours will apply toward the bachelor’s degree. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Recommendation of advisor and consent of instructor. IND.

PRE 515. Research Methods for McNair Scholars. 3 Hours.
This course provides participants in the McNair Scholars program with an understanding of research methods appropriate to their field so they can write proposals for their summer research projects. Prerequisite: Acceptance into the McNair Scholars Program. LEC.

PRE 520. Classroom Assessment. 3 Hours.
This course is an introduction to the concepts and skills required to develop and evaluate various forms of formal and informal classroom assessments to determine student learning and teacher instructional effectiveness. LEC.

PRE 575. Internship Exploration. 1-5 Hours. AE61.
This course provides academic credit for a supervised practical experience in an occupational area of interest. In addition to the work-related activity, students will complete reading and writing assignments, participate in on-line discussion and create a final portfolio of internship accomplishments. Credit hours (1-5) are based on number of hours at internship site in agreement with instructor. Prerequisite: Secured internship of 8 hours per week or more for semester in which student will be enrolled in the course; permission from instructor. FLD.

PRE 580. Positive Psychology. 3 Hours.
An introduction to the core assumptions and research findings associated with human strengths and positive emotions. Also an exploration of interventions and applications informed by positive psychology in counseling and psychotherapy, and its application to school, work, family and other close relationships. (Same as PSYC 598.) Prerequisite: PSYC 104 or consent of instructor. LEC.

PRE 598. Special Course: _______. 1-5 Hours. AE61.
A special course of study to meet current needs of education students--primarily for undergraduates. LEC.

PRE 700. Advanced Educational Psychology: Development and Education of the Adolescent. 2-3 Hours.
An introduction, from a psychological perspective, to topics and problems in the development of adolescents and youth, with emphasis on application to educational issues. Note: To be offered annually. LEC.

PRE 702. Advanced Educational Psychology: The Development and Education of the Child. 3 Hours.
Study of children from a cognitive developmental perspective. Changes in children are examined in light of environmental influences including social
PRE 703. Constructive Classroom Discipline. 3 Hours.
This course will examine concepts and techniques of constructive classroom management. Various theoretical orientations including humanism and behaviorism will be considered. Emphasis will be on the identification of strategies that teachers can use (1) to facilitate an environment that reduces the likelihood of misbehavior occurring, and (2) to cope constructively with individuals and groups of children to resolve difficulties that arise in the classroom. The class should have value to classroom teachers, school psychologists, counselors, and other school consultants. LEC.

PRE 704. Advanced Educational Psychology: Learning Processes in Education. 3 Hours.
A study of the mental processes that influence learning and comprehension. The scope of the course will include individuals at all developmental levels and in a variety of educational settings. Key issues include the study of language, memory, concepts, motivation and social factors affecting learning processes. LEC.

PRE 705. Human Development through the Lifespan. 3 Hours.
This course will cover the social, emotional, psychological, and cognitive changes that occur from conception through death. Methodological issues will also be addressed. Prerequisite: A graduate or undergraduate course in psychology. LEC.

PRE 710. Introduction to Statistical Analysis. 3 Hours.
Emphasis on the conceptual underpinnings of statistical analysis of educational data. Includes univariate and bivariate descriptive statistics, sampling distributions, statistical estimation, hypothesis testing and procedures in testing statistical hypothesis for one and two sample designs. Prerequisite: Concurrent enrollment in PRE 711 required, or with the permission of instructor on the basis of knowledge of statistical packages presented in PRE 711. LEC.

PRE 711. Lab for Introduction to Statistical Analysis. 1 Hour.
Creation and manipulation of data sets. Analysis of data with statistical packages, with an emphasis on descriptive statistics, graphical procedures, and univariate parametric methods. Graded on a satisfactory/fail basis. Prerequisite: Concurrent enrollment in PRE 710 or PRE 811 or with the permission of the instructor. LAB.

PRE 715. Understanding Research in Education. 3 Hours.
This course introduces the concepts and skills involved in understanding and analyzing research in education and related areas. The course provides an overview of basic, general knowledge of various research methodologies. Students should expect to study much of this material in greater depth through additional course work before being fully prepared to conduct independent research. However this course should enhance their ability to locate, read, comprehend, and critically analyze research articles and reports. Topics in the course include quantitative and qualitative methods and designs, historical and descriptive research, and program evaluation. (This course fulfills the requirement of a research methods course in the first 12 hours of graduate study.) LEC.

PRE 725. Educational Measurement. 3 Hours.
The course is an introduction to the application of the concepts of reliability, validity, and practicality to the development, selection, use, and interpretation of tests and other measuring instruments in the field of education. The concepts of norm referenced and criterion referenced tests; the interpretation and use of norms; standard scores, percentiles, quotients, and grade equivalents are among the topics covered. An understanding of the role of measurement in evaluation, diagnosis, selection and placement is included. LEC.

PRE 740. Counseling and Interviewing Skills. 3 Hours.
An experiential and performance based course having three major objectives: 1) the acquisition of basic counseling skills and strategies by means of microcounseling training; 2) learning to use these skills effectively and appropriately in a simulated counseling session; 3) the students’ understanding of their personal characteristics and how these characteristics relate to functioning as an effective helping professional. This course should normally be taken at the earliest possible time in the student’s program. Open to counseling majors. Non-majors may be admitted only by permission of the instructor, if space permits. Prerequisite: Written consent of laboratory coordinator. LEC.

PRE 742. Counseling Theory and Techniques. 3 Hours.
An introductory examination of several major theories of counseling and therapy including psychodynamic views, person-centered, behavioral, and cognitive-behavioral approaches. Attention given to research reviews and factors various theories have in common. Designed for graduate students in counseling psychology or allied fields. Prerequisite: Graduate student status or permission of the instructor. LEC.

PRE 760. Ethics, Law, and Professional Issues in School Psychology. 3 Hours.
This course is intended to introduce the student to a) ethical principles, standards, and issues in the profession of psychology; b) legal issues involved in the practice of school psychology; c) problem-solving models to solve ethical and ethical-legal dilemmas; d) roles and functions of a school psychologist; and e) current topics in the field of school psychology. Prerequisite: Permission of the instructor. LEC.

PRE 770. Developmental Psychopathology: Diagnosis, Intervention, and Prevention. 3 Hours.
Foundations of child and adolescent psychopathology from a developmental and educational perspective. Classification, assessment, and etiology of clinical disorders. Examination of risk and protective factors associated with these various disorders. Coverage of empirically-based intervention strategies and prevention programs. Graduate student standing. LEC.

PRE 790. Research and Evaluation Proposal Development. 3 Hours.
A course for students designing a research or evaluation proposal leading to data collection. Specific topics considered include formulating a problem for study, reviewing the literature, and selecting appropriate research and evaluation designs, instrumentation, and data analysis issues. The goal of the course is to aid students in the preparation of research proposals at the master’s level. LEC.

PRE 797. Independent Readings and Research in: ______. 1-3 Hours.
Opportunity for students to participate in supervised reading and research in special topics of interest (for which regularly scheduled courses are not given). Topics and credit are arranged by advisement: May not be used to substitute for regularly scheduled course offerings. Intended for students with appropriate undergraduate or graduate preparation but without extensive graduate course background in the area of proposed study. (Students with extensive graduate work should enroll in PRE 997; undergraduate students may enroll in PRE 497.) Graded on a satisfactory/unsatisfactory basis. RSH.

PRE 798. Special Course: ______. 1-5 Hours.
A special course of study to meet current needs of education professionals—primarily for graduate students. Course is graded on a satisfactory/fail basis. LEC.
PRE 800. Development during Youth and Adulthood. 3 Hours.
An examination from a life-span perspective of major issues affecting changes after adolescence. Topics include intelligence, identity, intimacy, the role of work, and moral concepts. Theoretical issues, research findings, and educational and social policy implications will be examined. Students will prepare papers on significant issues in the field and survey extensively the research and theoretical literature. Prerequisite: Prior enrollment in a course on naturalistic or experimental research methods. LEC.

PRE 803. Computer Applications for Statistical Analyses. 3 Hours.
Computer applications for a variety of statistical techniques. Emphasis may be with applications on microcomputers and/or mainframe. Prerequisite: PRE 810 or PRE 811 or equivalent course. LEC.

PRE 805. Individual Intelligence Testing. 1-3 Hours.
Supervised experience in the administration, scoring, and interpretation of the major individual intelligence tests for children, adolescents, and adults. Other areas to be covered in this course will include models of intelligence and factors influencing intelligence; measurement characteristics of instruments used to assess cognitive abilities; ethical and legal issues in the use of intelligence tests; and the use of cognitive assessments for identification and diagnosis. Prerequisite: Permission of instructor. LEC.

PRE 806. Issues in Human Growth and Development. 3 Hours.
An overview and analysis of selected issues in the field of human growth and development. The focus will be on current issues of a theoretical and methodological nature that affect the field of developmental psychology and applications to social and educational settings. Prerequisite: Prior completion of a course in developmental psychology. LEC.

PRE 807. Theories and Research in Human Learning. 3 Hours.
An overview of important models, principles and research findings related to the learning process. Attention is given to theories of learning and information processing which attempt to explain perceptual behavior, verbal learning and memory and social learning processes. Emphasis is placed on student development of research proposals in the area of human learning and achievement. Prerequisite: Permission of instructor. LEC.

PRE 810. Regression Analysis. 3 Hours.
Multiple correlation/regression techniques, including polynomials, analysis of interactions, dummy coding, non-orthogonal analysis of variance, and analysis of covariance. Prerequisite: PRE 710 or equivalent course. LEC.

PRE 811. Analysis of Variance. 3 Hours.
Analysis of variance techniques including one-way ANOVA, planned and post hoc comparisons, multiway ANOVA, repeated measures ANOVA, and mixed designs. Prerequisite: PRE 710 and PRE 711. LEC.

PRE 812. Meta-Analysis. 3 Hours.
Statistical methods to summarize results from multiple studies. Prerequisite: PRE 811. LEC.

PRE 814. Nonparametric Statistics. 3 Hours.
Methods of analysis for nominal and ranked data, multiway contingency table analysis. Prerequisite: PRE 811. LEC.

PRE 816. Evaluating School Programs. 3 Hours.
Methods and procedures for evaluating educational programs. Attention is given to the development and evaluation of goals and objectives, creation of designs to monitor processes and outcomes, utilization of test and measurement systems for assessing outcomes, establishing evaluation standards and criteria, and application of statistical analyses. Prerequisite: PRE 710 or equivalent. LEC.

PRE 822. Educational Scales, Questionnaires, and Sampling. 3 Hours.
Development, construction, validation and scaling of noncognitive instruments including questionnaires, surveys, checklists, rating scales and unobtrusive measures. The sampling methodology is emphasized. Item construction and analysis and the development of subscales are stressed. Prerequisite: PRE 720 or PRE 725 and PRE 710. LEC.

PRE 830. Individual and Group Assessment. 3 Hours.
A consideration of basic concepts pertaining to selection and interpretation of both standardized and non-standardized assessment procedures and devices with attention given to communicating assessment information within the context of the counseling relationship. Prerequisite: PRE 725 or comparable undergraduate principles of measurement course. LEC.

PRE 835. Clinical Techniques in Academic Assessment and Intervention. 3 Hours.
Students will learn techniques of formal and informal assessment of academic skills in school-aged students. In addition, students will learn consultation and intervention approaches and strategies for use with students who have academic delays. This course has a field-based practicum component. Prerequisite: Graduate student standing in the School Psychology program and permission of instructor. LEC.

PRE 840. Guidance and Counseling in the Public Schools. 3 Hours.
This course is designed to provide information about the organization and administration of guidance and counseling programs in the public schools. Non-majors wishing to know more about the role of the counselor can be admitted with approval of the instructor. LEC.

PRE 842. Counseling Practicum (Elementary, Secondary, Counseling Psychology). 6 Hours.
This course is taken as one of the last courses in the master’s degree counseling program. The primary purpose of the course is for the student to develop individual counseling skills while functioning in a counseling setting. In addition to individual skills, students are also encouraged to participate in group counseling and other counseling related activities within the particular counseling setting. Students enroll in practicum for the level most closely related to their professional goals, i.e., elementary, secondary, counseling psychology. Graded on a satisfactory/fail basis. Prerequisite: PRE 740, PRE 742, and PRE 880, and prior or concurrent enrollment in PRE 830, PRE 840, PRE 844, and PRE 846. Pre-enrollment with practicum coordinator. Students currently on academic probation will not be allowed to enroll in practicum. LEC.

PRE 844. Theory of Group Counseling. 3 Hours.
Focuses on issues in group counseling. Topics covered are types of groups, theoretical orientation of groups, stages of group development, group leadership, selection of members, ethical issues, and effectiveness of groups. Prerequisite: Students must be admitted to the Program in Counseling Psychology. Nonmajors must have prior written consent of instructor. LEC.

PRE 846. Career Development. 3 Hours.
Stresses the importance of career development in education, with an emphasis on developmental life planning. Course includes topics such as delivery systems, utility of career development theory, sexism and racism in career development and counseling, the effects of sex role socialization, nature of the world of work, evaluation of career information, use of career information in individual and group counseling, and the role of empirical research in career development theory and practice. LEC.

PRE 850. Human Relationship Skills in the Classroom. 3 Hours.
The purpose of this course is to provide educators with an awareness and skill training in basic human relationship/communication skills. The course
is focused on skills that provide educators with effective communication skills for working with students, educators, and parents. LEC.

**PRE 855. Psychoeducational Clinic I: Assessment, Consultation, and Intervention. 3 Hours.**
This is a practical course where students apply previous learning and gain experience in assessment and intervention with children, families, and school consultation. Team collaboration, peer review, and case conferences are essential elements of this course. Students work with clients in the on campus learning center under supervision. Topical seminars also are included throughout the semester. Prerequisite: Graduate student standing in the School Psychology program and permission of instructor. LEC.

**PRE 860. Assessment of Behavior Problems and Personality. 3 Hours.**
The purpose of this course is to examine appropriate assessment techniques for the evaluation of behavior problems. Interview procedures, behavioral observation strategies, behavior rating scales and checklists, self-report inventories, and rational theoretical techniques will be introduced. The intent is to place these assessment approaches in their theoretical contexts and to discuss how they could be used by pupil personnel specialists to understand the problem behavior and plan interventions to enhance students’ personal adjustment and achievement in the classroom. Prerequisite: PRE 770, graduate standing in the School of psychology program, or permission of instructor. LEC.

**PRE 865. Psychoeducational Clinic 2: Assessment, Consultation, and Intervention. 3 Hours.**
A continuation of School Psychology Clinic I where students will be performing the same activities at a higher level of autonomy and independence. Prerequisite: Graduate student standing in the School Psychology program, PRE 855, and permission of instructor. LEC.

**PRE 870. Quantitative Methods for Research in Educational Policy and Leadership. 3 Hours.**
This course addresses the conceptual basis of statistical analysis with an emphasis on applied data analysis. The use of descriptive statistics, distributions, graphic displays, hypothesis testing, group comparison, and analyses of relationships among variables to explore research questions in education will be covered. This course is designed specifically for Ed.D. students in the School of Education. Students in other degree programs may not enroll. Prerequisite: This course is open only to Ed.D. students in the School of Education. LEC.

**PRE 871. Crisis and Disaster Counseling. 3 Hours.**
This course provides advanced training in Crisis and Disaster Counseling to graduate students in the helping professions, providing students with the foundation, knowledge, and skills to effectively help those in crisis. Practical guidelines, specific intervention strategies, treatment principles, legal and ethical responsibilities, and self-care regarding crisis work will be discussed and integrated. Prerequisite: PRE 740 and PRE 742; or consent from instructor. LEC.

**PRE 875. Individual and Cultural Differences in Counseling Psychology. 3 Hours.**
Examines the role of culture in human behavior and its influence in counseling theories, practice, and research. The course will assist students develop multicultural awareness, understanding, and skills in working with people from diverse racial, social, cultural, and individual backgrounds. The course will provide opportunities for self examination of cultural assumptions/values in order to develop multicultural competence. Prerequisite: PRE 742 or equivalent. LEC.

**PRE 880. Ethical and Legal Issues in Professional Psychology. 3 Hours.**
An examination of legal, ethical, and professional standards and issues affecting the practice of professional psychology. Topics include legislative regulation of professional psychology, ethical standards and codes of conduct for psychology and related mental health professions, standards of professional practice, and issue of practice liability and risk management. LEC.

**PRE 882. History and Systems of Psychology. 3 Hours.**
A historical survey of the evolution of concepts, theories, and systems of thought in psychology with an emphasis on their relationship to contemporary issues in psychological theory, research, and practice. Prerequisite: Graduate standing in PRE or consent of the instructor. LEC.

**PRE 885. Projective Assessment. 3 Hours.**
The major goal of the course is to integrate information about a person from one or more projective tests into a useful summary. The projective assessment instruments to be used include the Rorschach (using the Exner system of scoring and interpretation), the Thematic Apperception Test, and projective drawings (e.g., Draw-A-Person test). Prerequisite: At least one graduate-level course in measurement and one graduate course in assessment plus consent of the instructor. LEC.

**PRE 890. Diagnosis and Psychopathology. 3 Hours.**
An examination of psychological disorders from a counseling psychology perspective that emphasizes strengths. The course will cover the current version of the Diagnostic and Statistical Manual (DSM), as well as alternative taxonomies, exploring personality as it ranges from normal personality styles to personality disorders, as well as Axis I disorders. The emphasis is on identifying and assessing these phenomena and understanding possible behavioral and treatment implications. Prerequisite: Degree seeking status in Counseling Psychology or consent of instructor. LEC.

**PRE 893. Internship in School Counseling. 2 Hours.**
Two consecutive enrollments covering a period of one academic year. During this time the student prepares a portfolio of skills competencies, classroom guidance programs presented, and other experiences appropriate to the student’s school level. Supervision will be conducted on an individual basis and will include a minimum of two site visits per semester. Prerequisite: Must have school counseling position and a completed Masters degree from K.U. in School Counseling. FLD.

**PRE 895. Field Experience in: ______. 1-5 Hours.**
Supervised and directed experiences in selected educational or mental health settings. The campus-based instructor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experiences will be prepared independently by the student, a representative of the cooperating agency, and the campus-based instructor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit in this and additional field experience enrollments may not exceed eight hours. Graded on a satisfactory/fail basis. Prerequisite: PRE 842 and consent of the practicum coordinator. FLD.

**PRE 896. Seminar in: ______. 1-3 Hours.**
Prerequisite: Permission of instructor. LEC.

**PRE 897. Independent Study. 1-4 Hours.**
Graded on a satisfactory/unsatisfactory basis. Prerequisite: Consent of advisor and instructor. RSH.

**PRE 898. Master’s Project. 1-4 Hours.**
Prerequisite: Prior or concurrent enrollment in PRE 710, PRE 715, or PRE 790. RSH.
**PRE 899. Master’s Thesis. 1-6 Hours.**
Prerequisite: Prior or concurrent enrollment in PRE 710. THE.

**PRE 900. Legal, Ethical, and Professional Issues in Professional Psychology. 3 Hours.**
This proseminal is designed to examine the major legal and ethical principles and areas of concern that affect professional psychology. The course will also examine the historical development of professional psychology and current issues that affect the future direction of research and practice. Prerequisite: Doctoral status in counseling, clinical, clinical child, or school psychology, or consent of the instructor. LEC.

**PRE 901. Research Practicum in: ____. 1-3 Hours.**
This course is designed to give students experience in conducting research. It is expected that students will take this course for at least two consecutive semesters. (This course fulfills the requirement by the School of Education for a two semester, research practicum course.) Prerequisite: Doctoral student status in a program in the Department of Psychology and Research in Education. RSH.

**PRE 902. Research Methodology in Education. 3 Hours.**
An examination and study of the problems and procedures which relate to the validity of research methods. Emphasis will be placed on reading the current literature on research methodology. Students are required to develop a research proposal. Prerequisite: PRE 811 and PRE 720 or PRE 725. LEC.

**PRE 905. Multivariate Analysis. 3 Hours.**
Multivariate analysis of variance, discriminant analysis, logistic regression, and exploratory factor analysis. Prerequisite: PRE 810, PRE 811 and experience with a statistical software package. LEC.

**PRE 906. Structural Equation Modeling I. 3 Hours.**
The purpose of this course is to introduce students to Structural Equation Modeling (SEM). Topics to be covered include matrix algebra, correlation/covariation, regression, Path analysis, exploratory and confirmatory factor analysis, full structural equation models and multi-group models. Students will be exposed to the various statistical software programs available for SEM and will be expected to become proficient in utilizing EQS. Prerequisite: PRE 710 or equivalent course. LEC.

**PRE 907. The Psychology of Instruction and Human Learning. 4 Hours.**
A study of research and theory in the areas of cognitive learning and of instruction, including such topics as motivation, problem solving, discovery learning, conceptualization, theory construction and task analysis. Emphasis placed on independent learning experiences and field-based experimentation with pilot study. Prerequisite: PRE 807 and PRE 715 or permission of instructor. LEC.

**PRE 908. Structural Equation Modeling II. 3 Hours.**
The purpose of this course is to introduce students to advanced topics in Structural Equation Modeling. Topics to be covered include multi-level models, latent growth models, mixture models and approaches to handling missing and/or non-normal data. Students will be exposed to the various statistical software programs and will be expected to become proficient in utilizing EQS. Prerequisite: PRE 906 or equivalent course. LEC.

**PRE 910. Practicum in School Psychology. 3 Hours.**
Supervised practice in the application of psychological theory of educational problems. Includes work useful with exceptional children as well as experience in the application of such areas as mental hygiene and learning theory to problems involving the total school population. (Same as SPED 801.) Prerequisite: Permission of advisor and instructor. LEC.

**PRE 911. Advanced Practicum in School Psychology. 3 Hours.**
A continuation of PRE 910 with special emphasis on remedial techniques associated with learning difficulties. (Same as SPED 802.) Prerequisite: PRE 910 and permission of advisor and instructor. LEC.

**PRE 916. Educational Evaluation: Theory and Practice. 3 Hours.**
The course will treat an intensive critical study of various views of evaluation as it exists opposite the experimental research process, emphasizing the operational definitions of objectives, existing models, taxonomies, and structure, and goals and methods of obtaining and summarizing evaluation data. Prerequisite: PRE 710 and PRE 816 or equivalents or permission of instructor. LEC.

**PRE 918. Seminar in Current Issues and Trends in: ____. 1-3 Hours.**
An examination of selected current issues and trends. (This course fulfills the requirement by the School of Education for a course in current issues and trends.) Prerequisite: Doctoral student status in a program in the Department of Psychology and Research in Education. LEC.

**PRE 921. Theory and Applications of Educational Measurement. 3 Hours.**
Application of theory including classical theories of reliability and validity, latent-trait theories, item sampling, and factor analysis to problems in educational test development and use in areas such as evaluation, research, placement, and selection. Prerequisite: PRE 725 and PRE 811. LEC.

**PRE 922. Item Response Theory. 3 Hours.**
Theoretical foundations and practical applications of item response theory in educational measurement. Prerequisite: PRE 921. LEC.

**PRE 923. Advanced Theory and Applications of Item Response Theory. 3 Hours.**
This course is designed to acquaint students with knowledge of advanced theory and applications in the field of item response theory (IRT). Topics to be covered include: advanced IRT models for dichotomous and polytomous, multidimensional, rater effects, and testlet-based item response data, estimation of parameters for these models and related software, and goodness of fit tests. The course will also focus on some advanced applications using these models, including test development, test score equating, differential item functioning, scoring and score reporting, Monte Carlo simulation studies, and innovative test designs. Prerequisite: PRE 922 or equivalent course. LEC.

**PRE 925. Computer Programming and Applications for Educational Research, Measurement and Statistics. 3 Hours.**
The purpose of this course is to provide advanced students in the areas of educational research, psychometrics, and statistics with techniques for computer programming, analysis, and carrying out research using computer simulations. The topics covered are: Programming with Fortran languages, data manipulation and management, analysis, simulation of data according to statistical and psychometric models, numerical techniques for matrix operations, sampling from distributions, solutions for non-linear equations, and Markov-Chain Monte-Carlo techniques. There are no prerequisites for this course, but those students who have coursework through the multivariate statistics level will benefit most from this course. Other suggested courses include those related to psychological and educational measurement, classical test theory, item response theory, and research methods. LEC.

**PRE 926. Hierarchical Linear Modeling. 3 Hours.**
This course provides students with an introductory background in the basic principles and applications of hierarchical linear modeling (HLM). The course will review both the conceptual issues and methodological issues in using hierarchical linear modeling by working step-by-step with
real data sets. Prerequisite: PRE 810 Regression Analysis (formerly PRE 904). LEC.

PRE 931. Computer-Based Testing. 3 Hours.
Computer-based testing holds the promise of increasing test validity and reliability while reducing the logistical problems associated with large-scale assessment. This seminar will provide an overview of what we have learned about administering tests on computer between the 1960s and today. The focus will be on measurement issues, but depending on class interest topics will vary. A prior course in item response theory is desirable but not required. Prerequisite: PRE 725 or equivalent course. LEC.

PRE 932. Diagnostic Testing. 3 Hours.
There is a great demand for more useful, more actionable test scores. Traditional large-scale group administered tests do not provide this kind of information due to low reliabilities of, or high inter-correlations among, sub-scores. This course will explore approaches used by individually administered tests to provide diagnostic information, new psychometric models that hold promise of providing better diagnostic information, and implications for test design. A primary focus will be on how psychometric models can be used with diagnostic subscores that are more reliable and less correlated than traditional approaches. Prerequisite: PRE 922 or equivalent course. LEC.

PRE 940. Advanced Studies in Educational Psychology and Research. 3 Hours.
A course designed to offer a comprehensive view of the field of educational psychology and research. The course will treat a series of thematic areas with a focus on latest developments and emerging theories in learning, development and quantitative methods. Intended for post-master’s level students. Prerequisite: Prior graduate level course work in development, learning, measurement, and statistics. LEC.

PRE 945. Clinical Supervision and Consultation. 3 Hours.
This course is designed to provide students with a knowledge foundation of clinical supervision and consultation theories and models, modes/formats of supervision, the supervisory/consulting relationship, legal and ethical considerations in the provision of supervision/consultation, and supervision research issues. Prerequisite: PRE 948. LEC.

PRE 947. Specialist Research. 1-4 Hours.
RSH.

PRE 948. Advanced Practicum I. 3 Hours.
Designed to be the initial advanced practicum for first year doctoral students. Attention is directed to development of a broad range of basic and advanced skills. Graded on a satisfactory/fail basis. Prerequisite: PRE 842 or equivalent. LEC.

PRE 949. Advanced Practicum II. 3 Hours.
Intensive counseling practice, including group and individual supervision, that may be taken either through Counseling and Psychological Services or an approved site outside of the university. Focus is on the acquisition and demonstration of advanced counseling skills. Two consecutive semesters (Fall, Spring) of enrollment are required of doctoral students. Responsibility to the site is for a continuous nine months, with fall semester responsibilities ending on the first day of spring semester classes. A grade of incomplete will be granted at the end of the regular fall grading period, with the regular fall grade being granted after completion of fall semester responsibilities. Graded on a satisfactory/fail basis. Prerequisite: Satisfactory completion of PRE 948 and prior or concurrent enrollment in PRE 951. LEC.

PRE 950. Cognitive Theory and Strategies in Counseling Psychology. 3 Hours.
An examination of historical and contemporary cognitive theories and strategies used in the practice of counseling psychology. Consideration of theoretical positions and issues, research functions, assessment strategies, and application of techniques. Prerequisite: PRE doctoral student status or consent of instructor. LEC.

PRE 951. Psychodiagnostic Assessment. 3 Hours.
Survey of selected psychodiagnostic instruments currently in use and their administration, scoring, and interpretation. Emphasis will also be placed on the use of the clinical interview as an assessment tool, case conceptualization/ diagnosis, and integrative report writing. Prerequisite: Completion of PRE 830 and degree-seeking status in Counseling Psychology or consent of instructor. LEC.

PRE 952. Advanced Counseling Theory and Research. 3 Hours.
An advanced treatment of theory, research, and practice issues central to Counseling Psychology. Topics include theoretical and research paradigms in Counseling Psychology; the relationship of theory and research to practice; and evidence on factors influencing counseling processes and outcomes. Prerequisite: Counseling Psychology doctoral student status or consent of instructor. LEC.

PRE 953. Interactional Perspectives on Counseling and Personality. 3 Hours.
A study of personality and therapeutic change from systems, interactional, and communications perspectives, with implications for research and assessment in counseling. Designed for graduate students at the specialist and doctoral levels. Prerequisite: Counseling Psychology doctoral student status or consent of instructor. LEC.

PRE 954. Vocational Psychology. 3 Hours.
A survey of the major career development theories in counseling psychology. Models and methods of career counseling will be reviewed and integrated from the different theoretical perspectives. The empirical support of each theory and needed research will be identified. The course will include presentation of theories of career development and their specific applicability in counseling. The career development of special groups (women, the culturally different, non-whites) will be studied as well as alternative methods of delivery in career development and counseling. Prerequisite: Completion of PRE 846 or equivalent, and Ph.D. degree-seeking status in Counseling Psychology or consent of instructor. LEC.

PRE 955. Research Methods in Counseling Psychology. 3 Hours.
This course is a foundational course in research methods and design in counseling psychology. The course covers (a) design type and threats to design validity, (b) the formulation of research problems, (c) research instrumentation/measures, (d) data analytic methods, (e) interpreting data, and (f) ethical issues, research integrity, and the responsible conduct of research. Prerequisite: PRE 710 and PRE 711 or equivalent. Doctoral student in Counseling Psychology or consent of instructor. LEC.

PRE 956. Theory of Couples and Family Counseling. 3 Hours.
A survey of contemporary systems of couples and family counseling. Consideration of couple and family function/dysfunction, theoretical models of family interaction, models of counseling practice and methods, and research on couples and family counseling. Prerequisite: Degree-seeking status in Counseling Psychology or consent of instructor. LEC.

PRE 960. Assessment of Infants, Toddlers, and Young Children. 3 Hours.
The purpose of this course is to introduce the student to the assessment of various domains related to the development of infants, toddlers, and young children. The student will learn how to use formal and informal assessment techniques for screening, diagnostic, educational planning, and educational evaluation purposes. An emphasis will be placed on the linkage between assessment and intervention. This course is designed for students in the applied psychology fields (i.e., school psychology, counseling psychology, clinical child psychology, and clinical psychology).
Special Education Courses

SPED 261. Families and Professional Partnerships. 3 Hours.
This course provides information on issues and practices related to working together in partnership with families of young children including those who have a young child with special needs. Emphasis will be placed on taking a family systems prospective and a family-centered approach to family support. Strategies for effective communication for the purpose of information sharing and collaborative planning with families are provided. Relevant current scientifically based evidence will be reviewed and discussed pertaining to these topics. LEC.

SPED 362. Teaching Exceptional Children and Youth in General Education. 3 Hours.
This course is designed for general education teacher trainees. It will provide them information about students with disabilities that they will have in their classrooms and the law governing special education and its implications for them as general educators. The course will address Individualized Educational Plans that are developed for students with disabilities and how general educators contribute to these plans. Students will learn about planning instruction that is differentiated to meet various learner needs, universal design principles and instructional tools, providing meaningful access to general education classrooms and curriculum for students with disabilities and designing and delivering appropriate accommodations and modifications to assist student learning. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 363. Introduction to Early Education and Early Childhood Special Education. 3 Hours.
This course is designed to provide an overview of the field of early education including early childhood education and early childhood special education. The historical, philosophical, research-base, policy and legal foundations for the field are discussed to provide the students with the knowledge to become an advocate for early learning opportunities (birth through grade 3) for all children and their families. LEC.

SPED 425. Introduction to Exceptional Children and Youth. 3 Hours.
Designed for regular education teacher trainees, those in training for support roles in public schools and/or residential facilities (music educators/therapists, speech clinicians, etc.), and others interested in providing services for exceptional children and youth. Emphasis on the learning and adjustment problems of exceptional children and youth. Includes fieldwork experiences in residential and/or public school settings. LEC.

SPED 431. Introduction to the Exceptional Child/Adolescent. 1 Hour.
This course is designed to provide the student with knowledge of and direct experiences within instructional settings that include one or more exceptional children. Structured experiences will be provided to (a) ensure mastery of skills in differentiating normal from atypical patterns of behavior in children or adolescents, (b) promote acquisition of skill
in understanding the educational needs of exceptional learners as well as the procedures used to identify and provide instruction for them, (c) ensure the generalization of communication skills to the unique needs of exceptional learners in instructional settings, and (d) promote a positive attitude toward atypical students. LEC.

SPED 439. Student Teaching: Unified Early Childhood. 1-6 Hours.
A supervised student teaching experience leading to initial teaching licensure in Kansas Unified Early Childhood (birth through grade 3). The student assumes the professional role as a teacher in an approved inclusive early childhood infant/toddler or preschool. Prerequisite: Admission to the Unified Early Childhood program. Approved application of intent to student teach. LEC.

SPED 497. Independent Study. 1-2 Hours.
Only one enrollment permitted each semester, a maximum of four hours will apply toward a bachelor's degree. Prerequisite: Recommendation of advisor and consent of instructor. IND.

SPED 500. Introduction to Sign Language. 3 Hours.
This is an introductory course in Sign Language and includes ASL and English sign vocabulary, a description of all manual sign systems, medical aspects of hearing loss, communication language, and Deaf culture and community. LEC.

This course will cover the development of American Sign Language and its application within the Deaf Community. It is based on the functional-notational approach to learning sign language. This approach organizes language around communicative purposes of everyday interaction. LEC.

SPED 502. American Sign Language II (ASL II). 3 Hours.
This is the second level course in American Sign Language and its application within the Deaf Community. It is based on the functional-notational approach to learning sign language. This approach organizes language around communicative purposes of everyday interaction. Prerequisite: SPED 501. LEC.

SPED 503. American Sign Language III (ASL III). 3 Hours.
This is the third level course in American Sign Language. The primary objective of the American Sign Language III "Signing Naturally" Level 2 curriculum is for students to continue using the two basic language skills: visual listening and signing. Prerequisite: SPED 502. LEC.

SPED 504. American Sign Language IV (ASL IV). 3 Hours.
This is the fourth level course in American Sign Language. The primary objective of the American Sign Language IV "Signing Naturally" Level 3 curriculum is for students to continue using the two basic language skills -- visual listening and signing. Prerequisite: SPED 503. LEC.

SPED 506. Advanced Practices for Children with Disabilities in the Elementary General Education Classroom. 3 Hours.
This course is designed to enable novice teachers to master and apply the instructional and communicative skills that will facilitate appropriate and productive inclusion of children and youth with exceptionalities within general education classrooms and other school settings. Specific research-based strategies in curriculum content acquisition (content enhancements, learning strategies, classwide-peer tutoring), and specific research-based strategies in behavior management will be learned and applied to real teaching experiences. Novice teachers will learn about collaborative structures found in schools to support student learning in general education settings (co-teaching, collaborative consultation, teacher/student support teams) and roles and responsibilities of teachers within these structures. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 507. Advanced Practices for Children with Disabilities Middle/Secondary General Education Classroom. 3 Hours.
This course is designed to enable novice teachers to master and apply the instructional and communicative skills that will facilitate appropriate and productive inclusion of middle and secondary age students with disabilities within general education classrooms and other school settings. Specific research-based strategies in curriculum content acquisition (content enhancements, learning strategies, classwide-peer tutoring), and specific research-based strategies in behavior management will be learned and applied to real teaching experiences. Novice teachers will learn about collaborative structures found in schools to support student learning in general education settings (co-teaching, collaborative consultation, teacher/student support teams) and roles and responsibilities of teachers within these structures. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 598. Special Course: _____. 1-5 Hours.
A special course of study designed to meet current needs of education students; primarily for undergraduates. LEC.

SPED 631. Characteristics of Students Needing an Adaptive Curriculum. 3 Hours.
This course is designed as an introduction to the definition, characteristics, causes, assessment, and specific remedial techniques for students needing an adaptive curriculum. The needs for specialized services to meet specific learning and/or behavioral needs will be presented. Students will learn about the history of serving children and youth with high incidence disabilities associated with specific learning, emotional/behavioral, mild mental retardation and a range of physical and health needs. Key individuals in the research of specific disabilities associated with these needs and how they helped expand our understanding of who these individuals are and how to address specific needs, will also be addressed. Learning characteristics will be addressed in relation to why and how specialized instruction can meet the learning and developmental needs of these individuals, specifically in the areas of instructional and assistive technology. LEC.

SPED 632. Characteristics of Students Needing a Functional Curriculum. 3 Hours.
This introductory course provides an overview of the characteristics of learners with significant support needs. Students will learn to define and understand various classification systems and the implications of: low-incidence disabilities, significant cognitive disability, various vision and/or hearing impairments, including deaf-blindness motor disabilities, and health impairments. Students will be introduced to various etiologies: pre-, peri-, and post-natal causes, syndromes and chromosomal disorders, and biomedical causes of severe disability. Additional content includes anatomy of sensory organs, interpretation of pertinent medical reports, assessment procedures, and in school settings considerations (e.g., orientation and mobility, cochlear implants, medications, tube feeding, physical therapy, occupational therapy). Prerequisite: An introductory course in special education. LEC.

SPED 633. Characteristics of Learners with Hearing Loss -- Deaf Studies. 3 Hours.
Deaf Studies is the basic characteristics course for both the Master's degree in Deaf Education and for Kansas and Missouri endorsement in Deaf/HOH. The course includes medical aspects/etiology of hearing loss, history, pertinent laws, Deaf culture and community, issues in assessment and psychology, language and sign systems, multicultural education, multiple disabilities and hearing loss, and specific issues in the field. LEC.
SPED 635. Characteristics of Children and Youth with Disabilities: _____ 3 Hours.
Social, cognitive, emotional, and other developmental aspects associated with children and youth identified with learning disabilities, behavior disorders, and mental retardation are covered by this course. Characteristics, special needs, and service delivery approaches are compared and contrasted. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 641. Methods & Assessment: Literacy Interventions for Young Children. 3 Hours.
This course will provide in depth learning experiences targeting literacy; both reading and writing. Students will learn about assessment tools and assessment systems used in tiered support frameworks to determine the required intensity of literacy support and instruction needed by children/adolescents with adaptive special education needs, and will learn about evidence-based instructional approaches and curriculum developed for students with disabilities and struggling students in general. The course is intended for persons working toward the Kansas teaching license in teaching students needing an adapted curriculum. Prerequisite: SPED 730, admittance into the Adaptive program in the Department of Special Education, or permission of the instructor. LEC.

SPED 642. Methods and Assessment: Life Skills and Community-Based Instruction. 3 Hours.
This course will provide an overview of assessment and instructional practices contributing to community-referenced planning, community-based instruction and life skills instruction. Students will conduct ecological inventories and other student-referenced assessments, design community-based instructional programs, ecologically valid and age-appropriate to facilitate mastery of skills essential for community and social inclusions, explore best practices in community-based instructional programs, including family and student involvement, transportation, and administrative and policy support. Undergraduate students will be provided a model and extended scaffolding with a few sample case studies with which to work. Students who have completed SPED 642 cannot enroll in SPED 742. The course is intended for persons working toward the Kansas teaching license in teaching students needing a functional curriculum. Prerequisite: SPED 326. LEC.

SPED 644. Assessment and Instructional Methods I: Learners with Hearing Loss. 3 Hours.
This course will provide an introduction to appropriate instructional methodology for teaching students who are deaf or hard of hearing at the early childhood, elementary, and secondary levels. Upon completion students will be familiar with legal issues, teaming, assessment, IEP development, curriculum planning, instructional methods, and transition. LEC.

SPED 650. Constructing Early Childhood Curriculum. 3 Hours.
Students in this course will learn to design, implement and evaluate developmentally appropriate curricula and programs for children from birth through kindergarten. Issues of curriculum design and assessment are introduced as interrelated processes that include structuring learning environments and experiences that are responsive to children’s interests and abilities. Students analyze and evaluate curriculum that focuses on the five developmental domains a) social emotional development; b) cognitive development; c) language and communication development; d) adaptive behavior development; and e) gross and fine motor development and in addition the content domains of literacy, science, math, and fine art. Strategies for developing learning opportunities that are appropriate for young children, including children with special needs and children from diverse cultural, ethnic and linguistic backgrounds, will be explored. Prerequisite: Admission to School of Education UEC program. LEC.

SPED 660. Education of Children and Youth with Disabilities I: _____. 3 Hours.
This is a methods course that covers instructional approaches and procedures that offer developmentally appropriate, effective and inclusive early intervention for preschool and kindergarten age children who experience developmental delays, disabling conditions or who are at-risk for developmental problems and disabilities. It is directed toward: (a) "how" to teach, or the technical components of developing and delivering effective instruction that provide access to the general early childhood curriculum within recognized approaches to early childhood education for young children, and (b) the "what" to teach, or the selection of developmentally and individually appropriate child objectives as well as specific materials and specialized instructional approaches. The relationship of instructional planning to state and federal mandates will also be considered. The course is primarily intended for persons who are currently working toward certification in the ECSE program area. Prerequisite: SPED 425 or SPED 725, and SPED 735, which can be taken concurrently. LEC.

SPED 661. Supporting Children with Significant Learning and Behavioral Challenges. 3 Hours.
Students in this course will gain knowledge of the causes, and intervention and support approaches for young children with multiple and significant disabilities including neurological impairments, physical disabilities, sensory impairments, significant developmental disabilities and challenging behavior. Emphasis is placed on environmental adaptions and direct instructional techniques to maximize independence as determined through systematic ecological inventories tailored to the individual child’s strengths and needs. Information is also provided on assistive technology designed to provide appropriate supports. Functional behavioral assessment procedures, proactive intervention strategies, and developing collaborative support plans will be studied. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 663. Assessment Strategies in Early Education. 3 Hours.
Examines the practice of gathering information for the purpose of making individual referral and instructional decisions for infants, toddlers, and young children with and without special needs. Discusses effective informal assessment techniques and emphasizes an ecological approach to gathering information. Introduces standardized assessment and screening instruments and provides an overview of the purposes and limitations of such tests. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 664. Inclusive Strategies and Intervention for Infants and Toddlers. 3 Hours.
Emphasizes curriculum development and early intervention provision for infants and toddlers through the planning of appropriate learning experiences, the design of learning environments, developing Individual Family Service Plans (IFSP), promoting collaboration among families and the use of various methods of enhancing the child’s development across the five (social-emotional, adaptive, cognitive, physical/movement, communication) development domains. The role of the educator/early interventionist in relation to the family and the child is examined. Curriculum resources and intervention strategies for infants and toddlers with special needs are reviewed with emphasis on interdisciplinary planning and implementation. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 665. Inclusive Strategies and Intervention for Preschoolers. 3 Hours.
Provides the opportunity for students to develop and evaluate inclusive environments for young children. This course emphasizes meeting the needs of all young children through an integrated approach to planning,
implementing and assessing instruction in all areas; linking assessment information to individualized instruction; developing Individual Educational Plans (IEPs) and promoting collaboration among families, schools and communities. Service delivery systems and transitions between early childhood programs are reviewed in relation to curriculum. Curriculum development for early childhood content areas (literacy and language, numeracy, science, social studies, physical education and the arts) and domains (language, social/emotional, physical, and cognitive) will be explored. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 667. Field Experience in Preschool. 1 Hour.
This supervised field experience is intended to allow the pre-service teacher to apply the knowledge gained in SPED 665 Inclusive Strategies and Intervention for Preschoolers, by working with infants and toddlers in early intervention settings/programs. To be taken concurrently SPED 665. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 668. Field Experience Infant/Toddler. 1 Hour.
This supervised field experience is intended to allow the pre-service teacher to apply the knowledge gained SPED 664 Inclusive Strategies and Intervention for Infants and Toddlers, by working with infants and toddlers in early intervention settings/programs. To be taken concurrently SPED 664. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 672. Field Experiences with Exceptional Children and Youth: _____ 3 Hours.
A course designed to provide experiences for students to participate with exceptional children in public schools and/or residential facilities and with professional personnel associated with the lives of exceptional students including special education teachers, child care workers, therapists, etc. Students will have opportunities to participate as aides, tutors, and instructors with individual and small groups of exceptional youth in one or more placements. Through weekly meetings with the instructor students are guided to relate their experiences to the needs and services for exceptional children and youth. Prerequisite: SPED 635. FLD.

SPED 675. Practicum with Children and Youth with Disabilities: _____ 1-10 Hours.
Intensive diverse and direct teaching experiences with children and youth with disabilities in educational settings. The course is differentiated from SPED 775 through the amount of scaffolding undergraduate students will receive when demonstrating skill application (e.g., undergraduates report and receive feedback on practicum experiences on a more frequent basis, reduced data collection requirements, more emphasis on cooperating teacher providing guidance, etc.). This practicum is a requirement for provisional endorsement according to KSDE. Students who have completed SPED 675 cannot enroll in SPED 775 within in same curricular area. Prerequisite: SPED 326. LEC.

SPED 700. Introduction to Sign Language. 3 Hours.
This is an introductory course in Sign Language and includes ASL and English sign vocabulary, a description of all manual sign systems, medical aspects of hearing loss, communication and language, and Deaf culture and community. LEC.

SPED 701. American Sign Language I (ASL I). 3 Hours.
This course will cover the development of American Sign Language and its application within the Deaf Community. It is based on the functional-notational approach to learning sign language. This approach organizes language around communicative purposes of everyday interaction. LEC.

SPED 702. American Sign Language II (ASL II). 3 Hours.
This is the second level course American Sign Language and its application within the Deaf Community. It is based on the functional-notational approach to learning sign language. This approach organizes language around communicative purposes of everyday interaction. Prerequisite: SPED 701. LEC.

SPED 703. American Sign Language III (ASL III). 3 Hours.
This is the third level course in American Sign Language. The primary objective of the American Sign Language III “Signing Naturally” Level 2 curriculum is for students to continue using the two basic language skills: visual listening and signing. Prerequisite: SPED 702. LEC.

SPED 704. American Sign Language IV (ASL IV). 3 Hours.
This is the fourth level course in American Sign Language. The primary objective of the American Sign Language IV “Signing Naturally” Level 3 curriculum is for students to continue using the two basic language skills -- visual listening and signing. Prerequisite: SPED 703. LEC.

SPED 706. Advanced Practices for Children with Disabilities in the Elementary General Education Classroom. 3 Hours.
This course is designed to enable novice teachers to master and apply the instructional and communicative skills that will facilitate appropriate and productive inclusion of children and youth with exceptionalities within general education classrooms and other school settings. Specific research-based strategies in curriculum content acquisition (content enhancements, learning strategies, classwide-peer tutoring), and specific research-based strategies in behavior management will be learned and applied to real teaching experiences. Novice teachers will learn about collaborative structures found in schools to support student learning in general education settings (co-teaching, collaborative consultation, teacher/student support teams) and roles and responsibilities of teachers within these structures. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 707. Advanced Practices for Adolescents with Disabilities in the Middle/Secondary General Classroom. 3 Hours.
This course is designed to enable novice teachers to master and apply the instructional and communicative skills that will facilitate appropriate and productive inclusion of middle and secondary age students with disabilities within general education classrooms and other school settings. Specific research-based strategies in curriculum content acquisition (content enhancements, learning strategies, classwide-peer tutoring), and specific research-based strategies in behavior management will be learned and applied to real teaching experiences. Novice teachers will learn about collaborative structures found in schools to support student learning in general education settings (co-teaching, collaborative consultation, teacher/student support teams) and roles and responsibilities of teachers within these structures. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 708. Introduction to Hearing Impaired. 2 Hours.
A study of hearing defects and methods of diagnosis. The course also covers remedial work which teachers can use in treating such defects and meeting problems of hearing defective children. Prerequisite: Nine hours of education including educational psychology. LEC.

SPED 710. Methods of Teaching Language to the Deaf I. 3 Hours.
The effects of hearing loss on language acquisition and development. Systems for teaching language to individuals with hearing loss are introduced. Prerequisite: Course in normal language development and nine hours of education including educational psychology. LEC.

SPED 715. Understanding Research in Education. 3 Hours.
This course introduces concepts and skills involved in understanding and analyzing research in special education. The course provides an overview of basic, general knowledge of various research methodologies. In addition, this course will teach students to locate, read, comprehend, and critically analyze research articles and reports. Students will become
SPED 717. Exceptional Children in Regular Classrooms. 3 Hours.
This course is designed to explore the relationship between regular and special education. Educational service delivery systems for exceptional children are identified and analyzed. Emphasis is placed upon procedures and special services that regular class teachers can use to provide instructional services to exceptional children assigned to regular classrooms. Procedures for enabling normal children to understand and appreciate the interaction with children who exhibit physical and behavioral variance from established norms are conveyed. Especially for regular class teachers and students desiring a career in teaching exceptional children. Will be offered by designated area sections or as a general overview of several areas. LEC.

SPED 718. Instructional Planning for Children and Youth with Disabilities: _____ 1-3 Hours.
This course provides knowledge and skills to select, adapt, and sequence instructional methods and materials to facilitate general education curriculum mastery. LEC.

SPED 719. Learning and Technology. 1 Hour.
The central framework of “human learning” provides a context for understanding technology-based educational innovations. The lessons in this course explore various “features of learning” and “features of technology” intersect. They discuss realistic options for improving the learning of students, and the learning of teachers, as they use technology in education. (Life-span range of levels.) LEC.

SPED 724. Data-Driven Instructional Decision Making. 1 Hour.
The lessons in this course present research-based methods for monitoring student behavior and academic progress. They explain how teachers may use this information to evaluate current and plan future instructional and behavioral interventions following a decision making model. It is also explored how computer and information management technology tools support and facilitate the collection, storage, and analysis of observational data. LEC.

SPED 725. Introduction to the Psychology and Education of Children and Youth with Disabilities. 3 Hours.
This course provides an overview of current practices in the identification, placement, and education of students with disabilities. This course emphasizes on patterns of social, cognitive, language, and physical development. Social, political, and economic advocacy issues are also addressed. Prerequisite: One course in Child Development. LEC.

SPED 726. Exceptionality and Technology. 1 Hour.
Technology has the potential to dramatically improve the education and quality of life for people with disabilities. This course presents you with a basic foundation for understanding technology in special education, a functional model for selecting the best technology applications for students with special needs, and strategies for applying your knowledge to practical situations. LEC.

SPED 727. Designing Instruction for Diverse Learners. 3 Hours.
This course explores to design, development, and implementation of technology-based solutions for struggling learners in the preK-12 instructional environment. Throughout the course, students will (1) gain an understanding of the Principles of Universal Design for Learning, (2) examine how technology has and can be developed in a manner to meet multiple needs, especially those with disabilities, and (3) analyze how professionals can identify and assess what technology-based solution would meet the needs of a particular individual or group of individuals. LEC.

SPED 729. Introduction to Computing in Special Education. 3 Hours.
This course is designed to provide an introduction to basic concepts of computer literacy, with particular emphasis on the uses of microcomputers in educational settings for individuals with special needs. Topics include an overview of computing specific to the needs of individuals with special needs including: a) applications and the impact of computers on society; b) an introduction to computer hardware and associated concepts; c) introductory programming concepts; d) a survey of instructional and instructional-support applications of computers including examples of related software; e) software evaluation techniques; and f) an overview of resources in educational computing. Students will acquire hands-on operating experience with microcomputers through scheduled laboratory periods. LEC.

SPED 730. Characteristics, Methods & Assessment: Intro Struggling Learners & Studnts High-Incidence Disabilities. 3 Hours.
The course is designed as an introduction to the characteristics, assessment and identification process, and initial instructional and behavioral interventions needed in meeting the needs of students with high-incidence disabilities under the Kansas Adaptive Teacher Education Standards. The needs for specialized services to meet specific learning and/or behavioral needs will be presented. Frameworks for instruction and conceptualizing best practice will be introduced including the principles of Universal Design for Learning and the Multi-Tier System of Support. The role of the educator in identifying, understanding and implementing evidence-based practices is also examined. Curriculum resources and intervention strategies for students with high-incidence disabilities will be introduced with emphasis on tiered planning and implementation. The course is intended for persons working toward the Kansas teaching endorsement in the Special Education Adaptive Area. Prerequisite: Admittance into the Adaptive endorsement teacher education program in the Department of Special Education or permission of the instructor. LEC.

SPED 731. Supporting Children with Significant Learning and Behavioral Concerns. 3 Hours.
Students in this course will gain knowledge of the causes, and intervention and support approaches for young children birth through 5 years with significant support needs. These include young learners with multiple and significant disabilities including neurological impairments, physical disabilities, sensory impairments including dual sensory impairments, complex health care needs, significant developmental disabilities and challenging behavior. Emphasis is placed on environmental adaptations and direct instructional techniques to maximize independence as determined through systematic ecological inventories tailored to the individual child’s strengths and needs. Information is also provided on assistive technology designed to provide appropriate supports. Functional behavioral assessment procedures, proactive intervention strategies, and developing collaborative support plans will be studied. Prerequisite: Admittance into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. SPED 752 or its equivalent, SPED 734 or its equivalent, and SPED 755 or its equivalent. LEC.

SPED 733. Characteristics of Learners with Hearing Loss -- Deaf Studies. 3 Hours.
Deaf Studies is the basic characteristics course for both the Master’s degree in Deaf Education and for Kansas and Missouri endorsement in Deaf/HOH. The course includes medical aspects/etiology of hearing loss, history, pertinent laws, Deaf culture and community, issues in assessment and psychology, language and sign systems, multicultural education, multiple disabilities and hearing loss, and specific issues in the field. LEC.
SPED 734. Inclusive Strategies and Intervention for Infants and Toddlers: ____. 3 Hours.
Emphasizes curriculum development and early intervention provision for infants and toddlers through the planning of appropriate learning experiences, the design of learning environments, developing Individual Family Service Plans (IFSP), promoting collaboration among families and the use of various methods of enhancing the child’s development across the five (social-emotional, adaptive, cognitive, physical, communication) developmental domains. The role of the educator/early interventionist in relation to the family and the child is examined. Curriculum resources and intervention strategies for infants and toddlers with special needs are reviewed with emphasis on interdisciplinary planning and implementation. Prerequisite: Admission into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. LEC.

SPED 735. Characteristics of Children and Youth with Disabilities: ____. 3 Hours.
Social, cognitive, emotional, and other developmental aspects associated with children and youth identified with learning disabilities, behavior disorders, and mental retardation are covered by this course. Characteristics, special needs, and service delivery approaches are compared and contrasted. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 738. Unified Early Childhood Applied Research. 1 Hour.
This seminar is designed to facilitate the UEC teacher candidate’s completion of a Teaching Work Sample during the UEC Student Teaching experience. The purpose of the seminar together with the UEC student teaching experience is to provide the UEC teacher candidate with the opportunity to study and experience the fundamentals of teaching young children with and without disabilities with the aim of evolving a set of values, principles, and skills which will guide future early education teaching situations. Prerequisite: Admission to UEC Student Teaching. Corequisite: SPED 739 UEC Student Teaching. LEC.

SPED 739. Early Childhood Unified Student Teaching/Practicum. 1-6 Hours.
A supervised student teaching experience leading to initial teaching licensure in unified early childhood (birth through grade 3). The student assumes the total professional role as a teacher in an approved inclusive early childhood program to include infant/toddler, preschool or kindergarten. Prerequisite: Admission to UEC Student Teaching. Corequisite: SPED 738 UEC Unified Early Childhood Applied Research. FLD.

SPED 740. Managing Classroom Behavior of Exceptional Children and Youth. 3 Hours.
Designed to acquaint regular and special education teachers, principals, school psychologists, counselors, and speech pathologists with principles and application of classroom management techniques applicable to exceptional children and youth. Methods of changing inappropriate behaviors and prompting the acquisition of adaptive behaviors through positive management procedures will be stressed. Includes an introduction to behavior analysis. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 741. Methods & Assessment: Literacy Interventions Struggling Learners & Students High-Incidence Disabilities. 3 Hours.
This course will provide in depth learning experiences targeting literacy; both reading and writing. Students will learn about assessment tools and assessment systems used in tiered support frameworks to determine the required intensity of literacy support and instruction needed by children/adolescents with adaptive special education needs, and will learn about evidence-based instructional approaches and curriculum developed for students with disabilities and struggling students in general. The course is intended for persons working toward the Kansas teaching license in teaching students needing an adapted curriculum. Prerequisite: SPED 730, admittance into the Adaptive program in the Department of Special Education, or permission of the instructor. LEC.

SPED 742. Methods and Assessment: Life Skills and Community-Based Instruction. 3 Hours.
This course will provide an overview of assessment and instructional practices contributing to community-referenced planning, community-based instruction, and life skills instruction. Students will conduct ecological inventories and other student-referenced assessments, design community-based instructional programs, ecologically valid and age-appropriate to facilitate mastery of skills essential for community and social inclusions, explore best practices in community based instructional programs, including family and student involvement, transportation, and administrative and policy support. Students who have completed SPED 742 cannot enroll in SPED 642. The course is intended for persons working toward the Kansas teaching license in teaching students needing a functional curriculum. Prerequisite: SPED 735, admittance into the Functional program in the Department of Special Education, or permission of the instructor. LEC.

SPED 743. Methods: Functional Behavioral Assessment, Positive Behavior Support and Classroom Management. 3 Hours.
This course provides a problem-solving approach and the framework for teaching and assessment strategies to develop pro-social behavior in students with disabilities and their typical peers in classrooms and whole school contexts. Students assess problem behavior, discover the functions of problem behavior, and learn pro-social alternatives in home, school, and community settings. Prerequisite: SPED 631 or SPED 731, and SPED 632 or SPED 732. LEC.

SPED 744. Assessment and Instructional Methods I: Learners with Hearing Loss. 3 Hours.
This course will provide an introduction to appropriate instructional methodology for teaching students who are deaf or hard of hearing at the early childhood, elementary, and secondary levels. Upon completion students will be familiar with legal issues, teaming, assessment, IEP development, curriculum planning, instructional methods, and transition. LEC.

SPED 745. Audiology and Aural Rehabilitation. 3 Hours.
This course will provide a broad overview of the components of an aural rehabilitation service delivery model including audiological diagnostics and assessment, selection and fitting of a variety of listening devices, and intervention strategies for auditory training and speech perception training. The emphasis of this course will be on the aural habilitation of children; therefore, each of the components of an aural (re)habilitation plan will be considered in relation to the needs of individual children and their families. LEC.

SPED 746. Curriculum and Methods in Early Childhood. 3 Hours.
This is a curriculum and methods course that addresses how to design, implement and evaluate developmentally appropriate curricula and programs for children from birth to six years of age. Issues of curriculum design and assessment are introduced as interrelated processes that include structuring learning environments and experiences that are responsive to children’s interests and abilities. Strategies for developing learning opportunities that are appropriate for young children, including children with special needs and children from diverse cultural, ethnic and linguistic backgrounds, will be explored. Students analyze and evaluate curriculum that focuses on facilitating progress in the domains of: a) social emotional development; b) cognitive development; c) language and communication development; d) adaptive behavior development and e) gross and fine motor development. Students also analyze and evaluate
curriculum standards and frameworks for the young child's acquisition of concepts, skills and dispositions that support the development of early competencies and interest in literacy, mathematics, the sciences, social studies, the arts and individual and group sports. Prerequisite: Admission into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. SPED 752 or its equivalent (may be taken concurrently). LEC.

This course is designed for teachers seeking the Adaptive certification to teach students with High-Incidence Disabilities (Adaptive). Students will learn how to select, administer, score, and interpret formal and informal assessments; make data-based instructional decisions for students with specific learning disabilities, with social and emotional needs and disorders in behavior, mild mental retardation, and/or who experience other chronic health impairments. Individually chosen and administered tests, as well as high-stakes assessments, and will be discussed. Prerequisite: SPED 631 or SPED 731. LEC.

SPED 752. Overview of Early Childhood and Early Childhood Special Education. 3 Hours.
The course serves as an introduction to the profession including historical, philosophical, social and psychological foundations, awareness of value, ethical and legal issues, staff relations and the importance of becoming an advocate for children and families. Students will analyze/interpret trends in early education, including diversity, early childhood special education, family centered practices, legislation, public policy, and developmentally appropriate practice. The two key professional organizations, National Association for the Education of Young Children (NAEYC) and Division of Early Childhood for the Council for Exceptional Children (DEC), recommended practices serve as the foundation for understanding the roles, knowledge and competencies of the early educator. Prerequisite: Admission into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. LEC.

SPED 753. Assessment in Early Education. 3 Hours.
This course examines the practice of gathering information for the purpose of making individual referral and instructional decisions for infants, toddlers, and young children with and without special needs. Discusses effective informal assessment techniques and emphasizes an ecological approach to gathering information. Introduces standardized assessment and screening instruments and provides an overview of the purposes and limitations of such tests. Prerequisite: Admission into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. LEC.

SPED 755. Inclusive Strategies and Interventions for Preschoolers: 3 Hours.
This is a methods course that covers instructional approaches and procedures that offer developmentally appropriate, effective and inclusive early intervention for preschool and kindergarten age children who experience developmental delays, disabling conditions or who are at-risk for developmental problems and disabilities. It is directed toward: (a) "how" to teach, or the technical components of developing and delivering effective instruction that provide access to the general early childhood curriculum within recognized approaches to early childhood education for young children, and (b) the "what" to teach, or the selection of developmentally and individually appropriate child objectives as well as specific materials and specialized instructional approaches. The relationship of instructional planning to state and federal mandates will also be considered. The course is primarily intended for persons who are currently working toward certification in the ECSE program area. Prerequisite: Admission into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. SPED 752 (may be taken concurrently). LEC.

SPED 760. Introduction to Autism Spectrum Disorders. 3 Hours.
An introductory graduate-level course on autism spectrum disorders. It addresses characteristics of children and youth with autism spectrum disorders; trends and issues associated with autism spectrum disorders; and effective practices and strategies for structuring, managing, and promoting social skill development and social interactions among learners with autism spectrum disorders. LEC.

The purpose of this course is to provide an introduction to positive behavioral support (PBS). The lessons contained within this course include an overview of positive behavioral support, the basics of behavior, an introduction to specific positive behavioral support strategies, and a lesson on preventing problem behavior. LEC.

This course introduces current functional assessment methods that are used to build effective behavioral support plans. A strong functional assessment is at the heart of Positive Behavioral Support. After completing this course, you will have a better understanding of how to implement functional assessment methods in your classroom. LEC.

SPED 763. Development and Implementation of PBS Plans. 1 Hour.
A positive behavioral support plan (PBS) describes how features of the environment associated with problem behavior will be modified, what and how skills and strategies will be taught, and how individuals supporting a student will respond to both positive and problematic behavior. This course contains lessons on designing PBS plans, implementing PBS plans, and modifying and assessing PBS plans. LEC.

SPED 764. Intervention Strategies for PBS-I. 1 Hour.
The purpose of this course is to introduce interventions that can be used as part of a comprehensive positive behavioral support plan. An effective positive behavioral support plan contains multiple intervention strategies that address the function maintaining a student's problem behavior. This course contains lessons addressing setting events, antecedent interventions, replacing problem behavior, and consequence interventions. LEC.

SPED 765. Intervention Strategies for PBS-II. 1 Hour.
The purpose of this course is to introduce three types of interventions that can be used in positive behavioral support. An effective positive behavioral support plan contains multiple intervention strategies that address the function maintaining a student’s problem behavior. This course contains a lesson on social skills education, crisis prevention, and interventions addressing physiological factors that influence a student’s problem behavior. LEC.

SPED 766. Redesigning Environmental Systems. 1 Hour.
The purpose of this course is to describe how positive behavioral support can be used to redesign the environment at a systems level. Considering the larger issues within a system including the broader environment, the values and beliefs held by staff, policies and procedures that promote ongoing learning, and collaborative problem solving processes within a school will improve implementation of long-term positive behavioral support efforts. This course contains lessons on classroom management, staff development, and school-wide discipline. LEC.
SPED 767. Creating Positive Lifestyles through PBS. 1 Hour.
One of the most important outcomes of a positive behavioral support plan is an increase in the quality of life for both the student and everyone within the student’s social network. The purpose of this course is to introduce topics related to creating positive lifestyles including person-centered planning, self-determination, and quality of life. LEC.

SPED 772. Participation with Children and Youth with Disabilities: _____, 3 Hours.
A course designed to provide field experiences with children and youth with disabilities in settings where educational services are provided. Students work directly with professionals such as special education teachers, general education teachers, therapists and other support personnel. Students participate as aides, tutors, and instructors with individual and small groups of children and youth. Ongoing meetings with supervisors are designed to facilitate both reflection and strategic learning. FLD.

SPED 774. Education of Secondary and Post-Secondary Level Exceptional Students: _____, 1-3 Hours.
A course based on the problems and needs of secondary and post-secondary level handicapped students with a focus on curriculum alternatives (academic and vocational), instructional planning options, instructional methods and materials and educational and community resources. The focus is on both mildy and moderately handicapped students. Prerequisite: Appropriate section of SPED 735 which may be taken concurrently. LEC.

SPED 775. Practicum with Children and Youth with Disabilities: _____, 1-10 Hours.
Intensive diverse and direct teaching experiences with children and youth with disabilities in educational settings. This practicum is a requirement for provisional endorsement according to KSDE. Students who have completed SPED 775 cannot enroll in SPED 675 within in same curricular area. Prerequisite: Varies by topic. FLD.

SPED 785. Application of Assessment Information for Exceptional Children and Youth. 3 Hours.
An analysis of information derived from assessment instruments and procedures appropriate to measuring the social and cognitive development of exceptional children and youth. Provides experiences in determining assessment data required in the development of individualized educational programs (IEP). Attention is also given to the design of informal assessment procedures, specific to the needs of exceptional children and youth. Experience is provided in the preparation and presentation of assessment data for use in instructional planning conferences. Prerequisite: An undergraduate or graduate course in educational measurement, and SPED 760. LEC.

SPED 793. Psychology of Deafness. 2 Hours.
Reviews of the literature pertaining to psychological evaluations of the deaf and hard of hearing. Divergent views of deafness, type and degree of deafness are considered. Prerequisite: SPED 791. LEC.

SPED 798. Special Course: _____, 1-5 Hours.
A special course designed to address topical issues. LEC.

SPED 800. Classroom Intervention for Language Disorders of Handicapped Learners. 3 Hours.
Emphasis is given to milestones in normal language acquisition and variations from norms demonstrated by handicapped learners. Attention is also given to theoretical approaches to language training, formal and informal language assessment techniques, and instructional methods. Students design individualized instructional plans for incorporating language into the daily curriculum for handicapped learners. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 801. Practicum in School Psychology. 4 Hours.
Supervised practice in the application of psychological theory to educational problems. Includes work useful with exceptional children as well as experiences in the application of such areas as mental hygiene and learning theory to problems involving the total school population. (Same as PRE 910.) Prerequisite: Permission of advisor and instructor. FLD.

SPED 802. Advanced Practicum in School Psychology. 4 Hours.
A continuation of SPED 801 with special emphasis on remedial techniques associated with learning difficulties. (Same as PRE 911.) Prerequisite: SPED 801 and permission of advisor and instructor. FLD.

SPED 804. Designing Online Instruction for E-Learning Environments. 3 Hours.
The focus of the course is on the status of e-learning at the K-12 and postsecondary levels and the process of designing content for e-learning applications. Attention will be given to design features, content structuring, instructional management, evaluation, and collaboration in the process of working with technicians in the process of developing online curriculum and instruction. Prerequisite: None. A background in education is preferred. LEC.

SPED 805. Practicum in Individual Intelligence Testing. 4 Hours.
Practicum training, by arrangement, in administration and interpretation of test results for school situations with particular emphasis on the Stanford-Binet. Prerequisite: Permission of instructor. FLD.

SPED 809. Language Assessment and Instruction II: Learners with Hearing Loss. 3-6 Hours.
This course covers assessment and instruction of speech skills for students who are deaf or hard of hearing. A historical review of the emphasis placed on speech development in deaf students will be provided. Students will learn formal and informal methods of assessment, developmental order and classification systems for English language sounds, and visual, auditory, and tactile facilitation techniques. Auditory training programs and techniques will be emphasized. LEC.

SPED 810. Speech Assessment and Instruction III: Learners with Hearing Loss. 3-6 Hours.
The purpose of this course is to prepare students to provide effective language assessment and instruction to students who are deaf or hard of hearing. This course focuses on the effect of hearing loss on assessment, language and reading, communication options, and instructional strategies. LEC.

SPED 811. Methods of Teaching Elementary School Subjects to the Deaf. 3 Hours.
Focus is on development of skills in adapting materials and methods of teaching science, math, social studies, spelling, and writing to hearing impaired students. Emphasis is placed on problems, trends and procedures used in career education specifically for the hearing impaired. Prerequisite: SPED 711. LEC.

SPED 812. Instructional Approaches in Inclusive Elementary Settings. 2 Hours.
This advanced method course provides curriculum design and instructional procedures appropriate for students at the elementary and middle school levels, including functional academic, social, and home and community life skills. NOTE: This is a 2 credit course to be offered during the first 8 weeks of a semester. It will precede SPED 814 in the same semester. Prerequisite: SPED 614 or SPED 714: Learning Styles and Instructional Accommodations. LEC.
SPED 814. Instructional Approaches in Inclusive Secondary Settings. 2 Hours.
This advanced method course provides curriculum design and instructional procedures for students at the secondary level, including career preparation and transition from school to adult life in the community. Prerequisite: SPED 614 or SPED 714: Learning Styles and Instructional Accommodations. LEC.

SPED 839. Management Principles and Assessment Procedures for the Young or Severely Handicapped. 2-3 Hours.
Examines basic learning procedures and techniques that are essential to programming efforts with the severely or young handicapped. Includes assessment scales, writing instructional programs, measuring operant behavior and evaluating operant behavior. Task and concept analysis related to treatment programs. Prerequisite: Students in the Early Childhood for the Handicapped program must enroll in one hour of practicum, SPED 775. Students in the Severely Handicapped Program must have completed SPED 726. LEC.

SPED 840. Program Planning in Special Education-Early Childhood. 3 Hours.
This course is designed to provide knowledge and skills to implement federal and state development mandates for special education and related services programs for young children from birth to five. It covers procedures for developing, implementing, and evaluating (a) instructional accountability for these children’s participation in the general early childhood curriculum, (b) relationships between general and special early education personnel and programs; (c) roles and responsibilities; (d) interdisciplinary team planning including families; (e) coordinating, educating, and supervising paraeducators; and (f) general management responsibilities associated with instruction of young children with disabilities. Prerequisite: SPED 760 or SPED 860, which may be taken concurrently. LEC.

SPED 841. Advncd Methods&Asmnt:Lrnng Stratg&Cntnt Mastery Struggling Learners&Stnds High-Incidence Disabilit. 3 Hours.
This course is designed for graduate students enrolled in the Masters of Science Program with an emphasis in school-age populations primarily with high mild disabilities or seeking to obtain a license to teach students needing an adapted curriculum in Kansas. Course experiences focus on how to identify and implement evidenced-based practices designed to increase the success of students with mild disabilities in mathematics, social studies, science, and language arts through their participation in general and special education classrooms primarily in grades 4-12. This course emphasizes practices associated with understanding and evaluating curricular demands, monitoring student progress in content-area courses, providing tiered supports and accommodations in teaching, using assessment and grading alternatives, and incorporating the principles of explicit and strategic instruction to design instruction that will promote and enhance content-area learning. The course is intended for persons working toward the Kansas teaching license in teaching students needing an adapted curriculum. Prerequisite: SPED 730, SPED 741, admittance into the High Incidence Disabilities program in the Department of Special Education, or permission of the instructor. LEC.

SPED 842. Advanced Methods: Strategies for Students with Significant Sensory, Motor, and Health Needs. 2 Hours.
In this course, students learn assessment techniques and instructional strategies for teaching learners with sensory and/or motor impairments and complex medical needs. Students will learn use of residual and alternative senses; proper positioning and transfer for students with motor impairments, nutrition, hydration, and medical monitoring, and seizure activity. Students will develop appropriate goals and objectives in the sensory and motor areas, incorporate related services into inclusive educational settings, embed sensory and motor skills training into the general education curriculum, adapt materials and apply assistive technologies. Prerequisite: SPED 632 or SPED 732, and SPED 742. LEC.

SPED 843. Advanced Methods&Assessment:Strategies for Students with Significant Behavior, Social&Emotional Need. 3 Hours.
This course is designed to introduce educators and related service professionals to prevention and intervention related to a broad range of antisocial, aggressive, and behavioral problems. Approaches focus on understanding and addressing the precipitating factors related to inappropriate behavior, short-term approaches for immediate crises, and problem-solving strategies for longer-term change. Course content will include antisocial, aggressive, and violent behavior; options for classroom interventions; school and system-oriented interventions, and ethical and legal issues involved in various prevention and intervention approaches. Class work will focus on literature, research-based intervention approaches, and case work illustrating specific approaches and programs. Prerequisite: SPED 631 or SPED 731, SPED 741, and SPED 743. LEC.

SPED 844. Advanced Methods: Nonsymbolic and Symbolic Communication Assessment and Augmentation Strategies. 3 Hours.
This advanced course examines current principles and practices in the development of multi-modal communication programs for students who do not spontaneously use speech for effective communication. It provides a framework upon which communication programming decisions can be based and interventions and strategies can be developed. Prerequisite: SPED 632 or SPED 732, and SPED 742. LEC.

SPED 850. Curriculum Planning for Exceptional Children and Youth. 3 Hours.
Provides experiences in applying information on identifying learning and behavioral characteristics of exceptional children and youth. Practices in adapting curriculum materials to meet the needs of the handicapped. Prerequisite: SPED 725 and SPED 735. LEC.

SPED 851. Law and Special Education. 3 Hours.
This course focuses on laws that apply to special education, especially “individuals with Disabilities Education Act” and “No Child Left Behind Act.” The American legal system, particularly in respect to special education, the constitutional and statutory provisions of federal and state law, and judicial decisions interpreting those laws are reviewed. The course relates equal protection, procedural due process, and substantive due process doctrines to school practices affecting students with disabilities and examines the six principles of P. L. 94-142 and similar principles in state legislation. (Same as ELPS 856.) LEC.

SPED 852. Citizens with Disabilities, Public Policy, and Policy Analysis. 3 Hours.
Students to analyze public policy that affects citizens with disabilities, various models of analysis are brought to bear on federal policy (e.g., education, transportation, housing, institutionalization, protection and advocacy, medical assistance, employment, vocational rehabilitation, and others). This course is not valid for core requirement in history and/or philosophy of education. (Same as ELPS 857.) Prerequisite: SPED 851 or permission of instructor. LEC.

SPED 853. Professional Ethics, Public Values, and Citizens with Disabilities. 3 Hours.
This course addresses the issues that professionals (e.g., educators, physicians, allied health providers, attorneys, and others) and families of persons with disabilities face in the context of public values, attitudes, and rules of law. The issues include education, treatment and nontreatment. This course is not valid for core requirement in history and/or philosophy of education. (Same as ELPS 858.) Prerequisite: SPED 850, SPED 852 or permission of instructor. LEC.
SPED 854. Family and Interprofessional Collaboration in Special Education. 3 Hours.
This course is designed to provide knowledge and skills to implement federal and state mandates for special education and related services programs as they relate to building and maintaining relationships with families of students with disabilities, and developing effective school programs. It covers procedures for developing, implementing, and evaluating (a) instructional accountability for special education students’ participation in district and state assessment; (b) relationships between general and special education personnel and programs; (c) roles and responsibilities; (d) interdisciplinary team planning including families; (e) coordinating, educating, and supervising paraeducators; and (f) general management responsibilities associated with instruction of children and youth with disabilities. Course topics will include collaboration in schools, community systems and families, historical perspectives of family life and school involvement, effective relationships between home, school, community, communication among professionals and with families, school-based programs, home-based programs, and multicultural considerations. Prerequisite: SPED 631 or SPED 731, or SPED 632 or SPED 732, or SPED 735. LEC.

SPED 856. Transition Education and Services from Childhood through Adulthood. 3 Hours.
The purpose of this course is to provide a background in career development and transition education for persons with disabilities from middle school through adulthood. Emphasis is placed on IDEA requirements for transition services, career development and transition processes, transition services assessment, secondary special education curricular implications, career development and transition service needs, collaborative services in schools and communities to promote quality transition services, and issues and trends in transition education and services. LEC.

SPED 857. Vocational Training and Employment. 3 Hours.
This course is designed to provide graduate students in special education and related areas with an overview of employment and vocational models for adolescents and young adults with disabilities. Emphasis is placed upon theory and practice related to career development, supported employment, working with businesses, and school and community vocational training models. Prerequisite: SPED 856 or SPED 858. LEC.

SPED 858. Assessment for Transition Planning. 3 Hours.
This course is designed to provide a review of psychometric principles and their utility as a foundation for quality assessment in transition assessment and planning for youth with disabilities. Formal and informal assessments across a range of transition planning areas are reviewed and evaluated. Skills in curriculum-based assessment, rating scales, situational assessment, and functional assessment are emphasized. Prerequisite: SPED 856 or permission of instructor. LEC.

SPED 859. Interagency Services for Transition to Adulthood. 3 Hours.
The purpose of this course is to provide an overview of interagency and community services and systems for adolescents and young adults with disabilities. Emphasis is placed on theory and practice related to interagency collaboration; systems change efforts in transition services; and state-of-art practices regarding supporting individuals with disabilities in community employment, living, socialization, community participation, and other areas of adult life. Prerequisite: SPED 856. LEC.

SPED 860. Education of Children and Youth with Disabilities II: _____ 3 Hours.
This course is designed to prepare students to implement specialized alternative strategies for individualized group instruction. Methods for developing and implementing overall treatment/educational programs, planning or selecting curriculum/service models for programs, and developing instructional materials are emphasized. Procedures for managing classroom staff and service resources, coordinating educational programs with families, other service personnel and program support staff, and monitoring overall program effectiveness are addressed. Prerequisite: SPED 760. LEC.

SPED 874. Planning for Adult Outcomes: ____ 1-3 Hours.
The problems, trends, issues, and procedures used in planning life skills, occupational and vocational skills, and transition from school to adult living for persons with disabilities. Separate sections will be organized by topics pertaining to career/vocational development, assessment, and transition programs and services. These will include: (a) transitions from early childhood to adulthood, (B) application of assessment information, and (c) vocational preparation and employment. Prerequisite: SPED 725 (may be taken concurrently). LEC.

SPED 875. Practicum with Children and Youth with Disabilities: ____ 1-10 Hours.
This course is designed to provide intensive field work and direct teaching experiences with children and youth with disabilities in educational, residential, and clinical settings. Prerequisite: SPED 775. LEC.

SPED 879. Conferencing with Parents of Exceptional Children and Youth: ____ 3 Hours.
A course to develop knowledge and skills in the techniques of interviewing and conferencing, with special application to the professional, legal and ethical problems related to working with parents of exceptional children. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 880. Coordination and Supervision of Services for Exceptional Children. 3 Hours.
An analysis of the role of the special education coordinator and supervisor. Particular attention will be given to: program development; planning, organizing, and delivering inservice training; personnel recruitment, selection, and evaluation; program management; and program evaluation. Students will relate the topical content to their specific area of expertise in special education. Prerequisite: SPED 425 or SPED 725 and six additional semester hours in special education. LEC.

SPED 890. Interdisciplinary Programming for Children and Youth with Disabilities. 3 Hours.
This course is designed to provide students a survey of disciplines which contribute to care and treatment of students with disabilities. Emphasis on professional roles, team participation, case management, and reporting and follow up. Disciplines include medicine, education, audiology, psychology, speech pathology, occupational therapy, physical therapy, music therapy and social work. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 896. Capstone Adaptive Program Seminar. 3 Hours.
This course is designed to be a culminating experience for Adaptive Program students who choose to complete their masters programs with a comprehensive masters examination instead of one of the other program options (i.e., project or thesis). Students will complete this course during the final semester of their programs. Participants will review current issues, evidence-based practices, home-school considerations, state and federal regulations, and Kansas standards regarding appropriate education for students with mild to moderate disabilities (i.e., Adaptive category designation). The course is a prerequisite for the departmental comprehensive examination in the Adaptive area. LEC.

SPED 897. Independent Study. 1-4 Hours.
Prerequisite: Consent of advisor and instructor. RSH.

SPED 898. Master’s Project. 1-4 Hours.
RSH.
SPED 899. Master's Thesis. 1-6 Hours.

SPED 910. Advanced Application of Behavioral Management Techniques to Exceptional Children and Youth. 3 Hours.
Theory and principles of behavioral analysis. Emphasis will be given to observation, measurement, recording, and visual display techniques. Other topics include maintenance and generalization of behavior change. Students will be provided experience in the design and carrying out of research studies related to exceptional children and youth using principles and methods of behavioral analysis. Prerequisite: SPED 425 or SPED 725 and SPED 839. LEC.

SPED 915. Advanced Curriculum Development for Children and Youth with Disabilities. 3 Hours.
This course is designed to provide principles of development, needs assessment, evaluation and dissemination applied to curriculum products. Analysis of organizational and conceptual features of major curriculum development projects for students with disabilities are addressed; participants design curriculum procedures. Prerequisite: Twelve semester hours in special education and a general curriculum course. LEC.

SPED 920. Management of Instructional Resources for Exceptional Children and Youth. 3 Hours.
Designed for individuals with responsibilities for the operation of instructional resource centers and educational programs serving exceptional children and youth. Experiences relate to: selection, acquisition, circulation, and management of special education instructional media/materials and the delivery of inservice training specific to their skills. Prerequisite: Professional preparation and/or experience in the Education of Exceptional Children and Youth and CI 616, Introduction to Educational Communications. LEC.

SPED 925. Medical Aspects of Handicapping Conditions. 3 Hours.
The organization of this course follows the chronology of an individual's total development from genetic origin through fetal development, perinatal, infancy, childhood, and adolescence. Emphasis is given to etiology and implications of handicapping conditions on development. Attention is given to prevention, treatment, and habilitation or rehabilitation of various conditions. Prerequisite: SPED 725. LEC.

SPED 949. Specialist Research. 1-4 Hours.
RSH.

SPED 950. Civic Professionalism. 3 Hours.
This course is concerned with the relationship between professions and society in a democracy, and specifically, with the ethics and practices associated with the professions of education, special education, and other disability-related fields. Models of professionalism are compared and advantages of civic professionalism for individuals with disabilities and their families, the professions, and society as a whole are explored. Lessons drawn from disagreements over questions such as the nature and social consequences of the professions are used to broaden understanding of what professionalism could and should be in a democracy. Prerequisite: Admission to doctoral program. LEC.

SPED 970. Problems of Exceptionality: ______. 3 Hours.
An extensive analysis of the literature and research pertinent to issues in a given disability. Separate sections are organized for various disabilities. Students may enroll in more than one section as a part of a graduate program. Prerequisite: Three courses in special education or permission of instructor. LEC.

SPED 971. Organization and Administration of Services for Children and Youth with Disabilities. 3 Hours.
This course is designed to prepare administrators and prospective administrators for organizing and administering educational programs for students with disabilities. Major topics include a review of current trends in special education, state and federal guidelines and regulations, legal and financing aspects of special education, program planning, and administration of special services. (Same as ELPS 959.) Prerequisite: Nine hours of education including educational psychology and SPED 725. LEC.

SPED 972. Issues and Trends in Special Education I. 2 Hours.
This course is designed to assist first-year special education doctoral students organize and synthesize a conceptual and substantive map of the field of special education and introduce them to corresponding faculty research interests and resources. Emphasis is placed on the academic writing expectations and resources of the field, university, and department, and on building a cohort of students to address common issues and to provide a foundation for peer support throughout the doctoral program. Prerequisite: Admission to special education doctoral program or permission of instructor. LEC.

SPED 973. Issues and Trends in Special Education II. 2 Hours.
This capstone seminar is designed to assist advanced doctoral students synthesize and evaluate information on a broad range of current and historically significant special education issues and trends in preparation for comprehensive examinations and future professional roles. Substantively, its primary focus is issues and trends that affect the entire field or cut across several areas of study and practice. Its secondary focus is significant issues and trends that affect particular categorical or functional sub-areas of study and practice within the field. Prerequisite: Completion of nine doctoral courses in special education, including 4 of 6 departmental Core courses. LEC.

SPED 974. Issues and Trends: Students with Learning Disabilities. 3 Hours.
This doctoral level course will explore current issues related to characteristics, educational methods and curricula, and questions, problems, concerns and movements connected to the education of children and youth with learning disabilities, emotional/behavioral disorders and autism spectrum disorders. Prerequisite: Doctoral program admission or permission of instructor. LEC.

SPED 975. Advanced Practicum with Children and Youth with Disabilities: ______. 1-10 Hours.
Advanced development of conceptual and practical field-based skills. Prerequisite: SPED 775. FLD.

SPED 977. Learning Disabilities/Behavior Disorders Issues II. 3 Hours.
This course is designed to provide students an opportunity to engage in an extensive analysis of the literature and research pertinent to critical issues in the field of learning and behavioral exceptionality. Prerequisite: SPED 970 LD/BD Issues I; SPED 972 Trends and Issues in Special Education I. LEC.

SPED 980. Advanced Topics: ______. 1-3 Hours.
A special course of study to meet current needs of education professionals -- primarily for post-master's level students. LEC.

SPED 981. Leadership and Systems Change. 3 Hours.
This course is designed to provide students with an overview of seminal leadership and systems change literature. Students analyze and apply the literature at the teacher, family, school building, district, state, and federal levels. Strategies for developing and mobilizing stakeholders to support
the process of change will be covered. Prerequisite: Admission to doctoral program. LEC.

SPED 982. Preparing Future Faculty. 3 Hours.
This course is designed to give students an introduction and overview of academic life and the roles and responsibilities of an academic career. Its primary purpose is to help develop a realistic perspective of the expectations of academic life and the competencies required for a successful start in an academic career. Organized around the broad themes of understanding the academy, faculty life and work, and academic career paths, course content addresses the roles and responsibilities of faculty life in different types of institutions and the issues faculty face as they pursue their academic careers. The course offers an opportunity for students to critically review their doctoral program in the context of preparing them for a successful start in an academic career and to explore options for academic career choices. Prerequisite: Doctoral program admission. LEC.

SPED 983. Proposal Development. 3 Hours.
This course is designed to teach a broad array of strategies associated with the development of successful proposals that will generate funds to support programmatic work. Among the topics covered in this course are sources of funding, strategies for conceptualizing and writing proposals, collaboration strategies, proposal peer-review process, and integrating proposal development activities into other professional responsibilities. Prerequisite: Admission to doctoral program and PRE 710. LEC.

SPED 984. School Reform and School Community Partnerships. 3 Hours.
This is an interprofessional course in public policy and school reform that is concerned with current policy and systems transformations in education and child/family services, including educational, social and health service systems and the movement toward school-linked service integration strategies and family partnerships, called the "community school" movement. Issues connected with comprehensive school reform including the role of special education and mental health in this process will be emphasized. Particular emphasis will be placed on urban, multicultural issues affecting community schools. Prerequisite: Doctoral program admission or permission of instructor. LEC.

SPED 985. Naturalistic Research. 3 Hours.
This course is designed to develop skills in naturalistic or constructivist research, while situating it theoretically within the broader framework of modern and postmodern social inquiry, and exploring its social, political and ethical implications. The course develops students' skills in using this form of interpretive qualitative research, provides a theoretical framework for selecting inquiry paradigms, compares and contrasts positivist and constructivist inquiry, and reviews social and political implications of constructivist inquiry. Prerequisite: Six hours of statistics, measurement, and/or large or small group research design. LEC.

SPED 986. Trends and Issues Associated with Online Instruction. 3 Hours.
The course examines the opportunities, challenges, cautions, and demands of web-based instruction in higher education. It explores the policy implications of web-based instruction, development of collaborative teaching skills utilizing telecommunications resources, and the design and technical aspects of online instruction. Particular attention is given to the implications of online instruction for accommodating needs presented by diverse learners through strategies such as universal designs. Prerequisite: Admission to doctoral program or permission of instructor. LEC.

SPED 990. Small Sample Empirical Research Methods. 3 Hours.
This course provides a detailed examination of research methods for advancing knowledge and validating hypothetically useful treatments in situations in which sufficient sample sizes to conduct formal experiments are lacking, the question of interest is better addressed by multiple observations of treatment effects over time, and/or the question is best addressed by taking a variety of observations of a single unit of interest. Specifically, two small sample research methods will be examined in depth with examples and practical application experience: interrupted time series design for small samples ("single case" design), and Yin's empirical case study method. Prerequisite: Doctoral program admission or permission of instructor. LEC.

SPED 991. Family Outcomes in Special Education. 3 Hours.
This course focuses on analyzing and synthesizing research literature focusing on intermediate outcomes (e.g., family-professional partnerships) and long-term outcomes (e.g., family quality of life) related to families of children, youth, and adults with disabilities. Key family theories are discussed and applied in the development and implementation of interventions that have potential to increase intermediate and long-term family outcomes. Prerequisite: Three courses in special education or permission of instructor. LEC.

SPED 992. Seminar in Early Childhood/Intervention. 3 Hours.
This seminar examines research to support evidence-based practices that currently exist in the areas of early intervention and early childhood special education. The primary objective is to learn how to read and critically analyze studies that form the evidence base for several early intervention and early childhood special education practices. Primary goals of the class include the development of skills for evaluating research studies in early intervention and early childhood special education, and increasing knowledge of evidence-based practices in the early intervention literature. Prerequisite: Three courses in special education or permission of instructor. LEC.

SPED 995. Field Experience in: _____ 1-5 Hours.
Supervised and directed experiences in selected educational settings. Instructors conduct regular observations and conference with students. Written summaries and evaluations of field experiences are prepared independently by the student, a representative of the cooperating agency, and the instructor. Open only to advanced students and field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. FLD.

SPED 996. College Teaching Experience. 2 Hours.
This course is designed to prepare students for college teaching. Enrolled students shall engage in semester-long, planned, instruction that includes college classroom teaching under supervision. Planning shall be done with a member of the faculty who will supervise the experience. FLD.

SPED 997. Individual Study. 1-4 Hours.
Prerequisite: Prior graduate course work in the area of study and consent of instructor. RSH.

SPED 998. Seminar in: _____ 1-4 Hours.
LEC.

SPED 999. Doctoral Dissertation. 1-15 Hours.
THE.

Bachelor of Science in Education
Program Completion
Requirements for Program Completion
Completion of the Teacher Education program requires:

1. Successful completion of the B.S.E. degree. To complete this degree, the student must finish
• An approved program of at least 120 hours with a cumulative grade-point average of at least 2.5.
• Other general regulations of the school and university.

2. Successful completion of field experience (student teaching and/or internship). Admission to student teaching requires
• A minimum grade-point average of 2.5 in the content area.
• A minimum overall grade-point average of 2.75 with no grade lower than a C in any course in professional education.

Students must complete student teaching with a grade of C or higher to continue with their internships. This means that a C does not count for either successful completion of a professional education course or student teaching.

Students seeking elementary licensure complete field experiences at both primary (K-3) and intermediate (4-6) levels. Students seeking elementary licensure may not complete student teaching and internship in the same school except with advance permission.

3. Completion of licensure requirements. To be licensed as a teacher in Kansas, a student must
• Complete an application,
• Pay a fee,
• Pass the Kansas Performance Teaching Portfolio (KPTP),
• Pass the Principles of Learning and Teaching Examination and Praxis content examination(s), and
• Complete the academic requirements in items 1 and 2 above.

Information about licensure is available in the Licensure Office (http://www.soe.ku.edu/licensure) in J.R. Pearson Hall.

Note: Each state has its own licensure requirements. Being eligible for a license in Kansas does not ensure that the applicant is eligible for licensure in other states.

Student Teaching/Internship Requirements
Unified Early Childhood Program

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Total Hours: 24

Elementary Program

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Total Hours: 27

Middle, Secondary, and K-12 Programs

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Total Hours: 25

UEC
Unified Early Childhood (Birth–Grade 3) Major

Admission Requirements (29-31)

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<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
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<tr>
<td>GEOG 104</td>
<td>Principles of Physical Geography</td>
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<tr>
<td>GEOG 105</td>
<td>Introductory Laboratory in Physical Geography</td>
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</tr>
<tr>
<td>MATH 101</td>
<td>College Algebra</td>
<td>3-5</td>
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<tr>
<td>or MATH 104</td>
<td>Precalculus Mathematics</td>
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<td>MATH 105</td>
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<td>MATH 115</td>
<td>Calculus I</td>
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<td>Higher mathematics class</td>
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<tr>
<td>PSYC 104</td>
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<td>BIOL 100</td>
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<td>&amp; BIOL 102</td>
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<td>HSES 260</td>
<td>Personal and Community Health</td>
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<tr>
<td>HIST 128</td>
<td>History of the United States Through the Civil War</td>
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<tr>
<td>LING 106</td>
<td>Introductory Linguistics</td>
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<tr>
<td>or LING 110</td>
<td>Language and Mind</td>
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<tr>
<td>PHSX 111</td>
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<td>and Introductory Physics Laboratory</td>
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<tr>
<td>CHEM 110</td>
<td>Introductory Chemistry</td>
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<td>CHEM 130</td>
<td>General Chemistry I</td>
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Teacher Education Courses (71-77)

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<td>C&amp;T 235</td>
<td>Multicultural Education</td>
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<tr>
<td>SPED 261</td>
<td>Families and Professional Partnerships</td>
<td>3</td>
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<tr>
<td>SPED 362</td>
<td>Introduction to Early Education and Early Childhood Special Education</td>
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Elementary (K–6) Major

Admission Requirements (32-34)

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<th>Course Name</th>
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<td>ANTH 160</td>
<td>The Varieties of Human Experience</td>
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<tr>
<td>or SOC 130</td>
<td>Comparative Societies</td>
<td>3</td>
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<tr>
<td>C&amp;T 100</td>
<td>Introduction to the Education Profession</td>
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</tr>
<tr>
<td>COMS 130</td>
<td>Speaker-Audience Communication</td>
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<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
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<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
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<tr>
<td>GEOG 104</td>
<td>Principles of Physical Geography</td>
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<td>GEOG 105</td>
<td>Introductory Laboratory in Physical Geography</td>
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<tr>
<td>HIST 128</td>
<td>History of the United States Through the Civil War</td>
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</tr>
<tr>
<td>MATH 101</td>
<td>College Algebra</td>
<td>3-5</td>
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<tr>
<td>or MATH 104</td>
<td>PreCalculus Mathematics</td>
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<td>Introduction to Topics in Mathematics</td>
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<tr>
<td>MATH 115</td>
<td>Calculus I</td>
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Higher mathematics class

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<td>PSYC 104</td>
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General Education Courses (28-29)

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<td>ENGL 203</td>
<td>Topics in Reading and Writing: _____</td>
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<tr>
<td>ENGL 209</td>
<td>Introduction to Fiction</td>
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<tr>
<td>ENGL 210</td>
<td>Introduction to Poetry</td>
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<tr>
<td>ENGL 211</td>
<td>Introduction to the Drama</td>
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<tr>
<td>BIOL 100</td>
<td>Principles of Biology</td>
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<td>BIOL 102</td>
<td>Principles of Biology Laboratory</td>
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<tr>
<td>HSES 260</td>
<td>Personal and Community Health</td>
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<tr>
<td>HIST 308</td>
<td>Key Themes in Modern Global History</td>
<td>3</td>
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<tr>
<td>or HIST 348</td>
<td>History of the Peoples of Kansas</td>
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<tr>
<td>LING 106</td>
<td>Introductory Linguistics</td>
<td>3</td>
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<tr>
<td>or LING 110</td>
<td>Language and Mind</td>
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<th>Course Name</th>
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<tr>
<td>PHSX 111</td>
<td>Introductory Physics</td>
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<tr>
<td>&amp; PHSX 116</td>
<td>and Introductory Physics Laboratory</td>
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<tr>
<td>CHEM 110</td>
<td>Introductory Chemistry</td>
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<td>CHEM 130</td>
<td>General Chemistry I</td>
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<tr>
<td>POLS 110</td>
<td>Introduction to U.S. Politics</td>
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Teacher Education Courses (75-76)

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<tr>
<td>C&amp;T 235</td>
<td>Multicultural Education</td>
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<td>ELPS 250</td>
<td>Education and Society</td>
<td>3</td>
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<tr>
<td>C&amp;T 322</td>
<td>Curriculum and the Learner in the Elementary School</td>
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<td>C&amp;T 344</td>
<td>Children’s Literature in the Elementary School</td>
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<tr>
<td>MATH 109</td>
<td>Mathematics for Elementary School Teachers I</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;T 352</td>
<td>Literacy Instruction in the Primary Grades (K-3)</td>
<td>3</td>
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<tr>
<td>C&amp;T 353</td>
<td>Literacy Practicum in the Primary Grades</td>
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<tr>
<td>MATH 110</td>
<td>Mathematics for Elementary School Teachers II</td>
<td>3</td>
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<tr>
<td>C&amp;T 330</td>
<td>Instructional Approaches for ESOL Learners in the Elementary/Early Childhood Classroom</td>
<td>3</td>
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<tr>
<td>C&amp;T 354</td>
<td>Literacy Instruction in the Intermediate Grades</td>
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<td>C&amp;T 355</td>
<td>Literacy Practicum in the Intermediate Grades (4-6)</td>
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<tr>
<td>C&amp;T 347</td>
<td>Social Studies in the Elementary Classroom</td>
<td>3</td>
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<tr>
<td>C&amp;T 349</td>
<td>Science in the Elementary Classroom</td>
<td>3</td>
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<tr>
<td>C&amp;T 351</td>
<td>Mathematics for the Elementary Classroom</td>
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<tr>
<td>ELPS 301</td>
<td>Educational Technology in Elementary-Middle Education</td>
<td>3</td>
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<tr>
<td>HSES 341</td>
<td>Instructional Strategies in Physical Education for Elementary Classroom Teachers</td>
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<td>Select one of the following:</td>
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<tr>
<td>MEMT 341</td>
<td>Instructional Strategies in Music for Elementary Classroom Teachers</td>
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<tr>
<td>VAE 341</td>
<td>Instructional Strategies in Art for Elementary Classroom Teachers</td>
<td></td>
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<tr>
<td>THR 404</td>
<td>Children and Drama</td>
<td>6</td>
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<tr>
<td>PRE 305</td>
<td>Development and Learning of the Child</td>
<td>3</td>
</tr>
<tr>
<td>SPED 326</td>
<td>Teaching Exceptional Children and Youth in General Education</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;T 490</td>
<td>Student Teaching</td>
<td>6</td>
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<tr>
<td>ELPS 537</td>
<td>The Governance and Organization of Schools</td>
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</table>
Secondary (6-12) English Major

Admission Requirements (31-33)

ANTH 160 The Varieties of Human Experience 3
or SOC 130 Comparative Societies
BIOL 100 Principles of Biology 4
& BIOL 102 and Principles of Biology Laboratory
C&T 100 Introduction to the Education Profession 3
COMS 130 Speaker-Audience Communication 3
ENGL 101 Composition 3
ENGL 102 Critical Reading and Writing 3
HIST 128 History of the United States Through the Civil War 3
or HIST 129 History of the United States After the Civil War
MATH 101 College Algebra 3-5
or MATH 104 Precalculus Mathematics
Select one of the following:
  MATH 105 Introduction to Topics in Mathematics
  MATH 115 Calculus I
Higher mathematics class
PSYC 104 General Psychology 3

General and Major Requirements (45-46)

Select one of the following:
  ENGL 203 Topics in Reading and Writing: _______
  ENGL 209 Introduction to Fiction
  ENGL 210 Introduction to Poetry
  ENGL 211 Introduction to the Drama
ENGL 312 Major British Writers to 1800 3
ENGL 314 Major British Writers after 1800 3
ENGL 320 American Literature I 3
ENGL 322 American Literature II 3
ENGL 332 Shakespeare 3
Select one of the following:
  ENGL 337 Introduction to U.S. Latino/a Literature
  ENGL 338 Introduction to African-American Literature
  ENGL 339 Introduction to Caribbean Literature
ENGL 571 American Indian Literature: _______
ENGL 573 U.S. Latina/o Literature: _______
ENGL 574 African American Literature: _______

Select one of the following:
  ENGL 351 Fiction Writing I
  ENGL 355 Nonfiction Writing I

ENGL 360 Advanced Composition: _______
ENGL 555 Nonfiction Writing II
ENGL 385 The Development of Modern English 3
or ENGL 387 Introduction to the English Language
ENGL 360 Advanced Composition: _______
or ENGL 580 Rhetoric and Writing: _______
Select one of the following:
  HWC 304 World Literature I
  HWC 308 World Literature II
  HWC 312 World Literature III
HSES 260 Personal and Community Health 3
Select one of the following Physical science lecture and lab: 4-5
  ASTR 191 Contemporary Astronomy
& ASTR 196 and Introductory Astronomy Laboratory
ATMO 105 Introductory Meteorology
CHEM 110 Introductory Chemistry 5
GEOG 104 Principles of Physical Geography 3
& GEOG 105 and Introductory Laboratory in Physical Geography
GEOG 101 World Regional Geography, Honors
& GEOG 103 and Principles of Human Geography, Honors
PHSX 114 College Physics I

Teacher Education Courses (50-55)

C&T 235 Multicultural Education 3
ELPS 250 Education and Society 3
ELPS 302 Educational Technology in Middle/Secondary Education 3
PRE 306 Development and Learning of the Adolescent 3
SPED 326 Teaching Exceptional Children and Youth in General Education 3
C&T 324 Curriculum Learner in the Middle School and High School 3
C&T 430 Teaching Literature for Young Adults 3
PRE 456 Managing and Motivating Learners in the Middle and Secondary Classroom 3
C&T 331 Instructional Approaches for ESOL Learners in the Middle/Secondary Classroom 3
C&T 533 Curriculum and Instruction in Middle & Secondary English/Language Arts Classrooms 3
C&T 540 Advanced Practices in Teaching English in the Middle and Secondary Schools 3
C&T 448 Reading and Writing Across the Curriculum 3
C&T 489 Advanced Teaching Practicum 1
ELPS 537 The Governance and Organization of Schools 3
SPED 507 Advanced Practices for Children with Disabilities in Middle/Secondary General Education Classroom 3
C&T 500 Student Teaching in: _______ 1-6
C&T 495 Seminar: Developing the Teaching Portfolio 3
PRE 520 Classroom Assessment 3
Math

Middle (5-8) Mathematics Major

Admission Requirements (31-35)

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ANTH 160</td>
<td>The Varieties of Human Experience</td>
<td>3</td>
</tr>
<tr>
<td>or SOC 130</td>
<td>Comparative Societies</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 100</td>
<td>Principles of Biology</td>
<td>3</td>
</tr>
<tr>
<td>&amp; BIOL 102</td>
<td>Principles of Biology Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;T 100</td>
<td>Introduction to the Education Profession</td>
<td>3</td>
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<tr>
<td>COMS 130</td>
<td>Speaker-Audience Communication</td>
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<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
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<tr>
<td>HIST 128</td>
<td>History of the United States Through the Civil War</td>
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<tr>
<td>or HIST 129</td>
<td>History of the United States After the Civil War</td>
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<tr>
<td>MATH 101</td>
<td>College Algebra</td>
<td>3-5</td>
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<tr>
<td>or MATH 104</td>
<td>Pre calculus Mathematics</td>
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Select one of the following:

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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>MATH 105</td>
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<td>MATH 115</td>
<td>Calculus I</td>
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Higher mathematics course

PSYC 104  General Psychology  3

General Education and Major Requirements (42-46)

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<th>Credits</th>
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<tr>
<td>MATH 109</td>
<td>Mathematics for Elementary School Teachers I</td>
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<tr>
<td>MATH 110</td>
<td>Mathematics for Elementary School Teachers II</td>
<td>3</td>
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<tr>
<td>MATH 121</td>
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<td>MATH 122</td>
<td>Calculus II</td>
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<td>MATH 365</td>
<td>Elementary Statistics</td>
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<td>MATH 409</td>
<td>Topics in Geometry for Secondary and Middle School Teachers</td>
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<td>Topics in History of Mathematics for Secondary and Middle School Teachers</td>
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<td>MATH 450</td>
<td>Discrete Mathematics</td>
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<td>MATH 558</td>
<td>Introductory Modern Algebra</td>
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Select one of the following Physical science lecture and labs:

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<td>ASTR 191</td>
<td>Contemporary Astronomy</td>
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<td>&amp; ASTR 196</td>
<td>and Introductory Astronomy Laboratory</td>
<td>3</td>
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<tr>
<td>ATM 105</td>
<td>Introductory Meteorology</td>
<td>3</td>
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<td>CHEM 110</td>
<td>Introductory Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>or CHEM 130</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>GEOG 104</td>
<td>Principles of Physical Geography</td>
<td>3</td>
</tr>
<tr>
<td>&amp; GEOG 105</td>
<td>and Introductory Laboratory in Physical Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 101</td>
<td>World Regional Geography, Honors</td>
<td>3</td>
</tr>
<tr>
<td>&amp; GEOG 103</td>
<td>and Principles of Human Geography, Honors</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 114</td>
<td>College Physics I</td>
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Teacher Education Courses (47-52)

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<th>Title</th>
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<tr>
<td>C&amp;T 235</td>
<td>Multicultural Education</td>
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<td>ELPS 250</td>
<td>Education and Society</td>
<td>3</td>
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<tr>
<td>ELPS 302</td>
<td>Educational Technology in Middle/Secondary Education</td>
<td>3</td>
</tr>
<tr>
<td>PRE 306</td>
<td>Development and Learning of the Adolescent</td>
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SPED 326  Teaching Exceptional Children and Youth in General Education  3
C&T 324  Curriculum Learner in the Middle and High School  3
PRE 456  Managing and Motivating Learners in the Middle and Secondary Classroom  3
C&T 331  Instructional Approaches for ESOL Learners in the Middle/Secondary Classroom  3
C&T 539  Curriculum and Instruction in Middle and Secondary Mathematics Classrooms  3
C&T 543  Advanced Practices in Teaching Mathematics in the Middle and Secondary Schools  3
C&T 448  Reading and Writing Across the Curriculum  3
C&T 489  Advanced Teaching Practicum  1
ELPS 537  The Governance and Organization of Schools  3
SPED 507  Advanced Practices for Children with Disabilities Middle/Secondary General Education Classroom  3
C&T 500  Student Teaching in: _____  1-6
C&T 495  Seminar: Developing the Teaching Portfolio  3
PRE 520  Classroom Assessment  3

History/Gov’t

Secondary (6-12) History and Government Major

Admission Requirements (35-37)

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<th>Course</th>
<th>Title</th>
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<td>ANTH 160</td>
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<td>Introduction to the Education Profession</td>
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<td>COMS 130</td>
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<td>HIST 128</td>
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<td>Pre calculus Mathematics</td>
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Higher mathematics course

PSYC 104  General Psychology  3

Major Requirements (51-52)

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<td>GEOG 100</td>
<td>World Regional Geography</td>
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<td>GEOG 104</td>
<td>Principles of Physical Geography</td>
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<td>GEOG 105</td>
<td>Introductory Laboratory in Physical Geography</td>
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Select one of the following:

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<tr>
<td>GEOG 111</td>
<td>Maps and Mapping</td>
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<tr>
<td>GEOG 210</td>
<td>Computers, Maps, and Geographical Analysis</td>
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<tr>
<td>GEOG 311</td>
<td>Map Conception and Development</td>
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<td>GEOG 358</td>
<td>Principles of Geographic Information Systems</td>
<td>3</td>
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Select one of the following:
Science

Middle (5-8) Science Major

Admission Requirements (28-32)

ANTH 160  The Varieties of Human Experience  3
or SOC 130  Comparative Societies  3
BIOL 150  Principles of Molecular and Cellular Biology  4
C&T 100  Introduction to the Education Profession  3
COMS 130  Speaker-Audience Communication  3
ENGL 101  Composition  3
ENGL 102  Critical Reading and Writing  3
MATH 101  College Algebra  3-5
or MATH 104  Precalculus Mathematics  3-5
Select one of the following:  3-5
MATH 105  Introduction to Topics in Mathematics  3
MATH 115  Calculus I  3
Higher mathematics class  3
PSYC 104  General Psychology  3

Major Requirements (53)

ASTR 191  Contemporary Astronomy  4
& ASTR 196  and Introductory Astronomy Laboratory  4
ATMO 105  Introductory Meteorology  5
Biol 152  Principles of Organismal Biology  4
CHEM 130  General Chemistry I  5
CHEM 135  General Chemistry II  5
GEOL 101  The Way The Earth Works  5
& GEOL 103  and Geology Fundamentals Laboratory  5
HIST 136  Early Science to 1700  3
or HIST 137  History of Modern Science  3
Select one of the following:  3
MATH 101  College Algebra  3
& MATH 103  and Trigonometry  3
MATH 104  Precalculus Mathematics  3
MATH 115  Calculus I  3
MATH 116  Calculus II  3
PHSX 114  College Physics I  4
PHSX 115  College Physics II  4
Elective in science (300 level or higher)  3
Undergraduate science research course (300 level or higher)  3

Teacher Education Courses (47-52)

C&T 235  Multicultural Education  3
ELPS 250  Education and Society  3
ELPS 302  Educational Technology in Middle/Secondary Education  3
PRE 306  Development and Learning of the Adolescent  3
SPED 326  Teaching Exceptional Children and Youth in General Education  3
C&T 324  Curriculum Learner in the Middle School and High School  3
PRE 456  Managing and Motivating Learners in the Middle and Secondary Classroom  3
C&T 331  Instructional Approaches for ESOL Learners in the Middle/Secondary Classroom  3
C&T 335  Curriculum and Instruction in Middle and Secondary History and Government Classrooms  3
C&T 420  Teaching Kansas Government and Contemporary Public Policy Issues: _____  3
C&T 541  Advanced Practices in Teaching Social Studies in Middle/Secondary Schools  3
C&T 448  Reading and Writing Across the Curriculum  3
C&T 489  Advanced Teaching Practicum  1
ELPS 537  The Governance and Organization of Schools  3
SPED 507  Advanced Practices for Children with Disabilities Middle/Secondary General Education Classroom  3
C&T 500  Student Teaching in: _____  1-6
C&T 495  Seminar: Developing the Teaching Portfolio  3
PRE 520  Classroom Assessment  3
Foreign Major Requirements

French Major Requirements

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<td>FREN 240</td>
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<tr>
<td>FREN 300</td>
<td>Intensive Review of French Grammar</td>
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<td>FREN 310</td>
<td>French Phonetics</td>
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<td>FREN 326</td>
<td>Introduction to French Literature</td>
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<tr>
<td>FREN 350</td>
<td>Applied French Grammar and Composition I</td>
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<td>FREN 375</td>
<td>Intermediate French Conversation</td>
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<td>FREN 376</td>
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<td>FREN 450</td>
<td>French Literature of the Middle Ages</td>
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<td>FREN 465</td>
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<td>FREN 470</td>
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<tr>
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<td>FREN 410</td>
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<td>FREN 420</td>
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<td>FREN 430</td>
<td>La France d’Aujourd’hui</td>
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<td>FREN 431</td>
<td>French-speaking World (Outside France)</td>
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<td>FREN 440</td>
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German Major Requirements

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<td>GERM 302</td>
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<td>German Culture 1750-Present</td>
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<td>Topics in Film of German-Speaking Europe: ______</td>
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<td>Topics in German Studies: ______</td>
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<td>Literature and Culture of German-Speaking Europe 1750-1830</td>
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<td>Literature and Culture of German-Speaking Europe 1830-1918</td>
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<td>Advanced German III</td>
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<td>GERM 550</td>
<td>German Language Seminar: History of the German Language</td>
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<td>German Language Seminar: Structure of the German Language</td>
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<td>Introductory Meteorology</td>
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### Japanese Major Requirements

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<td>JPN 310</td>
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<td>Advanced Modern Japanese I</td>
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<td>Advanced Modern Japanese II</td>
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<td>HSES 260</td>
<td>Personal and Community Health</td>
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<td>ASTR 191</td>
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<tr>
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<td>and Introductory Astronomy Laboratory</td>
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### Latin Major Requirements

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<td>Elementary Latin I</td>
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<tr>
<td>or LAT 105</td>
<td>Elementary Latin I, Honors</td>
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<tr>
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<td>Elementary Latin II</td>
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<tr>
<td>or LAT 109</td>
<td>Elementary Latin II, Honors</td>
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<tr>
<td>LAT 112</td>
<td>Readings in Latin Literature</td>
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<tr>
<td>or LAT 113</td>
<td>Readings in Latin Literature, Honors</td>
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<tr>
<td>LAT 200</td>
<td>Vergil's Aeneid</td>
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<tr>
<td>or LAT 201</td>
<td>Vergil's Aeneid, Honors</td>
</tr>
<tr>
<td>CLSX 148</td>
<td>Greek and Roman Mythology</td>
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<tr>
<td>or CLSX 149</td>
<td>Greek and Roman Mythology Honors</td>
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<tr>
<td>HIST 506</td>
<td>Roman Republic</td>
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<tr>
<td>CLSX 527</td>
<td>Roman Archaeology and Art</td>
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<tr>
<td>HSES 260</td>
<td>Personal and Community Health</td>
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<tr>
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<td>and Introductory Astronomy Laboratory</td>
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<td>and Introductory Laboratory in Physical Geography</td>
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<td>GEOL 101</td>
<td>The Way The Earth Works</td>
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<td>&amp; GEOL 103</td>
<td>and Geology Fundamentals Laboratory</td>
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### Russian Major Requirements

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<td>RUSS 616</td>
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<td>Introduction to Russian Culture</td>
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<td>SLAV 520</td>
<td>Russian Phonetics, Phonology, and Inflection Morphology</td>
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<td>Introduction to the Languages and Peoples of Russia and East-Central Europe</td>
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Select one of the following Physical science lecture and laboratory: 4-5

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<tr>
<td>SPAN 212</td>
<td>Intermediate Spanish I</td>
<td>3</td>
</tr>
<tr>
<td>or SPAN 213</td>
<td>Honors Intermediate Spanish I</td>
<td></td>
</tr>
<tr>
<td>SPAN 216</td>
<td>Intermediate Spanish II</td>
<td>3</td>
</tr>
<tr>
<td>or SPAN 217</td>
<td>Honors Intermediate Spanish II</td>
<td></td>
</tr>
<tr>
<td>SPAN 324</td>
<td>Grammar and Composition</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 328</td>
<td>Intermediate Spanish Conversation</td>
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</tr>
<tr>
<td>SPAN 340</td>
<td>Textual Analysis and Critical Reading</td>
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</tr>
<tr>
<td>SPAN 424</td>
<td>Advanced Spanish Composition and Grammar</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 428</td>
<td>Advanced Spanish Conversation</td>
<td>2</td>
</tr>
<tr>
<td>SPAN 429</td>
<td>Spanish Phonetics</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 446</td>
<td>Spanish Culture</td>
<td>3</td>
</tr>
<tr>
<td>or SPAN 447</td>
<td>Latin American Cultures: _____</td>
<td></td>
</tr>
<tr>
<td>HSES 260</td>
<td>Personal and Community Health</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following Physical science lecture and laboratory: 4-5

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 191</td>
<td>Contemporary Astronomy</td>
</tr>
<tr>
<td>&amp; ASTR 196</td>
<td>and Introductory Astronomy Laboratory</td>
</tr>
<tr>
<td>ATMO 105</td>
<td>Introductory Meteorology</td>
</tr>
<tr>
<td>CHEM 110</td>
<td>Introductory Chemistry</td>
</tr>
<tr>
<td>or CHEM 130</td>
<td>General Chemistry I</td>
</tr>
</tbody>
</table>

### Teacher Education Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;T 235</td>
<td>Multicultural Education</td>
<td>3</td>
</tr>
<tr>
<td>ELPS 250</td>
<td>Education and Society</td>
<td>3</td>
</tr>
<tr>
<td>ELPS 302</td>
<td>Educational Technology in Middle/Secondary Education</td>
<td>3</td>
</tr>
<tr>
<td>PRE 306</td>
<td>Development and Learning of the Adolescent</td>
<td>3</td>
</tr>
<tr>
<td>SPED 326</td>
<td>Teaching Exceptional Children and Youth in General Education</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;T 324</td>
<td>Curriculum Learner in the Middle School and High School</td>
<td>3</td>
</tr>
<tr>
<td>PRE 456</td>
<td>Managing and Motivating Learners in the Middle and Secondary Classroom</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;T 331</td>
<td>Instructional Approaches for ESOL Learners in the Middle/Secondary Classroom</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;T 530</td>
<td>Curriculum and Instruction in Foreign Language Classrooms</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;T 544</td>
<td>Advanced Practices:Situating Foreign Language Content, Dispositions, Skills&amp;Tools Language Classroom</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;T 448</td>
<td>Reading and Writing Across the Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;T 489</td>
<td>Advanced Teaching Practicum</td>
<td>1</td>
</tr>
<tr>
<td>ELPS 537</td>
<td>The Governance and Organization of Schools</td>
<td>3</td>
</tr>
<tr>
<td>SPED 507</td>
<td>Advanced Practices for Children with Disabilities Middle/Secondary General Education Classroom</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;T 500</td>
<td>Student Teaching in: _____</td>
<td>1-6</td>
</tr>
<tr>
<td>C&amp;T 495</td>
<td>Seminar: Developing the Teaching Portfolio</td>
<td>3</td>
</tr>
<tr>
<td>PRE 520</td>
<td>Classroom Assessment</td>
<td>3</td>
</tr>
</tbody>
</table>

### Endorsements

**English for Speakers of Other Languages (ESOL)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;T 330/331/620/820</td>
<td>Instructional Approaches for ESOL Learners in the Elementary/Early Childhood Classroom (included in Elementary and UEC)</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;T 622/822</td>
<td>Second Language Acquisition (concurrent enrollment allowed during internship)</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;T 621/821</td>
<td>Diagnosis and Remediation in Second Language Education (concurrent enrollment allowed during internship)</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following: 3
Students who will apply for admission to the Health, Sport, and Exercise Sciences program are not required to take C&T 100 or ELPS 250.

Undergraduate Admission to the School of Education

Undergraduates intending to transfer to the school as juniors must work closely with education advisors. Pre-education students must take specified courses in their first 1½ years. Students are admitted to C&T teaching programs once a year; online applications (https://www.applyweb.com/apply/kued) are due September 16 for the next spring semester. Students are admitted to the Health & Physical Education and Community Health programs once a year; online applications are due February 4 for the next fall semester. Students are admitted to the HSES Athletic Training program once a year; online applications (https://www.applyweb.com/apply/kued) are due February 4 and paper applications (http://hses.soe.ku.edu/academics/athletic-training/admission) are due May 1 for fall semester. Students are admitted to HSES Sport Management and Exercise Science programs twice a year; online applications are due February 4 for fall and September 16 for spring semester.

For information about initial admission to KU, visit the Office of Admissions (http://admissions.ku.edu/whyku/index.shtml). Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Undergraduate Admission

Students are admitted to the Teacher Education Program once a year for the following academic year. Complete an online application (https://www.applyweb.com/apply/kued) by September 16. Students are notified of decisions in writing on or before October 17. Kansas Board of Regents policy determines some admission requirements.

Competitive Programs

The number of admissions is limited in the following majors:

- Unified early childhood.
- Elementary.
- Secondary history/government.
- Secondary English language arts.

Open Programs

Admission is noncompetitive in these majors:

- Middle-level science.
- Middle-level mathematics.
- PreK-12 foreign language.

For all programs, not all students who meet the minimum requirements are admitted. Transfer students are also subject to these enrollment policies.

Minimum Requirements

All students who apply for admission to the department must meet the following minimum requirements:

1. An applicant must have completed at least 24 hours by the time of application and at least 36 hours by the time of admission. The cumulative grade-point average must be at least 2.75.
2. Applicants must have cumulative grade-point averages of at least 2.75 in the core admission courses to qualify for the pool from which students are selected. No grade lower than a C is acceptable in English, communication studies, or mathematics. This means that a C does not count.

3. A student must take the ACT, SAT or other comparable test.

4. Applicants must also submit personal essays and letters of support through the online application (https://www.applyweb.com/apply/kued) system.

Because enrollment in competitive programs is limited to prescribed numbers, students who meet minimum admission standards may not be accepted. Prospective teacher education students should consult an advisor early in the first year to ensure fulfillment of admission requirements and to plan efficient programs of study.

**Curriculum and Teaching Courses**

**C&T 100. Introduction to the Education Profession. 3 Hours.**
This course is designed to acquaint students with the profession of education by helping to increase an awareness of the role and characteristics of an effective teacher. Large and small group activities and assignments are dispersed throughout the semester to facilitate these outcomes. Students will be involved in observation of and participation with teachers and pupils in public school classrooms, which complement course activities and assignments. Students will work with a mentor pre-service teacher from the KU School of Education to provide discussions about each of the course objectives. CT 100 is a pre-professional course. Successful completion of the course does not guarantee eventual admission to the School of Education's Teacher Education Program. LEC.

**C&T 200. Making Connections Between Schools and Community. 3 Hours.**
This course is designed to increase the students' awareness of learning in the classroom and to familiarize them with the role of the school and the community. Institutions and resources that support children and families will be addressed through large and small group sessions and field experiences. Emphasis is given to the diverse nature of schools, communities, and their populations. In addition, the course will acclimate students with the School of Education programs, admissions procedures, and curriculum offerings. Successful completion of this course does not guarantee eventual admission of the School of Education's Teacher Education Program. Prerequisite: Successful completion of CT 100. LEC.

**C&T 235. Multicultural Education. 3 Hours. AE41.**
The course is designed to provide the student with an awareness of and sensitivity of the concept of multicultural education. Topics related to the rationale for and processes of providing a multicultural perspective within the schools will be addressed. Field experiences will be structured to provide students with opportunities to observe the diversity within the educational setting. LEC.

**C&T 322. Curriculum and the Learner in the Elementary School. 3 Hours.**
Building on the experiences in CT 100 and CT 200, this course will focus on the learner in the elementary setting. Learning occurs as a result of interaction among learners, teacher and subject matter in the classroom within a school in a community. The impact of the interactions of these students of learning of young children is studied in this course. Emphasis is given to the factors that influence curriculum decision-making, and methods that are considered in elementary grades curriculum and how it is delivered. Prerequisite: Admission to the Teacher Education Program. LEC.

**C&T 324. Curriculum Learner in the Middle School and High School. 3 Hours.**
Building on experiences in CT 100 and CT 200, this course will focus on the learner within the high school setting. Learning occurs in a classroom within a school in a community, and the nature and structure of these settings as well as their impact on learning is studied in this course. Emphasis is given to the curriculum, the factors that influence the curriculum, and the ways that goals for high school students are reflected in the high school curriculum. Prerequisite: Admission to the Teacher Education Program. LEC.

**C&T 330. Instructional Approaches for ESOL Learners in the Elementary/Early Childhood Classroom. 3 Hours.**
Teaching English as a Second or Additional Language/Bilingual Education is designed to provide preservice elementary teachers with an understanding of the history and methodology of teaching English to speakers of other languages, both as a foreign language and as an additional language within American English settings. Future ESL/EFL/EB teachers will be prepared to develop the investigative, decision-making, and reflective teaching skills needed to work with English language learners of elementary age, and to impart language instruction in the appropriate context. Emphasis is placed on developing a clear understanding of who English language learners are; what programs and services are or should be available to the ESL/EFL/EBs; the critical pedagogical aspects of teaching ESL/EFL/EB; and the preparation of teaching materials for classroom use. Prerequisite: Admission to the teacher education program. LEC.

**C&T 331. Instructional Approaches for ESOL Learners in the Middle/Secondary Classroom. 3 Hours.**
This course is designed to provide preservice middle/secondary discipline specific teachers with an understanding of the history and methodology of teaching English to speakers of other languages, both as a foreign language and as an additional language within American English settings. Future ESL/EFL/EB teachers will be prepared to develop the investigative, decision-making, and reflective teaching skills needed to work with English language learners of all ages, and to impart language instruction in the appropriate context. Emphasis is placed on developing a clear understanding of who English language learners are; what programs and services are or should be available to the ESL/EFL/EBs; the critical pedagogical aspects of teaching ESL/EFL/EB; and the preparation of teaching materials for classroom use. Prerequisite: Admission to the teacher education program. LEC.

**C&T 335. Curriculum and Instruction in Middle and Secondary History and Government Classrooms. 3 Hours.**
The purpose of this course is to help prepare students to teach social studies in the middle and secondary grades. Prerequisite: Admission to the teacher education program. LEC.

**C&T 344. Children’s Literature in the Elementary School. 2 Hours.**
A study of literature (poetry, folk literature, fiction, and nonfiction) appropriate for elementary school children with a focus on contemporary children's books. Emphasis will be on selection of literature based on child development, literary quality, curriculum, and pluralism and the engagement of children in literature experiences from the interactive, reader response, and critical perspectives. Prerequisite: Admission to the Teacher Education Program. LEC.

**C&T 347. Social Studies in the Elementary Classroom. 3 Hours.**
A study of curricula, instructional strategies, and classroom organization for social studies education K-6. Emphasis is placed on the effective implementation of social studies programs in classroom settings. Prerequisite: Admission to the School of Education in elementary, middle, or secondary, or the Unified Early Childhood programs. LEC.
C&T 349. Science in the Elementary Classroom. 3 Hours.
In this course, you will develop an understanding of how children learn science and why science education is important. You will examine effective approaches to teaching, instructional materials, and student assessment and will learn how to plan and implement a science unit. The course will emphasize a guided-inquiry approach to science instruction appropriate for the abilities and interests of children in grades K-6. Prerequisite: Admission to the School of Education. LEC.

C&T 351. Mathematics for the Elementary Classroom. 3 Hours.
This course is a study of the curriculum, instructional strategies, and classroom organization for mathematics in grades K-6. Emphasis is placed on the effective implementation of mathematics programs in classroom settings. Prerequisite: Admission to the School of Education. LEC.

C&T 352. Literacy Instruction in the Primary Grades (K-3). 3 Hours.
This course is intended to develop the attitudes, knowledge, and skills necessary to effectively instruct primary grades (K-3) children through the development of literacy skills: reading, writing, listening, speaking, and handwriting. The major goals of this course are for the prospective teacher to develop an understanding of literacy development of the primary-grades child, current literacy theories, and the ability to work with a number of approaches to promote literacy learning and a positive attitude toward literacy in all primary-grades students who may have different needs due to language, culture, learning challenges, and/or differing stages of development. This course is to be taken concurrently with CT 353, Literacy Practicum in the Primary Grades. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 353. Literacy Practicum in the Primary Grades. 1 Hour.
This supervised practicum is intended to allow the pre-service teacher to apply the knowledge gained in CT 352, Literacy Instruction in the primary grades (K-3), by teaching children in the primary grades. To be taken concurrently with CT 352 Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 354. Literacy Instruction in the Intermediate Grades. 2 Hours.
This course is intended to develop the attitudes, knowledge, and skills necessary to effectively instruct intermediate-grades children (4-6) through the development of literacy skills: reading, writing, listening, speaking, and spelling. The major goals of this course are for the prospective teacher to develop an understanding of literacy development of the intermediate-grades child, current literacy theories, and the ability to work with a number of approaches to promote literacy learning and a positive attitude toward literacy in all intermediate-grades students who may have different needs due to language, culture, learning challenges, and/or differing stages of development. Prerequisite: Admission to the Teacher Education Program. This course is to be taken concurrently with CT 355, Literacy Practicum in the Intermediate Grades. LEC.

C&T 355. Literacy Practicum in the Intermediate Grades (4-6). 1 Hour.
This supervised practicum is intended to allow the preservice teacher to apply the knowledge gained in CT 354, Literacy Instruction in the intermediate grades (4-6), by teaching children in the intermediate grades. To be taken concurrently with CT 354. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 359. Basic Processes of Reading. 1 Hour.
An introduction to reading in relation to specific areas of art, music and health and physical education. Focus on specialized vocabulary and literature related to each area. Introduction of specific strategies to teach vocabulary and comprehension and to integrated units of study. Prerequisite: Admission to certification program in music education, art education, health education, or physical education. LEC.

C&T 360. Knowing and Learning in Mathematics and Science. 3 Hours.
This course focuses on issues of what it means to learn and know science and mathematics. What are the standards for knowing we will use? How is knowing and learning structured and how does what we know change and develop? For the science and mathematics educator, what are the tensions between general, cross-disciplinary characterizations of knowing (e.g. intelligence) and the specifics of coming to understand powerful ideas in mathematics and science? What are the links between knowing and developing in learning theory, and the content and evolution of scientific ideas. Also, current issues and tensions in education will be discussed, especially as it relates to mathematics and science instruction. LEC.

C&T 366. Classroom Interactions in Mathematics and Science. 3 Hours.
To make prospective teachers aware of multiple models of teaching (including direct instruction, inquiry teaching and use of small groups); the advantages, disadvantages and uses of each; and what each model requires of teachers. To allow prospective teachers to explore ways of probing student understanding through authentic assessment, evaluating student understanding through student artifacts, and enhancing student understanding through lesson plans built around models of how people learn. To make prospective teachers aware of equity and diversity issues in classroom teaching and ways of ensuring that all students have an opportunity to learn. To make students aware of the proficiencies for licensure recognized by UKanTeach and Kansas State Board of Education and facilitate students’ demonstration and documentation of these through their development of a professional portfolio. To develop students’ capacity to identify and evaluate best teaching practices as presented in research literature. Prerequisite: CT 360. LEC.

C&T 420. Teaching Kansas Government and Contemporary Public Policy Issues: _____. 3 Hours.
A study of the constitution, organization, functions, and processes of Kansas government, of contemporary public policy issues with local, state and national implications, and of strategies for teaching these in middle and secondary classrooms. Prerequisite: Admission to the School of Education and POLS 110. LEC.

C&T 421. Economics for Elementary Teachers. 3 Hours.
The focus of this course is to introduce and develop understanding of economic concepts and principles in those preparing to teach elementary education. This course presents students primarily with basic economic content and, secondarily, with information on developmentally appropriate economics for elementary age students. Emphasis will be placed on micro and macroeconomic concepts, including the economic problem, resources, scarcity, economic decision-making, opportunity cost, economic systems, price, exchange and money, markets, supply and demand, production, market failures and the role of government, and international trade. Open only to School of Education students enrolled in the elementary education program. LEC.

C&T 422. Teaching Economics and Secondary Social Studies. 2 Hours.
The purpose of the course is to prepare secondary social studies education students to teach the major economic concepts, issues and systems in the United States and other nations in preparation for teacher licensure in the State of Kansas. Prerequisite: Admission to the Secondary History and Government teacher education licensure program. LEC.

C&T 430. Teaching Literature for Young Adults. 3 Hours.
Teaching literature (novel, short story, poetry, drama, nonfiction) suitable for students in the middle school, the junior high school, and the senior
high school. Ethnic literature, censorship, bibliographies, and other relevant sources of information about books for young adults will be studied. Prerequisite: Admission to the School of Education. LEC.

C&T 441. Teaching Social Studies in the Middle/Secondary Schools. 3 Hours.
Study of curriculum development and instructional strategies appropriate for teaching social studies in grades 5-12. Prerequisite: CT 323 or CT 324 or permission of instructor. LEC.

C&T 448. Reading and Writing Across the Curriculum. 3 Hours.
Content area teachers do far more than impart information to students. They play an important role in guiding middle/secondary students as they use reading and writing as tools for learning. This course includes an overview of the state and national reading and writing scores of adolescents. Students will then be introduced to the basic processes or ways in which individuals may learn to read and write. The course continues with a focus on the instructional strategies and materials that promote the development of reading and writing in the context of teaching new information. Additionally, the course emphasizes the informal methods educators can use, on an on-going basis, to diagnose their students ability to comprehend content material. Finally, appropriate fix-up strategies will be modeled. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 460. Project Based Instruction in Mathematics and Science. 3 Hours.
This course will have three essential components. The first will be a theory driven perspective accounting for what we know of how people learn and how project-based instruction may be our best choice for bridging the gap between theory and practice. The second component will be a technological component that will assist the enrolled students in developing their own project-based unit. The third component will be a field component consisting of two parts: 1) observation of well-implemented project-based instruction in local schools and 2) implementation of project-based instruction with area high school students on a study trip to Flint Hills. Prerequisite: CT 360. LEC.

C&T 489. Advanced Teaching Practicum. 1 Hour.
This supervised practicum is intended to allow the pre-service teacher to apply knowledge gained in SPED 507; CT 448, ELPS 537; and CT 540, CT 541, CT 542, CT 543 and CT 544: Advanced (Content Area) Methods by teaching children in the middle/secondary grades. To be taken concurrently with SPED 507; CT 448, ELPS 537; and CT 540, CT 541, CT 542, CT 543 and CT 544: Advanced (Content Area) Methods. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 490. Student Teaching. 6 Hours.
A supervised teaching experience in an approved school setting, with level and subject area to be selected according to the teaching field. Prerequisite: Successful completion of fall practicum experiences and demonstration of appropriate professional dispositions. LEC.

C&T 491. TESOL Practicum for Kansas State Endorsement. 3 Hours.
The TESOL Practicum allows individuals to gain supervised experience in Teaching English to Speakers of Other Languages (TESOL) for a professional KSDE ESOL endorsement and advancement. Prerequisite: Completion of all TESOL endorsement courses. LEC.

C&T 494. Internship. 6 Hours.
A supervised internship experience leading to initial certification. The student assumes the total professional role as a teacher in an approved school setting, with level and subject area to be selected according to the teaching field. Prerequisite: Successful completion of all practicum experiences and demonstration of appropriate professional dispositions. LEC.

C&T 495. Seminar: Developing the Teaching Portfolio. 3 Hours.
This course serves to instruct students in the research, teaching, and writing components of developing a teaching portfolio. The seminar will provide a forum for discussion and deeper exploration into topics and issues related to working in the school setting, teaching, and developing a professional teaching philosophy. Course is graded on a satisfactory/fail basis. Prerequisite: Enrollment in Student Teaching or Internship during the Spring semester. LEC.

C&T 497. Independent Study in: ____. 1-2 Hours.
Only one enrollment permitted each semester. A maximum of four hours will apply toward the bachelor’s degree. Prerequisite: Recommendation of advisor and consent of instructor. IND.

C&T 499. Bachelor’s Project. 4-6 Hours.
A formal report of some aspect of the field experience that relates formal learning and in situ experience to program planning, implementation, and evaluation. Topic will be selected in consultation with the project advisor. Prerequisite: CT490 and CT 491 (CT 491 may be taken concurrently). IND.

C&T 500. Student Teaching in: ____. 1-6 Hours. AE61.
A supervised teaching experience in an approved school setting, with level and subject area to be selected according to the teaching field. Prerequisite: Admission to the Student Teaching program. FLD.

C&T 501. Student Teaching Practicum in: ____. 1-6 Hours.
A supervised classroom teaching experience under the direction of an experienced teacher and in close relationship with a university supervisor. Prerequisite: Admission to the Graduate Certification Program and approval of advisor. FLD.

C&T 503. International Perspectives in Primary and Secondary Education. 3 Hours.
This course is will expose students to a variety of debates and developments related to primary and secondary education in our globalized era. Students will survey educational systems from the US and selected world regions, comparing and contrasting them in terms of access, funding, curriculum, and pedagogy. They will investigate educational systems from the perspective of international development while addressing issues of local vs. national or international control, tradition vs. global advancement, and other challenges and trade-offs. Prerequisite: Junior standing or higher, or permission of instructor: The course is suitable for advanced undergraduate and master's degree seeking students. LEC.

C&T 530. Curriculum and Instruction in Foreign Language Classrooms. 3 Hours.
A study of philosophy, objectives, curriculum, instructional strategies, and evaluation in teaching foreign language at the K-12 levels. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 533. Curriculum and Instruction in Middle & Secondary English/Language Arts Classrooms. 3 Hours.
This is an English/Language Arts methods course that focuses on curriculum development and instructional strategies appropriate for teaching English/Language Arts in grades 5-12. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 537. Curriculum and Instruction in Middle and Secondary Science Classrooms. 3 Hours.
The purpose of this course is to help you prepare to teach science in the middle and secondary grades. The instructor designed the class sessions and learning tasks to enable you to make progress toward achieving the Kansas Science Teaching Standards and Kansas Professional Education Standards. Prerequisite: Admission to the Teacher Education Program. LEC.
C&T 539. Curriculum and Instruction in Middle and Secondary Mathematics Classrooms. 3 Hours.
This course is designed to provide focused study of curriculum development and instructional strategies appropriate for teaching mathematics in grades 5-12. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 540. Advanced Practices in Teaching English in the Middle and Secondary Schools. 3 Hours.
The course is designed to provide continued study of curriculum development and instructional strategies appropriate for teaching English/Language Arts in grades 5-12 and as a final readiness for the undergraduate student teaching experience. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 541. Advanced Practices in Teaching Social Studies in Middle/Secondary Schools. 3 Hours.
Advanced study of curriculum development and instructional strategies appropriate for teaching social studies in grades 6-12 and application of learning in a middle/secondary classroom. Prerequisite: CT 335; SPED 326 and, CT 324 LEC.

C&T 542. Advanced Practices in Teaching Science in the Middle and Secondary Schools. 3 Hours.
This course is designed as a final readiness for the semester-long student teaching experience and the Kansas Performance Teaching Portfolio to be completed during that student teaching experience. The course deals with the analysis, adaptation, and application of varied instructional designs to implement curricula in specific science areas in grades 5-12. Prerequisite: Admission to the middle-level licensure program in science education at the undergraduate level or one of the graduate licensure programs in middle/secondary science. Successful completion of CT 537. LEC.

C&T 543. Advanced Practices in Teaching Mathematics in the Middle and Secondary Schools. 3 Hours.
The course is designed to provide continued study of curriculum development and instructional strategies appropriate for teaching mathematics in grades 5-12 and as a final readiness for the undergraduate of GLP student teaching experience. Prerequisite: Admission to the middle-level licensure program in mathematics education at the undergraduate level or the GLP in middle or secondary mathematics. Successful completion of CT 539. LEC.

C&T 544. Advanced Practices: Situating Foreign Language Content, Dispositions, Skills & Tools Language Classroom. 3 Hours.
This is an advanced Foreign Language methods course that focuses on the critical importance of the socio-linguistic environment of foreign language classrooms. Prerequisite: Admission to the Teacher Education Program. LEC.

C&T 598. Special Course: ____. 1-5 Hours. AE61.
A special course of study to meet current needs of education students, primarily for undergraduates. LEC.

C&T 620. Teaching English as a Second Language/Bilingual Education. 3 Hours.
The purpose of this course is to study the objectives and methods of ESL/Bilingual education. Students will examine methods and techniques of teaching: listening, speaking, reading, and writing in the ESL/Bilingual Education settings. The course will also emphasize the importance of culture in second language teaching, and self-evaluation of teaching and instructional materials. Undergraduate course that will meet with CT 820 Teaching English as a Second Language/Bilingual Education. Prerequisite: Admission to the School of Education. LEC.

C&T 621. Diagnosis and Remediation in Second Language Education. 3 Hours.
This course provides an overview of diagnostic techniques and instruments used to identify and remediate specific learning difficulties associated with normal second language development in the area of listening, speaking, reading, and writing. The course includes a review of research concerning assessment as it relates to error analysis in the second language context. Prerequisite: Admission to the School of Education. LEC.

C&T 622. Second Language Acquisition. 3 Hours.
This course provides an intensive review of the theory and research base of second language acquisition. Particular attention is given to the influence of research trends in linguistics and psychology on second language education theory and practice. Current trends in second language education are examined in light of the historical theory base. Prerequisite: Admission to the School of Education. LEC.

C&T 630. Understanding the Nature of Talent in Children and Youth. 3 Hours.
This course addresses the social, cognitive, affective, and other developmental aspects of talent as manifested in children and youth with high potential. The course provides an opportunity to examine characteristics, strengths, and needs of children and their families. The course focuses on the foundational aspects of gifted/talented education: educational and political history of the field, etiology of extraordinary potential, and identification and assessment techniques, instruments, and systems. Included in the course are relevant research, policies and regulations, services, and information resources. Prerequisite: SPED 325, SPED 425, SPED 431, SPED 725 or equivalent. LEC.

C&T 631. Teaching for Talent Development. 3 Hours.
The course introduces key theories and basic principles of curriculum development and introduction for students with high potential and/or high achievement. Frameworks and models for modifying general education content, cognitive processes, and learning outcomes are applied to enhancing talent development. The course addresses affective considerations, peer relations, and working with families. Prerequisite: CT 630 or CT 730. LEC.

C&T 649. An International Teaching Experience. 3 Hours.
This study abroad focuses on professional growth in teaching and understanding education based on an international experience. Students learn about curriculum and teaching from an international perspective, and engage in professional discussions with Italian teachers and administrators. Students engage in culturally responsive teaching in preschool-secondary settings, they participate in family and community activities/events, and they visit renowned museums and cities. Prerequisite: Application through the Office of Study Abroad and interview with the director. LEC.

C&T 702. Alignment of Curriculum, Instruction, and Assessment. 3 Hours.
The course focuses on standards-based education reform and the relation between standards, curriculum, assessments and instruction. Since the inception of No Child Left Behind in 2001, many classroom teachers have felt constricted by standards-based practices in the classroom. A significant emphasis of the course will be on the implications of high-stakes accountability. This course will explore the historical foundations of the standards movement as well as current research on connecting standards to instructional practices. The course will also explore ways in which teachers can be accountable to the standards without losing creativity in their individual classrooms. LEC.
C&T 706. Social Studies in the Middle School. 3 Hours.
The purpose of this course is to offer preservice and practicing middle grades educators the following: (1) an overview of the historical and philosophical antecedents of social studies education; (2) a brief review of the developmental characteristics of early adolescence; (3) the specifics of a citizenship education program specifically designed for middle grades social studies; and (4) a range of time-tested ideas for challenging young adolescents with academic experiences that address their unique developmental profile and capture their imaginations for active, responsible citizenship. LEC.

C&T 707. Project Based Instruction. 3 Hours.
This course will emphasize exploring, designing, and evaluating materials and pedagogy to work toward the design of project-based curriculum and instruction. Topics focus on the principles of project-based instruction as well as multiple models for its use in the classroom. LEC.

C&T 708. Understanding Research in Education. 3 Hours.
This course introduces the concepts and skills involved in understanding and analyzing research in education and related areas. The course provides an overview of basic, general knowledge of various research methodologies. Students should expect to study much of this material in greater depth through additional course work before being fully prepared to conduct independent research. However, this course should enhance their ability to locate, read, comprehend, and critically analyze research articles and reports. Topics in the course include quantitative and qualitative methods and designs, historical and descriptive research, and program evaluation. (This course fulfills the requirement of a research methods course in the first 12 hours of graduate study.) LEC.

C&T 709. Foundations of Curriculum and Instruction. 3 Hours.
Basic concepts and processes of curriculum and instruction, including theories, planning models, resources for decision-making, current trends, research, and proposals for improvement of curriculum and instruction. LEC.

C&T 710. Writing, Language, and Learning. 3 Hours.
This course will situate issues about writing and learning in the context of more general inquiry about language and learning. We will read research related to classroom discourse and the teaching of writing in secondary classrooms. We will then connect this body of research to the teaching of English in middle/secondary classrooms. LEC.

C&T 711. Teaching Young Adult Literature (Grades 7-12). 3 Hours.
A study of the characteristics of adolescents with respect to their interest and reading habits; criteria for choosing books for junior and senior high school in-class and out-of-class reading; selection of materials; methods for helping poor readers; literary discrimination and appreciation; censorship; ethnic literature; techniques for presenting literary selection in class. Wide reading among best of current and classical literature. LEC.

C&T 712. Teaching for Talent Development. 3 Hours.
The course introduces key theories and basic principles of curriculum development and instruction for students with high potential and/or high achievement. Frameworks and models for modifying general education content, cognitive processes, and learning outcomes are applied to enhancing talent development. The course addresses affective considerations, peer relations, and working with families. Prerequisite: CT 644 or CT 730 or equivalent course on exceptional children and youth. LEC.

C&T 713. Integration of Instruction in the Elementary School. 2 Hours.
A study of the rationale for correlation instruction in language arts, reading, math, science, and social studies and practical strategies for integrating instruction throughout the elementary school curriculum. LEC.

C&T 714. Applied Research in the Classroom. 3 Hours.
This course is designed to facilitate the implementation and completion of an action research project during the internship experience. Prerequisite: Successful completion of student teaching. LEC.

C&T 715. Internship in Teaching: _____, 1-15 Hours.
A supervised internship experience leading to initial certification. The student assumes the total professional role as a teacher in an approved school setting, with level and subject area to be selected according to the teaching field. Prerequisite: CT 500 and CT 736 appropriate to the student’s teaching level and area, or equivalent. FLD.

C&T 716. Comprehension and Study Strategies for Use with Multiple Texts. 3 Hours.
It is the purpose of this course to introduce students to the foundations of the reading process, developmental levels, theory, models, and procedures at the emergent, elementary, and secondary levels. Elements of cultural, linguistic, and ethnic diversity that affect the reading process are included. Students work with research related to the reading process, remediation, and assessment. LEC.

C&T 717. Language and Literature in the Reading Program. 3 Hours.
A study of linguistic and literary aspects of reading instruction, focusing on language and cognitive development as they relate to reading. Emphasis
will be on approaches for differentiating reading instruction to provide for less proficient to gifted readers, research and issues related to reader response, techniques for assessing children’s reading attitudes and interests, procedures for selecting literature, and strategies for integrating literature into the elementary school reading program. Prerequisite: CT 740 or permission of instructor. LEC.

C&T 743. Writing and Spelling Development and Instruction. 3 Hours.
A study of the research base on writing, spelling, speaking, and listening for teaching the language arts; an overview of development in writing and spelling, the writing and spelling processes and instruction, and strategies for integrating the language arts. Prerequisite: Admission to a masters program within the School of Education, CT 740 or permission of the instructor. LEC.

C&T 744. Teaching Literature to Children. 3 Hours.
An opportunity to survey the broad range of trade books published for children; criteria for book selection; children’s reading interests and tastes; illustrations of children’s books; sources for selecting literature; poetry; the role of children’s literature in today’s elementary curriculum. LEC.

C&T 745. Reading and the English Language Learner. 3 Hours.
LEC.

C&T 747. Reading Strategies for Expository Text. 3 Hours.
A study of the need of teaching reading in content areas, factors involved in the reading process, and basic and advanced reading and study skills to be taught. Teachers may concentrate upon the study of ways of teaching reading in one or more of the following: language arts, social studies, sciences, mathematics, art, music, home economics, industrial arts, business education, or physical education. Prerequisite: Admission to the Transition to Teaching Program. LEC.

C&T 748. Reading and Writing Across the Curriculum. 3 Hours.
In CT 748, preservice content teachers, who have had no previous literacy courses, are introduced to the basic processes of reading and to instructional strategies and materials that promote the development of reading, writing, and studying in the context of teaching new information. Additionally, we discuss the ways in which teachers diagnose, in an informal, on-going basis, their students’ abilities to comprehend the material they are teaching. LEC.

C&T 749. An International Teaching Experience. 3 Hours.
This study abroad focuses on professional growth in teaching and understanding education based on an international experience. Students learn about curriculum and teaching from an international perspective, and engage in professional discussions with Italian teachers and administrators. Students engage in culturally responsive teaching in preschool-secondary settings, they participate in family and community activities/events, and they visit renowned museums and cities. Prerequisite: Application through the Office of Study Abroad and interview with the director. LEC.

C&T 750. Connecting Research to Classroom Practice in Elementary Mathematics and Science. 3 Hours.
The primary purpose of this course is to examine current research on issues important to elementary mathematics and science programs. The course will explore issues important to the classroom practices of elementary mathematics and science teachers. Provides a broad background for understanding current issues related to elementary mathematics and science curriculum, instruction, and assessment. LEC.

C&T 752. Teaching Mathematics in the Urban Middle/Secondary School. 3 Hours.
The purpose of this course is to help urban teachers plan, organize, teach, and assess mathematics learning in the middle and secondary grades. The Kansas Teaching Standards (in Professional Education and in Mathematics Teaching) identify the knowledge and abilities addressed in this course. The instructors designed the class sessions and learning tasks to enable participants to make progress toward achieving the Kansas Teaching Standards. It is the participant’s responsibility to acquire the knowledge and abilities and to demonstrate the progress being made toward meeting the Standards. A mathematics teaching portfolio is the tool used to document progress toward achieving the Standards. Prerequisite: Admission to the Transition to Teaching Program or permission of instructor. LEC.

C&T 753. Teaching Science in the Urban Middle/Secondary School. 3 Hours.
The purpose of this course is to help urban teachers plan, organize, teach, and assess science learning in the middle and secondary grades. The Kansas Teaching Standards (in Professional Education and in Science Teaching) identify the knowledge and abilities addressed in this course. The instructors designed the class sessions and learning tasks to enable participants to make progress toward achieving the Kansas Teaching Standards. It is the participant’s responsibility to acquire the knowledge and abilities and to demonstrate the progress being made toward meeting the Standards. A science teaching portfolio is the tool used to document progress toward achieving the Standards. Prerequisite: Admission to the Transition to Teaching Program or permission of instructor. LEC.

C&T 760. Modern Approaches to Elementary Social Studies. 3 Hours.
A study of the purpose, content, psychology, and materials and methods for teaching the social sciences in the elementary school. Emphasis on principles and procedures for combining the social studies with other areas of the curriculum in broad unit instruction. Prerequisite: Nine hours of Education including educational psychology. LEC.

C&T 762. Modern Approaches to Middle/Secondary Social Studies. 3 Hours.
The purpose of the course is to offer preservice and practicing K-12 social studies educators the following: (1) an overview of theoretical bases for social studies education and of the social studies and discipline specific curriculum standards; (2) a review of the major curricular and extracurricular K-12 social studies programs; (3) strategies for the design, implementation, and evaluation of social studies programs; and (4) experience with the design, implementation, and/or evaluation of a social studies program. Prerequisite: Nine hours of Education including educational psychology. LEC.

C&T 763. Economic Education. 2-3 Hours.
An examination of the concepts, theories, and resource materials utilized in teaching economics in the K-12 curriculum. Particular attention is given to the functional integration of economic concepts into the elementary and secondary social studies curriculum. The use of economic resource material is considered. Participants develop projects for use in their own classrooms. LEC.

C&T 764. Teaching Economics in: ____. 3 Hours.
A critical analysis of the relationship between economics and a designated school subject selected from history, geography, or consumer education; a determination of the economic concepts that can be appropriately integrated into the particular discipline; and a comprehensive search of the particular curriculum area to identify the most effective and efficient points at which the economic concepts can be integrated. Prerequisite: CT 763. LEC.

C&T 765. Teaching with Community, Contemporary, and Primary Resources. 3 Hours.
A practical course designed for grades 4-12 teachers who wish to utilize community-based, mass media, and/or primary resources. The course focuses on the use of community resources such as local historical
societies, museums, and government agencies; on the use of mass media such as newspapers, magazines, organizations' newsletters, television, and film; and on the use of primary resources such as artifacts, documents, recordings, and oral historians. Participants receive sample resources from each of the three areas along with accompanying activities. LEC.

C&T 797. Special Project in: _____, 2 Hours.
Implementation of the curriculum project planned in CT 734 or CT 735; implementation and assessment of the special project will occur during the internship. Prerequisite: CT 734, CT 735, and CT 736. RSH.

C&T 798. Special Course: _____, 1-5 Hours.
A special course of study to meet current needs of education professionals--primarily for graduate students. LEC.

C&T 800. Foundations of Curriculum Development, 3 Hours.
This course is designed for students to gain a functional understanding of the historical, philosophical, political, psychological, and cultural factors which affect the designing and implementation of curriculum at several levels: the individual classroom, the team, the school, the larger administrative unit, the state, and the nation. Prerequisite: CT 709 or permission of instructor. LEC.

C&T 801. Planning for School Improvement, 2-3 Hours.
The course will emphasize the latest research and practice related to school improvement. Students will function as a member of a school improvement team to assimilate and synthesize research and practice into the development, revision, and/or assessment of a school improvement plan for a specific school site. Corequisite: Enrollment in the summer institute on school improvement. LEC.

C&T 802. Curriculum Planning for Educational Settings, 3 Hours.
A focus on organizing and managing curriculum development in educational settings. Such curricular decisions as writing philosophies, setting goals and objectives, selecting and organizing content, and designing and monitoring evaluation procedures will be emphasized. Providing leadership for the collaborative process of curriculum planning in organizational settings will receive attention. Prerequisite: CT 709, admission to Building Principal Certification program, or permission of instructor. LEC.

C&T 803. Differentiating Curriculum and Instruction, 3 Hours.
This course is designed for educators interested in expanding curriculum and instruction to accommodate diverse learners in the classroom, K-12. Topics include: models, methods, and resources for differentiating curriculum and instruction, designing and modifying differentiated curriculum, evaluating student learning, and introducing students, parents and colleagues to differentiation. An evidence-based, practical course for teachers, administrators, and support personnel. Prerequisite: Admission to Graduate School. LEC.

C&T 804. Trends and Issues in Middle Level Education, 3 Hours.
Information from current research, area specialists and exemplary practitioners will be used to extend appropriate teaching strategies and supplement background knowledge on special topics related to social, emotional and physical development as it relates to the curricula and young adolescents. LEC.

C&T 805. Planning Instruction and Instructional Strategies in Urban Settings, 3 Hours.
This course will prepare students to become cognizant of the particular contextual variables that pertain to the urban setting, engage in instructional planning utilizing pertinent instructional strategies for urban classrooms. Students will become familiar with conceptual frameworks appropriate to education in the urban environment, review research on education in the urban setting, and discuss goals and options for effectively coping with the demands of the urban classroom. FLD.

C&T 806. Instructional Strategies and Models, 3 Hours.
Analysis of models of teaching which represent distinct orientations toward students and how they learn. The application of these models is complemented by the study of research evidence on effective teaching strategies. Prerequisite: CT 709. LEC.

C&T 807. Multicultural Education, 3 Hours.
In order to provide the student with an understanding of multicultural education, the course will examine the effects of such issues as ethnicity in America, the melting pot theory, separatism, cultural pluralism, legal issues, and bilingual education upon the curriculum and instruction in today's classrooms. It will include an evaluation of materials for bias and stereotypes. Field experiences are a part of this course. LEC.

C&T 808. Qualitative Research: Curriculum Inquiry, 3 Hours.
Curriculum Inquiry provides an opportunity to reflect, explore, understand, and broaden perspectives of curriculum through examining the theories, methodologies, strategies, and design of qualitative research. This course is designed to develop a common understanding of the major elements of qualitative research, while offering each student an opportunity to examine research topics and methods of personal interest, with particular attention to curricular issues. The course also includes practical experience with various modes of data collection and analysis. LEC.

C&T 809. Creative Thinking and Learning, 3 Hours.
This course provides an opportunity to investigate the nature of the creative process in educational settings. The knowledge base for the course builds from foundations of creativity, principles and theories of identifying and enhancing creative production, and affective learner variables. The course blends classic and contemporary works in creativity, and features the application of theories and models of the origins and development of creativity to promoting creative thinking and learning among children, youth and adults. Participants learn about, apply, and adapt techniques for defining and identifying creative potential and for encouraging creative thinking in educational settings. Prerequisite: Admission to graduate school. LEC.

C&T 810. Issues in Teaching Language Arts, 3 Hours.
A study of present curricula in junior and senior high school English and speech; current thinking in grammar and usage; language development in oral and written communication; problems of teaching reading and literature in the junior and senior high school; construction and reorganization of language arts courses. Students will be permitted to make an intensive study of an individual problem relating to more effective instruction in the language arts. LEC.

C&T 820. Teaching English as a Second Language/Bilingual Education, 3 Hours.
The purpose of this course is to study the objectives and methods of ESL/Bilingual education. Students will examine methods and techniques of teaching: listening, speaking, reading, and writing in the ESL/Bilingual Education settings. The course will also emphasize the importance of culture in second language teaching, and self-evaluation of teaching and instructional materials. Prerequisite or Corequisite: CT 709. LEC.

C&T 821. Diagnosis and Remediation in Second Language Education, 3 Hours.
This course provides an overview of diagnostic techniques and instruments used to identify and remediate specific learning difficulties associated with normal second language development in the area of listening, speaking, reading, and writing. The course includes a review of research concerning assessment as it relates to error analysis in the second language context. Corequisite: CT 820. LEC.
C&T 822. Second Language Acquisition. 3 Hours.
This course provides an intensive review of the theory and research base of second language acquisition. Particular attention is given to the influence of research trends in linguistics and psychology on second language education theory and practice. Current trends in second language education are examined in light of the historical theory base. Prerequisite: CT 820. LEC.

C&T 823. Developing Intercultural Awareness in the Second Language Classroom. 3 Hours.
This course includes the study of the interrelationship of language and culture and the use of multicultural training techniques to develop cultural awareness and positive attitudes in the second language classroom. Emphasis is on the integration of culture in the second language curriculum. Prerequisite: CT 820 or CT 803. LEC.

C&T 824. Problems in Second Language Instruction. 3 Hours.
This course presents a study of curricula and instruction in the second language setting at all levels with emphasis on educational research concerning these issues. Particular attention is given to developing competency in locating and utilizing sources of information and to preparing the research document. The course facilitates practical problem solving in the second language learning context. Prerequisite: CT 820. LEC.

C&T 825. Practicum in Teaching English as a Second Language/Bilingual Education. 3 Hours.
This course provides a supervised teaching experience in a setting appropriate to the goals of the prospective ESL/Bilingual teacher: elementary, secondary, or adult. Particular attention is given to lesson planning, classroom management, and the development of self-evaluation techniques. This course will also emphasize structured classroom observation prior to teaching and techniques for developing and maintaining positive working relationships with other professionals in the school setting. Prerequisite: CT 820, CT 821, and CT 822 or CT 824. FLD.

C&T 826. Language Analysis for Language Teachers. 3 Hours.
This course offers pre- and in-service teachers the basic foundations of language analysis necessary for the teaching of second/foreign languages. The course covers basic linguistic topics common to all human languages (grammatical, phonological, and semantic aspects) with the intent to help teachers understand and address common languages problems that students face when learning English as a second/foreign language. LEC.

C&T 827. Teaching Second/Foreign Language Pronunciation. 3 Hours.
The objective of this course is to give prospective language teachers the requisite theoretical and practical background for making decisions concerning pronunciation teaching. This course provides second and foreign language teachers with the necessary knowledge and skills to address the teaching of pronunciation in the foreign /language classroom. After a review of theoretical and practical research dealing with universal human speech perception and production, implications for the design of appropriate strategies and lessons to teaching pronunciation, both at the segmental and suprasegmental levels, are addressed. Prerequisite: CT 444, CT 820/CT 822. LEC.

C&T 828. Language and Identity. 3 Hours.
This interdisciplinary seminar explores the interrelationship between language and identity, and the role of language in developing identities of second language learners. LEC.

C&T 830. Classroom Applications of Assessment Information. 1 Hour.
The primary purpose of this course is to examine classroom-based practices for identifying intellectual and creative potential in school-aged children and youth, and to apply that information to classroom instruction as well as to individual education planning. Particular attention is paid to populations who are traditionally underserved due to language status, ethnicity, socio-economic status, geography, or multiple exceptionality. Parent and student roles are also emphasized. An evidence-based practice course for teachers, administrators, and support personnel. Prerequisite: Admission to Graduate School. LEC.

C&T 831. Personal Dimensions of Talent. 1 Hour.
The course focuses on affective aspects of individuals with high potential. Particular attention is paid to populations who are traditionally underserved due to ethnicity, socio-economic status, geography, or multiple exceptionality. The course focuses on theories, models and methods for understanding and addressing the successful personal development of talented individuals, supporting families, and personal issues linked to high potential. An evidence-based practice course for teachers, administrators, and support personnel. Prerequisite: Admission to Graduate School in Education. LEC.

C&T 840. Emergent Literacy and Beginning Reading. 3 Hours.
A study of emergent literacy through the beginning stages of literacy development. Course content focuses on the history, theory, and research that supports instructional reading practices for children Pre-kindergarten through grade 2. Prerequisite: CT 740, CT 741, or permission of instructor. LEC.

C&T 841. Early Intervention in Reading Practicum. 3 Hours.
A case study approach to the instruction of children in need of early intervention in reading. Requires assessment, instruction, and case reports of tutored children. Prerequisite: CT 740, CT 741, CT 840, or permission of instructor. FLD.

C&T 842. Supporting Striving Readers: Adolescent through Adult. 3 Hours.
A study of the characteristics and multiple causes of reading and writing difficulties, principles and procedures for diagnosing and remediating reading difficulties, how to provide individual and group intervention strategies, communicate diagnostic information, and gain awareness of the impact of research on instructional decision-making for students with reading difficulties. Prerequisite: Admission to a masters program within the School of Education, CT 740, CT 741, CT 840, and CT 841, or permission of instructor. LEC.

C&T 843. Supporting Striving Readers Practicum. 3 Hours.
Case study approach to the treatment of pre-adolescent through adults with reading disabilities. Requires diagnostic testing of the learner, compilation of case study reports, and participating in staffing for the purpose of designing remedial reading programs. Students also participate in implementation of remedial programs with pre-adolescent through adults through tutoring in either a clinical setting or a public school setting. Prerequisite: Admission to a masters program within the School of Education, CT 740, CT 741, CT 840, CT 841, CT 842, or permission of instructor. LEC.

C&T 844. The Reading Program: Coordination and Supervision. 3 Hours.
An overview of the role of the reading coordinator/supervisor and that individual’s responsibility for the components of a balanced reading program. Emphasis will be given to assessment of the reading program, strategies for change, improving the reading program, in-service programs, working with other school personnel, providing services, and
public relations. Prerequisite: CT 740, CT 741, CT 840, CT 841, CT 842, and CT 843. LEC.

C&T 845. Reading Specialist Internship. 1-2 Hours.
Supervised and directed experiences to develop the necessary instructional and leadership competencies of a reading specialist. Activities will include district and building level needs assessment, data analysis, professional development of teachers and paraprofessionals, and cooperative planning with teachers and administrators around issues of literacy instruction and achievement. Prerequisite: Completion (at the University of Kansas) of course requirements for the Reading Specialist program. The Reading Specialist course requirements may be a part of a graduate degree. FLD.

C&T 850. Seminar in Science and Mathematics Educational Research. 3 Hours.
The primary purpose of this course is to examine literature in science and mathematics education in order to better understand research in these fields from both a historical and contemporary perspective. The process of examining literature in these fields will be used to help understand how to plan, conduct, and evaluate research in science and math education. This course emphasizes both qualitative and quantitative research in science and math education. LEC.

C&T 851. Modern Approaches to Middle/Secondary School Mathematics. 3 Hours.
A study of aspects of curriculum and instruction in middle/secondary school mathematics programs, including research on teaching and learning mathematics. Prerequisite: Teaching experience in middle-level or high school mathematics or permission of instructor. LEC.

C&T 852. Instruction in Mathematics and Science. 3 Hours.
In this course, students will explore a variety of research-based instructional theories, models, and strategies for teaching and learning of mathematics and science. They will apply and evaluate the usage of one instructional strategy in an action research project in their classrooms. Prerequisite: CT 709. LEC.

C&T 853. Connecting Research to Classroom Practice in Middle/Secondary Science. 3 Hours.
This course will explore current research on issues important to middle and high school science teachers so they can use research to support and improve their classroom practice. Prerequisite: Teaching experience in middle level or high school science or permission of instructor. LEC.

C&T 854. Assessment and Evaluation in Science and Mathematics. 3 Hours.
The primary purpose of this course is to examine assessment and evaluation in science and mathematics, including assessment of students, teachers, schools, and educational programs. The course will examine technical characteristics of various assessment methods including both traditional and alternative methods. In addition, the course will analyze and discuss various controversial issues in assessment such as authentic assessment, and large scale assessment, and large scale assessments, assessment for accountability, and equity issues. LEC.

C&T 855. Curriculum in Science and Mathematics. 3 Hours.
A survey of the concepts and processes that provide the focus of modern science and mathematics curricula will be central to the course. Students develop a standards-based framework for a school science or mathematics program. The course includes an analysis of national and state recommendations for the reform of science and mathematics education in the context of our state and local educational systems, which is applied by evaluating exemplary instructional materials and activities appropriate for classroom use. Prerequisite: CT 709. LEC.

C&T 856. Practicum in Science Education. 1-3 Hours.
Intensive supervised experience working with improvement of science curriculum and/or instruction in an educational setting. Credit in any one semester may range from one to three hours; and total credit may not exceed three hours. Prerequisite: Two graduate courses in science education and prior consent of practicum supervisor. FLD.

C&T 857. Practicum in Mathematics Education. 1-3 Hours.
Intensive supervised experience working with improvement of mathematics curriculum and/or instruction in an educational setting. Credit in any one semester may range from one to three hours; and total credit may not exceed three hours. Prerequisite: Two graduate courses in mathematics education and prior consent of practicum supervisor. FLD.

C&T 858. Connecting Research to Classroom Practice in Middle/Secondary Mathematics. 3 Hours.
This course will explore current research on issues important to middle and high school mathematics teachers so they can use research to support and improve their classroom practice. Prerequisite: Teaching experience in middle level or high school mathematics or permission of instructor. LEC.

C&T 859. Issues in Mathematics or Science Education: ____. 1-3 Hours.
A study of issues in a particular area of mathematics or science education. The course may be repeated for different topics. Prerequisite: Admission to graduate study. LEC.

C&T 860. Topics in Teaching and Learning Social Studies: ____. 3 Hours.
An examination of current topics and issues from social science perspectives. Special emphasis is given to effective integration of one of the social sciences, such as anthropology, geography, political science, science technology and society, and these topics affect issues of curriculum at both elementary and secondary levels. Students will need to confer with the instructor of record to determine which topic will be the current focus of the course. LEC.

C&T 861. Curriculum and Assessment in Social Studies Programs K-12. 3 Hours.
The purpose of the course is to offer preservice and practicing K-12 social studies educators the following: (1) an overview of theoretical bases for social studies education and of the social studies and discipline specific curriculum standards; (2) a review of the major curricular and extracurricular K-12 social studies programs; (3) strategies for the design, implementation, and evaluation of social studies programs; and (4) experience with the design, implementation, and/or evaluation of a social studies program. LEC.

C&T 862. Trends and Issues in Social Studies Instruction. 3 Hours.
A study of trends and issues relating to, and needed changes in the content, organization, emphasis, resources and equipment, methods, devices and evaluation in the social studies. Consideration of related problems such as achieving meaning and understanding, providing for individual differences, providing motivation, the cooperative assignment and socialized recitation. Students will be permitted to concentrate on those problems of particular interest to them. Prerequisite: Nine hours of Education including educational psychology. LEC.

C&T 863. Curriculum Development in Economic Education. 3 Hours.
Extension and application of economic concepts and theories through integration into the scope and sequence of the school curriculum. The process will include the development and field testing of a project that utilizes appropriate concepts, materials, community resources and techniques for integrating economics into the total curriculum. Prerequisite: CT 763. LEC.
C&T 864. International Issues in the K-12 Classroom. 3 Hours.
An examination of current international topics and issues from an economic education perspective. Special emphasis is given to effective integration of global topics and issues into the curriculum at both elementary and secondary levels. Students survey and analyze economic education resource materials and develop international lessons for use in their own classrooms. This course is offered during summer term, locally, and as a study abroad option. This course has been offered two times previously as TL 798-summer 1993 at the Regents Center and in Great Britain. LEC.

C&T 868. Connecting Research to Classroom Practice in Social Studies. 3 Hours.
The purpose of the course is to explore readings on effective practice and current research on issues important to social studies teachers. Knowledge gained from the exploration of readings will be used to develop a plan and implementation procedures for improving classroom practice. Prerequisite: Teaching experience in social studies education or permission of the instructor. LEC.

C&T 896. Seminar in: ____. 1-4 Hours.
LEC.

C&T 897. Independent Study. 1-4 Hours.
Prerequisite: Consent of advisor and instructor. RSH.

C&T 898. Master’s Project. 1-4 Hours.
RSH.

C&T 899. Master’s Thesis. 1-6 Hours.
THE.

C&T 900. Current Trends & Issues in Curriculum & Instruction. 3 Hours.
The course, taught as a capstone seminar, will provide a review of current trends and issues in theories, practices, and events within curricular and instructional efforts in American education. Topics studied may include constructivism, connectivism in the digital age, contemporary theories and theorists such as Vygotsky, online instruction and the Internet's potential and growth, the new Cult of Efficiency, stigmatization and standardized testing, and charter schools. Student composition of each class will influence the final syllabus, which may include other topics reflective of student interests and goals. The class is designed for those in the final course phase of their doctoral studies. Students in their first or second semester of their programs will not be encouraged to enroll in the class. LEC.

C&T 901. Contemporary Research of Teaching Effectiveness. 3 Hours.
A review of recent research on the conceptualization, measurement, and improvement of teaching effectiveness. Particular attention is given to the history of efforts to improve teaching, to the reasons why such efforts have often been unsuccessful, and to the recent contributions of the "micro-criteria" approach to the problem. LEC.

C&T 903. Curriculum Supervision. 3 Hours.
An intensive study of the theoretical and research bases for curriculum supervision and improvement. Topics include models and practices in supervision and staff development, skills and instruments used in curriculum assessment, coordination of both human and material resources, and the dynamics of change strategies. LEC.

C&T 904. Philosophical Questions in Curriculum and Teaching. 3 Hours.
This course addresses philosophical questions pertaining to curriculum and teaching across a range of educational contexts. These questions center on epistemology, ethics, and the assumptions underlying alternative approaches to research in education. Students completing this course should be able to engage in philosophical inquiry and apply relevant philosophical literature and principles to the examination of curriculum and teaching. LEC.

C&T 905. Teacher Education in the U.S.. 2 Hours.
A study of the development, issues, and programs for the preparation of teachers. Open to all regular graduate students. LEC.

C&T 906. Qualitative and Curriculum Inquiry: Analysis and Interpretation. 3 Hours.
Supports novice researchers in extending their understanding of the theoretical frameworks underlying qualitative research, qualitative methodologies, the research process and its relationship with curriculum inquiry. During the course we will discuss various forms of qualitative research methods, approaches to research, and perspectives in methodology relate to curriculum inquiry. We will explore the intertwining of data generation, analysis, and writing. In addition, we will focus on refining data generation techniques, strategies for data analysis, data interpretation, and various forms of reporting/writing. Prior coursework: Introduction to a graduate level qualitative research course or permission from the instructor. Prerequisite: Introduction to a graduate level qualitative research course or permission from the instructor. LEC.

C&T 907. Critical Pedagogies. 3 Hours.
This course examines the theories and practices of several educational orientations that comprise "critical pedagogy." Students examine the historical roots and evolution of this broad orientation toward education. Recurring themes in the class are relations between knowledge and curriculum, the school and society, and teachers and students. Students completing the course should be able to analyze educational phenomena through a critical theoretical lens. Open to all doctoral students and advanced masters students with instructor permission. LEC.

C&T 910. Research Seminar in English Education. 3 Hours.
This course will focus on both the conduct and findings of research related to English/Language Arts Education. Its purpose will be to foster discussion among students concerning paradigms that have shaped the field of English/Language Arts as well as encourage critique of the ways in which these paradigms are enacted in research. In this course, each student will develop a reading list on a topic of interest related to research in English/Language Arts Education and/or pursue the writing of an individual research proposal. Prerequisite: Admission to master's or doctoral program in CT, emphasis in English/Language Arts Education. LEC.

C&T 940. Evaluation of Research in Reading. 3 Hours.
LEC.

C&T 944. Diagnosis and Evaluation of Instruction in Higher Education. 2-3 Hours.
The course will focus on (1) a review of the practical and theoretical problems of developing, in institutions of higher education, programs for the diagnosis and/or evaluation of classroom instruction, including use of videotape feedback for diagnosis, and the development of surveys for evaluation for diagnosis of teaching, and (2) the importance of careful administrative and review procedures as the evaluation of teaching becomes more formal and consequential. Three hours of credit will be awarded to those enrolled in the laboratory section of the course. LEC.

C&T 951. Research and Evaluation in Mathematics and Science. 3 Hours.
This course introduces students to the processes of planning, conducting, and evaluating mathematics and science research and evaluation in education. This course emphasizes the methods and techniques used
in both quantitative mathematics and science research and evaluation methodologies. Prerequisite: A PRE course in statistics. LEC.

C&T 960. Theory and Research in Social Studies Education. 3 Hours.
The purpose of this graduate level course is to stimulate and communicate systematic research and thinking in Social Studies Education. Its purpose is to foster the creation and exchange of ideas and research findings that will expand knowledge about purposes, conditions, and effects of schooling and education about society and social relations. LEC.

C&T 968. Readings in Economic Education Research. 3 Hours.
A survey of research in elementary, secondary, and higher education economic education. After initial, mutual readings, and discussions, class members will determine a list of broad research questions around which we will focus our readings. Each student is responsible for developing a reading list on one of the topics and reporting on selected readings. Class meetings will focus on summarizing and critiquing published research. Purpose of this course is to prepare doctoral students for comprehensive examinations and dissertation research. LEC.

C&T 994. Advanced Topics: ______. 1-3 Hours.
A special course of study to meet current needs of education professionals -- primarily for post-master's level students. LEC.

C&T 995. Field Experience in: ______. 1-5 Hours.
Supervised and directed experiences in selected educational settings. The advisor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experiences will be prepared independently by the student, a representative of the cooperating agencies, and the advisor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. FLD.

C&T 996. College Teaching Experience in: ______. 2 Hours.
To meet the college teaching experience requirement for doctoral programs, a student shall engage in a semester-long, planned, instructional activity that shall include college classroom teaching under supervision. Planning shall be done with the advisor and/or the member of the faculty who will supervise the experience. The activity shall be done under the supervision of a member of the University of Kansas faculty or by an individual or individuals designated by the candidate's committee. FLD.

C&T 997. Individual Study. 1-4 Hours.
Prerequisite: Prior graduate course work in the area of study and consent of instructor. RSH.

C&T 998. Seminar in: ______. 1-4 Hours.
LEC.

C&T 999. Doctoral Dissertation. 1-15 Hours.
THE.

Deaf Education Courses

DE 702. Intermediate Signing Exact English. 3 Hours.
Intermediate vocabulary (700 words) for basic school routines and subjects will be taught using curricular materials to practice SEE 2 vocabulary and affix markers. Two college sign classes of any kind. LEC.

DE 717. Pidgin Sign English/American Sign Language. 3 Hours.
An intermediate level, educationally oriented vocabulary (450 words) taught in PSE/ASL. Comparison of literally and conceptually signed sentences. Prerequisite: Any sign course, admittance into Deaf Education Masters Program. LEC.

DE 808. Family Focus With Young Hearing-Impaired Children. 3 Hours.
Focus on the family as the primary teachers of deaf and hard-of-hearing infants and toddlers. The purpose of the class is twofold: to develop an understanding of the effect of deafness and to develop skills to deal with its intervention. Future teachers, early-childhood specialists, and related service providers will participate in discussion, simulations, and applied exercises in acquiring course competencies. Prerequisite: Sign class of any type. LEC.

Educ Leadership Policy Stds Courses

ELPS 200. Making Connections Between Schools and Community. 3 Hours.
This course is designed to increase the students' awareness of learning in the classroom and to familiarize them with the role of the school and the community. Institutions and resources that support children and families will be addressed through large and small group sessions and field experiences. Emphasis is given to the diverse nature of schools, communities, and their populations. In addition, the course will acclimate students with the School of Education programs, admissions procedures, and curriculum offerings. Successful completion of this course does not guarantee eventual admission of the School of Educator's Teacher Education Program. Prerequisite: Successful completion of CT 100. LEC.

ELPS 250. Education and Society. 3 Hours. AE41/AE51.
This course provides students with an introduction to key ideas and socio- historical forces that have shaped the contemporary educational system in the United States, drawing upon the disciplines of the historical, philosophical, and social foundations of education. The development of school and community relations will be a point of emphasis. LEC.

ELPS 301. Educational Technology in Elementary-Middle Education. 3 Hours.
The focus of this course is on developing integration strategies and acquiring computer skills for using instructional technology and educational software, digital media, and information technologies appropriate to elementary and middle school teaching environments. Students will gain expertise in (a) the selection of appropriate instructional technologies and digital media for use in the classroom; (b) production of technology-based instructional materials; and (c) the evaluation and validation of a variety of electronic information sources. Prerequisite: Admission to the Teacher Education Program. LEC.

ELPS 302. Educational Technology in Middle/Secondary Education. 3 Hours.
The focus of this course is on developing integration strategies and acquiring computer skills for using instructional technology and educational software, digital media, and information technologies appropriate to middle school and high school teaching environments. Students will gain expertise in (a) the selection of appropriate instructional technologies and digital media for use in the classroom; (b) production of technology-based instructional materials; and (c) the evaluation and validation of a variety of electronic information sources. Prerequisite: Admission to the Teacher Education Program. LEC.

ELPS 437. Politics and Governance of Public Schools. 3 Hours.
This course introduces students not pursuing K-12 teaching or administrative positions to the organizational and legal foundations of the American educational system. LEC.

ELPS 450. Foundations of Education. 3 Hours.
A historical approach to the major social and philosophical foundations of American education, with an emphasis on the relation of educational theory to classroom practice. LEC.
ELPS 490. Senior Internship I. 4 Hours.
Supervised field experience in an on-site educational setting that provides the student an opportunity to study and participate in the professional activities of a designated educational setting with emphasis on the planning, implementation, and evaluation of such activities. Regular conferences with faculty to evaluate student progress will be scheduled. Prerequisite: Admission to the non-certificate baccalaureate program. LEC.

ELPS 491. Senior Internship II. 4 Hours.
Supervised field experience in an on-site educational setting with increasing emphasis placed on an integration of formal learning and in site experience. Regular conferences with faculty will be scheduled. Prerequisite: Admission to the non-certificate baccalaureate program. LEC.

ELPS 497. Independent Study in:. 1-2 Hours.
Only one enrollment permitted each semester. A maximum of four hours will apply toward the bachelor’s degree. Prerequisite: Recommendation of advisor and consent of instructor. IND.

ELPS 537. The Governance and Organization of Schools. 3 Hours.
The course provides the prospective teacher with an overview of the legal foundations of the American educational system including the ways schools and school districts are organized and run; the role of various levels of government and various governmental and educational officials in controlling education; the rights of students and teachers; the terms, conditions, and responsibilities of teacher employment. Prerequisite: Admission to the Teacher Education Program. LEC.

ELPS 540. Ethics in Education. 3 Hours.
This course examines practices and policies occurring in k-12 and postsecondary educational institutions through the lenses provided by ethics. During the semester, we will read, discuss, and write about ethics in education from both theoretical and practical perspectives. Prerequisite: Junior standing or higher. The course is suitable for advanced undergraduate and master’s degree seeking students. LEC.

ELPS 550. Childhood and Youth in America. 3 Hours.
A study of the changing role and character of childhood and youth as stages of life in the context of American educational and cultural history. LEC.

ELPS 598. Special Course:. 1-5 Hours.
A special course of study to meet current needs of education students, primarily for undergraduates. LEC.

ELPS 627. Growing Up in Urbanizing America. 3 Hours.
A study of the changing role and character of childhood and youth as stages of life in the context of American urban and social history, with particular attention to education and human development. Prerequisite: Junior standing or higher. LEC.

ELPS 652. Residential Staff Skill Enhancement and Administration. 2-3 Hours.
This special course of study in residential staff skill enhancement and administration is an exploration of concepts and skills necessary for becoming an effective paraprofessional staff member in a residential living unit. Each class session will include presentations and experiential learning on topics to develop or improve interpersonal skills and skill in dealing with special concerns. The course is required or recommended for all residence and scholarship hall staff and open to upperclass or graduate students interested in student personnel work. LEC.

ELPS 715. Understanding Research in Education. 3 Hours.
This course introduces the concepts and skills involved in understanding and analyzing research in education and related areas. The course provides an overview of basic, general knowledge of various research methodologies. Students should expect to study much of this material in greater depth through additional course work before being prepared to conduct independent research. However, this course should enhance their ability to locate, read, comprehend, and critically analyze research articles and reports. Topics in the course include quantitative and qualitative methods and designs, historical and descriptive research, and program evaluation. Prerequisite: Admission to graduate standing in the School of Education. LEC.

ELPS 750. Principalship. 3 Hours.
An introduction to the role, responsibilities, expectations and major duties of elementary, middle, and high school building administrators. Students are presented typical problems faced by school administrators through simulations and role playing and are expected, through reflection and discussion, to develop viable solutions. LEC.

ELPS 751. Educational Finance. 3 Hours.
A description and analysis of national, state, and local strategies for the financial support of education, utilizing social, economic, legal, and political frameworks. Particular attention to the principles of revenue acquisition and distribution at the local and state level for public school operations, with analysis of how these principles apply to Kansas. Designed for the wide variety of educational practitioners regardless of organizational and degree levels. Prerequisite: Admission to graduate study. LEC.

ELPS 752. Education Law. 3 Hours.
A study of legal principles and issues affecting educational policy making and practice with emphasis on student and teacher rights, equity, and the administration of schools. Prerequisite: Admission to graduate study. LEC.

ELPS 753. Introduction to Personnel Administration in Education. 3 Hours.
An overview of the theory and practice of personnel administration. The course focuses on the processes of recruitment, selection, training and development, evaluation, compensation, equal employment opportunity, and labor relations. LEC.

ELPS 754. Analysis of Administrative Problems. 3 Hours.
An introduction to various methods of problem identification; strategies of information gathering; schemes for the analysis of qualitative and quantitative data; models of problem resolution and decision making; and communication methods appropriate for differing audiences. Students will build basic computer, library, decision and communication skills useful in future administrative practice and subsequent coursework. LEC.

ELPS 755. Human Resource Management. 3 Hours.
An overview of the theory and practice of personnel administration. The course focuses on the processes of recruitment, selection, training and development, evaluation, compensation, equal employment opportunity, and labor relations. LEC.

ELPS 757. Education in American Society. 3 Hours.
A study of the roles and goals of education in the United States, the interrelationships among schools and students, teachers, administrators, and parents, and the culture of schools. LEC.

ELPS 760. Integration of Educational Technology. 3 Hours.
This course focuses on strategies for integrating educational technology in K-12 schools, universities, government or industry. Topics include applying technology in: a) understanding basic technology operations b) planning and designing learning experiences, c) curriculum development, d) assessment and evaluation e) productivity and professional practices, and considering f) social, ethical, legal, and human issues. Students produce a comprehensive electronic portfolio that describes the theoretical perspectives that guide their technology integrations strategies and evidence that demonstrates their competencies. LEC.
ELPS 772. Philosophical Problems in Comparative Education. 3 Hours.
A study of significant philosophical problems encountered when comparing educational systems. Special emphasis on the implications of axiological analysis for educational theory and practice in different areas of the world. Relationships among the social sciences, philosophy, and the international or cross-cultural venture in education. The importance of systematic value-theory in comparative research and international education. LEC.

ELPS 773. School and Society in Comparative Education. 3 Hours.
Analysis of the role of social science in comparative education as perceived by different philosophies or schools of thought, such as Marxism, phenomenology, empiricism, pragmatism, and linguistic analysis. LEC.

ELPS 774. Modern Educational Theorists. 3 Hours.
An in-depth study of prominent European thinkers who have contributed to educational theory and practice (e.g., Rousseau, Pestalozzi, Herbert, Froebel, Montessori, Nietzsche, Freud, Piaget, Ortega Gasset, etc.). Prerequisite: ELPS 770 or ELPS 771 is recommended. LEC.

ELPS 777. Problems in Contemporary Educational Theory. 3 Hours.
Select explorations into such provocative and problematic trends in current educational theory as Marxism, behaviorism, phenomenology, existentialism, analytic philosophy, hedonism, nonverbal education, etc. Prerequisite: ELPS 770 or ELPS 771 is recommended. LEC.

ELPS 780. Introduction to Higher Education Administration. 3 Hours.
This course is designed for beginning master's degree students and for doctoral students who have had no previous administrative experience in college or university settings. Students will be introduced to the function and responsibilities of major administrative divisions of a college or university and to the major tasks of administration: planning, programming, budgeting, staffing, managing. An emphasis will be placed on current issues facing higher education and students will be introduced to the major journals of the field. As part of the course requirements, students will spend some time familiarizing themselves with one or more administrative offices on a college campus. Prerequisite: Admission to study in higher education at the graduate level. LEC.

ELPS 781. Student Affairs Administration in Higher Education. 3 Hours.
This course is designed to include the study of the history and development of student personnel services in higher education, the role and function of the student affairs administrator, contemporary issues and problems, and an understanding of the organization and role of student affairs administration within higher education settings. Prerequisite: Admission to the higher education program or permission of instructor. LEC.

ELPS 798. Special Course:. 1-5 Hours.
A special course of study to meet current needs of education professionals -- primarily for graduate students. LEC.

ELPS 810. Educational Media Development. 3 Hours.
Media surrounds today's learning environments. How can you effectively engage learners with multimedia, meaningful interactions, and motivational strategies? This course will take a hands-on practical approach to creating interactive educational multimedia products including, but not limited to, digital images, movies, podcast, Web publishing and educational games. Also, students will learn about the underlying learning theories of educational media development. LEC.

ELPS 811. Constructivist Learning Technologies. 3 Hours.
This course explores the design and use of new educational technologies to support constructivist learning. Throughout the course, students will (1) get hands-on experiences with emerging educational technologies, (2) examine how the underlying learning theories are reified into concrete learning environments, and (3) analyze how the affordances of new technologies (e.g., modeling and visualization) can facilitate the constructivist learning processes. This course is suitable for students who wish to develop greater knowledge about the ways emerging computer technologies can empower constructivist learning. Prerequisite: CT 770. LEC.

ELPS 812. Design of Educational Technology. 3 Hours.
This course introduces instructional design theory and production techniques for developing educational technology resources and systems. Students apply their understandings of design and education theories as they work in teams to develop real-world applications of educational technology for specific clients. LEC.

ELPS 820. Practicum in Educational Technology. 1-3 Hours.
Supervised practice in a media center in selection, classifying, designing, producing, and/or managing instructional materials. Prerequisite: CT 770 and CT 871. FLD.

ELPS 830. Foundations of Multicultural Education. 3 Hours.
This class provides students with an understanding multicultural education as an instructional concept, educational reform movement, and systemic process meant to ensure educational equity for all people, especially those who have been inadequately served and/or historically discriminated against because of their racial/ethnic or linguistic backgrounds, gender or sexual orientation, socio-economic status, and special needs. Students will examine different theoretical approaches that inform the practice of multicultural education and explore the contribution of various social sciences to the field. LEC.

ELPS 831. Sociology of Education. 3 Hours.
This course will provide an introduction to the sociology of education. This course is designed to fulfill the doctoral core requirement for social, historical and philosophical foundations of education. Specific topics will include: conflict over the purposes of education; how those purposes are or are not-translated into actual classroom life; how educational systems have developed historically, how status, and more specifically race, class and gender relations, affect student experiences; and contemporary policy and reform movements. LEC.

ELPS 832. History of Educational Thought. 3 Hours.
An examination of the major ideas that have shaped practice in the schools. Emphasis is placed on assisting the student with the development of a coherent and consistent personal philosophy of education upon which administrative practice can be based. LEC.

ELPS 833. Social Context of Urban Education. 3 Hours.
This course examines education in urban communities through the foundational disciplines of history, philosophy, and the social sciences. Particular attention is given to ways in which the changing social and political contexts of American cities affect the educational process. LEC.

ELPS 834. History and Philosophy of Education. 3 Hours.
A comprehensive study of influential persons and movements in the development of educational thought, Eastern and Western, from ancient times to the present. Emphasis on those ideas and historical roots which are relevant to contemporary issues in teaching and school administration. LEC.

ELPS 835. Philosophy of Education. 3 Hours.
An analytic inquiry into basic philosophical positions and issues relevant to education. The difference between ELPS 770 and ELPS 771 is that
Evaluation and practicing observation, recording and conferencing through reading, discussion, active teaching of content related to teacher evaluation knowledge, skill and performance are acquired and developed. Competencies essential to effective evaluation of teaching performance. The administrative perspective. It is intended to provide exposure to information related to effective teacher evaluation behavior from ELPS 855. Teacher Evaluation. 3 Hours.

ELPS 839. Historical Inquiry in Education. 3 Hours.
This course will provide an introduction to the methodology of historical research in education. This course is designed to fulfill the doctoral core requirement for research methods in education for students interested in doing this type of research. Specific topics will include: the historiography of education; working with primary and secondary documents; oral history as method and documentation; quantitative approaches to history; constructing historical narratives; the question of interpretation. LEC.

ELPS 850. Educational Facilities. 3 Hours.
A study of the principles and processes of developing functional educational facilities. Special emphasis placed on the educational planning that precedes and provides the basis for architectural planning. Among topics considered are plant utilization analysis, enrollment projections, site and equipment needs, fiscal and legal constraints, environmental factors, and the development of educational specifications. Designed for both building and central office level administrators. Prerequisite: Admission to graduate study. LEC.

ELPS 851. Supervision of Student Teaching. 2 Hours.
A study of the organization and functions of student-teaching programs. Emphasis on the development of effective interpersonal relationships among school administrators, cooperating teachers, university supervisors, and student teachers. Designed for both administrative and instructional personnel. Prerequisite: Admission to graduate study. LEC.

ELPS 852. School Resource Management. 3 Hours.
An examination of the sources and uses of fiscal resources in education including underlying concepts from economic theory, the impact of values on fiscal policy, state funding formulas, and school budgeting and accounting practices. LEC.

ELPS 853. Staff Evaluation and Development. 3 Hours.
An examination of current trends in personnel evaluation with a focus on clinical supervision and adult development. Students will participate in simulation exercises to develop skills in classroom observation, conferencing techniques, evaluation of teaching artifacts, and the construction of staff development plans. LEC.

ELPS 854. The Student in Society. 3 Hours.
A study of children and youth with particular emphasis on demographic characteristics of the population served by schools and implications of those characteristics for schools and schooling. LEC.

ELPS 855. Teacher Evaluation. 3 Hours.
Teacher Evaluation is based on clinical, empirical and theoretical information related to effective teacher evaluation behavior from the administrative perspective. It is intended to provide exposure to competencies essential to effective evaluation of teaching performance. Evaluation knowledge, skill and performance are acquired and developed through reading, discussion, active teaching of content related to teacher evaluation and practicing observation, recording and conferencing skills. A variety of approaches is considered, but behaviorally-anchored measurement of teaching behavior is emphasized. Opportunities and needs for improvement are identified with the assistance of video-taped diagnosis of conferencing behavior. Prerequisite: Two of the following: ELPS 750, ELPS 752, ELPS 753, or CT 840. LEC.

ELPS 856. Law and Special Education. 3 Hours.
This course focuses on laws that apply to special education. The American legal system, particularly in respect to special education, the constitutional and statutory provisions of federal and state law and the judicial decisions interpreting those laws are reviewed. The course relates equal protection, procedural due process, and substantive due process doctrines to school practices affecting disabled children and examines the sex principles of P.L. 94-142 and similar principles in state legislation. This course is not the equivalent of or a substitute for ELPS 752. (Same as SPED 851.) Prerequisite: SPED 750 or permission of instructor. LEC.

ELPS 857. Disabled Citizens, Public Policy and Policy Analysis. 3 Hours.
To train students to analyze public policy that affects disabled citizens, various models of analysis are brought to bear on federal policy (education, transportation, housing, institutionalization, protection and advocacy, medical assistance, employment, vocational rehabilitation and others). Not valid for core requirement in history and/or philosophy of education. (Same as SPED 852.) Prerequisite: SPED 851 or SPED 750 or permission of instructor. LEC.

ELPS 858. Professional Ethics, Public Values and Disabled Citizens. 3 Hours.
This course addresses the issues that professionals (educators, physicians, allied health providers, attorneys and others) and families of disabled people face in the context of public values and attitudes and rules of law. The issues include, without limitation, education, treatment and non-treatment. Not valid for core requirement in history and/or philosophy of education. (Same as SPED 853.) Prerequisite: SPED 750, SPED 851, SPED 852 or permission of instructor. LEC.

ELPS 870. Philosophy of Education II. 3 Hours.
An exploration of select areas in philosophy, such as emphasis on value-theory or epistemology or metaphysics, and their implications for educational theory. Normally a limited number of authors will also be selected for monographic treatment. Prerequisite: ELPS 770 or ELPS 771 is recommended. LEC.

ELPS 871. Introduction to Qualitative Research. 3 Hours.
An introduction to the foundations and techniques associated with qualitative research methods. Students will practice interview and participant observation skills and will analyze and interpret data. Additional topics include crafting qualitative research questions, ethics of fieldwork, and establishing trustworthiness of data. Common traditions of qualitative methods employed in education and other related fields will be introduced. LEC.

ELPS 880. The Community/Junior College. 3 Hours.
A survey of the history and development of the community/junior college. Particular emphasis will be given to the student, the faculty, the curricula, administration, and finance. The course is intended to provide a general understanding of the operation and concerns of today’s community/junior college for the current or potential community/junior college staff member. LEC.

ELPS 881. Seminar in Leadership. 3 Hours.
The purpose of this seminar is to explore leadership in education, particularly higher education, from a variety of perspectives. Readings come from a variety of disciplinary perspectives, such as sociology, organizational behavior, and psychology. We consider various aspects
of leadership and analyze the leader from a symbolic perspective, as a manager of meaning and critical change agent. We then challenge ourselves to deconstruct our leadership realities with the help of several critical perspectives as we prepare to examine who the leaders are as well as who they will, and need to, be in the educational organizations of tomorrow. LEC.

ELPS 882. Higher Education in the United States. 3 Hours.
The purpose of the course is to acquaint students in higher education, and students from other areas who intend to work in the post-secondary setting, with the history, philosophy and development of higher education in the United States. The course focuses on three periods: 1) the founding of Harvard to 1965; 2) dissent, disruption, and change, 1965-1979; and 3) the future and crucial issues, the 1980's. European higher education and its early influence on higher education in the United States is also examined. LEC.

ELPS 883. The College Student. 3 Hours.
The characteristics of college students; impact of college on student behavior, changing attitudes, values, beliefs, and the implications of recent research on traditional and new students for instructional and administrative practices. LEC.

ELPS 884. Research on College Students. 3 Hours.
Examination of the American college student from societal, development, research, and institutional perspectives and to review the policy implications of these findings for college and university administrators and faculty. Topics include research and theory concerning the college student experience, the diverse nature of the student body and its implications for institutional policy and practice, and formulation of individual philosophies and priorities applicable to working with college students. Prerequisite: ELPS 715 or equivalent. LEC.

ELPS 885. Assessment and Program Evaluation in Higher Education. 3 Hours.
Nature, objectives, and basic procedures of assessment and program evaluation as applied to the various aspects of higher education settings. In addition to basic procedures for evaluating programs, topics covered include accreditation, program review, benchmarking, student outcomes assessment, and evaluation of teaching in colleges and universities. Prerequisite: ELPS 715 or equivalent. LEC.

ELPS 886. Theory into Practice in Higher Education. 3 Hours.
This course is required as a final course for all master's students in higher education. It is designed to prepare students for professional life after graduation. Using a case study approach, students will examine the reality of practice in a variety of higher educational settings including relevant political and ethical factors. Prerequisite: Higher education students in last semester of master's coursework. LEC.

ELPS 893. Advanced Building Leadership Internship. 2 Hours.
Supervised and directed experiences to enhance the necessary leadership skills of a building/district leaders. Activities will include building/district level resource assessment, data analysis, professional development of teachers/principals (and district level professionals), and cooperative planning with teachers and administrators around responsibilities of curriculum, instruction, resource management and student achievement. Prerequisite: Completion (at the University of Kansas) of all certification program (MS/EdD) requirements for the Building/District Leadership Licenses. FLD.

ELPS 897. Independent Study. 1-4 Hours.
Prerequisite: Consent of advisor and instructor. IND.

ELPS 898. Master's Project. 1-4 Hours.
RSH.

ELPS 899. Master's Thesis. 1-6 Hours.
THE.

ELPS 948. Research in Education Policy and Leadership. 3 Hours.
This course is an introduction to methods of inquiry in education policy and leadership studies. It is designed to help doctoral students explore possible research interests, formulate research questions, and to review a rich variety of approaches to inquiry in the field of education. Specific topics include: interview- and observation-driven studies, ethnography, feminist and narrative methods, legal and historical methods, questionnaire-driven studies, quantitative evaluation studies, and studies using administrative and large national data sources. LEC.

ELPS 950. Educational Policy Making and Reform. 3 Hours.
An analysis of patterns of influence, organizations, and governmental agencies which impact education at the community, state and national levels. Particular emphasis is placed on analysis of policy development process and the relationship of policy to administration. Recommended to students in educational administration and higher education. LEC.

ELPS 951. Supervision of Instruction. 3 Hours.
A study of the principles and techniques necessary for coordinating, monitoring, and improving the educational programs of elementary and secondary schools. LEC.

ELPS 952. School Finance: Policy and Practice. 3 Hours.
The objective of this course is to understand the financial systems and mechanisms used by states in the funding of elementary and secondary education in the United States. In simple language, we will be concerned with five basic issues: (1) Where the money comes from; (2) How it is redistributed; (3) How it is spent; (4) The relative effectiveness of spending decisions including selected international comparisons; and (5) How the previous four financial activities participate in a common financial ecology. The course provides an overview of theory and concepts central to the understanding of school finance with an emphasis on policy issues. It also examines the mechanics of school finance funding in light of state policies. LEC.

ELPS 953. District Human Resource Management. 3 Hours.
An in-depth study of theory and research in personnel administration. The focus will be on current literature dealing with empirical assessments of personnel theory and techniques. Specific concepts to be considered include the following: educator characteristics, job analysis and design, personnel recruitment, selection and evaluation techniques, staffing and development, and labor relations. Prerequisite: ELPS 753 or its equivalent. LEC.

ELPS 954. Sociology of Educational Organizations. 3 Hours.
This class is an overview of basic and advanced sociological and political theories of organization, with specific application to issues and problems in K-12 education. It is designed for graduate students and practicing educational leaders and administrators who intend to utilize research on organizations in their studies of the governance of schools, the sociology and politics of education, and education policy. The topics covered include the origins and nature of modern bureaucracy, formal structure and function, organizational control, transaction cost economics, population ecology, resource dependence, the new institutionalism, organizational effectiveness and legitimacy, organizational culture, power and politics, and change. LEC.
ELPS 955. District Business Management. 3 Hours.
This course emphasizes skills for effective and efficient business and financial management of school districts in a Kansas or Missouri context. Basic topics include: Short range and long range financial planning, analysis of financial statements, budget preparation, fund accounting and financial reporting, contracting of services including transportation and food services, staff salaries and benefits and insurance. The course also includes a number of strategic methods for institutional planning including: Cost Benefit Analysis, Cost Effectiveness Analysis, and enrollment, revenue and expenditure forecasting techniques. Prerequisite: ELPS 952. LEC.

ELPS 956. District Leadership. 3 Hours.
The focus of the course is the role of the public school district superintendent. Organized study will include assigned readings, lectures, guest speakers, discussion, and the completion of a study project. The course will include consideration of such topics as boardmanship, community relations, district leadership, professional accountability, district maintenance and operations, professional employment and relationships with other agencies. The course is designed to serve the needs of those graduate students pursuing advanced study with the intention of obtaining requirements for district certification. Some students will also find the field appealing as an area for dissertation research. Prerequisite: Doctoral status in education administration or permission of instructor. LEC.

ELPS 957. Educational Policy, Ethics and Law. 3 Hours.
Course focuses on use of legal and moral reasoning in analysis of educational policy issues. Specific topics will vary depending on interests of instructor and students and current controversy. Examples of possible topics to be included: school desegregation, teacher collective bargaining, separation of church and school, equal educational opportunity. Prerequisite: ELPS 752, equivalent, or consent of instructor. LEC.

ELPS 958. American Educational Reform Movements: Past and Present. 3 Hours.
An examination of the origin, nature, and consequences of educational reform in the United States. The primary goal is to attain a balanced evaluation of current educational reform. LEC.

ELPS 959. Organization and Administration of Services for Exceptional Children. 3 Hours.
To aid administrators and prospective administrators responsible for organizing and administering programs of education for exceptional children, state and federal guidelines and regulations, legal aspects and financing of special education, planning a program, administering special services. (Same as SPED 971.) Prerequisite: Nine hours of Education including educational psychology and SPED 725. LEC.

ELPS 960. Specialist Project. 1-4 Hours.
RSH.

ELPS 970. Theory and Research in Administration. 3 Hours.
A survey of the theoretical and empirical literature in educational administration and the methods used to investigate these content areas. Major emphasis is devoted to developing research skills applicable in practice and to the identification of possible generic topics suitable for future dissertation work. LEC.

ELPS 971. Comparative Education. 2 Hours.
A factual, descriptive, and analytical study of national systems of formal education, or schooling, as exemplified in contemporary educational establishments. Organizational and administrative policies and teaching practices, with emphasis on Germany, France, England, U.S.S.R., People’s Republic of China and Japan. Other nations may be examined on an individual project basis. The difference between ELPS 971 and ELPS 772 is the philosophical emphasis of the latter. LEC.

ELPS 972. Educational Problems in Latin America. 3 Hours.
Designed to meet the needs of students majoring in Latin American studies or interested in the area. Development of an awareness of the concept of cross-cultural confluence with Latin America as it relates to education. Survey of the main problems confronted by Latin American educational systems and examination of the difficulties experienced by North American educators when confronted with such problems. LEC.

ELPS 975. Education, Technology and Social Change. 3 Hours.
This interdisciplinary course provides an opportunity to read, reflect upon, and discuss ideas drawn from the emerging field of Science and Technology Studies (STS) in connection with education. Its focus is the interrelationships between technology, society, and education (defined broadly to include non-school and adult learning settings). It explores how knowledge, expertise, and authority are constructed within and across social and cultural groups, with particular attention social and economic inequality. It also considers the relationship between emerging technologies, educational experiences and the nature of "the self" in society, among other issues. Prerequisite: Admission to ELPS doctoral program, or permission of instructor. LEC.

ELPS 980. Postsecondary Finance. 3 Hours.
This course is designed for advanced doctoral students in higher education, particularly those who will be preparing unit budgets or budget presentations and those who make and implement fiscal policy (e.g., financial aid offers). The course material covers different types of college and university budgeting – incremental, zero-based and formula – and their impact on university revenues; statewide coordination and its impact on programs, program duplication and funding; retrenchment and quality issues; the legislative role in budget preparation; unified and comparative management systems (e.g., WICHE and NCHEMS); and the impact of federal contracting and student aid policies. LEC.

ELPS 981. Higher Education Law. 3 Hours.
An overview of the developing law of higher education, with emphasis on analysis of employer-employee relationships, student-faculty/administration relationships, and the impact of federal and state regulation on these relationships. LEC.

ELPS 982. Faculty in Higher Education. 3 Hours.
This course considers the role and circumstances of faculty in higher education including variations among different types of institutions. Topics include the history and demographics of the professoriate, the academic work environment and labor market, the role of faculty in institutional governance and policy making, and the social and political context of academia. LEC.

ELPS 983. Curriculum Innovation in Higher Education. 3 Hours.
A study of contemporary post-secondary curriculum with particular emphasis on the nature of curriculum, the organization and structure of academic programs, the nature of change in academic communities and exemplary innovative institutions. LEC.

ELPS 984. Teacher Education in the United States. 2 Hours.
A study of the development, issues, and programs for the preparation of teachers. Open to all regular graduate students. LEC.

ELPS 985. Evaluations of Programs in Higher Education. 2 Hours.
Nature, objectives, and basic procedures of evaluation as applied to the various aspects of higher education. Open to all regular graduate students. LEC.
ELPS 986. The Governance and Administration of Higher Education. 3 Hours.
A theory-based course aimed at providing an understanding of the governance and administration of academic institutions -- particularly universities. Emphasis is directed toward an analysis of decision-making in these complex organizations. LEC.

ELPS 993. Advanced District Leadership Internship. 2 Hours.
Supervised and directed experiences to enhance the necessary leadership skills of a building/district leaders. Activities will include building/district level resource assessment, data analysis, professional development of teachers/principals (and district level professionals), and cooperative planning with teachers and administrators around responsibilities of curriculum, instruction, resource management and student achievement. Prerequisite: Completion (at the University of Kansas) of all certification program (MS/EdD) requirements for the Building/District Leadership Licenses. FLD.

ELPS 994. Advanced Topics:. 1-3 Hours.
A special course of study to meet current needs of education professionals -- primarily for post-master's level students. LEC.

ELPS 995. Field Experience in:. 1-5 Hours.
Supervised and directed experiences in selected educational settings. The advisor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experience will be prepared independently by the student, a representative of the cooperating agencies, and the advisor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. FLD.

ELPS 996. College Teaching Experience in:. 2 Hours.
To meet the college teaching experience requirement for doctoral programs, a student shall engage in a semester-long, planned, instructional activity that shall include college classroom teaching under supervision. Planning shall be done with the advisor and/or the member of the faculty who will supervise the experience. The activity shall be done under the supervision of a member of the University of Kansas faculty or by an individual or individuals designated by the candidate's committee. FLD.

ELPS 997. Individual Study. 1-4 Hours.
Prerequisite: Prior graduate course work in the area of study and consent of instructor. RSH.

ELPS 998. Seminar in:. 1-4 Hours.
LEC.

ELPS 999. Doctoral Dissertation. 1-15 Hours.
THE.

Education Courses
EDUC 800. Education as a Field of Scholarship. 3 Hours.
An intensive interdisciplinary examination of classic and current scholarship in education, for students in Ph.D. programs in the School of Education. It surveys the interdisciplinary range of scholarship and inquiry in education, as preparation for careers in research. The course features discussion of exemplary studies, both for their contributions to various fields, but also with regard to research methods, related ethical issues and the responsible conduct of research. Prerequisite: Admission to Ph.D. in Education Program. LEC.

Health Sport Exercise Sci Courses
HSES 104. Physical Activity in:. 0.5-1 Hours.
(An accurate description of the activity or activities will be given in the Timetable.) Graded on a satisfactory/unsatisfactory basis. ACT.

HSES 108. Basic Skill Instruction in:. 0.5-2 Hours.
(An accurate description of the activity or activities will be given in the Timetable.) ACT.

HSES 110. Intermediate Skill Instruction in:. 0.5-2 Hours.
(An accurate description of the activity or activities will be given in the Timetable.) ACT.

HSES 112. Advanced Skill Instruction in:. 0.5-2 Hours.
(An accurate description of the activity or activities will be given in the Timetable.) ACT.

HSES 200. Coaching Certification for Youth Sports. 2 Hours.
This course will examine theories, practices, methods and techniques used to coach youth sports. Emphasis will be upon training, conditioning, sports psychology, nutrition, organization and management as prescribed by the National Federation of Interscholastic Coaches' Education Program. Students will have opportunity to receive coaching certification. Prerequisite: Open to physical education majors, or by consent of instructor. Students must pass the National Federation of Interscholastic Coaches' Education Program (NFICEP) examination before exiting the course. LEC.

HSES 201. Team Sports. 2 Hours.
This course will deal with Soccer, Touch Football, Basketball, Softball, and Volleyball. Practice in construction of lesson plans and unit plans, skill performance and peer teaching practicum are emphasized in each of the areas of team sports. Class meets three days per week with one hour being a laboratory session. Prerequisite: Basic fitness and knowledge of the activities. Open to HSES majors and minors, or by consent of instructor. LEC.

HSES 202. Individual and Dual Sports. 2 Hours.
Instruction and analysis in individual sports such as track and field, bowling or archery, and dual sports such as tennis, badminton or handball. Development of sport skills and rules knowledge are emphasized. Prerequisite: Basic fitness and knowledge of the activities. Prerequisite: Open to pre-HSES and HSES majors, or by consent of instructor. LEC.

HSES 204. Gymnastics. 2 Hours.
Instruction and analysis in the eleven gymnastics events for men and women. Skill performance, spotting and teaching techniques, lesson and unit plan construction, and teaching practicum constitute the basic focus of this course. Class meets three days per week with one hour being a laboratory session. Prerequisite: Basic fitness and gymnastics/tumbling experience. Open to HSES majors and minors, or by consent of instructor. LEC.

HSES 210. Instruction and Analysis in:. 1-16 Hours.
Study of the skills to be included in the instruction of the indicated activities and the analysis of skill performance involved. Presentation of instructional techniques and practice in construction of lesson and unit plans are included for each activity. Open to majors in physical education only. The activities included in the major program are as follows: (a) Swimming (b) Folk and Square Dance (c) Modern Dance and Women’s Gymnastics (d) Weight-Training and Men’s Gymnastics (e) Soccer-Speedball, Volleyball, Wrestling (f) Field Hockey, Soccer-Speedball, Volleyball (g) Golf, Tennis, Badminton, Archery (h) Basketball, Softball, Flag Football, Team Handball (i) Track and Field, Handball-Paddleball, Fencing. Prerequisite: Basic fitness and basic skill in the course activities.
shown through competency tests and/or credit in basic skill courses in the appropriate activity. LAB.

HSES 214. Physical Education Activities for Elementary School Children. 3 Hours.
This course will introduce the student to a variety of physical education activities that are appropriate for children in grades K-6. Age appropriate activities demonstrated in this course include: individual and group games, self testing games, stunts and tumbling experiences, physical fitness, modified sports, and movement exploration. Class participation will be expected for all students. Prerequisite: Open to pre-HPE and HPE majors. LEC.

HSES 218. Lifeguard Training. 2 Hours.
The course involves American Red Cross certification in lifeguarding which includes rescue techniques and safety procedures. It also includes first aid and CPR certifications. Each student will be asked to identify common hazards associated with various types of aquatic facilities and develop skills necessary to recognize a person in a distress or drowning situation and to effectively rescue that person. This course will help each student to understand the lifeguard/employer and lifeguard/patron relationship as well as provide explanations, demonstrations, practice and review of the rescue skills essential for lifeguards. Prerequisite: HSES 112 Advanced Skill Instruction in Swimming or consent of instructor. LEC.

HSES 220. Officiating of: _____, 1 Hour.
A study of the rules and techniques of officiating. Students will officiate during laboratory sessions. The activities offered in officiating are: basketball, football, gymnastics, softball, swimming, track and field, and volleyball. Prerequisite: Basic competency in the sport to be officiated, or consent of instructor. LEC.

HSES 222. Water Safety Instruction. 2 Hours.
This course is designed to train instructor candidates to teach American Red Cross Swimming and Water safety courses. Through practice teaching sessions, students will plan and organize skill development utilizing the various educational methods and approaches applicable to swimming and water safety instruction. Students will also learn the correct swimming styles taught by the Red Cross. Prerequisite: HSES 112 Advanced Skill Instruction in Swimming or consent of instructor. LEC.

HSES 224. Lifeguard Training Instructor. 2 Hours.
This course is designed as a lecture/laboratory course, meeting for one hour three days per week. Each instructor candidate (student) will have an opportunity for skill development necessary to instruct American Red Cross Lifeguard Training courses. Through practice teaching sessions, emphasis will be placed on enforcing safety precautions, identifying errors, providing effective instruction, and skills correction. After successful completion of this course, the student will be certified to instruct the following American Red Cross Aquatic courses: (1) lifeguard training, (2) waterfront lifeguarding, (3) CPR for professional rescue, and (4) community first aid. Prerequisite: HSES 218 or lifeguard training. LEC.

HSES 236. Practicum in: _____, 1-3 Hours.
A description of the activities offered will be provided in the Timetable. Prerequisite: Consent of instructor. FLD.

HSES 240. The Coaching of Football. 2 Hours.
A complete study of the theoretical aspects of the fundamentals of football. Study of defensive and offensive tactics for each position. Prerequisite: Sophomore standing. LEC.

HSES 244. Introduction to Physical Education and Sport Studies. 3 Hours.
The study of the history, foundational concepts, and current principles of physical education and sport programs. LEC.

HSES 248. First Aid. 2 Hours.
This course is designed to teach emergency treatment of injuries, wounds, hemorrhage, burns, and poisoning. Emphasis is placed on the techniques of rescue breathing, CPR, and emergency bandaging. American Red Cross certification is included. LEC.

HSES 250. Introduction to Athletic Training. 3 Hours.
The introductory study of the prevention, immediate care, and treatment of athletic related injuries and illnesses. This course is designed for Athletic Training majors to cover the basic competencies of injury/illness recognition as well as discuss the various strategies for the prevention, evaluation, and care of injuries to the physically active. Prerequisite: Instructor consent and concurrent enrollment in HSES 251. LEC.

HSES 251. Introduction to Athletic Training Practicum. 1 Hour.
This course is designed to introduce the practical skills and psychomotor clinical competencies of the beginning student-athlete trainer. Emphasis will be placed on basic Athletic Training procedures including but not limited to preventative taping, bracing, and padding techniques as well as various other procedures and techniques related to the prevention, care, and management of athletic related injuries/illnesses. Prerequisite: Completed or enrolled in Human Anatomy, First Aid/CPR (or proof of current certification). Concurrent enrollment in HSES 250 or transfer credit. Open to Athletic Training majors only. LEC.

HSES 252. The Coaching of Basketball. 2 Hours.
Theory of basketball, including methods of teaching fundamentals; individual and team offense and defense; various styles of play and methods of coaching. Prerequisite: Sophomore standing. LEC.

HSES 260. Personal and Community Health. 3 Hours.
Emphasis on healthful and intelligent living and the application of the fundamental principles of health. LEC.

HSES 262. Life Skills Training for Intercollegiate Athletics. 2 Hours.
This course will focus on issues surrounding drug use, testing, and prevention in sports and will incorporate life skills training in the areas of career transition, stress and time management, performance enhancement, strategic learning skills, and the dynamics of communication and leadership. LEC.

HSES 264. The Coaching of Individual Sports. 2 Hours.
An analysis of coaching techniques and study of materials for the coaching of gymnastics, swimming, golf, tennis, and wrestling. LEC.

HSES 269. Introduction to Exercise Science. 3 Hours.
A study of the various components of physical fitness and the wellness and the implications for developing programs to promote good health and fitness. Lectures and laboratory sessions will be centered on practical knowledge and experiences designed to help individuals enhance their own health, as well as develop sound programs for others. The topics discussed include cardiovascular fitness, body composition, muscular strength, flexibility, evaluation of fitness components, training program design, nutrition, weight management, and facts and fallacies of nutrition and fitness. LEC.

HSES 289. Introduction to Sport Management. 3 Hours.
This course provides an overview of the field of sport management including the principles of leadership and management and the fundamentals of personnel management, financial management, marketing, strategic planning, sport ethics, sport law, time management, stress management, facility management, and event management applied to sport settings. LEC.

HSES 290. Safety Education. 3 Hours.
A survey of safety problems as they exist in society today, with emphasis on preventive, corrective, and compensatory procedures. LEC.
Emphasis will be on instructional techniques that are used for the inclusion of all students in health and physical education learning experiences. Students will develop an understanding of how to deliver health and physical education activities that may be part of an individual education program. As a part of this course, a practicum experience of 30 hours in a public school adaptive physical education setting will be required.

HSES 305. Methods of Strength Training and Conditioning. 3 Hours.
This course will provide the students with the scientific principles and the hands-on experience to develop resistance exercise and related conditioning programs for a wide range of populations, including those focusing on general fitness, therapeutic rehabilitation and sport performance. Prerequisite: Anatomy, Physiology, admission to the Exercise Science or Athletic Training undergraduate programs, or permission of instructor. LEC.

HSES 308. Drugs and Diseases in Society. 3 Hours.
This course is an overview of human disease processes as well as legal and illegal use of drugs and narcotics for treatment or recreational purposes. Both communicable and degenerative diseases will be covered with regards to prevention, transmission, effects, management, and treatment. Legal drugs and illegal drugs will be discussed with regards to their treatment or abuse potential, legislative issues, and consumer education. Reflective thinking will be used to formulate improved perspectives on the roles of drugs and diseases in society. Prerequisite: Admission to Community Health Program or consent of instructor. LEC.

HSES 310. Research and Data Analysis in Health, Sport, and Exercise Sciences. 3 Hours.
This course provides formal instruction in the areas of test administration, general statistics, and basic research design. Emphasis will be placed upon the interpretation of statistical data, evaluation of data, and basic methodologies utilized in health, sport, and exercise sciences research. Data collection, analysis, and evaluation will be an integral part of the class. Prerequisite: Admission to the School of Education. LEC.

HSES 315. Health and Fitness Technology. 2 Hours.
The course will prepare health and physical education majors to use technology effectively to enhance teaching and learning. Students will explore the use of technology appropriate for communication, organization, instruction, and assessment in health and physical education classrooms. Prerequisite: Admission to the HPE Teacher Licensure Program. LEC.

HSES 320. Methods of Teaching Physical Education. 3 Hours.
This course provides a systematic approach to the development of effective teaching skills in physical education. Students receive practical and field experiences that enable them to observe and practice managerial, instructional, and interpersonal skills necessary to produce student learning in K-12 physical education classrooms. Prerequisite: Admission to the HSES Teacher Certification Program. LEC.

HSES 330. Principles of Nutrition and Health. 3 Hours.
This course will provide an introduction to the basic principles of nutrition, with an emphasis on application of these principles to improve overall health. Topics include: guidelines for a balanced diet, index of nutritional quality, energy requirements and balance, weight management and obesity, nutritional quackery, sports nutrition, nutrition for children and elderly, and eating disorders. LEC.

HSES 340. Instructional Strategies in Motor Development. 2 Hours.
This course is designed to provide students with an examination of current theories of motor development throughout the life cycle. Emphasis is place don content regarding the development of fundamental motor skills, physical growth and development, and assessment. Prerequisite: Admission to the HSES Teacher Certification Program. LEC.

HSES 341. Instructional Strategies in Physical Education for Elementary Classroom Teachers. 1 Hour.
The application of child growth and development principles to physical education. The use of materials as related to a sequential physical education curriculum in the elementary school will also be included. Prerequisite: Prior or concurrent enrollment in CT 322 or equivalent. LEC.

HSES 350. Care and Prevention of Athletic Injuries. 3 Hours.
The introductory study of the prevention, immediate care, and treatment of athletic related injuries and illnesses. This course is designed to cover the basic fundamentals of injury/illness recognition as well as discuss the various strategies for the prevention and care of injuries to the physically active. Prerequisite: Courses in Human Anatomy and First Aid. LEC.

HSES 351. Foundations of Athletic Training. 1 Hour.
This course is designed to introduce the practical skills and psychomotor clinical competencies of the beginning student-athletic trainer. Emphasis will be placed on basic athletic training procedures including but not limited to preventative taping, bracing, and padding techniques as well as various other procedures and techniques related to the prevention, care, and management of athletic related injuries/illnesses. Prerequisite: Human Anatomy, First Aid, concurrent enrollment in HSES 350. Open to Athletic Training majors only. LEC.

HSES 352. Therapeutic Modalities. 3 Hours.
This course presents the theoretical and physiological foundations of pain and inflammation. Discussion of therapeutic agents to treat pain and inflammation are presented along with progressive planning and implementation of a comprehensive treatment for injuries/illnesses sustained by physically active individuals. Prerequisite: Admission into the Athletic Training Education program and HSES 250 or the transfer equivalent. LEC.

HSES 353. Athletic Training Practicum I. 2 Hours.
This course provides a practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury/illness evaluation during their clinical and field experience. Specific skills addressed in HSES 352 will be practiced, applied, and mastered during this experience. Prerequisite: Admission to Athletic Training Education program and concurrent enrollment in HSES 352. FLD.

HSES 354. Lower Extremity Evaluation. 3 Hours.
This course provides a comprehensive study of the techniques used by the Athletic Trainer in regard to the assessment and evaluation of athletic injuries/illnesses of the lower extremity. Procedures for reporting and evaluating injuries/illnesses will be discussed so that appropriate injury management and referral may take place. The etiological factors common to athletic injuries, as well as specific signs and symptoms of various athletic related pathological conditions will be discussed. Prerequisite: Admission to the Athletic Training Program, HSES 352, and HSES 353. LEC.

HSES 355. Athletic Training Practicum II. 2 Hours.
This course provides a practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury/illness evaluation during their clinical and field experience. Specific skills addressed in HSES 354 will
be practiced, applied, and mastered during this experience. Prerequisite: Admission to Athletic Training Education program and concurrent enrollment in HSES 354. FLD.

HSES 358. Creative Movement and Dance Appreciation. 3 Hours.
An appreciation for dance will be developed through the study of the pioneers of dance and the critique of local dance performances. Students will experience the following types of dance: creative movement, basic rhythms, ballroom dance, and folk and square dance. Prerequisite: Admission to the School of Education. LEC.

HSES 365. Peer Health Education. 3 Hours.
The course is designed to train students in peer health education, as peer health educators in college settings, and as trainers, training adolescents in community health settings for grades 6-12 peer health education. Subject content and teaching methodologies will be emphasized in the ten content areas of health with special emphasis on alcohol, drugs, tobacco, stress reduction, mental health and human sexuality. Prerequisite: HSES 260 or instructor consent. LEC.

HSES 369. Kinesiology. 3 Hours.
This course is designed primarily for students in the field of exercise science who already have taken an introductory course in human anatomy and who need a more detailed exposure to concepts of functional movement anatomy. This course will provide a detailed study of the skeletal and muscular systems to include identification of the origin, insertion, and action of the major muscles of the human body. Students will become proficient in the use of directional and movement terminology used to describe movement and be able to identify the plane/axis as well as the agonist and antagonist muscles involved in a movement. Prerequisite: A course in human anatomy, admission to School of Education. LEC.

HSES 375. Neuromuscular Exercise Physiology and Motor Control. 3 Hours.
This course explores the control of human movement from an exercise neurophysiology perspective. Emphasis will be placed on the understanding the interactions between the nervous system and muscular systems in the control of muscle force/power production and the control of movement under a variety of contexts. These contexts include responses and adaptations to exercise training, the aging process, and in a variety of neuromuscular disorders. Prerequisite: BIOL 240 and BIOL 246. LEC.

HSES 378. The Coaching of Volleyball. 2 Hours.
Theory of volleyball, including methods of teaching fundamentals, individual and team offense and defense. Various styles of play and methods of coaching. Efficient performance of the skills during game conditions will be emphasized. LEC.

HSES 379. The Coaching of Softball. 2 Hours.
Theory and fundamentals of coaching softball. Methods of coaching, as well as team offense, defense, and strategies will be stressed. Efficient performance of the skills during game conditions will be emphasized. Prerequisite: Consent of instructor. LEC.

HSES 380. Sociology of Sport. 3 Hours.
A survey of the current literature concerning the scope of sociology in sport, the interaction of people in sport, the social systems controlling sport, and the small group dynamics in sport. Prerequisite: Admission to Sport Management program or permission of instructor. LEC.

HSES 381. Sport Ethics. 3 Hours.
This course will help students develop their abilities to reason morally through an examination within competitive sports of ethical theories, moral values, intimidation, gamesmanship, and violence, eligibility, elimination, winning, commercialization, racial equity, performance-enhancing drugs, and technology. Students will develop a personal philosophy of sport and learn how to apply a principled decision-making process to issues in sport. Prerequisite: Admission to Sport Management program or permission of instructor. LEC.

HSES 382. Sport Facilities and Event Management. 3 Hours.
This course will provide students with a solid grasp of the fundamental skills in sport facility and event management and the knowledge base to apply those skills in a real world environment. Students will learn about planning, designing and financing the construction of new sport facilities, sport facility management of regular and special events, sporting event planning and game day operations. Prerequisite: Admission in the Sport Management program or permission of instructor. LEC.

HSES 384. Sport Law. 3 Hours.
This course is intended to introduce undergraduate students to the major legal issues in amateur and professional sports including dispute resolution, tort law, contract law, constitutional law, statutory law, labor and antitrust law and intellectual law. Students will also learn about risk management, gender equity, the Americans with Disabilities Act and agency law and sports agents. Prerequisite: Admission to Sport Management program or permission of instructor. LEC.

HSES 385. Psychological Aspects of Exercise. 3 Hours.
This course is designed for students interested in optimizing motivation and adherence to exercise among individuals in a wide range of physical activity settings (e.g., health clubs, corporate fitness, and physical therapy/rehab). The course content will include a review of the literature highlighting the psychological benefits of exercise, the theoretical advances in understanding the psychological aspects influencing individuals' participation in physical activity, and an introduction to strategies and techniques for professionals attempting to foster motivation and adherence to exercise among their clients. Prerequisite: Admission to the Community Health program or instructor consent. LEC.

HSES 390. The Coaching of Track and Field. 2 Hours.
Designed to acquaint the student with the fundamentals of track and field athletics. LEC.

HSES 395. Concepts in Health and Wellness. 3 Hours.
This is designed as an introductory course into the profession of School and Community Health Education. Regardless of a person's areas of specialization in Health Education, there are commonalities shared by all of us who are charged with the responsibility of providing education about health. Course emphasis will focus on: defining health education; history of health education; roles and competencies of health educators; theoretical bases for the profession; planning, implementing, administering, and evaluating health programs; settings for health education; future issues. Prerequisite: HSES 260. LEC.

HSES 403. Health Behavior Theory. 3 Hours.
This class will be an introduction to the primary models and theories used in health behavior research and health promotion practice. These models and theories undergird the development of successful health-related programs and interventions, and will help guide educators in the development of innovative and effective programming. The course will cover individual, interpersonal, community-level, and ecological theories, and students will have the opportunity to apply these theories to health behaviors of interest. LEC.

HSES 410. Program Design in Physical Education. 3 Hours.
The study of physical education curriculum models and extraclass programs appropriate for students in grades PK-12. Students will receive practical and field experiences related to program design and implementation. They will learn techniques appropriate for program evaluation as well as the assessment of student sport skills and fitness. Prerequisite: Admission to the HSES Teacher Certification Program. LEC.
HSES 418. Health Aspects of Aging. 3 Hours.
This course will consist of a Holistic Health approach to the various components of the aging process. Special emphasis will be placed on the demographic aspects of aging; normal aging changes and deviations in the aging process (pathophysiology); the relationship between mental and physical health, and the implications for the promotion of risk reduction and prevention principles that can effectively improve the quality of life for older individuals. Prerequisite: A course in personal and community health. LEC.

HSES 434. Consumer Health. 3 Hours.
This course will be a comprehensive examination of the factors involved in the selection of health products and services. Topics of discussion will be: protection laws and services, fraudulent practices and products, consumerism, and traditional and alternative health care. There will also be an in-depth examination of how to assess and evaluate health based products that are available to consumers. Prerequisite: Admission to the Community Health Program or consent of instructor. LEC.

HSES 440. Applied Sport and Performance Psychology. 3 Hours.
This course will examine the psychological principles and techniques that are applied to improve sport performance and other fields of achievement (e.g., exercise and wellness, music, and academics). Special attention will be given to psychological aspects of injury and rehabilitation, psychological conditioning, psychological training methods, coaching philosophy, the social psychology of team members, and components of peak performances. LEC.

HSES 453. Communicable and Degenerative Diseases. 3 Hours.
This course is designed to introduce the student to the study of the basic concepts/principles of disease process. Special emphasis will be placed on the etiology, origin, symptoms, treatment, body defenses, primary prevention, host, agent, (microbes) and environmental factors affecting disease occurrence, prevention and control measures. Topical application of the fundamental concepts of microbiology in school/community health practice will be critically discussed. The natural history of disease and disease classification will be highlighted. Many disease topics (both communicable and chronic, degenerative diseases) will be discussed. Prerequisite: A course in personal and community health. LEC.

HSES 455. Manual Therapy Techniques and Emergency Care Instructor Training. 3 Hours.
The purpose of the course is to train students in a Manual Therapy Technique for use in the clinical setting. The course is also designed to certify students as instructors in American Red Cross First Aid, CPR and AED courses as well as instructors for the CPR/AED for the Healthcare Provider. Prerequisite: Completion of HSES 352, HSES 354, HSES 456 and HSES 459 or equivalency from an accredited Athletic Training Education Program or have current First Aid and CPR/AED for the Healthcare Provider certification. LEC.

HSES 456. Upper Extremity Evaluation. 3 Hours.
The comprehensive study of the techniques used by the Athletic Trainer in regard to the assessment and evaluation of athletic injuries/illnesses of the upper extremity, head, and spine. Procedures for evaluating and reporting injuries/illnesses will be discussed as well as etiological factors and common signs/symptoms of various related pathological conditions. The purpose of this course is to prepare students with the skills necessary to accurately recognize the signs/symptoms of injuries and conditions in order to determine the nature and severity of the problems as well as establishing a proper care plan and medical referral when appropriate. Prerequisite: Admission into the Athletic Training Education program, HSES 354, and HSES 355. LEC.

HSES 457. Athletic Training Practicum III. 2 Hours.
This course provides a practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury assessment and evaluation through a variety of techniques during their clinical and field experience. Specific skills addressed in HSES 456 will be practiced, applied, and mastered during this experience. Prerequisite: Admission into the Athletic Training Education program and concurrent enrollment in HSES 456. FLD.

HSES 458. General Medical/Pharmacology. 2 Hours.
This course will cover the general medical conditions/illnesses and pharmacological considerations commonly encountered in the field of Athletic Training. Prerequisite: Admission into the Athletic Training Education Program, HSES 456, and HSES 457. LEC.

HSES 459. Rehabilitation. 3 Hours.
This course discusses the planning involved and the implementation of a comprehensive rehabilitation program for injuries/illnesses sustained by the competitive athlete. Prerequisite: Admission into the Athletic Training program, HSES 456, and HSES 457. LEC.

HSES 460. Athletic Training Practicum IV. 2 Hours.
This course provides a practical experience for the athletic training student. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills obtained during previous coursework as well as apply rehabilitation skills obtained in HSES 459. Prerequisite: Admission into the Athletic Training Education program, HSES 457, and concurrent enrollment in HSES 459. FLD.

HSES 461. Organization and Administration of Athletic Training. 2 Hours.
This course discusses the planning, coordinating, and supervising of all administrative components of an athletic training program. This includes public relations, athletic health counseling, and coach advisement about athletes’ health matters. Prerequisite: Admission to the Athletic Training Education program, HSES 459 and HSES 460, and concurrent enrollment in HSES 562. LEC.

HSES 462. Athletic Training Practicum V. 2 Hours.
This course will provide a practical hands-on experience for the athletic training students enrolled in HSES 561. Prerequisite: Admission into the Athletic Training Education Program and concurrent enrollment in HSES 561. FLD.

HSES 463. Senior Capstone in Athletic Training. 2 Hours.
This course is designed to allow senior Athletic Training Students to review previous content and prepare for the BOC certification exam as well as explore areas of professional development. Prerequisite: Admission into the Athletic Training program, HSES 561, and HSES 562. LEC.

HSES 464. Athletic Training Practicum VI. 2 Hours.
This course will provide a culminating practical experience for the athletic training students enrolled in HSES 563. Prerequisite: Admission into the Athletic Training Education program and concurrent enrollment in HSES 563. FLD.

HSES 465. Program Assessment and Evaluation. 3 Hours.
This course will offer an introduction and hands-on application of program assessment and evaluation techniques in health education. As health educators and program planners, we are required not only to develop innovative programs and interventions to address community- and school-based health concerns, but also to give evidence that our efforts
are both adequate and effective. Successful program assessment and evaluation incorporate knowledge of basic research methods as well as the theoretical understanding of health behaviors. LEC.

**HSES 466. Program Planning in Health Education. 3 Hours.**
This course is designed to provide the students with an in-depth knowledge of proven health planning models that can be used for program development and intervention. Students will learn how to develop attainable program goals and objectives which will allow programs and interventions to evolve into useful forms of community based health education. Prerequisite: Students must be admitted to the School of Education and the Community Health Program. LEC.

**HSES 470. Introduction to Biomechanics. 3 Hours.**
The course is designed to cover a basic understanding of the anatomical and mechanical principles of human movement. Areas covered will be joint and segmental movement, muscle actions, time-displacement motion description, forces causing or inhibiting motion, and stability. Special attention will be given to the application of the theoretical concepts in movement activities. Prerequisite: Anatomy, admission to the Exercise Science program, or permission of instructor. LEC.

**HSES 472. Exercise Physiology. 3 Hours.**
A fundamental study of the physiological adjustments that occur within the body during exercise. The presentation of this material is particularly oriented toward a basic understanding of the physiological systems as they are affected by the activity of a normal coaching or teaching situation. The physiological values of exercise are also stressed. Prerequisite: Three hours of physiology. LEC.

**HSES 473. Clinical Fitness Evaluation Techniques. 3 Hours.**
This course will provide the student with the knowledge and skills to assess components of physical fitness in adults including cardiorespiratory fitness, body composition, strength, and flexibility. In addition, specific emphasis will be placed on the development of exercise and weight management prescriptions. Students completing the course will have the skills to take the Health Fitness Instructor Certification exam given by the American College of Sports Medicine. Prerequisite: Exercise physiology or equivalent. LEC.

**HSES 474. Exercise Biochemistry. 3 Hours.**
This course will examine the processes that underlies the use and production of energy for exercise. Topics that will be explored include glycolysis and glycolysis in muscle, cellular oxidation of pyruvate, lipid metabolism, metabolism of proteins and amino acids, molecular biology, neural and endocrine control of metabolism, and local fatigue during exercise. Emphasis will be placed on carbohydrates, protein, and lipid metabolism and the acute and chronic effects that exercise has on these processes. Prerequisite: HSES 472. LEC.

**HSES 480. Physical Activity and Exercise Management Individuals with Disabilities. 3 Hours. AE41.**
An in-depth study of how physical activity and exercise can be a part of the treatment plan for people who have chronic disease or a disability. A variety of physical activity and exercise intervention programs and models will be presented and discussed, as well as protocols for baseline testing and post-treatment testing. A portion of this course will focus on how physical activity and exercise can prevent motor functioning deterioration in people who have a disability or limited functional movement. Prerequisite: Admission to the School of Education Exercise Science or Athletic Training programs and a course in human anatomy and physiology, or consent of instructor. LEC.

**HSES 482. Drugs in Society. 3 Hours.**
This course is designed to provide an in-depth exposure to basic drug classification, pharmacological effects, causes of drug abuse to society, common treatment modalities, and effective prevention/intervention strategies. In addition, consumer issues related to drug use, drug legislation, and drug education programs for school and community implementation will be discussed. Prerequisite: A course in personal and community health or consent of instructor. LEC.

**HSES 483. Sport Finance and Economics. 3 Hours.**
This course will help students gain an understanding of the critical importance of budgeting and financing sports-related industries based on sound financial principles and methods of financial control. Students will learn how economic principles shape the major national industry of sport. Prerequisite: Admission to Sport Management program or permission of instructor and completion of or concurrent registration in FIN 305 or FIN 310. LEC.

**HSES 485. Sport Communication. 3 Hours.**
This course examines the complex and evolving field of sport communication including personal, organizational, and external perspectives of sport communication. LEC.

**HSES 486. Sport Marketing. 3 Hours.**
This course is intended to provide undergraduate students with basic knowledge and competencies in definitions of marketing and sport marketing, understanding the unique aspects of sport marketing, marketing planning process, consumer demographics and psychographics, the marketing mix, segmentation and target marketing, marketing proposal preparation, sponsorship, endorsement, merchandising, fundraising, marketing goals and objectives, sport consumer and consumer behavior, industry segmentation, special events, ticket sales and their use in promotion, the role of the media, television marketing ratings and shares and venue and event marketing. The proposed content of this course will address each of these expectations. Prerequisite: Admission to the Sport Management program or permission of instructor. LEC.

**HSES 487. Personnel Management in Sport. 3 Hours.**
This course provides students with an overview of the requisite communication skills and concepts of leadership and management as they relate to sport managers. Students will learn how leadership and management practitioners, utilizing effective communication techniques, shape successful sport organizations. Additional emphasis will be placed on building and nurturing relationships with people as a key to effective management. Prerequisite: Admission to Sport Management program or permission of instructor. LEC.

**HSES 488. Pre-Internship Seminar. 1 Hour.**
This course will prepare students for their actual semester-long Internship experience. Students will be provided with background information on available internship sites to assist in their site-selection decision. Students will learn about different management styles they may encounter, the traits and characteristics of effective and productive employees, common rules of the workplace and internship experiences of previous HSES Interns. Prerequisite: All HSES students must be in final semester prior to Internship. LEC.

**HSES 489. Health and Human Sexuality. 3 Hours.**
The course is designed to encompass the various components of human sexuality as well as to demonstrate applicable teaching techniques for sex education. Included in the content of the course are: human sexual response, sexually transmitted diseases, family planning, sex roles, rape, sexual preferences, and topics such as sexuality and the handicapped, sexuality and the mass media, and sexuality and the church. Teaching techniques such as values clarification, non-verbal communications, role playing, tape recordings, and problem solving are demonstrated with appropriate topics. LEC.
HSES 497. Independent Study. 1-3 Hours.
Only one enrollment permitted each semester; a maximum of six hours will apply toward the bachelor’s degree. This course cannot be taken as a substitute for a required course. Prerequisite: Recommendation of advisor and consent of instructor and department chairperson. IND.

HSES 499. Internship in Sport Management. 2-16 Hours. AE61.
A full-time work experience in the sport industry (40 hours per week). This experience is actual work in a sport management setting in which management practices are applied. Student interns are directed and evaluated by a faculty member with appropriate supervision by an on-site professional. Student interns must keep an accurate accounting of hours with a performance work diary. Grades/credit for the internship are determined by a faculty member with input from the on-site supervisor. Prerequisite: Completion of all Sport Management coursework. Admission to the Sport Management Internship program. FLD.

HSES 500. Student Teaching in: _____. 14 Hours. GE11.
A supervised teaching experience in an approved school setting, teaching physical education at the elementary level and health and physical education at the secondary level. The student must teach 8 weeks at the elementary level and 8 weeks at the secondary level. Prerequisite: A cumulative GPA of 2.75 or higher and admission to the HSES teacher certification program. FLD.

HSES 501. Seminar in Teaching Health and Physical Education. 2 Hours. AE61.
Student teachers will learn to analyze teaching styles and instructional methods that apply and/or relate to their student teaching experience. Discussions of various teaching practices will be facilitated by the university supervisor with input from the student teachers. Topics will include: curriculum, teaching methods, discipline, safety, equipment, and communicating with teachers, parents, and students. Prerequisite: Admission to the HSES Teacher Certification Program. LEC.

HSES 502. Camp Leadership and Counseling. 2 Hours.
Involves a complete study of the organization and administration of the various types of camps. It is designed to familiarize the student with camp leadership responsibilities; the development of the camp, the program involving camp crafts, outdoor cooking, hikes and outings, singing, and simple guidance of the individual camper. Prerequisite: General psychology plus three hours in sociology. LEC.

HSES 515. Assessment of Motor Development and Motor Control of Exceptional Children. 3 Hours.
Standardized motor assessment tools appropriate for use with exceptional children with motor difficulty will be critiqued and practiced. A battery of tests to measure developmental lag or structural deviation will be selected and administered to determine the motor control of exceptional children and the results will be interpreted. Prerequisite: Six hours of physical education course work. LEC.

HSES 528. Techniques of Athletic Training - I Lower Extremity. 3 Hours.
This course provides a comprehensive study of the techniques used by the Athletic Trainer in regard to the assessment and evaluation of athletic injuries/illnesses of the lower extremity, abdomen, and thorax, as well as the study of common illnesses/diseases that affect the physically active. Procedures for reporting and evaluating injuries/illnesses will be discussed so that appropriate injury management and referral may take place. The etiological factors common to athletic injuries, as well as specific signs and symptoms of various athletic related pathological conditions, will be discussed. Prerequisite: Human Anatomy, Human Anatomy Lab, Care and Prevention of Athletic Injuries, and admission to the Athletic Training Program. LEC.

HSES 529. Techniques of Athletic Training - II Upper Extremity. 3 Hours.
The comprehensive study of the techniques used by the Athletic Trainer in regard to the assessment and evaluation of athletic injuries/illnesses of the upper extremity, head, and spine. Procedures for evaluating and reporting injuries/illnesses will be discussed as well as etiological factors and common signs/symptoms of various related pathological conditions. The purpose of this course is to prepare students with the skills necessary to accurately recognize the signs/symptoms of injuries and conditions in order to determine the nature and severity of the problem as well as establishing a proper care plan and medical referral when appropriate. Prerequisite: HSES 528 Techniques of Athletic Training - I Lower Extremity. LEC.

HSES 555. Methods and Materials in Health Education. 3 Hours.
Emphasis is placed on the presentation and preparation of health topics along with the recommended resources and materials available. The teaching method is emphasized and student participation is stressed. Students will observe health teachers in the public schools and identify and discuss these methods as they relate to the methods present in the class. Prerequisite: Admission to the HPED teacher certification program or consent of instructor. LEC.

HSES 573. Introduction to Health Education. 3 Hours.
This course will provide an overview the various health education professions. Topics emphasized in the course are: the nature of health education, an in-depth description of community health, the school health program, and identifying program and services of voluntary and services of voluntary and official health and welfare organizations. Prerequisite: Admission to the School of Education and the Community Health Program. LEC.

HSES 578. Health Internship Seminar. 2 Hours.
Students enrolled in the internship will learn how to analyze professional health environments, examine intervention programs, and understand models used to develop health based programs. Discussions surrounding the internship experience will be facilitated by the health education faculty. Topics will relate to all phases of the internship experience. The intent of this course is to better prepare the student for entering the health profession. Discussions will be held on conflict resolution in the workplace, professional development, professional behavior and etiquette. Prerequisite: Concurrent enrollment in HSES 580 Internship in Health. LEC.

HSES 580. Internship in: _____. 2-16 Hours.
A supervised internship experience in an approved setting. The specific type of internship experience and the credits for that particular experience will be outlined in the appropriate program of the student. Prerequisite: Admission to a HSES Internship Program. FLD.

HSES 581. Athletic Training Practicum I: Recognition and Evaluation. 4 Hours.
This course provides a practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury/illness recognition and evaluation during their clinical and field experience. Specific skills addressed in HSES 528 will be practiced, applied, and mastered during this experience. Prerequisite: Admission to the Athletic Training program. Concurrent enrollment in HSES 528. LEC.

HSES 582. Athletic Training Practicum II: Management and Treatment. 4 Hours.
This course provides a practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical
settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury/illness evaluation, and the management and treatment of athletic injuries through a variety of therapeutic modalities during their clinical and field experience. Specific skills addressed in HSES 529 and HSES 654 will be practiced, applied, and mastered during this experience. Prerequisite: HSES 581 and concurrent enrollment in HSES 529 and HSES 654. LEC.

HSES 583. Athletic Training Practicum III: Rehabilitation. 4 Hours.
This course provides a practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury rehabilitation/reconditioning through a variety of therapeutic exercise techniques during their clinical and field experience. Specific skills addressed in HSES 656 will be practiced, applied, and mastered during this experience. Prerequisite: HSES 582, concurrent enrollment in HSES 656. LEC.

HSES 584. Athletic Training Practicum IV: Senior Sport Experience. 4 Hours.
This course provides a culminating practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills obtained during previous coursework as well as apply administrative and management skills obtained in HSES 658. This course is intended to allow the Senior student more freedom and responsibility in decision making regarding the health care of an athletic team. Prerequisite: HSES 583, concurrent enrollment in HSES 658. LEC.

HSES 598. Special Course: _____. 1-5 Hours.
A special course of study to explore current trends and issues in health and physical education - primarily for undergraduates. LEC.

HSES 605. Administrating Health Related Programs. 3 Hours.
This course will consist of an analysis of administration as it relates to both school and community health programs. The focus will be on administrative models and techniques used to establish and maintain sound health programs in school and community settings. Prerequisite: Six hours of health education or consent of instructor. LEC.

HSES 671. Applied Biomechanics. 3 Hours.
This course will examine the qualitative biomechanical analysis of human movement directed towards the goals of performance improvement and injury prevention and rehabilitation. Specifically, this course will provide students with a basis knowledge of the biomechanical foundations of human movement, the knowledge and skills necessary to complete a systematic analysis and evaluation of human motor performance, and the ability to determine and provide interventions that are likely to improve movement in athletic, clinical, educational, and work environments. Prerequisite: A course in human anatomy, admission to the HSES Teacher Certification Program or consent of instructor. LEC.

HSES 714. Motor Development During Growth. 3 Hours.
Motor development in childhood and adolescence and its relationship to physical growth. Factors influencing motor learning and development will be explored. This course provides basic understanding of the neuromuscular changes and abilities of children and adolescents. Prerequisite: A course in kinesiology and anatomy. LEC.

HSES 715. Understanding Research in HSES. 3 Hours.
This course introduces the concepts and skills involved in understanding and analyzing research in education and related areas. The course provides an overview of basic, general knowledge of various research methodologies. Students should expect to study much of this material in greater depth through additional work before being fully prepared to conduct independent research. However, this course should enhance their ability to locate, read, comprehend, and critically analyze research articles and reports. Topics in the course include quantitative and qualitative methods and designs, historical and descriptive research, and program evaluation. (This course fulfills the requirement of a research methods course in the first 12 hours of graduate study.) Prerequisite: Must be an admitted HSES graduate student. LEC.

HSES 730. Advanced Concepts in Nutrition. 3 Hours.
A study of the nutritional factors that affect health at all ages. Specific nutritional needs and effects of deficiency states on health will also be addressed. The course will also include the physiological and biochemical mechanisms involved in the use of nutrients for human growth and development as well as the production of energy through the metabolic process. Prerequisite: HSES 330 or equivalent experience and permission of instructor. LEC.

HSES 771. Internship in Exercise Science. 6 Hours.
A supervised internship experience in an approved exercise science setting. Students will gain experience through a hands-on approach via clinical and/or research settings. The specific type of internship experience will be agreed upon by the student and their academic advisor. Prerequisite: Successful completion of at least 24 graduate credit hours. LEC.

HSES 777. Practicum in Health Education and Wellness Promotion. 1-3 Hours.
This course is designed to provide practical community health experiences in health education and wellness promotion, including: assessment, planning, implementation and program evaluation. With approval of the instructor, students may choose their practicum focus in any of the ten content areas of health: mental and emotional, family living, growth and development, nutrition, personal health, alcohol tobacco and other drugs, communicable and chronic diseases, injury prevention and safety, consumer health and environmental health. Prerequisite: Enrolled in graduate school and consent of the instructor. LAB.

HSES 779. Physiology of Functional Aging. 3 Hours.
The course has been designed to address issues and concepts relating to the biological aging process as a foundation for physical performance, general fitness, and health status. The biological concepts are applied to the human physiological aging process and the systems involved as well as the possible interventions that may effect that process. The several theories associated with physiological aging are also addressed as related to the physiological systems and current research that may impact the understanding of these theories. Prerequisite: A course in basic biology. LEC.

HSES 780. Internship in Teaching Physical Education: _____. 1-16 Hours.
A supervised internship experience leading to initial physical education teacher certification. The student assumes the total professional role as a teacher of physical education in an approved school setting. FLD.

HSES 795. Traditions and Principles in Health Education. 3 Hours.
This course is designed to explore the philosophy and principles which provide the foundation of health education as an academic discipline. Specific topics include: history of the profession, theories of health, behavior and behavior change, principles of learning applied to health communications, health promotion practices, professional preparation, and the integration of philosophical and ethical ideals into program planning and implementation. LEC.
HSES 798. Special Course: ______. 1-5 Hours.
A special course of in-depth study exploring current trends and issues in health and physical education - primarily for undergraduates. LEC.

HSES 801. Sport Facilities. 3 Hours.
The purpose of this course is to study current developments and trends in the financing, programming, design, and construction of facilities for intercollegiate athletics and professional sports. Prerequisite: Admitted to graduate school. A course in the administration/management of sport or consent of the instructor. LEC.

HSES 803. Health Behavior Theory. 3 Hours.
Given that theories of health behavior drive research and practice in health education, the purpose of this course is to familiarize students with the major theories and planning models related to health behavior change. Particular focus will be applied to the role of theory in health promotion and critical analysis of the application of theory to guide research practices. Prerequisite: Health major or consent of the instructor. LEC.

HSES 804. Sport Psychology. 3 Hours.
This course is designed to introduce students to the current research and theoretical perspectives in the sport psychology literature. Specifically, students will gain a broad understanding of the three major areas of sport psychology: social psychology (e.g., motivation), performance enhancement (e.g., mental skills training), and psycho-physiology (e.g., impact of anxiety on performance). Prerequisite: Admission in the health program or consent of the instructor. LEC.

HSES 805. Laboratory Experiments and Analysis--Exercise Physiology. 3 Hours.
Students will learn the techniques of operating various types of laboratory equipment and will conduct small-scale lab experiments in areas such as respiration, circulation, metabolism, strength, neuromuscular function, cardiac function, and body composition. Special emphasis will be placed on laboratory techniques of assessing physical fitness. Prerequisite: A course in exercise physiology. LAB.

HSES 806. Stress Management. 3 Hours.
The long range objectives of this course are to assist students in gaining stress management knowledge; to help them to formulate improved perspectives on various stress management techniques; and consequently apply the developing constructs in their lives with a sense of purpose and self-responsibility. Prerequisite: Two courses in health education or consent of instructor. LEC.

HSES 807. Current Literature in Exercise Physiology. 2 Hours.
A wide range of topics from the exercise physiology literature will be discussed. Instructor and students will present reports to the group centered on current research findings with discussion aimed at application of these results to physical exercise and training. Prerequisite: A basic course in exercise physiology or consent of instructor. LEC.

HSES 808. Biomechanics of Human Movement. 3 Hours.
This course will examine the movements and the structure and function of human beings by means of the methods of mechanics. An emphasis will be placed on the two primary goals of biomechanics: performance improvement and injury prevention and rehabilitation. Topics to be covered include the kinematics and kinetics of human movement, muscle mechanics, bone and joint mechanics, and the biomechanics of musculoskeletal injury. Prerequisite: Courses in calculus, physics, anatomy, and biomechanics, or consent of instructor. LEC.

HSES 810. Advanced Exercise Physiology. 3 Hours.
An advanced study of the physiological and biomechanical aspects of muscular, cardiovascular, and respiratory function as the human is engaging in exercise. The topics of energy metabolism, hormones, and nutrition as related to exercise also are presented. Prerequisite: A basic course in exercise physiology. LEC.

HSES 812. Current Issues in Health. 3 Hours.
This course is designed to review and discuss current issues in various health related areas. The focus will be on relevant issues and topics that are guiding and directing the health profession. The range of topics discussed will vary from popular literature to scientific research and cover such areas as health education, community health, and health over the lifespan. Students in the course will be expected to report, discuss, and interact with each other concerning the issues as they are reported. Prerequisite: A graduate course in health or consent of the instructor. LEC.

HSES 814. Implementing Health Programs. 3 Hours.
The purpose of this course is to explore planning models used for designing, implementing and managing health promotion programs. Students will be trained to develop objectives, assess determinants, select methods and strategies, pre-test program materials, and adopt and implement promotional plans. Problem based and community based learning experiences will be provided. Prerequisite: A health major or permission from the instructor. LEC.

HSES 817. Practical Aspects of Aerobic and Resistance Training. 3 Hours.
This course will be a discussion of various concepts related to aerobic and resistance training. By the end of the semester, the student should be able to demonstrate an understanding of information presented in this course by achieving satisfactory evaluations of presentations, papers, and an examination of the following topics: energy metabolism, general adaptations of aerobic and resistance training, exercise techniques for aerobic and resistance training, periodization of training, testing and evaluation of aerobic and resistance training performance, and exercise prescription for aerobic and resistance training. Prerequisite: Undergraduate course in exercise physiology or consent of instructor. LEC.

HSES 818. Legal Aspects of Public Health Education. 3 Hours.
This course is designed to enhance understanding of the variety of legal issues which affect health educators and their audiences. Specifically, this course will survey federal, state, and local public health laws and regulations which may proscribe health education content and the health educator’s actions. Legislation will be analyzed and the practical impact of the health educator upon the legislative process will be emphasized. Prerequisite: A course in community health or consent of instructor. LEC.

HSES 823. Behavior Modification in Health and Exercise. 3 Hours.
This course will examine the behavioral principles that influence health and exercise practices. Theories of human behavior, reinforcement theory, and models of self-esteem will serve as the foundation for studying behavior change. Society influences will be strongly emphasized. Course topics will include exercise determinants, motivation, media representation, negative behaviors, self-efficacy, social support, and effective promotion strategies. Prerequisite: Admitted to Graduate School or consent of instructor. LEC.

HSES 824. Epidemiology and Concepts of Disease Causation. 3 Hours.
This course involves the study of the etiology and natural history of infectious and non-infectious diseases including vector control, host defenses and resistance, investigation of disease outbreaks, mental health and public health. The course deals with detailed analytic and descriptive epidemiology and their implications for improving our understanding of health and diseases; epidemiologic consequences of nuclear war and retrospective and prospective approaches in epidemiological research. Contemporary developmental methods for
HSES 825. Skeletal Muscle Physiology. 3 Hours.
This course will provide the student with an in-depth study of the structure and development, contractile mechanics, and neuromuscular system as it relates to the skeletal musculature. Structure and Development - muscle fiber, motor neuron, neuromuscular junction, muscle receptors, muscle formation, development of muscle innervation. Putting Muscles to Work - ion channels, pumps, and binding proteins, axoplasmic transport, resting and action potentials, neuromuscular transmission, muscle contraction, motor units, exercise, muscle metabolism. The Adaptable Neuromuscular System - fatigue, loss of muscle innervation, recovery of muscle innervation, neurotrophy, disuse, muscle training, injury and repair, aging. Prerequisite: HSES 810 or equivalent. LEC.

HSES 828. Sport Finance. 3 Hours.
A study of the principles and applications of finance and economics in the sport industry. Strategic financial planning as a part of management responsibilities is highlighted. Prerequisite: Admitted to Graduate School. LEC.

HSES 830. Socio-Cultural Dimensions of Sport. 3 Hours.
Current literature concerning the impact of American social values and cultural patterns of sport and physical activity will be studied. Critiques of related research involving sport and social institutions, and socio-cultural groups in sport will be emphasized. Prerequisite: A course in Sociology of Sport or consent of instructor. LEC.

HSES 831. Ethics in the Sport Industry. 3 Hours.
This course is designed to help students learn to make morally reasoned decisions in various sport settings. This course will help prepare students to respond more responsibly when faced with challenging ethical dilemmas and guide them in learning to serve as role models for ethical conduct. LEC.

HSES 832. Physical Education Instructional and Assessment Methods. 3 Hours.
The study of research-based instructional and assessment methods appropriate for PK-12 physical education. Managerial, instructional, and supervisory skills will be developed. Traditional and alternative assessment tools will be discussed. Readings, observations (live and video), and practice teaching will prepare students to complete a practical experience and an action research project in a PK-12 school. Prerequisite: Admission to Graduate School. LEC.

HSES 833. Public Health Aspects of Exercise. 3 Hours.
This course describes the timeline for physiologic adaptations to long-term physical activity. It describes the effects of physical activity on chronic disease. It describes, from a population perspective, the effects of physical activity on the health of the nation. Prerequisite: 12 hours of HSES courses, or equivalent, or consent of instructor. LEC.

HSES 836. Physical Education Curriculum Models. 3 Hours.
An examination of the elements and processes of curriculum construction in physical education for elementary, secondary, and post-secondary institution, and the institutional and professional issues that affect these processes. A study of contemporary curricula structures in regard to planning, implementation, and evaluation of K-12 curricula and professional preparation curricula in physical education programs. Prerequisite: A course in physical education curriculum, or equivalent. LEC.

HSES 840. Organizational Behavior in Sport. 3 Hours.
This course utilizes a micro perspective to analyze the behavior and culture within sport organizations. Specifically, the student will study and learn how to apply management and leadership theories that have the potential to shape the work environment and will discuss how current topics in organizational behavior are particularly relevant to the sport industry. Prerequisite: Admitted to Graduate School. Consent of the instructor. LEC.

HSES 842. Sports Marketing. 3 Hours.
This course helps students gain a deeper understanding of sport marketing by examining in-depth the sport marketing mix of product, price, place, and promotion as well as marketing research, marketing strategy, market segmentation, branding, sponsorships, licensing, venue and event marketing, public relations, and global sport marketing. LEC.

HSES 850. Analysis Techniques for Health, Sport, and Exercise Sciences Laboratory and Field Data. 3 Hours.
Techniques for analyzing data gathered in Health, Sport, and Exercise Sciences laboratories and field studies will be presented in this course. Techniques for the recording of raw data, appropriate organization of raw data, selection of test for analysis of data, use of computer software, and computer programming for analysis and reporting results of the data will also be included. Prerequisite: PRE 710, PRE 720, or PRE 725. LEC.

HSES 866. Contemporary Trends in Elementary and Secondary Physical Education. 3 Hours.
An in-depth study into the research and other forms of literature will be made to study and examine the latest trends in elementary and secondary school physical education. Games, activities, dances, and rhythms will be presented and discussed relative to developmental levels of students grades K-12. Prerequisite: A methods course in teaching physical education or consent of instructor. LEC.

HSES 872. Exercise and the Cardiovascular System. 3 Hours.
This course will be a discussion of various concepts specifically related to exercise and the cardiovascular system. By the end of the semester, the student should be able to demonstrate an understanding of the interaction of exercise and cardiovascular system by achieving satisfactory evaluations on examinations, abstracts, and classroom presentations. The following topics will be discussed as they relate specifically to exercise: homeostasis and cardiovascular transport mechanisms, basic structure and function; characteristics of cardiac cells; the heart as a pump; the peripheral vascular system; vascular control; venous return and cardiac output; regulation of arterial pressure; cardiovascular responses to stress; and cardiovascular function in pathological situations. Prerequisite: Undergraduate course in exercise physiology or consent of instructor. LEC.

HSES 880. Internship in Sport Management. 1-10 Hours.
This course will provide for supervised and directed experiences in selected sport management settings. The graduate advisor will schedule observations of the internship, as well as regular conferences with the student. Written summaries and evaluations of the internship will be prepared by the student, the agency supervisor, and the university graduate faculty member. Prerequisite: Admission to the Graduate Program in Sport Management. FLD.

HSES 884. Legal Aspects of Sport. 3 Hours.
This course is intended to introduce graduate students to the basic concepts of the American legal system and the application of them to intercollegiate and professional sports. Particular emphasis will be given to risk management and preventive law. Other topics include: governance issues in intercollegiate and professional sports, contract law, employment discrimination, labor relations and collective bargaining, agency law and athlete agents, regulation of participation in intercollegiate and high school athletics, sport facility and event issues, participant liability issues, product liability issues, premises and spectator liability, participant violence in sports, and intellectual property law. Prerequisite: Admission to graduate program in School of Education LEC.
HSES 890. Seminar in HSES. 3 Hours.
This course is designed to provide a general research seminar learning experience for graduate students in HSES. In particular, students will learn about faculty research activities and interests from a variety of specialty areas both within KU and outside of KU. Through faculty and guest presentations, students will be exposed to a variety of design and methodologies used to conduct research in the specialty areas of HSES. LEC.

HSES 892. Psychology of Physical Activity. 3 Hours.
This course is designed for students interested in optimizing motivation and adherence to exercise among individuals in a wide range of physical activity settings (e.g., health clubs, corporate fitness, physical therapy). The course content includes a review of the literature highlighting the psychological benefits of exercise, the theoretical advances in understanding the psychological aspects of individuals' participation in physical activity, and strategies and techniques for professionals attempting to foster motivation and adherence to exercise among their clients/members. Prerequisite: Admission in the health program or consent of the instructor. LEC.

HSES 897. Independent Study. 1-4 Hours.
Prerequisite: Consent of advisor and instructor. RSH.

HSES 898. Master's Project. 1-4 Hours.
RSH.

HSES 899. Master's Thesis. 1-6 Hours.
THE.

HSES 905. Advanced Concepts in Health Education. 3 Hours.
This course is designed as an in-depth study of the pedagogy of health education. It is concerned with the effects of various health education models, new materials, and innovative teaching techniques. The effectiveness of various media such as films, slides, transparencies, microcomputers, and assessment tools will be analyzed. Research concerning innovations in education will be investigated along with a study of future trends in the field. Timely issues of controversy about health education practices and the effectiveness of values clarification activities will also be discussed. LEC.

HSES 910. Biochemistry of Exercise. 3 Hours.
This course will include an in-depth examination of metabolic and endocrine principles as they relate to physical exercise and training. Specific topics will include: substrate utilization in exercise, metabolic controls, muscle biochemistry, body composition, nutritional aspects and hormonal influences in exercise. Both instructor and students will report on the most current literature relating to the topics. Prerequisite: Human biodynamics or a course in biochemistry. LEC.

HSES 926. Grant and Research Proposal Writing. 3 Hours.
This is a course for students to examine the sources and areas which provide financial support for research projects. The areas of study include types of research funding available on a local, state, and federal level, the elements and design of writing a proposal and strategies involved in securing financial support for research. A focus for the course will center upon preparing a research proposal for funding. Prerequisite: PRE 710. LEC.

HSES 940. Scientific Dimensions of Exercise and Health. 3 Hours.
This course has been designed to bring together the many scientific factors relating exercise and physical activity to health and human function. The course focuses on the interdisciplinary nature of this relationship and reviews the physiological, sociological, psychological, and behavioral factors involved. Prerequisite: Fifteen hours of graduate level course work in health or physical education and admission to health or physical education doctoral program. LEC.

HSES 980. Advanced Topics: ______. 1-3 Hours.
A special course of study to meet current needs of education professionals – primarily for post-master's level students. LEC.

HSES 981. Current Issues in Health and Physical Education. 3 Hours.
This course will explore the latest philosophical issues and controversies which are impacting the fields of health, physical education, and athletics. The student will explore the current and future ramifications of each issue and its potential effects on the profession. Prerequisite: Admission to the Health, Sport, and Exercise Sciences Doctoral Program. LEC.

HSES 990. Doctoral Seminar. 3 Hours.
This seminar based course will be designed to prepare the doctoral student for academic careers or careers in industry after they graduate. The topics covered will be promotion and tenure procedures and expectations, including but not limited to teaching, responsible conduct of research, professional ethics, historical ethical issues, evaluation of ethical dilemmas, and service expectations at research intensive institutions, regional comprehensive institutions and small liberal arts colleges. Industry career options will be discussed and guest speakers from various disciplines will be brought in to discuss options and expectations with this career path. Prerequisite: Doctoral student or permission of the instructor. LEC.

HSES 995. Field Experience in: ______. 1-5 Hours.
Supervised and directed experiences in selected educational settings. The advisor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experiences will be prepared independently by the student, a representative of the cooperating agency, and the advisor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. FLD.

HSES 996. College Teaching Experience in: ______. 3 Hours.
To meet the college teaching experience requirement for doctoral programs, a student shall engage in a semester long, planned, instructional activity that shall include college classroom teaching under supervision. Planning shall be done with the advisor and/or member of the faculty who will supervise the experience. The activity shall be done under the supervision of a member of the University of Kansas faculty or by an individual or individuals designated by the candidate's committee. FLD.

HSES 997. Individual Study. 1-4 Hours.
Prerequisite: Prior graduate course work in the area of study and consent of instructor. RSH.

HSES 999. Doctoral Dissertation. 1-15 Hours.
THE.

Psychology Research in Educ Courses

PRE 106. Multicultural Student Leadership Seminar. 2 Hours.
This course will introduce students of color to leadership theory and develop personal skills in the areas of organizational, career, and community leadership. Topics covered include public speaking, group process, time management, and discussion of the special challenges for leaders of color. Prerequisite: Must have taken Hawk Link PRE 101 and fewer than 60 hours credit from the University of Kansas. LEC.

PRE 210. Career and Life Planning: Decision-Making for College Students. 3 Hours.
The purpose of this course is to assist college students in career and life planning choices by first understanding the current theories of career decision-making and then by applying those theories to their
own choices. The course will meet twice each week, the first being a lecture session, with the second session consisting of smaller groups of six to eight students. Students will be exposed to information related to the career development process, factors that affect the career choice process, knowledge of work environments, sex role socialization, career and decision making processes, and how to approach the job search. Experiential learnings will include exercises related to values clarification, self understanding, knowledge of interests, competencies and personality characteristics, decision making, use of career information, and implementing a plan of action. Weekly course assignments will include activities in class and homework units. Prerequisite: Enrollment in this course is limited to students with fewer than 60 hours of college credit. LEC.

PRE 305. Development and Learning of the Child. 3 Hours. GE3S.
An introduction to the study of children’s thinking, behavior, and development in school, home, and community settings. Classic and contemporary theories of developmental and educational psychology will be addressed; these theories will provide a foundation for thinking about important contemporary issues in child development. Specific topics covered will include research methods for studying children’s development, cognitive development, intelligence, language, emotional development, aggression, moral development, and family and peer relationships. Emphasis will be placed on studying individuals and groups, describing the process of development, and considering educational implications of theory and research. LEC.

PRE 306. Development and Learning of the Adolescent. 3 Hours. GE3S.
An introduction to the psychological study of adolescents and their behavior in the middle and high school setting. Theories of learning, motivation, and physical, cognitive, emotional and social development and their relevance to educational processes in secondary schools will be examined. Emphasis will be placed on observing and studying individuals and groups and describing their characteristics and the process of development, as well as considering implications for instructional strategies appropriate at the secondary level. Prerequisite: Admission to the Teacher Education Program. LEC.

PRE 450. Introduction to Counseling Psychology. 3 Hours.
An historical and contemporary overview of the science and practice of counseling psychology, including trends in the roles and functions of counseling psychology practitioners, the research and scientific foundations of counseling practice, the psychological theories of counseling and psychotherapy that guide professional practice, and the ethical and professional issues confronting counseling practitioners. Prerequisite: PSYC 104. LEC.

PRE 455. Managing and Motivating Learners in the Pre K-6th Grade Classroom. 3 Hours.
This course is designed to help elementary preservice teachers organize an enriched learning environment and develop strategies for managing and motivating students to help them become better and more responsible learners. Prerequisite: CT 322, PRE 305 or equivalent. LEC.

PRE 456. Managing and Motivating Learners in the Middle and Secondary Classroom. 3 Hours.
This course is designed to help middle and secondary preservice teachers organize an enriched learning environment and develop strategies for managing and motivating students to help them become better and more responsible learners. Prerequisite: CT 324, PRE 306 or equivalent. LEC.

PRE 497. Independent Study. 1-2 Hours.
Only one enrollment permitted each semester, a maximum of four hours will apply toward the bachelor’s degree. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Recommendation of advisor and consent of instructor. IND.

PRE 515. Research Methods for McNair Scholars. 3 Hours.
This course provides participants in the McNair Scholars program with an understanding of research methods appropriate to their field so they can write proposals for their summer research projects. Prerequisite: Acceptance into the McNair Scholars Program. LEC.

PRE 520. Classroom Assessment. 3 Hours.
This course is an introduction to the concepts and skills required to develop and evaluate various forms of formal and informal classroom assessments to determine student learning and teacher instructional effectiveness. LEC.

PRE 575. Internship Exploration. 1-5 Hours. AE61.
This course provides academic credit for a supervised practical experience in an occupational area of interest. In addition to the work-related activity, students will complete reading and writing assignments, participate in on-line discussion and create a final portfolio of internship accomplishments. Credit hours (1-5) are based on number of hours at internship site in agreement with instructor. Prerequisite: Secured internship of 8 hours per week or more for semester in which student will be enrolled in the course; permission from instructor. FLD.

PRE 580. Positive Psychology. 3 Hours.
An introduction to the core assumptions and research findings associated with human strengths and positive emotions. Also an exploration of interventions and applications informed by positive psychology in counseling and psychotherapy, and its application to school, work, family and other close relationships. (Same as PSYC 598.) Prerequisite: PSYC 104 or consent of instructor. LEC.

PRE 598. Special Course: _____. 1-5 Hours. AE61.
A special course of study to meet current needs of education students--primarily for undergraduates. LEC.

PRE 700. Advanced Educational Psychology: Development and Education of the Adolescent. 2-3 Hours.
An introduction, from a psychological perspective, to topics and problems in the development of adolescents and youth, with emphasis on application to educational issues. Note: To be offered annually. LEC.

PRE 702. Advanced Educational Psychology: The Development and Education of the Child. 3 Hours.
Study of children from a cognitive developmental perspective. Changes in children are examined in light of environmental influences including social factors, educational practices, and child-rearing as they interact with conditions internal to children. Key issues include the study of cognition, language, motives, social-emotional issues, the self, and the problem of developmental delays. A major concern is the role of adults in supporting positive development, particularly in educational settings. LEC.

PRE 703. Constructive Classroom Discipline. 3 Hours.
This course will examine concepts and techniques of constructive classroom management. Various theoretical orientations including humanism and behaviorism will be considered. Emphasis will be on the identification of strategies that teachers can use (1) to facilitate an environment that reduces the likelihood of misbehavior occurring, and (2) to cope constructively with individuals and groups of children to resolve difficulties that arise in the classroom. The class should have value to classroom teachers, school psychologists, counselors, and other school consultants. LEC.
PRE 704. Advanced Educational Psychology: Learning Processes in Education. 3 Hours.
A study of the mental processes that influence learning and comprehension. The scope of the course will include individuals at all developmental levels and in a variety of educational settings. Key issues include the study of language, memory, concepts, motivation and social factors affecting learning processes. LEC.

PRE 705. Human Development through the Lifespan. 3 Hours.
This course will cover the social, emotional, psychological, and cognitive changes that occur from conception through death. Methodological issues will also be addressed. Prerequisite: A graduate or undergraduate course in psychology. LEC.

PRE 710. Introduction to Statistical Analysis. 3 Hours.
Emphasis on the conceptual underpinnings of statistical analysis of educational data. Includes univariate and bivariate descriptive statistics, sampling distributions, statistical estimation, hypothesis testing and procedures in testing statistical hypothesis for one and two sample designs. Prerequisite: Concurrent enrollment in PRE 711 required, or with the permission of instructor on the basis of knowledge of statistical packages presented in PRE 711. LEC.

PRE 711. Lab for Introduction to Statistical Analysis. 1 Hour.
Creation and manipulation of data sets. Analysis of data with statistical packages, with an emphasis on descriptive statistics, graphical procedures, and univariate parametric methods. Graded on a satisfactory/fail basis. Prerequisite: Concurrent enrollment in PRE 710 or PRE 811 or with the permission of the instructor. LAB.

PRE 715. Understanding Research in Education. 3 Hours.
This course introduces the concepts and skills involved in understanding and analyzing research in education and related areas. The course provides an overview of basic, general knowledge of various research methodologies. Students should expect to study much of this material in greater depth through additional course work before being fully prepared to conduct independent research. However, this course should enhance their ability to locate, read, comprehend, and critically analyze research articles and reports. Topics in the course include quantitative and qualitative methods and designs, historical and descriptive research, and program evaluation. (This course fulfills the requirement of a research methods course in the first 12 hours of graduate study.) LEC.

PRE 725. Educational Measurement. 3 Hours.
The course is an introduction to the application of the concepts of reliability, validity, and practicality to the development, selection, use, and interpretation of tests and other measuring instruments in the field of education. The concepts of norm referenced and criterion referenced tests; the interpretation and use of norms; standard scores, percentiles, quotients, and grade equivalents are among the topics covered. An understanding of the role of measurement in evaluation, diagnosis, selection and placement is included. LEC.

PRE 740. Counseling and Interviewing Skills. 3 Hours.
An experiential and performance based course having three major objectives: 1) the acquisition of basic counseling skills and strategies by means of microcounseling training; 2) learning to use these skills effectively and appropriately in a simulated counseling session; 3) the students' understanding of their personal characteristics and how these characteristics relate to functioning as an effective helping professional. This course should normally be taken at the earliest possible time in the student's program. Open to counseling majors. Non-majors may be admitted only by permission of the instructor, if space permits. Prerequisite: Written consent of laboratory coordinator. LEC.

PRE 742. Counseling Theory and Techniques. 3 Hours.
An introductory examination of several major theories of counseling and therapy including psychodynamic views, person-centered, behavioral, and cognitive-behavioral approaches. Attention given to research reviews and factors various theories have in common. Designed for graduate students in counseling psychology or allied fields. Prerequisite: Graduate student status or permission of the instructor. LEC.

PRE 760. Ethics, Law, and Professional Issues in School Psychology. 3 Hours.
This course is intended to introduce the student to a) ethical principles, standards, and issues in the profession of psychology; b) legal issues involved in the practice of school psychology; c) problem-solving models to solve ethical and ethical-legal dilemmas; d) roles and functions of a school psychologist; and e) current topics in the field of school psychology. Prerequisite: Permission of the instructor. LEC.

PRE 770. Developmental Psychopathology: Diagnosis, Intervention, and Prevention. 3 Hours.
Foundations of child and adolescent psychopathology from a developmental and educational perspective. Classification, assessment, and etiology of clinical disorders. Examination of risk and protective factors associated with these various disorders. Coverage of empirically-based intervention strategies and prevention programs. Graduate student standing. LEC.

PRE 790. Research and Evaluation Proposal Development. 3 Hours.
A course for students designing a research or evaluation proposal leading to data collection. Specific topics considered include formulating a problem for study, reviewing the literature, and selecting appropriate research and evaluation designs, instrumentation, and data analysis issues. The goal of the course is to aid students in the preparation of research proposals at the master's level. LEC.

PRE 797. Independent Readings and Research in: ___. 1-3 Hours.
Opportunity for students to participate in supervised reading and research in special topics of interest (for which regularly scheduled courses are not given). Topics and credit are arranged by advisement: May not be used to substitute for regularly scheduled course offerings. Intended for students with appropriate undergraduate or graduate preparation but without extensive graduate course background in the area of proposed study. (Students with extensive graduate work should enroll in PRE 997; undergraduate students may enroll in PRE 497.) Graded on a satisfactory/unsatisfactory basis. RSH.

PRE 798. Special Course: ___. 1-5 Hours.
A special course of study to meet current needs of education professionals—primarily for graduate students. Course is graded on a satisfactory/fail basis. LEC.

PRE 800. Development during Youth and Adulthood. 3 Hours.
An examination from a life-span perspective of major issues affecting changes after adolescence. Topics include intelligence, identity, intimacy, the role of work, and moral concepts. Theoretical issues, research findings, and educational and social policy implications will be examined. Students will prepare papers on significant issues in the field and survey extensively the research and theoretical literature. Prerequisite: Prior enrollment in a course on naturalistic or experimental research methods. LEC.

PRE 803. Computer Applications for Statistical Analyses. 3 Hours.
Computer applications for a variety of statistical techniques. Emphasis may be with applications on microcomputers and/or mainframe. Prerequisite: PRE 810 or PRE 811 or equivalent course. LEC.
PRE 805. Individual Intelligence Testing. 1-3 Hours.
Supervised experience in the administration, scoring, and interpretation of the major individual intelligence tests for children, adolescents, and adults. Other areas to be covered in this course will include models of intelligence and factors influencing intelligence; measurement characteristics of instruments used to assess cognitive abilities; ethical and legal issues in the use of intelligence tests; and the use of cognitive assessments for identification and diagnosis. Prerequisite: Permission of instructor. LEC.

PRE 806. Issues in Human Growth and Development. 3 Hours.
An overview and analysis of selected issues in the field of human growth and development. The focus will be on current issues of a theoretical and methodological nature that affect the field of developmental psychology and applications to social and educational settings. Prerequisite: Prior completion of a course in developmental psychology. LEC.

PRE 807. Theories and Research in Human Learning. 3 Hours.
An overview of important models, principles and research findings related to the learning process. Attention is given to theories of learning and information processing which attempt to explain perceptual behavior, verbal learning and memory and social learning processes. Emphasis is placed on student development of research proposals in the area of human learning and achievement. Prerequisite: Permission of instructor. LEC.

PRE 810. Regression Analysis. 3 Hours.
Multiple correlation/regression techniques, including polynomials, analysis of interactions, dummy coding, non-orthogonal analysis of variance, and analysis of covariance. Prerequisite: PRE 710 or equivalent course. LEC.

PRE 811. Analysis of Variance. 3 Hours.
Analysis of variance techniques including one-way ANOVA, planned and post hoc comparisons, multiway ANOVA, repeated measures ANOVA, and mixed designs. Prerequisite: PRE 710 and PRE 711. LEC.

PRE 812. Meta-Analysis. 3 Hours.
Statistical methods to summarize results from multiple studies. Prerequisite: PRE 811. LEC.

PRE 814. Nonparametric Statistics. 3 Hours.
Methods of analysis for nominal and ranked data, multiway contingency table analysis. Prerequisite: PRE 811. LEC.

PRE 816. Evaluating School Programs. 3 Hours.
Methods and procedures for evaluating educational programs. Attention is given to the development and evaluation of goals and objectives, creation of designs to monitor processes and outcomes, utilization of test and measurement systems for assessing outcomes, establishing evaluation standards and criteria, and application of statistical analyses. Prerequisite: PRE 710 or equivalent. LEC.

PRE 822. Educational Scales, Questionnaires, and Sampling. 3 Hours.
Development, construction, validation and scaling of noncognitive instruments including questionnaires, surveys, checklists, rating scales and unobtrusive measures. The sampling methodology is emphasized. Item construction and analysis and the development of subscales are stressed. Prerequisite: PRE 720 or PRE 725 and PRE 710. LEC.

PRE 830. Individual and Group Assessment. 3 Hours.
A consideration of basic concepts pertaining to selection and interpretation of both standardized and non-standardized assessment procedures and devices with attention given to communicating assessment information within the context of the counseling relationship. Prerequisite: PRE 725 or comparable undergraduate principles of measurement course. LEC.

PRE 835. Clinical Techniques in Academic Assessment and Intervention. 3 Hours.
Students will learn techniques of formal and informal assessment of academic skills in school-aged students. In addition, students will learn consultation and intervention approaches and strategies for use with students who have academic delays. This course has a field-based practicum component. Prerequisite: Graduate student standing in the School Psychology program and permission of instructor. LEC.

PRE 840. Guidance and Counseling in the Public Schools. 3 Hours.
This course is designed to provide information about the organization and administration of guidance and counseling programs in the public schools. Non-majors wishing to know more about the role of the counselor can be admitted with approval of the instructor. LEC.

PRE 842. Counseling Practicum (Elementary, Secondary, Counseling Psychology). 6 Hours.
This course is taken as one of the last courses in the master's degree counseling program. The primary purpose of the course is for the student to develop individual counseling skills while functioning in a counseling setting. In addition to individual skills, students are also encouraged to participate in group counseling and other counseling related activities within the particular counseling setting. Students enroll in practicum for the level most closely related to their professional goals, i.e., elementary, secondary, counseling psychology. Graded on a satisfactory/fail basis. Prerequisite: PRE 740, PRE 742, and PRE 880, and prior or concurrent enrollment in PRE 830, PRE 840, PRE 844, and PRE 846. Pre-enrollment with practicum coordinator. Students currently on academic probation will not be allowed to enroll in practicum. LEC.

PRE 844. Theory of Group Counseling. 3 Hours.
Focuses on issues in group counseling. Topics covered are types of groups, theoretical orientation of groups, stages of group development, group leadership, selection of members, ethical issues, and effectiveness of groups. Prerequisite: Students must be admitted to the Program in Counseling Psychology. Nonmajors must have prior written consent of instructor. LEC.

PRE 846. Career Development. 3 Hours.
Stresses the importance of career development in education, with an emphasis on developmental life planning. Course includes topics such as delivery systems, utility of career development theory, sexism and racism in career development and counseling, the effects of sex role socialization, nature of the world of work, evaluation of career information, use of career information in individual and group counseling, and the role of empirical research in career development theory and practice. LEC.

PRE 850. Human Relationship Skills in the Classroom. 3 Hours.
The purpose of this course is to provide educators with an awareness and skill training in basic human relationship/communication skills. The course is focused on skills that provide educators with effective communication skills for working with students, educators, and parents. LEC.

PRE 855. Psychoeducational Clinic I: Assessment, Consultation, and Intervention. 3 Hours.
This is a practical course where students apply previous learning and gain experience in assessment and intervention with children, families, and school consultation. Team collaboration, peer review, and case conferences are essential elements of this course. Students work with clients in the on campus learning center under supervision. Topical seminars also are included throughout the semester. Prerequisite: Graduate student standing in the School Psychology program and permission of instructor. LEC.
PRE 860. Assessment of Behavior Problems and Personality. 3 Hours.
The purpose of this course is to examine appropriate assessment
techniques for the evaluation of behavior problems. Interview procedures,
behavioral observation strategies, behavior rating scales and checklists,
self-report inventories, and rational theoretical techniques will be
introduced. The intent is to place these assessment approaches in their
theoretical contexts and to discuss how they could be used by pupil
personnel specialists to understand the problem behavior and plan
interventions to enhance students' personal adjustment and achievement
in the classroom. Prerequisite: PRE 770, graduate standing in the school
of psychology program, or permission of instructor. LEC.

PRE 865. Psychoeducational Clinic 2: Assessment, Consultation,
and Intervention. 3 Hours.
A continuation of School Psychology Clinic I where students will be
performing the same activities at a higher level of autonomy and
independence. Prerequisite: Graduate student standing in the School
Psychology program, PRE 855, and permission of instructor. LEC.

PRE 870. Quantitative Methods for Research in Educational Policy
and Leadership. 3 Hours.
This course addresses the conceptual basis of statistical analysis with
an emphasis on applied data analysis. The use of descriptive statistics,
distributions, graphic displays, hypothesis testing, group comparison, and
analyses of relationships among variables to explore research questions
in education will be covered. This course is designed specifically for Ed.D.
students in the School of Education. Students in other degree programs
may not enroll. Prerequisite: This course is open only to Ed.D. students
in the School of Education. LEC.

PRE 871. Crisis and Disaster Counseling. 3 Hours.
This course provides advanced training in Crisis and Disaster Counseling
to graduate students in the helping professions, providing students with
the foundation, knowledge, and skills to effectively help those in crisis.
Practical guidelines, specific intervention strategies, treatment principles,
legal and ethical responsibilities, and self-care regarding crisis work will
be discussed and integrated. Prerequisite: PRE 740 and PRE 742; or
consent from instructor. LEC.

PRE 875. Individual and Cultural Differences in Counseling
Psychology. 3 Hours.
Examines the role of culture in human behavior and its influence in
counseling theories, practice, and research. The course will assist
students develop multicultural awareness, understanding, and skills in
working with people from diverse racial, social, cultural, and individual
backgrounds. The course will provide opportunities for self examination of
cultural assumptions/values in order to develop multicultural competence.
Prerequisite: PRE 742 or equivalent. LEC.

PRE 880. Ethical and Legal Issues in Professional Psychology. 3 Hours.
An examination of legal, ethical, and professional standards and
issues affecting the practice of professional psychology. Topics include
legislative regulation of professional psychology, ethical standards and
codes of conduct for psychology and related mental health professions,
standards of professional practice, and issue of practice liability and risk
management. LEC.

PRE 882. History and Systems of Psychology. 3 Hours.
A historical survey of the evolution of concepts, theories, and systems
of thought in psychology with an emphasis on their relationship to
contemporary issues in psychological theory, research, and practice.
Prerequisite: Graduate standing in PRE or consent of the instructor. LEC.

PRE 885. Projective Assessment. 3 Hours.
The major goal of the course is to integrate information about a person
from one or more projective tests into a useful summary. The projective
assessment instruments to be used include the Rorschach (using the
Exner system of scoring and interpretation), the Thematic Apperception
Test, and projective drawings (e.g., Draw-A-Person test). Prerequisite: At
least one graduate-level course in measurement and one graduate course
in assessment plus consent of the instructor. LEC.

PRE 890. Diagnosis and Psychopathology. 3 Hours.
An examination of psychological disorders from a counseling psychology
perspective that emphasizes strengths. The course will cover the current
version of the Diagnostic and Statistical Manual (DSM), as well as
alternative taxonomies, exploring personality as it ranges from normal
personality styles to personality disorders, as well as Axis I disorders.
The emphasis is on identifying and assessing these phenomena
and understanding possible behavioral and treatment implications.
Prerequisite: Degree seeking status in Counseling Psychology or consent
of instructor. LEC.

PRE 893. Internship in School Counseling. 2 Hours.
Two consecutive enrollments covering a period of one academic year.
During this time the student prepares a portfolio of skills competencies,
classroom guidance programs presented, and other experiences
appropriate to the student’s school level. Supervision will be conducted
on an individual basis and will include a minimum of two site visits per
semester. Prerequisite: Must have school counseling position and a
completed Masters degree from K.U. in School Counseling. FLD.

PRE 895. Field Experience in: _____. 1-5 Hours.
Supervised and directed experiences in selected educational or
mental health settings. The campus-based instructor will schedule
regular observations of the field experience and conferences with the
student. Written summaries and evaluations of the field experiences
will be prepared independently by the student, a representative of the
cooperating agency, and the campus-based instructor. Open only to
advanced students. Field experience credit in any one semester may not
exceed five hours, and total credit in this and additional field experience
enrollments may not exceed eight hours. Graded on a satisfactory/fail
basis. Prerequisite: PRE 842 and consent of the practicum coordinator.
FLD.

PRE 896. Seminar in: _____. 1-3 Hours.
Prerequisite: Permission of instructor. LEC.

PRE 897. Independent Study. 1-4 Hours.
Graded on a satisfactory/unsatisfactory basis. Prerequisite: Consent of
advisor and instructor. RSH.

PRE 898. Master’s Project. 1-4 Hours.
Prerequisite: Prior or concurrent enrollment in PRE 710, PRE 715, or PRE
790. RSH.

PRE 899. Master’s Thesis. 1-6 Hours.
Prerequisite: Prior or concurrent enrollment in PRE 710. THE.

PRE 900. Legal, Ethical, and Professional Issues in Professional
Psychology. 3 Hours.
This proseminar is designed to examine the major legal and ethical
principles and areas of concern that affect professional psychology.
The course will also examine the historical development of professional
psychology and current issues that affect the future direction of research
and practice. Prerequisite: Doctoral status in counseling, clinical, clinical
child, or school psychology, or consent of the instructor. LEC.
PRE 901. Research Practicum in: ____. 1-3 Hours.
This course is designed to give students experience in conducting research. It is expected that students will take this course for at least two consecutive semesters. (This course fulfills the requirement by the School of Education for a two semester, research practicum course.) Prerequisite: Doctoral student status in a program in the Department of Psychology and Research in Education. LEC.

PRE 902. Research Methodology in Education. 3 Hours.
An examination and study of the problems and procedures which relate to the validity of research methods. Emphasis will be placed on reading the current literature on research methodology. Students are required to develop a research proposal. Prerequisite: PRE 811 and PRE 720 or PRE 725. LEC.

PRE 905. Multivariate Analysis. 3 Hours.
Multivariate analysis of variance, discriminant analysis, logistic regression, and exploratory factor analysis. Prerequisite: PRE 810, PRE 811 and experience with a statistical software package. LEC.

PRE 906. Structural Equation Modeling I. 3 Hours.
The purpose of this course is to introduce students to Structural Equation Modeling (SEM). Topics to be covered include matrix algebra, correlation/covariation, regression, Path analysis, exploratory and confirmatory factor analysis, full structural equation models and multi-group models. Students will be exposed to the various statistical software programs available for SEM and will be expected to become proficient in utilizing EQS. Prerequisite: PRE 710 or equivalent course. LEC.

PRE 907. The Psychology of Instruction and Human Learning. 4 Hours.
A study of research and theory in the areas of cognitive learning and instruction, including such topics as motivation, problem solving, discovery learning, conceptualization, theory construction and task analysis. Emphasis placed on independent learning experiences and field-based experimentation with pilot study. Prerequisite: PRE 807 and PRE 715 or permission of instructor. LEC.

PRE 908. Structural Equation Modeling II. 3 Hours.
The purpose of this course is to introduce students to advanced topics in Structural Equation Modeling. Topics to be covered include multilevel models, latent growth models, mixture models and approaches to handling missing and/or non-normal data. Students will be exposed to the various statistical software programs and will be expected to become proficient in utilizing EQS. Prerequisite: PRE 906 or equivalent course. LEC.

PRE 910. Practicum in School Psychology. 3 Hours.
Supervised practice in the application of psychological theory of educational problems. Includes work useful with exceptional children as well as experience in the application of such areas as mental hygiene and learning theory to problems involving the total school population. (Same as SPED 801.) Prerequisite: Permission of advisor and instructor. LEC.

PRE 911. Advanced Practicum in School Psychology. 3 Hours.
A continuation of PRE 910 with special emphasis on remedial techniques associated with learning difficulties. (Same as SPED 802.) Prerequisite: PRE 910 and permission of advisor and instructor. LEC.

PRE 916. Educational Evaluation: Theory and Practice. 3 Hours.
The course will treat an intensive critical study of various views of evaluation as it exists opposite the experimental research process, emphasizing the operational definitions of objectives, existing models, taxonomies, and structure, and goals and methods of obtaining and summarizing evaluation data. Prerequisite: PRE 710 and PRE 816 or equivalents or permission of instructor. LEC.

PRE 918. Seminar in Current Issues and Trends in: ____. 1-3 Hours.
An examination of selected current issues and trends. (This course fulfills the requirement by the School of Education for a course in current issues and trends.) Prerequisite: Doctoral student status in a program in the Department of Psychology and Research in Education. LEC.

PRE 921. Theory and Applications of Educational Measurement. 3 Hours.
Application of theory including classical theories of reliability and validity, latent-trait theories, item sampling, and factor analysis to problems in educational test development and use in areas such as evaluation, research, placement, and selection. Prerequisite: PRE 725 and PRE 811. LEC.

PRE 922. Item Response Theory. 3 Hours.
Theoretical foundations and practical applications of item response theory in educational measurement. Prerequisite: PRE 921. LEC.

PRE 923. Advanced Theory and Applications of Item Response Theory. 3 Hours.
This course is designed to acquaint students with knowledge of advanced theory and applications in the field of item response theory (IRT). Topics to be covered include: advanced IRT models for dichotomous and polytomous, multidimensional, rater effects, and testlet-based item response data, estimation of parameters for these models and related software, and goodness of fit tests. The course will also focus on some advanced applications using these models, including test development, test score equating, differential item functioning, scoring and score reporting, Monte Carlo simulation studies, and innovative test designs. Prerequisite: PRE 922 or equivalent course. LEC.

The purpose of this course is to provide advanced students in the areas of educational research, psychometrics, and statistics with techniques for computer programming, analysis, and carrying out research using computer simulations. The topics covered are: Programming with Fortran languages, data manipulation and management, analysis, simulation of data according to statistical and psychometric models, numerical techniques for matrix operations, sampling from distributions, solutions for non-linear equations, and Markov-Chain Monte-Carlo techniques. There are no prerequisites for this course, but those students who have coursework through the multivariate statistics level will benefit most from this course. Other suggested courses include those related to psychological and educational measurement, classical test theory, item response theory, and research methods. LEC.

PRE 926. Hierarchical Linear Modeling. 3 Hours.
This course provides students with an introductory background in the basic principles and applications of hierarchical linear modeling (HLM). The course will review both the conceptual issues and methodological issues in using hierarchical linear modeling by working step-by-step with real data sets. Prerequisite: PRE 810 Regression Analysis (formerly PRE 904). LEC.

PRE 931. Computer-Based Testing. 3 Hours.
Computer-based testing holds the promise of increasing test validity and reliability while reducing the logistical problems associated with large-scale assessment. This seminar will provide an overview of what we have learned about administering tests on computer between the 1960s and today. The focus will be on measurement issues, but depending on class interest topics will vary. A prior course in item response theory is desirable but not required. Prerequisite: PRE 725 or equivalent course. LEC.
PRE 932. Diagnostic Testing. 3 Hours.
There is a great demand for more useful, more actionable test scores. Traditional large-scale group administered tests do not provide this kind of information due to low reliabilities of, or high inter-correlations among, sub-scores. This course will explore approaches used by individually administered tests to provide diagnostic information, new psychometric models that hold promise of providing better diagnostic information, and implications for test design. A primary focus will be on how psychometric models can be used with diagnostic subscores that are more reliable and less correlated than traditional approaches. Prerequisite: PRE 922 or equivalent course. LEC.

PRE 940. Advanced Studies in Educational Psychology and Research. 3 Hours.
A course designed to offer a comprehensive view of the field of educational psychology and research. The course will treat a series of thematic areas with a focus on latest developments and emerging theories in learning, development and quantitative methods. Intended for post-master’s level students. Prerequisite: Prior graduate level course work in development, learning, measurement, and statistics. LEC.

PRE 945. Clinical Supervision and Consultation. 3 Hours.
This course is designed to provide students with a knowledge foundation of clinical supervision and consultation theories and models, modes/formats of supervision, the supervisory/consulting relationship, legal and ethical considerations in the provision of supervision/consultation, and supervision research issues. Prerequisite: PRE 948. LEC.

PRE 947. Specialist Research. 1-4 Hours.
RSH.

PRE 948. Advanced Practicum I. 3 Hours.
Designed to be the initial advanced practicum for first year doctoral students. Attention is directed to development of a broad range of basic and advanced skills. Graded on a satisfactory/fail basis. Prerequisite: PRE 842 or equivalent. LEC.

PRE 949. Advanced Practicum II. 3 Hours.
Intensive counseling practice, including group and individual supervision, that may be taken either through Counseling and Psychological Services or an approved site outside of the university. Focus is on the acquisition and demonstration of advanced counseling skills. Two consecutive semesters (Fall, Spring) of enrollment are required of doctoral students. Responsibility to the site is for a continuous nine months, with fall semester responsibilities ending on the first day of spring semester classes. A grade of incomplete will be granted at the end of the regular fall grading period, with the regular fall grade being granted after completion of fall semester responsibilities. Graded on a satisfactory/fail basis. Prerequisite: Satisfactory completion of PRE 948 and prior or concurrent enrollment in PRE 951. LEC.

PRE 950. Cognitive Theory and Strategies in Counseling Psychology. 3 Hours.
An examination of historical and contemporary cognitive theories and strategies used in the practice of counseling psychology. Consideration of theoretical positions and issues, research functions, assessment strategies, and application of techniques. Prerequisite: PRE doctoral student status or consent of instructor. LEC.

PRE 951. Psychodiagnostic Assessment. 3 Hours.
Survey of selected psychodiagnostic instruments currently in use and their administration, scoring, and interpretation. Emphasis will also be placed on the use of the clinical interview as an assessment tool, case conceptualization/diagnosis, and integrative report writing. Prerequisite: Completion of PRE 830 and degree-seeking status in Counseling Psychology or consent of instructor. LEC.

PRE 952. Advanced Counseling Theory and Research. 3 Hours.
An advanced treatment of theory, research, and practice issues central to Counseling Psychology. Topics include theoretical and research paradigms in Counseling Psychology; the relationship of theory and research to practice; and evidence on factors influencing counseling processes and outcomes. Prerequisite: Counseling Psychology doctoral student status or consent of instructor. LEC.

PRE 953. Interactional Perspectives on Counseling and Personality. 3 Hours.
A study of personality and therapeutic change from systems, interactional, and communication perspectives, with implications for research and assessment in counseling. Designed for graduate students at the specialist and doctoral levels. Prerequisite: Counseling Psychology doctoral student status or consent of instructor. LEC.

PRE 954. Vocational Psychology. 3 Hours.
A survey of the major career development theories in counseling psychology. Models and methods of career counseling will be reviewed and integrated from the different theoretical perspectives. The empirical support of each theory and needed research will be identified. The course will include presentation of theories of career development and their specific applicability in counseling. The career development of special groups (women, the culturally different, non-whites) will be studied as well as alternative methods of delivery in career development and counseling. Prerequisite: Completion of PRE 846 or equivalent, and Ph.D. degree-seeking status in Counseling Psychology or consent of instructor. LEC.

PRE 955. Research Methods in Counseling Psychology. 3 Hours.
This course is a foundational course in research methods and design in counseling psychology. The course covers (a) design type and threats to design validity, (b) the formulation of research problems, (c) research instrumentation/measures, (d) data analytic methods, (e) interpreting data, and (f) ethical issues, research integrity, and the responsible conduct of research. Prerequisite: PRE 710 and PRE 711 or equivalent. Doctoral student in Counseling Psychology or consent of instructor. LEC.

PRE 956. Theory of Couples and Family Counseling. 3 Hours.
A survey of contemporary systems of couples and family counseling. Consideration of couple and family function/dysfunction, theoretical models of family interaction, models of counseling practice and methods, and research on couples and family counseling. Prerequisite: Degree-seeking status in Counseling Psychology or consent of instructor. LEC.

PRE 960. Assessment of Infants, Toddlers, and Young Children. 3 Hours.
The purpose of this course is to introduce the student to the assessment of various domains related to the development of infants, toddlers, and young children. The student will learn how to use formal and informal assessment techniques for screening, diagnostic, educational planning, and educational evaluation purposes. An emphasis will be placed on the linkage between assessment and intervention. This course is designed for students in the applied psychology fields (i.e., school psychology, counseling psychology, clinical child psychology, and clinical psychology). Prerequisite: PRE 705, PRE 725, PRE 805 and permission from the instructor. LEC.

PRE 965. Foundations of Psychoeducational Consultation. 3 Hours.
This is the first of a two semester sequence of courses on school-based consultation. The course is a combination lecture-laboratory experience that introduces the student to the literature, theory, and techniques of consultation. Prerequisite: Approval of instructor. LEC.

PRE 970. Counseling with Adults. 3 Hours.
This course will focus on the utilization and integration of adult life span theory and issues with counseling theory and practice. Particular attention
is given to the adaptation of counseling practices to the developmental concerns of adult male and female clients. Additional emphasis is given to encouraging research projects related to the adult lifespan and effective counseling practices. Prerequisite: Graduate student status as an advanced master’s student or doctoral student in the Program in Counseling Psychology or written permission of instructor. LEC.

PRE 975. Therapeutic Intervention: Home and School. 3 Hours.
The course includes a review of literature and theory as well as supervised practice. Therapeutic intervention is broadly conceived, including individual and group counseling, and parent and teacher consultation. The importance of the family-school relationship is stressed. Prerequisite: Permission of instructor and completion of course on counseling. LEC.

PRE 980. Advanced Topics: ____. 1-3 Hours.
A special course of study to meet current need of education professionals—primarily for post-master’s level students. LEC.

PRE 990. Internship in Counseling Psychology. 1 Hour.
Three consecutive enrollments, covering a minimum of eleven months of experience in an approved counseling psychology field setting. Supervision and directed experiences coordinated by the student’s adviser, the program training director, and internship setting supervisors. Required of all counseling psychology doctoral students. Prerequisite: Doctoral degree-seeking status in counseling psychology, completion of Ph.D. comprehensive examinations, and consent of counseling psychology faculty. FLD.

PRE 991. Ed.S. Internship. 1-5 Hours.
This course has two components: 1) a supervised experience as a practicing school psychologist, and 2) a group supervision class emphasizing case presentations and other integrative practice elements. The student functions as a provisionally certified school psychologist. Prerequisite: Completion of Ed.S. degree. FLD.

PRE 992. Ph.D. Internship in School Psychology. 5 Hours.
This is a one year, supervised experience in an approved setting. The structure and content of the experience follows guidelines of several professional organizations including The American Psychological Association and the National Association of School Psychologists. Prerequisite: Approval of School Psychology committee. FLD.

PRE 995. Field Experience in: ____. 1-5 Hours.
Supervised and directed experiences in selected educational settings. The advisor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experiences will be prepared independently by the student, a representative of the cooperating agency, and the advisor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. FLD.

PRE 996. College Teaching Experience in: ____. 1-5 Hours.
To meet the college teaching experience requirement for doctoral programs, a student shall engage in a semester long, planned, instructional activity that shall include college classroom teaching under supervision. Planning shall be done with the advisor and/or member of the faculty who will supervise the experience. The activity shall be done under the supervision of a member of the University of Kansas faculty or by an individual or individuals designated by the candidate’s committee. FLD.

PRE 997. Individual Study. 1-4 Hours.
Prerequisite: Prior graduate course work in the area of study and consent of instructor. Course is graded on a satisfactory/fail basis. RSH.

PRE 998. Seminar in: ____. 1-4 Hours.
Course is graded on a satisfactory/fail basis. LEC.

PRE 999. Doctoral Dissertation. 1-15 Hours.
THE.

Special Education Courses
SPED 261. Families and Professional Partnerships. 3 Hours.
This course provides information on issues and practices related to working together in partnership with families of young children including those who have a young child with special needs. Emphasis will be placed on addressing the family systems prospective and a family-centered approach to family support. Strategies for effective communication for the purpose of information sharing and collaborative planning with families are provided. Relevant current scientifically based evidence will be reviewed and discussed pertaining to these topics. LEC.

SPED 326. Teaching Exceptional Children and Youth in General Education. 3 Hours.
This course is designed for general education teacher trainees. It will provide them information about students with disabilities that they will have in their classrooms and the law governing special education and its implications for them as general educators. The course will address Individualized Educational Plans that are developed for students with disabilities and how general educators contribute to these plans. Students will learn about planning instruction that is differentiated to meet various learner needs, universal design principles and instructional tools, providing meaningful access to general education classrooms and curriculum for students with disabilities and designing and delivering appropriate accommodations and modifications to assist student learning. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 362. Introduction to Early Education and Early Childhood Special Education. 3 Hours.
This course is designed to provide an overview of the field of early education including early childhood education and early childhood special education. The historical, philosophical, research-based, policy and legal foundations for the field are discussed to provide the students with the knowledge to become an advocate for early learning opportunities (birth through grade 3) for all children and their families. LEC.

SPED 425. Introduction to Exceptional Children and Youth. 3 Hours.
Designed for regular education teacher trainees, those in training for support roles in public schools and/or residential facilities (music educators/therapists, speech clinicians, etc.), and others interested in providing services for exceptional children and youth. Emphasis on the learning and adjustment problems of exceptional children and youth. Includes fieldwork experiences in residential and/or public school settings. LEC.

SPED 431. Families and Professional Partnerships. 3 Hours.
This course provides information on issues and practices related to working together in partnership with families of young children including those who have a young child with special needs. Emphasis will be placed on addressing the family systems prospective and a family-centered approach to family support. Strategies for effective communication for the purpose of information sharing and collaborative planning with families are provided. Relevant current scientifically based evidence will be reviewed and discussed pertaining to these topics. LEC.

SPED 432. Teaching Exceptional Children and Youth in General Education. 3 Hours.
This course is designed for general education teacher trainees. It will provide them information about students with disabilities that they will have in their classrooms and the law governing special education and its implications for them as general educators. The course will address Individualized Educational Plans that are developed for students with disabilities and how general educators contribute to these plans. Students will learn about planning instruction that is differentiated to meet various learner needs, universal design principles and instructional tools, providing meaningful access to general education classrooms and curriculum for students with disabilities and designing and delivering appropriate accommodations and modifications to assist student learning. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 433. Student Teaching: Unified Early Childhood. 1-6 Hours.
A supervised student teaching experience leading to initial teaching licensure in Kansas Unified Early Childhood (birth through grade 3). The student assumes the professional role as a teacher in an approved inclusive early childhood infant/toddler or preschool. Prerequisite:
Admission to the Unified Early Childhood program. Approved application of intent to student teach. LEC.

SPED 497. Independent Study. 1-2 Hours.
Only one enrollment permitted each semester, a maximum of four hours will apply toward a bachelor’s degree. Prerequisite: Recommendation of advisor and consent of instructor. IND.

SPED 500. Introduction to Sign Language. 3 Hours.
This is an introductory course in Sign Language and includes ASL and English sign vocabulary, a description of all manual sign systems, medical aspects of hearing loss, communication and language, and Deaf culture and community. LEC.

This course will cover the development of American Sign Language and its application within the Deaf Community. It is based on the functional-notational approach to learning sign language. This approach organizes language around communicative purposes of everyday interaction. LEC.

SPED 502. American Sign Language II (ASL II). 3 Hours.
This is the second level course in American Sign Language and its application within the Deaf Community. It is based on the functional-notational approach to learning sign language. This approach organizes language around communicative purposes of everyday interaction. Prerequisite: SPED 501. LEC.

SPED 503. American Sign Language III (ASL III). 3 Hours.
This is the third level course in American Sign Language. The primary objective of the American Sign Language III “Signing Naturally” Level 2 curriculum is for students to continue using the two basic language skills: visual listening and signing. Prerequisite: SPED 502. LEC.

SPED 504. American Sign Language IV (ASL IV). 3 Hours.
This is the fourth level course in American Sign Language. The primary objective of the American Sign Language IV “Signing Naturally” Level 3 curriculum is for students to continue using the two basic language skills -- visual listening and signing. Prerequisite: SPED 503. LEC.

SPED 506. Advanced Practices for Children with Disabilities in the Elementary General Education Classroom. 3 Hours.
This course is designed to enable novice teachers to master and apply the instructional and communicative skills that will facilitate appropriate and productive inclusion of children and youth with exceptionalities within general education classrooms and other school settings. Specific research-based strategies in curriculum content acquisition (content enhancements, learning strategies, classwide-peer tutoring), and specific research-based strategies in behavior management will be learned and applied to real teaching experiences. Novice teachers will learn about collaborative structures found in schools to support student learning and in general education settings (co-teaching, collaborative consultation, teacher/student support teams) and roles and responsibilities of teachers within these structures. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 507. Advanced Practices for Children with Disabilities Middle/Secondary General Education Classroom. 3 Hours.
This course is designed to enable novice teachers to master and apply the instructional and communicative skills that will facilitate appropriate and productive inclusion of middle and secondary age students with disabilities within general education classrooms and other school settings. Specific research-based strategies in curriculum content acquisition (content enhancements, learning strategies, classwide-peer tutoring), and specific research-based strategies in behavior management will be learned and applied to real teaching experiences. Novice teachers will learn about collaborative structures found in schools to support student learning in general education settings (co-teaching, collaborative consultation, teacher/student support teams) and roles and responsibilities of teachers within these structures. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 598. Special Course: _____. 1-5 Hours.
A special course of study designed to meet current needs of education students; primarily for undergraduates. LEC.

SPED 631. Characteristics of Students Needing an Adaptive Curriculum. 3 Hours.
This course is designed as an introduction to the definition, characteristics, causes, assessment, and specific remedial techniques for students needing an adaptive curriculum. The needs for specialized services to meet specific learning and/or behavioral needs will be presented. Students will learn about the history of serving children and youth with high incidence disabilities associated with specific learning, emotional/behavioral, mild mental retardation and a range of physical and health needs. Key individuals in the research of specific disabilities associated with these needs and how they helped expand our understanding of who these individuals are and how to address specific needs, will also be addressed. Learning characteristics will be addressed in relation to why and how specialized instruction can meet the learning and developmental needs of these individuals, specifically in the areas of instructional and assistive technology. LEC.

SPED 632. Characteristics of Students Needing a Functional Curriculum. 3 Hours.
This introductory course provides an overview of the characteristics of learners with significant support needs. Students will learn to define and understand various classification systems and the implications of: low-incidence disabilities, significant cognitive disability, various vision and/or hearing impairments, including deaf-blindness motor disabilities, and health impairments. Students will be introduced to various etiologies: pre-, per-, and post-natal causes, syndromes and chromosomal disorders, and biomedical causes of severe disability. Additional content includes anatomy of sensory organs, interpretation of pertinent medical reports, assessment procedures, and in school settings considerations (e.g., orientation and mobility, cochlear implants, medications, tube feeding, physical therapy, occupational therapy). Prerequisite: An introductory course in special education. LEC.

SPED 633. Characteristics of Learners with Hearing Loss -- Deaf Studies. 3 Hours.
Deaf Studies is the basic characteristics course for both the Master’s degree in Deaf Education and for Kansas and Missouri endorsement in Deaf/HOH. The course includes medical aspects/etiology of hearing loss, history, pertinent laws, Deaf culture and community, issues in assessment and psychology, language and sign systems, multicultural education, multiple disabilities and hearing loss, and specific issues in the field. LEC.

SPED 635. Characteristics of Children and Youth with Disabilities: _____. 3 Hours.
Social, cognitive, emotional, and other developmental aspects associated with children and youth identified with learning disabilities, behavior disorders, and mental retardation are covered by this course. Characteristics, special needs, and service delivery approaches are compared and contrasted. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 641. Methods & Assessment: Literacy Interventions Struggling Learners&Students High-Incidence Disabilities. 3 Hours.
This course will provide in depth learning experiences targeting literacy; both reading and writing. Students will learn about assessment tools and assessment systems used in tiered support frameworks to determine the required intensity of literacy support and instruction needed by children/adolescents with adaptive special education needs, and will learn about evidence-based instructional approaches and curriculum developed for
students with disabilities and struggling students in general. The course is intended for persons working toward the Kansas teaching license in teaching students needing an adapted curriculum. Prerequisite: SPED 730, admittance into the Adaptive program in the Department of Special Education, or permission of the instructor. LEC.

SPED 642. Methods and Assessment: Life Skills and Community-Based Instruction. 3 Hours.
This course will provide an overview of assessment and instructional practices contributing to community-referenced planning, community-based instruction and life skills instruction. Students will conduct ecological inventories and other student-referenced assessments, design community-based instructional programs, ecologically valid and age-appropriate to facilitate mastery of skills essential for community and social inclusion, explore best practices in community-based instructional programs, including family and student involvement, transportation, and administrative and policy support. Undergraduate students will be provided a model and extended scaffolding with a few sample case studies with which to work. Students who have completed SPED 642 cannot enroll in SPED 742. The course is intended for persons working toward the Kansas teaching license in teaching students needing a functional curriculum. Prerequisite: SPED 326. LEC.

SPED 644. Assessment and Instructional Methods I: Learners with Hearing Loss. 3 Hours.
This course will provide an introduction to appropriate instructional methodology for teaching students who are deaf or hard of hearing at the early childhood, elementary, and secondary levels. Upon completion students will be familiar with legal issues, teaming, assessment, IEP development, curriculum planning, instructional methods, and transition. LEC.

SPED 650. Constructing Early Childhood Curriculum. 3 Hours.
Students in this course will learn to design, implement and evaluate developmentally appropriate curricula and programs for children from birth through kindergarten. Issues of curriculum design and assessment are introduced as interrelated processes that include structuring learning environments and experiences that are responsive to children’s interests and abilities. Students analyze and evaluate curriculum that focuses on the five developmental domains: a) social emotional development; b) cognitive development; c) language and communication development; d) adaptive behavior development; and e) gross and fine motor development and in addition the content domains of literacy, science, math, and fine art. Strategies for developing learning opportunities that are appropriate for young children, including children with special needs and children from diverse cultural, ethnic and linguistic backgrounds, will be explored. Prerequisite: Admission to School of Education UEC program. LEC.

SPED 660. Education of Children and Youth with Disabilities I: ______. 3 Hours.
This is a methods course that covers instructional approaches and procedures that offer developmentally appropriate, effective and inclusive early intervention for preschool and kindergarten age children who experience developmental delays, disabling conditions or who are at-risk for developmental problems and disabilities. It is directed toward: (a) “how” to teach, or the technical components of developing and delivering effective instruction that provide access to the general early childhood curriculum within recognized approaches to early childhood education for young children, and (b) the “what” to teach, or the selection of developmentally and individually appropriate child objectives as well as specific materials and specialized instructional approaches. The relationship of instructional planning to state and federal mandates will also be considered. The course is primarily intended for persons who are currently working toward certification in the ECSE program area. Prerequisite: SPED 425 or SPED 725, and SPED 735, which can be taken concurrently. LEC.

SPED 661. Supporting Children with Significant Learning and Behavioral Challenges. 3 Hours.
Students in this course will gain knowledge of the causes, and intervention and support approaches for young children with multiple and significant disabilities including neurological impairments, physical disabilities, sensory impairments, significant developmental disabilities and challenging behavior. Emphasis is placed on environmental adaptations and direct instructional techniques to maximize independence as determined through systematic ecological inventories tailored to the individual child’s strengths and needs. Information is also provided on assistive technology designed to provide appropriate supports. Functional behavioral assessment procedures, proactive intervention strategies, and developing collaborative support plans will be studied. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 663. Assessment Strategies in Early Education. 3 Hours.
Examines the practice of gathering information for the purpose of making individual referral and instructional decisions for infants, toddlers, and young children with and without special needs. Discusses effective informal assessment techniques and emphasizes an ecological approach to gathering information. Introduces standardized assessment and screening instruments and provides an overview of the purposes and limitations of such tests. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 664. Inclusive Strategies and Intervention for Infants and Toddlers. 3 Hours.
Emphasizes curriculum development and early intervention provision for infants and toddlers through the planning of appropriate learning experiences, the design of learning environments, developing Individual Family Service Plans (IFSP), promoting collaboration among families and the use of various methods of enhancing the child’s development across the five (social-emotional, adaptive, cognitive, physical/movement, communication) development domains. The role of the educator/early interventionist in relation to the family and the child is examined. Curriculum resources and intervention strategies for infants and toddlers with special needs are reviewed with emphasis on interdisciplinary planning and implementation. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 665. Inclusive Strategies and Intervention for Preschoolers. 3 Hours.
Provides the opportunity for students to develop and evaluate inclusive environments for young children. This course emphasizes meeting the needs of all young children through an integrated approach to planning, implementing and assessing instruction in all areas; linking assessment information to individualized instruction; developing Individual Educational Plans (IEPs) and promoting collaboration among families, schools and communities. Service delivery systems and transitions between early childhood programs are reviewed in relation to curriculum. Curriculum development for early childhood content areas (literacy and language, numeracy, science, social studies, physical education and the arts) and domains (language, social/emotional, physical, and cognitive) will be explored. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 667. Field Experience in Preschool. 1 Hour.
This supervised field experience is intended to allow the pre-service teacher to apply the knowledge gained in SPED 665 Inclusive Strategies and Intervention for Preschoolers, by working with infants and toddlers in early intervention settings/programs. To be taken concurrently SPED 665. Prerequisite: Admission to the Teacher Education Program. FLD.
SPED 668. Field Experience Infant/Toddler. 1 Hour.
This supervised field experience is intended to allow the pre-service teacher to apply the knowledge gained SPED 664 Inclusive Strategies and Intervention for Infants and Toddlers, by working with infants and toddlers in early intervention settings/programs. To be taken concurrently SPED 664. Prerequisite: Admission to the Teacher Education Program. FLD.

SPED 672. Field Experiences with Exceptional Children and Youth: _____, 3 Hours.
A course designed to provide experiences for students to participate with exceptional children in public schools and/or residential facilities and with professional personnel associated with the lives of exceptional students including special education teachers, child care workers, therapists, etc. Students will have opportunities to participate as aides, tutors, and instructors with individual and small groups of exceptional youth in one or more placements. Through weekly meetings with the instructor students are guided to relate their experiences to the needs and services for exceptional children and youth. Prerequisite: SPED 635. FLD.

SPED 675. Practicum with Children and Youth with Disabilities: _____, 1-10 Hours.
Intensive diverse and direct teaching experiences with children and youth with disabilities in educational settings. The course is differentiated from SPED 775 through the amount of scaffolding undergraduate students will receive when demonstrating skill application (e.g., undergraduates report and receive feedback on practicum experiences on a more frequent basis, reduced data collection requirements, more emphasis on cooperating teacher providing guidance, etc.). This practicum is a requirement for provisional endorsement according to KSDE. Students who have completed SPED 675 cannot enroll in SPED 775 within in same curricular area. Prerequisite: SPED 326. LEC.

SPED 700. Introduction to Sign Language. 3 Hours.
This is an introductory course in Sign Language and includes ASL and English sign vocabulary, a description of all manual sign systems, medical aspects of hearing loss, communication and language, and Deaf culture and community. LEC.

SPED 701. American Sign Language I (ASL I). 3 Hours.
This course will cover the development of American Sign Language and its application within the Deaf Community. It is based on the functional-notational approach to learning sign language. This approach organizes language around communicative purposes of everyday interaction. LEC.

SPED 702. American Sign Language II (ASL II). 3 Hours.
This is the second level course American Sign Language and its application within the Deaf Community. It is based on the functional-notational approach to learning sign language. This approach organizes language around communicative purposes of everyday interaction. Prerequisite: SPED 701. LEC.

SPED 703. American Sign Language III (ASL III). 3 Hours.
This is the third level course in American Sign Language. The primary objective of the American Sign Language III "Signing Naturally" Level 2 curriculum is for students to continue using the two basic language skills: visual listening and signing. Prerequisite: SPED 702. LEC.

SPED 704. American Sign Language IV (ASL IV). 3 Hours.
This is the fourth level course in American Sign Language. The primary objective of the American Sign Language IV "Signing Naturally" Level 3 curriculum is for students to continue using the two basic language skills -- visual listening and signing. Prerequisite: SPED 703. LEC.

SPED 705. Aural/Verbal Language for the Deaf. 3 Hours.
This course will cover the development of spoken language skills and its application within the Deaf Community. It is based on the functional-notational approach to learning spoken language. This approach organizes language around communicative purposes of everyday interaction. Prerequisite: SPED 701. LEC.

SPED 706. Advanced Practices for Children with Disabilities in the Elementary General Education Classroom. 3 Hours.
This course is designed to enable novice teachers to master and apply the instructional and communicative skills that will facilitate appropriate and productive inclusion of children and youth with exceptionalities within general education classrooms and other school settings. Specific research-based strategies in curriculum content acquisition (content enhancements, learning strategies, classwide-peer tutoring), and specific research-based strategies in behavior management will be learned and applied to real teaching experiences. Novice teachers will learn about collaborative structures found in schools to support student learning in general education settings (co-teaching, collaborative consultation, teacher/student support teams) and roles and responsibilities of teachers within these structures. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 707. Advanced Practices for Adolescents with Disabilities in the Middle/Secondary General Classroom. 3 Hours.
This course is designed to enable novice teachers to master and apply the instructional and communicative skills that will facilitate appropriate and productive inclusion of middle and secondary age students with disabilities within general education classrooms and other school settings. Specific research-based strategies in curriculum content acquisition (content enhancements, learning strategies, classwide-peer tutoring), and specific research-based strategies in behavior management will be learned and applied to real teaching experiences. Novice teachers will learn about collaborative structures found in schools to support student learning in general education settings (co-teaching, collaborative consultation, teacher/student support teams) and roles and responsibilities of teachers within these structures. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 708. Introduction to Hearing Impaired. 2 Hours.
A study of hearing defects and methods of diagnosis. The course also covers remedial work which teachers can use in treating such defects and meeting problems of hearing defective children. Prerequisite: Nine hours of education including educational psychology. LEC.

SPED 710. Methods of Teaching Language to the Deaf I. 3 Hours.
The effects of hearing loss on language acquisition and development. Systems for teaching language to individuals with hearing loss are introduced. Prerequisite: Course in normal language development and nine hours of education including educational psychology. LEC.

SPED 715. Understanding Research in Education. 3 Hours.
This course introduces concepts and skills involved in understanding and analyzing research in special education. The course provides an overview of basic, general knowledge of various research methodologies. In addition, this course will teach students to locate, read, comprehend, and critically analyze research articles and reports. Students will become familiar with the principles of educational research to become good "consumers" of this research. LEC.

SPED 717. Exceptional Children in Regular Classrooms. 3 Hours.
This course is designed to explore the relationship between regular and special education. Educational service delivery systems for exceptional children are identified and analyzed. Emphasis is placed upon procedures and special services that regular class teachers can use to provide instructional services to exceptional children assigned to regular classrooms. Procedures for enabling normal children to understand and appreciate the interaction with children who exhibit physical and behavioral variance from established norms are conveyed. Especially for regular class teachers and students desiring a career in teaching exceptional children. Will be offered by designated area sections or as a general overview of several areas. LEC.
**SPED 718. Instructional Planning for Children and Youth with Disabilities:_____**. 1-3 Hours.

This course provides knowledge and skills to select, adapt, and sequence instructional methods and materials to facilitate general education curriculum mastery. LEC.

**SPED 719. Learning and Technology. 1 Hour.**

The central framework of "human learning" provides a context for understanding technology-based educational innovations. The lessons in this course explore how various "features of learning" and "features of technology" intersect. They discuss realistic options for improving the learning of students, and the learning of teachers, as they use technology in education. (Life-span range of levels.) LEC.

**SPED 720. Special Education Theory and Practice. 3 Hours.**

This course explores the design, development, and implementation of technology-based solutions for struggling learners in the preK-12 instructional environment. Throughout the course, students will (1) gain an understanding of the Principles of Universal Design for Learning, (2) examine how technology has and can be developed in a manner to meet multiple needs, especially those with disabilities, and (3) analyze how professionals can identify and assess what technology-based solution would meet the needs of a particular individual or group of individuals. LEC.

**SPED 721. Technology for Special Education. 3 Hours.**

This course presents an overview of current practices in the identification, placement, and education of students with disabilities. This course emphasizes on patterns of social, cognitive, language, and physical development. Social, political, and economic advocacy issues are also addressed. Prerequisite: One course in Child Development. LEC.

**SPED 722. Exceptionality and Technology. 1 Hour.**

Technology has the potential to dramatically improve the education and quality of life for people with disabilities. This course presents you with a basic foundation for understanding technology in special education, a functional model for selecting the best technology applications for students with special needs, and strategies for applying your knowledge to practical situations. LEC.

**SPED 723. Supporting Children and Youth with mild to Moderate Disabilities: _____**. 1-3 Hours.

This course provides an overview of current practices in the identification, placement, and education of students with disabilities. This course emphasizes on patterns of social, cognitive, language, and physical development. Social, political, and economic advocacy issues are also addressed. Prerequisite: One course in Child Development. LEC.

**SPED 724. Data-Driven Instructional Decision Making. 1 Hour.**

The lessons in this course present research-based methods for monitoring student behavior and academic progress. They explain how teachers may use this information to evaluate current and plan future instructional and behavioral interventions following a decision making model. It is also explored how computer information management technology tools support and facilitate the collection, storage, and analysis of observational data. LEC.

**SPED 725. Introduction to the Psychology and Education of Children and Youth with Disabilities. 3 Hours.**

This course provides an overview of current practices in the identification, placement, and education of students with disabilities. This course emphasizes on patterns of social, cognitive, language, and physical development. Social, political, and economic advocacy issues are also addressed. Prerequisite: One course in Child Development. LEC.

**SPED 726. Exceptionality and Technology. 1 Hour.**

Technology has the potential to dramatically improve the education and quality of life for people with disabilities. This course presents you with a basic foundation for understanding technology in special education, a functional model for selecting the best technology applications for students with special needs, and strategies for applying your knowledge to practical situations. LEC.

**SPED 727. Designing Instruction for Diverse Learners. 3 Hours.**

This course explores design, development, and implementation of technology-based solutions for struggling learners in the preK-12 instructional environment. Throughout the course, students will (1) gain an understanding of the Principles of Universal Design for Learning, (2) examine how technology has and can be developed in a manner to meet multiple needs, especially those with disabilities, and (3) analyze how professionals can identify and assess what technology-based solution would meet the needs of a particular individual or group of individuals. LEC.

**SPED 728. Introduction to Computing in Special Education. 3 Hours.**

This course is designed to provide an introduction to basic concepts of computer literacy, with particular emphasis on the uses of microcomputers in educational settings for individuals with special needs. Topics include an overview of computing specific to the needs of individuals with special needs including: a) applications and the impact of computers on society; b) an introduction to computer hardware and associated concepts; c) introductory programming concepts; d) a survey of instructional and instructional-support applications of computers including examples of related software; e) software evaluation techniques; and f) an overview of resources in educational computing. Students will acquire hands-on operating experience with microcomputers through scheduled laboratory periods. LEC.

**SPED 729. Introduction to Computing in Special Education. 3 Hours.**

This course is designed to provide an introduction to basic concepts of computer literacy, with particular emphasis on the uses of microcomputers in educational settings for individuals with special needs. Topics include an overview of computing specific to the needs of individuals with special needs including: a) applications and the impact of computers on society; b) an introduction to computer hardware and associated concepts; c) introductory programming concepts; d) a survey of instructional and instructional-support applications of computers including examples of related software; e) software evaluation techniques; and f) an overview of resources in educational computing. Students will acquire hands-on operating experience with microcomputers through scheduled laboratory periods. LEC.

**SPED 730. Characteristics, Methods & Assessment: Intro Struggling Learners & Sttdnts High-Incidence Disabilities. 3 Hours.**

The course is designed as an introduction to the characteristics, assessment and identification process, and initial instructional and behavioral interventions needed in meeting the needs of students with high-incidence disabilities under the Kansas Adaptive Teacher Education Standards. The needs for specialized services to meet specific learning and/or behavioral needs will be presented. Frameworks for instruction and conceptualizing best practice will be introduced including the principles of Universal Design for Learning and the Multi-Tier System of Support. The role of the educator in identifying, understanding and implementing evidence-based practices is also examined. Curriculum resources and intervention strategies for students with high-incidence disabilities will be introduced with emphasis on tiered planning and implementation. The course is intended for persons working toward the Kansas teaching endorsement in the Special Education Adaptive Area. Prerequisite: Admittance into the Adaptive endorsement teacher education program in the Department of Special Education or permission of the instructor. LEC.

**SPED 731. Supporting Children with Significant Learning and Behavioral Concerns. 3 Hours.**

Students in this course will gain knowledge of the causes, and intervention and support approaches for young children birth through 5 years with significant support needs. These include young learners with multiple and significant disabilities including neurological impairments, physical disabilities, sensory impairments including dual sensory impairments, complex health care needs, significant developmental disabilities and challenging behavior. Emphasis is placed on environmental adaptations and direct instructional techniques to maximize independence as determined through systematic ecological inventories tailored to the individual child’s strengths and needs. Information is also provided on assistive technology designed to provide appropriate supports. Functional behavioral assessment procedures, proactive intervention strategies, and developing collaborative support plans will be studied. Prerequisite: Admittance into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. LEC.

**SPED 732. Characteristics of Learners with Hearing Loss -- Deaf Studies. 3 Hours.**

Deaf Studies is the basic characteristics course for both the Master’s degree in Deaf Education and for Kansas and Missouri endorsement in Deaf/HOH. The course includes medical aspects/etiology of hearing loss, history, pertinent laws, Deaf culture and community, issues in assessment and psychology, language and sign systems, multicultural education, multiple disabilities and hearing loss, and specific issues in the field. LEC.

**SPED 733. Inclusive Strategies and Intervention for Infants and Toddlers:_____**. 3 Hours.

Emphasizes curriculum development and early intervention provision for infants and toddlers through the planning of appropriate learning experiences, the design of learning environments, developing Individual Family Service Plans (IFSP), promoting collaboration among families and the use of various methods of enhancing the child’s development across the five (social-emotional, adaptive, cognitive, physical, communication) developmental domains. The role of the educator/early interventionist in relation to the family and the child is examined. Curriculum resources and intervention strategies for infants and toddlers with special needs are reviewed with emphasis on interdisciplinary planning and implementation. Prerequisite: Admittance into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. LEC.
SPED 735. Characteristics of Children and Youth with Disabilities: 3 Hours.
Social, cognitive, emotional, and other developmental aspects associated with children and youth identified with learning disabilities, behavior disorders, and mental retardation are covered by this course. Characteristics, special needs, and service delivery approaches are compared and contrasted. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 738. Unified Early Childhood Applied Research. 1 Hour.
This seminar is designed to facilitate the UEC teacher candidate's completion of a Teaching Work Sample during the UEC Student Teaching experience. The purpose of the seminar together with the UEC student teaching experience is to provide the UEC teacher candidate with the opportunity to study and experience the fundamentals of teaching young children with and without disabilities with the aim of evolving a set of values, principles, and skills which will guide future early education teaching situations. Prerequisite: Admission to UEC Student Teaching. Corequisite: SPED 739 UEC Student Teaching. LEC.

SPED 739. Early Childhood Unified Student Teaching/Practicum. 1-6 Hours.
A supervised student teaching experience leading to initial teaching licensure in unified early childhood (birth through grade 3). The student assumes the total professional role as a teacher in an approved inclusive early childhood program to include infant/toddler, preschool or kindergarten. Prerequisite: Admission to UEC Student Teaching. Corequisite: SPED 738 UEC Unified Early Childhood Applied Research. FLD.

SPED 740. Managing Classroom Behavior of Exceptional Children and Youth. 3 Hours.
Designed to acquaint regular and special education teachers, principals, school psychologists, counselors, and speech pathologists with principles and application of classroom management techniques applicable to exceptional children and youth. Methods of changing inappropriate behaviors and prompting the acquisition of adaptive behaviors through positive management procedures will be stressed. Includes an introduction to behavior analysis. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 741. Methods & Assessment: Literacy Interventions Struggling Learners & Students High-Incidence Disabilities. 3 Hours.
This course will provide in depth learning experiences targeting literacy; both reading and writing. Students will learn about assessment tools and assessment systems used in tiered support frameworks to determine the required intensity of literacy support and instruction needed by children/adolescents with adaptive special education needs, and will learn about evidence-based instructional approaches and curriculum developed for students with disabilities and struggling students in general. The course is intended for persons working toward the Kansas teaching license in teaching students needing an adapted curriculum. Prerequisite: SPED 730, admittance into the Adaptive program in the Department of Special Education, or permission of the instructor. LEC.

SPED 742. Methods and Assessment: Life Skills and Community-Based Instruction. 3 Hours.
This course will provide an overview of assessment and instructional practices contributing to community-referenced planning, community-based instruction, and life skills instruction. Students will conduct ecological inventories and other student-referenced assessments, design community-based instructional programs, ecologically valid and age-appropriate to facilitate mastery of skills essential for community and social inclusions, explore best practices in community based instructional programs, including family and student involvement, transportation, and administrative and policy support. Students who have completed SPED 742 cannot enroll in SPED 642. The course is intended for persons working toward the Kansas teaching license in teaching students needing a functional curriculum. Prerequisite: SPED 735, admittance into the Functional program in the Department of Special Education, or permission of the instructor. LEC.

SPED 743. Methods: Functional Behavioral Assessment, Positive Behavior Support and Classroom Management. 3 Hours.
This course provides a problem-solving approach and the framework for teaching and assessment strategies to develop pro-social behavior in students with disabilities and their typical peers in classrooms and whole school contexts. Students assess problem behavior, discover the functions of problem behavior, and learn pro-social alternatives in home, school, and community settings. Prerequisite: SPED 631 or SPED 731, and SPED 632 or SPED 732. LEC.

SPED 744. Assessment and Instructional Methods I: Learners with Hearing Loss. 3 Hours.
This course will provide an introduction to appropriate instructional methodology for teaching students who are deaf or hard of hearing at the early childhood, elementary, and secondary levels. Upon completion students will be familiar with legal issues, teaming, assessment, IEP development, curriculum planning, instructional methods, and transition. LEC.

SPED 745. Audiology and Aural Rehabilitation. 3 Hours.
This course will provide a broad overview of the components of an aural rehabilitation service delivery model including audiological diagnostics and assessment, selection and fitting of a variety of listening devices, and intervention strategies for auditory training and speech perception training. The emphasis of this course will be on the aural habilitation of children; therefore, each of the components of an aural (re)habilitation plan will be considered in relation to the needs of individual children and their families. LEC.

SPED 750. Curriculum and Methods in Early Childhood. 3 Hours.
This is a curriculum and methods course that addresses how to design, implement and evaluate developmentally appropriate curricula and programs for children from birth to six years of age. Issues of curriculum design and assessment are introduced as interrelated processes that include structuring learning environments and experiences that are responsive to children's interests and abilities. Strategies for developing learning opportunities that are appropriate for young children, including children with special needs and children from diverse cultural, ethnic and linguistic backgrounds, will be explored. Students analyze and evaluate curriculum that focuses on facilitating progress in the domains of a) social emotional development; b) cognitive development; c) language and communication development; d) adaptive behavior development and e) gross and fine motor development. Students also analyze and evaluate curriculum standards and frameworks for the young child’s acquisition of concepts, skills and dispositions that support the development of early competencies and interest in literacy, mathematics, the sciences, social studies, the arts and individual and group sports. Prerequisite: Admission into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. SPED 752 or its equivalent (may be taken concurrently). LEC.

This course is designed for teachers seeking the Adaptive certification to teach students with High-Incidence Disabilities (Adaptive). Students will learn how to select, administer, score, and interpret formal and informal assessments; make data-based instructional decisions for students with specific learning disabilities, with social and emotional
needs and disorders in behavior, mild mental retardation, and/or who experience other chronic health impairments. Individually chosen and administered tests, as well as high-stakes assessments, and will be discussed. Prerequisite: SPED 631 or SPED 731. LEC.

SPED 752. Overview of Early Childhood and Early Childhood Special Education. 3 Hours.
The course serves as an introduction to the profession including historical, philosophical, social and psychological foundations, awareness of value, ethical and legal issues, staff relations and the importance of becoming an advocate for children and families. Students will analyze/interpret trends in early education, including diversity, early childhood special education, family centered practices, legislation, public policy, and developmentally appropriate practice. The two key professional organizations, National Association for the Education of Young Children (NAEYC) and Division of Early Childhood for the Council for Exceptional Children (DEC), recommended practices serve as the foundation for understanding the roles, knowledge and competencies of the early educator. Prerequisite: Admittance into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. LEC.

SPED 753. Assessment in Early Education. 3 Hours.
This course examines the practice of gathering information for the purpose of making individual referral and instructional decisions for infants, toddlers, and young children with and without special needs. Discusses effective informal assessment techniques and emphasizes an ecological approach to gathering information. Introduces standardized assessment and screening instruments and provides an overview of the purposes and limitations of such tests. Prerequisite: Admittance into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. LEC.

SPED 755. Inclusive Strategies and Interventions for Preschoolers: _____ 3 Hours.
This is a methods course that covers instructional approaches and procedures that offer developmentally appropriate, effective and inclusive early intervention for preschool and kindergarten age children who experience developmental delays, disabling conditions or who are at-risk for developmental problems and disabilities. It is directed toward: (a) "how" to teach, or the technical components of developing and delivering effective instruction that provide access to the general early childhood curriculum within recognized approaches to early childhood education for young children, and (b) the "what" to teach, or the selection of developmentally and individually appropriate child objectives as well as specific materials and specialized instructional approaches. The relationship of instructional planning to state and federal mandates will also be considered. The course is primarily intended for persons who are currently working toward certification in the ECSE program area. Prerequisite: Admittance into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. SPED 752 (may be taken concurrently). LEC.

SPED 760. Introduction to Autism Spectrum Disorders. 3 Hours.
An introductory graduate-level course on autism spectrum disorders. It addresses characteristics of children and youth with autism spectrum disorders; trends and issues associated with autism spectrum disorders; and effective practices and strategies for structuring, managing, and promoting social skill development and social interactions among learners with autism spectrum disorders. LEC.

The purpose of this course is to provide an introduction to positive behavioral support (PBS). The lessons contained within this course include an overview of positive behavioral support, the basics of behavior, an introduction to specific positive behavioral support strategies, and a lesson on preventing problem behavior. LEC.

This course introduces current functional assessment methods that are used to build effective behavioral support plans. A strong functional assessment is at the heart of Positive Behavioral Support. After completing this course, you will have a better understanding of how to implement functional assessment methods in your classroom. LEC.

SPED 763. Development and Implementation of PBS Plans. 1 Hour.
A positive behavioral support plan (PBS) describes how features of the environment associated with problem behavior will be modified, what and how skills and strategies will be taught, and how individuals supporting a student will respond to both positive and problematic behavior. This course contains lessons on designing PBS plans, implementing PBS plans, and modifying and assessing PBS plans. LEC.

SPED 764. Intervention Strategies for PBS-I. 1 Hour.
The purpose of this course is to introduce interventions that can be used as part of a comprehensive positive behavioral support plan. An effective positive behavioral support plan contains multiple intervention strategies that address the function maintaining a student’s problem behavior. This course contains lessons addressing setting events, antecedent interventions, replacing problem behavior, and consequence interventions. LEC.

SPED 765. Intervention Strategies for PBS-II. 1 Hour.
The purpose of this course is to introduce three types of interventions that can be used in positive behavioral support. An effective positive behavioral support plan contains multiple intervention strategies that address the function maintaining a student’s problem behavior. This course contains a lesson on social skills education, crisis prevention, and interventions addressing physiological factors that influence a student’s problem behavior. LEC.

SPED 766. Redesigning Environmental Systems. 1 Hour.
The purpose of this course is to describe how positive behavioral support can be used to redesign the environment at a systems level. Considering the larger issues within a system including the broader environment, the values and beliefs held by staff, policies and procedures that promote ongoing learning, and collaborative problem solving processes within a school will improve implementation of long-term positive behavioral support efforts. This course contains lessons on classroom management, staff development, and school-wide discipline. LEC.

SPED 767. Creating Positive Lifestyles through PBS. 1 Hour.
One of the most important outcomes of a positive behavioral support plan is an increase in the quality of life for both the student and everyone within the student’s social network. The purpose of this course is to introduce topics related to creating positive lifestyles including person-centered planning, self-determination, and quality of life. LEC.

SPED 772. Participation with Children and Youth with Disabilities: _____ 3 Hours.
A course designed to provide field experiences with children and youth with disabilities in settings where educational services are provided. Students work directly with professionals such as special education teachers, general education teachers, therapists and other support personnel. Students participate as aides, tutors, and instructors with
individual and small groups of children and youth. Ongoing meetings with supervisors are designed to facilitate both reflection and strategic learning. FLD.

SPED 774. Education of Secondary and Post-Secondary Level Exceptional Students: _____, 1-3 Hours.
A course based on the problems and needs of secondary and post-secondary level handicapped students with a focus on curriculum alternatives (academic and vocational), instructional planning options, instructional methods and materials and educational and community resources. The focus is on both mildly and moderately handicapped students. Prerequisite: Appropriate section of SPED 735 which may be taken concurrently. LEC.

SPED 775. Practicum with Children and Youth with Disabilities: _____, 1-10 Hours.
Intensive diverse and direct teaching experiences with children and youth with disabilities in educational settings. This practicum is a requirement for provisional endorsement according to KSDE. Students who have completed SPED 775 cannot enroll in SPED 675 within in same curricular area. Prerequisite: Varies by topic. FLD.

SPED 785. Application of Assessment Information for Exceptional Children and Youth. 3 Hours.
An analysis of information derived from assessment instruments and procedures appropriate to measuring the social and cognitive development of exceptional children and youth. Provides experiences in determining assessment data required in the development of individualized educational programs (IEP). Attention is also given to the design of informal assessment procedures, specific to the needs of exceptional children and youth. Experience is provided in the preparation and presentation of assessment data for use in instructional planning conferences. Prerequisite: An undergraduate or graduate course in educational measurement, and SPED 760. LEC.

SPED 793. Psychology of Deafness. 2 Hours.
Reviews of the literature pertaining to psychological evaluations of the deaf and hard of hearing. Divergent views of deafness, type and degree of deafness are considered. Prerequisite: SPED 791. LEC.

SPED 798. Special Course: _____, 1-5 Hours.
A special course designed to address topical issues. LEC.

SPED 800. Classroom Intervention for Language Disorders of Handicapped Learners. 3 Hours.
Emphasis is given to milestones in normal language acquisition and variations from norms demonstrated by handicapped learners. Attention is also given to theoretical approaches to language training, formal and informal language assessment techniques, and instructional methods. Students design individualized instructional plans for incorporating language into the daily curriculum for handicapped learners. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 801. Practicum in School Psychology. 4 Hours.
Supervised practice in the application of psychological theory to educational problems. Includes work useful with exceptional children as well as experiences in the application of such areas as mental hygiene and learning theory to problems involving the total school population. (Same as PRE 910.) Prerequisite: Permission of advisor and instructor. FLD.

SPED 802. Advanced Practicum in School Psychology. 4 Hours.
A continuation of SPED 801 with special emphasis on remedial techniques associated with learning difficulties. (Same as PRE 911.) Prerequisite: SPED 801 and permission of advisor and instructor. FLD.

SPED 804. Designing Online Instruction for E-Learning Environments. 3 Hours.
The focus of the course is on the status of e-learning at the K-12 and postsecondary levels and the process of designing content for e-learning applications. Attention will be given to design features, content structuring, instructional management, evaluation, and collaboration in the process of working with technicians in the process of developing online curriculum and instruction. Prerequisite: None. A background in education is preferred. LEC.

SPED 805. Practicum in Individual Intelligence Testing. 4 Hours.
Practicum training, by arrangement, in administration and interpretation of test results for school situations with particular emphasis on the Stanford-Binet. Prerequisite: Permission of instructor. FLD.

SPED 809. Language Assessment and Instruction II: Learners with Hearing Loss. 3-6 Hours.
The purpose of this course is to prepare students to provide effective language assessment and instruction to students who are deaf or hard of hearing. This course focuses on the effect of hearing loss on assessment, language and reading, communication options, and instructional strategies. LEC.

SPED 810. Speech Assessment and Instruction III: Learners with Hearing Loss. 3-6 Hours.
This advanced method course provides curriculum design and instructional procedures appropriate for students at the elementary and middle school levels, including functional academic, social, and home and community life skills. NOTE: This is a 2 credit course to be offered during the first 8 weeks of a semester. It will precede SPED 814 in the same semester. Prerequisite: SPED 614 or SPED 714: Learning Styles and Instructional Accommodations. LEC.

SPED 811. Methods of Teaching Elementary School Subjects to the Deaf. 3 Hours.
Focus is on development of skills in adapting materials and methods of teaching science, math, social studies, spelling, and writing to hearing impaired students. Emphasis is placed on problems, trends and procedures used in career education specifically for the hearing impaired. Prerequisite: SPED 711. LEC.

SPED 812. Instructional Approaches in Inclusive Elementary Settings. 2 Hours.
This advanced method course provides curriculum design and instructional procedures for students at the secondary level, including career preparation and transition from school to adult life in the community. Prerequisite: SPED 614 or SPED 714: Learning Styles and Instructional Accommodations. LEC.

SPED 814. Instructional Approaches in Inclusive Secondary Settings. 2 Hours.
This advanced method course provides curriculum design and instructional procedures for students at the secondary level, including career preparation and transition from school to adult life in the community. Prerequisite: SPED 614 or SPED 714: Learning Styles and Instructional Accommodations. LEC.

SPED 839. Management Principles and Assessment Procedures for the Young or Severely Handicapped. 2-3 Hours.
Examines basic learning procedures and techniques that are essential to programming efforts with the severely or young handicapped. Includes assessment scales, writing instructional programs, measuring operant behavior and evaluating operant behavior. Task and concept analysis related to treatment programs. Prerequisite: Students in the Early
Childhood for the Handicapped program must enroll in one hour of practicum, SPED 775. Students in the Severely Handicapped Program must have completed SPED 726. LEC.

SPED 840. Program Planning in Special Education-Early Childhood. 3 Hours.
This course is designed to provide knowledge and skills to implement federal and state development mandates for special education and related services programs for young children from birth to five. It covers procedures for developing, implementing, and evaluating (a) instructional accountability for these children's participation in the general early childhood curriculum, (b) relationships between general and special early education personnel and programs; (c) roles and responsibilities; (d) interdisciplinary team planning including families; (e) coordinating, educating, and supervising paraeducators; and (f) general management responsibilities associated with instruction of young children with disabilities. Prerequisite: SPED 760 or SPED 860, which may be taken concurrently. LEC.

SPED 841. Advncd Methds&Asmnt:Lrngrng Strat&Cntnt Mastery Struggling Learners&Stdns High-Incidence Disabilit. 3 Hours.
This course is designed for graduate students enrolled in the Masters of Science Program with an emphasis in school-age populations primarily with high mild disabilities or seeking to obtain a license to teach students needing an adapted curriculum in Kansas. Course experiences focus on how to identify and implement evidenced-based practices designed to increase the success of students with mild disabilities in mathematics, social studies, science, and language arts through their participation in general and special education classrooms primarily in grades 4-12. This course emphasizes practices associated with understanding and evaluating curricular demands, monitoring student progress in content-area courses, providing tiered supports and accommodations in teaching, using assessment and grading alternatives, and incorporating the principles of explicit and strategic instruction to design instruction that will promote and enhance content-area learning. The course is intended for persons working toward the Kansas teaching license in teaching students needing an adapted curriculum. Prerequisite: SPED 730, SPED 741, admittance into the High Incidence Disabilities program in the Department of Special Education, or permission of the instructor. LEC.

SPED 842. Advanced Methods: Strategies for Students with Significant Sensory, Motor, and Health Needs. 2 Hours.
In this course, students learn assessment techniques and instructional strategies for teaching learners with sensory and/or motor impairments and complex medical needs. Students will learn use of residual and alternative senses; proper positioning and transfer for students with motor impairments, nutrition, hydration, and medical monitoring, and seizure activity. Students will develop appropriate goals and objectives in the sensory and motor areas, incorporate related services into inclusive educational settings, embed sensory and motor skills training into the general education curriculum, adapt materials and apply assistive technologies. Prerequisite: SPED 632 or SPED 732, and SPED 742. LEC.

SPED 843. Advanced Methods&Assessment:Strategies for Students with Significant Behavior, Social&Emotional Need. 3 Hours.
This course is designed to introduce educators and related service professionals to prevention and intervention related to a broad range of antisocial, aggressive, and behavioral problems. Approaches focus on understanding and addressing the precipitating factors related to inappropriate behavior, short-term approaches for immediate crises, and problem-solving strategies for longer-term change. Course content will include antisocial, aggressive, and violent behavior; options for classroom interventions; school and system-oriented interventions, and ethical and legal issues involved in various prevention and intervention approaches. Class work will focus on literature, research-based intervention approaches, and case work illustrating specific approaches and programs. Prerequisite: SPED 631 or SPED 731, SPED 741, and SPED 743. LEC.

SPED 844. Advanced Methods: Nonsymbolic and Symbolic Communication Assessment and Augmentation Strategies. 3 Hours.
This advanced course examines current principles and practices in the development of multi-modal communication programs for students who do not spontaneously use speech for effective communication. It provides a framework upon which communication programming decisions can be based and interventions and strategies can be developed. Prerequisite: SPED 632 or SPED 732, and SPED 742. LEC.

SPED 850. Curriculum Planning for Exceptional Children and Youth. 3 Hours.
Provides experiences in applying information on identifying learning and behavioral characteristics of exceptional children and youth. Practices in adapting curriculum materials to meet the needs of the handicapped. Prerequisite: SPED 725 and SPED 735. LEC.

SPED 851. Law and Special Education. 3 Hours.
This course focuses on laws that apply to special education, especially "Individuals with Disabilities Education Act" and "No Child Left Behind Act." The American legal system, particularly in respect to special education, the constitutional and statutory provisions of federal and state law, and judicial decisions interpreting those laws are reviewed. The course relates equal protection, procedural due process, and substantive due process doctrines to school practices affecting students with disabilities and examines the six principles of P. L. 94-142 and similar principles in state legislation. (Same as ELPS 856.) LEC.

SPED 852. Citizens with Disabilities, Public Policy, and Policy Analysis. 3 Hours.
Students to analyze public policy that affects citizens with disabilities, various models of analysis are brought to bear on federal policy (e.g., education, transportation, housing, institutionalization, protection and advocacy, medical assistance, employment, vocational rehabilitation, and others). This course is not valid for core requirement in history and/or philosophy of education. (Same as ELPS 857.) Prerequisite: SPED 851 or permission of instructor. LEC.

SPED 853. Professional Ethics, Public Values, and Citizens with Disabilities. 3 Hours.
This course addresses the issues that professionals (e.g., educators, physicians, allied health providers, attorneys, and others) and families of persons with disabilities face in the context of public values, attitudes, and rules of law. The issues include education, treatment and nontreatment. This course is not valid for core requirement in history and/or philosophy of education. (Same as ELPS 858.) Prerequisite: SPED 850, SPED 852 or permission of instructor. LEC.

SPED 854. Family and Interprofessional Collaboration in Special Education. 3 Hours.
This course is designed to provide knowledge and skills to implement federal and state mandates for special education and related services programs as they relate to building and maintaining relationships with families of students with disabilities, and developing effective school programs. It covers procedures for developing, implementing, and evaluating (a) instructional accountability for special education students' participation in district and state assessment; (b) relationships between general and special education personnel and programs; (c) roles and responsibilities; (d) interdisciplinary team planning including families; (e) coordinating, educating, and supervising paraeducators; and (f) general management responsibilities associated with instruction of children and youth with disabilities. Course topics will include collaboration...
early childhood to adulthood, (B) application of assessment information, transition programs and services. These will include: (a) transitions from living for persons with disabilities. Separate sections will be organized on occupational and vocational skills, and transition from school to adult life. The problems, trends, issues, and procedures used in planning life skills, programs with families, other service personnel and program support personnel. Development of instructional materials are emphasized. Procedures for planning or selecting curriculum/service models for programs, and alternative strategies for individualized group instruction. Methods for this course is designed to provide graduate students in special education with an overview of interagency collaboration; systems change efforts in transition services, and issues and trends in transition education and services.

SPED 875. Vocational Training and Employment. 3 Hours.
This course is designed to provide graduate students in special education and related areas with an overview of employment and vocational models for adolescents and young adults with disabilities. Emphasis is placed upon theory and practice related to career development, supported employment, working with businesses, and school and community vocational training models. Prerequisite: SPED 856 or SPED 858. LEC.

SPED 876. Assessment for Transition Planning. 3 Hours.
This course is designed to provide a review of psychometric principles and their utility as a foundation for quality assessment in transition assessment and planning for youth with disabilities. Formal and informal assessments across a range of transition planning areas are reviewed and evaluated. Skills in curriculum-based assessment, rating scales, situational assessment, and functional assessment are emphasized. Prerequisite: SPED 856 or permission of instructor. LEC.

SPED 877. Interagency Services for Transition to Adulthood. 3 Hours.
The purpose of this course is to provide an overview of interagency and community services and systems for adolescents and young adults with disabilities. Emphasis is placed on theory and practice related to interagency collaboration; systems change efforts in transition services; and state-of-art practices regarding supporting individuals with disabilities in community employment, living, socialization, community participation, and other areas of adult life. Prerequisite: SPED 856. LEC.

SPED 878. Education of Children and Youth with Disabilities II: 3 Hours._____. 3 Hours.
This course is designed to provide students with an overview of the education, employment, and community life of children and youth with disabilities. Emphasis is placed on the role of the special education coordinator and supervisor. Particular attention will be given to: program development; planning, organizing, and delivering inservice training; personnel recruitment, selection, and evaluation; program management; and program evaluation. Students will relate the topical content to their specific area of expertise in special education. Prerequisite: SPED 425 or SPED 875 and six additional semester hours in special education. LEC.

SPED 879. Interdisciplinary Programming for Children and Youth with Disabilities. 3 Hours.
This course is designed to provide graduate students in special education with a survey of disciplines which contribute to care and treatment of students with disabilities. Emphasis on professional roles, team participation, case management, and reporting and follow up. Disciplines include medicine, education, audiology, psychology, speech pathology, occupational therapy, physical therapy, music therapy and social work. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 880. Independent Study. 1-4 Hours.
Prerequisite: Consent of advisor and instructor. RSH.

SPED 881. Practicum with Children and Youth with Disabilities: 1-10 Hours.
This course is designed to provide intensive field work and direct teaching experiences with children and youth with disabilities in educational, residential, and clinical settings. Prerequisite: SPED 775. LEC.

SPED 882. Conference with Parents of Exceptional Children and Youth: 3 Hours.
A course to develop knowledge and skills in the techniques of interviewing and conferencing, with special application to the professional, legal and ethical problems related to working with parents of exceptional children. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 883. Coordination and Supervision of Services for Exceptional Children. 3 Hours.
An analysis of the role of the special education coordinator and supervisor. Particular attention will be given to: program development; planning, organizing, and delivering inservice training; personnel recruitment, selection, and evaluation; program management; and program evaluation. Students will relate the topical content to their specific area of expertise in special education. Prerequisite: SPED 425 or SPED 725 and six additional semester hours in special education. LEC.

SPED 884. Capstone Adaptive Program Seminar. 3 Hours.
This course is designed to be a culminating experience for Adaptive Program students who choose to complete their masters programs with a comprehensive masters examination instead of one of the other program options (i.e., project or thesis). Students will complete this course during the final semester of their programs. Participants will review current issues, evidence-based practices, home-school considerations, state and federal regulations, and Kansas standards regarding appropriate education for students with mild to moderate disabilities (i.e., Adaptive category designation). The course is a prerequisite for the departmental comprehensive examination in the Adaptive area. LEC.

SPED 885. Independent Study. 1-4 Hours.
Prerequisite: Consent of advisor and instructor. RSH.

SPED 886. Conference with Parents of Exceptional Children and Youth: 3 Hours.
A course to develop knowledge and skills in the techniques of interviewing and conferencing, with special application to the professional, legal and ethical problems related to working with parents of exceptional children. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 887. Advanced Application of Behavioral Management Techniques to Exceptional Children and Youth. 3 Hours.
Theory and principles of behavioral analysis. Emphasis will be given to observation, measurement, recording, and visual display techniques. Other topics include maintenance and generalization of behavior change. Students will be provided experience in the design and carrying out of research studies related to exceptional children and youth using principles and methods of behavioral analysis. Prerequisite: SPED 425 or SPED 725 and SPED 839. LEC.
SPED 915. Advanced Curriculum Development for Children and Youth with Disabilities. 3 Hours.
This course is designed to provide principles of development, needs assessment, evaluation and dissemination applied to curriculum projects. Analysis of organizational and conceptual features of major curriculum development projects for students with disabilities are addressed; participants design curriculum procedures. Prerequisite: Twelve semester hours in special education and a general curriculum course. LEC.

SPED 920. Management of Instructional Resources for Exceptional Children and Youth. 3 Hours.
Designed for individuals with responsibilities for the operation of instructional resource centers and educational programs serving exceptional children and youth. Experiences relate to: selection, acquisition, circulation, and management of special education instructional media/materials and the delivery of inservice training specific to their skills. Prerequisite: Professional preparation and/or experience in the Education of Exceptional Children and Youth and CI 616, Introduction to Educational Communications. LEC.

SPED 925. Medical Aspects of Handicapping Conditions. 3 Hours.
The organization of this course follows the chronology of an individual’s total development from genetic origin through fetal development, perinatal, infancy, childhood, and adolescence. Emphasis is given to etiology and implications of handicapping conditions on development. Attention is given to prevention, treatment, and habilitation or rehabilitation of various conditions. Prerequisite: SPED 725. LEC.

SPED 949. Specialist Research. 1-4 Hours.
RSH.

SPED 950. Civic Professionalism. 3 Hours.
This course is concerned with the relationship between professions and society in a democracy, and specifically, with the ethics and practices associated with the professions of education, special education, and other disability-related fields. Models of professionalism are compared and advantages of civic professionalism for individuals with disabilities and their families, the professions, and society as a whole are explored. Lessons drawn from disagreements over questions such as the nature and social consequences of the professions are used to broaden understanding of what professionalism could and should be in a democracy. Prerequisite: Admission to doctoral program. LEC.

SPED 970. Problems of Exceptionality: _____ 3 Hours.
An extensive analysis of the literature and research pertinent to issues in a given disability. Separate sections are organized for various disabilities. Students may enroll in more than one section as a part of a graduate program. Prerequisite: Three courses in special education or permission of instructor. LEC.

SPED 971. Organization and Administration of Services for Children and Youth with Disabilities. 3 Hours.
This course is designed to prepare administrators and prospective administrators for organizing and administering educational programs for students with disabilities. Major topics include a review of current trends in special education, state and federal guidelines and regulations, legal and financing aspects of special education, program planning, and administration of special services. (Same as ELPS 959.) Prerequisite: Nine hours of education including educational psychology and SPED 725. LEC.

SPED 972. Issues and Trends in Special Education I. 2 Hours.
This course is designed to assist first-year special education doctoral students organize and synthesize a conceptual and substantive map of the field of special education and introduce them to corresponding faculty research interests and resources. Emphasis is placed on the academic writing expectations and resources of the field, university, and department, and on building a cohort of students to address common issues and to provide a foundation for peer support throughout the doctoral program. Prerequisite: Admission to special education doctoral program or permission of instructor. LEC.

SPED 973. Issues and Trends in Special Education II. 2 Hours.
This capstone seminar is designed to assist advanced doctoral students synthesize and evaluate information on a broad range of current and historically significant special education issues and trends in preparation for comprehensive examinations and future professional roles. Substantively, its primary focus is issues and trends that affect the entire field or cut across several areas of study and practice. Its secondary focus is significant issues and trends that affect particular categorical or functional sub-areas of study and practice within the field. Prerequisite: Completion of nine doctoral courses in special education, including 4 of 6 departmental Core courses. LEC.

SPED 974. Issues and Trends: Students with Learning Disabilities. 3 Hours.
This doctoral level course will explore current issues related to characteristics, educational methods and curricula, and questions, problems, concerns and movements connected to the education of children and youth with learning disabilities, emotional/behavioral disorders and autism spectrum disorders. Prerequisite: Doctoral program admission or permission of instructor. LEC.

SPED 975. Advanced Practicum with Children and Youth with Disabilities: _____ 1-10 Hours.
Advanced development of conceptual and practical field-based skills. Prerequisite: SPED 775. FLD.

SPED 977. Learning Disabilities/Behavior Disorders Issues II. 3 Hours.
This course is designed to provide students an opportunity to engage in an extensive analysis of the literature and research pertinent to critical issues in the field of learning and behavioral exceptionality. Prerequisite: SPED 970 LD/BD Issues I; SPED 972 Trends and Issues in Special Education I. LEC.

SPED 980. Advanced Topics: _____ 1-3 Hours.
A special course of study to meet current needs of education professionals -- primarily for post-master’s level students. LEC.

SPED 981. Leadership and Systems Change. 3 Hours.
This course is designed to provide students with an overview of seminal leadership and systems change literature. Students analyze and apply the literature at the teacher, family, school building, district, state, and federal levels. Strategies for developing and mobilizing stakeholders to support the process of change will be covered. Prerequisite: Admission to doctoral program. LEC.

SPED 982. Preparing Future Faculty. 3 Hours.
This course is designed to give students an introduction and overview of academic life and the roles and responsibilities of an academic career. Its primary purpose is to help develop a realistic perspective of the expectations of academic life and the competencies required for a successful start in an academic career. Organized around the broad themes of understanding the academy, faculty life and work, and academic career paths, course content addresses the roles and responsibilities of faculty life in different types of institutions and the issues faculty face as they pursue their academic careers. The course offers an opportunity for students to critically review their doctoral program in the context of preparing them for a successful start in an academic career and to explore options for academic career choices. Prerequisite: Doctoral program admission. LEC.
SPED 983. Proposal Development. 3 Hours.  
This course is designed to teach a broad array of strategies associated with the development of successful proposals that will generate funds to support programmatic work. Among the topics covered in this course are sources of funding, strategies for conceptualizing and writing proposals, collaboration strategies, proposal peer-review process, and integrating proposal development activities into other professional responsibilities. Prerequisite: Admission to doctoral program and PRE 710. LEC.

SPED 984. School Reform and School Community Partnerships. 3 Hours.  
This is an interprofessional course in public policy and school reform that is concerned with current policy and systems transformations in education and child/family services, including educational, social and health service systems and the movement toward school-linked service integration strategies and family partnerships, called the "community school" movement. Issues connected with comprehensive school reform including the role of special education and mental health in this process will be emphasized. Particular emphasis will be placed on urban, multicultural issues affecting community schools. Prerequisite: Doctoral program admission or permission of instructor. LEC.

SPED 985. Naturalistic Research. 3 Hours.  
This course is designed to develop skills in naturalistic or constructivist research, while situating it theoretically within the broader framework of modern and postmodern social inquiry, and exploring its social, political and ethical implications. The course develops students' skills in using this form of interpretive qualitative research, provides a theoretical framework for selecting inquiry paradigms, compares and contrasts positivist and constructivist inquiry, and reviews social and political implications of constructivist inquiry. Prerequisite: Six hours of statistics, measurement, and/or large or small group research design. LEC.

SPED 986. Trends and Issues Associated with Online Instruction. 3 Hours.  
The course examines the opportunities, challenges, cautions, and demands of web-based instruction in higher education. It explores the policy implications of web-based instruction, development of collaborative teaming skills utilizing telecommunications resources, and the design and technical aspects of online instruction. Particular attention is given to the implications of online instruction for accommodating needs presented by diverse learners through strategies such as universal designs. Prerequisite: Admission to doctoral program or permission of instructor. LEC.

SPED 990. Small Sample Empirical Research Methods. 3 Hours.  
This course provides a detailed examination of research methods for advancing knowledge and validating hypothetically useful treatments in situations in which sufficient sample sizes to conduct formal experiments are lacking. This question of interest is better addressed by multiple observations of treatment effects over time, and/or the question is best addressed by taking a variety of observations of a single unit of interest. Specifically, this course will focus on the design and conduct of research in small samples. Prerequisite: Doctoral program admission or permission of instructor. LEC.

SPED 991. Family Outcomes in Special Education. 3 Hours.  
This course focuses on analyzing and synthesizing research literature focusing on intermediate outcomes (e.g., family-professional partnerships) and long-term outcomes (e.g., family quality of life) related to families of children, youth, and adults with disabilities. Key family theories are discussed and applied in the development and implementation of interventions that have potential to increase intermediate and long-term family outcomes. Prerequisite: Three courses in special education or permission of instructor. LEC.

SPED 992. Seminar in Early Childhood/Intervention. 3 Hours.  
This seminar examines research to support evidence-based practices that currently exist in early intervention and early childhood special education. The primary objective is to learn how to read and critically analyze studies that form the evidence base for several early intervention and early childhood special education practices. Primary goals of the class include the development of skills for evaluating research studies in early intervention and early childhood special education, and increasing knowledge of evidence-based practices in the early intervention literature. Prerequisite: Three courses in special education or permission of instructor. LEC.

SPED 995. Field Experience in: ______. 1-5 Hours.  
Supervised and directed experiences in selected educational settings. Instructors conduct regular observations and conference with students. Written summaries and evaluations of field experiences are prepared independently by the student, a representative of the cooperating agency, and the instructor. Open only to advanced students and field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. FLD.

SPED 996. College Teaching Experience. 2 Hours.  
This course is designed to prepare students for college teaching. Enrolled students shall engage in semester-long, planned, instruction that includes college classroom teaching under supervision. Planning shall be done with a member of the faculty who will supervise the experience. FLD.

SPED 997. Individual Study. 1-4 Hours.  
Prerequisite: Prior graduate course work in the area of study and consent of instructor. RSH.

SPED 998. Seminar in: ______. 1-4 Hours.  
LEC.

SPED 999. Doctoral Dissertation. 1-15 Hours.  
THE.

Master of Arts in Curriculum and Instruction

Master of Arts in Curriculum and Instruction

Programs in Curriculum and Instruction prepare students to complete advanced degrees by addressing critical issues in learning, teaching, and curriculum, from local to global levels.

The Master of Arts candidate completes graduate courses both in education and in a content field (i.e., history, English, mathematics). This provides the candidates an opportunity to gain advanced knowledge in education as well as a content specific area. There are three options for completing the Master of Arts degree: the thesis or project options with a minimum of 30 graduate credit hours culminating in successful defense of a thesis or project, or the master’s examination option with a minimum of 36 graduate credit hours culminating in successful completion of a comprehensive examination.

Students who select the thesis or project options must complete at least 20 of the credit hours in regular course work, as contrasted with independent study and similar enrollments. In the master’s examination
option, at least 26 credit hours in regular course work must be completed, as contrasted with independent study and similar enrollments.

Graduate Admission to the School of Education

Graduate programs in education are open to students with acceptable baccalaureate degrees, as specified by the admitting departments, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a grade-point average of at least 3.0 on a 4.0 scale; provisional admission requires a grade-point average of at least 2.5. Individual departments may require additional information and may have more stringent admission and retention requirements.

Special provisional admission categories are available to students who may not qualify under traditional admission criteria but can provide evidence of ability to work successfully at the graduate level, including experience in and commitment to the profession. Exceptions to established policies must be sought individually by petition to the Graduate Division of the School of Education.

See Admission in the Graduate Studies (p. 2059) section of the online catalog for more information.

Ordinarily, complete application materials should be received by July 1 for fall admission, December 1 for spring semester, and May 1 for summer session. Prospective graduate students should contact their departments for admission deadlines.

Graduate Admission to the Department of Curriculum and Teaching

In addition to general requirements for admission to graduate study in the School of Education, master’s degree programs in Curriculum and Instruction require completion of an appropriate undergraduate program and, in some instances, a teaching license. Materials describing all Curriculum and Instruction programs may be obtained from the department (http://ct.soe.ku.edu).

Deadlines for the master’s application (domestic) are March 15 for summer or fall admission, July 1 for fall admission, and October 1 for spring admission. Deadlines for the master’s application (international) are March 15 for summer or fall admission and October 1 for spring admission.

Admission to the Master of Arts in Curriculum and Instruction Program (Domestic Applicants)

The following materials must be submitted:

- A completed graduate application (http://www.graduate.ku.edu).
- 1 official transcript of all college records with at least a 3.0 grade-point average on a 4.0 scale.
- 3 letters of recommendation.
- A statement of career goals.
- A vita or résumé.

Admission to the Master of Arts in Curriculum and Instruction Program (International Applicants)

The following materials must be submitted:

- A completed International Student online graduate application (http://www.graduate.ku.edu).
- 2 official transcripts of all undergraduate credit including degree conferral (1 in the original language and 1 in English translation) with at least a 3.0 grade-point average on a 4.0 scale.
- 3 letters of recommendation.
- A statement of career goals.
- A vita or résumé.
- A statement of account balance from the applicant’s sponsor’s bank. This statement must be on bank stationery. There must also be a letter of support from his/her sponsor if the bank statement is not in the applicant’s name.
- For students whose first language is not English, official scores on the TOEFL of at least 92 total (IBT) with subscale scores of at least 23 in all areas must be submitted for consideration of admission to the Curriculum and Teaching Department. The IELTS official score is also accepted, with an overall score of at least 7.0, and no section score lower than 7.0. TOEFL is not required if applicant has a degree from an English-speaking university. Graduation with a baccalaureate degree or higher from a program taught in English at an international institution requires verification of English instruction from the university as part of the application and must be included as part of the application package. Verification must be in the form of an official letter from a department chair, dean or other university official stipulating English language as the method of instruction.

Please note: Meeting minimum admission standards does not guarantee admission to the program.

Once the graduate application has been submitted online, send any application materials that cannot be uploaded with the online application to the department:

The University of Kansas
Department of Curriculum and Teaching
Joseph R. Pearson Hall
1122 W. Campus Road, Room 321
Lawrence, KS 66045-3101

Contact us: ctdepartment@ku.edu

The Master of Arts (M.A.) in Curriculum and Instruction is available for individuals who hold the bachelor’s degree and seek to advance their knowledge and skills in their professional areas or areas of interest. There are three options for completing the M.A. degree: the thesis or project options with a minimum of 36 graduate credit hours culminating in successful defense of a thesis or project; or the master’s examination option with a minimum of 36 graduate credit hours culminating in successful completion of a comprehensive examination.

Areas of emphasis for advanced degrees in curriculum and instruction may include Curriculum Studies, Economics Education, Foreign Language Education, Gifted and Talented Education, Language Arts/English Education, Literacy Education, Mathematics Education, Science
Education, Social Studies Education, or Teaching English to Speakers of Other Languages (TESOL).

Materials describing the Master of Arts in Curriculum and Instruction program may be obtained from the department (http://ct.soe.ku.edu).

**Master of Science in Education in Curriculum and Instruction**

**Master of Science in Education in Curriculum and Instruction**

Programs in Curriculum and Instruction prepare students to complete advanced degrees by addressing critical issues in learning, teaching, and curriculum, from local to global levels.

The Master of Science in Education candidate completes graduate courses in Curriculum and Instruction. This provides the candidates an opportunity to:

- Develop a thorough understanding of the relationship of content and content-specific pedagogy
- Demonstrate an in-depth understanding of the content that they plan to teach and provide multiple explanations and instructional strategies so that all students learn
- Apply the ability to critique research and theories related to pedagogy and learning
- Convey an in-depth knowledge of research-based instructional strategies and technologies that help all students learn based on their own applied research in the classroom.

Students who select the thesis or project options must complete at least 20 of the credit hours in regular course work, as contrasted with independent study and similar enrollments. In the master’s examination option, at least 26 credit hours in regular course work must be completed, as contrasted with independent study and similar enrollments.

**Graduate Admission to the School of Education**

Graduate programs in education are open to students with acceptable baccalaureate degrees, as specified by the admitting departments, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a grade-point average of at least 3.0 on a 4.0 scale; provisional admission requires a grade-point average of at least 2.5. Individual departments may require additional information and may have more stringent admission and retention requirements.

Special provisional admission categories are available to students who may not qualify under traditional admission criteria but can provide evidence of ability to work successfully at the graduate level, including experience in and commitment to the profession. Exceptions to established policies must be sought individually by petition to the Graduate Division of the School of Education.

See Admission in the Graduate Studies (p. 2059) section of the online catalog for more information.

Ordinarily, complete application materials should be received by **July 1** for fall admission, **December 1** for spring semester, and **May 1** for summer session. Prospective graduate students should contact their departments for admission deadlines.

**Graduate Admission to the Department of Curriculum and Teaching**

In addition to general requirements for admission to graduate study in the School of Education, master’s degree programs in Curriculum and Instruction require completion of an appropriate undergraduate program and, in some instances, a teaching license. Materials describing all Curriculum and Instruction programs may be obtained from the department (http://ct.soe.ku.edu).

Deadlines for the master’s application (domestic) are **March 15** for summer or fall admission, **July 1** for fall admission, and **October 1** for spring admission. Deadlines for the master’s application (international) are **March 15** for summer or fall admission and **October 1** for spring admission.

**Admission to the Master of Science in Education in Curriculum and Instruction Program (Domestic Applicants)**

The following materials must be submitted:

- A completed graduate application (http://www.graduate.ku.edu).
- 1 official transcript of all college records with at least a 3.0 grade-point average on a 4.0 scale.
- 3 letters of recommendation.
- A statement of career goals.
- A vita or résumé.

**Admission to the Master of Science in Education in Curriculum and Instruction Program (International Applicants)**

The following materials must be submitted:

- A completed International Student online graduate application (http://www.graduate.ku.edu).
- 2 official transcripts of all undergraduate credit including degree conferral (1 in the original language and 1 in English translation) with at least a 3.0 grade-point average on a 4.0 scale.
- 3 letters of recommendation.
- A statement of career goals.
- A vita or résumé.
- A statement of account balance from the applicant’s sponsor’s bank. This statement must be on bank stationery. There must also be a letter of support from his/her sponsor if the bank statement is not in the applicant’s name.
- For students whose first language is not English, official scores on the TOEFL of at least 92 total (IBT) with subscale scores of at least 23 in all areas must be submitted for consideration of admission to the Curriculum and Teaching Department. The IELTS official score is also accepted, with an overall score of at least 7.0, and no section score lower than 7.0. TOEFL is not required if applicant has a degree from an English-speaking university. Graduation with a baccalaureate degree or higher from a program taught in English at an international institution requires verification of English instruction from the university as part of the application and must be included as part of the application package. Verification must be in the form of an official letter from a
department chair, dean or other university official stipulating English language as the method of instruction.

Please note: Meeting minimum admission standards does not guarantee admission to the program.

Once the graduate application has been submitted online, send any application materials that cannot be uploaded with the online application to the department:

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Master of Science in Education in Curriculum and Instruction

The Master of Science in Education (M.S.Ed.) in Curriculum and Instruction is available for individuals who hold the bachelor’s degree and seek to advance their knowledge and skills in their professional areas or areas of interest. There are three options for completing the M.S.Ed. degree: the thesis or project options with a minimum of 30 graduate credit hours culminating in successful defense of a thesis or project, or the master’s examination option with a minimum of 36 graduate credit hours culminating in successful completion of a comprehensive examination.


Materials describing the Master of Science in Education in Curriculum and Instruction program may be obtained from the department (http://ct.soe.ku.edu).

Doctor of Education in Curriculum and Instruction

Introduction

The Doctor of Education (Ed.D.), Curriculum and Instruction program prepares graduates for leadership positions working with teachers and other education professionals in a variety of settings that may include school districts, colleges and universities, state and federal education agencies, and educational companies. The Ed.D. program places an emphasis on preparing leaders who can translate theory and research into practice and to solve practical problems in an educational context. Graduates are prepared to be leaders in the profession by effectively fulfilling responsibilities in the areas of teaching, research, and service. The Ed.D. is a cohort program with required courses to help graduates achieve these goals; further, graduates work with an advisor and committee members to choose electives based on individual career goals.

Graduate Admission to the School of Education

Graduate programs in education are open to students with acceptable baccalaureate degrees, as specified by the admitting departments, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a grade-point average of at least 3.0 on a 4.0 scale; provisional admission requires a grade-point average of at least 2.5. Individual departments may require additional information and may have more stringent admission and retention requirements.

Special provisional admission categories are available to students who may not qualify under traditional admission criteria but can provide evidence of ability to work successfully at the graduate level, including experience in and commitment to the profession. Exceptions to established policies must be sought individually by petition to the Graduate Division of the School of Education.

See Admission in the Graduate Studies (p. 2059) section of the online catalog for more information.

Ordinarily, complete application materials should be received by July 1 for fall admission, December 1 for spring semester, and May 1 for summer session. Prospective graduate students should contact their departments for admission deadlines.

Graduate Admission to the Department of Curriculum and Teaching

In addition to general requirements for admission to graduate study in the School of Education, doctoral programs in Curriculum and Instruction require completion of appropriate undergraduate and graduate degree programs. Materials describing all Curriculum and Instruction programs may be obtained from the department (http://ct.soe.ku.edu).

Deadlines for doctoral application (domestic and international) are March 15 for summer admission and October 1 for spring admission.

Admission to the Doctor of Education, Curriculum and Instruction Program (Domestic Applicants)

The following materials must be submitted:

- A completed online graduate application (http://www.graduate.ku.edu/application-process).
- 1 official transcript of all previous undergraduate and graduate credit.
- Graduate Record Examination (GRE) general test scores (minimum scores of 153 on the Verbal, 144 on the Quantitative, and 4.0 on the General Analytical Writing sections).
- A statement of career goals addressing how this degree will help meet professional aspirations and areas of interest in curriculum and instruction.
- 3 letters of recommendation; the master’s advisor is appropriate to include.
- Writing sample: an article, paper or other composition originally written by the applicant. An appropriate length is 8 to 10 pages.
- A vitae or resume.
Admission to the Doctor of Education, Curriculum and Instruction Program (International Applicants)

The following materials must be submitted:

- A completed International Student online graduate application (http://www.graduate.ku.edu/application-process).
- 2 official transcripts of all undergraduate and graduate credit including degree conferral (1 in the original language and 1 in English translation). Doctoral applicants must have earned a Master’s degree or equivalent with at least a 3.5 grade-point average on a 4.0 scale.
- Graduate Record Examination (GRE) general test scores (minimum scores of 153 on the Verbal, 144 on the Quantitative, and 4.0 on the General Analytical Writing sections).
- A statement of career goals addressing how this degree will help meet professional aspirations and areas of interest in curriculum and instruction.
- 3 letters of recommendation; the master’s advisor is appropriate to include.
- Writing sample: an article, paper or other composition originally written by the applicant. An appropriate length is 8 to 10 pages.
- A vitae or resume.
- A statement of account balance from the applicant’s sponsor’s bank. This statement must be on bank stationery. There must also be a letter of support from his/her sponsor if the bank statement is not in the applicant’s name.
- For students whose first language is not English, official scores on the TOEFL of at least 92 total (IBT) with subscale scores of at least 23 in all areas must be submitted for consideration of admission to the Curriculum and Teaching Department. The IELTS official score is also accepted, with an overall score of at least 7.0, and no section score lower than 7.0. TOEFL is not required if applicant has a degree from an English-speaking university. Graduation with a baccalaureate degree or higher from a program taught in English at an international institution requires verification of English instruction from the university as part of the application and must be included as part of the application package. Verification must be in the form of an official letter from a department chair, dean or other university official stipulating English language as the method of instruction.

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1122 W. Campus Road, Room 321
Lawrence, KS 66045-3101

Contact us: ctdepartment@ku.edu

Doctor of Education, Curriculum and Instruction

The Doctor of Education (Ed.D.), Curriculum and Instruction program prepares graduates for leadership positions working with teachers and other education professionals in a variety of settings that may include school districts, colleges and universities, state and federal education agencies, and educational companies.


Doctoral aspirants should develop a program plan at the first enrollment or promptly thereafter. The program plan must include:

- A minimum of 27 graduate credit hours in Curriculum and Instruction
- A minimum of 9 graduate credit hours in Research Skills
- Completion of the Responsible Conduct of Research requirement
- Completion of a structured 3-credit-hour practicum in a supervised internship setting
- Successful completion of written and oral comprehensive exams
- A minimum of 12 credit hours of dissertation.

Although the courses and the research leading to the Ed.D. are necessarily specialized, the attainment of this degree should not be an isolated event in the enterprise of learning. A copy of this program should be filed with the Graduate Division of the School of Education.

Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current Lawrence and Edwards Campus policies on Doctoral Research Skills and Responsible Scholarship (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm) are listed in the KU Policy Library.

Doctor of Philosophy in Curriculum and Instruction

Introduction

The Doctor of Philosophy (Ph.D.), Curriculum and Instruction program prepares graduates for faculty positions at research or teaching universities and for positions as research scientists and post-doctoral fellows at universities or research centers. The Ph.D. program places an emphasis on preparing graduates whose primary interests are to engage in research and scholarship to advance the field of curriculum and instruction. Graduates are prepared to be leaders in the profession by effectively fulfilling responsibilities in the areas of research and scholarship, teaching, and service. Further, the Ph.D. in Curriculum and Instruction may include a concentration discipline such as Curriculum Studies, Economics Education, Foreign Language Education, Gifted and Talented Education, Language Arts/English Education, Literacy Education, Mathematics Education, Science Education, Social Studies Education, or Teachers of English toSpeakers of Other Languages (TESOL). Graduates work closely with an advisor and committee members to tailor a program based on their individual career goals.

Graduate Admission to the School of Education

Graduate programs in education are open to students with acceptable baccalaureate degrees, as specified by the admitting departments,
whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a grade-point average of at least 3.0 on a 4.0 scale; provisional admission requires a grade-point average of at least 2.5. Individual departments may require additional information and may have more stringent admission and retention requirements.

Special provisional admission categories are available to students who may not qualify under traditional admission criteria but can provide evidence of ability to work successfully at the graduate level, including experience in and commitment to the profession. Exceptions to established policies must be sought individually by petition to the Graduate Division of the School of Education.

See Admission in the Graduate Studies (p. 2059) section of the online catalog for more information.

Ordinarily, complete application materials should be received by July 1 for fall admission, December 1 for spring semester, and May 1 for summer session. Prospective graduate students should contact their departments for admission deadlines.

Graduate Admission to the Department of Curriculum and Teaching

In addition to general requirements for admission to graduate study in the School of Education, doctoral programs in Curriculum and Instruction require completion of appropriate undergraduate and graduate degree programs. Materials describing all Curriculum and Instruction programs may be obtained from the department (http://ct.soe.ku.edu).

Deadlines for doctoral application (domestic and international) are March 15 for summer or fall admission and October 1 for spring admission.

Admission to the Doctor of Philosophy, Curriculum and Instruction Program (Domestic Applicants)

The following materials must be submitted:

- A completed online graduate application (http://www.graduate.ku.edu/application-process).
- 1 official transcript of all previous undergraduate and graduate credit. Doctoral applicants must have earned a Master’s degree or equivalent with at least a 3.5 grade-point average on a 4.0 scale.
- Graduate Record Examination (GRE) general test scores (minimum scores of 153 on the Verbal, 144 on the Quantitative, and 4.0 on the General Analytical Writing sections).
- A statement of career goals addressing how this degree will help meet professional aspirations and areas of interest in curriculum and instruction.
- 3 letters of recommendation; the master’s advisor is appropriate to include.
- Writing sample: an article, paper or other composition originally written by the applicant. An appropriate length is 8 to 10 pages.
- A vitae or resume.

A statement of account balance from the applicant’s sponsor’s bank. This statement must be on bank stationery. There must also be a letter of support from his/her sponsor if the bank statement is not in the applicant’s name.

For students whose first language is not English, official scores on the TOEFL of at least 92 total (IBT) with subscale scores of at least 23 in all areas must be submitted for consideration of admission to the Curriculum and Teaching Department. The IELTS official score is also accepted, with an overall score of at least 7.0, and no section score lower than 7.0. TOEFL is not required if applicant has a degree from an English-speaking university. Graduation with a baccalaureate degree or higher from a program taught in English at an international institution requires verification of English instruction from the university as part of the application and must be included as part of the application package. Verification must be in the form of an official letter from a department chair, dean or other university official stipulating English language as the method of instruction.

Please note: Meeting minimum admission standards does not guarantee admission to the program.

Once the graduate application has been submitted online, send any application materials that cannot be uploaded with the online application to the department:

The University of Kansas
Department of Curriculum and Instruction
Joseph R. Pearson Hall
1122 W. Campus Road, Room 321
Lawrence, KS 66045-3101

Contact us: ctedpartment@ku.edu

Doctor of Philosophy, Curriculum and Instruction

The Doctor of Philosophy (Ph.D.) in Curriculum and Instruction program prepares graduates for faculty positions at research or teaching universities and for positions as research scientists and post-doctoral fellows at universities or research centers.

Areas of emphasis for advanced degrees in curriculum and instruction may include Curriculum Studies, Economics Education, Foreign Language Education, Gifted and Talented Education, Language Arts/English Education, Literacy Education, Mathematics Education, Science
Education, Social Studies Education, or Teachers of English to Speakers of Other Languages (TESOL).

Doctoral aspirants should develop a program plan at the first enrollment or promptly thereafter. The program plan must include:

- A minimum of 36 graduate credit hours in Curriculum and Instruction (18 of these hours must be at the 800 level or above and at least six of these hours must outside of the area of study)
- A minimum of 12 graduate credit hours in Research Skills (basic and applied research skills, including statistics, research design, and related requirements appropriate to the degree)
- Completion of EDUC 800, Education as a Field of Scholarship
- Completion of the Responsible Conduct of Research requirement
- Documentation of a supervised college teaching experience (completed during the student's doctoral program)
- Successful completion of written and oral comprehensive exams
- A minimum of 18 credit hours of dissertation.

Although the courses and the research leading to the Ph.D. are necessarily specialized, the attainment of this degree should not be an isolated event in the enterprise of learning. A copy of this program should be filed with the Graduate Division of the School of Education.

Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current Lawrence and Edwards Campus policies on Doctoral Research Skills and Responsible Scholarship (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm) are listed in the KU Policy Library.

**Courses**

**ELPS 200. Making Connections Between Schools and Community. 3 Hours.**
This course is designed to increase the students’ awareness of learning in the classroom and to familiarize them with the role of the school and the community. Institutions and resources that support children and families will be addressed through large and small group sessions and field experiences. Emphasis is given to the diverse nature of schools, communities, and their populations. In addition, the course will acclimate students with the School of Education programs, admissions procedures, and curriculum offerings. Successful completion of this course does not guarantee eventual admission of the School of Education's Teacher Education Program. Prerequisite: Successful completion of CT 100. LEC.

**ELPS 250. Education and Society. 3 Hours. AE41/AE51.**
This course provides students with an introduction to key ideas and socio-historical forces that have shaped the contemporary educational system in the United States, drawing upon the disciplines of the historical, philosophical, and social foundations of education. The development of school and community relations will be a point of emphasis. LEC.

**ELPS 301. Educational Technology in Elementary-Middle Education. 3 Hours.**
The focus of this course is on developing integration strategies and acquiring computer skills for using instructional technology and educational software, digital media, and information technologies appropriate to elementary and middle school teaching environments. Students will gain expertise in (a) the selection of appropriate instructional technologies and digital media for use in the classroom; (b) production of technology-based instructional materials; and (c) the evaluation and validation of a variety of electronic information sources. Prerequisite: Admission to the Teacher Education Program. LEC.

**ELPS 302. Educational Technology in Middle/Secondary Education. 3 Hours.**
The focus of this course is on developing integration strategies and acquiring computer skills for using instructional technology and educational software, digital media, and information technologies appropriate to middle school and high school teaching environments. Students will gain expertise in (a) the selection of appropriate instructional technologies and digital media for use in the classroom; (b) production of technology-based instructional materials; and (c) the evaluation and validation of a variety of electronic information sources. Prerequisite: Admission to the Teacher Education Program. LEC.

**ELPS 437. Politics and Governance of Public Schools. 3 Hours.**
This course introduces students not pursuing K-12 teaching or administrative positions to the organizational and legal foundations of the American educational system. LEC.

**ELPS 450. Foundations of Education. 3 Hours.**
A historical approach to the major social and philosophical foundations of American education, with an emphasis on the relation of educational theory to classroom practice. LEC.

**ELPS 490. Senior Internship I. 4 Hours.**
Supervised field experience in an on-site educational setting that provides the student an opportunity to study and participate in the professional activities of a designated educational setting with emphasis on the planning, implementation, and evaluation of such activities. Regular conferences with faculty to evaluate student progress will be scheduled. Prerequisite: Admission to the non-certificate baccalaureate program. LEC.
ELPS 491. Senior Internship II. 4 Hours.
Supervised field experience in an on-site educational setting with increasing emphasis placed on an integration of formal learning and in site experience. Regular conferences with faculty will be scheduled. Prerequisite: Admission to the non-certificate baccalaureate program. FLD.

ELPS 497. Independent Study I-. 1-2 Hours.
Only one enrollment permitted each semester. A maximum of four hours will apply toward the bachelor’s degree. Prerequisite: Recommendation of advisor and consent of instructor. IND.

ELPS 537. The Governance and Organization of Schools. 3 Hours.
The course provides the prospective teacher with an overview of the legal foundations of the American educational system including the ways schools and school districts are organized and run; the role of various levels of government and various governmental and educational officials in controlling education; the rights of students and teachers; the terms, conditions, and responsibilities of teacher employment. Prerequisite: Admission to the Teacher Education Program. LEC.

ELPS 540. Ethics in Education. 3 Hours.
This course examines practices and policies occurring in K-12 and postsecondary educational institutions through the lenses provided by ethics. During the semester, we will read, discuss, and write about ethics in education from both theoretical and practical perspectives. Prerequisite: Junior standing or higher. The course is suitable for advanced undergraduate and master’s degree seeking students. LEC.

ELPS 550. Childhood and Youth in America. 3 Hours.
A study of the changing role and character of childhood and youth as stages of life in the context of American educational and cultural history. LEC.

ELPS 598. Special Course:. 1-5 Hours.
A special course of study to meet current needs of education students, primarily for undergraduates. LEC.

ELPS 627. Growing Up in Urbanizing America. 3 Hours.
A study of the changing role and character of childhood and youth as stages of life in the context of American urban and social history, with particular attention to education and human development. Prerequisite: Junior standing or higher. LEC.

ELPS 652. Residential Staff Skill Enhancement and Administration. 2-3 Hours.
This special course of study in residential staff skill enhancement and administration is an exploration of concepts and skills necessary for becoming an effective paraprofessional staff member in a residential living unit. Each class session will include presentations and experiential learning on topics to develop or improve interpersonal skills and skill in dealing with special concerns. The course is required or recommended for all residence and scholarship hall staff and open to upperclass or graduate students interested in student personnel work. LEC.

ELPS 715. Understanding Research in Education. 3 Hours.
This course introduces the concepts and skills involved in understanding and analyzing research in education and related areas. The course provides an overview of basic, general knowledge of various research methodologies. Students should expect to study much of this material in greater depth through additional course work before being prepared to conduct independent research. However, this course should enhance their ability to locate, read, comprehend, and critically analyze research articles and reports. Topics in the course include qualitative and quantitative methods and designs, historical and descriptive research, and program evaluation. Prerequisite: Admission to graduate standing in the School of Education. LEC.

ELPS 750. Principalship. 3 Hours.
An introduction to the role, responsibilities, expectations and major duties of elementary, middle, and high school building administrators. Students are presented typical problems faced by school administrators through simulations and role playing and are expected, through reflection and discussion, to develop viable solutions. LEC.

ELPS 751. Educational Finance. 3 Hours.
A description and analysis of national, state, and local strategies for the financial support of education, utilizing social, economic, legal, and political frameworks. Particular attention to the principles of revenue acquisition and distribution at the local and state level for public school operations, with analysis of how these principles apply to Kansas. Designed for the wide variety of educational practitioners regardless of organizational and degree levels. Prerequisite: Admission to graduate study. LEC.

ELPS 752. Education Law. 3 Hours.
A study of legal principles and issues affecting educational policy making and practice with emphasis on student and teacher rights, equity, and the administration of schools. Prerequisite: Admission to graduate study. LEC.

ELPS 753. Introduction to Personnel Administration in Education. 3 Hours.
An overview of the theory and practice of personnel administration. The course focuses on the processes of recruitment, selection, training and development, evaluation, compensation, equal employment opportunity, and labor relations. LEC.

ELPS 754. Analysis of Administrative Problems. 3 Hours.
An introduction to various methods of problem identification; strategies of information gathering; schemes for the analysis of qualitative and quantitative data; models of problem resolution and decision making; and communication methods appropriate for differing audiences. Students will build basic computer, library, decision and communication skills useful in future administrative practice and subsequent coursework. LEC.

ELPS 755. Human Resource Management. 3 Hours.
An overview of the theory and practice of the management, recruitment, selection, compensation, placement, and development of personnel in the school setting. LEC.

ELPS 757. Education in American Society. 3 Hours.
A study of the roles and goals of education in the United States, the interrelationships among schools and students, teachers, administrators, and parents, and the culture of schools. LEC.

ELPS 760. Integration of Educational Technology. 3 Hours.
This course focuses on strategies for integrating educational technology in K-12 schools, universities, government or industry. Topics include applying technology in: a) understanding basic technology operations b) planning and designing learning experiences, c) curriculum development, d) assessment and evaluation e) productivity and professional practices, and considering f) social, ethical, legal, and human issues. Students produce a comprehensive electronic portfolio that describes the theoretical perspectives that guide their technology integrations strategies and evidence that demonstrates their competencies. LEC.

ELPS 772. Philosophical Problems in Comparative Education. 3 Hours.
A study of significant philosophical problems encountered when comparing educational systems. Special emphasis on the implications of axiological analysis for educational theory and practice in different areas of the world. Relationships among the social sciences, philosophy, and the international or cross-cultural venture in education. The importance
of systematic value-theory in comparative research and international education. LEC.

ELPS 773. School and Society in Comparative Education. 3 Hours. Analysis of the role of social science in comparative education as perceived by different philosophies or schools of thought, such as Marxism, phenomenology, empiricism, pragmatism, and linguistic analysis. LEC.

ELPS 774. Modern Educational Theorists. 3 Hours. An in-depth study of prominent European thinkers who have contributed to educational theory and practice (e.g., Rousseau, Pestalozzi, Herbert, Freibell, Montessori, Nietzche, Freud, Piaget, Ortega Gassit, etc.). Prerequisite: ELPS 770 or ELPS 771 is recommended. LEC.

ELPS 777. Problems in Contemporary Educational Theory. 3 Hours. Select explorations into such provocative and problematic trends in current educational theory as Marxism, behaviorism, phenomenology, existentialism, analytic philosophy, hedonism, nonverbal education, etc. Prerequisite: ELPS 770 or ELPS 771 is recommended. LEC.

ELPS 780. Introduction to Higher Education Administration. 3 Hours. This course is designed for beginning master's degree students and for doctoral students who have had no previous administrative experience in college or university settings. Students will be introduced to the function and responsibilities of major administrative divisions of a college or university and to the major tasks of administration: planning, programming, budgeting, staffing, managing. An emphasis will be placed on current issues facing higher education and students will be introduced to the major journals of the field. As part of the course requirements, students will spend some time familiarizing themselves with one or more administrative offices on a college campus. Prerequisite: Admission to study in higher education at the graduate level. LEC.

ELPS 781. Student Affairs Administration in Higher Education. 3 Hours. This course is designed to include the study of the history and development of student personnel services in higher education, the role and function of the student affairs administrator, contemporary issues and problems, and an understanding of the organization and role of student affairs administration within higher education settings. Prerequisite: Admission to the higher education program or permission of instructor. LEC.

ELPS 798. Special Course. 1-5 Hours. A special course of study to meet current needs of education professionals – primarily for graduate students. LEC.

ELPS 810. Educational Media Development. 3 Hours. Media surrounds today's learning environments. How can you effectively engage learners with multimedia, meaningful interactions, and motivational strategies? This course will take a hands-on practical approach to creating interactive educational multimedia products including, but not limited to, digital images, movies, podcast, Web publishing and educational games. Also, students will learn about the underlying learning theories of educational media development. LEC.

ELPS 811. Constructivist Learning Technologies. 3 Hours. This course explores the design and use of new educational technologies to support constructivist learning. Throughout the course, students will (1) get hands-on experiences with emerging educational technologies, (2) examine how the underlying learning theories are reified into concrete learning environments, and (3) analyze how the affordances of new technologies (e.g., modeling and visualization) can facilitate the constructivist learning processes. This course is suitable for students who wish to develop greater knowledge about the ways emerging computer technologies can empower constructivist learning. Prerequisite: CT 770. LEC.

ELPS 812. Design of Educational Technology. 3 Hours. This course introduces instructional design theory and production techniques for developing educational technology resources and systems. Students apply their understandings of design and education theories as they work in teams to develop real-world applications of educational technology for specific clients. LEC.

ELPS 820. Practicum in Educational Technology. 1-3 Hours. Supervised practice in a media center in selection, designing, producing, and/or managing instructional materials. Prerequisite: CT 770 and CT 871. FLD.

ELPS 830. Foundations of Multicultural Education. 3 Hours. This class provides students with an understanding multicultural education as an instructional concept, educational reform movement, and systemic process meant to ensure educational equity for all people, especially those who have been inadequately served and/or historically discriminated against because of their racial/ethnic or linguistic backgrounds, gender or sexual orientation, socio-economic status, and special needs. Students will examine different theoretical approaches that inform the practice of multicultural education and explore the contribution of various social sciences to the field. LEC.

ELPS 831. Sociology of Education. 3 Hours. This course will provide an introduction to the sociology of education. This course is designed to fulfill the doctoral core requirement for social, historical and philosophical foundations of education. Specific topics will include: conflict over the purposes of education; how those purposes are or are not-translated into actual classroom life; how educational systems have developed historically, how status, and more specifically race, class and gender relations, affect student experiences; and contemporary policy and reform movements. LEC.

ELPS 832. History of Educational Thought. 3 Hours. An examination of the major ideas that have shaped practice in the schools. Emphasis is placed on assisting the student with the development of a coherent and consistent personal philosophy of education upon which administrative practice can be based. LEC.

ELPS 833. Social Context of Urban Education. 3 Hours. This course examines education in urban communities through the foundational disciplines of history, philosophy, and the social sciences. Particular attention is given to ways in which the changing social and political contexts of American cities affect the educational process. LEC.

ELPS 834. History and Philosophy of Education. 3 Hours. A comprehensive study of influential persons and movements in the development of educational thought, Eastern and Western, from ancient times to the present. Emphasis on those ideas and historical roots which are relevant to contemporary issues in teaching and school administration. LEC.

ELPS 835. Philosophy of Education. 3 Hours. An analytic inquiry into basic philosophical positions and issues relevant to education. The difference between ELPS 770 and ELPS 771 is that the latter is topically arranged and does not necessarily follow a historical sequence; it normally proceeds by problems and schools of thought. LEC.

ELPS 837. History of Education and Culture in America. 3 Hours. A study of the relation between education and culture in America from colonial times to the present. American schools are considered in the wider context of cultural and social change. LEC.
ELPS 838. History of Childhood and Youth in America. 3 Hours.
An exploration of changing attitudes toward children and youth, their subjective experience, their impact on adults, and the conditions that shaped their development. Special attention will be given to the relationship between the changing nature of childhood as a social and cultural category and the development of the education profession. LEC.

ELPS 839. Historical Inquiry in Education. 3 Hours.
This course will provide an introduction to the methodology of historical research in education. This course is designed to fulfill the doctoral core requirement for research methods in education for students interested in doing this type of research. Specific topics will include: the historiography of education; working with primary and secondary documents; oral history as method and documentation, quantitative approaches to history; constructing historical narratives; the question of interpretation. LEC.

ELPS 850. Educational Facilities. 3 Hours.
A study of the principles and processes of developing functional educational facilities. Special emphasis placed on the educational planning that precedes and provides the basis for architectural planning. Among topics considered are plant utilization analysis, enrollment projections, site and equipment needs, fiscal and legal constraints, environmental factors, and the development of educational specifications. Designed for both building and central office level administrators. Prerequisite: Admission to graduate study. LEC.

ELPS 851. Supervision of Student Teaching. 2 Hours.
A study of the organization and functions of student-teaching programs. Emphasis on the development of effective interpersonal relationships among school administrators, cooperating teachers, university supervisors, and student teachers. Designed for both administrative and instructional personnel. Prerequisite: Admission to graduate study. LEC.

ELPS 852. School Resource Management. 3 Hours.
An examination of the sources and uses of fiscal resources in education including underlying concepts from economic theory, the impact of values on fiscal policy, state funding formulas, and school budgeting and accounting practices. LEC.

ELPS 853. Staff Evaluation and Development. 3 Hours.
An examination of current trends in personnel evaluation with a focus on clinical supervision and adult development. Students will participate in simulation exercises to develop skills in classroom observation, conferencing techniques, evaluation of teaching artifacts, and the construction of staff development plans. LEC.

ELPS 854. The Student in Society. 3 Hours.
A study of children and youth with particular emphasis on demographic characteristics of the population served by schools and implications of those characteristics for schools and schooling. LEC.

ELPS 855. Teacher Evaluation. 3 Hours.
Teacher Evaluation is based on clinical, empirical and theoretical information related to effective teacher evaluation behavior from the administrative perspective. It is intended to provide exposure to competencies essential to effective evaluation of teaching performance. Evaluation knowledge, skill and performance are acquired and developed through reading, discussion, active teaching of content related to teacher evaluation and practicing observation, recording and conferencing skills. A variety of approaches is considered, but behaviorally-anchored measurement of teaching behavior is emphasized. Opportunities and needs for improvement are identified with the assistance of video-taped diagnosis of conferencing behavior. Prerequisite: Two of the following: ELPS 750, ELPS 752, ELPS 753, or CT 840. LEC.

ELPS 856. Law and Special Education. 3 Hours.
This course focuses on laws that apply to special education. The American legal system, particularly in respect to special education, the constitutional and statutory provisions of federal and state law and the judicial decisions interpreting those laws are reviewed. The course relates equal protection, procedural due process, and substantive due process doctrines to school practices affecting disabled children and examines the sex principles of P.L. 94-142 and similar principles in state legislation. This course is not the equivalent of or a substitute for ELPS 752. (Same as SPED 851.) Prerequisite: SPED 750 or permission of instructor. LEC.

ELPS 857. Disabled Citizens, Public Policy and Policy Analysis. 3 Hours.
To train students to analyze public policy that affects disabled citizens, various models of analysis are brought to bear on federal policy (education, transportation, housing, institutionalization, protection and advocacy, medical assistance, employment, vocational rehabilitation and others). Not valid for core requirement in history and/or philosophy of education. (Same as SPED 852.) Prerequisite: SPED 851 or SPED 750 or permission of instructor. LEC.

ELPS 858. Professional Ethics, Public Values and Disabled Citizens. 3 Hours.
This course addresses the issues that professionals (educators, physicians, allied health providers, attorneys and others) and families of disabled people face in the context of public values and attitudes and rules of law. The issues include, without limitation, education, treatment and non-treatment. Not valid for core requirement in history and/or philosophy of education. (Same as SPED 853.) Prerequisite: SPED 750, SPED 851, SPED 852 or permission of instructor. LEC.

ELPS 870. Philosophy of Education II. 3 Hours.
An exploration of select areas in philosophy, such as emphasis on value-theory or epistemology or metaphysics, and their implications for educational theory. Normally a limited number of authors will also be selected for monographic treatment. Prerequisite: ELPS 770 or ELPS 771 is recommended. LEC.

ELPS 871. Introduction to Qualitative Research. 3 Hours.
An introduction to the foundations of and techniques associated with qualitative research methods. Students will practice interview and participant observation skills and will analyze and interpret data. Additional topics include crafting qualitative research questions, ethics of fieldwork, and establishing trustworthiness of data. Common traditions of qualitative methods employed in education and other related fields will be introduced. LEC.

ELPS 880. The Community/Junior College. 3 Hours.
A survey of the history and development of the community/junior college. Particular emphasis will be given to the student, the faculty, the curricula, administration, and finance. The course is intended to provide a general understanding of the operation and concerns of today’s community/junior college for the current or potential community/junior college staff member. LEC.

ELPS 881. Seminar in Leadership. 3 Hours.
The purpose of this seminar is to explore leadership in education, particularly higher education, from a variety of perspectives. Readings come from a variety of disciplinary perspectives, such as sociology, organizational behavior, and psychology. We consider various aspects of leadership and analyze the leader from a symbolic perspective, as a manager of meaning and critical change agent. We then challenge ourselves to deconstruct our leadership realities with the help of several critical perspectives as we prepare to examine who the leaders are as well as who they will, and need to, be in the educational organizations of tomorrow. LEC.
ELPS 882. Higher Education in the United States. 3 Hours.
The purpose of the course is to acquaint students in higher education, and students from other areas who intend to work in the post-secondary setting, with the history, philosophy and development of higher education in the United States. The course focuses on three periods: 1) the founding of Harvard to 1965; 2) dissent, disruption, and change, 1965-1979; and 3) the future and crucial issues, the 1980’s. European higher education and its early influence on higher education in the United States is also examined. LEC.

ELPS 883. The College Student. 3 Hours.
The characteristics of college students; impact of college on student behavior, changing attitudes, values, beliefs, and the implications of recent research on traditional and new students for instructional and administrative practices. LEC.

ELPS 884. Research on College Students. 3 Hours.
Examination of the American college student from societal, development, research, and institutional perspectives and to review the policy implications of these findings for college and university administrators and faculty. Topics include research and theory concerning the college student experience, the diverse nature of the student body and its implications for institutional policy and practice, and formulation of individual philosophies and priorities applicable to working with college students. LEC.

ELPS 885. Assessment and Program Evaluation in Higher Education. 3 Hours.
Nature, objectives, and basic procedures of assessment and program evaluation as applied to the various aspects of higher education settings. In addition to basic procedures for evaluating programs, topics covered include accreditation, program review, benchmarking, student outcomes assessment, and evaluation of teaching in colleges and universities. Prerequisite: ELPS 715 or equivalent. LEC.

ELPS 886. Theory into Practice in Higher Education. 3 Hours.
This course is required as a final course for all master’s students in higher education. It is designed to prepare students for professional life after graduation. Using a case study approach, students will examine the reality of practice in a variety of higher educational settings including relevant political and ethical factors. Prerequisite: Higher education students in last semester of master’s coursework. LEC.

ELPS 893. Advanced Building Leadership Internship. 2 Hours.
Supervised and directed experiences to enhance the necessary leadership skills of a building/district leaders. Activities will include building/district level resource assessment, data analysis, professional development of teachers/principals (and district level professionals), and cooperative planning with teachers and administrators around responsibilities of curriculum, instruction, resource management and student achievement. Prerequisite: Completion (at the University of Kansas) of all certification program (MS/EdD) requirements for the Building/District Leadership Licenses. FLD.

ELPS 895. Internship. 1-5 Hours.
The on site development of the skills necessary to effectively function as a school building leader. Activities will be tailored to the needs of individual students in consultation with a university advisor and a field advisor. FLD.

ELPS 896. Seminar in.: 1-4 Hours.
LEC.

ELPS 897. Independent Study. 1-4 Hours.
Prerequisite: Consent of advisor and instructor. IND.

ELPS 898. Master’s Project. 1-4 Hours.
RSH.

ELPS 899. Master’s Thesis. 1-6 Hours.
THE.

ELPS 948. Research in Education Policy and Leadership. 3 Hours.
This course is an introduction to methods of inquiry in education policy and leadership studies. It is designed to help doctoral students explore possible research interests, formulate research questions, and to review a rich variety of approaches to inquiry in the field of education. Specific topics include: interview- and observation-driven studies, ethnography, feminist and narrative methods, legal and historical methods, questionnaire-driven studies, quantitative evaluation studies, and studies using administrative and large national data sources. LEC.

ELPS 950. Educational Policy Making and Reform. 3 Hours.
An analysis of patterns of influence, organizations, and governmental agencies which impact education at the community, state and national levels. Particular emphasis is placed on analysis of policy development process and the relationship of policy to administration. Recommended to students in educational administration and higher education. LEC.

ELPS 951. Supervision of Instruction. 3 Hours.
A study of the principles and techniques necessary for coordinating, monitoring, and improving the educational programs of elementary and secondary schools. LEC.

ELPS 952. School Finance: Policy and Practice. 3 Hours.
The objective of this course is to understand the financial systems and mechanisms used by states in the funding of elementary and secondary education in the United States. In simple language, we will be concerned with five basic issues: (1) Where the money comes from; (2) How it is redistributed; (3) How it is spent; (4) The relative effectiveness of spending decisions including selected international comparisons; and (5) How the previous four financial activities participate in a common financial ecology. The course provides an overview of theory and concepts central to the understanding of school finance with an emphasis on policy issues. It also examines the mechanics of school finance funding in light of state policies. LEC.

ELPS 953. District Human Resource Management. 3 Hours.
An in-depth study of theory and research in personnel administration. The focus will be on current literature dealing with empirical assessments of personnel theory and techniques. Specific concepts to be considered include the following: educator characteristics, job analysis and design, personnel recruitment, selection and evaluation techniques, staffing and development, and labor relations. Prerequisite: ELPS 753 or its equivalent. LEC.

ELPS 954. Sociology of Educational Organizations. 3 Hours.
This class is an overview of basic and advanced sociological and political theories of organization, with specific application to issues and problems in K-12 education. It is designed for graduate students and practicing educational leaders and administrators who intend to utilize research on organizations in their studies of the governance of schools, the sociology and politics of education, and education policy. The topics covered include the origins and nature of modern bureaucracy, formal structure and function, organizational control, transaction cost economics, population ecology, resource dependence, the new institutionalism, organizational effectiveness and legitimacy, organizational culture, power and politics, and change. LEC.

ELPS 955. District Business Management. 3 Hours.
This course emphasizes skills for effective and efficient business and financial management of school districts in a Kansas or Missouri context. Basic topics include: Short range and long range financial planning, analysis of financial statements, budget preparation, fund accounting and financial reporting, contracting of services including transportation and
food services, staff salaries and benefits and insurance. The course also includes a number of strategic methods for institutional planning including: Cost Benefit Analysis, Cost Effectiveness Analysis, and enrollment, revenue and expenditure forecasting techniques. Prerequisite: ELPS 952. LEC.

ELPS 956. District Leadership. 3 Hours.
The focus of the course is the role of the public school district superintendent. Organized study will include assigned readings, lectures, guest speakers, discussion, and the completion of a study project. The course will include consideration of such topics as boardsmanship, community relations, district leadership, professional accountability, district maintenance and operations, professional employment and relationships with other agencies. The course is designed to serve the needs of those graduate students pursuing advanced study with the intention of completing requirements for district certification. Some students will also find the field appealing as an area for dissertation research. Prerequisite: Doctoral status in education administration or permission of instructor. LEC.

ELPS 957. Educational Policy, Ethics and Law. 3 Hours.
Course focuses on use of legal and moral reasoning in analysis of educational policy issues. Specific topics will vary depending on interests of instructor and students and current controversy. Examples of possible topics to be included: school desegregation, teacher collective bargaining, separation of church and school, equal educational opportunity. Prerequisite: ELPS 752, equivalent, or consent of instructor. LEC.

ELPS 958. American Educational Reform Movements: Past and Present. 3 Hours.
An examination of the origin, nature, and consequences of educational reform in the United States. The primary goal is to attain a balanced evaluation of current educational reform. LEC.

ELPS 959. Organization and Administration of Services for Exceptional Children. 3 Hours.
To aid administrators and prospective administrators responsible for organizing and administering programs of education for exceptional children, state and federal guidelines and regulations, legal aspects and financing of special education, planning a program, administering special services. (Same as SPED 971.) Prerequisite: Nine hours of Education including educational psychology and SPED 725. LEC.

ELPS 960. Specialist Project. 1-4 Hours.
RSH.

ELPS 970. Theory and Research in Administration. 3 Hours.
A survey of the theoretical and empirical literature in educational administration and the methods used to investigate these content areas. Major emphasis is devoted to developing research skills applicable in practice and to the identification of possible generic topics suitable for future dissertation work. LEC.

ELPS 971. Comparative Education. 2 Hours.
A factual, descriptive, and analytical study of national systems of formal education, or schooling, as exemplified in contemporary educational establishments. Organizational and administrative policies and teaching practices, with emphasis on Germany, France, England, U.S.S.R., People’s Republic of China and Japan. Other nations may be examined on an individual project basis. The difference between ELPS 971 and ELPS 772 is the philosophical emphasis of the latter. LEC.

ELPS 972. Educational Problems in Latin America. 3 Hours.
Designed to meet the needs of students majoring in Latin American studies or interested in the area. Development of an awareness of the concept of cross-cultural confluence with Latin America as it relates to education. Survey of the main problems confronted by Latin American educational systems and examination of the difficulties experienced by North American educators when confronted with such problems. LEC.

ELPS 975. Education, Technology and Social Change. 3 Hours.
This interdisciplinary course provides an opportunity to read, reflect upon, and discuss ideas drawn from the emerging field of Science and Technology Studies (STS) in connection with education. Its focus is the interrelationships between technology, society, and education (defined broadly to include non-school and adult learning settings). It explores how knowledge, expertise, and authority are constructed within and across social and cultural groups, with particular attention social and economic inequality. It also considers the relationship between emerging technologies, educational experiences and the nature of “the self” in society, among other issues. Prerequisite: Admission to ELPS doctoral program, or permission of instructor. LEC.

ELPS 980. Postsecondary Finance. 3 Hours.
This course is designed for advanced doctoral students in higher education, particularly those who will be preparing unit budgets or budget presentations and those who make and implement fiscal policy (e.g., financial aid offers). The course material covers different types of college and university budgeting -- incremental, zero-based and formula -- and their impact on university revenues; statewide coordination and its impact on programs, program duplication and funding; retrenchment and quality issues; the legislative role in budget preparation; unified and comparative management systems (e.g., WICHE and NCHEMS); and the impact of federal contracting and student aid policies. LEC.

ELPS 981. Higher Education Law. 3 Hours.
An overview of the developing law of higher education, with emphasis on and analysis of employer-employee relationships, student-faculty/administration relationships, and the impact of federal and state regulation on these relationships. LEC.

ELPS 982. Faculty in Higher Education. 3 Hours.
This course considers the role and circumstances of faculty in higher education including variations among different types of institutions. Topics include the history and demographics of the professoriate, the academic work environment and labor market, the role of faculty in institutional governance and policy making, and the social and political context of academia. LEC.

ELPS 983. Curriculum Innovation in Higher Education. 3 Hours.
A study of contemporary post-secondary curriculum with particular emphasis on the nature of curriculum, the organization and structure of academic programs, the nature of change in academic communities and exemplary innovative institutions. LEC.

ELPS 984. Teacher Education in the United States. 2 Hours.
A study of the development, issues, and programs for the preparation of teachers. Open to all regular graduate students. LEC.

ELPS 985. Evaluations of Programs in Higher Education. 2 Hours.
Nature, objectives, and basic procedures of evaluation as applied to the various aspects of higher education. Open to all regular graduate students. LEC.

ELPS 986. The Governance and Administration of Higher Education. 3 Hours.
A theory-based course aimed at providing an understanding of the governance and administration of academic institutions -- particularly universities. Emphasis is directed toward an analysis of decision-making in these complex organizations. LEC.

ELPS 993. Advanced District Leadership Internship. 2 Hours.
Supervised and directed experiences to enhance the necessary leadership skills of a building/district leaders. Activities will include
building/district level resource assessment, data analysis, professional development of teachers/principals (and district level professionals), and cooperative planning with teachers and administrators around responsibilities of curriculum, instruction, resource management and student achievement. Prerequisite: Completion (at the University of Kansas) of all certification program (MS/EdD) requirements for the Building/District Leadership Licenses. FLD.

ELPS 994. Advanced Topics:. 1-3 Hours.
A special course of study to meet current needs of education professionals -- primarily for post-master's level students. LEC.

ELPS 995. Field Experience in:. 1-5 Hours.
Supervised and directed experiences in selected educational settings. The advisor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experience will be prepared independently by the student, a representative of the cooperating agencies, and the advisor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. FLD.

ELPS 996. College Teaching Experience in:. 1-5 Hours.
To meet the college teaching experience requirement for doctoral programs, a student shall engage in a semester-long, planned, instructional activity that shall include college classroom teaching under supervision. Planning shall be done with the advisor and/or the member of the faculty who will supervise the experience. The activity shall be done under the supervision of a member of the University of Kansas faculty or by an individual or individuals designated by the candidate's committee. FLD.

ELPS 997. Individual Study. 1-4 Hours.
Prerequisite: Prior graduate course work in the area of study and consent of instructor. RSH.

ELPS 998. Seminar in:. 1-4 Hours.
LEC.

ELPS 999. Doctoral Dissertation. 1-15 Hours.
THE.

Master of Science in Education in Educational Leadership and Policy Studies

M.S.E. Degree Programs

The master’s program in educational administration prepares graduates for positions of public school leadership and licensure at the building level. The master’s program in higher education prepares graduates for entry-level positions in college and university settings. The master’s program in social and cultural studies in education is for school professionals and others who wish to study the history, philosophy, and sociology of education. Graduates of the master’s program in educational technology typically assume positions in K-12 schools, higher education, government, and industry as leaders in integrating, designing, and/or administrating educational technology.

Graduate Admission to the School of Education

Graduate programs in education are open to students with acceptable baccalaureate degrees, as specified by the admitting departments, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a grade-point average of at least 3.0 on a 4.0 scale; provisional admission requires a grade-point average of at least 2.5. Individual departments may require additional information and may have more stringent admission and retention requirements.

Special provisional admission categories are available to students who may not qualify under traditional admission criteria but can provide evidence of ability to work successfully at the graduate level, including experience in and commitment to the profession. Exceptions to established policies must be sought individually by petition to the Graduate Division of the School of Education.

See Admission in the Graduate Studies (p. 2059) section of the online catalog for more information.

Ordinarily, complete application materials should be received by July 1 for fall admission, December 1 for spring semester, and May 1 for summer session. Prospective graduate students should contact their departments for admission deadlines.

Graduate Admission

Applicants for all programs must submit the following materials:

1. Graduate application (http://www.graduate.ku.edu).
2. 1 official transcript from each degree-granting collegiate institution attended.
3. Original Graduate Record Examination general test scores for all doctoral applicants (Ed.D. and Ph.D.). The GRE is not required for master’s applicants in educational administration, higher education, social and cultural studies in education, or educational technology.
4. Statement of purpose/relevance of degree to career aspirations.
5. 3 letters of recommendation evaluating the applicant’s capacity for rigorous graduate study and qualifications for leadership positions in education and related fields.
6. A vita or resume.

Individual program concentrations may require additional application materials. Please consult the appropriate program advisor. The following application deadlines apply:

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<th>Master’s and doctoral applicants</th>
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<tbody>
<tr>
<td>Summer</td>
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Higher Education

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Social and Cultural Studies in Education

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<td>Summer</td>
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Submit your graduate application online (http://www.graduate.ku.edu). Supporting materials, such as the résumé, statement of purpose, writing sample, and letters of reference may be uploaded to the application. Original transcripts from degree-granting institutions and official test scores should be sent directly to the department:

The University of Kansas
Department of Educational Leadership and Policy Studies
Joseph R. Pearson Hall
1122 W. Campus Road, Room 421
Lawrence, KS 66045-3101

Educational Administration

(Blended Format, Technology, Course of Instruction)

The Master of Science in Educational Administration program is designed to prepare experienced teachers for leadership roles at the building level. The program stresses fundamental knowledge degrees in educational leadership and educational policy development necessary for effective leadership. It consists of a set of integrated courses Graduate programs in educational leadership and experiences that provide opportunities for participants to expand their knowledge of pedagogy policy studies promote the professional and leadership, to enlarge their understanding of schooling, and to develop an appreciation of the political, economic and social forces that influence the decisions of educational leaders.

Program Format

The program is designed for part-time students who currently hold teaching or other positions such as instructional coaches in the schools. Students enter the program as a cohort group and attend six consecutive semesters over a two-year period beginning in June. Two courses are scheduled in 16-week formats during each fall and spring semester. In the summer, courses are scheduled into two four-week blocks. Course work in each term is sequenced to build upon the skills and knowledge acquired in the previous terms.

Blended Online Format

The blended online-face-to-face class sessions are scheduled as follows:

- All summer courses (one in June and one in July) are blended, meeting face-to-face two or three sessions per course. These face-to-face class sessions meet as a cohort on the scheduled day, 10:00 a.m. to 2:00 p.m. with students responsible for their own lunch. All other coursework is online.
- All fall and spring semester courses are blended, meeting face-to-face the first and last Saturdays of the semester, with additional face-to-face meetings every four to six weeks for a total of only four face-to-face meetings per course per semester. Each of these face-to-face sessions are held on the same Saturday, with the first class meeting from 9:00 a.m. to Noon, followed by the second class of the semester beginning at 1:00 p.m. and ending by 4:00 p.m. All other coursework is online.
- The online portion of each course will be completed at the student’s convenience within timeline requirements as determined by the instructor.
- The final comprehensive exams will be held during early April of year two of the program, face-to-face, 8:00 a.m. to 4:00 p.m. on the Lawrence campus.

Technical Requirements

- Macintosh or Windows PC
- Internet access (broadband)
- Web browser
- MS Office (i.e., Word, Excel, PowerPoint)
- Adobe Acrobat
- Video software (e.g., Media Player, QuickTime)
- Headphones (recommended)

Course of Instruction

The M.S. in Educational Leadership consists of a 36-hour block of course work. The course work is sequenced as described below, and builds upon itself as the student progresses through the program. Students take a comprehensive exam in the spring of the second year of the program that covers core coursework within the program.

The sequence of courses follows:

(Sequence subject to change)

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<thead>
<tr>
<th></th>
<th>Hours Fall</th>
<th>Hours Spring</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Year 1 Summer</td>
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<tr>
<td>ELPS 750 (June)</td>
<td>3 PRE 715</td>
<td>3 ELPS 752</td>
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<tr>
<td>ELPS 798 (Data-Driven Leadership (July))</td>
<td>1-5 ELPS 757</td>
<td>3 ELPS 755</td>
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<tbody>
<tr>
<td>Year 2 Summer</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>ELPS 852 (June)</td>
<td>3 C&amp;T 802</td>
<td>3 C&amp;T 806</td>
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</tbody>
</table>
Higher Education Administration

The M.S. in Higher Education Administration consists of a set of integrated courses and experiences that provide an opportunity for participants to extend their knowledge of the histories, clienteles, and administrative functions of colleges and universities, and to gain relevant experience in higher education administration. The program consists of 36 hours of course work. Courses are scheduled in 16-week formats during the fall and spring semesters, usually scheduled after 4:30 p.m. The summer session classes vary in time and format. The course work provides a substantive knowledge base in higher education and student affairs administration. Students must hold an assistantship (http://elps.soe.ku.edu/academics/highered/mse/requirements/assistantships) or a full-time job in a related area while completing coursework. For the culminating activity, most students take a comprehensive examination. Completing a master’s project is optional (students choosing this option must take an additional research class in place of an elective). A sample sequence of courses is listed below:

### Year 1

#### Fall

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Spring</th>
<th>Summer</th>
<th>Hours</th>
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<tr>
<td>ELPS 780</td>
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<td>3 Elective</td>
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<td>ELPS 883</td>
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<tr>
<td>Elective</td>
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</tbody>
</table>

#### Total Hours: 36

#### Year 2

#### Fall

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Spring</th>
<th>Summer</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ELPS 885</td>
<td></td>
<td>3</td>
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<tr>
<td>ELPS 884</td>
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<tr>
<td>Elective</td>
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<td>3</td>
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<td>9</td>
<td>9</td>
<td>9</td>
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</tbody>
</table>

#### Total Hours: 32-40

### Regularly offered electives include the following:

- Diversity Issues in Higher Education,
- Critical Readings in Higher Education,
- Faculty Issues in Higher Education,
- Postsecondary Finance
- Higher Education Law,
- The Community and Junior College,
- For-Credit Internship in Higher Education (http://elps.soe.ku.edu/academics/highered/mse/requirements/forcreditinternship),
- or any other graduate level course that the student and his/her advisor deem relevant (i.e., a course in counseling psychology).

### Social and Cultural Studies in Education

The master’s in Social and Cultural Studies in Education is a 30 or 36 credit-hour degree.

1. Students in the SCSE Master’s Program can choose between two courses of study: 1) a thesis (or project) option that requires a total of 30 graduate credit hours; or a non-thesis option that requires a total of 36 graduate credit hours.

2. Students take a major concentration of courses related to the history, philosophy and sociology of education, with the advice of a faculty advisor and an advisory committee. Such courses should offer an opportunity for students to focus on a variety of theoretical and research-based questions. A minimum of 10 hours of coursework is required in the major concentration for the thesis option, and 12 hours in the non-thesis option.

3. Other aspects of the program are flexible. A minimum of 6 credit hours must be taken outside of the ELPS Department, although students typically take more than this. In particular students are urged to take coursework outside of the School of Education, in conjunction with the principal SCSE field (history, philosophy, sociology, anthropology, political science or economics) that they are interested in. A course in educational research (PRE 715) is also required. Each student in the non-thesis/project option must pass a comprehensive examination at the end of coursework, supervised by the student's committee.

4. A typical master’s program in Social and Cultural Studies in Education thus will entail approximately 8 graduate courses, apart from thesis or project work (or additional coursework in the non-thesis option). Depending on the configuration of credit hours in the coursework and the student’s prior record (up to 6 hours of appropriate graduate coursework may be transferred). Upon successful completion of coursework in the thesis (or project) option, focused thesis or project work begins.

5. For students choosing the thesis/project option, School of Education and Graduate Studies rules regarding the master’s thesis or project, an advisory committee, preparation of the thesis or project, and a defense are observed in the Social and Cultural Studies in Education program. The student’s thesis or project committee will include the major advisor and at least two other faculty members, with one member usually representing the non-ELPS coursework.

- **Summary of principal program elements:**
  - Social and Cultural Studies in Education Coursework—At least 10 credit hours (typically 12 hours or 4 courses)
  - Additional Coursework—typically at least 9 credit hours (3 courses, at least one of which is outside of ELPS)
  - Education Research Methods Coursework—3 credit hours (PRE 715 is required of all master’s students and can count as one of the courses outside of ELPS)
  - Thesis or project research—6 (or 4 for a project) credit hours (for those selecting the thesis/project option)
  - Thesis/project Defense, or comprehensive exam for non-thesis option.

### Educational Technology

The Master of Science in Educational Technology program consists of 36 hours of coursework, a practicum, an exam and the production of a portfolio that reflects the student’s competencies in National Educational Technology Standards (http://www.iste.org/nets). This interdisciplinary program supports three specialties in the Integration, Design and Administration of Educational Technology by drawing on the rich diversity of a major research university and coursework from three departments in KU’s School of Education, the Electrical Engineering and Computer Science department, the Design and the Communication Studies departments. Program graduates typically assume positions in
K-12 schools, higher education, government and industry as leaders in integrating, designing and/or administrating educational technology.

Courses required of students in all specialties

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>C&amp;T 709</td>
<td>Foundations of Curriculum and Instruction</td>
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<tr>
<td>ELPS 760</td>
<td>Integration of Educational Technology</td>
<td>3</td>
</tr>
<tr>
<td>ELPS 810</td>
<td>Educational Media Development</td>
<td>3</td>
</tr>
<tr>
<td>ELPS 811</td>
<td>Constructivist Learning Technologies</td>
<td>3</td>
</tr>
<tr>
<td>SPED 727</td>
<td>Designing Instruction for Diverse Learners</td>
<td>3</td>
</tr>
<tr>
<td>ELPS 820</td>
<td>Practicum in Educational Technology</td>
<td>3</td>
</tr>
<tr>
<td>or ELPS 897</td>
<td>Independent Study</td>
<td>3</td>
</tr>
<tr>
<td>ELPS 812</td>
<td>Design of Educational Technology</td>
<td>3</td>
</tr>
<tr>
<td>ELPS 896</td>
<td>Seminar in: (Theory of Educational Technology)</td>
<td>3</td>
</tr>
<tr>
<td>PRE 715</td>
<td>Understanding Research in Education</td>
<td>3</td>
</tr>
<tr>
<td>Select Integration, Design or Administration Specialties</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours: 36

Specialty Courses

The Masters of Science degree in Educational Technology addresses the needs of three professional specialties (http://edtech.ku.edu/7Edtech/programs/specialties.shtml) to foster leadership in the: 1) Integration, 2) Design, and 3) Administration of Educational Technology. The Integration specialty focuses on strategies for integrating technology in teaching and learning. Typically candidates in this specialty will have some teaching experience and will aspire for leadership roles in integrating educational technology in K-12 schools, university teacher education, government or industry. The Design specialty prepares students to become leaders in designing instructional systems with technology. Candidates in this specialty often have considerable technical experience and they aspire for roles as instructional designers for educational technology and online learning units in K-12 schools, universities, government or industry. Candidates for the Administration of Educational Technology typically have experience in applying educational technology and they aspire for leadership positions that require expertise in organizational structure, policy, and financing as directors of institutional technology in K-12 schools, higher education, government and industry training. Students choose specialty courses in consultation with their advisor. As a general rule the student will first choose a professional specialty and then select their elective courses using the following guidelines.

1. **Integration Specialty** (9 hours)
   a. C&T course related to the student’s content expertise (3)
   OR C&T 806 Instructional Strategies and Models
   b. Online Communication & Design (choose 2):
      • SPED 804 Designing Online Instruction for eLearning (3)
      • COMS 620 Communication and New Technology (3)
      • COMS 810 Theories and Research in Organizational Communication (3)
      • COMS 860 New Communication Technology and the Workplace (3)
      • COMS 930 Communication and Leadership (3)
      • ADS 710 Advanced Human Factors in Interaction Design (3)
      • ADS 770 Design Cognition (3)
      • Other graduate level courses with advisor’s approval.

2. **Design Specialty** (9 hours)
   a. Programming Prerequisite
      Students in the Design specialty must complete the EECS 138 or 168 Programming (or equivalent) course to demonstrate their programming knowledge.
   b. Communication Online (choose 3 at least one ADS course):
      • ADS 710 Advanced Human Factors in Interaction Design (3)
      • ADS 770 Design Cognition (3)
      • COMS 620 Communication and New Technology (3)
      • COMS 810 Theories and Research in Organizational Communication (3)
      • COMS 860 New Communication Technology and the Workplace (3)
      • ELPS 814 Designing Online Instruction (3)
      • Other graduate level courses with advisor’s approval.

3. **Administration Specialty** (9 hours)
   Choose 3 courses (9 hours) from the following based on your career aspirations in Educational Administration and/or Higher Education.
   • ELPS 752 Education Law (3)
   • ELPS 755 Human Resource Management (3)
   • ELPS 780 Introduction to Higher Education Administration (3)
   • ELPS 852 School Resource Management (3)
   • ELPS 880 The Community and Junior College (3)
   • ELPS 883 The College Student (3)
   • ELPS 884 Research on College Students (3)
   • ELPS 885 Program Evaluation and Assessment in Higher Education (3)
   • Other ELPS course on Organization, Administration or Policy with advisor’s approval.

**Doctor of Education in Educational Leadership and Policy Studies**

**Educational Leadership and Policy Studies Graduate Programs**

The Department of Educational Leadership and Policy Studies (http://elps.soe.ku.edu) offers a broad range of graduate professional programs in educational leadership and policy. For complete program information, contact the department.

Graduate programs in educational leadership and policy studies promote the professional and intellectual development of practitioners, teachers, and scholars in this field at all levels of education. The department offers Master of Science in Education degrees in educational administration (K-12), social and cultural studies in education, higher education, and educational technology, as well as Ed.D. and Ph.D. degrees in educational leadership and policy studies with concentrations in educational administration, social and cultural studies in education, higher education, policy studies, and a focus in educational technology.

**Note:** Degree requirements are subject to change. Prospective and current students should obtain the current degree requirements from the department.
Graduate Admission to the School of Education

Graduate programs in education are open to students with acceptable baccalaureate degrees, as specified by the admitting departments, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a grade-point average of at least 3.0 on a 4.0 scale; provisional admission requires a grade-point average of at least 2.5. Individual departments may require additional information and may have more stringent admission and retention requirements.

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**Social and Cultural Studies in Education**

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**Educational Technology**

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**Policy Studies**

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Submit your graduate application online (http://www.graduate.ku.edu). Supporting materials, such as the résumé, statement of purpose, writing sample, and letters of reference may be uploaded to the application. Original transcripts from degree-granting institutions and official test scores should be sent directly to the department:

The University of Kansas
Department of Educational Leadership and Policy Studies
Joseph R. Pearson Hall
1122 W. Campus Road, Room 421
Lawrence, KS 66045-3101

**Ed.D. Degree Programs**

The Ed.D. trains educational practitioners to understand and apply the most advanced knowledge to their work. All doctoral students must complete a program that provides a broad understanding of educational leadership and policy as well as a concentration in educational administration, higher education, social and cultural studies in education, or policy studies.

Basic and applied research skills, including statistics, research design, and related options appropriate to the degree, are required for the Ed.D. Specific descriptions of research requirements may be obtained from the department.

Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current Lawrence and Edwards Campus policies on Doctoral Research Skills and Responsible Scholarship (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm) are listed in the KU Policy Library.
A general description of each concentration is given here. Request the appropriate program brochure or visit the department’s website (http://elps.soe.ku.edu) for specific information on courses and requirements for each area.

**Educational Administration**  
The educational administration concentration prepares teachers and administrators for school district leadership roles. Studies stress fundamental fields of knowledge and educational policy development necessary for effective leadership of school districts. The Ed.D. leads to licensure at the district level. Students pursuing this concentration must take course work in the summer.

**Social and Cultural Studies in Education**  
The social and cultural studies in education area features a broad examination of educational theory and its practical application on local, national, and international levels. Emphasis is placed on social, philosophical, historical, comparative, and interdisciplinary inquiry into the relationship between human aspirations and the aims and methods of education. Courses of study are flexible and reflect the particular needs and aspirations of each student.

**Higher Education**  
The concentration in higher education provides current and prospective college or university staff members and administrators with theoretical and practical knowledge of higher education as a complex human activity. The Ed.D. program includes required and elective courses practicum or field research.

**Policy Studies**  
The education policy studies concentration features a multidisciplinary approach to policy analysis. Students prepare for roles as researchers, policy analysts, higher education faculty, and educational leaders through individualized programs. Each student takes courses from 2 or more of the other doctoral concentrations in the department and, depending on interest, other relevant courses in social sciences.

**Doctor of Philosophy in Educational Leadership and Policy Studies**

**Educational Leadership and Policy Studies Graduate Programs**  
The Department of Educational Leadership and Policy Studies (http://elps.soe.ku.edu) offers a broad range of graduate professional programs in educational leadership and policy. For complete program information, contact the department.

Graduate programs in educational leadership and policy studies promote the professional and intellectual development of practitioners, teachers, and scholars in this field at all levels of education. The department offers Master of Science in Education degrees in educational administration (K-12), social and cultural studies in education, higher education, and educational technology, as well as Ed.D. and Ph.D. degrees in educational leadership and policy studies with concentrations in educational administration, social and cultural studies in education, higher education, and policy studies, and a focus in educational technology.

**Graduate Admission to the School of Education**  
Graduate programs in education are open to students with acceptable baccalaureate degrees, as specified by the admitting departments, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a grade-point average of at least 3.0 on a 4.0 scale; provisional admission requires a grade-point average of at least 2.5. Individual departments may require additional information and may have more stringent admission and retention requirements.

Special provisional admission categories are available to students who may not qualify under traditional admission criteria but can provide evidence of ability to work successfully at the graduate level, including experience in and commitment to the profession. Exceptions to established policies must be sought individually by petition to the Graduate Division of the School of Education.

See Admission in the Graduate Studies (p. 2059) section of the online catalog for more information.

Ordinarily, complete application materials should be received by July 1 for fall admission, December 1 for spring semester, and May 1 for summer session. Prospective graduate students should contact their departments for admission deadlines.

**Graduate Admission**  
Applicants for all programs must submit the following materials:

1. Graduate application (http://www.graduate.ku.edu).
2. 1 official transcript from each degree-granting collegiate institution attended.
3. Original Graduate Record Examination general test scores for all doctoral applicants (Ed.D. and Ph.D.). The GRE is not required for master’s applicants in educational administration, higher education, social and cultural studies in education, or educational technology.
4. Statement of purpose/relevance of degree to career aspirations.
5. 3 letters of recommendation evaluating the applicant’s capacity for rigorous graduate study and qualifications for leadership positions in education and related fields.
6. A vita or resume.

Individual program concentrations may require additional application materials. Please consult the appropriate program advisor. The following application deadlines apply:

**Educational Administration**

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<tr>
<th>Session</th>
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**Higher Education**

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<tr>
<td>Fall</td>
<td>Master’s applicants seeking internships</td>
<td>Jan. 17</td>
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Note: Degree requirements are subject to change. Prospective and current students should obtain the current degree requirements from the department.
### Ph.D. Degree Programs

The Ph.D. prepares scholars for roles as professors, policy makers, or researchers who are qualified to contribute theoretically grounded, original research. All doctoral students must complete a program that provides a broad understanding of educational leadership and policy as well as a concentration in educational administration, higher education, social and cultural studies in education, or policy studies, or a focus in educational technology.

Basic and applied research skills, including statistics, research design, and related options appropriate to the degree, are required for the Ph.D. Specific descriptions of research requirements may be obtained from the department.

**Note:** Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current Lawrence and Edwards Campus policies on Doctoral Research Skills and Responsible Scholarship ([https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm](https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm)) are listed in the KU Policy Library.

A general description of each concentration is given here. Request the appropriate program brochure or visit the department’s website ([http://elps.soe.ku.edu](http://elps.soe.ku.edu)) for specific information on courses and requirements for each area.

### Educational Administration

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### Social and Cultural Studies in Education

The social and cultural studies in education area features a broad examination of educational theory and its practical application on local, national, and international levels. Emphasis is placed on social, philosophical, historical, comparative, and interdisciplinary inquiry into the relationship between human aspirations and the aims and methods of education. Courses of study are flexible and reflect the particular needs and aspirations of each student.

### Higher Education

The concentration in higher education provides current and prospective college or university staff members and administrators with theoretical and practical knowledge of higher education as a complex human activity. The Ph.D. program includes required and elective courses in the concentration, in a cognate area.

### Policy Studies

The education policy studies concentration features a multidisciplinary approach to policy analysis. Students prepare for roles as researchers, policy analysts, higher education faculty, and educational leaders through individualized programs. Each student takes courses from 2 or more of the other doctoral concentrations in the department and, depending on interest, other relevant courses in social sciences.

### Educational Technology

The Ph.D. with a focus in educational technology advances research, theory, and practice in the design, development, and application of information technology in education. The focus includes required and elective course work in educational policy, educational technology, the School of Education core, research, and a cognate. Program graduates typically assume leadership positions as faculty in higher education, researchers or directors of educational technology in schools, and in corporate and governmental settings.

### Department of Health, Sport, and Exercise Sciences

The Department of Health, Sport, and Exercise Sciences ([http://hses.soe.ku.edu](http://hses.soe.ku.edu)) provides physical activity courses for all students and

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serves the community through clinics and laboratories. The department offers a full range of undergraduate and graduate degree programs.

**Undergraduate Programs**

The Academic Catalog is a guideline for policies and procedures in the School of Education. However, academic program requirements change. Students are strongly encouraged to check the school’s website (http://www.soe.ku.edu) and the department for the most current information. This catalog is in effect for undergraduates admitted to the School of Education for academic year 2014-15.

All undergraduate programs include a strong general education component with a focus on the biological sciences.

Undergraduates may enroll in the Professional Teacher Preparation Program in health and physical education. They also may enroll in Bachelor of Science programs in athletic training, exercise science and sport management, or the B.S.E. option in community health. The Health and Physical Education teacher program leads to teacher licensure, PK-12, in health & physical education. The Athletic Training program is a three-year program that prepares students for a career as an allied-health professional and prepares them for the BOC examination, the examination leading to certification and the credential of a certified athletic trainer. Students who complete the Exercise Science program are prepared to apply for admission to most physical therapy (PT) schools. The requirements of the Exercise Science program meet the prerequisites of the Kansas University Medical Center Physical Therapy Program. However, additional courses may be necessary to fulfill admission requirements for other PT programs. They may also work in agencies that dispense health- and fitness-related programs, such as commercial or private health and fitness centers, hospital exercise and cardiac rehabilitation programs, and corporate fitness centers or apply for graduate study in exercise physiology or Physician Assistant (PA). The Sport Management program prepares graduates for entry-level positions in intercollegiate athletics, professional sports, recreational programs, and the fitness industry. Students in Community Health prepare to work with public health agencies. All nonlicensure program students must complete an internship in their area of study.

Undergraduates may enter the School of Education by meeting the admission requirements. Undergraduates seeking admission to any Health, Sport, and Exercise Science program must have a minimum cumulative grade-point average of 2.75. However, achieving the minimum grade-point average is not a guarantee of admission. In addition to the minimum cumulative grade-point average, program admission is based on performance in core courses, academic preparation for the major, and the number of students that each program can admit. Consult the School of Education Welcome Center, 208 J.R. Pearson Hall, or the HSES Undergraduate Office, 161 Robinson Center, 785-864-5552.

**Non–Western Culture Requirement**

The Kansas State Department of Education requires undergraduates seeking teacher licensure to study both Western and non-Western cultures. To meet the non-Western culture requirement, students must complete at least 1 course classified as NW. This requirement also may count in the appropriate category (behavioral science, social sciences, or arts/humanities) of the general education requirements.

**Laboratories and Facilities**

HSES programs at all levels are supported by experiential education opportunities. The department maintains excellent laboratories for student and faculty research, including biomechanics, motor development/adaptive, applied physiology, sports management, and sport and exercise psychology. All students are exposed to the laboratories and clinics, which serve KU and the community. View (http://hses.soe.ku.edu/research) for further information about HSES labs and clinics.

**Graduate Programs**

Graduate work in health, sport, and exercise sciences includes an offering of courses leading to the Master of Science in Education and Doctor of Philosophy degrees. Entrance requirements include completion of an undergraduate program and admission to graduate studies through the Graduate Division of the School of Education.

HSES provides concentrated graduate study in the following specializations: Exercise Science (M.S.E.), Exercise Physiology (Ph.D.), Health & Psychology of Physical Activity (M.S.E. and Ph.D.), Physical Education Pedagogy (M.S.E.), and Sport Management (M.S.E. and Ph.D.).

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**Courses**

**HSES 104. Physical Activity in: _____. 0.5-1 Hours.**
(An accurate description of the activity or activities will be given in the Timetable.) Graded on a satisfactory/unsatisfactory basis. ACT.

**HSES 108. Basic Skill Instruction in: ____. 0.5-2 Hours.**
(An accurate description of the activity or activities will be given in the Timetable.) ACT.

**HSES 110. Intermediate Skill Instruction in: ____. 0.5-2 Hours.**
(An accurate description of the activity or activities will be given in the Timetable.) ACT.

**HSES 112. Advanced Skill Instruction in: ____. 0.5-2 Hours.**
(An accurate description of the activity or activities will be given in the Timetable.) ACT.

**HSES 200. Coaching Certification for Youth Sports. 2 Hours.**
This course will examine theories, practices, methods and techniques used to coach youth sports. Emphasis will be upon training, conditioning, sports psychology, nutrition, organization and management as prescribed by the National Federation of Interscholastic Coaches’ Education Program. Students will have opportunity to receive coaching certification. Prerequisite: Open to physical education majors, or by consent of instructor. Students must pass the National Federation of Interscholastic Coaches’ Education Program (NFICEP) examination before exiting the course. LEC.

**HSES 201. Team Sports. 2 Hours.**
This course will deal with Soccer, Touch Football, Basketball, Softball, and Volleyball. Practice in construction of lesson plans and unit plans,
skill performance and peer teaching practicum are emphasized in each of the areas of team sports. Class meets three days per week with one hour being a laboratory session. Prerequisite: Basic fitness and knowledge of the activities. Open to HSES majors and minors, or by consent of instructor. LEC.

HSES 202. Individual and Dual Sports. 2 Hours.
Instruction and analysis in individual sports such as track and field, bowling or archery, and dual sports such as tennis, badminton or handball. Development of sport skills and rule knowledge are emphasized. Prerequisite: Basic fitness and knowledge of the activities. Prerequisite: Open to pre-HSES and HSES majors, or by consent of instructor. LEC.

HSES 204. Gymnastics. 2 Hours.
Instruction and analysis in the eleven gymnastics events for men and women. Skill performance, spotting and teaching techniques, lesson and unit plan construction, and teaching practicum constitute the basic focus of this course. Class meets three days per week with one hour being a laboratory session. Prerequisite: Basic fitness and gymnastics/tumbling experience. Open to HSES majors and minors, or by consent of instructor. LEC.

HSES 210. Instruction and Analysis in: ___. 1-16 Hours.
Study of the skills to be included in the instruction of the indicated activities and the analysis of skill performance involved. Presentation of instructional techniques and practice in construction of lesson and unit plans are included for each activity. Open to majors in physical education only. The activities included in the major program are as follows: (a) Swimming (b) Folk and Square Dance (c) Modern Dance and Women's Gymnastics (d) Weight-Training and Men's Gymnastics (e) Soccer-Speedball, Volleyball, Wrestling (f) Field Hockey, Soccer-Speedball, Volleyball (g) Golf, Tennis, Badminton, Archery (h) Basketball, Softball, Flag Football, Team Handball (i) Track and Field, Handball-Paddleball, Fencing. Prerequisite: Basic fitness and basic skill in the course activities shown through competency tests and/or credit in basic skill courses in the appropriate activity. LAB.

HSES 214. Physical Education Activities for Elementary School Children. 3 Hours.
This course will introduce the student to a variety of physical education activities that are appropriate for children in grades K-6. Age appropriate activities demonstrated in this course include: individual and group games, self testing games, stunts and tumbling experiences, physical fitness, modified sports, and movement exploration. Class participation will be expected for all students. Prerequisite: Open to pre-HPE and HPE majors. LEC.

HSES 218. Lifeguard Training. 2 Hours.
The course involves American Red Cross certification in lifeguarding which includes rescue techniques and safety procedures. It also includes first aid and CPR certifications. Each student will be asked to identify common hazards associated with various types of aquatic facilities and develop skills necessary to recognize a person in a distress or drowning situation and to effectively rescue that person. This course will help each student to understand the lifeguard/employer and lifeguard/patron relationship as well as provide explanations, demonstrations, practice and review of the rescue skills essential for lifeguards. Prerequisite: HSES 112 Advanced Skill Instruction in Swimming or consent of instructor. LEC.

HSES 220. Officiating of: ___. 1 Hour.
A study of the rules and techniques of officiating. Students will officiate during laboratory sessions. The activities offered in officiating are: basketball, football, gymnastics, softball, swimming, track and field, and volleyball. Prerequisite: Basic competency in the sport to be officiated, or consent of instructor. LEC.

HSES 222. Water Safety Instruction. 2 Hours.
This course is designed to train instructor candidates to teach American Red Cross Swimming and Water Safety courses. Through practice teaching sessions, students will plan and organize skill development utilizing the various educational methods and approaches applicable to swimming and water safety instruction. Students will also learn the correct swimming styles taught by the Red Cross. Prerequisite: HSES 112 Advanced Skill Instruction in Swimming or consent of instructor. LEC.

HSES 224. Lifeguard Training Instructor. 2 Hours.
This course is designed as a lecture/laboratory course, meeting for one hour three days per week. Each instructor candidate (student) will have an opportunity for skill development necessary to instruct American Red Cross Lifeguard Training courses. Through practice teaching sessions, emphasis will be placed on enforcing safety precautions, identifying errors, providing effective instruction, and skills correction. After successful completion of this course, the student will be certified to instruct the following American Red Cross Aquatic courses: (1) lifeguard training, (2) waterfront lifeguarding, (3) CPR for professional rescue, and (4) community first aid. Prerequisite: HSES 218 or lifeguard training. LEC.

HSES 236. Practicum in: ___. 1-3 Hours.
A description of the activities offered will be provided in the Timetable. Prerequisite: Consent of instructor. FLF.

HSES 240. The Coaching of Football. 2 Hours.
A complete study of the theoretical aspects of the fundamentals of football. Study of defensive and offensive tactics for each position. Prerequisite: Sophomore standing. LEC.

HSES 244. Introduction to Physical Education and Sport Studies. 3 Hours.
The study of the history, foundational concepts, and current principles of physical education and sport programs. LEC.

HSES 248. First Aid. 2 Hours.
This course is designed to teach emergency treatment of injuries, wounds, hemorrhage, burns, and poisoning. Emphasis is placed on the techniques of rescue breathing, CPR, and emergency bandaging. American Red Cross certification is included. LEC.

HSES 250. Introduction to Athletic Training. 3 Hours.
The introductory study of the prevention, immediate care, and treatment of athletic related injuries and illnesses. This course is designed for Athletic Training majors to cover the basic competencies of injury/illness recognition as well as discuss the various strategies for the prevention, evaluation, and care of injuries to the physically active. Prerequisite: Instructor consent and concurrent enrollment in HSES 251. LEC.

HSES 251. Introduction to Athletic Training Practicum. 1 Hour.
This course is designed to introduce the practical skills and psychomotor clinical competencies of the beginning student-athlete trainer. Emphasis will be placed on basic Athletic Training procedures including but not limited to preventative taping, bracing, and padding techniques as well as various other procedures and techniques related to the prevention, care, and management of athletic related injuries/illnesses. Prerequisite: Completed or enrolled in Human Anatomy, First Aid/CPR (or proof of current certification). Concurrent enrollment in HSES 250 or transfer credit. Open to Athletic Training majors only. LEC.

HSES 252. The Coaching of Basketball. 2 Hours.
Theory of basketball, including methods of teaching fundamentals; individual and team offense and defense; various styles of play and methods of coaching. Prerequisite: Sophomore standing. LEC.
HSES 260. Personal and Community Health. 3 Hours.
Emphasis on healthful and intelligent living and the application of the fundamental principles of health. LEC.

HSES 262. Life Skills Training for Intercollegiate Athletics. 2 Hours.
This course will focus on issues surrounding drug use, testing, and prevention in sports and will incorporate life skills training in the areas of career transition, stress and time management, performance enhancement, strategic learning skills, and the dynamics of communication and leadership. LEC.

HSES 264. The Coaching of Individual Sports. 2 Hours.
An analysis of coaching techniques and study of materials for the coaching of gymnastics, swimming, golf, tennis, and wrestling. LEC.

HSES 269. Introduction to Exercise Science. 3 Hours.
A study of the various components of physical fitness and the wellness and the implications for developing programs to promote good health and fitness. Lectures and laboratory sessions will be centered on practical knowledge and experiences designed to help individuals enhance their own health, as well as develop sound programs for others. The topics discussed include cardiovascular fitness, body composition, muscular strength, flexibility, evaluation of fitness components, training program design, nutrition, weight management, and facts and fallacies of nutrition and fitness. LEC.

HSES 289. Introduction to Sport Management. 3 Hours.
This course provides an overview of the field of sport management including the principles of leadership and management and the fundamentals of personnel management, financial management, marketing, strategic planning, sport ethics, sport law, time management, stress management, facility management, and event management applied to sport settings. LEC.

HSES 290. Safety Education. 3 Hours.
A survey of safety problems as they exist in society today, with emphasis on preventive, corrective, and compensatory procedures. LEC.

Emphasis will be on instructional techniques that are used for the inclusion of all students in health and physical education learning experiences. Students will develop an understanding of how to deliver health and physical education activities that may be part of an individual education program. As a part of this course, a practicum experience of 30 hours in a public school adaptive physical education setting will be required. LEC.

HSES 305. Methods of Strength Training and Conditioning. 3 Hours.
This course will provide the students with the scientific principles and the hands-on experience to develop resistance exercise and related conditioning programs for a wide range of populations, including those focusing on general fitness, therapeutic rehabilitation and sport performance. Prerequisite: Anatomy, Physiology, admission to the Exercise Science or Athletic Training undergraduate programs, or permission of instructor. LEC.

HSES 308. Drugs and Diseases in Society. 3 Hours.
This course is an overview of human disease processes as well as legal and illegal use of drugs and narcotics for treatment or recreational purposes. Both communicable and degenerative diseases will be covered with regards to prevention, transmission, effects, management, and treatment. Legal drugs and illegal drugs will be discussed with regards to their treatment or abuse potential, legislative issues, and consumer education. Reflective thinking will be used to formulate improved perspectives on the roles of drugs and diseases in society. Prerequisite: Admission to Community Health Program or consent of instructor. LEC.

HSES 310. Research and Data Analysis in Health, Sport, and Exercise Sciences. 3 Hours.
This course provides formal instruction in the areas of test administration, general statistics, and basic research design. Emphasis will be placed upon the interpretation of statistical data, evaluation of data, and basic methodologies utilized in health, sport, and exercise sciences research. Data collection, analysis, and evaluation will be an integral part of the class. Prerequisite: Admission to the School of Education. LEC.

HSES 315. Health and Fitness Technology. 2 Hours.
The course will prepare health and physical education majors to use technology effectively to enhance teaching and learning. Students will explore the use of technology appropriate for communication, organization, instruction, and assessment in health and physical education classrooms. Prerequisite: Admission to the HPE Teacher Licensure Program. LEC.

HSES 320. Methods of Teaching Physical Education. 3 Hours.
This course provides a systematic approach to the development of effective teaching skills in physical education. Students receive practical and field experiences that enable them to observe and practice managerial, instructional, and interpersonal skills necessary to produce student learning in K-12 physical education classrooms. Prerequisite: Admission to the HSES Teacher Certification Program. LEC.

HSES 330. Principles of Nutrition and Health. 3 Hours.
This course will provide an introduction to the basic principles of nutrition, with an emphasis on application of these principles to improve overall health. Topics include: guidelines for a balanced diet, index of nutritional quality, energy requirements and balance, weight management and obesity, nutritional quackery, sports nutrition, nutrition for children and elderly, and eating disorders. LEC.

HSES 340. Instructional Strategies in Motor Development. 2 Hours.
This course is designed to provide students with an examination of current theories of motor development throughout the life cycle. Emphasis is placed on content regarding the development of fundamental motor skills, physical growth and development, and assessment. Prerequisite: Admission to the HSES Teacher Certification Program. LEC.

HSES 341. Instructional Strategies in Physical Education for Elementary Classroom Teachers. 1 Hour.
The application of child growth and development principles to physical education. The use of materials as related to a sequential physical education curriculum in the elementary school will also be included. Prerequisite: Prior or concurrent enrollment in CT 322 or equivalent. LEC.

HSES 350. Care and Prevention of Athletic Injuries. 3 Hours.
The introductory study of the prevention, immediate care, and treatment of athletic related injuries and illnesses. This course is designed to cover the basic fundamentals of injury/illness recognition as well as discuss the various strategies for the prevention and care of injuries to the physically active. Prerequisite: Courses in Human Anatomy and First Aid. LEC.

HSES 351. Foundations of Athletic Training. 1 Hour.
This course is designed to introduce the practical skills and psychomotor clinical competencies of the beginning student-athlete trainer. Emphasis will be placed on basic athletic training procedures including but not limited to preventative taping, bracing, and padding techniques as well as various other procedures and techniques related to the prevention, care, and management of athletic related injuries/illnesses. Prerequisite: Human Anatomy, First Aid, concurrent enrollment in HSES 350. Open to Athletic Training majors only. LEC.
HSES 352. Therapeutic Modalities. 3 Hours.
This course presents the theoretical and physiological foundations of pain and inflammation. Discussion of therapeutic agents to treat pain and inflammation are presented along with progressive planning and implementation of a comprehensive treatment for injuries/illnesses sustained by physically active individuals. Prerequisite: Admission into the Athletic Training Education program and HSES 250 or the transfer equivalent. LEC.

HSES 353. Athletic Training Practicum I. 2 Hours.
This course provides a practical experience for the student-athlete trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury/illness evaluation during their clinical and field experience. Specific skills addressed in HSES 352 will be practiced, applied, and mastered during this experience. Prerequisite: Admission to Athletic Training Education program and concurrent enrollment in HSES 352. FLD.

HSES 354. Lower Extremity Evaluation. 3 Hours.
This course provides a comprehensive study of the techniques used by the Athletic Trainer in regard to the assessment and evaluation of athletic injuries/illnesses of the lower extremity. Procedures for reporting and evaluating injuries/illnesses will be discussed so that appropriate injury management and referral may take place. The etiological factors common to athletic injuries, as well as specific signs and symptoms of various athletic related pathological conditions will be discussed. Prerequisite: Admission to the Athletic Training Program, HSES 352, and HSES 353. LEC.

HSES 355. Athletic Training Practicum II. 2 Hours.
This course provides a practical experience for the student-athlete trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury/illness evaluation during their clinical and field experience. Specific skills addressed in HSES 354 will be practiced, applied, and mastered during this experience. Prerequisite: Admission to Athletic Training Education program and concurrent enrollment in HSES 354. FLD.

HSES 358. Creative Movement and Dance Appreciation. 3 Hours.
An appreciation for dance will be developed through the study of the pioneers of dance and the critique of local dance performances. Students will experience the following types of dance: creative movement, basic rhythms, ballroom dance, and folk and square dance. Prerequisite: Admission to the School of Education. LEC.

HSES 365. Peer Health Education. 3 Hours.
The course is designed to train students in peer health education, as peer health educators in college settings, and as trainers, training adolescents in community health settings for grades 6-12 peer health education. Subject content and teaching methodologies will be emphasized in the ten content areas of health with special emphasis on alcohol, drugs, tobacco, stress reduction, mental health and human sexuality. Prerequisite: HSES 260 or instructor consent. LEC.

HSES 369. Kinesiology. 3 Hours.
This course is designed primarily for students in the field of exercise science who already have taken an introductory course in human anatomy and who need a more detailed exposure to concepts of functional movement anatomy. This course will provide a detailed study of the skeletal and muscular systems to include identification of the origin, insertion, and action of the major muscles of the human body. Students will become proficient in the use of directional and movement terminology used to describe movement and be able to identify the plane/axis as well as the agonist and antagonist muscles involved in a movement. Prerequisite: A course in human anatomy, admission to School of Education. LEC.

HSES 375. Neuromuscular Exercise Physiology and Motor Control. 3 Hours.
This course explores the control of human movement from an exercise neurophysiology perspective. Emphasis will be placed on the understanding the interactions between the nervous system and muscular systems in the control of muscle force/power production and the control of movement under a variety of contexts. These contexts include responses and adaptations to exercise training, the aging process, and in a variety of neuromuscular disorders. Prerequisite: BIOL 240 and BIOL 246. LEC.

HSES 378. The Coaching of Volleyball. 2 Hours.
Theory of volleyball, including methods of teaching fundamentals, individual and team offense and defense. Various styles of play and methods of coaching. Efficient performance of the skills during game conditions will be emphasized. LEC.

HSES 379. The Coaching of Softball. 2 Hours.
Theory and fundamentals of coaching softball. Methods of coaching, as well as team offense, defense, and strategies will be stressed. Efficient performance of the skills during game conditions will be emphasized. Prerequisite: Consent of instructor. LEC.

HSES 380. Sociology of Sport. 3 Hours.
A survey of the current literature concerning the scope of sociology in sport, the interaction of people in sport, the social systems controlling sport, and the small group dynamics in sport. Prerequisite: Admission to Sport Management program or permission of instructor. LEC.

HSES 381. Sport Ethics. 3 Hours.
This course will help students develop their abilities to reason morally through an examination within competitive sports of ethical theories, moral values, intimidation, gamesmanship, and violence, eligibility, elimination, winning, commercialization, racial equity, performance-enhancing drugs, and technology. Students will develop a personal philosophy of sport and learn how to apply a principled decision-making process to issues in sport. Prerequisite: Admission to Sport Management program or permission of instructor. LEC.

HSES 382. Sport Facilities and Event Management. 3 Hours.
This course will provide students with a solid grasp of the fundamental skills in sport facility and event management and the knowledge base to apply those skills in a real world environment. Students will learn about planning, designing and financing the construction of new sport facilities, sport facility management of regular and special events, sporting event planning and game day operations. Prerequisite: Admission in the Sport Management program or permission of instructor. LEC.

HSES 384. Sport Law. 3 Hours.
This course is intended to introduce undergraduate students to the major legal issues in amateur and professional sports including dispute resolution, tort law, contract law, constitutional law, statutory law, labor and antitrust law and intellectual law. Students will also learn about risk management, gender equity, the Americans with Disabilities Act and agency law and sports agents. Prerequisite: Admission to Sport Management program or permission of instructor. LEC.

HSES 385. Psychological Aspects of Exercise. 3 Hours.
This course is designed for students interested in optimizing motivation and adherence to exercise among individuals in a wide range of physical activity settings (e.g., health clubs, corporate fitness, and physical therapy/rehab). The course content will include a review of the literature highlighting the psychological benefits of exercise, the theoretical
advances in understanding the psychological aspects influencing individuals’ participation in physical activity, and an introduction to strategies and techniques for professionals attempting to foster motivation and adherence to exercise among their clients. Prerequisite: Admission to the Community Health program or instructor consent. LEC.

HSES 390. The Coaching of Track and Field. 2 Hours.
Designed to acquaint the student with the fundamentals of track and field athletics. LEC.

HSES 395. Concepts in Health and Wellness. 3 Hours.
This is designed as an introductory course into the profession of School and Community Health Education. Regardless of a person’s areas of specialization in Health Education, there are commonalities shared by all of us who are charged with the responsibility of providing education about health. Course emphasis will focus on: defining health education; history of health education; roles and competencies of health educators; theoretical bases for the profession; planning, implementing, administering, and evaluating health programs; settings for health education; future issues. Prerequisite: HSES 260. LEC.

HSES 403. Health Behavior Theory. 3 Hours.
This class will be an introduction to the primary models and theories used in health behavior research and health promotion practice. These models and theories undergird the development of successful health-related programs and interventions, and will help guide educators in the development of innovative and effective programming. The course will cover individual, interpersonal, community-level, and ecological theories, and students will have the opportunity to apply these theories to health behaviors of interest. LEC.

HSES 410. Program Design in Physical Education. 3 Hours.
The study of physical education curriculum models and extraclass programs appropriate for students in grades PK-12. Students will receive practical and field experiences related to program design and implementation. They will learn techniques appropriate for program evaluation as well as the assessment of student sport skills and fitness. Prerequisite: Admission to the HSES Teacher Certification Program. LEC.

HSES 418. Health Aspects of Aging. 3 Hours.
This course will consist of a Holistic Health approach to the various components of the aging process. Special emphasis will be placed on the demographic aspects of aging; normal aging changes and deviations in the aging process (pathophysiology); the relationship between mental and physical health, and the implications for the promotion of risk reduction and prevention principles that can effectively improve the quality of life for older individuals. Prerequisite: A course in personal and community health. LEC.

HSES 434. Consumer Health. 3 Hours.
This course will be a comprehensive examination of the factors involved in the selection of health products and services. Topics of discussion will be: protection laws and services, fraudulent practices and products, consumerism, and traditional and alternative health care. There will also be an in-depth examination of how to assess and evaluate health based products that are available to consumers. Prerequisite: Admission to the Community Health Program or consent of instructor. LEC.

HSES 440. Applied Sport and Performance Psychology. 3 Hours.
This course will examine the psychological principles and techniques that are applied to improve sport performance and other fields of achievement (e.g., exercise and wellness, music, and academics). Special attention will be given to psychological aspects of injury and rehabilitation, psychological conditioning, psychological training methods, coaching philosophy, the social psychology of team members, and components of peak performances. LEC.

HSES 453. Communicable and Degenerative Diseases. 3 Hours.
This course is designed to introduce the student to the study of the basic concepts/principles of disease process. Special emphasis will be placed on the etiology, origin, symptoms, treatment, body defenses, primary prevention, host, agent, (microbes) and environmental factors affecting disease occurrence, prevention and control measures. Topical application of the fundamental concepts of microbiology in school/community health practice will be critically discussed. The natural history of disease and disease classification will be highlighted. Many disease topics (both communicable and chronic, degenerative diseases) will be discussed. Prerequisite: A course in personal and community health. LEC.

HSES 455. Manual Therapy Techniques and Emergency Care Instructor Training. 3 Hours.
The purpose of the course is to train students in a Manual Therapy Technique for use in the clinical setting. The course is also designed to certify students as instructors in American Red Cross First Aid, CPR and AED courses as well as instructors for the CPR/AED for the Healthcare Provider. Prerequisite: Completion of HSES 352, HSES 354, HSES 456 and HSES 459 or equivalency from an accredited Athletic Training Education Program or have current First Aid and CPR/AED for the Healthcare Provider certification. LEC.

HSES 456. Upper Extremity Evaluation. 3 Hours.
The comprehensive study of the techniques used by the Athletic Trainer in regard to the assessment and evaluation of athletic injuries/illnesses of the upper extremity, head, and spine. Procedures for evaluating and reporting injuries/illnesses will be discussed as well as etiological factors and common signs/symptoms of various related pathological conditions. The purpose of this course is to prepare students with the skills necessary to accurately recognize the signs/symptoms of injuries and conditions in order to determine the nature and severity of the problems as well as establishing a proper care plan and medical referral when appropriate. Prerequisite: Admission into the Athletic Training Education program, HSES 354, and HSES 355. LEC.

HSES 457. Athletic Training Practicum III. 2 Hours.
This course provides a practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certifies Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury assessment and evaluation through a variety of techniques during their clinical and field experience. Specific skills addressed in HSES 456 will be practiced, applied, and mastered during this experience. Prerequisite: Admission into the Athletic Training Education program and concurrent enrollment in HSES 456. FLD.

HSES 458. General Medical/Pharmacology. 2 Hours.
This course will cover the general medical conditions/illnesses and pharmacological considerations commonly encountered in the field of Athletic Training. Prerequisite: Admission into the Athletic Training Education Program, HSES 456, and HSES 457. LEC.

HSES 459. Rehabilitation. 3 Hours.
This course discusses the planning involved and the implementation of a comprehensive rehabilitation program for injuries/illnesses sustained by the competitive athlete. Prerequisite: Admission into the Athletic Training program, HSES 456, and HSES 457. LEC.

HSES 460. Athletic Training Practicum IV. 2 Hours.
This course provides a practical experience for the athletic training student. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills obtained during previous coursework as well as apply rehabilitation skills obtained in HSES 459.
Prerequisite: Admission into the Athletic Training Education program, HSES 457, and concurrent enrollment in HSES 459. FLD.

HSES 461. Organization and Administration of Athletic Training. 2 Hours.
This course discusses the planning, coordinating, and supervising of all administrative components of an athletic training program. This includes public relations, athletic health counseling, and coach advisement about athletes' health matters. Prerequisite: Admission to the Athletic Training Education program, HSES 459 and HSES 460, and concurrent enrollment in HSES 562. LEC.

HSES 462. Athletic Training Practicum V. 2 Hours.
This course will provide a practical hands-on experience for the athletic training students enrolled in HSES 561. Prerequisite: Admission into the Athletic Training Education Program and concurrent enrollment in HSES 561. FL.

HSES 463. Senior Capstone in Athletic Training. 2 Hours.
This course is designed to allow senior Athletic Training Students to review previous content and prepare for the BOC certification exam as well as explore areas of professional development. Prerequisite: Admission into the Athletic Training program, HSES 561, and HSES 562. LEC.

HSES 464. Athletic Training Practicum VI. 2 Hours.
This course will provide a culminating practical experience for the athletic training students enrolled in HSES 563. Prerequisite: Admission into the Athletic Training Education program and concurrent enrollment in HSES 536. FL.

HSES 465. Program Assessment and Evaluation. 3 Hours.
This course will offer an introduction and hands-on application of program assessment and evaluation techniques in health education. As health educators and program planners, we are required not only to develop innovative programs and interventions to address community- and school-based health concerns, but also to give evidence that our efforts are both adequate and effective. Successful program assessment and evaluation incorporate knowledge of basic research methods as well as the theoretical understanding of health behaviors. LEC.

HSES 466. Program Planning in Health Education. 3 Hours.
This course is designed to provide the students with an in-depth knowledge of proven health planning models that can be used for program development and intervention. Students will learn how to develop attainable program goals and objectives which will allow programs and interventions to evolve into useful forms of community based health education. Prerequisite: Students must be admitted to the School of Education and the Community Health Program. LEC.

HSES 470. Introduction to Biomechanics. 3 Hours.
The course is designed to cover a basic understanding of the anatomical and mechanical principles of human movement. Areas covered will be joint and segmental movement, muscle actions, time-displacement motion description, forces causing or inhibiting motion, and stability. Special attention will be given to the application of the theoretical concepts in movement activities. Prerequisite: Anatomy, admission to the Exercise Science program, or permission of instructor. LEC.

HSES 472. Exercise Physiology. 3 Hours.
A fundamental study of the physiological adjustments that occur within the body during exercise. The presentation of this material is particularly oriented toward a basic understanding of the physiological systems as they are affected by the activity of a normal coaching or teaching situation. The physiological values of exercise are also stressed. Prerequisite: Three hours of physiology. LEC.

HSES 473. Clinical Fitness Evaluation Techniques. 3 Hours.
This course will provide the student with the knowledge and skills to assess components of physical fitness in adults including cardiorespiratory fitness, body composition, strength, and flexibility. In addition, specific emphasis will be placed on the development of exercise and weight management prescriptions. Students completing the course will have the skills to take the Health Fitness Instructor Certification exam given by the American College of Sports Medicine. Prerequisite: Exercise physiology or equivalent. LEC.

HSES 474. Exercise Biochemistry. 3 Hours.
This course will examine the processes that underlies the use and production of energy for exercise. Topics that will be explored include glycogenolysis and glycolysis in muscle, cellular oxidation of pyruvate, lipid metabolism, metabolism of proteins and amino acids, molecular biology, neural and endocrine control of metabolism, and local fatigue during exercise. Emphasis will be placed on carbohydrates, protein, and lipid metabolism and the acute and chronic effects that exercise has on these processes. Prerequisite: HSES 472. LEC.

HSES 480. Physical Activity and Exercise Management Individuals with Disabilities. 3 Hours. AE41.
An in-depth study of how physical activity and exercise can be a part of the treatment plan for people who have chronic disease or a disability. A variety of physical activity and exercise intervention programs and models will be presented and discussed, as well as protocols for baseline testing and post-treatment testing. A portion of this course will focus on how physical activity and exercise can prevent motor functioning deterioration in people who have a disability or limited functional movement. Prerequisite: Admission to the School of Education Exercise Science or Athletic Training programs and a course in human anatomy and physiology, or consent of instructor. LEC.

HSES 482. Drugs in Society. 3 Hours.
This course is designed to provide an in-depth exposure to basic drug classification, pharmacological effects, causes of drug abuse to society, common treatment modalities, and effective prevention/intervention strategies. In addition, consumer issues related to drug use, drug legislation, and drug education programs for school and community implementation will be discussed. Prerequisite: A course in personal and community health or consent of instructor. LEC.

HSES 483. Sport Finance and Economics. 3 Hours.
This course will help students gain an understanding of the critical importance of budgeting and financing sports-related industries based on sound financial principles and methods of financial control. Students will learn how economic principles shape the major national industry of sport. Prerequisite: Admission to Sport Management program or permission of instructor and completion of or concurrent registration in FIN 305 or FIN 310. LEC.

HSES 485. Sport Communication. 3 Hours.
This course examines the complex and evolving field of sport communication including personal, organizational, and external perspectives of sport communication. LEC.

HSES 486. Sport Marketing. 3 Hours.
This course is intended to provide undergraduate students with basic knowledge and competencies in definitions of marketing and sport marketing. Understanding the unique aspects of sport marketing, marketing planning process, consumer demographics and psychographics, the marketing mix, segmentation and target marketing, marketing proposal preparation, sponsorship, endorsement, merchandising, fundraising, marketing goals and objectives, sport consumer and consumer behavior, industry segmentation, special events, ticket sales and their use in promotion, the role of the media, television
Discussions of various teaching practices will be facilitated by the
Hours. AE61.

HSES 501. Seminar in Teaching Health and Physical Education. 2
Hours. AE61.

A cumulative GPA of 2.75 or higher and admission to the HSES teacher
certification program. FLD.

Prerequisite: Completion of all Sport Management coursework. Admission
determined by a faculty member with input from the on-site supervisor. Student interns must keep an accurate accounting of
hours with a performance work diary. Grades/credit for the internship are
evaluated by a faculty member with appropriate supervision by an on-
site professional. Student interns will apply toward the bachelor's degree. This course cannot be taken as a
substitute for a required course. Prerequisite: Recommendation of advisor and consent of instructor and department chairperson. IND.

Prerequisite: Admission to Sport Management program or permission of instructor. LEC.

HSES 488. Pre-Internship Seminar. 1 Hour.

This course will prepare students for their actual semester-long Internship experience. Students will be provided with background information on
available internship sites to assist in their site-selection decision. Students will learn about different management styles they may encounter, the
traits and characteristics of effective and productive employees, common
rules of the workplace and internship experiences of previous HSES Interns. Prerequisite: All HSES students must be in final semester prior to
Internship. LEC.

HSES 489. Health and Human Sexuality. 3 Hours.

The course is designed to encompass the various components of human
sexuality as well as to demonstrate applicable teaching techniques for
sex education. Included in the content of the course are: human sexual response, sexually transmitted diseases, family planning, sex roles, rape,
sexual preferences, and topics such as sexuality and the handicapped, sexuality and the mass media, and sexuality and the church. Teaching
techniques such as values clarification, non-verbal communications, role
playing, tape recordings, and problem solving are demonstrated with
appropriate topics. LEC.

HSES 497. Independent Study. 1-3 Hours.

Only one enrollment permitted each semester; a maximum of six hours will apply toward the bachelor's degree. This course cannot be taken as a
substitute for a required course. Prerequisite: Recommendation of advisor and consent of instructor and department chairperson. IND.

Prerequisite: Admission to the Sport Management program or permission of instructor. LEC.

HSES 499. Internship in Sport Management. 2-16 Hours. AE61.

A full-time work experience in the sport industry (40 hours per week). This experience is actual work in a sport management setting in which management practices are applied. Student interns are directed and evaluated by a faculty member with appropriate supervision by an on-
site professional. Student interns must keep an accurate accounting of
hours with a performance work diary. Grades/credit for the internship are
determined by a faculty member with input from the on-site supervisor. Prerequisite: Completion of all Sport Management coursework. Admission
to the Sport Management Internship program. FLD.

HSES 500. Student Teaching in: ____. 14 Hours. GE11.

A supervised teaching experience in an approved school setting, teaching
physical education at the elementary level and health and physical
education at the secondary level. The student must teach 8 weeks at
the elementary level and 8 weeks at the secondary level. Prerequisite:
A cumulative GPA of 2.75 or higher and admission to the HSES teacher
certification program. FLD.

HSES 501. Seminar in Teaching Health and Physical Education. 2
Hours. AE61.

Student teachers will learn to analyze teaching styles and instructional
methods that apply and/or relate to their student teaching experience. Discussions of various teaching practices will be facilitated by the
Prerequisite: Admission to the School of Education and the Community Health Program. LEC.

HSES 578. Health Internship Seminar. 2 Hours.
Students enrolled in the internship will learn how to analyze professional health environments, examine intervention programs, and understand models used to develop health based programs. Discussions surrounding the internship experience will be facilitated by the health education faculty. Topics will relate to all phases of the internship experience. The intent of this course is to better prepare the student for entering the health profession. Discussions will be held on conflict resolution in the work place, professional development, professional behavior and etiquette. Prerequisite: Concurrent enrollment in HSES 580 Internship in Health. LEC.

HSES 580. Internship in: _____ 2-16 Hours.
A supervised internship experience in an approved setting. The specific type of internship experience and the credits for that particular experience will be outlined in the appropriate program of the student. Prerequisite: Admission to a HSES Internship Program. FLD.

HSES 581. Athletic Training Practicum I: Recognition and Evaluation. 4 Hours.
This course provides a practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury/illness recognition and evaluation during their clinical and field experience. Specific skills addressed in HSES 528 will be practiced, applied, and mastered during this experience. Prerequisite: Admission to the Athletic Training program. Concurrent enrollment in HSES 528. LEC.

HSES 582. Athletic Training Practicum II: Management and Treatment. 4 Hours.
This course provides a practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury/illness evaluation and management and treatment of athletic injuries through a variety of therapeutic modalities during their clinical and field experience. Specific skills addressed in HSES 529 and HSES 654 will be practiced, applied, and mastered during this experience. Prerequisite: HSES 581 and concurrent enrollment in HSES 529 and HSES 654. LEC.

HSES 583. Athletic Training Practicum III: Rehabilitation. 4 Hours.
This course provides a practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills of injury rehabilitation/reconditioning through a variety of therapeutic exercise techniques during their clinical and field experience. Specific skills addressed in HSES 656 will be practiced, applied, and mastered during this experience. Prerequisite: HSES 582, concurrent enrollment in HSES 656. LEC.

HSES 584. Athletic Training Practicum IV: Senior Sport Experience. 4 Hours.
This course provides a culminating practical experience for the student-athletic trainer. Students gain experience through a hands-on approach via clinical settings and field experiences. Practical experiences are supervised by a Certified Athletic Trainer and provide opportunities for students to apply the knowledge and skills obtained during previous coursework as well as apply administrative and management skills obtained in HSES 658. This course is intended to allow the Senior student more freedom and responsibility in decision making regarding the health care of an athletic team. Prerequisite: HSES 583, concurrent enrollment in HSES 658. LEC.

HSES 589. Special Course: _____ 1-5 Hours.
A special course of study to explore current trends and issues in health and physical education - primarily for undergraduates. LEC.

HSES 605. Administering Health Related Programs. 3 Hours.
This course will consist of an analysis of administration as it relates to both school and community health programs. The focus will be on administrative models and techniques used to establish and maintain sound health programs in school and community settings. Prerequisite: Six hours of health education or consent of instructor. LEC.

HSES 671. Applied Biomechanics. 3 Hours.
This course will examine the qualitative biomechanical analysis of human movement directed towards the goals of performance improvement and injury prevention and rehabilitation. Specifically, this course will provide students with a basis knowledge of the biomechanical foundations of human movement, the knowledge and skills necessary to complete a systematic analysis and evaluation of human motor performance, and the ability to determine and provide interventions that are likely to improve movement in athletic, clinical, educational, and work environments. Prerequisite: A course in human anatomy, admission to the HSES Teacher Certification Program or consent of instructor. LEC.

HSES 674. Motor Development During Growth. 3 Hours.
Motor development in childhood and adolescence and its relationship to physical growth. Factors influencing motor learning and development will be explored. This course provides basic understanding of the neuromuscular changes and abilities of children and adolescents. Prerequisite: A course in kinesiology and anatomy. LEC.

HSES 715. Understanding Research in HSES. 3 Hours.
This course introduces the concepts and skills involved in understanding and analyzing research in education and related areas. The course provides an overview of basic, general knowledge of various research methodologies. Students should expect to study much of this material in greater depth through additional work before being fully prepared to conduct independent research. However, this course should enhance their ability to locate, read, comprehend, and critically analyze research articles and reports. Topics in the course include quantitative and qualitative methods and designs, historical and descriptive research, and program evaluation. (This course fulfills the requirement of a research methods course in the first 12 hours of graduate study.) Prerequisite: Must be an admitted HSES graduate student. LEC.

HSES 730. Advanced Concepts in Nutrition. 3 Hours.
A study of the nutritional factors that affect health at all ages. Specific nutritional needs and effects of deficiency states on health will also be addressed. The course will also include the physiological and biochemical mechanisms involved in the use of nutrients for human growth and development as well as the production of energy through the metabolic process. Prerequisite: HSES 330 or equivalent experience and permission of instructor. LEC.

HSES 771. Internship in Exercise Science. 6 Hours.
A supervised internship experience in an approved exercise science setting. Students will gain experience through a hands-on approach via clinical and/or research settings. The specific type of internship experience will be agreed upon by the student and their academic advisor. Prerequisite: Successful completion of at least 24 graduate credit hours. LEC.
HSES 777. Practicum in Health Education and Wellness Promotion. 1-3 Hours.
This course is designed to provide practical community health experiences in health education and wellness promotion, including: assessment, planning, implementation and program evaluation. With approval of the instructor, students may choose their practicum focus in any of the ten content areas of health: mental and emotional, family living, growth and development, nutrition, personal health, alcohol tobacco and other drugs, communicable and chronic diseases, injury prevention and safety, consumer health and environmental health. Prerequisite: Enrolled in graduate school and consent of the instructor. LAB.

HSES 779. Physiology of Functional Aging. 3 Hours.
The course has been designed to address issues and concepts relating to the biological aging process as a foundation for physical performance, general fitness, and health status. The biological concepts are applied to the human physiological aging process and the systems involved as well as the possible interventions that may effect that process. The several theories associated with physiological aging are also addressed as related to the physiological systems and current research that may impact the understanding of these theories. Prerequisite: A course in basic biology. LEC.

HSES 780. Internship in Teaching Physical Education: _____, 1-16 Hours.
A supervised internship experience leading to initial physical education teacher certification. The student assumes the total professional role as a teacher of physical education in an approved school setting. FLD.

HSES 795. Traditions and Principles in Health Education. 3 Hours.
This course is designed to explore the philosophy and principles which provide the foundation of health education as an academic discipline. Specific topics include: history of the profession, theories of health behavior and behavior change, principles of learning applied to health communications, health promotion practices, professional preparation, and the integration of philosophical and ethical ideals into program planning and implementation. LEC.

HSES 798. Special Course: _____, 1-5 Hours.
A special course of in-depth study exploring current trends and issues in health and physical education - primarily for undergraduates. LEC.

HSES 801. Sport Facilities. 3 Hours.
The purpose of this course is to study current developments and trends in the financing, programming, design, and construction of facilities for intercollegiate athletics and professional sports. Prerequisite: Admitted to graduate school. A course in the administration/management of sport or consent of the instructor. LEC.

HSES 803. Health Behavior Theory. 3 Hours.
Given that theories of health behavior drive research and practice in health education, the purpose of this course is to familiarize students with the major theories and planning models related to health behavior change. Particular focus will be applied to the role of theory in health promotion and critical analysis of the application of theory to guide research practices. Prerequisite: Health major or consent of the instructor. LEC.

HSES 804. Sport Psychology. 3 Hours.
This course is designed to introduce students to the current research and theoretical perspectives in the sport psychology literature. Specifically, students will gain a broad understanding of the three major areas of sport psychology: social psychology (e.g., motivation), performance enhancement (e.g., mental skills training), and psycho-physiology (e.g., impact of anxiety on performance). Prerequisite: Admission in the health program or consent of the instructor. LEC.

HSES 805. Laboratory Experiments and Analysis--Exercise Physiology. 3 Hours.
Students will learn the techniques of operating various types of laboratory equipment and will conduct small-scale lab experiments in areas such as respiration, circulation, metabolism, strength, neuromuscular function, cardiac function, and body composition. Special emphasis will be placed on laboratory techniques of assessing physical fitness. Prerequisite: A course in exercise physiology. LAB.

HSES 806. Stress Management. 3 Hours.
The long range objectives of this course are to assist students in gaining stress management knowledge: to help them to formulate improved perspectives on various stress management techniques; and consequently apply the developing constructs in their lives with a sense of purpose and self-responsibility. Prerequisite: Two courses in health education or consent of instructor. LEC.

HSES 807. Current Literature in Exercise Physiology. 2 Hours.
A wide range of topics from the exercise physiology literature will be discussed. Instructor and students will present reports to the group centered on current research findings with discussion aimed at application of these results to physical exercise and training. Prerequisite: A basic course in exercise physiology or consent of instructor. LEC.

HSES 808. Biomechanics of Human Movement. 3 Hours.
This course will examine the movements and the structure and function of human beings by means of the methods of mechanics. An emphasis will be placed on the two primary goals of biomechanics: performance improvement and injury prevention and rehabilitation. Topics to be covered include the kinematics and kinetics of human movement, muscle mechanics, bone and joint mechanics, and the biomechanics of musculoskeletal injury. Prerequisite: Courses in calculus, physics, anatomy, and biomechanics, or consent of instructor. LEC.

HSES 810. Advanced Exercise Physiology. 3 Hours.
An advanced study of the physiological and biomechanical aspects of muscular, cardiovascular, and respiratory function as the human is engaging in exercise. The topics of energy metabolism, hormones, and nutrition as related to exercise also are presented. Prerequisite: A basic course in exercise physiology. LEC.

HSES 812. Current Issues in Health. 3 Hours.
This course is designed to review and discuss current issues in various health related areas. The focus will be on relevant issues and topics that are guiding and directing the health profession. The range of topics discussed will vary from popular literature to scientific research and cover such areas as health education, community health, and health over the lifespan. Students in the course will be expected to report, discuss, and interact with each other concerning the issues as they are reported. Prerequisite: A graduate course in health or consent of the instructor. LEC.

HSES 814. Implementing Health Programs. 3 Hours.
The purpose of this course is to explore planning models used for designing, implementing and managing health promotion programs. Students will be trained to develop objectives, assess determinants, select methods and strategies, pre-test program materials, and adopt and implement promotional plans. Problem based and community based learning experiences will be provided. Prerequisite: A health major or permission from the instructor. LEC.

HSES 817. Practical Aspects of Aerobic and Resistance Training. 3 Hours.
This course will be a discussion of various concepts related to aerobic and resistance training. By the end of the semester, the student should be able to demonstrate an understanding of information presented in this
course by achieving satisfactory evaluations of presentations, papers, and an examination of the following topics: energy metabolism, general adaptations of aerobic and resistance training, exercise techniques for aerobic and resistance training, periodization of training, testing and evaluation of aerobic and resistance training performance, and exercise prescription for aerobic and resistance training. Prerequisite: Undergraduate course in exercise physiology or consent of instructor. LEC.

HSES 818. Legal Aspects of Public Health Education. 3 Hours.
This course is designed to enhance understanding of the variety of legal issues which affect health educators and their audiences. Specifically, this course will survey federal, state, and local public health laws and regulations which may proscribe health education content and the health educator’s actions. Legislation will be analyzed and the practical impact of the health educator upon the legislative process will be emphasized. Prerequisite: A course in community health or consent of instructor. LEC.

HSES 823. Behavior Modification in Health and Exercise. 3 Hours.
This course will examine the behavioral principles that influence health and exercise practices. Theories of human behavior, reinforcement theory, and models of self-esteem will serve as the foundation for studying behavior change. Society influences will be strongly emphasized. Course topics will include exercise determinants, motivation, media representation, negative behaviors, self-efficacy, social support, and effective promotion strategies. Prerequisite: Admitted to Graduate School or consent of instructor. LEC.

HSES 824. Epidemiology and Concepts of Disease Causation. 3 Hours.
This course involves the study of the etiology and natural history of infectious and non-infectious diseases including vector control, host defenses and resistance, investigation of disease outbreaks, mental health and public health. The course deals with detailed analytic and descriptive epidemiology and their implications for improving our understanding of health and diseases; epidemiologic consequences of nuclear war and retrospective and prospective approaches in epidemiological research. Contemporary developmental methods for disease prevention will be critically reviewed. Prerequisite: HSES 573, or equivalent, or consent of instructor. LEC.

HSES 825. Skeletal Muscle Physiology. 3 Hours.
This course will provide the student with an in-depth study of the structure and development, contractile mechanics, and neuromuscular system as it relates to the skeletal musculature. Structure and Development - muscle fiber, motor neuron, neuromuscular junction, muscle receptors, muscle formation, development of muscle innervation. Putting Muscles to Work - ion channels, pumps, and binding proteins, axoplasmic transport, resting and action potentials, neuromuscular transmission, muscle contraction, motor units, exercise, muscle metabolism. The Adaptable Neuromuscular System - fatigue, loss of muscle innervation, recovery of muscle innervation, neurotrophism, disuse, muscle training, injury and repair, aging. Prerequisite: HSES 810 or equivalent. LEC.

HSES 828. Sport Finance. 3 Hours.
A study of the principles and applications of finance and economics in the sport industry. Strategic financial planning as a part of managements responsibilities is highlighted. Prerequisite: Admitted to Graduate School. LEC.

HSES 830. Socio-Cultural Dimensions of Sport. 3 Hours.
Current literature concerning the impact of American social values and cultural patterns of sport and physical activity will be studied. Critiques of related research involving sport and social institutions, and socio-cultural groups in sport will be emphasized. Prerequisite: A course in Sociology of Sport or consent of instructor. LEC.

HSES 831. Ethics in the Sport Industry. 3 Hours.
This course is designed to help students learn to make morally reasoned decisions in various sport settings. This course will help prepare students to respond more responsibly when faced with challenging ethical dilemmas and guide them in learning to serve as role models for ethical conduct. LEC.

HSES 832. Physical Education Instructional and Assessment Methods. 3 Hours.
The study of research-based instructional and assessment methods appropriate for PK-12 physical education. Managerial, instructional, and supervisory skills will be developed. Traditional and alternative assessment tools will be discussed. Readings, observations (live and video), and practice teaching will prepare students to complete a practical experience and an action research project in a PK-12 school. Prerequisite: Admission to Graduate School. LEC.

HSES 833. Public Health Aspects of Exercise. 3 Hours.
This course describes the timeline for physiologic adaptations to long-term physical activity. It describes the effects of physical activity on chronic disease. It describes, from a population perspective, the effects of physical activity on the health of the nation. Prerequisite: 12 hours of HSES courses, or equivalent, or consent of instructor. LEC.

HSES 836. Physical Education Curriculum Models. 3 Hours.
An examination of the elements and processes of curriculum construction in physical education for elementary, secondary, and post-secondary institution, and the institutional and professional issues that affect these processes. A study of contemporary curricula structures in regard to planning, implementation, and evaluation of K-12 curricula and professional preparation curricula in physical education programs. Prerequisite: A course in physical education curriculum, or equivalent. LEC.

HSES 840. Organizational Behavior in Sport. 3 Hours.
This course utilizes a micro perspective to analyze the behavior and culture within sport organizations. Specifically, the student will study and learn how to apply management and leadership theories that have the potential to shape the work environment and will discuss how current topics in organizational behavior are particularly relevant to the sport industry. Prerequisite: Admitted to Graduate School. Consent of the instructor. LEC.

HSES 842. Sports Marketing. 3 Hours.
This course helps students gain a deeper understanding of sport marketing by examining in-depth the sport marketing mix of product, price, place, and promotion as well as marketing research, marketing strategy, market segmentation, branding, sponsorships, licensing, venue and event marketing, public relations, and global sport marketing. LEC.

HSES 850. Analysis Techniques for Health, Sport, and Exercise Sciences Laboratory and Field Data. 3 Hours.
Techniques for analyzing data gathered in Health, Sport, and Exercise Sciences laboratories and field studies will be presented in this course. Techniques for the recording of raw data, appropriate organization of raw data, selection of test for analysis of data, use of computer software, and computer programming for analysis and reporting results of the data will also be included. Prerequisite: PRE 710, PRE 720, or PRE 725. LEC.

HSES 866. Contemporary Trends in Elementary and Secondary Physical Education. 3 Hours.
An in-depth study into the research and other forms of literature will be made to study and examine the latest trends in elementary and secondary school physical education. Games, activities, dances, and rhythms will be presented and discussed relative to developmental levels
of students grades K-12. Prerequisite: A methods course in teaching
physical education or consent of instructor. LEC.

HSES 872. Exercise and the Cardiovascular System. 3 Hours.
This course will be a discussion of various concepts specifically related to
exercise and the cardiovascular system. By the end of the semester, the
student should be able to demonstrate an understanding of the interaction
of exercise and cardiovascular system by achieving satisfactory
evaluations on examinations, abstracts, and classroom presentations. The
following topics will be discussed as they relate specifically to exercise:
homeostasis and cardiovascular transport mechanisms, basic structure
and function; characteristics of cardiac cells; the heart as a pump; the
peripheral vascular system; vascular control; venous return and cardiac
output; regulation of arterial pressure; cardiovascular responses to stress;
and cardiovascular function in pathological situations. Prerequisite:
Undergraduate course in exercise physiology or consent of instructor.
LEC.

HSES 880. Internship in Sport Management. 1-10 Hours.
This course will provide for supervised and directed experiences in
selected sport management settings. The graduate advisor will schedule
observations of the internship, as well as regular conferences with the
student. Written summaries and evaluations of the internship will be
prepared by the student, the agency supervisor, and the university
graduate faculty member. Prerequisite: Admission to the Graduate
Program in Sport Management. FLD.

HSES 884. Legal Aspects of Sport. 3 Hours.
This course is intended to introduce graduate students to the basic
concepts of the American legal system and the application of them to
intercollegiate and professional sports. Particular emphasis will be given
to risk management and preventive law. Other topics include: governance
issues in intercollegiate and professional sports, contract law, employment
discrimination, labor relations and collective bargaining, agency law and
athlete agents, regulation of participation in intercollegiate and high school
athletics, sport facility and event issues, participant liability issues, product
liability issues, premises and spectator liability, participant violence in
sports, and intellectual property law. Prerequisite: Admission to graduate
program in School of Education LEC.

HSES 890. Seminar in HSES. 3 Hours.
This course is designed to provide a general research seminar learning
experience for graduate students in HSES. In particular, students will
learn about faculty research activities and interests from a variety of
specialty areas both within KU and outside of KU. Through faculty and
guest presentations, students will be exposed to a variety of design and
methodologies used to conduct research in the specialty areas of HSES.
LEC.

HSES 892. Psychology of Physical Activity. 3 Hours.
This course is designed for students interested in optimizing motivation
and adherence to exercise among individuals in a wide range of physical
activity settings (e.g., health clubs, corporate fitness, physical therapy).
The course content includes a review of the literature highlighting
the psychological benefits of exercise, the theoretical advances in
understanding the psychological aspects of individuals’ participation
in physical activity, and strategies and techniques for professionals
attempting to foster motivation and adherence to exercise among their
clients/members. Prerequisite: Admission to the health program or
consent of the instructor. LEC.

HSES 897. Independent Study. 1-4 Hours.
Prerequisite: Consent of advisor and instructor. RSH.

HSES 898. Master’s Project. 1-4 Hours.
RSH.

HSES 899. Master’s Thesis. 1-6 Hours.
THE.

HSES 905. Advanced Concepts in Health Education. 3 Hours.
This course is designed as an in-depth study of the pedagogy of health
education. It is concerned with the effects of various health education
models, new materials, and innovative teaching techniques. The
effectiveness of various media such as films, slides, transparencies,
macrocomputers, and assessment tools will be analyzed. Research
contemporary innovations in education will be investigated along with a study
of future trends in the field. Timely issues of controversy about health
education practices and the effectiveness of values clarification activities
will also be discussed. LEC.

HSES 910. Biochemistry of Exercise. 3 Hours.
This course will include an in-depth examination of metabolic and
endocrine principles as they relate to physical exercise and training.
Specific topics will include: substrate utilization in exercise, metabolic
controls, muscle biochemistry, body composition, nutritional aspects and
hormonal influences in exercise. Both instructor and students will report
on the most current literature relating to the topics. Prerequisite: Human
biodynamics or a course in biochemistry. LEC.

HSES 926. Grant and Research Proposal Writing. 3 Hours.
This is a course for students to examine the sources and areas which
provide financial support for research projects. The areas of study include
types of research funding available on a local, state, and federal level,
the elements and design of writing a proposal and strategies involved in
securing financial support for research. A focus for the course will center
upon preparing a research proposal for funding. Prerequisite: PRE 710.
LEC.

HSES 940. Scientific Dimensions of Exercise and Health. 3 Hours.
This course has been designed to bring together the many scientific
factors relating exercise and physical activity to health and human
function. The course focuses on the interdisciplinary nature of this
relationship and reviews the physiological, sociological, psychological,
and behavioral factors involved. Prerequisite: Fifteen hours of graduate
level course work in health or physical education and admission to health
or physical education doctoral program. LEC.

HSES 980. Advanced Topics: ______. 1-3 Hours.
A special course of study to meet current needs of education
professionals -- primarily for post-master's level students. LEC.

HSES 981. Current Issues in Health and Physical Education. 3 Hours.
This course will explore the latest philosophical issues and controversies
which are impacting the fields of health, physical education, and athletics.
The student will explore the current and future ramifications of each issue
and its potential effects on the profession. Prerequisite: Admission to the
Health, Sport, and Exercise Sciences Doctoral Program. LEC.

HSES 990. Doctoral Seminar. 3 Hours.
This seminar based course will be designed to prepare the doctoral
student for academic careers or careers in industry after they graduate.
The topics covered will be promotion and tenure procedures and
expectations, including but not limited to teaching, responsible conduct
of research, professional ethics, historical ethical issues, evaluation
of ethical dilemmas, and service expectations at research intensive
institutions, regional comprehensive institutions and small liberal arts
colleges. Industry career options will be discussed and guest speakers
from various disciplines will be brought in to discuss options and
expectations with this career path. Prerequisite: Doctoral student or
permission of the instructor. LEC.
HSES 995. Field Experience in: ____. 1-5 Hours.
Supervised and directed experiences in selected educational settings. The advisor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experiences will be prepared independently by the student, a representative of the cooperating agency, and the advisor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. FLD.

HSES 996. College Teaching Experience in: ____. 3 Hours.
To meet the college teaching experience requirement for doctoral programs, a student shall engage in a semester long, planned, instructional activity that shall include college classroom teaching under supervision. Planning shall be done with the advisor and/or member of the faculty who will supervise the experience. The activity shall be done under the supervision of a member of the University of Kansas faculty or by an individual or individuals designated by the candidate’s committee. FLD.

HSES 997. Individual Study. 1-4 Hours.
Prerequisite: Prior graduate course work in the area of study and consent of instructor. RSH.

HSES 999. Doctoral Dissertation. 1-15 Hours.
THE.

Bachelor of Science in Education

Advising

Undergraduate Advising

Information about assigned advisors is given in the letter of admission. Education staff members advise pre-education students individually and in group sessions.

Undergraduate First- and Second-Year Preparation

Prospective undergraduates should contact the School of Education Welcome Center (http://soe.ku.edu/advising), 208 J.R. Pearson Hall, 785-864-3726, or the Health, Sport, and Exercise Sciences undergraduate office, 161 Robinson Center, 785-864-5552.

During the first 1½ to 2 years, all students are enrolled in the College of Liberal Arts and Sciences, where they meet a portion of the general education requirements. In the first year and a half, students planning to enter the teacher education program begin taking education courses (C&T 100 and ELPS 250) that provide a basis for a career decision and a foundation for professional education courses in the later years.

In the first year, students planning to enter the school as second-semester sophomores should enroll in C&T 100 Introduction to the Education Profession. During the second semester of the first year or the first semester of the sophomore year, students should enroll in ELPS 250 Education and Society.

Students who will apply for admission to the Health, Sport, and Exercise Sciences program are not required to take C&T 100 or ELPS 250.

Undergraduate Admission to the School of Education

Undergraduates intending to transfer to the school as juniors must work closely with education advisors. Pre-education students must take specified courses in their first 1½ years. Students are admitted to C&T teaching programs once a year; online applications (https://www.applyweb.com/apply/kued) are due September 16 for the next spring semester. Students are admitted to the Health & Physical Education and Community Health programs once a year; online applications are due February 4 for the next fall semester. Students are admitted to the HSES Athletic Training program once a year; online applications (https://www.applyweb.com/apply/kued) are due February 4 and paper applications (http://hses.soe.ku.edu/academics/athletic-training/admission) are due May 1 for fall semester. Students are admitted to HSES Sport Management and Exercise Science programs twice a year; online applications are due February 4 for fall and September 16 for spring semester.

For information about initial admission to KU, visit the Office of Admissions (http://admissions.ku.edu/whyku/index.shtml). Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Health and Physical Education

Health and Physical Education Teacher Licensure Program (PK–12)

Admission

Students are selected once a year in the spring for fall semester admission. Submit an application (https://www.applyweb.com/apply/kued). All materials are due on February 4. Students are notified of decisions in writing on or before March 16. Students who plan to teach health and physical education must meet the following requirements:

1. Applicants must have completed at least 48 hours by the time of application. The cumulative grade-point average must be at least 2.75.
2. Students must take the ACT, SAT or other equivalent test.
3. The following courses (48-50 credit hours), or KU equivalents for transfer students, must be completed before the application deadline:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition (or exemption, must be a total of 6 hours of composition)</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing (must be a total of 6 hours of composition)</td>
</tr>
<tr>
<td>or ENGL 105</td>
<td>Freshman Honors English</td>
</tr>
<tr>
<td>MATH 101</td>
<td>College Algebra</td>
</tr>
<tr>
<td>or MATH 104</td>
<td>Precalculus Mathematics</td>
</tr>
<tr>
<td>MATH 105</td>
<td>Introduction to Topics in Mathematics (or a math class above MATH 105)</td>
</tr>
<tr>
<td>COMS 130</td>
<td>Speaker-Audience Communication</td>
</tr>
<tr>
<td>BIOL 100 &amp; BIOL 102</td>
<td>Principles of Biology and Principles of Biology Laboratory</td>
</tr>
<tr>
<td>BIOL 240</td>
<td>Fundamentals of Human Anatomy</td>
</tr>
<tr>
<td>PSYC 104</td>
<td>General Psychology</td>
</tr>
<tr>
<td>Select one social sciences course to meet KU CORE GOAL 4: Learning Outcome 2</td>
<td></td>
</tr>
</tbody>
</table>

HSES 201 Team Sports 2
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSES 202</td>
<td>Individual and Dual Sports</td>
<td>2</td>
</tr>
<tr>
<td>HSES 214</td>
<td>Physical Education Activities for Elementary School Children</td>
<td>3</td>
</tr>
<tr>
<td>HSES 244</td>
<td>Introduction to Physical Education and Sport Studies</td>
<td>3</td>
</tr>
<tr>
<td>HSES 260</td>
<td>Personal and Community Health</td>
<td>3</td>
</tr>
<tr>
<td>HSES 308</td>
<td>Drugs and Diseases in Society</td>
<td>2</td>
</tr>
<tr>
<td>or HSES 330</td>
<td>Principles of Nutrition and Health</td>
<td>3</td>
</tr>
<tr>
<td>or HSES 489</td>
<td>Health and Human Sexuality</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following:

- HSES 308: Drugs and Diseases in Society
- HSES 330: Principles of Nutrition and Health
- HSES 489: Health and Human Sexuality

Total Hours: 48-50

1. Must have a grade of a "C" or higher. This means that a "C-" doesn't count.
2. Must have a grade of "B-" or higher.

### Pre-Block Courses

#### Language Arts and Communication (9)
- ENGL 101: Composition 1
- ENGL 102: Critical Reading and Writing 1
- COMS 130: Speaker-Audience Communication 1

#### Behavioral Science (3)
- PSYC 104: General Psychology

#### Social Sciences and Humanities (9)
- Course selected from KU Core Goal 4: Learning Outcome 2 (Social Science)
- Second course selected from KU Core Goal 4: Learning Outcome 2 (Social Science)
- Course selected from KU Core Goal 3: Teacher Licensure Non-Western Requirement (Humanities)

#### Science and Mathematics (17-18)
- BIOL 100: Principles of Biology
- BIOL 102: Principles of Biology Laboratory 1
- BIOL 240: Fundamentals of Human Anatomy 1
- Course selected from the natural sciences (Earth or Physical Science) 4-5
- Mathematics (usually 6 hours, depending on placement) 1

#### Physical Education and Health Content Courses (21)
- HSES 201: Team Sports 2
- HSES 202: Individual and Dual Sports 2
- HSES 214: Physical Education Activities for Elementary School Children 2
- HSES 244: Introduction to Physical Education and Sport Studies 2
- HSES 248: First Aid
- HSES 260: Personal and Community Health 2
- HSES 308: Drugs and Diseases in Society 2
- or HSES 330: Principles of Nutrition and Health
- or HSES 489: Health and Human Sexuality
- or HSES 308: Drugs and Diseases in Society 2

### Block Courses

#### Junior

<table>
<thead>
<tr>
<th>Block</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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</table>

#### Senior

<table>
<thead>
<tr>
<th>Block</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
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<td></td>
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</tbody>
</table>

Note: During block 3, students are encouraged to take PLT and content exams for Health & Physical Education.

Total Hours: 61

1. A grade of "C" or higher is required. This means that a "C-" doesn't count.
2. 20 clock hours. Serve as a teaching aide for an adapted physical educator in a local district.
3. 10 clock hours. Serve as a teaching aide for health educator in local district.
4. 30 clock hours. Serve as a teaching aide in an elementary, middle, or junior high PE classroom.
Progression to Block 4 requires that all coursework is completed with a minimum cumulative GPA of 2.75. A cumulative GPA of 2.75 is required for graduation.

Community Health

Community Health Admission

Students may apply for admission once a year. Submit an application (http://www.soe.ku.edu/prospective-students-undergraduate) by February 4 for fall semester admission.

Community Health Program

This option prepares students for health-related careers in public agencies. In addition to general education requirements, the program includes major requirements, electives from courses complementary to the program, and a 14 credit hour internship (40 hours a week for 15 weeks). A 2.75 cumulative grade-point average is required to apply for the internship and to graduate. Students must complete all KU requirements to graduate.

Program Requirements

Admission Requirements (29)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition (or exemption)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>MATH 101</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>OR MATH course higher than MATH 101 (Excluding MATH 103, MATH 109 or MATH 110)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>COMS 130</td>
<td>Speaker-Audience Communication</td>
<td>1</td>
</tr>
<tr>
<td>COMS 150</td>
<td>Personal Communication</td>
<td>1</td>
</tr>
<tr>
<td>COMS 230</td>
<td>Fundamentals of Debate</td>
<td>1</td>
</tr>
<tr>
<td>JOUR 150</td>
<td>Stand and Deliver</td>
<td>1</td>
</tr>
<tr>
<td>COMS 201</td>
<td>Introduction to Leadership</td>
<td>2</td>
</tr>
<tr>
<td>PSYC 104</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or SOC 104</td>
<td>Elements of Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Humanities or Social Science Principal Course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Second Humanities or Social Science Principal Course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIOL 100</td>
<td>Principles of Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 102</td>
<td>Principles of Biology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>HSES 248</td>
<td>First Aid (or current certification)</td>
<td>2</td>
</tr>
</tbody>
</table>

General Education Requirements (21)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 104</td>
<td>Elements of Sociology</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 104</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ABSC 310</td>
<td>Building Healthy Communities</td>
<td>3</td>
</tr>
<tr>
<td>COMS 246</td>
<td>Introduction to Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>or COMS 342</td>
<td>Problem-Solving in Teams and Groups</td>
<td>3</td>
</tr>
<tr>
<td>Humanities or Social Science principal course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIOL 240</td>
<td>Fundamentals of Human Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 246</td>
<td>Principles of Human Physiology</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 320</td>
<td>Stratcom I: Introduction to Strategic</td>
<td>3</td>
</tr>
<tr>
<td>Communication</td>
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</tbody>
</table>

Major Requirements (43)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSES 385</td>
<td>Psychological Aspects of Exercise</td>
<td>3</td>
</tr>
<tr>
<td>HSES 403</td>
<td>Health Behavior Theory</td>
<td>3</td>
</tr>
<tr>
<td>HSES 573</td>
<td>Introduction to Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HSES 465</td>
<td>Program Assessment and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>HSES 466</td>
<td>Program Planning in Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HSES 489</td>
<td>Health and Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>HSES 310</td>
<td>Research and Data Analysis in Health, Sport, and Exercise Sciences</td>
<td>3</td>
</tr>
<tr>
<td>HSES 365</td>
<td>Peer Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HSES 418</td>
<td>Health Aspects of Aging</td>
<td>3</td>
</tr>
<tr>
<td>HSES 578</td>
<td>Health Internship Seminar</td>
<td>2</td>
</tr>
<tr>
<td>HSES 580</td>
<td>Internship in: (Community Health)</td>
<td>14</td>
</tr>
</tbody>
</table>

Electives (30-32)

Select at least 10 of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSES 308</td>
<td>Drugs and Diseases in Society</td>
<td></td>
</tr>
<tr>
<td>HSES 330</td>
<td>Principles of Nutrition and Health</td>
<td></td>
</tr>
<tr>
<td>HSES 434</td>
<td>Consumer Health</td>
<td></td>
</tr>
<tr>
<td>AAAS 330</td>
<td>Black Leadership</td>
<td></td>
</tr>
<tr>
<td>AAAS 420</td>
<td>Intercultural Communication: The Afro-American</td>
<td></td>
</tr>
<tr>
<td>ABSC 100</td>
<td>Introduction to Applied Behavioral Science</td>
<td></td>
</tr>
<tr>
<td>ABSC 150</td>
<td>Community Leadership</td>
<td></td>
</tr>
<tr>
<td>ABSC 160</td>
<td>Introduction to Child Behavior and Development</td>
<td></td>
</tr>
<tr>
<td>ABSC 304</td>
<td>The Principles and Procedures of Behavior Modification and Therapy</td>
<td></td>
</tr>
<tr>
<td>C&amp;T 235</td>
<td>Multicultural Education</td>
<td></td>
</tr>
<tr>
<td>PRE 210</td>
<td>Career and Life Planning: Decision-Making for College Students</td>
<td></td>
</tr>
<tr>
<td>PRE 580</td>
<td>Positive Psychology</td>
<td></td>
</tr>
<tr>
<td>PSYC 360</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>PSYC 370</td>
<td>Behavioral Neuroscience</td>
<td></td>
</tr>
<tr>
<td>PSYC 430</td>
<td>Cognitive Development</td>
<td></td>
</tr>
<tr>
<td>PUAD 330</td>
<td>Introduction to Public Administration</td>
<td></td>
</tr>
<tr>
<td>SOC 160</td>
<td>Social Problems and American Values</td>
<td></td>
</tr>
<tr>
<td>SOC 220</td>
<td>Sociology of Families</td>
<td></td>
</tr>
<tr>
<td>SOC 522</td>
<td>American Racial and Ethnic Relations</td>
<td></td>
</tr>
<tr>
<td>SOC 617</td>
<td>Women and Health Care</td>
<td></td>
</tr>
<tr>
<td>SW 410</td>
<td>Professional Writing Skills in Social Work</td>
<td></td>
</tr>
<tr>
<td>WGSS 351</td>
<td>Women and Leadership: The Legislative Process</td>
<td></td>
</tr>
<tr>
<td>WGSS 468</td>
<td>Psychology of Women</td>
<td></td>
</tr>
<tr>
<td>WGSS 521</td>
<td>Women and Violence</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours: 123-125

1. Must have a grade of a “C” or higher. This means that a “C-” does not count.
2. Students presenting current certification in lieu of HSES 248 must take an additional two hours of course credit. Acceptable certifications: American Red Cross courses - Standard First Aid with CPR/AED or Aid-Responding to Emergencies with CPR/AED.
Internships must be completed at an approved site within a 50-mile radius of Lawrence. Students who have a 3.0 or greater cumulative GPA may petition to complete the internship at an approved site beyond the 50-mile radius. **All coursework must be completed before the internship in approved.** A 2.75 cumulative GPA is required before one can apply for the internship. Internship students are required to be present at the internship site a minimum of 40 hours per week for 15 weeks - NO EXCEPTIONS.

Students who substitute first-aid certification for HSES 248 must take 32 hours of electives. All other students must take 30 hours of electives. Required electives must be chosen from those listed and approved by your community health advisor or a faculty member before taking the course.

Elective classes cannot be used to satisfy both electives and social science/humanities pre-admission requirements.

### Bachelor of Science in Athletic Training, Exercise Science & Sport Management

#### Advising

**Undergraduate Advising**

Information about assigned advisors is given in the letter of admission. Education staff members advise pre-education students individually and in group sessions.

**Undergraduate First- and Second-Year Preparation**

Prospective undergraduates should contact the School of Education Welcome Center (http://soe.ku.edu/advising), 208 J.R. Pearson Hall, 785-864-3726, or the Health, Sport, and Exercise Sciences undergraduate office, 161 Robinson Center, 785-864-5552.

During the first 1½ to 2 years, all students are enrolled in the College of Liberal Arts and Sciences, where they meet a portion of the general education requirements. In the first year and a half, students planning to enter the teacher education program begin taking education courses (C&T 100 and ELPS 250) that provide a basis for a career decision and a foundation for professional education courses in the later years.

In the first year, students planning to enter the school as second-semester sophomores should enroll in C&T 100 Introduction to the Education Profession. During the second semester of the first year or the first semester of the sophomore year, students should enroll in ELPS 250 Education and Society.

Students who will apply for admission to the Health, Sport, and Exercise Sciences program are not required to take C&T 100 or ELPS 250.

#### Undergraduate Admission to the School of Education

Undergraduates intending to transfer to the school as juniors must work closely with education advisors. Pre-education students must take specified courses in their first 1½ years. Students are admitted to C&T teaching programs once a year; online applications (https://www.applyweb.com/apply/kued) are due September 16 for the next spring semester. Students are admitted to the Health & Physical Education and Community Health programs once a year; online applications are due February 4 for the next fall semester. Students are admitted to the HSES Athletic Training program once a year; online applications (https://www.applyweb.com/apply/kued) are due February 4 and paper applications (http://hses.soe.ku.edu/academics/athletic-training/admission) are due May 1 for fall semester. Students are admitted to HSES Sport Management and Exercise Science programs twice a year; online applications are due February 4 for fall and September 16 for spring semester.

For information about initial admission to KU, visit the Office of Admissions (http://admissions.ku.edu/whyku/index.shtml). Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

### Undergraduate Admission

#### Selective/Limited Admission Policies

Students apply to the School of Education (http://www.soe.ku.edu) and the Athletic Training Program (http://www.soe.ku.edu/academics) concurrently. Students are selected for admission once a year. Submit an online application (http://www.soe.ku.edu/prospective-students-undergraduate) by **February 4** and submit an application packet by **May 1** for fall semester admission. Students may be admitted on a provisional basis pending completion of any remaining prerequisite coursework. The number of openings depends on the ratio of students to clinical instructors and may vary depending on current enrollment. If the number of applicants exceeds available openings, applicants are ranked by cumulative grade-point average (2.75 minimum), final grades in HSES 250 (exception for transfers), supervisor evaluations from HSES 251 (exception for transfers), recommendations from 3 former supervisors/mentors/teachers, and outcome of on-campus staff interview. Selection begins with the highest ranking until all positions are filled.

#### Technical Standards for Admission

Athletic training is a rigorous and intense program that prepares graduates to enter a variety of employment settings and to render care to a wide spectrum of individuals. The program’s technical standards establish the qualities necessary for students to achieve the knowledge, skills, and competencies of entry-level athletic trainers. Students who cannot meet these standards, with or without reasonable accommodation, are not admitted. Students must comply with these standards to complete the program. Compliance with the technical standards and completion of this degree do not guarantee eligibility for the Board of Certification examination. Candidates must demonstrate

1. The mental capacity to assimilate, analyze, synthesize, integrate concepts, solve problems, formulate assessments and therapeutic judgments, and distinguish deviations from the norm.
2. Sufficient ability to perform appropriate accepted techniques of psychomotor skills and clinical proficiencies in athletic training.
3. Sufficient ability to use equipment and materials accurately, safely, and efficiently during assessment and treatment of patients.
4. The ability to communicate effectively and sensitively with patients and colleagues including those from different cultural and social backgrounds.
5. The capacity to maintain composure and continue to function well during periods of high stress.
6. The perseverance, diligence, and commitment to complete the program.
7. Flexibility and ability to adjust to changing situations and uncertainty in clinical situations.
8. Affective skills and appropriate demeanor and rapport that relate to professional education and good patient care.
9. The ability to record physical examination results and a treatment plan clearly and accurately.
10. Physical and mental health that permits meeting established technical standards (determined by physical examination).

Candidates must verify that they understand and meet these standards or that they can meet them with certain accommodations.

Transfer Student Policy
KU welcomes transfer students to the athletic training program if the following criteria are met:

- Follow the university’s policy on transfer of credit.
- Meet School of Education admission requirements and be accepted into the school.
- Meet athletic training program admission requirements.
- Be available for an on-campus interview in May.
- Have previous experience of at least one semester working under the direct supervision of a Certified Athletic Trainer, who serves as one of the three references for the application.
- Complete HSES 251 during the first spring semester on campus.
- Space must be available for additional students due to the program’s limited and selective admissions policy (if space is not available, the transfer student must apply during the next enrollment period).
- Complete 800 hours of clinical experience while at KU to meet state of Kansas athletic training registration requirements.

Due to the structure and sequence of the athletic training program, transfer students who meet these requirements are admitted and placed in the sophomore (Level I) class. The only core AT course that may be transferred is HSES 250 or its equivalent. Program authorities reserve the right to accept or deny transfer of credit for athletic training courses.

Prerequisites for Admission
In addition to School of Education admission requirements, prospective students also must complete the following prerequisites for admission:

1. Complete the following course work before admission, with no grade lower than a C in HSES, ENGL, MATH, and social science or arts/humanities elective, and a grade no lower than B– (80 percent) in:
   - ENGL 101 Composition 1
   - ENGL 102 Critical Reading and Writing 1
   - MATH 101 College Algebra (or higher excluding MATH 109 & MATH 110) 1
   - Humanities or Social Science Principal Course
   - BIOL 100 Principles of Biology
   - BIOL 102 Principles of Biology Laboratory
   - BIOL 240 Fundamentals of Human Anatomy
   - HSES 260 Personal and Community Health
   - HSES 269 Introduction to Exercise Science
   - HSES 250 Introduction to Athletic Training

   1 Minimum grade of a "C" or better is required. This means that a "C-" does not count.

2. Admission to the School of Education must be granted. Conditional admission to the AT program pending admission to School of Education is possible. Contact the AT faculty to discuss specifics and options.
3. Complete an application form (http://hses.soe.ku.edu/academics/athletic-training/admission) for the athletic training education program.
4. Submit copies of transcripts from all colleges and universities attended (or KU DPR form).
5. Submit a letter of intent describing career goals and why the prospective student wishes to become a Certified Athletic Trainer (answer questions provided in the application packet).
6. Submit completed recommendation forms from three professional references (past instructor, athletic trainer, physical therapist, doctor, etc.).
7. Complete an on-campus interview.
8. Provide proof of physical examination by a licensed physician (Use the form provided in the application packet; see Technical Standards for Admission and the Communicable Disease Policy in the Athletic Training Student Handbook. Physical exam must establish that the student meets the technical standards for admission.
9. Provide official verification of immunization history including Hepatitis B vaccination series (first vaccination required), measles, mumps, rubella, tetanus, and diphtheria. Immunizations are available at Watkins Memorial Health Center.
11. Provide proof of current American Red Cross CPR and First Aid certification.
12. Adhere to technical standards for admission and complete the agreement form. Information on technical standards can be found in the Athletic Training Student Handbook.

Upon formal admission to the program, all students must provide proof of student membership in the National Athletic Trainers’ Association (NATA) and proof of student malpractice liability insurance. Proof of malpractice liability insurance is required before students begin the first clinical rotation.

Application packets for the athletic training program can be found in the Athletic Training Student Handbook or obtained in 161 Robinson Center, 785-864-5552. Applications are due no later than May 1.

The athletic training education program is nondiscriminatory with respect to race, religion, color, sex, national origin, sexual orientation, age, disability, creed, and veteran status.

B.S. in Athletic Training Program
The athletic training program prepares students for careers as allied-health professionals and for the Board of Certification examination, which leads to certification and the credential of a certified athletic trainer. Students learn the concepts and skills to manage health care
problems associated with physical activity. In cooperation with physicians and other health care personnel, the athletic trainer is an integral member of the health care team in secondary schools, colleges and universities, professional sports, sports medicine clinics, and health care settings. The professional preparation develops competencies in injury prevention and risk management, pathology of injuries and illnesses, assessment and evaluation, acute care of injury and illness, pharmacology, therapeutic modalities, therapeutic exercise, general medical conditions, nutritional aspects of injury and illness, psychosocial intervention and referral, professional development and responsibilities, and health care administration.

All students complete 48 hours of general education requirements and a 9-hour sport foundation core. Students complete a 67-hour core curriculum including six 2-hour practicum courses in which they participate in clinical education. Clinical education is the formal acquisition, practice, application, and evaluation of the entry-level athletic training clinical proficiencies. This is accomplished through classroom, laboratory, clinical, and field experiences under the supervision of a clinical instructor. Each practicum’s proficiencies provide a logical progression of learning. Students are assigned to a clinical instructor each semester for related clinical and field experience. The clinical and field experiences allow students to apply related skills in direct patient care at clinical affiliate sites, including area high schools, sports medicine/physical therapy clinics, and collegiate settings. Field experiences include exposure to upper- and lower-extremity injuries, general medical conditions, experiences with protective equipment, experiences with team and individual sports, and gender-specific opportunities. The clinical portion of the curriculum is a vital part of professional preparation. Students are expected to demonstrate mastery of clinical skills related to didactic course work. Students must earn a grade of 80% in all core courses. These courses must be taken at KU - no transfer credits allowed. All clinical education practicum courses must be completed at KU or at another site approved by the HSES department. A minimum of 124 credit hours with a cumulative grade-point average of at least 2.75 is required for graduation.

Students must demonstrate mastery of each competency skill to their approved clinical instructors and pass final evaluations with 80 percent proficiency. Students who do not meet these criteria do not progress to the next course in the program sequence.

**Admission Requirements (29)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition (on exemption)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>MATH 101</td>
<td>College Algebra (or higher excluding MATH 109 &amp; MATH 110)</td>
<td>3</td>
</tr>
<tr>
<td>Humanities or Social Science principal course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIOL 100</td>
<td>Principles of Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 102</td>
<td>Principles of Biology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 240</td>
<td>Fundamentals of Human Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>HSES 260</td>
<td>Personal and Community Health</td>
<td>3</td>
</tr>
<tr>
<td>HSES 269</td>
<td>Introduction to Exercise Science</td>
<td>3</td>
</tr>
<tr>
<td>HSES 250</td>
<td>Introduction to Athletic Training</td>
<td>3</td>
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<tr>
<td>HSES 251</td>
<td>Introduction to Athletic Training Practicum</td>
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**General Education (32)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENGL elective (200 level or above)</td>
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Select one of the following:

**COMS 130**  Speaker-Audience Communication  1
**COMS 150**  Personal Communication  1
**COMS 230**  Fundamentals of Debate  1
**PSYC 104**  General Psychology  3
**Humanities/Social Science principal course**  3
**Humanities/Social Science principal course**  3
**BIOL 241**  Human Anatomy Observation Laboratory  2
**BIOL 246**  Principles of Human Physiology  3
**CHEM 110**  Introductory Chemistry  5
**or CHEM 130**  General Chemistry I  4
**PHSX 114**  College Physics I  4
**HSES 244**  Introduction to Physical Education and Sport Studies  3

**HSES Courses (66)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSES 305</td>
<td>Methods of Strength Training and Conditioning</td>
<td>3</td>
</tr>
<tr>
<td>HSES 310</td>
<td>Research and Data Analysis in Health, Sport, and Exercise Sciences</td>
<td>3</td>
</tr>
<tr>
<td>HSES 330</td>
<td>Principles of Nutrition and Health</td>
<td>3</td>
</tr>
<tr>
<td>HSES 352</td>
<td>Therapeutic Modalities</td>
<td>3</td>
</tr>
<tr>
<td>HSES 353</td>
<td>Athletic Training Practicum I</td>
<td>2</td>
</tr>
<tr>
<td>HSES 354</td>
<td>Lower Extremity Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>HSES 355</td>
<td>Athletic Training Practicum II</td>
<td>2</td>
</tr>
<tr>
<td>HSES 369</td>
<td>Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>HSES 440</td>
<td>Applied Sport and Performance Psychology</td>
<td>3</td>
</tr>
<tr>
<td>HSES 456</td>
<td>Upper Extremity Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>HSES 457</td>
<td>Athletic Training Practicum III</td>
<td>2</td>
</tr>
<tr>
<td>HSES 458</td>
<td>General Medical/Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>HSES 459</td>
<td>Rehabilitation</td>
<td>3</td>
</tr>
<tr>
<td>HSES 460</td>
<td>Athletic Training Practicum IV</td>
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</tr>
<tr>
<td>HSES 480</td>
<td>Physical Activity and Exercise Management Individuals with Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>HSES 461</td>
<td>Organization and Administration of Athletic Training</td>
<td>2</td>
</tr>
<tr>
<td>HSES 462</td>
<td>Athletic Training Practicum V</td>
<td>2</td>
</tr>
<tr>
<td>HSES 463</td>
<td>Senior Capstone in Athletic Training</td>
<td>2</td>
</tr>
<tr>
<td>HSES 464</td>
<td>Athletic Training Practicum VI</td>
<td>2</td>
</tr>
<tr>
<td>HSES 470</td>
<td>Introduction to Biomechanics</td>
<td>3</td>
</tr>
<tr>
<td>HSES 472</td>
<td>Exercise Physiology</td>
<td>3</td>
</tr>
<tr>
<td>HSES 473</td>
<td>Clinical Fitness Evaluation Techniques</td>
<td>3</td>
</tr>
<tr>
<td>HSES 474</td>
<td>Exercise Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>HSES elective (300 level or higher)</td>
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<td></td>
</tr>
<tr>
<td>HSES elective (300 level or higher)</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

1 Must earn a grade of a “C” or better. This means that a “C-“ does not count.
2 Must earn a grade of 80% or better.
B.S. in Exercise Science

Exercise Science Admission

Students may apply for admission twice a year. Submit an application by February 4 for fall semester admission or September 16 for spring semester admission. A minimum of 28 credit hours and a 2.75 GPA is required. Completion of minimum requirements does not guarantee admission.

Exercise Science Program

KU’s School of Education has expanded its department of Health, Sport and Exercise Sciences to the KU Edwards Campus. The exercise science program is now a degree completion program on both campuses, in Overland Park and in Lawrence. The Bachelor of Science in exercise science at the Edwards Campus will offer the same courses that the Lawrence Campus offers, only in a different location.

Regardless of location, students who complete the Exercise Science program are prepared to apply for admission to most physical therapy (PT) schools. (The requirements of the Exercise Science program meet the prerequisites of the Kansas University Medical Center Physical Therapy Program. Additional courses may be necessary to fulfill admission requirements for other PT programs.) They may also work in agencies that dispense health- and fitness-related programs, such as commercial or private health and fitness centers, hospital exercise and cardiac rehabilitation programs, and corporate fitness centers or apply for graduate study in exercise physiology.

Program Requirements

A cumulative GPA of 2.75 is required (including transfer hours). Effective Fall 2014, transfer grades of "D" or below will not be accepted.

Admission Requirements (28-30)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition (or exemption)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>MATH 101(1)</td>
<td>College Algebra and Trigonometry</td>
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</tr>
<tr>
<td>MATH 104</td>
<td>Precalculus Mathematics</td>
<td>5</td>
</tr>
<tr>
<td>MATH 115</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 112</td>
<td>Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>COMS 130</td>
<td>Speaker-Audience Communication</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 104</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>BIOC 100(2)</td>
<td>Principles of Biology and Principles of Biology Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>BIOC 150</td>
<td>Principles of Molecular and Cellular Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOC 240</td>
<td>Fundamentals of Human Anatomy (BIOC 241 is also required for graduation)</td>
<td>3</td>
</tr>
<tr>
<td>BIOC 246</td>
<td>Principles of Human Physiology (BIOC 247 is also required for graduation)</td>
<td>3</td>
</tr>
<tr>
<td>HSES 269</td>
<td>Introduction to Exercise Science</td>
<td>3</td>
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</table>

General Education Requirements (33)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 160</td>
<td>Introduction to Ethics</td>
<td>3</td>
</tr>
<tr>
<td>or PHIL 676</td>
<td>Medical Ethics: Life and Death Issues</td>
<td>3</td>
</tr>
<tr>
<td>BIOC 241</td>
<td>Human Anatomy Observation Laboratory</td>
<td>2</td>
</tr>
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</table>

Select TWO required electives:

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 247</td>
<td>Principles of Human Physiology Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>HSES 330</td>
<td>Principles of Nutrition and Health</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 135</td>
<td>General Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>PHSX 114</td>
<td>College Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHSX 115</td>
<td>College Physics II</td>
<td>4</td>
</tr>
<tr>
<td>BIOC 200</td>
<td>Basic Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOC 203</td>
<td>Introductory Microbiology Laboratory</td>
<td>2</td>
</tr>
</tbody>
</table>

Elective: Any course meeting KU CORE Goal 3: Arts & Humanities

Elective: Any course meeting KU CORE Goal 4: Learning Objective 2 (Global Awareness)

Major Requirements and Internship (38-52)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSES 305</td>
<td>Methods of Strength Training and Conditioning</td>
<td>3</td>
</tr>
<tr>
<td>HSES 310</td>
<td>Research and Data Analysis in Health, Sport, and Exercise Sciences</td>
<td>3</td>
</tr>
<tr>
<td>HSES 350</td>
<td>Care and Prevention of Athletic Injuries</td>
<td>3</td>
</tr>
<tr>
<td>HSES 369</td>
<td>Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>HSES 375</td>
<td>Neuromuscular Exercise Physiology and Motor Control</td>
<td>3</td>
</tr>
<tr>
<td>HSES 470</td>
<td>Introduction to Biomechanics</td>
<td>3</td>
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<tr>
<td>HSES 472</td>
<td>Exercise Physiology</td>
<td>3</td>
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<tr>
<td>HSES 473</td>
<td>Clinical Fitness Evaluation Techniques</td>
<td>3</td>
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<tr>
<td>HSES 474</td>
<td>Exercise Biochemistry</td>
<td>3</td>
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<tr>
<td>HSES 480</td>
<td>Physical Activity and Exercise Management</td>
<td>3</td>
</tr>
<tr>
<td>HSES 330</td>
<td>Organizational Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Select TWO required electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 600</td>
<td>Introductory Biochemistry, Lectures</td>
<td>6</td>
</tr>
<tr>
<td>CHEM 310</td>
<td>Fundamentals of Organic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 330</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 331</td>
<td>Organic Chemistry I Laboratory</td>
<td>3</td>
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<tr>
<td>CHEM 335</td>
<td>Organic Chemistry II</td>
<td>3</td>
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<tr>
<td>CHEM 336</td>
<td>Organic Chemistry II Laboratory</td>
<td>3</td>
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<tr>
<td>HSES 300</td>
<td>300+ level course</td>
<td>3</td>
</tr>
<tr>
<td>ABSC 160</td>
<td>Introduction to Child Behavior and Development</td>
<td>3</td>
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<tr>
<td>PSYC 333</td>
<td>Child Development (Required for Pre-PT)</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 350</td>
<td>Abnormal Psychology (Required for Pre-PT)</td>
<td>3</td>
</tr>
<tr>
<td>HSES 580</td>
<td>Internship</td>
<td>2-16</td>
</tr>
</tbody>
</table>

1 Must have a minimum grade of "C" or better. This means that a "C-" does not count.
2 Internships must be completed at an approved site within a 50-mile radius of Lawrence. Students who have a 3.0 or greater cumulative GPA may petition to complete the internship at an approved site beyond the 50-mile radius. All coursework must be completed before the internship is approved. A 2.75 cumulative GPA is required before one can apply for an internship. Internship students are required to be present at the internship site a minimum of 40 hours per week for 15 weeks - NO EXCEPTIONS.

B.S. in Sport Management

Sport Management Admission

Students may apply for admission twice a year. Submit an application by February 4 for fall semester admission or September 16 for spring semester admission. A minimum of 40-41 credit hours and a 2.75 GPA is
required. Admission for all School of Education majors are competitive. Completion of minimum requirements does not guarantee admission.

**Sport Management Program**

The undergraduate program in sport management builds on general education and introductory courses through 7 core courses and an 18-semester hour business minor. Students complete courses in sociology of sport, sport ethics, sport facilities and event management, sport law, sport finance and economics, sport marketing, and personnel management. The culminating experience is a semester-long internship working in a student-selected area of sport management. This degree program prepares graduates for entry-level positions in intercollegiate athletics, professional sports, recreational programs, and the fitness industry.

**Program Requirements**

A cumulative GPA of 2.75 is required (including transfer hours). Effective Fall 2014, transfer grades of "D" or below will not be accepted.

**Admission Requirements (25-26)**

- **BIOL 102** Principles of Biology Laboratory 1
- **ENGL 102** Critical Reading and Writing 1 3
- or **ENGL 105** Freshman Honors English

Select one of the following: 3-4

- **ECON 104** Introductory Economics
- **ECON 142** Principles of Microeconomics
- **ECON 144** Principles of Macroeconomics

Social Science or Humanities Elective 3

Natural Science Elective: Earth or Physical Science with lab

Select TWO Upper Division Electives: 6

- **AMS 330** American Society
- **AMS 522** American Racial and Ethnic Relations
- **ENGL 362** Foundations of Technical Writing 1
- **COMS 310** Introduction to Organizational Communication 1
- **COMS 330** Effective Business Communication 1
- **COMS 335** Rhetoric, Politics and the Mass Media 1
- **COMS 431** Communication and Leadership 1
- **COMS 531** Seminar in Leadership Strategies and Applications 1
- **HSES 330** Principles of Nutrition and Health
- **HSES 489** Health and Human Sexuality
- **JOUR 540** Sports, Media and Society
- **MGMT 310** Organizational Behavior
- **MGMT 470** Leadership in Business Organizations
- **HSES 244** Introduction to Physical Education and Sport Studies 1 3
- **HSES 260** Personal and Community Health 3
- **HSES 289** Introduction to Sport Management 1 3

**Post Admission Requirements (28)**

- **HSES 380** Sociology of Sport 3
- **HSES 381** Sport Ethics 3
- **HSES 382** Sport Facilities and Event Management 3
- **HSES 384** Sport Law 3
- **HSES 440** Applied Sport and Performance Psychology 3

- **HSES 483** Sport Finance and Economics 3
- **HSES 485** Sport Communication 3
- **HSES 486** Sport Marketing 3
- **HSES 487** Personnel Management in Sport 3
- **HSES 488** Pre-Internship Seminar 2 1

**Required Courses: Business Minor (18)**

- **ACCT 205** Survey of Accounting 3
- **SCM 305** Survey of Decision Making in Business 3
- **FIN 305** Survey of Finance 3
- **IST 205** Survey of Information Systems 3
- **MGMT 305** Survey of Management and Leadership 3
- **MKTG 305** Survey of Marketing 3

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1 Must have a grade of "C" or better. This means that a "C-" does not count.

2 Internships must be completed at an approved site within a 50-mile radius of Lawrence. Students who have a 3.0 or greater cumulative GPA may petition to complete the internship at an approved site beyond the 50-mile radius. All coursework must be completed before the internship is approved. A 2.75 cumulative GPA is required before one can apply for internship. Internship students are required to be present at the internship site a minimum of 40 hours per week for 16 weeks - NO EXCEPTIONS.

**Master of Science in Education in Health, Sport, and Exercise Sciences**

**Health, Sport, and Exercise Sciences**

The Department of Health, Sport, and Exercise Sciences (http://hse.soe.ku.edu) provides physical activity courses for all students and serves the community through clinics and laboratories. The department offers a full range of undergraduate and graduate degree programs.

**Graduate Admission to the School of Education**

Graduate programs in education are open to students with acceptable baccalaureate degrees, as specified by the admitting departments, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a grade-point average of at least 3.0 on a 4.0 scale; provisional admission requires a grade-point average of at least 2.5. Individual departments may require additional information and may have more stringent admission and retention requirements.

Special provisional admission categories are available to students who may not qualify under traditional admission criteria but can provide evidence of ability to work successfully at the graduate level, including experience in and commitment to the profession. Exceptions to established policies must be sought individually by petition to the Graduate Division of the School of Education.

See Admission in the Graduate Studies (p. 2059) section of the online catalog for more information.
Ordinarily, complete application materials should be received by July 1 for fall admission, December 1 for spring semester, and May 1 for summer session. Prospective graduate students should contact their departments for admission deadlines.

Graduate Admission

Submit your graduate application online (http://www.graduate.ku.edu). All supporting application materials should be uploaded to the online application.

The University of Kansas
HSES Graduate Admissions
1301 Sunnyside Ave., Room 104
Lawrence, KS 66045-7520

M.S.E. Degree Programs

The Master of Science in Education with a major in Health, Sport, and Exercise Sciences is offered with specializations in exercise science, health education and psychology of physical activity, pedagogy, and sport management. The degree program requires 30 hours for the thesis option or 36 hours for the nonthesis option.

All students must take the Graduate Record Examination to be considered for admission to either a thesis or a nonthesis master’s program. Students generally must score at least 150 on the verbal section, 141 on the quantitative section and 4.0 on the written analytical section. A sliding scale using both GPA and GRE scores is used for admission purposes. Admission is selective and is determined by the selection committee for the specialization to which the student is applying. The selection committee assigns an advisor/mentor to each admitted master’s student (thesis and nonthesis).

Any admitted master’s student who does not have a minimum grade-point average of 3.0 but has at least a 2.75 may be admitted on probationary status. These students must earn a minimum of a B in the first three courses (9 hours) they take (assigned by the advisor/mentor). Failure to achieve this level will result in dismissal.

Further information is available from the department (http://hses.soe.ku.edu).

Doctor of Philosophy in Health, Sport, and Exercise Sciences

Health, Sport, and Exercise Sciences

The Department of Health, Sport, and Exercise Sciences (http://hses.soe.ku.edu) provides physical activity courses for all students and serves the community through clinics and laboratories. The department offers a full range of undergraduate and graduate degree programs.

Graduate Admission to the School of Education

Graduate programs in education are open to students with acceptable baccalaureate degrees, as specified by the admitting departments, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a grade-point average of at least 3.0 on a 4.0 scale; provisional admission requires a grade-point average of at least 2.5. Individual departments may require additional information and may have more stringent admission and retention requirements.

Special provisional admission categories are available to students who may not qualify under traditional admission criteria but can provide evidence of ability to work successfully at the graduate level, including experience in and commitment to the profession. Exceptions to established policies must be sought individually by petition to the Graduate Division of the School of Education.

See Admission in the Graduate Studies (p. 2059) section of the online catalog for more information.

Ordinarily, complete application materials should be received by July 1 for fall admission, December 1 for spring semester, and May 1 for summer session. Prospective graduate students should contact their departments for admission deadlines.

Graduate Admission

Submit your graduate application online (http://www.graduate.ku.edu). All supporting application materials should be uploaded to the online application.

The University of Kansas
HSES Graduate Admissions
1301 Sunnyside Ave., Room 104
Lawrence, KS 66045-7520

Ph.D. Degree Programs

The Doctor of Philosophy degree is offered with emphases in exercise physiology, health education and psychology of physical activity, and sport management. Students must interview with a faculty advisor in the intended emphasis before admission.

Regular doctoral admission requires Graduate Record Examination scores of 153 on verbal section, 144 on the quantitative section and 4.5 on the written analytical section. A minimum grade-point average of 3.5 in master’s degree work is required. Pre-aspirant status requires the prospective doctoral student to earn a grade-point average of at least 3.5 in the first 12 credit hours.

With the advisor, each student develops a course of study consistent with the student’s needs and the faculty’s expertise. This includes major courses, minor courses, core courses, and research skills.

Research Skills

Research skills must be completed before the aspirant is admitted to the comprehensive examinations. Twelve hours of statistical methods and demonstration of statistical application techniques in a research problem are required as evidence of research skills. The Ph.D. requires competence in 2 of the following 3 research skills:

1. Reading knowledge of a foreign language;
2. Computer programming, analysis, and processing skills; or
3. Additional statistics including multivariate or nonparametric techniques.

Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current Lawrence and Edwards
Campus policies on Doctoral Research Skills and Responsible Scholarship (https://documents.ku/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm) are listed in the KU Policy Library.

Students should obtain specific instructions and guidelines for graduate degrees from the department (http://hses.soe.ku.edu).

Department of Psychology and Research in Education

Psychology and Research in Education Graduate Programs

The Department of Psychology and Research in Education (http://pre.soe.ku.edu) offers graduate training programs in counseling psychology, educational psychology and research, and school psychology.

Note: The department may change its graduate studies requirements and expectations. Prospective and current students should obtain the current degree requirements from the department.

Courses

PRE 106. Multicultural Student Leadership Seminar. 2 Hours.
This course will introduce students of color to leadership theory and develop personal skills in the areas of organizational, career, and community leadership. Topics covered include public speaking, group process, time management, and discussion of the special challenges for leaders of color. Prerequisite: Must have taken Hawk Link PRE 101 and fewer than 60 hours credit from the University of Kansas. LEC.

PRE 210. Career and Life Planning: Decision-Making for College Students. 3 Hours.
The purpose of this course is to assist college students in career and life planning choices by first understanding the current theories of career decision-making and then by applying those theories to their own choices. The course will meet twice each week, the first being a lecture session, with the second session consisting of smaller groups of six to eight students. Students will be exposed to information related to the career development process, factors that affect the career choice process, knowledge of work environments, sex role socialization, career and decision making processes, and how to approach the job search. Experiential learnings will include exercises related to values clarification, self understanding, knowledge of interests, competencies and personality characteristics, decision making, use of career information, and implementing a plan of action. Weekly course assignments will include activities in class and homework units. Prerequisite: Enrollment in this course is limited to students with fewer than 60 hours of college credit. LEC.

PRE 305. Development and Learning of the Child. 3 Hours. GE3S.
An introduction to the study of children’s thinking, behavior, and development in school, home, and community settings. Classic and contemporary theories of developmental and educational psychology will be addressed; these theories will provide a foundation for thinking about important contemporary issues in child development. Specific topics covered will include research methods for studying children’s development, cognitive development, intelligence, language, emotional development, aggression, moral development, and family and peer relationships. Emphasis will be placed on the study of individuals and groups, describing the process of development, and considering educational implications of theory and research. LEC.

PRE 306. Development and Learning of the Adolescent. 3 Hours. GE3S.
An introduction to the psychological study of adolescents and their behavior in the middle and high school setting. Theories of learning, motivation, and physical, cognitive, emotional and social development and their relevance to educational processes in secondary schools will be examined. Emphasis will be placed on observing and studying individuals and groups and describing their characteristics and the process of development, as well as considering implications for instructional strategies appropriate at the secondary level. Prerequisite: Admission to the Teacher Education Program. LEC.

PRE 450. Introduction to Counseling Psychology. 3 Hours.
An historical and contemporary overview of the science and practice of counseling psychology, including trends in the roles and functions of counseling psychology practitioners, the research and scientific foundations of counseling practice, the psychological theories of counseling and psychotherapy that guide professional practice, and the ethical and professional issues confronting counseling practitioners. Prerequisite: PSYC 104. LEC.

PRE 455. Managing and Motivating Learners in the Pre K-6th Grade Classroom. 3 Hours.
This course is designed to help elementary preservice teachers organize an enriched learning environment and develop strategies for managing and motivating students to help them become better and more responsible learners. Prerequisite: CT 322, PRE 305 or equivalent. LEC.

PRE 456. Managing and Motivating Learners in the Middle and Secondary Classroom. 3 Hours.
This course is designed to help middle and secondary preservice teachers organize an enriched learning environment and develop strategies for managing and motivating students to help them become better and more responsible learners. Prerequisite: CT 324, PRE 306 or equivalent. LEC.

PRE 497. Independent Study. 1-2 Hours.
Only one enrollment permitted each semester, a maximum of four hours will apply toward the bachelor's degree. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Recommendation of advisor and consent of instructor. IND.

PRE 515. Research Methods for McNair Scholars. 3 Hours.
This course provides participants in the McNair Scholars program with an understanding of research methods appropriate to their field so they can write proposals for their summer research projects. Prerequisite: Acceptance into the McNair Scholars Program. LEC.

PRE 520. Classroom Assessment. 3 Hours.
This course is an introduction to the concepts and skills required to develop and evaluate various forms of formal and informal classroom assessments to determine student learning and teacher instructional effectiveness. LEC.

PRE 575. Internship Exploration. 1-5 Hours. AE61.
This course provides academic credit for a supervised practical experience in an occupational area of interest. In addition to the work-related activity, students will complete reading and writing assignments, participate in on-line discussion and create a final portfolio of internship accomplishments. Credit hours (1-5) are based on number of hours at internship site in agreement with instructor. Prerequisite: Secured internship of 8 hours per week or more for semester in which student will be enrolled in the course; permission from instructor. FLD.
PRE 580. Positive Psychology. 3 Hours.
An introduction to the core assumptions and research findings associated with human strengths and positive emotions. Also an exploration of interventions and applications informed by positive psychology in counseling and psychotherapy, and its application to school, work, family and other close relationships. (Same as PSYC 598.) Prerequisite: PSYC 104 or consent of instructor. LEC.

PRE 598. Special Course: _____, 1-5 Hours. AE61.
A special course of study to meet current needs of education students--primarily for undergraduates. LEC.

PRE 700. Advanced Educational Psychology: Development and Education of the Adolescent. 2-3 Hours.
An introduction, from a psychological perspective, to topics and problems in the development of adolescents and youth, with emphasis on application to educational issues. Note: To be offered annually. LEC.

PRE 702. Advanced Educational Psychology: The Development and Education of the Child. 3 Hours.
Study of children from a cognitive developmental perspective. Changes in children are examined in light of environmental influences including social factors, educational practices, and child-rearing as they interact with conditions internal to children. Key issues include the study of cognition, language, motives, social-emotional issues, the self, and the problem of developmental delays. A major concern is the role of adults in supporting positive development, particularly in educational settings. LEC.

PRE 703. Constructive Classroom Discipline. 3 Hours.
This course will examine concepts and techniques of constructive classroom management. Various theoretical orientations including humanism and behavioralism will be considered. Emphasis will be on the identification of strategies that teachers can use (1) to facilitate an environment that reduces the likelihood of misbehavior occurring, and (2) to cope constructively with individuals and groups of children to resolve difficulties that arise in the classroom. The class should have value to classroom teachers, school psychologists, counselors, and other school consultants. LEC.

PRE 704. Advanced Educational Psychology: Learning Processes in Education. 3 Hours.
A study of the mental processes that influence learning and comprehension. The scope of the course will include individuals at all developmental levels and in a variety of educational settings. Key issues include the study of language, memory, concepts, motivation and social factors affecting learning processes. LEC.

PRE 705. Human Development through the Lifespan. 3 Hours.
This course will cover the social, emotional, psychological, and cognitive changes that occur from conception through death. Methodological issues will also be addressed. Prerequisite: A graduate or undergraduate course in psychology. LEC.

PRE 710. Introduction to Statistical Analysis. 3 Hours.
Emphasis on the conceptual underpinnings of statistical analysis of educational data. Includes univariate and bivariate descriptive statistics, sampling distributions, statistical estimation, hypothesis testing and procedures in testing statistical hypothesis for one and two sample designs. Prerequisite: Concurrent enrollment in PRE 711 required, or with the permission of instructor on the basis of knowledge of statistical packages presented in PRE 711. LEC.

PRE 711. Lab for Introduction to Statistical Analysis. 1 Hour.
Creation and manipulation of data sets. Analysis of data with statistical packages, with an emphasis on descriptive statistics, graphical procedures, and univariate parametric methods. Graded on a satisfactory/
PRE 790. Research and Evaluation Proposal Development. 3 Hours.
A course for students designing a research or evaluation proposal leading to data collection. Specific topics considered include formulating a problem for study, reviewing the literature, and selecting appropriate research and evaluation designs, instrumentation, and data analysis issues. The goal of the course is to aid students in the preparation of research proposals at the master’s level. LEC.

PRE 797. Independent Readings and Research in: ____. 1-3 Hours.
Opportunity for students to participate in supervised reading and research in special topics of interest (for which regularly scheduled courses are not given). Topics and credit are arranged by advisement: May not be used to substitute for regularly scheduled course offerings. Intended for students with appropriate undergraduate or graduate preparation but without extensive graduate course background in the area of proposed study. (Students with extensive graduate work should enroll in PRE 997; undergraduate students may enroll in PRE 497.) Graded on a satisfactory/unsatisfactory basis. RSH.

PRE 798. Special Course: ____. 1-5 Hours.
A special course of study to meet current needs of education professionals—primarily for graduate students. Course is graded on a satisfactory/fail basis. LEC.

PRE 800. Development during Youth and Adulthood. 3 Hours.
An examination from a life-span perspective of major issues affecting changes after adolescence. Topics include intelligence, identity, intimacy, the role of work, and moral concepts. Theoretical issues, research findings, and educational and social policy implications will be examined. Students will prepare papers on significant issues in the field and survey extensively the research and theoretical literature. Prerequisite: Prior enrollment in a course on naturalistic or experimental research methods. LEC.

PRE 803. Computer Applications for Statistical Analyses. 3 Hours.
Computer applications for a variety of statistical techniques. Emphasis may be with applications on microcomputers and/or mainframe. Prerequisite: PRE 810 or PRE 811 or equivalent course. LEC.

PRE 805. Individual Intelligence Testing. 1-3 Hours.
Supervised experience in the administration, scoring, and interpretation of the major individual intelligence tests for children, adolescents, and adults. Other areas to be covered in this course will include models of intelligence and factors influencing intelligence; measurement characteristics of instruments used to assess cognitive abilities; ethical and legal issues in the use of intelligence tests; and the use of cognitive assessments for identification and diagnosis. Prerequisite: Permission of instructor. LEC.

PRE 806. Issues in Human Growth and Development. 3 Hours.
An overview and analysis of selected issues in the field of human growth and development. The focus will be on current issues of a theoretical and methodological nature that affect the field of developmental psychology and applications to social and educational settings. Prerequisite: Prior completion of a course in developmental psychology. LEC.

PRE 807. Theories and Research in Human Learning. 3 Hours.
An overview of important models, principles and research findings related to the learning process. Attention is given to theories of learning and information processing which attempt to explain perceptual behavior, verbal learning and memory and social learning processes. Emphasis is placed on student development of research proposals in the area of human learning and achievement. Prerequisite: Permission of instructor. LEC.

PRE 810. Regression Analysis. 3 Hours.
Multiple correlation/regression techniques, including polynomials, analysis of interactions, dummy coding, non-orthogonal analysis of variance, and analysis of covariance. Prerequisite: PRE 710 or equivalent course. LEC.

PRE 811. Analysis of Variance. 3 Hours.
Analysis of variance techniques including one-way ANOVA, planned and post hoc comparisons, multiway ANOVA, repeated measures ANOVA, and mixed designs. Prerequisite: PRE 710 and PRE 711. LEC.

PRE 812. Meta-Analysis. 3 Hours.
Statistical methods to summarize results from multiple studies. Prerequisite: PRE 811. LEC.

PRE 814. Nonparametric Statistics. 3 Hours.
Methods of analysis for nominal and ranked data, multiway contingency table analysis. Prerequisite: PRE 811. LEC.

PRE 816. Evaluating School Programs. 3 Hours.
Methods and procedures for evaluating educational programs. Attention is given to the development and evaluation of goals and objectives, creation of designs to monitor processes and outcomes, utilization of test and measurement systems for assessing outcomes, establishing evaluation standards and criteria, and application of statistical analyses. Prerequisite: PRE 710 or equivalent. LEC.

PRE 822. Educational Scales, Questionnaires, and Sampling. 3 Hours.
Development, construction, validation and scaling of noncognitive instruments including questionnaires, surveys, checklists, rating scales and unobtrusive measures. The sampling methodology is emphasized. Item construction and analysis and the development of subscales are stressed. Prerequisite: PRE 720 or PRE 725 and PRE 710. LEC.

PRE 830. Individual and Group Assessment. 3 Hours.
A consideration of basic concepts pertaining to selection and interpretation of both standardized and non-standardized assessment procedures and devices with attention given to communicating assessment information within the context of the counseling relationship. Prerequisite: PRE 725 or comparable undergraduate principles of measurement course. LEC.

PRE 835. Clinical Techniques in Academic Assessment and Intervention. 3 Hours.
Students will learn techniques of formal and informal assessment of academic skills in school-aged students. In addition, students will learn consultation and intervention approaches and strategies for use with students who have academic delays. This course has a field-based practicum component. Prerequisite: Graduate student standing in the School Psychology program and permission of instructor. LEC.

PRE 840. Guidance and Counseling in the Public Schools. 3 Hours.
This course is designed to provide information about the organization and administration of guidance and counseling programs in the public schools. Non-majors wishing to know more about the role of the counselor can be admitted with approval of the instructor. LEC.

PRE 842. Counseling Practicum (Elementary, Secondary, Counseling Psychology). 6 Hours.
This course is taken as one of the last courses in the master’s degree counseling program. The primary purpose of the course is for the student to develop individual counseling skills while functioning in a counseling setting. In addition to individual skills, students are also encouraged to participate in group counseling and other counseling related activities within the particular counseling setting. Students enroll in practicum for the level most closely related to their professional goals, i.e., elementary, secondary, counseling psychology. Graded on a satisfactory/fail basis.
Prerequisite: PRE 740, PRE 742, and PRE 880, and prior or concurrent enrollment in PRE 830, PRE 840, PRE 844, and PRE 846. Pre-enrollment with practicum coordinator. Students currently on academic probation will not be allowed to enroll in practicum. LEC.

PRE 844. Theory of Group Counseling. 3 Hours.
Focuses on issues in group counseling. Topics covered are types of groups, theoretical orientation of groups, stages of group development, group membership, selection of members, ethical issues, and effectiveness of groups. Prerequisite: Students must be admitted to the Program in Counseling Psychology. Nonmajors must have prior written consent of instructor. LEC.

PRE 846. Career Development. 3 Hours.
Stresses the importance of career development in education, with an emphasis on developmental life planning. Course includes topics such as delivery systems, utility of career development theory, sexism and racism in career development and counseling, the effects of sex role socialization, nature of the world of work, evaluation of career information, use of career information in individual and group counseling, and the role of empirical research in career development theory and practice. LEC.

PRE 850. Human Relationship Skills in the Classroom. 3 Hours.
The purpose of this course is to provide educators with an awareness and skill training in basic human relationship/communication skills. The course is focused on skills that provide educators with effective communication skills for working with students, educators, and parents. LEC.

PRE 855. Psychoeducational Clinic I: Assessment, Consultation, and Intervention. 3 Hours.
This is a practical course where students apply previous learning and gain experience in assessment and intervention with children, families, and school consultation. Team collaboration, peer review, and case conferences are essential elements of this course. Students work with clients in the on campus learning center under supervision. Topical seminars also are included throughout the semester. Prerequisite: Graduate student standing in the School Psychology program and permission of instructor. LEC.

PRE 860. Assessment of Behavior Problems and Personality. 3 Hours.
The purpose of this course is to examine appropriate assessment techniques for the evaluation of behavior problems. Interview procedures, behavioral observation strategies, behavior rating scales and checklists, self-report inventories, and rational theoretical techniques will be introduced. The intent is to place these assessment approaches in their theoretical contexts and to discuss how they could be used by pupil personnel specialists to understand the problem behavior and plan interventions to enhance students' personal adjustment and achievement in the classroom. Prerequisite: PRE 770, graduate standing in the School Psychology program, or permission of instructor. LEC.

PRE 865. Psychoeducational Clinic II: Assessment, Consultation, and Intervention. 3 Hours.
A continuation of School Psychology Clinic I where students will be performing the same activities at a higher level of autonomy and independence. Prerequisite: Graduate student standing in the School Psychology program, PRE 855, and permission of instructor. LEC.

PRE 870. Quantitative Methods for Research in Educational Policy and Leadership. 3 Hours.
This course addresses the conceptual basis of statistical analysis with an emphasis on applied data analysis. The use of descriptive statistics, distributions, graphic displays, hypothesis testing, group comparison, and analyses of relationships among variables to explore research questions in education will be covered. This course is designed specifically for Ed.D. students in the School of Education. Students in other degree programs may not enroll. Prerequisite: This course is open only to Ed.D. students in the School of Education. LEC.

PRE 871. Crisis and Disaster Counseling. 3 Hours.
This course provides advanced training in Crisis and Disaster Counseling to graduate students in the helping professions, providing students with the foundation, knowledge, and skills to effectively help those in crisis. Practical guidelines, specific intervention strategies, treatment principles, legal and ethical responsibilities, and self-care regarding crisis work will be discussed and integrated. Prerequisite: PRE 740 and PRE 742; or consent from instructor. LEC.

PRE 875. Individual and Cultural Differences in Counseling Psychology. 3 Hours.
Examines the role of culture in human behavior and its influence in counseling theories, practice, and research. The course will assist students develop multicultural awareness, understanding, and skills in working with people from diverse racial, social, cultural, and individual backgrounds. The course will provide opportunities for self examination of cultural assumptions/values in order to develop multicultural competence. Prerequisite: PRE 742 or equivalent. LEC.

PRE 880. Ethical and Legal Issues in Professional Psychology. 3 Hours.
An examination of legal, ethical, and professional standards and issues affecting the practice of professional psychology. Topics include legislative regulation of professional psychology, ethical standards and codes of conduct for psychology and related mental health professions, standards of professional practice, and issue of practice liability and risk management. LEC.

PRE 882. History and Systems of Psychology. 3 Hours.
A historical survey of the evolution of concepts, theories, and systems of thought in psychology with an emphasis on their relationship to contemporary issues in psychological theory, research, and practice. Prerequisite: Graduate standing in PRE or consent of the instructor. LEC.

PRE 885. Projective Assessment. 3 Hours.
The major goal of the course is to integrate information about a person from one or more projective tests into a useful summary. The projective assessment instruments to be used include the Rorschach (using the Exner system of scoring and interpretation), the Thematic Apperception Test, and projective drawings (e.g., Draw-A-Person test). Prerequisite: At least one graduate-level course in measurement and one graduate course in assessment plus consent of the instructor. LEC.

PRE 890. Diagnosis and Psychopathology. 3 Hours.
An examination of psychological disorders from a counseling psychology perspective that emphasizes strengths. The course will cover the current version of the Diagnostic and Statistical Manual (DSM), as well as alternative taxonomies, exploring personality as it ranges from normal personality styles to personality disorders, as well as Axis I disorders. The emphasis is on identifying and assessing these phenomena and understanding possible behavioral and treatment implications. Prerequisite: Degree seeking status in Counseling Psychology or consent of instructor. LEC.

PRE 893. Internship in School Counseling. 2 Hours.
Two consecutive enrollments covering a period of one academic year. During this time the student prepares a portfolio of skills competencies, classroom guidance programs presented, and other experiences appropriate to the student's school level. Supervision will be conducted on an individual basis and will include a minimum of two site visits per semester. Prerequisite: Must have school counseling position and a completed Masters degree from K.U. in School Counseling. FLD.
PRE 895. Field Experience in: _____. 1-5 Hours.
Supervised and directed experiences in selected educational or mental health settings. The campus-based instructor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experiences will be prepared independently by the student, a representative of the cooperating agency, and the campus-based instructor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit in this and additional field experience enrollments may not exceed eight hours. Graded on a satisfactory/fail basis. Prerequisite: PRE 842 and consent of the practicum coordinator. FLD.

PRE 896. Seminar in: _____. 1-3 Hours.
Prerequisite: Permission of instructor. LEC.

PRE 897. Independent Study. 1-4 Hours.
Graded on a satisfactory/unsatisfactory basis. Prerequisite: Consent of advisor and instructor. RSH.

PRE 898. Master's Project. 1-4 Hours.
Prerequisite: Prior or concurrent enrollment in PRE 710, PRE 715, or PRE 790. RSH.

PRE 899. Master's Thesis. 1-6 Hours.
Prerequisite: Prior or concurrent enrollment in PRE 710. THE.

PRE 900. Legal, Ethical, and Professional Issues in Professional Psychology. 3 Hours.
This proseminar is designed to examine the major legal and ethical principles and areas of concern that affect professional psychology. The course will also examine the historical development of professional psychology and current issues that affect the future direction of research and practice. Prerequisite: Doctoral status in counseling, clinical, clinical child, or school psychology, or consent of the instructor. LEC.

PRE 901. Research Practicum in: _____. 1-3 Hours.
This course is designed to give students experience in conducting research. It is expected that students will take this course for at least two consecutive semesters. (This course fulfills the requirement by the School of Education for a two semester, research practicum course.) Prerequisite: Doctoral student status in a program in the Department of Psychology and Research in Education. RSH.

PRE 902. Research Methodology in Education. 3 Hours.
An examination and study of the problems and procedures which relate to the validity of research methods. Emphasis will be placed on reading the current literature on research methodology. Students are required to develop a research proposal. Prerequisite: PRE 811 and PRE 720 or PRE 725. LEC.

PRE 905. Multivariate Analysis. 3 Hours.
Multivariate analysis of variance, discriminant analysis, logistic regression, and exploratory factor analysis. Prerequisite: PRE 810, PRE 811 and experience with a statistical software package. LEC.

PRE 906. Structural Equation Modeling I. 3 Hours.
The purpose of this course is to introduce students to Structural Equation Modeling (SEM). Topics to be covered include matrix algebra, correlation/covariance, regression, Path analysis, exploratory and confirmatory factor analysis, full structural equation models and multi-group models. Students will be exposed to the various statistical software programs available for SEM and will be expected to become proficient in utilizing EQS. Prerequisite: PRE 710 or equivalent course. LEC.

PRE 907. The Psychology of Instruction and Human Learning. 4 Hours.
A study of research and theory in the areas of cognitive learning and of instruction, including such topics as motivation, problem solving, discovery learning, conceptualization, theory construction and task analysis. Emphasis placed on independent learning experiences and field-based experimentation with pilot study. Prerequisite: PRE 807 and PRE 715 or permission of instructor. LEC.

PRE 908. Structural Equation Modeling II. 3 Hours.
The purpose of this course is to introduce students to advanced topics in Structural Equation Modeling. Topics to be covered include multi-level models, latent growth models, mixture models and approaches to handling missing and/or non-normal data. Students will be exposed to the various statistical software programs and will be expected to become proficient in utilizing EQS. Prerequisite: PRE 906 or equivalent course. LEC.

PRE 910. Practicum in School Psychology. 3 Hours.
Supervised practice in the application of psychological theory of educational problems. Includes work useful with exceptional children as well as experience in the application of such areas as mental hygiene and learning theory to problems involving the total school population. (Same as SPED 801.) Prerequisite: Permission of advisor and instructor. LEC.

PRE 911. Advanced Practicum in School Psychology. 3 Hours.
A continuation of PRE 910 with special emphasis on remedial techniques associated with learning difficulties. (Same as SPED 802.) Prerequisite: PRE 910 and permission of advisor and instructor. LEC.

PRE 916. Educational Evaluation: Theory and Practice. 3 Hours.
The course will treat an intensive critical study of various views of evaluation as it exists opposite the experimental research process, emphasizing the operational definitions of objectives, existing models, taxonomies, and structure, and goals and methods of obtaining and summarizing evaluation data. Prerequisite: PRE 710 and PRE 816 or equivalents or permission of instructor. LEC.

PRE 918. Seminar in Current Issues and Trends in: _____. 1-3 Hours.
An examination of selected current issues and trends. (This course fulfills the requirement by the School of Education for a course in current issues and trends.) Prerequisite: Doctoral student status in a program in the Department of Psychology and Research in Education. LEC.

PRE 921. Theory and Applications of Educational Measurement. 3 Hours.
Application of theory including classical theories of reliability and validity, latent-trait theories, item sampling, and factor analysis to problems in educational test development and use in areas such as evaluation, research, placement, and selection. Prerequisite: PRE 725 and PRE 811. LEC.

PRE 922. Item Response Theory. 3 Hours.
Theoretical foundations and practical applications of item response theory in educational measurement. Prerequisite: PRE 921. LEC.

PRE 923. Advanced Theory and Applications of Item Response Theory. 3 Hours.
This course is designed to acquaint students with knowledge of advanced theory and applications in the field of item response theory (IRT). Topics to be covered include: advanced IRT models for dichotomous and polytomous, multidimensional, rater effects, and testlet-based item response data, estimation of parameters for these models and related software, and goodness of fit tests. The course will also focus on some advanced applications using these models, including test development, test score equating, differential item functioning, scoring and score
reporting, Monte Carlo simulation studies, and innovative test designs. Prerequisite: PRE 922 or equivalent course. LEC.

The purpose of this course is to provide advanced students in the areas of educational research, psychometrics, and statistics with techniques for computer programming, analysis, and carrying out research using computer simulations. The topics covered are: Programming with Fortran languages, data manipulation and management, analysis, simulation of data according to statistical and psychometric models, numerical techniques for matrix operations, sampling from distributions, solutions for non-linear equations, and Markov-Chain Monte-Carlo techniques. There are no prerequisites for this course, but those students who have coursework through the multivariate statistics level will benefit most from this course. Other suggested courses include those related to psychological and educational measurement, classical test theory, item response theory, and research methods. LEC.

PRE 926. Hierarchical Linear Modeling. 3 Hours.
This course provides students with an introductory background in the basic principles and applications of hierarchical linear modeling (HLM). The course will review both the conceptual issues and methodological issues in using hierarchical linear modeling by working step-by-step with real data sets. Prerequisite: PRE 810 Regression Analysis (formerly PRE 904). LEC.

PRE 931. Computer-Based Testing. 3 Hours.
Computer-based testing holds the promise of increasing test validity and reliability while reducing the logistical problems associated with large-scale assessment. This seminar will provide an overview of what we have learned about administering tests on computer between the 1960s and today. The focus will be on measurement issues, but depending on class interest topics will vary. A prior course in item response theory is desirable but not required. Prerequisite: PRE 725 or equivalent course. LEC.

PRE 932. Diagnostic Testing. 3 Hours.
There is a great demand for more useful, more actionable test scores. Traditional large-scale group administered tests do not provide this kind of information due to low reliabilities of, or high inter-correlations among, sub-scores. This course will explore approaches used by individually administered tests to provide diagnostic information, new psychometric models that hold promise of providing better diagnostic information, and implications for test design. A primary focus will be on how psychometric models can be used with diagnostic sub-scores that are more reliable and less correlated than traditional approaches. Prerequisite: PRE 922 or equivalent course. LEC.

PRE 940. Advanced Studies in Educational Psychology and Research. 3 Hours.
A course designed to offer a comprehensive view of the field of educational psychology and research. The course will treat a series of thematic areas with a focus on latest developments and emerging theories in learning, development and quantitative methods. Intended for post-master's level students. Prerequisite: Prior graduate level course work in development, learning, measurement, and statistics. LEC.

PRE 945. Clinical Supervision and Consultation. 3 Hours.
This course is designed to provide students with a knowledge foundation of clinical supervision and consultation theories and models, modes/formats of supervision, the supervisory/consulting relationship, legal and ethical considerations in the provision of supervision/consultation, and supervision research issues. Prerequisite: PRE 948. LEC.

PRE 947. Specialist Research. 1-4 Hours.
RSH.

PRE 948. Advanced Practicum I. 3 Hours.
Designed to be the initial advanced practicum for first year doctoral students. Attention is directed to development of a broad range of basic and advanced skills. Graded on a satisfactory/fail basis. Prerequisite: PRE 842 or equivalent. LEC.

PRE 949. Advanced Practicum II. 3 Hours.
Intensive counseling practice, including group and individual supervision, that may be taken either through Counseling and Psychological Services or an approved site outside of the university. Focus is on the acquisition and demonstration of advanced counseling skills. Two consecutive semesters (Fall, Spring) of enrollment are required of doctoral students. Responsibility to the site is for a continuous nine months, with fall semester responsibilities ending on the first day of spring semester classes. A grade of incomplete will be granted at the end of the regular fall grading period, with the regular fall grade being granted after completion of fall semester responsibilities. Graded on a satisfactory/fail basis. Prerequisite: Satisfactory completion of PRE 948 and prior or concurrent enrolment in PRE 951. LEC.

PRE 950. Cognitive Theory and Strategies in Counseling Psychology. 3 Hours.
An examination of historical and contemporary cognitive theories and strategies used in the practice of counseling psychology. Consideration of theoretical positions and issues, research functions, assessment strategies, and application of techniques. Prerequisite: PRE doctoral student status or consent of instructor. LEC.

PRE 951. Psychodiagnostic Assessment. 3 Hours.
Survey of selected psychodiagnostic instruments currently in use and their administration, scoring, and interpretation. Emphasis will also be placed on the use of the clinical interview as an assessment tool, case conceptualization/diagnosis, and integrative report writing. Prerequisite: Completion of PRE 830 and degree-seeking status in Counseling Psychology or consent of instructor. LEC.

PRE 952. Advanced Counseling Theory and Research. 3 Hours.
An advanced treatment of theory, research, and practice issues central to Counseling Psychology. Topics include theoretical and research paradigms in Counseling Psychology; the relationship of theory and research to practice; and evidence on factors influencing counseling processes and outcomes. Prerequisite: Counseling Psychology doctoral student status or consent of instructor. LEC.

PRE 953. Interactional Perspectives on Counseling and Personality. 3 Hours.
A study of personality and therapeutic change from systems, interactional, and communications perspectives, with implications for research and assessment in counseling. Designed for graduate students at the specialist and doctoral levels. Prerequisite: Counseling Psychology doctoral student status or consent of instructor. LEC.

PRE 954. Vocational Psychology. 3 Hours.
A survey of the major career development theories in counseling psychology. Models and methods of career counseling will be reviewed and integrated from the different theoretical perspectives. The empirical support of each theory and needed research will be identified. The course will include presentation of theories of career development and their specific applicability in counseling. The career development of special groups (women, the culturally different, non-whites) will be studied as well as alternative methods of delivery in career development and counseling. Prerequisite: Completion of PRE 846 or equivalent, and Ph.D. degree-seeking status in Counseling Psychology or consent of instructor. LEC.
PRE 955. Research Methods in Counseling Psychology. 3 Hours.
This course is a foundational course in research methods and design in counseling psychology. The course covers (a) design type and threats to design validity, (b) the formulation of research problems, (c) research instrumentation/measures, (d) data analytic methods, (e) interpreting data, and (f) ethical issues, research integrity, and the responsible conduct of research. Prerequisite: PRE 710 and PRE 711 or equivalent. Doctoral student in Counseling Psychology or consent of instructor. LEC.

PRE 956. Theory of Couples and Family Counseling. 3 Hours.
A survey of contemporary systems of couples and family counseling. Consideration of couple and family function/dysfunction, theoretical models of family interaction, models of counseling practice and methods, and research on couples and family counseling. Prerequisite: Degree-seeking status in Counseling Psychology or consent of instructor. LEC.

PRE 960. Assessment of Infants, Toddlers, and Young Children. 3 Hours.
The purpose of this course is to introduce the student to the assessment of various domains related to the development of infants, toddlers, and young children. The student will learn how to use formal and informal assessment techniques for screening, diagnostic, educational planning, and educational evaluation purposes. An emphasis will be placed on the linkage between assessment and intervention. This course is designed for students in the applied psychology fields (i.e., school psychology, counseling psychology, clinical child psychology, and clinical psychology). Prerequisite: PRE 705, PRE 725, PRE 805 and permission from the instructor. LEC.

PRE 965. Foundations of Psychoeducational Consultation. 3 Hours.
This is the first of a two semester sequence of courses on school-based consultation. The course is a combination lecture-laboratory experience that introduces the student to the literature, theory, and techniques of consultation. Prerequisite: Approval of instructor. LEC.

PRE 970. Counseling with Adults. 3 Hours.
This course will focus on the utilization and integration of adult life span theory and issues with counseling theory and practice. Particular attention is given to the adaptation of counseling practices to the developmental concerns of adult male and female clients. Additional emphasis is given to encouraging research projects related to the adult lifespan and effective counseling practices. Prerequisite: Graduate student status as an advanced master's student or doctoral student in the Program in Counseling Psychology or written permission of instructor. LEC.

PRE 975. Therapeutic Intervention: Home and School. 3 Hours.
The course includes a review of literature and theory as well as supervised practice. Therapeutic intervention is broadly conceived, including individual and group counseling, and parent and teacher consultation. The importance of the family-school relationship is stressed. Prerequisite: Permission of instructor and completion of course on counseling. LEC.

PRE 980. Advanced Topics: ______. 1-3 Hours.
A special course of study to meet current need of education professionals--primarily for post-master's level students. LEC.

PRE 990. Internship in Counseling Psychology. 1 Hour.
Three consecutive enrollments, covering a minimum of eleven months of experience in an approved counseling psychology field setting. Supervision and directed experiences coordinated by the student's adviser, the program training director, and internship setting supervisors. Required of all counseling psychology doctoral students. Prerequisite: Doctoral degree-seeking status in counseling psychology, completion of Ph.D. comprehensive examinations, and consent of counseling psychology faculty. FLD.

PRE 991. Ed.S. Internship. 1-5 Hours.
This course has two components: 1) a supervised experience as a practicing school psychologist, and 2) a group supervision class emphasizing case presentations and other integrative practice elements. The student functions as a provisionally certified school psychologist. Prerequisite: Completion of Ed.S. degree. FLD.

PRE 992. Ph.D. Internship in School Psychology. 5 Hours.
This is a one year, supervised experience in an approved setting. The structure and content of the experience follows guidelines of several professional organizations including The American Psychological Association and the National Association of School Psychologists. Prerequisite: Approval of School Psychology committee. FLD.

PRE 995. Field Experience in: ______. 1-5 Hours.
Supervised and directed experiences in selected educational settings. The advisor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experiences will be prepared independently by the student, a representative of the cooperating agency, and the advisor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. FLD.

PRE 996. College Teaching Experience in: ______. 1-5 Hours.
To meet the college teaching experience requirement for doctoral programs, a student shall engage in a semester long, planned, instructional activity that shall include college classroom teaching under supervision. Planning shall be done with the advisor and/or member of the faculty who will supervise the experience. The activity shall be done under the supervision of a member of the University of Kansas faculty or by an individual or individuals designated by the candidate's committee. FLD.

PRE 997. Individual Study. 1-4 Hours.
Prerequisite: Prior graduate course work in the area of study and consent of instructor. Course is graded on a satisfactory/fail basis. RSH.

PRE 998. Seminar in: ______. 1-4 Hours.
Course is graded on a satisfactory/fail basis. LEC.

PRE 999. Doctoral Dissertation. 1-15 Hours.
THE.

Master of Science in Counseling Psychology

M.S. Degree Program

The master's program in counseling psychology prepares individuals aspiring to work as counselors or in counseling-related fields or those hoping to proceed on into doctoral training. The curriculum provides a broad and general introduction to Counseling Psychology theory, research and clinical practice. For the Master of Science in counseling psychology degree, students earn a concentration in mental health counseling.

Graduate Admission to the School of Education

Graduate programs in education are open to students with acceptable baccalaureate degrees, as specified by the admitting departments, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a grade-point average of at least 3.0 on a 4.0 scale; provisional admission requires a grade-point average of at least 2.5. Individual departments may require additional
information and may have more stringent admission and retention requirements.

Special provisional admission categories are available to students who may not qualify under traditional admission criteria but can provide evidence of ability to work successfully at the graduate level, including experience in and commitment to the profession. Exceptions to established policies must be sought individually by petition to the Graduate Division of the School of Education.

See Admission in the Graduate Studies (p. 2059) section of the online catalog for more information.

Ordinarily, complete application materials should be received by July 1 for fall admission, December 1 for spring semester, and May 1 for summer session. Prospective graduate students should contact their departments for admission deadlines.

Graduate Admission

Prerequisites for Regular Admission

Prerequisites include the following:

- Undergraduate grade-point average of 3.0 or higher on a 4.0 scale
- Graduate grade-point average of 3.5 or higher on a 4.0 scale
- Graduate Record Examination general test scores
- Completed bachelor’s or master’s degree in counseling, psychology, or a related area. (An applicant who does not have an undergraduate degree in education or psychology should have a minimum of 14 undergraduate credit hours in the behavioral sciences.)

At the first enrollment, a doctoral student reviews any previous graduate work with an advisor to identify any course work in which the student is deficient. Students holding master’s degrees in other areas should recognize that such course work may require up to a year to complete and, in some instances, must be taken before the actual doctoral course requirements.

See individual programs for specific admission requirements and deadlines.

Submit your graduate application online (http://www.graduate.ku.edu). Send 1 copy of all original transcripts to the department:

The University of Kansas
Department of Psychology and Research in Education
Joseph R. Pearson Hall
1122 W. Campus Road, Room 621
Lawrence, KS 66045-3101

Admission Requirements

The admission deadline is January 15 to begin course work in the following summer or fall.

Required Admission Materials

1. Graduate application (http://www.graduate.ku.edu) and application fee. See Admission in the Graduate Studies (p. 2059) section of the online catalog.
2. 1 copy of official transcripts of all previous college work, sent directly to the Graduate Application Processing Center (http://www.graduate.ku.edu). The original transcript is forwarded to

the School of Education to complete licensing and/or certification paperwork.
3. GRE (general test) scores: Institution code, R6871; Department code, 2005.
4. Letter of intent.
5. Résumé.
6. 3 letters of recommendation from people who can assess the applicant’s prospects for completing the program.

M.S. Degree Requirements

The mental health concentration requires about 60 credit hours of course work. Individuals wishing to become licensed professional counselors in Kansas need to meet additional requirements, described online (http://www.ksbsrb.org). You also may wish to consult the American Counseling Association’s website (http://www.counseling.org) for additional information. Besides a core of work in counseling psychology (including counseling theory, career development, interviewing, assessment, group counseling, professional issues, and practicum), work is required in developmental psychology, research, and diagnosis and psychopathology. All students complete either a thesis, a research project, or a comprehensive examination. After entering the program, students should meet with an advisor to plan a schedule for completing degree requirements. Students in the Kansas City area may take a few courses at the KU Edwards Campus (http://edwardscampus.ku.edu) in Overland Park.

Doctor of Philosophy in Counseling Psychology

Ph.D. Degree Program

Established in 1955, the doctoral program in counseling psychology trains generalists who are able to engage in variety activities ranging from clinical treatment to academic research. Reflecting a “scientist-practitioner” model, the curriculum prepares clinicians who apply the best and most current theory and research to their practice, and academicians who are grounded in the realities of practice. Although preparing students to be able to assess and treat the full range of disorders that psychologists address, our emphasis as counseling psychologists is upon personal, social, and career development of the whole person, and upon enhancing the environments in which people learn and work. Students learn to critically evaluate major approaches, to evaluate, design, and conduct research, and gain clinical experience working with people of diverse cultural backgrounds and worldviews. The program, which includes a required internship in professional psychology, is intended for full-time students, and generally is completed in five to six years.

The Ph.D. program in Counseling Psychology was first accredited by the Commission on Accreditation of the American Psychological Association in 1955. If you have questions about our program’s accreditation status, please contact:
American Psychological Association (http://www.apa.org/ed/accreditation)
750 1st Street, NE
Washington, DC 20002-4242
Phone: (202) 336-5979
Fax: (202) 336-5978
Email: apaaccrred@apa.org
Graduate Admission to the School of Education

Graduate programs in education are open to students with acceptable baccalaureate degrees, as specified by the admitting departments, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a grade-point average of at least 3.0 on a 4.0 scale; provisional admission requires a grade-point average of at least 2.5. Individual departments may require additional information and may have more stringent admission and retention requirements.

Special provisional admission categories are available to students who may not qualify under traditional admission criteria but can provide evidence of ability to work successfully at the graduate level, including experience in and commitment to the profession. Exceptions to established policies must be sought individually by petition to the Graduate Division of the School of Education.

See Admission in the Graduate Studies (p. 2059) section of the online catalog for more information.

Ordinarily, complete application materials should be received by July 1 for fall admission, December 1 for spring semester, and May 1 for summer session. Prospective graduate students should contact their departments for admission deadlines.

Graduate Admission
Prerequisites for Regular Admission
Prerequisites include the following:

- Undergraduate grade-point average of 3.0 or higher on a 4.0 scale
- Graduate grade-point average of 3.5 or higher on a 4.0 scale
- Graduate Record Examination general test scores
- Completed bachelor’s or master’s degree in counseling, psychology, or a related area. (An applicant who does not have an undergraduate degree in education or psychology should have a minimum of 14 undergraduate credit hours in the behavioral sciences.)

At the first enrollment, a doctoral student reviews any previous graduate work with an advisor to identify any course work in which the student is deficient. Students holding master’s degrees in other areas should recognize that such course work may require up to a year to complete and, in some instances, must be taken before the actual doctoral course requirements.

See individual programs for specific admission requirements and deadlines.

Submit your graduate application online (http://www.graduate.ku.edu). Send 1 copy of all original transcripts to the department:

The University of Kansas
Department of Psychology and Research in Education

Admission

The admission deadline is December 15 to begin course work the following fall.

Admission Criteria

The Counseling Psychology program accepts approximately 6-10 students each year. Both bachelor’s level and master’s level applicants are considered for admission.

Recommended minimums for bachelor’s level applicants

- Completion of bachelor’s degree in psychology or related field
- GRE verbal, quantitative, and writing scores at 50th percentile, obtained within the past 5 years
- Cumulative undergraduate GPA of 3.0 or GPA of 3.25 for the major courses or the last 60 credits of the bachelor’s degree
- Prior undergraduate course work in psychological research methods, measurement, and statistics (recommended).

Recommended minimums for master’s level applicants

- Completion of master’s degree in counseling or closely related field
- GRE verbal, quantitative, and writing scores at 50th percentile, obtained within the past 5 years
- Graduate GPA of 3.5 or above.

Alternative Criteria

Applicants may be admitted under alternative criteria provided there is evidence that regular criteria do not adequately reflect the student’s potential to succeed in the program. The faculty will review and make decisions on such applications on a case-by-case basis. The faculty reserves the right to require those who are admitted under the alternative criteria to take some background core courses before or during the first year of their doctoral training in the areas of general psychology, experimental psychology, and introductory statistics. This decision will be made by the admission committee and the student’s assigned advisor, and communicated to the student before he or she accepts admission to the program.

Required Admission Materials

1. Graduate application (http://www.graduate.ku.edu) and application fee. See Admission in the Graduate Studies (p. 2059) section of the online catalog.
2. 1 copy of official transcripts of all previous college work, sent directly to the Graduate Application Processing Center (http://www.graduate.ku.edu). The original transcript is forwarded to the School of Education to complete licensing and/or certification paperwork.
3. GRE (general test) scores: Institution code, R6871; Department code, 2005.
4. Letter of intent.
5. Résumé.
6. 3 letters of recommendation from people who can assess the applicant’s prospects for completing the program. If the applicant has completed a practicum in counseling or a related area, 1 recommendation should be completed by the practicum supervisor.

Additional Requirement for Students whose First Language is not English

Students' oral expression and communication skills play an important role in their success in counseling psychology training programs. Therefore, the counseling psychology program faculty requires that all non-native English speaking applicants (international or domestic applicants) demonstrate their English proficiency by following the guidelines listed below before their applications are reviewed by the admissions committee.

(1) Following are the acceptable means of verifying English proficiency for purposes of admitting international students to the CPSY MS or Ph.D. program. These guidelines also apply to U.S. citizens and permanent residents who are not native speakers of English.

Specifically, see KU’s policy on English Proficiency Requirements for International Students:

For Admission to the University (https://documents.ku.edu/policies/Graduate_Studies/EnglishProficiencyIntlStudents.htm)

For an English proficiency chart

For Board of Regents Policy on English proficiency requirements for GTAs (https://documents.ku.edu/policies/provost/SpokenEnglishLanguageCompetencyBORPolicy.htm)

Please note: The score requirement for admission to KU, set by KU international Student Affairs Office, may be different. Due to the high demand for English proficiency in conducting counseling, our program requires iBTTOEFL – all part scores at least 25, which is higher than the University’s requirement for general admission.

(2) Skype interviews or interviews through other on-line media will be required if the applicant is unable to appear for an in-person interview in the admission process.

(3) All international students who are not native speakers of English must visit the Applied English Center upon arrival at KU for verification of their English language proficiency. A minimum score of 50 on the TSE or SPEAK tests is required. All AEC tests are satisfactorily passed (per AEC standards), the student is not allowed to take degree related courses or be employed as a GRA.

Review of Graduate Status

At the beginning of each fall semester, the department formally evaluates the progress and status of all students in the program.

Ph.D. Degree Requirements

Course Work Requirements

In addition to any background competency deficiencies, each student must complete the following course work. This constitutes the minimal substantive requirement of the program.

Psychological Foundations

Students must take at least 1 course in each of 5 general core psychology areas:

1. biological aspects of behavior,
2. cognitive and affective aspects of behavior,
3. social bases of behavior,
4. individual aspects of behavior, and
5. history and systems of psychology.

Professional Core

Students complete a sequence of course work in counseling theories and practices, and in assessment. This course work includes interviewing and interventions techniques, group counseling, career development and vocational psychology, multicultural counseling, legal and ethical issues in professional psychology, supervision and consultation, supervised practica (field experiences), measurement, assessment, and psychodiagnostics.

Human Development

A graduate course in lifespan developmental psychology is required. See offerings in PRE, Psychology, or Applied Behavioral Science.

Research Core

Students complete course work in research design and statistical analysis, including a research practicum.

Elective Area

Students complete 9 credit hours of elective course work from PRE or any related field or department. These are to be regularly scheduled courses (and may include seminars); the requirement cannot be fulfilled using field experiences, college teaching experiences, independent study, etc.

College Teaching Experience

PRE 996 College Teaching Experience in: (Supervision) (minimum of 2 credit hours)

Internship in Counseling Psychology

PRE 990 Internship in Counseling Psychology (1 credit hour for 3 consecutive terms)

Dissertation

PRE 999 Doctoral Dissertation (minimum of 18 credit hours)

Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current Lawrence and Edwards Campus policies on Doctoral Research Skills and Responsible Scholarship are listed in the KU Policy Library.

Comprehensive Examination

After completing course work, the student must pass a written comprehensive examination based on the curricular requirements of the counseling psychology program. After satisfactory completion of the written examination, the student must pass a comprehensive oral examination. The program defines the nature of this examination.
Master of Science in Education in Educational Psychology and Research

M.S.E. in Educational Psychology and Research

M.S.E. in Educational Psychology and Research

The department of Psychology and Research in Education (http://pre.soe.ku.edu) (PRE) offers the Educational Psychology and Research (EPR) program leading to a Master of Science in Education (M.S.Ed.) degree. This program includes instruction within two specialized areas of emphasis referred to as "tracks:" Development & Learning (D&L) and Research, Evaluation, Measurement and Statistics (REMS).

The Development & Learning track for the M.S.Ed. degree program prepares students for work in schools, nonprofit agencies, and other applied settings, or for future doctoral training. The program includes coursework in the areas of human development, learning and cognition, and educational research methods, as well as completion of a data-driven master’s thesis. The M.S.Ed. is typically completed in 2-3 years of full-time study.

The Research, Evaluation, Measurement, and Statistics (REMS) track prepares students for careers in educational measurement and quantitative methods. The program includes coursework in research methods, psychometrics, and statistical analysis. Students typically complete the M.S.Ed. in 2-3 years of full-time study.

Program Coordinator: William Skorupski (Research, Evaluation, Measurement and Statistics), 639 J.R. Pearson, 785-864-9700, wps@ku.edu

Program Coordinators: Development & Learning: Meagan Patterson (632 J.R. Pearson, mmpatter@ku.edu, 785-864-3931) and David Hansen (642 J.R. Pearson, dhansen1@ku.edu, 785-864-1874).

Graduate Admission to the School of Education

Graduate programs in education are open to students with acceptable baccalaureate degrees, as specified by the admitting departments, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a grade-point average of at least 3.0 on a 4.0 scale; provisional admission requires a grade-point average of at least 2.5. Individual departments may require additional information and may have more stringent admission and retention requirements.

Special provisional admission categories are available to students who may not qualify under traditional admission criteria but can provide evidence of ability to work successfully at the graduate level, including experience in and commitment to the profession. Exceptions to established policies must be sought individually by petition to the Graduate Division of the School of Education.

See Admission in the Graduate Studies (p. 2059) section of the online catalog for more information.

Ordinarily, complete application materials should be received by July 1 for fall admission, December 1 for spring semester, and May 1 for summer session. Prospective graduate students should contact their departments for admission deadlines.

Graduate Admission
Prerequisites for Regular Admission

Prerequisites include the following:

• Undergraduate grade-point average of 3.0 or higher on a 4.0 scale
• Graduate grade-point average of 3.5 or higher on a 4.0 scale
• Graduate Record Examination general test scores
• Completed bachelor’s or master’s degree in counseling, psychology, or a related area. (An applicant who does not have an undergraduate degree in education or psychology should have a minimum of 14 undergraduate credit hours in the behavioral sciences.)

At the first enrollment, a doctoral student reviews any previous graduate work with an advisor to identify any course work in which the student is deficient. Students holding master’s degrees in other areas should recognize that such course work may require up to a year to complete and, in some instances, must be taken before the actual doctoral course requirements.

See individual programs for specific admission requirements and deadlines.

Submit your graduate application online (http://www.graduate.ku.edu). Send 1 copy of all original transcripts to the department:

The University of Kansas
Department of Psychology and Research in Education
Joseph R. Pearson Hall
1122 W. Campus Road, Room 621
Lawrence, KS 66045-3101

Admission

In order to be eligible for admission to the M.S.Ed. degree program in EPR, students must first meet the admission requirements for graduate study at the University of Kansas. Admission to the degree program also requires recommendation for acceptance by the Educational Psychology and Research Program Committee.

December 15th is the application deadline for the M.S.Ed. program in Educational Psychology and Research. If accepted as an M.S.Ed. candidate, enrollment begins in the fall semester following the application deadline. The Educational Psychology and Research Program Committee can review only complete applications. It is the applicant’s responsibility to ensure that her or his application is complete. Applicants are encouraged to email the department at preadmit@ku.edu if they wish to check on the status of their application.

Required Admission Materials

STEPS AND REQUIREMENTS FOR A COMPLETE APPLICATION

1 Prepare First – The online application will require upload of several documents including your resume, statement of purpose, test scores, and transcripts. In addition, the form will ask you to submit the names and email address of those providing your references in support of your
application. There is space for you to upload a writing sample however this is not a required part of the application process.

2 Submit the Graduate Studies online application (http://www.graduate.ku.edu/apply) and non-refundable application fee. Print a copy of your application for your personal files.

3 Statement of Purpose and Resume. For EPR applicants, be sure to note in your Statement of Purpose which track (D&L - Development and Learning or REMS – Research, Evaluation, Measurement and Statistics) you intend to pursue. In your Statement of Purpose, please:

• Describe your career goals.
• Describe how you see your career goals relating to this degree program; that is, describe how you see this program preparing you to meet your career objectives.
• Describe past work or educational experiences related to this degree program.
• Describe what skills/competencies and experiences you hope to gain in this program.
• Describe any past research experiences and accomplishments.
• Describe one research topic/issue that you would like to pursue in this program.
• Please provide additional information concerning your background, experience, goals, or accomplishments/awards you believe are pertinent to your application.

4 Official GRE scores. Scores must be sent directly from the institution.

• The GRE should have been taken within five years of the application date, and scores should typically equal or exceed the 50th percentile: 150-151 on Verbal and 149-150 on the Quantitative sections.
• The institution code for the University of Kansas is 6871.
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5 Official transcripts from each institution of higher education attended. You may upload a copy of your official transcripts for review purposes. However, if you are admitted, official transcripts, sent directly from the institution, will be required before second semester enrollment. If your school offers electronic transcripts, you may request the paperless version be sent directly to preadmit@ku.edu.

• An undergraduate grade point average of 3.0 or higher is required for regular admission. If applicable, a graduate grade point average of 3.5 or higher is required for regular admission.
• At the discretion of the university, an applicant may be admitted as a provisional graduate student when either the quality or kind of undergraduate preparation is deficient, i.e., the undergraduate grade-point average is below 3.0 or the student has not met the prerequisites for graduate study.

6 Three recommendation forms and/or letters from individuals in a position to evaluate the applicant’s qualifications for graduate study. Recommendation forms and letters can be solicited for three recommenders through the online application.

7 Official TOEFL or IELTS scores are required for non-native speakers of English. Scores must be sent directly from the institution. • TOEFL or IELTS scores must be achieved not more than two years prior to the semester of admission.
• For Regular admission, all TOEFL part scores should be at least 20 -or-the minimum overall IELTS score should be 6.0 with no part score below 5.5.
• In lieu of TOEFL or IELTS scores, English proficiency can be verified by graduation with a baccalaureate degree (or higher) earned in residence from an accredited US institution of higher education, or from such an institution whose medium of instruction is English.
• KU’s English Proficiency Requirements can be found on the Graduate Studies website http://www.graduate.ku.edu/english-proficiency-requirements.

ADDITIONAL REQUIREMENTS FOR INTERNATIONAL APPLICATIONS

All international students are required to check-in at the Applied English Center (AEC) upon arrival to campus. At that time, the AEC will confirm the student’s level of English proficiency and determine if additional English courses are required.

Some degree programs, such as Counseling Psychology, set higher minimums for the TOEFL and may also require the applicant to submit SPEAK or TSE scores.

It takes approximately eight to twelve weeks to process requests for visa documents to enter the United States for incoming international students. These requests cannot be processed unless all documentation has been received. Please consult the KU web site for International Students and Scholar Services http://www.iss.ku.edu for important information.

M.S.E. Degree Requirements

Area of Focus

Students in the M.S.Ed. degree program select a track—D&L or REMS—on which to focus their studies.

M.S.Ed. students are required to:

• Take courses to satisfy our “Core Course Requirement” (16 credit hours),
• Take an additional two EPR courses (minimum of six credit hours) to establish an area of emphasis in one of the two tracks,
• Take an additional two courses (minimum of six credit hours) from departments other than PRE, one of which must be from a department in the School of Education,
• Complete a data-driven thesis.

Core Course Requirement

Students must take at least one course in each of the 5 core areas:

Learning and Instruction
Doctor of Philosophy in Educational Psychology and Research

Ph.D. in Educational Psychology and Research

The Department of Psychology and Research in Education (http://pre.soe.ku.edu) (PRE) offers the Educational Psychology and Research (EPR) program leading to a Doctor of Philosophy (Ph.D.) degree. This program includes instruction within two specialized areas of emphasis referred to as "tracks:" Development & Learning (D&L) and Research, Evaluation, Measurement and Statistics (REMS).

The Development & Learning track for the Doctor of Philosophy (Ph.D.) degree program prepares students for work as research scientists in educational psychology. Graduates work in a variety of settings, but most commonly seek faculty positions in higher education. The program includes coursework in the areas of human development (with a primary focus on child or adolescent development), learning and cognition, and educational research methods, as well as completion of a data-driven dissertation. Doctoral students develop their own research agenda around a relevant development and learning topic in collaboration with faculty. Research training includes presenting research at national conferences and publishing research in scientific journals. Teaching at the University is also an integral part of our doctoral education. The PhD is typically completed in 3 years of full-time study beyond the Master's degree.

The Research, Evaluation, Measurement, and Statistics (REMS) track prepares students for careers in educational measurement and quantitative research methods. The Ph.D. program includes coursework in research methods, psychometrics, and statistical analysis. Students typically complete the Ph.D. in 3-4 years of full-time study.

- **REMS** refers to the track of study that includes Research methods, Evaluation, Measurement, and Statistics.
- **D&L** refers to the track of study that includes Development and Learning.

Opportunities are available each year for students to be involved in basic and applied educational research.

Graduate Admission to the School of Education

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Graduate Admission

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Prerequisites include the following:

- Undergraduate grade-point average of 3.0 or higher on a 4.0 scale
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December 15th is the application deadline for the Ph.D. program in Educational Psychology and Research. If accepted as a Ph.D. candidate, enrollment begins in the fall semester following the application deadline. The Educational Psychology and Research Program Committee can review only complete applications. It is the applicant’s responsibility to ensure that her or his application is complete. Applicants are encouraged to email the department at preadmit@ku.edu if they wish to check on the status of their application.

APPLICATION PROCESS OVERVIEW

Each PRE program has an admissions committee composed of three to five faculty members who specialize in that particular program area. Completed applications are reviewed shortly after the program’s deadline date. The criteria for a complete application must be met, but are not the only conditions to assure an applicant’s admission to a departmental program. Program admission ultimately depends on committee members’ votes based on their perceptions of the applicant’s potential for successful completion of the requested degree program and the availability of faculty to advise and direct the applicant’s training.

Once the PRE admissions committee has completed their review, a recommendation (to admit or deny) will be forwarded to the Office of Graduate Studies, where a final decision will be made. Applicants will then receive an official notification of the application decision by email.

STEPS AND REQUIREMENTS FOR A COMPLETE APPLICATION

1. Prepare First — The online application will require upload of several documents including your resume, statement of purpose, test scores, and transcripts. In addition, the form will ask you to submit the names and email address of those providing your references in support of your application. There is space for you to upload a writing sample however this is not a required part of the application process.

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purposes. However, if you are admitted, official transcripts, sent directly from the institution, will be required before second semester enrollment. If your school offers electronic transcripts, you may request the paperless version be sent directly to preadmit@ku.edu.

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It takes approximately eight to twelve weeks to process requests for visa documents to enter the United States for incoming international students. These requests cannot be processed unless all documentation has been received. Please consult the KU web site for International Students and Scholar Services http://www.iss.ku.edu for important information.

Please consult http://travel.state.gov for useful information about visas.

**Ph.D. Degree Requirements**

**Area of Focus**

Students in the Ph.D. degree program select a track—D&L or REMS—on which to focus their studies.

**Program Core Course Requirements**

All doctoral students must enroll in at least one course at or above the 800 level in each of the following program core areas. Examples of courses commonly chosen to meet these requirements are shown below.

- **Learning and Instruction**
  Example: PRE 807 Theories and Research in Human Learning

- **Applied Human Development**
  Examples: PRE 800 Development during Youth and Adulthood
  PRE 806 Issues in Human Development

- **Research and Evaluation**
  Examples: PRE 902 Research Methodology in Education
  PRE 816 Evaluating School Programs
  PRE 812 Meta-analysis

- **Measurement and Assessment**
  Examples: PRE 822 Educational Scales, Questionnaires and Sampling
  PRE 921 Theory and Applications of Educational Measurement
  PRE 922 Item Response Theory

- **Statistics**
  Examples: PRE 810 Regression Analysis
  PRE 811 Analysis of Variance
  PRE 905 Multivariate Analysis
  PRE 926 Hierarchical Linear Modeling

**School of Education Core Course Requirements**

Under School of Education policy, all Ph.D. students must complete “EDUC 800: Education as a Field of Scholarship." This course must be taken during the first year of a student's doctoral program.

**Specialization Courses**

All students must complete 8 courses (24 credit hours) in addition to the program and school core requirements. These “specialization courses” should complement a student’s growing research focus and agenda. At least two of the 8 courses must be taken from academic units other than PRE. Students consult with their advisors to identify courses that support their major area of study.

**Dissertation Credit Hours**

Doctoral students must enroll in at least 18 hours of PRE 999 Doctoral Dissertation. During the dissertation period, students must be enrolled continuously with a minimum of 3 credit hours each semester. Students may begin enrollment in dissertation hours the semester they pass the Comprehensive Examination.

**Additional Ph.D. Requirements**

**Research Skills**

Doctoral preparation in the Educational Psychology and Research program implies a strong emphasis on developing strong research skills. Accordingly, every doctoral student must demonstrate these skills by completing three projects or demonstrating competence in three skill areas. Examples of such skills include:

- the submission of a scholarly paper to an appropriate professional organization,
the development of a position paper on an issue related to the field of educational psychology and research, or
- the application of statistical procedures to a dataset.

**Supervised College Teaching Experience**

All Ph.D. students in EPR are expected to have college teaching experience. This experience is often gained through Graduate Teaching Assistantships.

**Ph.D. Residence Agreement**

Doctoral students must be enrolled full-time for at least two consecutive semesters during their doctoral training. Consecutive full-time enrollment for two semesters can be attained from Fall, Spring, and Summer semesters.

**Comprehensive Examination**

Following completion of the majority of the specialization course work, a student must complete and pass a written preliminary comprehensive examination and then a comprehensive oral examination. The candidate, in consultation with his/her advisor, assembles a comprehensive examination committee. The program advisor and the exam committee define the nature of these examinations. During the semester in which students plan to take their comprehensive exams, they should begin enrolling in dissertation hours.

**Dissertation**

Upon passing the written and oral portions of the comprehensive examination, doctoral candidates, in consultation with their advisors, assemble a dissertation committee. For information on post-comprehensive enrollment and general information about doctoral programs, see Doctor of Philosophy (http://www2.ku.edu/~distinction/cgi-bin/degree-programs/#06) in the Graduate Studies section of the online catalog.

The minimum requirement for dissertation enrollment at the University of Kansas is 18 credit hours. However, typical doctoral students in the Educational Psychology and Research program enroll in 21 to 24 credit hours on average to complete the dissertation process.

**Specialist in Education in School Psychology**

**Ed.S. in School Psychology**

**Training Director:** Matthew Reynolds, 130 T.J.R. Pearson, 785-864-9712, mreynolds@ku.edu

The program leads to the Specialist in Education (Ed.S.) degree. The curriculum prepares the student to function professionally as a school psychologist and to develop the skills of a psychoeducational consultant. The program emphasizes current issues and trends in school psychology.

**Graduate Admission to the School of Education**

Graduate programs in education are open to students with acceptable baccalaureate degrees, as specified by the admitting departments, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a grade-point average of at least 3.0 on a 4.0 scale; provisional admission requires a grade-point average of at least 2.5. Individual departments may require additional information and may have more stringent admission and retention requirements.

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See Admission in the Graduate Studies (p. 2059) section of the online catalog for more information.

Ordinarily, complete application materials should be received by **July 1** for fall admission, **December 1** for spring semester, and **May 1** for summer session. Prospective graduate students should contact their departments for admission deadlines.

**Graduate Admission**

**Prerequisites for Regular Admission**

Prerequisites include the following:

- Undergraduate grade-point average of 3.0 or higher on a 4.0 scale
- Graduate grade-point average of 3.5 or higher on a 4.0 scale
- Graduate Record Examination general test scores
- Completed bachelor’s or master’s degree in counseling, psychology, or a related area. (An applicant who does not have an undergraduate degree in education or psychology should have a minimum of 14 undergraduate credit hours in the behavioral sciences.)

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**Department of Psychology and Research in Education**

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**Admission**

The admission deadline is **December 15** to begin course work in the following summer or fall.

**Required Admission Materials**

1. Graduate application (http://www.graduate.ku.edu) and application fee. See Admission in the Graduate Studies (p. 2059) section of the online catalog.
2. 1 copy of official transcripts of all previous college work, sent directly to the Psychology and Research in Education Department (http://pre.soe.ku.edu).
3. GRE (general test) scores: Institution code, R6871; Department code, 3406.
4. Letter of intent.
5. Résumé.
6. 3 letters of recommendation from people who can assess the applicant’s prospects for completing the program.

Ed.S. Degree Requirements

The Ed.S. program prepares graduates to function effectively as school psychologists and to meet the recommendations of professional organizations and Kansas licensure requirements. The Ed.S. program is accredited by the National Association of School Psychologists (http://www.nasponline.org), the National Council for Accreditation of Teacher Education (http://www.ncate.org), and the Kansas State Department of Education (http://www.ksde.org).

Program Requirements

The Ed.S. program consists of 2 years of full-time graduate study (about 62 semester credit hours) followed by a third year of internship. Students completing the program are licensed for PK through grade 12.

All students obtain competence in school psychology primarily by completing a sequence of prescribed courses and field-based experiences. However, there may be room in a student's program for electives, depending on previous experiences and course work. The standard course sequence for students in the Ed.S. program is as follows:

### Year 1

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
<th>Summer</th>
<th>Hours</th>
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<tr>
<td>PRE 715</td>
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<td>3</td>
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<td>PRE 965</td>
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**Applied Behavior Analysis and Evidence-Based Interventions in School Psychology**

<table>
<thead>
<tr>
<th>Year 2</th>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
<th>Summer</th>
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<tr>
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<td>PRE 704</td>
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<td>PRE 947</td>
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<tr>
<td>PRE 855</td>
<td>3</td>
<td>PRE 798</td>
<td>3</td>
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<tr>
<td></td>
<td>(Consultation Systems and Program Evaluation)</td>
<td>3</td>
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<tr>
<td>PRE 910</td>
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<td>PRE 865</td>
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<tr>
<td>PRE 975</td>
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<td>PRE 911</td>
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</table>

**Year 3**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
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<tbody>
<tr>
<td>PRE 991</td>
<td>5</td>
<td>PRE 991</td>
<td>5</td>
</tr>
</tbody>
</table>

**Total Hours:** 69-72

1. PRE 710 and PRE 711 may be waived when the student has taken an undergraduate statistics course and successfully passes a qualifying test.
2. May be taken in 1- to 4-credit-hour segments.

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3. GRE (general test) scores: Institution code, R6871; Department code, 3406.
4. Letter of intent.
5. Résumé.
6. 3 letters of recommendation from people who can assess the applicant’s prospects for completing the program.

The doctoral program adheres to a scientist-practitioner model of training. Doctoral study extends the student’s applied, research, and teaching skills. Research skills are described under Doctor of Philosophy with a Major in Education. Completion of the program typically requires 4 years of full-time study followed by a full year of internship.

Research Skills and Responsible Scholarship

The student must complete course work and demonstrate computer analysis of research data. In addition, each doctoral student must submit a manuscript and have it accepted for presentation at a convention of a scholarly association or submit a manuscript for publication in a professional journal. Before proceeding to the comprehensive examination, doctoral students also must complete the requirement for responsible scholarship training. The responsible scholarship requirement is fulfilled by completing PRE 760 Ethics, Law and Professional Issues in School Psychology, PRE 880 Ethical and Legal Issues in Professional Psychology and the Research Skills requirement (see below).

Comprehensive Examination

After completing course work, a student must pass a written comprehensive examination that consists of three research products. Content is the three research products based on the curricular requirements of the school psychology program. After satisfactory completion of the written examination, the student must pass a comprehensive oral examination. The program defines the nature of these examinations.

Internship

The internship usually is finished in one year after completion of most course work, although it may extend over two years. It is a year of supervision in which the student extends skills and continues professional development while working professionally in an approved setting. The internship gives students an opportunity to integrate theory and practice as they field-test skills and concepts. Content, structure, and supervision requirements follow guidelines of the American Psychological Association and the Council of Directors of School Psychology Programs. Information on internship sites is available in the department office.

Dissertation

Upon passing the written and oral portions of the comprehensive examination, the candidate, in consultation with the adviser, assembles a dissertation committee. For information on post-comprehensive enrollment and general information about doctoral programs, see the pertinent sections of the online catalog.

Doctoral Program Requirements

Professional School Psychology (SPSY) Area

1. Psychodiagnostic Assessment, Consultation and Intervention, and Professional Practice

(all required unless indicated) 45 hrs

PRE 760 Ethics, Law, and Professional Issues in School Psychology
PRE 770 Developmental Psychopathology: Diagnosis, Intervention, and Prevention
PRE 798 Special Course: Applied Behavior Analysis and Evidence-Based Interventions in School Psychology

PRE 798 Special Course: Consultation Systems and Program Evaluation

PRE 805 Individual Intelligence Testing

PRE 835 Clinical Techniques in Academic Assessment and Intervention

PRE 855 Psychoeducational Clinic I: Assessment, Consultation, and Intervention

PRE 860 Assessment of Behavior Problems and Personality

PRE 865 Psychoeducational Clinic II: Assessment, Consultation, and Intervention

PRE 880 Ethics and Law in Professional Psychology

PRE 910 Practicum in School Psychology

PRE 911 Advanced Practicum in School Psychology

PRE 965 Foundations of Psychoeducational Consultation

PRE 975 Therapeutic Intervention: Home and School

PRE 995 Field Experience in __________________________

PRE 992 Ph.D. Internship (10 hrs)

PRE 960 Assessment of Infants, Toddlers, and Young Children (elective)

PRE 885 Projective Assessment *(not a SPSY course)* (elective)

2. Learning and Development (must take one learning course and one development course) 6 hrs

PRE 807 Theories and Research in Human Learning and

PRE 705 Human Development Through the Life Span

3. Statistics, Psychoeducational Measurement, and Research Design (all four courses required) 10 hrs

*PRE 710 Introduction to Statistical Analysis

*PRE 711 Lab for Introduction to Statistical Analysis

PRE 715 Understanding Research in Education

**PRE 921 Theory and Application of Educational Measurement

4. Special Education (must take the course listed below) 3 hrs

SPED 725 Introduction to the Psychology and Education of Children and Youth with Disabilities

Psychological Foundations (all students must take coursework in the five psychological core areas)

1. Biological Bases of Behavior (one course required) 3 hrs

PSYC 961 Biological Foundations of Psychopathology

2. Cognitive-Affective Bases of Behavior (met through professional SPSY area and Learning Development area) ------

3. Social Bases of Behavior (met through professional SPSY area plus one of the following) 3 hrs

PSYC 774 Advanced Social Psychology I or

PSYC 775 Advanced Social Psychology II or

PSYC 777 Social Psychology: Theory, Research and Clinical Applications

4. Individual Bases of Behavior (met through professional SPSY area) ------

5. History and Systems of Psychology (met through the professional SPSY area 3 hrs plus one of the following courses)

PRE 882 History and Systems of Psychology or

PSYC 805 History of Psychology

Research Skills (students must take PRE 901 (4 semesters), PRE 947, PRE 810, PRE 811, 27 hrs and PRE 902 plus 6 hours in measurement, statistics, evaluation, or research design)

PRE 810 Regression Analysis

PRE 811 Analysis of Variance

PRE 901 Research Practicum

PRE 902 Research Methodology in Education

PRE 947 Specialist Research

PRE 803 Computer Applications of Statistical Analyses (elective)

PRE 812 Meta-analysis (elective)

PRE 816 Evaluating School Programs (elective)

PRE 822 Educational Scales, Questionnaires, and Sampling (elective)

PRE 905 Multivariate Analyses (elective)

PRE 906 Structural Equation Modeling I (elective)

PRE 908 Structural Equation Modeling II (elective)

PRE 921 Theory and Applications of Educational Measurement (elective)

PRE 922 Item Response Theory (elective)

PRE 926 Hierarchical Linear Modeling (elective)

PSYC 887 Factor Analysis (elective)

ABSC 735 Within Subjects Research and Methodology and Direct Observation (elective)
Appreciation/Sensitivity to Ethnic and Cultural Diversity (must take one of the following) 3 hrs
PRE 875 Understanding Individual and Cultural Diversity in Professional Psychology or
ELPS 830 Foundations in Multicultural Education

Supervised College Teaching (all students must take the following course) 2 hrs
PRE 996 College Teaching Experience in ____________.

Ph.D. Internship (all students must complete a full-year internship) 10 hrs
PRE 992 Ph.D. Internship in School Psychology

Additional Requirements (all students must complete the following)

Comprehensive exams - written and oral comprehensive exams

Dissertation 18 hrs

Total 133 hrs

* PRE 710 and PRE 711 may be waived when the student has taken an undergraduate statistics course and successfully passes a qualifying test.

** PRE 725 may be taken in place of PRE 921 if PRE 921 is not available.

Department of Special Education

Special Education Graduate Programs

The Department of Special Education (http://specialedu.soe.ku.edu) offers graduate education for students interested in teaching, research, and professional service related to children, adolescents, and adults with disabilities and their families. Since the 1970s, the department’s master’s and doctoral programs have received national and international recognition. The faculty is known for its field leadership and commitment to high-quality education for children and youth with disabilities, innovative field-based research, and preparation of highly effective program graduates. The annual U.S. News and World Report graduate program survey consistently ranks KU at the top when compared to more than 200 graduate programs in this field. As one of the most comprehensive special education preparation programs in the country, the department attracts students from many states and countries.

Graduate degrees associated with the department’s programs include the Master of Science in Education (M.S.E.), Doctor of Education (Ed.D.), and Doctor of Philosophy (Ph.D.). Students may pursue a master’s degree emphasizing teaching in one of 6 areas:

1. High-incidence disabilities
2. Autism spectrum disorders
3. Early childhood unified (birth through kindergarten)
4. Low-incidence disabilities/ significant intellectual disabilities
5. Secondary transition education and services

Students seeking Kansas State Department of Education teaching licensure can complete requirements for special education endorsement in the following areas:

1. Adaptive (high-incidence)
2. Functional (low-incidence/significant intellectual)
3. Early childhood unified (ECU, birth through kindergarten)

With the exception of ECU, all endorsement areas require current Kansas licensure in elementary, secondary, or early childhood education.

The doctoral program prepares experienced professionals for leadership roles as university faculty, researchers, and policymakers/administrators. Course work and field experience facilitate the development of advanced knowledge and skills in leadership, teacher education, research and scholarly writing, and disability advocacy. The following areas of specialization are offered:

- Policy analysis and research
- Teacher education (e.g., high-incidence disabilities, early childhood unified education, secondary special education transition, and low-incidence disabilities)
- Families and disability
- Educational technology

Graduate classes are taught on the main campus in Lawrence, the KU Edwards Campus (http://edwardscampus.ku.edu) in Overland Park in suburban Kansas City about 40 miles from Lawrence, and online and/or hybrid. Master’s students can expect to complete some graduate work on each campus. The Secondary/Transition master/s program is fully online.

Courses

SPED 261. Families and Professional Partnerships. 3 Hours.
This course provides information on issues and practices related to working together in partnership with families of young children including those who have a young child with special needs. Emphasis will be placed on taking a family systems prospective and a family-centered approach to family support. Strategies for effective communication for the purpose of information sharing and collaborative planning with families are provided. Relevant current scientifically based evidence will be reviewed and discussed pertaining to these topics. LEC.

SPED 326. Teaching Exceptional Children and Youth in General Education. 3 Hours.
This course is designed for general education teacher trainees. It will provide them information about students with disabilities that they will have in their classrooms and the law governing special education and its implications for them as general educators. The course will address Individualized Educational Plans that are developed for students with disabilities and how general educators contribute to these plans. Students will learn about planning instruction that is differentiated to meet various learner needs, universal design principles and instructional tools, providing meaningful access to general education classrooms and curriculum for students with disabilities and designing and delivering appropriate accommodations and modifications to assist student learning. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 362. Introduction to Early Education and Early Childhood Special Education. 3 Hours.
This course is designed to provide an overview of the field of early education including early childhood education and early childhood special education. The historical, philosophical, research-based, policy and legal foundations for the field are discussed to provide the students with the
knowledge to become an advocate for early learning opportunities (birth through grade 3) for all children and their families. LEC.

**SPED 425. Introduction to Exceptional Children and Youth. 3 Hours.**

Designed for regular education teacher trainees, those in training for support roles in public schools and/or residential facilities (music educators/therapists, speech clinicians, etc.), and others interested in providing services for exceptional children and youth. Emphasis on the learning and adjustment problems of exceptional children and youth. Includes fieldwork experiences in residential and/or public school settings. LEC.

**SPED 431. Introduction to the Exceptional Child/Adolescent. 1 Hour.**

The course is designed to provide the student with knowledge of and direct experiences within instructional settings that include one or more exceptional children. Structured experiences will be provided to (a) ensure mastery of skills in differentiating normal from atypical patterns of behavior in children or adolescents, (b) promote acquisition of skill in understanding the educational needs of exceptional learners as well as the procedures used to identify and provide instruction for them, (c) ensure the generalization of communication skills to the unique needs of exceptional learners in instructional settings, and (d) promote a positive attitude toward atypical students. LEC.

**SPED 439. Student Teaching: Unified Early Childhood. 1-6 Hours.**

A supervised student teaching experience leading to initial teaching licensure in Kansas Unified Early Childhood (birth through grade 3). The student assumes the professional role as a teacher in an approved inclusive early childhood infant/toddler or preschool. Prerequisite: Admission to the Unified Early Childhood program. Approved application of intent to student teach. LEC.

**SPED 497. Independent Study. 1-2 Hours.**

Only one enrollment permitted each semester, a maximum of four hours will apply toward a bachelor's degree. Prerequisite: Recommendation of advisor and consent of instructor. IND.

**SPED 500. Introduction to Sign Language. 3 Hours.**

This is an introductory course in Sign Language and includes ASL and English sign vocabulary, a description of all manual sign systems, medical aspects of hearing loss, communication and language, and Deaf culture and community. LEC.

**SPED 501. American Sign Language I (ASL I). 3 Hours.**

This course will cover the development of American Sign Language and its application within the Deaf Community. It is based on the functional-notational approach to learning sign language. This approach organizes language around communicative purposes of everyday interaction. LEC.

**SPED 502. American Sign Language II (ASL II). 3 Hours.**

This is the second level course in American Sign Language and its application within the Deaf Community. It is based on the functional-notational approach to learning sign language. This approach organizes language around communicative purposes of everyday interaction. Prerequisite: SPED 501. LEC.

**SPED 503. American Sign Language III (ASL III). 3 Hours.**

This is the third level course in American Sign Language. The primary objective of the American Sign Language III "Signing Naturally" Level 2 curriculum is for students to continue using the two basic language skills: visual listening and signing. Prerequisite: SPED 502. LEC.

**SPED 504. American Sign Language IV (ASL IV). 3 Hours.**

This is the fourth level course in American Sign Language. The primary objective of the American Sign Language IV "Signing Naturally" Level 3 curriculum is for students to continue using the two basic language skills -- visual listening and signing. Prerequisite: SPED 503. LEC.

**SPED 506. Advanced Practices for Children with Disabilities in the Elementary General Education Classroom. 3 Hours.**

This course is designed to enable novice teachers to master and apply the instructional and communicative skills that will facilitate appropriate and productive inclusion of children and youth with exceptionalities within general education classrooms and other school settings. Specific research-based strategies in curriculum content acquisition (content enhancements, learning strategies, classwide-peer tutoring), and specific research-based strategies in behavior management will be learned and applied to real teaching experiences. Novice teachers will learn about collaborative structures found in schools to support student learning in general education settings (co-teaching, collaborative consultation, teacher/student support teams) and roles and responsibilities of teachers within these structures. Prerequisite: Admission to the Teacher Education Program. LEC.

**SPED 507. Advanced Practices for Children with Disabilities Middle/Secondary General Education Classroom. 3 Hours.**

This course is designed to enable novice teachers to master and apply the instructional and communicative skills that will facilitate appropriate and productive inclusion of middle and secondary age students with disabilities within general education classrooms and other school settings. Specific research-based strategies in curriculum content acquisition (content enhancements, learning strategies, classwide-peer tutoring), and specific research-based strategies in behavior management will be learned and applied to real teaching experiences. Novice teachers will learn about collaborative structures found in schools to support student learning in general education settings (co-teaching, collaborative consultation, teacher/student support teams) and roles and responsibilities of teachers within these structures. Prerequisite: Admission to the Teacher Education Program. LEC.

**SPED 598. Special Course: ______. 1-5 Hours.**

A special course of study designed to meet current needs of education students; primarily for undergraduates. LEC.

**SPED 599. Special Course: ______. 1-5 Hours.**

A special course of study designed to meet current needs of education students; primarily for undergraduates. LEC.

**SPED 631. Characteristics of Students Needing an Adaptive Curriculum. 3 Hours.**

This course is designed as an introduction to the definition, characteristics, causes, assessment, and specific remedial techniques for students needing an adaptive curriculum. The needs for specialized services to meet specific learning and/or behavioral needs will be presented. Students will learn about the history of serving children and youth with high incidence disabilities associated with specific learning, emotional/behavioral, mild mental retardation and a range of physical and health needs. Key individuals in the research of specific disabilities associated with these needs and how they helped expand our understanding of who these individuals are and how to address specific needs, will also be addressed. Learning characteristics will be addressed in relation to why and how specialized instruction can meet the learning and developmental needs of these individuals, specifically in the areas of instructional and assistive technology. LEC.

**SPED 632. Characteristics of Students Needing a Functional Curriculum. 3 Hours.**

This introductory course provides an overview of the characteristics of learners with significant support needs. Students will learn to define and understand various classification systems and the implications of: low-incidence disabilities, significant cognitive disability, various vision and/or hearing impairments, including deaf-blindness motor disabilities, and health impairments. Students will be introduced to various etiologies: pre-, peri-, and post-natal causes, syndromes and chromosomal disorders, and biomedical causes of severe disability. Additional content includes anatomy of sensory organs, interpretation of pertinent medical reports,
assessment procedures, and in school settings considerations (e.g., orientation and mobility, cochlear implants, medications, tube feeding, physical therapy, occupational therapy). Prerequisite: An introductory course in special education. LEC.

**SPED 633. Characteristics of Learners with Hearing Loss -- Deaf Studies. 3 Hours.**

Deaf Studies is the basic characteristics course for both the Master’s degree in Deaf Education and for Kansas and Missouri endorsement in Deaf/HOH. The course includes medical aspects/etiology of hearing loss, history, pertinent laws. Deaf culture and community, issues in assessment and psychology, language and sign systems, multicultural education, multiple disabilities and hearing loss, and specific issues in the field. LEC.

**SPED 635. Characteristics of Children and Youth with Disabilities: ______. 3 Hours.**

Social, cognitive, emotional, and other developmental aspects associated with children and youth identified with learning disabilities, behavior disorders, and mental retardation are covered by this course. Characteristics, special needs, and service delivery approaches are compared and contrasted. Prerequisite: SPED 425 or SPED 725. LEC.

**SPED 641. Methods & Assessment: Literacy Interventions Struggling Learners & Students High-Incidence Disabilities. 3 Hours.**

This course will provide in depth learning experiences targeting literacy; both reading and writing. Students will learn about assessment tools and assessment systems used in tiered support frameworks to determine the required intensity of literacy support and instruction needed by children/adolescents with adaptive special education needs, and will learn about evidence-based instructional approaches and curriculum developed for students with disabilities and struggling students in general. The course is intended for persons working toward the Kansas teaching license in teaching students needing an adapted curriculum. Prerequisite: SPED 730, admittance into the Adaptive program in the Department of Special Education, or permission of the instructor. LEC.

**SPED 642. Methods and Assessment: Life Skills and Community-Based Instruction. 3 Hours.**

This course will provide an overview of assessment and instructional practices contributing to community-referred planning, community-based instruction and life skills instruction. Students will conduct ecological inventories and other student-referred assessments, design community-based instructional programs, ecologically valid and age-appropriate to facilitate mastery of skills essential for community and social inclusions, explore best practices in community-based instructional programs, including family and student involvement, transportation, and administrative and policy support. Undergraduate students will be provided a model and extended scaffolding with a few sample case studies with which to work. Students who have completed SPED 642 cannot enroll in SPED 742. The course is intended for persons working toward the Kansas teaching license in teaching students needing a functional curriculum. Prerequisite: SPED 326. LEC.

**SPED 644. Assessment and Instructional Methods I: Learners with Hearing Loss. 3 Hours.**

This course will provide an introduction to appropriate instructional methodology for teaching students who are deaf or hard of hearing at the early childhood, elementary, and secondary levels. Upon completion students will be familiar with legal issues, teaming, assessment, IEP development, curriculum planning, instructional methods, and transition. LEC.

**SPED 650. Constructing Early Childhood Curriculum. 3 Hours.**

Students in this course will learn to design, implement and evaluate developmentally appropriate curricula and programs for children from birth through kindergarten. Issues of curriculum design and assessment are introduced as interrelated processes that include structuring learning environments and experiences that are responsive to children’s interests and abilities. Students analyze and evaluate curriculum that focuses on the five developmental domains a) social emotional development; b) cognitive development; c) language and communication development; d) adaptive behavior development; and e) gross and fine motor development and in addition the content domains of literacy, science, math, and fine art. Strategies for developing learning opportunities that are appropriate for young children, including children with special needs and children from diverse cultural, ethnic and linguistic backgrounds, will be explored. Prerequisite: Admission to School of Education UEC program. LEC.

**SPED 660. Education of Children and Youth with Disabilities I: ______. 3 Hours.**

This is a methods course that covers instructional approaches and procedures that offer developmentally appropriate, effective and inclusive early intervention for preschool and kindergarten age children who experience developmental delays, disabling conditions or who are at-risk for developmental problems and disabilities. It is directed toward: (a) “how” to teach, or the technical components of developing and delivering effective instruction that provide access to the general early childhood curriculum within recognized approaches to early childhood education for young children, and (b) the “what” to teach, or the selection of developmentally and individually appropriate child objectives as well as specific materials and specialized instructional approaches. The relationship of instructional planning to state and federal mandates will also be considered. The course is primarily intended for persons who are currently working toward certification in the ECSE program area. Prerequisite: SPED 425 or SPED 725, and SPED 735, which can be taken concurrently. LEC.

**SPED 661. Supporting Children with Significant Learning and Behavioral Challenges. 3 Hours.**

Students in this course will gain knowledge of the causes, and intervention and support approaches for young children with multiple and significant disabilities including neurological impairments, physical disabilities, sensory impairments, significant developmental disabilities and challenging behavior. Emphasis is placed on environmental adaptations and direct instructional techniques to maximize independence as determined through systematic ecological inventories tailored to the individual child’s strengths and needs. Information is also provided on assistive technology designed to provide appropriate supports. Functional behavioral assessment procedures, proactive intervention strategies, and developing collaborative support plans will be studied. Prerequisite: Admission to the Teacher Education Program. LEC.

**SPED 663. Assessment Strategies in Early Education. 3 Hours.**

Examines the practice of gathering information for the purpose of making individual referral and instructional decisions for infants, toddlers, and young children with and without special needs. Discusses effective informal assessment techniques and emphasizes an ecological approach to gathering information. Introduces standardized assessment and screening instruments and provides an overview of the purposes and limitations of such tests. Prerequisite: Admission to the Teacher Education Program. LEC.

**SPED 664. Inclusive Strategies and Intervention for Infants and Toddlers. 3 Hours.**

Emphasizes curriculum development and early intervention provision for infants and toddlers through the planning of appropriate learning experiences, the design of learning environments, developing Individual Family Service Plans (IFSP), promoting collaboration among families and the use of various methods of enhancing the child’s development across the five (social-emotional, adaptive, cognitive, physical/movement,
communication) development domains. The role of the educator/early interventionist in relation to the family and the child is examined. Curriculum resources and intervention strategies for infants and toddlers with special needs are reviewed with emphasis on interdisciplinary planning and implementation. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 665. Inclusive Strategies and Intervention for Preschoolers. 3 Hours.
Provides the opportunity for students to develop and evaluate inclusive environments for young children. This course emphasizes meeting the needs of all young children through an integrated approach to planning, implementing and assessing instruction in all areas; linking assessment information to individualized instruction; developing Individual Educational Plans (IEPs) and promoting collaboration among families, schools and communities. Service delivery systems and transitions between early childhood programs are reviewed in relation to curriculum. Curriculum development for early childhood content areas (literacy and language, numeracy, science, social studies, physical education and the arts) and domains (language, social/emotional, physical, and cognitive) will be explored. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 666. Field Experience Infant/Toddler. 1 Hour.
This supervised field experience is intended to allow the pre-service teacher to apply the knowledge gained in SPED 665 Inclusive Strategies and Intervention for Preschoolers, by working with infants and toddlers in early intervention settings/programs. To be taken concurrently SPED 665. Prerequisite: Admission to the Teacher Education Program. FLD.

SPED 667. Field Experience in Preschool. 1 Hour.
This supervised field experience is intended to allow the pre-service teacher to apply the knowledge gained in SPED 664 Inclusive Strategies and Intervention for Infants and Toddlers, by working with infants and toddlers in early intervention settings/programs. To be taken concurrently SPED 664. Prerequisite: Admission to the Teacher Education Program. FLD.

SPED 672. Field Experiences with Exceptional Children and Youth: _____ 3 Hours.
A course designed to provide experiences for students to participate with exceptional children in public schools and/or residential facilities and with professional personnel associated with the lives of exceptional students including special education teachers, child care workers, therapists, etc. Students will have opportunities to participate as aides, tutors, and instructors with individual and small groups of exceptional youth in one or more placements. Through weekly meetings with the instructor students are guided to relate their experiences to the needs and services for exceptional children and youth. Prerequisite: SPED 635. FLD.

SPED 675. Practicum with Children and Youth with Disabilities: _____ 1-10 Hours.
Intensive diverse and direct teaching experiences with children and youth with disabilities in educational settings. The course is differentiated from SPED 775 through the amount of scaffolding undergraduate students will receive when demonstrating skill application (e.g., undergraduates report and receive feedback on practicum experiences on a more frequent basis, reduced data collection requirements, more emphasis on cooperating teacher providing guidance, etc.). This practicum is a requirement for provisional endorsement according to KSDE. Students who have completed SPED 675 cannot enroll in SPED 775 within in same curricular area. Prerequisite: SPED 326. LEC.

SPED 700. Introduction to Sign Language. 3 Hours.
This is an introductory course in Sign Language and includes ASL and English sign vocabulary, a description of all manual sign systems, medical aspects of hearing loss, communication and language, and Deaf culture and community. LEC.

SPED 701. American Sign Language I (ASL I). 3 Hours.
This course will cover the development of American Sign Language and its application within the Deaf Community. It is based on the functional-notational approach to learning sign language. This approach organizes language around communicative purposes of everyday interaction. LEC.

SPED 702. American Sign Language II (ASL II). 3 Hours.
This is the second level course American Sign Language and its application within the Deaf Community. It is based on the functional-notational approach to learning sign language. This approach organizes language around communicative purposes of everyday interaction. Prerequisite: SPED 701. LEC.

SPED 703. American Sign Language III (ASL III). 3 Hours.
This is the third level course in American Sign Language. The primary objective of the American Sign Language III “Signing Naturally” Level 2 curriculum is for students to continue using the two basic language skills: visual listening and signing. Prerequisite: SPED 702. LEC.

SPED 704. American Sign Language IV (ASL IV). 3 Hours.
This is the fourth level course in American Sign Language. The primary objective of the American Sign Language IV “Signing Naturally” Level 3 curriculum is for students to continue using the two basic language skills -- visual listening and signing. Prerequisite: SPED 703. LEC.

SPED 706. Advanced Practices for Children with Disabilities in the Elementary General Education Classroom. 3 Hours.
This course is designed to enable novice teachers to master and apply the instructional and communicative skills that will facilitate appropriate and productive inclusion of children and youth with exceptionalities within general education classrooms and other school settings. Specific research-based strategies in curriculum content acquisition (content enhancements, learning strategies, classwide-peer tutoring), and specific research-based strategies in behavior management will be learned and applied to real teaching experiences. Novice teachers will learn about collaborative structures found in schools to support student learning in general education settings (co-teaching, collaborative consultation, teacher/student support teams) and roles and responsibilities of teachers within these structures. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 707. Advanced Practices for Adolescents with Disabilities in the Middle/Secondary General Classroom. 3 Hours.
This course is designed to enable novice teachers to master and apply the instructional and communicative skills that will facilitate appropriate and productive inclusion of middle and secondary age students with disabilities within general education classrooms and other school settings. Specific research-based strategies in curriculum content acquisition (content enhancements, learning strategies, classwide-peer tutoring), and specific research-based strategies in behavior management will be learned and applied to real teaching experiences. Novice teachers will learn about collaborative structures found in schools to support student learning in general education settings (co-teaching, collaborative consultation, teacher/student support teams) and roles and responsibilities of teachers within these structures. Prerequisite: Admission to the Teacher Education Program. LEC.

SPED 708. Introduction to Hearing Impaired. 2 Hours.
A study of hearing defects and methods of diagnosis. The course also covers remedial work which teachers can use in treating such defects and meeting problems of hearing defective children. Prerequisite: Nine hours of education including educational psychology. LEC.
SPED 710. Methods of Teaching Language to the Deaf I. 3 Hours.
The effects of hearing loss on language acquisition and development. Systems for teaching language to individuals with hearing loss are introduced. Prerequisite: Course in normal language development and nine hours of education including educational psychology. LEC.

SPED 715. Understanding Research in Education. 3 Hours.
This course introduces concepts and skills involved in understanding and analyzing research in special education. The course provides an overview of basic, general knowledge of various research methodologies. In addition, this course will teach students to locate, read, comprehend, and critically analyze research articles and reports. Students will become familiar with the principles of educational research to become good "consumers" of this research. LEC.

SPED 717. Exceptional Children in Regular Classrooms. 3 Hours.
This course is designed to explore the relationship between regular and special education. Educational service delivery systems for exceptional children are identified and analyzed. Emphasis is placed upon procedures and special services that regular class teachers can use to provide instructional services to exceptional children assigned to regular classrooms. Procedures for enabling normal children to understand and appreciate the interaction with children who exhibit physical and behavioral variance from established norms are conveyed. Especially for regular class teachers and students desiring a career in teaching exceptional children. Will be offered by designated area sections or as a general overview of several areas. LEC.

SPED 718. Instructional Planning for Children and Youth with Disabilities: ______. 1-3 Hours.
This course provides knowledge and skills to select, adapt, and sequence instructional methods and materials to facilitate general education curriculum mastery. LEC.

SPED 719. Learning and Technology. 1 Hour.
The central framework of "human learning" provides a context for understanding technology-based educational innovations. The lessons in this course explore how various "features of learning" and "features of technology" intersect. They discuss realistic options for improving the learning of students, and the learning of teachers, as they use technology in education. (Life-span range of levels.) LEC.

SPED 724. Data-Driven Instructional Decision Making. 1 Hour.
The lessons in this course present research-based methods for monitoring student behavior and academic progress. They explain how teachers may use this information to evaluate current and plan future instructional and behavioral interventions following a decision making model. It is also explored how computer and information management technology tools support and facilitate the collection, storage, and analysis of observational data. LEC.

SPED 725. Introduction to the Psychology and Education of Children and Youth with Disabilities. 3 Hours.
This course provides an overview of current practices in the identification, placement, and education of students with disabilities. This course emphasizes on patterns of social, cognitive, language, and physical development. Social, political, and economic advocacy issues are also addressed. Prerequisite: One course in Child Development. LEC.

SPED 726. Exceptionality and Technology. 1 Hour.
Technology has the potential to dramatically improve the education and quality of life for people with disabilities. This course presents you with a basic foundation for understanding technology in special education, a functional model for selecting the best technology applications for students with special needs, and strategies for applying your knowledge to practical situations. LEC.

SPED 727. Designing Instruction for Diverse Learners. 3 Hours.
This course explores to design, development, and implementation of technology-based solutions for struggling learners in the preK-12 instructional environment. Throughout the course, students will (1) gain an understanding of the Principles of Universal Design for Learning, (2) examine how technology has and can be developed in a manner to meet multiple needs, especially those with disabilities, and (3) analyze how professionals can identify and assess what technology-based solution would meet the needs of a particular individual or group of individuals. LEC.

SPED 729. Introduction to Computing in Special Education. 3 Hours.
This course is designed to provide an introduction to basic concepts of computer literacy, with particular emphasis on the uses of microcomputers in educational settings for individuals with special needs. Topics include an overview of computing specific to the needs of individuals with special needs including: a) applications and the impact of computers on society; b) an introduction to computer hardware and associated concepts; c) introductory programming concepts; d) a survey of instructional and instructional-support applications of computers including examples of related software; e) software evaluation techniques; and f) an overview of resources in educational computing. Students will acquire hands-on operating experience with microcomputers through scheduled laboratory periods. LEC.

SPED 730. Characteristics, Methods & Assessment: Intro Struggling Learners & Students High-Incidence Disabilities. 3 Hours.
The course is designed as an introduction to the characteristics, assessment and identification process, and initial instructional and behavioral interventions needed in meeting the needs of students with high-incidence disabilities under the Kansas Adaptive Teacher Education Standards. The needs for specialized services to meet specific learning and/or behavioral needs will be presented. Frameworks for instruction and conceptualizing best practice will be introduced including the principles of Universal Design for Learning and the Multi-Tier System of Support. The role of the educator in identifying, understanding and implementing evidence-based practices is also examined. Curriculum resources and intervention strategies for students with high-incidence disabilities will be introduced with emphasis on tiered planning and implementation. The course is intended for persons working toward the Kansas teaching endorsement in the Special Education Adaptive Area. Prerequisite: Admittance into the Adaptive endorsement teacher education program in the Department of Special Education or permission of the instructor. LEC.

SPED 731. Supporting Children with Significant Learning and Behavioral Concerns. 3 Hours.
Students in this course will gain knowledge of the causes, and intervention and support approaches for young children birth through 5 years with significant support needs. These include young learners with multiple and significant disabilities including neurological impairments, physical disabilities, sensory impairments including dual sensory impairments, complex health care needs, significant developmental disabilities and challenging behavior. Emphasis is placed on environmental adaptations and direct instructional techniques to maximize independence as determined through systematic ecological inventories tailored to the individual child's strengths and needs. Information is also provided on assistive technology designed to provide appropriate supports. Functional behavioral assessment procedures, proactive intervention strategies, and developing collaborative support plans will be studied. Prerequisite: Admittance into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. SPED 752 or its equivalent, SPED 734 or its equivalent, and SPED 755 or its equivalent. LEC.

SPED 735 or its equivalent. SPED 734 or its equivalent, and SPED 755 or its equivalent. LEC.
SPED 733. Characteristics of Learners with Hearing Loss -- Deaf Studies. 3 Hours.
Deaf Studies is the basic characteristics course for both the Master's degree in Deaf Education and for Kansas and Missouri endorsement in Deaf/HOH. The course includes medical aspects/etiology of hearing loss, history, pertinent laws, Deaf culture and community, issues in assessment and psychology, language and sign systems, multispecial education, multiple disabilities and hearing loss, and specific issues in the field. LEC.

SPED 734. Inclusive Strategies and Intervention for Infants and Toddlers: _____. 3 Hours.
Emphasizes curriculum development and early intervention provision for infants and toddlers through the planning of appropriate learning experiences, the design of learning environments, developing Individual Family Service Plans (IFSP), promoting collaboration among families and the use of various methods of enhancing the child's development across the five (social-emotional, adaptive, cognitive, physical, communication) developmental domains. The role of the educator/early interventionist in relation to the family and the child is examined. Curriculum resources and intervention strategies for infants and toddlers with special needs are reviewed with emphasis on interdisciplinary planning and implementation. Prerequisite: Admittance into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. LEC.

SPED 735. Characteristics of Children and Youth with Disabilities: _____. 3 Hours.
Social, cognitive, emotional, and other developmental aspects associated with children and youth identified with learning disabilities, behavior disorders, and mental retardation are covered by this course. Characteristics, special needs, and service delivery approaches are compared and contrasted. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 738. Unified Early Childhood Applied Research. 1 Hour.
This seminar is designed to facilitate the UEC teacher candidate's completion of a Teaching Work Sample during the UEC Student Teaching experience. The purpose of the seminar together with the UEC student teaching experience is to provide the UEC teacher candidate with the opportunity to study and experience the fundamentals of teaching young children with and without disabilities with the aim of evolving a set of values, principles, and skills which will guide future early education teaching situations. Prerequisite: Admission to UEC Student Teaching. Corequisite: SPED 739 UEC Student Teaching. LEC.

SPED 739. Early Childhood Unified Student Teaching/Practicum. 1-6 Hours.
A supervised student teaching experience leading to initial teaching licensure in unified early childhood (birth through grade 3). The student assumes the total professional role as a teacher in an approved inclusive early childhood program to include infant/toddler, preschool or kindergarten. Prerequisite: Admission to UEC Student Teaching. Corequisite: SPED 738 UEC Unified Early Childhood Applied Research. FLD.

SPED 740. Managing Classroom Behavior of Exceptional Children and Youth. 3 Hours.
Designed to acquaint regular and special education teachers, principals, school psychologists, counselors, and speech pathologists with principles and application of classroom management techniques applicable to exceptional children and youth. Methods of changing inappropriate behaviors and prompting the acquisition of adaptive behaviors through positive management procedures will be stressed. Includes an introduction to behavior analysis. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 741. Methods & Assessment: Literacy Interventions:Struggling Learners & Students High-Incidence Disabilities. 3 Hours.
This course will provide in depth learning experiences targeting literacy; both reading and writing. Students will learn about assessment tools and assessment systems used in tiered support frameworks to determine the required intensity of literacy support and instruction needed by children/adolescents with adaptive special education needs, and will learn about evidence-based instructional approaches and curriculum developed for students with disabilities and struggling students in general. The course is intended for persons working toward the Kansas teaching license in teaching students needing an adapted curriculum. Prerequisite: SPED 730, admittance into the Adaptive program in the Department of Special Education, or permission of the instructor. LEC.

SPED 742. Methods and Assessment: Life Skills and Community-Based Instruction. 3 Hours.
This course will provide an overview of assessment and instructional practices contributing to community-referenced planning, community-based instruction, and life skills instruction. Students will conduct ecological inventories and other student-referenced assessments, design community-based instructional programs, ecologically valid and age-appropriate to facilitate mastery of skills essential for community and social inclusions, explore best practices in community based instructional programs, including family and student involvement, transportation, and administrative and policy support. Students who have completed SPED 742 cannot enroll in SPED 642. The course is intended for persons working toward the Kansas teaching license in teaching students needing a functional curriculum. Prerequisite: SPED 735, admission into the Functional program in the Department of Special Education, or permission of the instructor. LEC.

SPED 743. Methods: Functional Behavioral Assessment, Positive Behavior Support and Classroom Management. 3 Hours.
This course provides a problem-solving approach and the framework for teaching and assessment strategies to develop pro-social behavior in students with disabilities and their typical peers in classrooms and whole school contexts. Students assess problem behavior, discover the functions of problem behavior, and learn pro-social alternatives in home, school, and community settings. Prerequisite: SPED 631 or SPED 731, and SPED 632 or SPED 732. LEC.

SPED 744. Assessment and Instructional Methods I: Learners with Hearing Loss. 3 Hours.
This course will provide an introduction to appropriate instructional methodology for teaching students who are deaf or hard of hearing at the early childhood, elementary, and secondary levels. Upon completion students will be familiar with legal issues, teaming, assessment, IEP development, curriculum planning, instructional methods, and transition. LEC.

SPED 745. Audiology and Aural Rehabilitation. 3 Hours.
This course will provide a broad overview of the components of an aural rehabilitation service delivery model including audiological diagnostics and assessment, selection and fitting of a variety of listening devices, and intervention strategies for auditory training and speech perception training. The emphasis of this course will be on the aural habilitation of children; therefore, each of the components of an aural (re)habilitation plan will be considered in relation to the needs of individual children and their families. LEC.

SPED 750. Curriculum and Methods in Early Childhood. 3 Hours.
This is a curriculum and methods course that addresses how to design, implement and evaluate developmentally appropriate curricula and programs for children from birth to six years of age. Issues of curriculum design and assessment are introduced as interrelated processes that
include structuring learning environments and experiences that are responsive to children’s interests and abilities. Strategies for developing learning opportunities that are appropriate for young children, including children with special needs and children from diverse cultural, ethnic and linguistic backgrounds, will be explored. Students analyze and evaluate curriculum that focuses on facilitating progress in the domains of a) social emotional development; b) cognitive development; c) language and communication development; d) adaptive behavior development and e) gross and fine motor development. Students also analyze and evaluate curriculum standards and frameworks for the young child’s acquisition of concepts, skills and dispositions that support the development of early competencies and interest in literacy, mathematics, the sciences, social studies, the arts and individual and group sports. Prerequisite: Admittance into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. SPED 752 or its equivalent (may be taken concurrently). LEC.

This course is designed for teachers seeking the Adaptive certification to teach students with High-Incidence Disabilities (Adaptive). Students will learn how to select, administer, score, and interpret formal and informal assessments; make data-based instructional decisions for students with specific learning disabilities, with social and emotional needs and disorders in behavior, mild mental retardation, and/or who experience other chronic health impairments. Individually chosen and administered tests, as well as high-stakes assessments, and will be discussed. Prerequisite: SPED 631 or SPED 731. LEC.

SPED 752. Overview of Early Childhood and Early Childhood Special Education. 3 Hours.
The course serves as an introduction to the profession including historical, philosophical, social and psychological foundations, awareness of value, ethical and legal issues, staff relations and the importance of becoming an advocate for children and families. Students will analyze/interpret trends in early education, including diversity, early childhood special education, family centered practices, legislation, public policy, and developmentally appropriate practice. The two key professional organizations, National Association for the Education of Young Children (NAEYC) and Division of Early Childhood for the Council for Exceptional Children (DEC), recommended practices serve as the foundation for understanding the roles, knowledge and competencies of the early educator. Prerequisite: Admittance into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. LEC.

SPED 753. Assessment in Early Education. 3 Hours.
This course examines the practice of gathering information for the purpose of making individual referral and instructional decisions for infants, toddlers, and young children with and without special needs. Discusses effective informal assessment techniques and emphasizes an ecological approach to gathering information. Introduces standardized assessment and screening instruments and provides an overview of the purposes and limitations of such tests. Prerequisite: Admittance into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. LEC.

SPED 755. Inclusive Strategies and Interventions for Preschoolers: _____ 3 Hours.
This is a methods course that covers instructional approaches and procedures that offer developmentally appropriate, effective and inclusive early intervention for preschool and kindergarten age children who experience developmental delays, disabling conditions or who are at risk for developmental problems and disabilities. It is directed toward: (a) “how” to teach, or the technical components of developing and delivering effective instruction that provide access to the general early childhood curriculum within recognized approaches to early childhood education for young children, and (b) the “what” to teach, or the selection of developmentally and individually appropriate child objectives as well as specific materials and specialized instructional approaches. The relationship of instructional planning to state and federal mandates will also be considered. The course is primarily intended for persons who are currently working toward certification in the ECSE program area. Prerequisite: Admittance into the ECU - Birth through Kindergarten graduate initial licensure teacher education program in the Department of Special Education or permission of the instructor. SPED 752 (may be taken concurrently). LEC.

SPED 760. Introduction to Autism Spectrum Disorders. 3 Hours.
An introductory graduate-level course on autism spectrum disorders. It addresses characteristics of children and youth with autism spectrum disorders; trends and issues associated with autism spectrum disorders; and effective practices and strategies for structuring, managing, and promoting social skill development and social interactions among learners with autism spectrum disorders. LEC.

The purpose of this course is to provide an introduction to positive behavioral support (PBS). The lessons contained within this course include an overview of positive behavioral support, the basics of behavior, an introduction to specific positive behavioral support strategies, and a lesson on preventing problem behavior. LEC.

This course introduces current functional assessment methods that are used to build effective behavioral support plans. A strong functional assessment is at the heart of Positive Behavioral Support. After completing this course, you will have a better understanding of how to implement functional assessment methods in your classroom. LEC.

SPED 763. Development and Implementation of PBS Plans. 1 Hour.
A positive behavioral support plan (PBS) describes how features of the environment associated with problem behavior will be modified, what and how skills and strategies will be taught, and how individuals supporting a student will respond to both positive and problematic behavior. This course contains lessons on designing PBS plans, implementing PBS plans, and modifying and assessing PBS plans. LEC.

SPED 764. Intervention Strategies for PBS-I. 1 Hour.
The purpose of this course is to introduce interventions that can be used as part of a comprehensive positive behavioral support plan. An effective positive behavioral support plan contains multiple intervention strategies that address the function maintaining a student’s problem behavior. This course contains lessons addressing setting events, antecedent interventions, replacing problem behavior, and consequence interventions. LEC.

SPED 765. Intervention Strategies for PBS-II. 1 Hour.
The purpose of this course is to introduce three types of interventions that can be used in positive behavioral support. An effective positive behavioral support plan contains multiple intervention strategies that address the function maintaining a student’s problem behavior. This course contains a lesson on social skills education, crisis prevention, and interventions addressing physiological factors that influence a student’s problem behavior. LEC.
SPED 766. Redesigning Environmental Systems. 1 Hour.
The purpose of this course is to describe how positive behavioral support
can be used to redesign the environment at a systems level. Considering
the larger issues within a system including the broader environment, the
values and beliefs held by staff, policies and procedures that promote
ongoing learning, and collaborative problem solving processes within
a school will improve implementation of long-term positive behavioral
support efforts. This course contains lessons on classroom management,
staff development, and school-wide discipline. LEC.

SPED 767. Creating Positive Lifestyles through PBS. 1 Hour.
One of the most important outcomes of a positive behavioral support plan
is an increase in the quality of life for both the student and everyone within
the student’s social network. The purpose of this course is to introduce
topics related to creating positive lifestyles including person-centered
planning, self-determination, and quality of life. LEC.

SPED 772. Participation with Children and Youth with Disabilities:
_____. 3 Hours.
A course designed to provide field experiences with children and youth
with disabilities in settings where educational services are provided.
Students work directly with professionals such as special education
teachers, general education teachers, therapists and other support
personnel. Students participate as aides, tutors, and instructors with
individual and small groups of children and youth. Ongoing meetings
with supervisors are designed to facilitate both reflection and strategic
learning. FLD.

SPED 774. Education of Secondary and Post-Secondary Level
Exceptional Students: ______. 1-3 Hours.
A course based on the problems and needs of secondary and post-
secondary level handicapped students with a focus on curriculum
alternatives (academic and vocational), instructional planning options,
instructional methods and materials and educational and community
resources. The focus is on both mildly and moderately handicapped
students. Prerequisite: Appropriate section of SPED 735 which may be
taken concurrently. LEC.

SPED 775. Practicum with Children and Youth with Disabilities:
_____. 1-10 Hours.
Intensive diverse and direct teaching experiences with children and youth
with disabilities in educational settings. This practicum is a requirement
for provisional endorsement according to KSDE. Students who have
completed SPED 775 cannot enroll in SPED 675 within in same curricular
area. Prerequisite: Varies by topic. FLD.

SPED 785. Application of Assessment Information for Exceptional
Children and Youth. 3 Hours.
An analysis of information derived from assessment instruments
and procedures appropriate to measuring the social and cognitive
development of exceptional children and youth. Provides experiences
in determining assessment data required in the development of
individualized educational programs (IEP). Attention is also given to
the design of informal assessment procedures, specific to the needs
of exceptional children and youth. Experience is provided in the preparation
and presentation of assessment data for use in instructional planning
conferences. Prerequisite: An undergraduate or graduate course in
educational measurement, and SPED 760. LEC.

SPED 793. Psychology of Deafness. 2 Hours.
Reviews of the literature pertaining to psychological evaluations of the
deaf and hard of hearing. Divergent views of deafness, type and degree
of deafness are considered. Prerequisite: SPED 791. LEC.

SPED 798. Special Course: ______. 1-5 Hours.
A special course designed to address topical issues. LEC.

SPED 800. Classroom Intervention for Language Disorders of
Handicapped Learners. 3 Hours.
Emphasis is given to milestones in normal language acquisition and
variations from norms demonstrated by handicapped learners. Attention
is also given to theoretical approaches to language training, formal and
informal language assessment techniques, and instructional methods.
Students design individualized instructional plans for incorporating
language into the daily curriculum for handicapped learners. Prerequisite:
SPED 425 or SPED 725. LEC.

SPED 801. Practicum in School Psychology. 4 Hours.
Supervised practice in the application of psychological theory to
educational problems. Includes work useful with exceptional children as
well as experiences in the application of such areas as mental hygiene
and learning theory to problems involving the total school population.
(Same as PRE 910.) Prerequisite: Permission of advisor and instructor.
FLD.

SPED 802. Advanced Practicum in School Psychology. 4 Hours.
A continuation of SPED 801 with special emphasis on remedial
techniques associated with learning difficulties. (Same as PRE 911.)
Prerequisite: SPED 801 and permission of advisor and instructor. FLD.

SPED 804. Designing Online Instruction for E-Learning
Environments. 3 Hours.
The focus of the course is on the status of e-learning at the K-12 and
postsecondary levels and the process of designing content for e-learning
applications. Attention will be given to design features, content structuring,
instructional management, evaluation, and collaboration in the process of
working with technicians in the process of developing online curriculum
and instruction. Prerequisite: None. A background in education is
preferred. LEC.

SPED 805. Practicum in Individual Intelligence Testing. 4 Hours.
Practicum training, by arrangement, in administration and interpretation of
test results for school situations with particular emphasis on the Stanford-
Binet. Prerequisite: Permission of instructor. FLD.

SPED 809. Language Assessment and Instruction II: Learners with
Hearing Loss. 3-6 Hours.
This course covers assessment and instruction of speech skills for
students who are deaf or hard of hearing. A historical review of the
emphasis placed on speech development in deaf students will be
provided. Students will learn formal and informal methods of assessment,
developmental order and classification systems for English language
sounds, and visual, auditory, and tactile facilitation techniques. Auditory
training programs and techniques will be emphasized. LEC.

SPED 810. Speech Assessment and Instruction III: Learners with
Hearing Loss. 3-6 Hours.
The purpose of this course is to prepare students to provide effective
language assessment and instruction to students who are deaf or hard of
hearing. This course focuses on the effect of hearing loss on assessment,
language and reading, communication options, and instructional
strategies. LEC.

SPED 811. Methods of Teaching Elementary School Subjects to the
Deaf. 3 Hours.
Focus is on development of skills in adapting materials and methods
of teaching science, math, social studies, spelling, and writing to
hearing impaired students. Emphasis is placed on problems, trends and
procedures used in career education specifically for the hearing impaired.
Prerequisite: SPED 711. LEC.
SPED 812. Instructional Approaches in Inclusive Elementary Settings. 2 Hours.
This advanced method course provides curriculum design and instructional procedures appropriate for students at the elementary and middle school levels, including functional academic, social, and home and community life skills. NOTE: This is a 2 credit course to be offered during the first 8 weeks of a semester. It will precede SPED 814 in the same semester. Prerequisite: SPED 614 or SPED 714: Learning Styles and Instructional Accommodations. LEC.

SPED 814. Instructional Approaches in Inclusive Secondary Settings. 2 Hours.
This advanced method course provides curriculum design and instructional procedures for students at the secondary level, including career preparation and transition from school to adult life in the community. Prerequisite: SPED 614 or SPED 714: Learning Styles and Instructional Accommodations. LEC.

SPED 839. Management Principles and Assessment Procedures for the Young or Severely Handicapped. 2-3 Hours.
Examines basic learning procedures and techniques that are essential to programming efforts with the severely or young handicapped. Includes assessment scales, writing instructional programs, measuring operant behavior and evaluating operant behavior. Task and concept analysis related to treatment programs. Prerequisite: Students in the Early Childhood for the Handicapped program must enroll in one hour of practicum, SPED 775. Students in the Severely Handicapped Program must have completed SPED 726. LEC.

SPED 840. Program Planning in Special Education-Early Childhood. 3 Hours.
This course is designed to provide knowledge and skills to implement federal and state development mandates for special education and related services programs for young children from birth to five. It covers procedures for developing, implementing, and evaluating (a) instructional accountability for these children’s participation in the general early childhood curriculum, (b) relationships between general and special early education personnel and programs; (c) roles and responsibilities; (d) interdisciplinary team planning including families; (e) coordinating, educating, and supervising paraeducators; and (f) general management responsibilities associated with instruction of young children with disabilities. Prerequisite: SPED 760 or SPED 860, which may be taken concurrently. LEC.

SPED 841. Advanced Methods & Assessment: Strategies for Students with High Incidence Disabilities. 3 Hours.
This course is designed for graduate students enrolled in the Masters of Science Program with an emphasis in school-age populations primarily with high mild disabilities or seeking to obtain a license to teach students needing an adapted curriculum in Kansas. Course experiences focus on how to identify and implement evidenced-based practices designed to increase the success of students with mild disabilities in mathematics, social studies, science, and language arts through their participation in general and special education classrooms primarily in grades 4-12. This course emphasizes practices associated with understanding and evaluating curricular demands, monitoring student progress in content-area courses, providing tiered supports and accommodations in teaching, using assessment and grading alternatives, and incorporating the principles of explicit and strategic instruction to design instruction that will promote and enhance content-area learning. The course is intended for persons working toward the Kansas teaching license in teaching students needing an adapted curriculum. Prerequisite: SPED 730, SPED 741, admittance into the High Incidence Disabilities program in the Department of Special Education, or permission of the instructor. LEC.

SPED 842. Advanced Methods: Strategies for Students with Significant Sensory, Motor, and Health Needs. 2 Hours.
In this course, students learn assessment techniques and instructional strategies for teaching learners with sensory and/or motor impairments and complex medical needs. Students will learn use of residual and alternative senses; proper positioning and transfer for students with motor impairments, nutrition, hydration, and medical monitoring, and seizure activity. Students will develop appropriate goals and objectives in the sensory and motor areas, incorporate related services into inclusive educational settings, embed sensory and motor skills training into the general education curriculum, adapt materials and apply assistive technologies. Prerequisite: SPED 632 or SPED 732, and SPED 742. LEC.

SPED 843. Advanced Methods & Assessment: Strategies for Students with Significant Behavior, Social & Emotional Need. 3 Hours.
This course is designed to introduce educators and related service professionals to prevention and intervention related to a broad range of antisocial, aggressive, and behavioral problems. Approaches focus on understanding and addressing the precipitating factors related to inappropriate behavior, short-term approaches for immediate crises, and problem-solving strategies for longer-term change. Course content will include antisocial, aggressive, and violent behavior; options for classroom interventions; school and system-oriented interventions, and ethical and legal issues involved in various prevention and intervention approaches. Class work will focus on literature, research-based intervention approaches, and case work illustrating specific approaches and programs. Prerequisite: SPED 631 or SPED 731, SPED 741, and SPED 743. LEC.

SPED 844. Advanced Methods: Nonsymbolic and Symbolic Communication Assessment and Augmentation Strategies. 3 Hours.
This advanced course examines current principles and practices in the development of multi-modal communication programs for students who do not spontaneously use speech for effective communication. It provides a framework upon which communication programming decisions can be based and interventions and strategies can be developed. Prerequisite: SPED 632 or SPED 732, and SPED 742. LEC.

SPED 850. Curriculum Planning for Exceptional Children and Youth. 3 Hours.
Provides experiences in applying information on identifying learning and behavioral characteristics of exceptional children and youth. Practices in adapting curriculum materials to meet the needs of the handicapped. Prerequisite: SPED 725 and SPED 735. LEC.

SPED 851. Law and Special Education. 3 Hours.
This course focuses on laws that apply to special education, especially "Individuals with Disabilities Education Act" and "No Child Left Behind Act." The American legal system, particularly in respect to special education, the constitutional and statutory provisions of federal and state law, and judicial decisions interpreting those laws are reviewed. The course relates equal protection, procedural due process, and substantive due process doctrines to school practices affecting students with disabilities and examines the six principles of P. L. 94-142 and similar principles in state legislation. (Same as ELPS 856.) LEC.

SPED 852. Citizens with Disabilities, Public Policy, and Policy Analysis. 3 Hours.
Students to analyze public policy that affects citizens with disabilities, various models of analysis are brought to bear on federal policy (e.g., education, transportation, housing, institutionalization, protection and advocacy, medical assistance, employment, vocational rehabilitation, and others). This course is not valid for core requirement in history and/or philosophy of education. (Same as ELPS 857.) Prerequisite: SPED 851 or permission of instructor. LEC.
SPED 853. Professional Ethics, Public Values, and Citizens with Disabilities. 3 Hours.
This course addresses the issues that professionals (e.g., educators, physicians, allied health providers, attorneys, and others) and families of persons with disabilities face in the context of public values, attitudes, and rules of law. The issues include education, treatment and nontreatment. This course is not valid for core requirement in history and/or philosophy of education. (Same as ELPS 858.) Prerequisite: SPED 850, SPED 852 or permission of instructor. LEC.

SPED 854. Family and Interprofessional Collaboration in Special Education. 3 Hours.
This course is designed to provide knowledge and skills to implement federal and state mandates for special education and related services programs as they relate to building and maintaining relationships with families of students with disabilities, and developing effective school programs. It covers procedures for developing, implementing, and evaluating (a) instructional accountability for special education students’ participation in district and state assessment; (b) relationships between general and special education personnel and programs; (c) roles and responsibilities; (d) interdisciplinary team planning including families; (e) coordinating, educating, and supervising paraeducators; and (f) general management responsibilities associated with instruction of children and youth with disabilities. Course topics will include collaboration in schools, community systems and families, historical perspectives of family life and school involvement, effective relationships between home, school, community, communication among professionals and with families, school-based programs, home-based programs, and multicultural considerations. Prerequisite: SPED 631 or SPED 731, or SPED 632 or SPED 732, or SPED 735. LEC.

SPED 856. Transition Education and Services from Childhood through Adulthood. 3 Hours.
The purpose of this course is to provide a background in career development and transition education for persons with disabilities from middle school through adulthood. Emphasis is placed on IDEA requirements for transition services, career development and transition processes, transition services assessment, secondary special education curricular implications, career development and transition service needs, collaborative services in schools and communities to promote quality transition services, and issues and trends in transition education and services. LEC.

SPED 857. Vocational Training and Employment. 3 Hours.
This course is designed to provide graduate students in special education and related areas with an overview of employment and vocational models for adolescents and young adults with disabilities. Emphasis is placed upon theory and practice related to career development, supported employment, working with businesses, and school and community vocational training models. Prerequisite: SPED 856 or SPED 858. LEC.

SPED 858. Assessment for Transition Planning. 3 Hours.
This course is designed to provide a review of psychometric principles and their utility as a foundation for quality assessment in transition assessment and planning for youth with disabilities. Formal and informal assessments across a range of transition planning areas are reviewed and evaluated. Skills in curriculum-based assessment, rating scales, situational assessment, and functional assessment are emphasized. Prerequisite: SPED 856 or permission of instructor. LEC.

SPED 859. Interagency Services for Transition to Adulthood. 3 Hours.
The purpose of this course is to provide an overview of interagency and community services and systems for adolescents and young adults with disabilities. Emphasis is placed on theory and practice related to interagency collaboration; systems change efforts in transition services; and state-of-art practices regarding supporting individuals with disabilities in community employment, living, socialization, community participation, and other areas of adult life. Prerequisite: SPED 856. LEC.

SPED 860. Education of Children and Youth with Disabilities II: _____ . 3 Hours.
This course is designed to prepare students to implement specialized alternative strategies for individualized group instruction. Methods for developing and implementing overall treatment/educational programs, planning or selecting curriculum/service models for programs, and developing instructional materials are emphasized. Procedures for managing classroom staff and service resources, coordinating educational programs with families, other service personnel and program support staff, and monitoring overall program effectiveness are addressed. Prerequisite: SPED 760. LEC.

SPED 874. Planning for Adult Outcomes: _____ . 1-3 Hours.
The problems, trends, issues, and procedures used in planning life skills, occupational and vocational skills, and transition from school to adult living for persons with disabilities. Separate sections will be organized by topics pertaining to career/vocational development, assessment, and transition programs and services. These will include: (a) transitions from early childhood to adulthood, (B) application of assessment information, and (c) vocational preparation and employment. Prerequisite: SPED 725 (may be taken concurrently). LEC.

SPED 875. Practicum with Children and Youth with Disabilities: _____ . 1-10 Hours.
This course is designed to provide intensive field work and direct teaching experiences with children and youth with disabilities in educational, residential, and clinical settings. Prerequisite: SPED 775. LEC.

SPED 878. Occupational Therapy for Exceptional Children and Youth: _____ . 3 Hours.
A course to develop knowledge and skills in the techniques of interviewing and conferencing, with special application to the professional, legal and ethical problems related to working with parents of exceptional children. Prerequisite: SPED 425 or SPED 725. LEC.

SPED 879. Interdisciplinary Programming for Children and Youth with Disabilities. 3 Hours.
An analysis of the role of the special education coordinator and supervisor. Particular attention will be given to: program development; planning, organizing, and delivering inservice training; personnel recruitment, selection, and evaluation; program management; and program evaluation. Students will relate the topical content to their specific area of expertise in special education. Prerequisite: SPED 425 or SPED 725 and six additional semester hours in special education. LEC.

SPED 880. Capstone Adaptive Program Seminar. 3 Hours.
This course is designed to be a culminating experience for Adaptive Program students who choose to complete their masters programs with a comprehensive masters examination instead of one of the other program options (i.e., project or thesis). Students will complete this course during the final semester of their programs. Participants will review current
issues, evidence-based practices, home-school considerations, state and federal regulations, and Kansas standards regarding appropriate education for students with mild to moderate disabilities (i.e., Adaptive category designation). The course is a prerequisite for the departmental comprehensive examination in the Adaptive area. LEC.

SPED 897. Independent Study. 1-4 Hours.
Prerequisite: Consent of advisor and instructor. RSH.

SPED 898. Master's Project. 1-4 Hours.
RSH.

SPED 899. Master's Thesis. 1-6 Hours.
The.

SPED 910. Advanced Application of Behavioral Management Techniques to Exceptional Children and Youth. 3 Hours.
Theory and principles of behavioral analysis. Emphasis will be given to observation, measurement, recording, and visual display techniques. Other topics include maintenance and generalization of behavior change. Students will be provided experience in the design and carrying out of research studies related to exceptional children and youth using principles and methods of behavioral analysis. Prerequisite: SPED 425 or SPED 725 and SPED 839. LEC.

SPED 915. Advanced Curriculum Development for Children and Youth with Disabilities. 3 Hours.
This course is designed to provide principles of development, needs assessment, evaluation and dissemination applied to curriculum products. Analysis of organizational and conceptual features of major curriculum development projects for students with disabilities are addressed; participants design curriculum procedures. Prerequisite: Twelve semester hours in special education and a general curriculum course. LEC.

SPED 920. Management of Instructional Resources for Exceptional Children and Youth. 3 Hours.
Designed for individuals with responsibilities for the operation of instructional resource centers and educational programs serving exceptional children and youth. Experiences relate to: selection, acquisition, circulation, and management of special education instructional media/materials and the delivery of inservice training specific to their skills. Prerequisite: Professional preparation and/or experience in the Education of Exceptional Children and Youth and CI 616, Introduction to Educational Communications. LEC.

SPED 925. Medical Aspects of Handicapping Conditions. 3 Hours.
The organization of this course follows the chronology of an individual’s total development from genetic origin through fetal development, perinatal, infancy, childhood, and adolescence. Emphasis is given to etiology and implications of handicapping conditions on development. Attention is given to prevention, treatment, and habilitation or rehabilitation of various conditions. Prerequisite: SPED 725. LEC.

SPED 949. Specialist Research. 1-4 Hours.
RSH.

SPED 950. Civic Professionalism. 3 Hours.
This course is concerned with the relationship between professions and society in a democracy, and specifically, with the ethics and practices associated with the professions of education, special education, and other disability-related fields. Models of professionalism are compared and advantages of civic professionalism for individuals with disabilities and their families, the professions, and society as a whole are explored. Lessons drawn from disagreements over questions such as the nature and social consequences of the professions are used to broaden understanding of what professionalism could and should be in a democracy. Prerequisite: Admission to doctoral program. LEC.

SPED 970. Problems of Exceptionality: ______. 3 Hours.
An extensive analysis of the literature and research pertinent to issues in a given disability. Separate sections are organized for various disabilities. Students may enroll in more than one section as a part of a graduate program. Prerequisite: Three courses in special education or permission of instructor. LEC.

SPED 971. Organization and Administration of Services for Children and Youth with Disabilities. 3 Hours.
This course is designed to prepare administrators and prospective administrators for organizing and administering educational programs for students with disabilities. Major topics include a review of current trends in special education, state and federal guidelines and regulations, legal and financing aspects of special education, program planning, and administration of special services. (Same as ELPS 959.) Prerequisite: Nine hours of education including educational psychology and SPED 725. LEC.

SPED 972. Issues and Trends in Special Education I. 2 Hours.
This course is designed to assist first-year special education doctoral students organize and synthesize a conceptual and substantive map of the field of special education and introduce them to corresponding faculty research interests and resources. Emphasis is placed on the academic writing expectations and resources of the field, university, and department, and on building a cohort of students to address common issues and to provide a foundation for peer support throughout the doctoral program. Prerequisite: Admission to special education doctoral program or permission of instructor. LEC.

SPED 973. Issues and Trends in Special Education II. 2 Hours.
This capstone seminar is designed to assist advanced doctoral students synthesize and evaluate information on a broad range of current and historically significant special education issues and trends in preparation for comprehensive examinations and future professional roles. Substantively, its primary focus is issues and trends that affect the entire field or cut across several areas of study and practice. Its secondary focus is significant issues and trends that affect particular categorical or functional sub-areas of study and practice within the field. Prerequisite: Completion of nine doctoral courses in special education, including 4 of 6 departmental Core courses. LEC.

SPED 974. Issues and Trends: Students with Learning Disabilities. 3 Hours.
This doctoral level course will explore current issues related to characteristics, educational methods and curricula, and questions, problems, concerns and movements connected to the education of children and youth with learning disabilities, emotional/behavioral disorders and autism spectrum disorders. Prerequisite: Doctoral program admission or permission of instructor. LEC.

SPED 975. Advanced Practicum with Children and Youth with Disabilities: ______. 1-10 Hours.
Advanced development of conceptual and practical field-based skills. Prerequisite: SPED 775. FLD.

SPED 977. Learning Disabilities/Behavior Disorders Issues II. 3 Hours.
This course is designed to provide students an opportunity to engage in an extensive analysis of the literature and research pertinent to critical issues in the field of learning and behavioral exceptionality. Prerequisite: SPED 970 LD/BD Issues I; SPED 972 Trends and Issues in Special Education I. LEC.

SPED 980. Advanced Topics: ______. 1-3 Hours.
A special course of study to meet current needs of education professionals -- primarily for post-master’s level students. LEC.
SPED 981. Leadership and Systems Change. 3 Hours.
This course is designed to provide students with an overview of seminal leadership and systems change literature. Students analyze and apply the literature at the teacher, family, school building, district, state, and federal levels. Strategies for developing and mobilizing stakeholders to support the process of change will be covered. Prerequisite: Admission to doctoral program. LEC.

SPED 982. Preparing Future Faculty. 3 Hours.
This course is designed to give students an introduction and overview of academic life and the roles and responsibilities of an academic career. Its primary purpose is to help develop a realistic perspective of the expectations of academic life and the competencies required for a successful start in an academic career. Organized around the broad themes of understanding the academy, faculty life and work, and academic career paths, course content addresses the roles and responsibilities of faculty life in different types of institutions and the issues faculty face as they pursue their academic careers. The course offers an opportunity for students to critically review their doctoral program in the context of preparing them for a successful start in an academic career and to explore options for academic career choices. Prerequisite: Doctoral program admission. LEC.

SPED 983. Proposal Development. 3 Hours.
This course is designed to teach a broad array of strategies associated with the development of successful proposals that will generate funds to support programmatic work. Among the topics covered in this course are sources of funding, strategies for conceptualizing and writing proposals, collaboration strategies, proposal peer-review process, and integrating proposal development activities into other professional responsibilities. Prerequisite: Admission to doctoral program and PRE 710. LEC.

SPED 984. School Reform and School Community Partnerships. 3 Hours.
This is an interprofessional course in public policy and school reform that is concerned with current policy and systems transformations in education and child/family services, including educational, social and health service systems and the movement toward school-linked service integration strategies and family partnerships, called the "community school" movement. Issues connected with comprehensive school reform including the role of special education and mental health in this process will be emphasized. Particular emphasis will be placed on urban, multicultural issues affecting community schools. Prerequisite: Admission to doctoral program or permission of instructor. LEC.

SPED 985. Naturalistic Research. 3 Hours.
This course is designed to develop skills in naturalistic or constructivist research, while situating it theoretically within the broader framework of modern and postmodern social inquiry, and exploring its social, political and ethical implications. The course develops students’ skills in using this form of interpretive qualitative research, provides a theoretical framework for selecting inquiry paradigms, compares and contrasts positivist and constructivist inquiry, and reviews social and political implications of constructivist inquiry. Prerequisite: Six hours of statistics, measurement, and/or large or small group research design. LEC.

SPED 986. Trends and Issues Associated with Online Instruction. 3 Hours.
The course examines the opportunities, challenges, cautions, and demands of web-based instruction in higher education. It explores the policy implications of web-based instruction, development of collaborative teaming skills utilizing telecommunications resources, and the design and technical aspects of online instruction. Particular attention is given to the implications of online instruction for accommodating needs presented by diverse learners through strategies such as universal designs.

SPED 999. Doctoral Dissertation. 1-15 Hours.
Prerequisite: Admission to doctoral program or permission of instructor. LEC.

SPED 990. Small Sample Empirical Research Methods. 3 Hours.
This course provides a detailed examination of research methods for advancing knowledge and validating hypothetically useful treatments in situations in which sufficient sample sizes to conduct formal experiments are lacking, the question of interest is better addressed by multiple observations of treatment effects over time, and/or the question is best addressed by taking a variety of observations of a single unit of interest. Specifically, two small sample research methods will be examined in depth with examples and practical application experience: interrupted time series design for small samples ("single case" design), and Yin’s empirical case study method. Prerequisite: Doctoral program admission or permission of instructor. LEC.

SPED 991. Family Outcomes in Special Education. 3 Hours.
This course focuses on analyzing and synthesizing research literature focusing on intermediate outcomes (e.g., family-professional partnerships) and long-term outcomes (e.g., family quality of life) related to families of children, youth, and adults with disabilities. Key family theories are discussed and applied in the development and implementation of interventions that have potential to increase intermediate and long-term family outcomes. Prerequisite: Three courses in special education or permission of instructor. LEC.

SPED 992. Seminar in Early Childhood/Intervention. 3 Hours.
This seminar examines research to support evidence-based practices that currently exist in the areas of early intervention and early childhood special education. The primary objective is to learn how to read and critically analyze studies that form the evidence base for several early intervention and early childhood special education practices. Primary goals of the class include the development of skills for evaluating research studies in early intervention and early childhood special education practices, and increasing knowledge of evidence-based practices in the early intervention literature. Prerequisite: Three courses in special education or permission of instructor. LEC.

SPED 995. Field Experience in: ______. 1-5 Hours.
Supervised and directed experiences in selected educational settings. Instructors conduct regular observations and conference with students. Written summaries and evaluations of field experiences are prepared independently by the student, a representative of the cooperating agency, and the instructor. Open only to advanced students and field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. FLD.

SPED 996. College Teaching Experience. 2 Hours.
This course is designed to prepare students for college teaching. Enrolled students shall engage in semester-long, planned, instruction that includes college classroom teaching under supervision. Planning shall be done with a member of the faculty who will supervise the experience. FLD.

SPED 997. Individual Study. 1-4 Hours.
Prerequisite: Prior graduate course work in the area of study and consent of instructor. RSH.

SPED 998. Seminar in: ______. 1-4 Hours.
LEC.

SPED 999. Doctoral Dissertation. 1-15 Hours.
THE.
Master of Science in Education in Special Education

Special Education Graduate Programs

The Department of Special Education (http://specialedu.soe.ku.edu) offers graduate education for students interested in teaching, research, and professional service related to children, adolescents, and adults with disabilities and their families. Since the 1970s, the department’s master’s and doctoral programs have received national and international recognition. The faculty is known for its field leadership and commitment to high-quality education for children and youth with disabilities, innovative field-based research, and preparation of highly effective program graduates. The annual U.S. News and World Report graduate program survey consistently ranks KU at the top when compared to more than 200 graduate programs in this field. As one of the most comprehensive special education preparation programs in the country, the department attracts students from many states and countries.

Graduate degrees associated with the department’s programs include the Master of Science in Education (M.S.E.), Doctor of Education (Ed.D.), and Doctor of Philosophy (Ph.D.). Students may pursue a master’s degree emphasizing teaching in one of 5 areas:

1. High-incidence disabilities
2. Autism spectrum disorders
3. Early childhood unified (birth through kindergarten)
4. Low-incidence disabilities/ significant intellectual disabilities
5. Secondary transition education and services

Students seeking Kansas State Department of Education teaching licensure can complete requirements for special education endorsement in the following areas:

1. Adaptive (high-incidence)
2. Functional (low-incidence/significant intellectual)
3. Early childhood unified (ECU, birth through kindergarten)

With the exception of ECU, all endorsement areas require current Kansas licensure in elementary, secondary, or early childhood education.

The doctoral program prepares experienced professionals for leadership roles as university faculty, researchers, and policymakers/administrators. Course work and field experience facilitate the development of advanced knowledge and skills in leadership, teacher education, research and scholarly writing, and disability advocacy. The following areas of specialization are offered:

- Policy analysis and research
- Teacher education (e.g., high-incidence disabilities, early childhood unified education, secondary special education transition, and low-incidence disabilities)
- Families and disability
- Educational technology

Graduate classes are taught on the main campus in Lawrence, the KU Edwards Campus (http://edwardscampus.ku.edu) in Overland Park in suburban Kansas City about 40 miles from Lawrence, and online and/or hybrid. Master’s students can expect to complete some graduate work on each campus. The Secondary/Transition master/s program is fully online.

Graduate Admission to the School of Education

Graduate programs in education are open to students with acceptable baccalaureate degrees, as specified by the admitting departments, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a grade-point average of at least 3.0 on a 4.0 scale; provisional admission requires a grade-point average of at least 2.5. Individual departments may require additional information and may have more stringent admission and retention requirements.

Special provisional admission categories are available to students who may not qualify under traditional admission criteria but can provide evidence of ability to work successfully at the graduate level, including experience and commitment to the profession. Exceptions to established policies must be sought individually by petition to the Graduate Division of the School of Education.

See Admission in the Graduate Studies (p. 2059) section of the online catalog for more information.

Ordinarily, complete application materials should be received by July 1 for fall admission, December 1 for spring semester, and May 1 for summer session. Prospective graduate students should contact their departments for admission deadlines.

Graduate Admission

Admission procedures, program descriptions, and degree requirements are available online (http://specialedu.soe.ku.edu) or may be obtained from the Department of Special Education admissions at specialeduadm@ku.edu.

Submit your graduate application online (http://www.graduate.ku.edu) and follow procedural instructions for application.

M.S.E. Degree Program

Graduates are employed as general educators, special educators, or consultants. Some hold teaching positions in clinics, hospitals, residential treatment centers, community-based centers, and early childhood programs. Many complete course work required for Kansas special education teaching endorsements. Some students work in related fields (e.g., general educators, speech therapists, social workers) and pursue this degree to expand their professional knowledge and skills by adding competence teaching children and youth with disabilities. These students may choose not to complete endorsement requirements.

The M.S.Ed. program ranges from 30 to 36 credit hours, depending on whether one pursues a thesis/project (30-hour) or nonthesis (36-hour) program option. The addition of professional endorsements will lengthen a student’s program to 35 to 42 credit hours, depending on the endorsement(s) chosen by the student. The degree requires courses in the area of study (plus any endorsement-related courses); a research class; and completion of a project, thesis, or written examination.

Further information is available from the department (http://specialedu.soe.ku.edu).
Doctor of Education in Special Education

Special Education Graduate Programs

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Ed.D. Degree Program

The doctoral degree program encourages and supports students working with faculty in cutting-edge research and development related to effective education in the field of disabilities. The Ph.D. and Ed.D. programs are similar, but serve different needs for special educators seeking advanced knowledge and leadership skills. Both degrees require intensive and rigorous study in special education foundations, disability issues, curriculum, teaching, program development, and research. The Graduate Record Examination is required for admission.

Doctor of Education

This degree is designed for master special educators who seek leadership positions in public school and other agencies related to program leadership, administration, development, and evaluation. Students complete a sequence of courses emphasizing applied research knowledge and skills. Specific core and research courses for the Ed.D. are required. In addition to the special education and research skills cores, students complete a structured, supervised field internship and designated hours in one of the doctoral program's areas of specialization, and a dissertation.

Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current Lawrence and Edwards
Doctor of Philosophy in Special Education

Special Education Graduate Programs

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Doctor of Philosophy

This is a research degree. Graduates are prepared for roles as university faculty members, researchers, or policy analysts. Specific core and research skills for the Ph.D. are required. In addition to the special education and research cores, students complete course work in one of the areas of specialization, a 12-hour minor in a related field (at the discretion of the specialization area or advisor), and a dissertation based on original research.
Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current Lawrence and Edwards Campus policies on Doctoral Research Skills and Responsible Scholarship (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm) are listed in the KU Policy Library.
Engineering

Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU (see your advisor (http://www.advising.ku.edu) for details). Other years’ catalogs (http://catalog.ku.edu/archive) »

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- Master of Engineering in Aerospace Engineering (p. 521)
- Master of Science in Aerospace Engineering (p. 524)
- Doctor of Engineering in Aerospace Engineering (p. 527)
- Doctor of Philosophy in Aerospace Engineering (p. 530)

**Bioengineering** (p. 533)
- Master of Science in Bioengineering (p. 534)
- Doctor of Philosophy in Bioengineering (p. 536)

**Chemical & Petroleum Engineering** (p. 538)
- Bachelor of Science in Chemical Engineering (p. 544)
- Bachelor of Science in Petroleum Engineering (p. 547)
- Master of Science in Chemical and Petroleum Engineering (p. 549)
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**Civil, Environmental, and Architectural Engineering** (p. 553)
- Bachelor of Science in Architectural Engineering (p. 563)
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- Master of Civil Engineering (p. 570)
- Master of Construction Management (p. 571)
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**Electrical Engineering and Computer Science** (p. 573)
- Bachelor of Science in Electrical Engineering (p. 586)
- Bachelor of Science in Computer Engineering (p. 588)
- Bachelor of Science in Computer Science (p. 591)
- Bachelor of Science in Information Technology (p. 593)
- Bachelor of Science in Interdisciplinary Computing (p. 596)
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**Engineering Management** (p. 614)
- Master of Science in Engineering Management (p. 618)
- Master of Engineering in Project Management (p. 620)
- Master of Science in Project Management (p. 620)

**Engineering Physics** (p. 625)
- Bachelor of Science in Engineering Physics (p. 626)

**Mechanical Engineering** (p. 629)
- Bachelor of Science in Aerospace Engineering (p. 635)
- Master of Science in Mechanical Engineering (p. 637)
- Doctor of Engineering in Mechanical Engineering (p. 640)
- Doctor of Philosophy in Mechanical Engineering (p. 641)

**Introduction**

From communication systems to bridges, from satellites to manufacturing—society depends on engineers. A KU engineering education helps students understand technical principles and the background behind them and prepares them for the changes ahead. Most graduates assume responsible positions in business, industry, education, or government, but engineering programs also provide an excellent background for other careers. Many graduates are CEOs of major companies or enter fields like medicine or law.

**Mission**

The mission of the school is to provide students a high-quality educational experience, to generate and apply knowledge through research, development, and scholarly activity, and to serve society, the state of Kansas, and the engineering profession. In accordance with this mission and with KU’s mission, all undergraduate engineering programs and the computer science program must meet these objectives. Additional objectives are specified in program descriptions.
Facilities

Engineering faculty members and graduate students are major users of the facilities and services of many research laboratories and centers across campus and among our research partners at other universities:

- Bioengineering Research Center (http://www.berc.ku.edu)
- Biomechanics Research Laboratory (http://www.engr.ku.edu/~kubiomech/ejbrl)
- Biotechnology Innovation and Optimization Center (http://www2.ku.edu/~biocenter)
- Center for Environmentally Beneficial Catalysis (https://www.cebc.ku.edu)
- Center for Remote Sensing of Ice Sheets (https://www.cresis.ku.edu)
- Energy Council (http://kuenergycouncil.ku.edu)
- Higuchi Biosciences Center (http://www.hbc.ku.edu)
- Information and Telecommunication Technology Center (http://www.ittc.ku.edu)
  - Bioinformatics and Computational Life Sciences Laboratory
  - Communications and Networking Systems Laboratory
  - Computer Systems Design Laboratory
  - e-Learning Design Laboratory
  - Intelligent Systems Laboratory
  - Radar Systems and Remote Sensing Laboratory
- Institute for Policy and Social Research (http://www.ipsr.ku.edu)
- Tertiary Oil Recovery Project (https://www.torp.ku.edu)
- Transportation Research Institute (http://www.kutri.ku.edu)
  - Flight Research Laboratory
  - Infrastructure Research Institute
  - KU Transportation Center
- Kansas Biological Survey (http://kbs.ku.edu)
- Kansas Geological Survey (http://www.kgs.ku.edu)

Undergraduate Programs

The school offers 12 undergraduate degree programs:

- Aerospace engineering (p. 513)
- Architectural engineering (p. 553)
- Chemical engineering (p. 538)
- Civil engineering (p. 553)
- Computer engineering (p. 573)
- Computer science (p. 573)
- Electrical engineering (p. 573)
- Engineering physics (p. 625)
- Interdisciplinary computing (p. 573)
- Information technology (p. 538)
- Mechanical engineering (p. 629)
- Petroleum engineering (p. 538)

Engineering and computer science degree programs are accredited by the Accreditation Board for Engineering and Technology (http://www.abet.org).

High School Preparation

Preparation for an engineering career begins in high school with basic mathematics and science courses. Prospective engineering students should take mathematics through at least trigonometry and at least one year of both chemistry and physics. A well-rounded background in English, history, economics, and social studies, preferably with some computer operations and programming and advanced mathematics, affords flexibility in choosing a concentration. A strong college preparatory program provides a good background for the student who plans to major in engineering.

Honors Programs

The school encourages all qualified students to participate in the University Honors Program (http://www.honors.ku.edu). Students in engineering must meet with an engineering advisor every semester and should also meet with an honors program advisor.

Some engineering departments offer an option to graduate with departmental honors. Departments set these requirements.

Bachelor of Science in Engineering Degree Requirements

The B.S. degree is offered with majors in aerospace engineering, architectural engineering, chemical engineering, civil engineering, computer engineering, electrical engineering, engineering physics, mechanical engineering, and petroleum engineering. The school also offers the B.S. degree in computer science, interdisciplinary computing, and information technology.

First- and Second-Year Preparation

Undergraduates usually enroll in engineering in their first year. The first few semesters of all the curricula contain a large proportion of common courses. Through proper planning with advisors, students may delay choosing specific fields for one or two semesters. Selecting the major by the beginning of the third semester is strongly encouraged so that the recommended schedule of classes can be followed.
Each engineering degree program includes courses in 5 general areas of study:

1. KU Core (communications, humanities, social sciences, ethics, etc.),
2. Basic sciences,
3. Basic engineering sciences,
4. Specialized engineering sciences, and
5. Engineering design.

The computer science degree program has a similar structure, but computer science courses replace some engineering courses. Courses taken during the first 2 years are largely from the first 2 areas, with a few courses in the basic engineering sciences or computer science. The basic sciences include mathematics, chemistry, and physics and further course work in the earth and life sciences in some of the curricula. Appropriate laboratory experience that combines elements of theory and practice is included in each student's program, together with extensive computer-based experience. In addition to the 5 general areas of study, architectural engineering requires 4 semesters of architectural design. Completion of the KU Core is required in all majors. Each department recommends certain courses be used to fulfill the KU Core within each major to allow students the greatest flexibility in degree completion.

**Requirements for Graduation**

In addition to completing each of the required and elective courses listed in the curriculum,

1. A student must attain a cumulative grade-point average of at least 2.0 in the courses applied toward the degree. A student must also have a KU cumulative grade-point average of 2.0 whether or not all courses are being applied to the degree.
2. A student must attain a cumulative grade-point average of at least 2.0 in all courses taken in the school, including courses not applied toward a degree.
3. A student entering with advanced standing must attain a cumulative grade-point average of at least 2.0 in the resident courses applied toward the degree and at least a 2.0 in all courses taken in the school.
4. A student must take the last 30 hours of credit toward the degree at KU and be officially enrolled in the School of Engineering during this time.

**General Education Component**

Students in all engineering curricula must take courses that complement the technical content. These must include courses applicable to the KU Core and course work that

- Fosters an understanding of professional and ethical responsibility.
- Promotes the ability to communicate effectively.
- Develops an understanding of the impact of engineering solutions.
- Advances the student's knowledge of contemporary issues.

Each engineering department specifies courses that fulfill these requirements.

**Credit for ROTC Courses**

A few credit hours from courses in aerospace studies, military science, or naval science may be applied toward graduation in lieu of certain required or elective courses. A student normally must complete the ROTC curriculum, whether or not it leads to a commission, to receive ROTC hours toward a bachelor's degree in engineering. The student should submit a petition for substitution of courses to the department. The ROTC policy for each engineering degree program is listed with the information on each program.

**Credit for Foreign Language Courses**

Some foreign language courses may be applied toward graduation in engineering programs. A foreign language that is similar to the native language is not acceptable. Information on use of foreign language courses is available in each engineering program listing.

**Petitions for Exceptions**

A student seeking an exception to the rules and practices of the school should first consult an advisor and then petition the school to consider the exception. All petitions are approved by the Engineering Dean's Office with the guidance of the student's advisor and department.

**Minors**

Engineering students may minor in many liberal arts (p. 783) areas or in the schools of Business (http://www.business.ku.edu) or Journalism and Mass Communications (http://www.journalism.ku.edu). To earn a minor, a student must take at least 18 credit hours, 12 of which must be 300-level courses or above. If the department or program has additional requirements for the minor, students must meet those requirements also. Interested students should see an advisor in the department offering the minor and complete a minor declaration form as early as possible.

**Dual Enrollment**

KU permits dual enrollment in 2 academic divisions. The student must plan carefully with special advisors in each area. Students should expect the minimum time required for 2 degrees to be at least 1 year longer than the minimum for 1 degree. The academically well-qualified student who is seriously considering dual enrollment might consider studying for the second degree at the graduate level. If the program is properly planned, it may be possible to earn 1 B.S. and 1 M.S. degree in about the same time required for 2 undergraduate degrees.

**Limitation on Enrollment in Engineering Courses**

After the fifth day of classes, enrollment in a course offered by the school is permissible only with approval of the instructor and permission of the dean. The school reserves the right to deny admission to courses offered by the school to any student who is officially enrolled in another division of the university and does not meet the school's standards for admission or readmission and/or who does not have the proper prerequisite course work completed.

**Preparation for Graduate Study**

Undergraduates in the School of Engineering receive excellent preparation for pursuing graduate degrees. The school offers M.S. degrees as well as professional degrees. Students may apply for admission to graduate studies during the senior year and may be co-enrolled during the final undergraduate semester. Admission to graduate studies requires a minimum 3.0 grade-point average and completion of an ABET-accredited undergraduate degree.
**Graduate Programs**

The **Master of Science (M.S.)** degree is offered in 13 areas:
- Aerospace engineering (p. 513)
- Architectural engineering (p. 553)
- Bioengineering (p. 533)
- Chemical engineering (p. 538)
- Civil engineering (p. 553)
- Computer science (p. 573)
- Electrical and computer engineering (p. 573)
- Engineering management (p. 614)
- Environmental engineering or science (p. 553)
- Information technology (p. 573)
- Mechanical engineering (p. 629)
- Petroleum engineering (p. 538)
- Project management (http://pmgt.ku.edu)

The **Master of Engineering (M.E.)** is offered in aerospace engineering (p. 513) and project management (http://pmgt.ku.edu).

The Department of Civil, Environmental, and Architectural Engineering (p. 553) offers the **Master of Civil Engineering (M.C.E.)** and the **Master of Construction Management (M.C.M.).**

The school offers the **Doctor of Philosophy (Ph.D.)** degree in 8 areas:
- Aerospace engineering (p. 513)
- Bioengineering (p. 533)
- Chemical and petroleum engineering (p. 538)
- Civil engineering (p. 553)
- Computer science (p. 573)
- Electrical engineering (p. 573)
- Environmental engineering or science (p. 553)
- Mechanical engineering (p. 629)

Doctoral students interested in careers in research or teaching or both should consider the Ph.D. degree. Exceptionally qualified undergraduates may be admitted directly to a Fast-Track Ph.D. program.

For students interested in careers in engineering design or engineering project management, the school offers programs leading to the **Doctor of Engineering (D.E.)** degree in 2 areas:
- Aerospace engineering (p. 513)
- Mechanical engineering (p. 629)

For information on graduate studies in petroleum management, contact the Department of Chemical and Petroleum Engineering (http://www.cpe.engr.ku.edu) or the School of Business (http://www.business.ku.edu).

**Graduate Grade-Point Average (GPA) Requirement**

In addition to completing a Plan of Study (https://gradplan.engr.ku.edu/accounts/login/?next=) that is formally approved by the advisory committee and other requirements appropriate to the graduate degree, a student must:

1. Attain and maintain at least a 3.0 grade-point average in all graduate courses and
2. Attain and maintain at least a 3.0 grade-point average in all course work, including undergraduate courses taken to make up background deficiencies, except for courses taken at the Applied English Center.

Please note, once you begin enrolling in your graduate career all courses 500 level and above will count towards your graduate GPA, even if you are not counting those courses towards your degree or are taking them as pre-requisite courses. Students who obtain a GPA below 3.0 will be placed on academic probation or dismissed from the School of Engineering.

**Plan of Study**

All graduate students must have an approved Plan of Study on file by the end of their second semester of graduate study. Click here (https://gradplan.engr.ku.edu/accounts/login/?next=) to create or update a plan. All students must have an up to date and approved Plan of Study on record in order to graduate.

**Undergraduate Advising**

Engineering students are advised by engineering faculty members. Students are assigned an advisor by their engineering departments.

Each entering student is encouraged to attend KU’s summer New Student Orientation (http://firstyear.ku.edu/orientation) during June and July. At the summer orientation program, students are advised on course selection for the fall semester and given the opportunity to enroll. Students who cannot attend the orientation program confer with their advisors a day or two before classes start.

Enrollment holds are placed on all Engineering students’ accounts each semester before enrollment. Students see their faculty advisors to plan schedules and discuss academic and career interests. Once a student has met with an advisor, the enrollment hold is released. Students are encouraged to call on their advisors any time during the school year if they wish to change their schedules or discuss other matters. Consultation with an advisor is recommended before making schedule changes.

Undecided engineering majors are advised in the Office of the Dean, 1 Eaton Hall, 785-864-3881.

**Graduate Advising**

Graduate advising generally is done at the department and program level. Graduate students should contact the Director of Graduate Studies or Graduate Assistant in their department or program if they have not yet chosen an advisor or have general questions. Students just entering the graduate program should plan to attend orientation (each fall and spring semester during the week prior to the start of classes). More information is available here (http://www.engr.ku.edu/graduate/orientation.html).

**Plan of Study**

Graduate students should discuss their enrollment plans with their faculty advisor or Graduate Director to plan schedules and discuss academic and career interests. Once a student has met with an advisor, they should complete their Plan of Study online and submit the plan to their advisory committee for approval. Consultation with an advisor is recommended before making a Plan of Study. All graduate students, including those...
enrolled in courses at KU Medical Center and the Edwards campus, must have an approved Plan of Study on file by the beginning of their second semester in the graduate program. Enrollment holds are placed on students’ accounts after their first year of graduate study if they do not have an up to date and approved Plan of Study on file. Click here (https://gradplan.engr.ku.edu/accounts/login/?next=) to create or update a plan. All students must have an approved Plan of Study on record in order to graduate.

Undergraduate Scholarships and Financial Aid

The school has a scholarship program for entering first-year students. Engineering scholarships are awarded competitively according to academic ability and leadership potential and without regard to financial need. Awards range from $1,000 to $3,000 per year, and scholarships are renewable for a total of four years of undergraduate study. All students who apply for admission (http://admissions.ku.edu/whyku/index.shtml) are considered for scholarships.

Students with financial need should file the standard application with:

Financial Aid and Scholarships
Strong Hall
1450 Jayhawk Blvd., Room 50
Lawrence, KS 66045-7518
785-864-4700
financialaid@ku.edu

Graduate Funding and Assistantships

A variety of scholarships, fellowships, and assistantships are available to graduate students through the School of Engineering, KU, and outside sources. Many opportunities require that students be admitted to a graduate program before students are eligible to apply. Be sure to apply early, in order to meet eligibility requirements for funding (both internal and external) by posted deadlines. Graduate students are nominated by their department or program for School of Engineering funding each fall and spring.

The KU Office of Financial Aid & Scholarships offers a helpful calculator to estimate costs and search for scholarships. Financial Aid & Scholarships (http://affordability.ku.edu/steps/index.shtml) also administers grants, loans, and need-based financial aid. Students should contact the Graduate Director within their department or program or their advisor to inquire about research or teaching assistantships. Students must be admitted regularly or enrolling on regular status to be eligible for assistantships. Students admitted provisionally or placed on academic probation are ineligible for research or teaching assistantships. More information on graduate student funding is available here (http://www.engr.ku.edu/graduate/resources/funding.html).

Undergraduate University Regulations

For information about university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://www.policy.ku.edu).

Absences

A student with excessive absences may be withdrawn from the course by the dean.

Academic Standing (Probation)

Good Academic Standing

Undergraduates must maintain both semester and cumulative grade-point averages of 2.0 or higher to remain in good standing. Students’ academic standings are reviewed after each semester.

Probation

If a student’s semester or cumulative grade-point average falls below 2.0, the student is placed on probation. The student will return to good standing if:

1. The following semester’s cumulative and engineering grade-point average is 2.0 or higher,
2. The cumulative grade-point average is 2.0 or higher, and
3. All other requirements described in the probation letter are met.

Students also may be placed on probation for failing to make progress toward an engineering degree or failing to be continuously enrolled in Applied English Center (http://www.aec.ku.edu) or English courses until all AEC and the KU Core Written Communications requirements are met.

Dismissal

A student on probation is dismissed if any of the following occur:

1. Any semester grade-point average is below 2.0 while the student is on probation.
2. The cumulative grade-point average is below 2.0 after two semesters on probation.
3. The student has failed to meet the other requirements stated in the probation letter.
4. The student on probation has failed to make progress toward an engineering degree or toward fulfilling all AEC and the KU Core Written Communications requirements.

Readmission

A student who has been dismissed from the School of Engineering for poor scholarship may apply for readmission by submitting a Change of School form to the Engineering Dean’s Office in Eaton Hall, room 1. A student who has been dismissed from the University of Kansas may apply for admission or readmission to the School of Engineering by contacting the Office of Admissions and Scholarships (http://www.ku.edu/admission). A student does not automatically become eligible to re-enroll after a certain period of time. A student who is readmitted on probation must meet stringent academic requirements to be returned to good standing.

Change of School

To change from one school to another, KU students must submit a Change of School form in the dean’s office of the school they plan to enter.

Admission is competitive. Students must have minimum grade-point averages of 2.5 and be eligible to enroll in MATH 121 Calculus I. Applications are reviewed throughout the year.

Credit/No Credit

A Credit/No Credit option is available to all degree-seeking undergraduates. You may enroll in one course a semester under the option, if the course is not in your major or minor. For more information,
visit the KU Policy Library (https://documents.ku.edu/policies/governance/USRR.htm#art2sect2).

**Warning:** Certain undesirable consequences may result from exercising the option. Some schools, scholarship committees, and honorary societies do not accept this grading system and convert grades of No Credit to F when computing grade-point averages.

Credit/No Credit is allowed for courses used to fulfill KU Core GE 2.1 Written Communication, GE 2.2 Oral Communication, GE 3H Arts & Humanities, GE 3S Social Sciences, AE 4.1 Human Diversity, AE 4.2 Cultural & Global Awareness, and AE 5 Social Responsibility and Ethics requirements only. If an Engineering department recommends that certain course work be used to fulfill any of these requirements, those courses shall not be eligible for Credit/No Credit. Students should see their Engineering advisor.

Credit/No Credit is not an option for aerospace engineering students.

**Dean’s Honor Roll**

Students with grade-point averages of 3.75 who have completed at least 14 hours are recognized on the honor roll or dean’s list in fall and spring. An Honor Roll notation appears on the transcript.

**Enrollment Holds**

An Engineering Advising Hold (EAH) is placed on all Engineering students’ accounts prior to enrollment each term. Students must meet with their assigned Engineering advisor to have the hold released.

A No Drop Hold (DRP) is placed on all Engineering students’ accounts early in the term preventing students from dropping classes without the permission of their advisor and the Engineering Dean’s Office. The No Drop Hold prevents students from withdrawing from essential classes without speaking with an advisor about the possible negative ramifications of a withdrawal.

Students voluntarily leaving the School of Engineering may have their Engineering Advising Hold or No Drop Hold released by signing an official Change of School form to leave the School of Engineering. Change of School forms are available in the Engineering Dean’s Office, Eaton Hall, room 1.

**Graduation with Departmental Honors**

For students who complete their department’s honors program, designation of honors appears on the transcript.

**Graduation with Distinction and Highest Distinction**

Students who fulfill the following requirements are eligible for graduation with distinction.

1. Students must rank in the upper 10 percent of the graduating class by KU grade-point average.
2. Students must have taken at least 64 hours in residence at KU.
3. Students with transfer credit must also have overall grade-point averages, including transfer credit, that fall into the upper 10 percent of the class.

The upper third of those awarded distinction graduate with highest distinction. The list is compiled each spring and includes July, December, and May graduates.

**Maximum and Minimum Semester Enrollment**

The normal course load is 15 hours a semester. A student may not enroll in more than 19 credit hours during any semester or more than 12 credit hours during the summer session except with approval of the major advisor and the dean.

**Prerequisites and Corequisites**

Students may be administratively dropped from courses for which they do not meet prerequisites.

**Required Work in Residence**

Students must be enrolled in the school for the last 30 hours of credit.

**Transfer of Credit**

CredTran (http://admissions.ku.edu/apply/credits) is a transfer course equivalency system that lists more than 2,200 colleges and universities from which KU has accepted transfer courses in the past. If your school or course is not listed, your evaluation will be completed when you are admitted to KU.

The School of Engineering does not routinely accept credits from foreign institutions or from vocational-technical programs in the United States. Before such courses may be added to a student’s official KU record as transfer credits, they must be validated

1. By examination by the department or school offering the course on the KU campus,
2. By earning a grade of C or higher in a later course in the sequence of courses, or
3. By earning a grade of C or higher in a course.

Credits for English composition at a foreign institution of higher education are not accepted for the required English courses in any engineering curriculum.

Credits from courses completed at the secondary level (high school), whether from U.S. or from foreign schools, are not added to a student’s official record unless the student obtains college credits through one of three examination programs:

1. The College Entrance Examination Board’s Advanced Placement test,
2. KU’s own credit by examination program, or
3. The College Level Examination Program.

A course from another college or university may apply toward the Bachelor of Science in Engineering degree as transfer or nonresident credit only if the grade received is at least C.

Transfer credit in engineering science and engineering design from institutions accredited by the Accreditation Board for Engineering and Technology (http://www.abet.org) and from institutions with which KU has approved articulation agreements may be applied toward the degree as appropriate in the particular engineering curriculum. Transfer credit in
engineering from other institutions must be evaluated and validated on a case-by-case basis.

Graduate University Regulations
For information about university regulations, see the Graduate (p. 12) Regulations or visit the University of Kansas Policy Library.

Graduate Enrollment
The Graduate Studies policy for graduate enrollment is that all graduate students must be continuously enrolled in the fall and spring semesters. Note that this does not include the summer semester, unless you are a Ph.D. candidate (post-comprehensive enrollment) or have a GTA/GRA appointment. This includes part-time programs, but does not include non-degree seeking students. Review the general information in the Graduate Studies section of the online catalog for more information.

If you do not plan to enroll for a given semester, you will need to do one of the following:

Request a Leave of Absence – Use this option when you will be returning to your graduate study after one or more semesters. A leave of absence may be granted upon request to the graduate program in advance of leave. Leaves may be granted in cases of illness, emergency, to pursue family responsibilities, or to pursue full-time activities related to long-range professional goals. The time taken for a leave of absence does not count against the time limit for earning the degree. However, if the total time for the leave extends more than three semesters, you may lose your place in the program and have to re-apply for admission. To request a leave of absence, you must contact your department graduate assistant, who will submit a Progress-to-Degree (PtD) form. You will need to provide the assistant with the following information: non-ku email address, mailing address, first term of leave and the semester you plan to return, as well as a statement on the reason for the leave of absence (by email).

Request to Voluntarily Discontinue – Use this option if you do not plan to return to your graduate program in the School of Engineering. This means that you voluntarily resign from a program by requesting a discontinuance. If you choose to return at a later date, you must re-apply for admission. Discontinuance is requested through your department or program via email to the department graduate director or assistant.

Please note, students who do not request a leave of absence are discontinued in the system and will be required to apply for re-admission through the Permit to Enroll form (application fee required). To prevent having to apply and pay the fee, students are strongly encouraged to request a leave of absence and contact their departmental staff when they are ready to return.

Academic Status

Good Academic Standing
Graduate students must be admitted regularly and maintain cumulative grade-point averages (GPA) of 3.0 or higher to be considered in good standing. Students admitted provisionally must complete departmental / program requirements before they are considered in good standing. Students on academic probation can regain their good standing once they have a cumulative GPA of 3.0 or higher. Students’ academic standings are reviewed after each semester. All courses 500-level and above will count towards the graduate GPA, if enrolled in a graduate program.

Provisional Admitance / Academic Probation
Students who are admitted provisionally are given a set of requirements that must be completed, generally within the first year, before they will be moved to regular status. Students who are placed on academic probation due to their graduate GPA must obtain a cumulative GPA of 3.0 or higher within a given timeframe, generally one semester, before they are moved to regular status. If you receive a cumulative grade point average below a 3.0 during your graduate career, you are considered ineligible for teaching and research assistantship positions or will need to petition the school and Graduate Studies office for approval.

Dismissal
Graduate students who are unable to meet their provisional or probationary requirements within the given timeframe may be dismissed from the School of Engineering. When the particular circumstances are deemed to justify continuation, and upon the recommendation of the department or program, such a student may be continued on probation by the Graduate Division for one additional semester equivalent of full-time study. If a student decides to pursue another graduate degree within the School of Engineering, they are required to re-apply.

Change of Degree
A student who wants to change from one engineering degree program to another within the same department should see their department assistant to complete a progress-to-degree (PtD) form. Students who wish to change to a program outside of their home department must submit an application for admission. If a student changes or is accepted into another program and wishes to pursue only the new degree, the student should notify the department assistant, so that the old plan may be removed from the student’s record. Students are allowed to pursue multiple degrees, but should discuss these plans with both program advisors.

Credit/No Credit
Graduate students may select the Credit/No Credit option for certain courses. Students should follow the policy outlined in the University Senate Rules and Regulations, Section 2, article 2.27.

Honors
Graduate student can obtain honors only at the time of the final defense or final exam (and comprehensive exam for Ph.D. students). Students enrolling in coursework only degree programs do not have the opportunity to receive honors at the graduate level. Students who complete a project, thesis or dissertation will have the opportunity to receive honors at the time of the final exam or defense. Students should discuss the requirements for graduation with their program advisor if seeking honors. Only 10-15% of graduate students receive this high distinction.

Entry and Employment in the Profession

Initial Licensing
Formal study in an accredited engineering program is the principal means of becoming licensed to practice engineering in Kansas and other states. During the junior or senior year, a student may take the national Fundamentals of Engineering examination. After 4 or more years (licensing regulations vary among states) of practice satisfactory to the board, the student may take the examination to become a registered professional engineer.
Job Search Assistance
The Engineering Career Center (http://www.engr.ku.edu/career_center) offers a comprehensive array of services to students seeking permanent employment and career-related summer or co-op employment. These include on-campus interviewing; 2 career fairs each year; individual advising and group workshops on résumés, interviewing, and job search strategies; online interviewing sign-up; online job postings from many employers not interviewing on campus; a library of employer and career literature; and an online résumé book searchable by employers.

The Engineering Career Center offers services to all engineering students. Students are encouraged to visit the Engineering Career Center early in their undergraduate or graduate studies. Many employers actively seek KU engineering and computer science students. Some prefer to hire students as early as the first-year level for internships. The Career Center is in 1001 Eaton Hall; additional information is available from 785-964-3891.

Aerospace Engineering Courses
AE 211. Computing for Engineers. 3 Hours.
Introduction to computing concepts. Introduction to the MATLAB computing language using a suite of simulations in physics and engineering in a progression which adds new MATLAB constructs as well as logical and mathematical constructs with each simulation. Simulations include numerical integration, coordinate transformations and primitive reinforcement learning constructs. Brief introduction to the LISP programming language. Elementary artificial intelligence programming. Prerequisite: MATH 121. LEC.

AE 221. The History of Aircraft Design. 1-3 Hours.
The history of aircraft design starting with the machines, aviators and aircraft designers of the 1800’s will be covered. The course is structured around some of the most noteworthy manufacturers and designers, including: Douglas, Boeing, Lockheed, Fokker, Heinkel, Messerschmitt, Fairey, Handley Page, Piaggio, Tupelov, Mikoyan-Gurevich, Sud Aviation and many others. Topics are handled vertically in that the history of an individual designer/company/bureau is covered from start-to-finish per lecture module. This course represents a very unique opportunity for students to study under one of the most important and famous Aircraft Designers ever to practice in the US. No prerequisite is required. The course is open to all KU students. LEC.

AE 241. Private Flight Course. 1 Hour.
One hour of academic credit is given upon the awarding of the private pilot's license by the Federal Aviation Administration. Required documentation includes a letter from the F.A.A. designated examiner giving the check ride and a copy of the private license. The Department of Aerospace Engineering provides no ground or flight instruction. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Aerospace Engineering students only, with consent of instructor. IND.

AE 242. Private Flight Aeronautics. 3 Hours.
Three hours of academic credit is given for the successful completion of the F.A.A. private pilot's written examination. Required documentation is a copy of the written score. Available only to Aerospace Engineering transfer students as a course substitute for AE 245. IND.

AE 245. Introduction to Aerospace Engineering. 3 Hours.
Basic systems of an aerospace vehicle, meteorology, vehicle performance, navigation and safety. Specific examples emphasize general aviation. Open enrollment. Corequisite: MATH 121. LEC.

AE 290. Aerospace Colloquium. 0.25 Hours.
This is a required course for all aerospace engineering majors each fall semester. Topics of importance and new developments are discussed by aerospace industry representatives and representatives of F.A.A., D.O.T., D.O.D., N.A.S.A., related sciences, and engineering disciplines. A forum for student activities at all levels. Technical films. Open enrollment. LEC.

AE 292. Aerospace Industrial Internship. 1 Hour.
Engineering internship in an approved company. Internship hours do not satisfy any course requirements for the bachelors degree in Aerospace Engineering but will appear on the official transcript. Credit assigned after review of report on internship experience. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Completion of freshman year. FLD.

AE 345. Fluid Mechanics. 3 Hours.
Study of fundamental aspects of fluid motions and basic principles of gas dynamics with application to the design and analysis of aircraft. Open enrollment. Corequisite: CE 201 or CE 301. LEC.

AE 360. Introduction to Astronautics. 3 Hours.
Introduction to astronautical engineering. The history of astronautics, including rocketry and space flight. Fundamentals of astronautics, including space environment, astrodynamics and the analysis and design of spacecraft systems. Design, construction and launch of a prototype earth-satellite using a high-altitude balloon. Prerequisite: MATH 122.
Corequisite: A course in computer programming. LEC.

AE 390. Aerospace Industrial Internship. 1 Hour.
Engineering internship in an approved company. Internship hours do not satisfy any course requirements for the bachelors degree in Aerospace Engineering but will appear on the official transcript. Credit assigned after review of report on internship experience. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Completion of Sophomore year. FLD.

AE 421. Aerospace Computer Graphics. 4 Hours.
Development of skills in depicting aerospace vehicles and their components and subsystems for the purpose of illustration, design, and analysis using traditional and modern (Computer Aided Design) drafting tools. LEC.

AE 430. Aerospace Instrumentation Laboratory. 3 Hours.
Review and hands-on laboratory experiments with basic electronic elements (resistors, capacitors, conductors, transistors, linear circuits, logic devices, and integrated circuits). Overview and hands-on laboratory experiments using various experimental techniques available to the aerospace engineers (pressure probes, thermocouples, strain gauges, hot-wire anemometer, laser Doppler velocimeter, and flow visualization techniques). Prerequisite: AE 445 and EECS 318. LAB.

AE 441. Advanced Flight Training. 1-3 Hours.
Academic credit is given for the successful completion of advanced flight training beyond the private pilot rating. One hour is given for each of the following: commercial, instrument rating, certified flight instructor. The Aerospace Engineering Department provides no ground or flight instruction. Graded on a satisfactory/unsatisfactory basis. Open enrollment. Prerequisite: AE 241. IND.

AE 445. Aircraft Aerodynamics and Performance. 3 Hours.
Study of airfoil and wing aerodynamics, component drag, static and special performance, and maneuvers of aircraft. Open enrollment. Prerequisite: AE 345, CE 301. LEC.

AE 490. Aerospace Industrial Internship. 1 Hour.
Engineering internship in an approved company. Internship hours do not satisfy any course requirements for the bachelors degree in Aerospace Engineering but will appear on the official transcript. Credit assigned
AE 507. Aerospace Structures I. 3 Hours.
Analysis and design of aerospace structures from the standpoint of preliminary design. Deflection and stress analysis of structural components, including thin-walled beams and built-up (semimonocoque) structures. Material failure of highly stressed components, including connections. Buckling of thin-walled beams and semimonocoque structures. Durability and damage tolerance strategies for aerospace structures to avoid corrosion, fatigue, and fracture. Prerequisite: AE 507. LEC.

AE 508. Aerospace Structures II. 3 Hours.
Stress and deflection analysis of aerospace structures using the finite element method. Introduction to work-energy principles, including Castigliano’s Theorems, for the analysis of statically indeterminate structures. Rod, beam, shaft, membrane, and plate finite elements. Prerequisite: AE 507. LEC.

AE 509. Honors Aerospace Structures. 3 Hours.
Indeterminate structures, principle of virtual work, Castigliano’s theorems, displacement method of finite element analysis; rod, beam, shaft, and membrane elements; analysis of aerospace structures with the finite element method. Prerequisite: AE 507. LEC.

AE 510. Aerospace Materials and Processes. 4 Hours.
Properties and applications of aircraft materials, forming methods, and manufacturing processes. Ethics and social responsibility for engineers. Oral technical presentations. Prerequisite: AE 507 and CHEM 130 or CHEM 150. LEC.

Preliminary design techniques for an aerospace system. Aerodynamic design, drag prediction, stability and control criteria, civil and military specifications. Weight and balance, Configuration integration, design and safety, design and ethics, and social responsibility for engineers. Written technical reports. Prerequisite: AE 421, AE 508, AE 551, and AE 572. LEC.

Preliminary design project of a complete aircraft system. Technical written reports and oral presentations. Prerequisite: AE 521. LEC.

AE 523. Space Systems Design. 4 Hours. AE61.
Preliminary design project of a complete space system. Technical written reports and oral presentations. Prerequisite: AE 521 and AE 560. LEC.

Preliminary design project of a complete propulsion system, including the airframe. Technical written reports and oral presentations. Prerequisite: AE 521. LEC.

AE 545. Fundamentals of Aerodynamics. 4 Hours.
Basic gas dynamic equations, potential flow for airfoils and bodies, thin airfoil theory, finite wing, subsonic similarity rules, and two dimensional supersonic flow, boundary layers, heat transfer, and laboratory experiments. Prerequisite: AE 445, ME 312, and MATH 220. LEC.

AE 546. Honors Aerodynamics. 5 Hours.
Basic gas dynamic equations, potential flow for airfoils and bodies, thin airfoil theory, finite wing, subsonic similarity rules, and two dimensional supersonic flow, boundary layers and viscous flow, heat transfer, and laboratory experiments. A special project in aerodynamics for AE 546 students. Prerequisite: AE 445, ME 312, MATH 220 and MATH 290. LEC.

AE 550. Dynamics of Flight I. 4 Hours.

AE 551. Dynamics of Flight II. 4 Hours.
General equations of motion of rigid airplanes and reduction to perturbed state flight situations. Mathematical modeling of airplane and control system analysis in state space. Dynamic stability, phugoid, short period, dutch roll, roll, spiral, and other important modes. Transfer functions and their application. Relationships with handling quality requirements. Fundamentals of classical control theory and applications to automatic flight controls. Implications to airplane design. Prerequisite: AE 550. LEC.

AE 552. Honors Dynamics of Flight II. 4 Hours.
General equations of motion of rigid airplanes and reduction to perturbed state flight situations. Perturbed state forces and moments, stability derivatives, dynamic stability, phugoid, short period, dutch roll, roll, spiral, and other important modes. Transfer functions and their application. Relationships with handling quality requirements. Fundamentals of classical control theory and applications to automatic flight controls. Implications to airplane design. Prerequisite: AE 550 and a course in differential equations (MATH 220 or MATH 320). LEC.

AE 560. Spacecraft Systems. 3 Hours.
Fundamentals of spacecraft systems and subsystems. Spacecraft systems engineering, space environment; basic astrodynamics; and the following spacecraft subsystems: attitude determination and control; electrical power; thermal; propulsion; structures and mechanisms; command, telemetry, and data handling; and communications. Prerequisite: AE 507, EECS 318, MATH 124, and ME 312. LEC.

AE 571. Fundamentals of Airplane Reciprocating Propulsion Systems. 3 Hours.
Study of the basic principles of operation and systems of internal and external combustion engines with emphasis on airplane reciprocating engines. Cycle analysis, propeller theory, propeller selection and performance analysis. Prerequisite: AE 445 and ME 312. LEC.

AE 572. Fundamentals of Jet Propulsion. 3 Hours.
Lecture and laboratory, study of basic principles of propulsion systems with emphasis on jets and fan systems. Study of inlets, compressors, burners, fuels, turbines, jets, methods of analysis, testing, performance; environmental considerations. Prerequisite: AE 545 and AE 571. LEC.

AE 573. Honors Propulsion. 3 Hours.
Lecture and laboratory, study of basic principles of propulsion systems with emphasis on jets and fan systems. Study of inlets, compressors, burners, fuels, turbines, jets, methods of analysis, testing, performance; environmental considerations. Prerequisite: AE 545 and AE 571. LEC.

AE 590. Aerospace Senior Seminar. 1 Hour.
Presentation and discussion of technical and professional paper reports. Methods for improving oral communication. Discussion of topics such as ethics, registration, interviewing, professional societies, personal planning. Prerequisite: Senior standing. LEC.

AE 592. Special Projects in Aerospace Engineering for Undergraduate Students. 1-5 Hours.
Directed design and research projects in aerospace engineering. Prerequisite: Consent of instructor. IND.
AE 593. Honors Research. 1-5 Hours.
Directed design and research projects in aerospace engineering. Prerequisite: Consent of instructor. IND.

AE 621. Advanced Aircraft Design Techniques I. 3 Hours.
The purpose of this course is to provide aerospace engineering students with an opportunity to gain more in-depth airplane design education through design work. This design work will involve detailed design of efforts in such areas as: landing gear design, systems design, propulsion system integration, structures design and aerodynamic design. Prerequisite: AE 507, AE 521, AE 545, AE 551, and AE 571. AE 521 may be taken concurrently. LEC.

AE 628. Wind Turbine Engineering. 3 Hours.
Course will cover the fundamentals of engineering wind-powered electric generators. Topics will include turbine configuration design, drive train engineering, composite rotor blade aerodynamic and structural design, characterizing the influence of the wind conditions on the operation, loads, and performance of a wind turbine, wind turbine controls systems engineering, and power electronic conversion. Prerequisite: AE 508, AE 545, and EECS 316 and EECS 318 or equivalent. LEC.

AE 670. Aerospace Propulsion III. 3 Hours.
Advanced theory of turbojet, fanjet (multi-spool), variable cycle engines, ramjet and bypass air breathing propulsion systems. Theory and design of inlets, compressors, burners and turbines. Component matching, cooling, regenerative systems, test methods and corrections. Prerequisite: AE 572. LEC.

AE 690. Professional Development for Graduate Studies. 0.25 Hours.
Professional development for graduate students. Presentation and discussion of graduate student research. Meets approximately monthly. Each meeting will include either a faculty-guided seminar on one of the core course topics or presentations by students on a research topic. Some class sessions will be devoted to 10-15 minute informal presentations on work in progress. Others will allow students to make informal presentations as a “dress rehearsal” for presentations to be given at a technical conference. Two semesters of enrollment required for all MS, ME PhD and DE aspirants and candidates. Graded on a satisfactory/unsatisfactory basis. LEC.

AE 701. Structural Design. 3 Hours.
Design and internal construction of major structural components: wing, fuselage, empennage, landing gear, engine pylons. Layout of major structures and system interfaces, internal geometry, material alternates, manufacturing alternates and design constraints. Certification and proof of design requirements. Prerequisite: AE 421, AE 508, and AE 510. LEC.

AE 704. Dynamics and Vibrations. 3 Hours.
Problems in engineering dynamics and vibrations. Topics include applications of generalized forces and coordinates, Lagrange equations, and a study of the performance of single and multiple degree of freedom in vibrational systems. (Same as CE 704.) Prerequisite: AE 508. LEC.

AE 705. Structural Vibrations and Modal Testing. 4 Hours.

AE 707. Aerospace Structural Loads. 3 Hours.
Steady state spanwise and chordwise airloads, windshears, gusts, landing gear loads, bird strike, traumatic loads, special commercial and military load requirements. Prerequisite: AE 507 and AE 545. LEC.

AE 708. Aerospace Structures III. 3 Hours.

AE 709. Structural Composites. 3 Hours.
Fiber materials, tapes, cloths, resin systems; general aerolotropic theory, elastic constants, matrix formulation; computer analysis, strength, theory of failure; introduction to design with composites, preliminary design, optimization, processing variables, product design. Prerequisite: CHEM 184 or CHEM 150, CPE 121, AE 508 or CE 761; and AE 510 or ME 346 or CE 710. LEC.

AE 710. Advanced Structural Composites. 3 Hours.
The course objectives are to provide each student with a more in-depth understanding of and practical hands-on experiences with available fiber and matrix materials, manufacturing methods, and the mechanical behavior of composite materials and structures. Modern software tools and manufacturing methods are addressed, to include optimization techniques and design for manufacturability. Classical plate theory, bending, buckling, and vibration of anisotropic plates is addressed. Damage tolerance and repairability, as well as nondestructive evaluation techniques are also covered. Skills learned in previous composite courses will be utilized to design, analyze, and fabricate structures of current industrial relevance. Prerequisite: AE 508 or similar, AE 709 or similar, or consent of instructor. LEC.

AE 712. Techniques of Engineering Evaluation. 3 Hours.
The formulation of problems arising in aerodynamics, heat transfer, stress analysis, thermodynamics, and vibrations. The expression of these problems in a form amenable to quantitative evaluation by dimensional reasoning, analog techniques, relaxation methods, and classical analysis. LEC.

AE 713. Stochastic Systems, Estimation and Identification in Aerospace Engineering. 3 Hours.
Stochastic adaptive control theory is concerned with recursive estimation of unknown parameters and control for systems with uncertainties modeled as random variables or random processes. The theory is motivated by applications in such diverse areas as aerospace guidance and control, signal processing and communications, manufacturing processes, and financial economics. Mathematical theory of stochastic adaptive control for models based on stochastic difference equations such as autoregressive processes and stochastic differential equations as Markov diffusion processes have been developed and will be presented. This course focuses on filtering and system identification theory. Prerequisite: AE 430, AE 550, AE 551, AE 750, MATH 590 and MATH 627 or equivalent. LEC.

AE 721. Aircraft Design Laboratory I. 4 Hours.
The purpose of this course is to provide aerospace engineering students with an opportunity to gain more in-depth airplane design education through team design work. This team design work will involve detailed design efforts in such areas as: landing gear design, systems design, propulsion system integration, structures design, and aerodynamic design. Prerequisite: AE 507, AE 521, AE 545, AE 551, and AE 571. AE 521 may be taken concurrently. LAB.

AE 722. Aircraft Design Laboratory II. 4 Hours.
The purpose of this course is to provide aerospace engineering students with an opportunity to gain more in-depth airplane design education through team design work. This team design work will involve detailed design efforts in such areas as: landing gear design, systems design, propulsion system integration, structures design, and aerodynamic design. Prerequisite: AE 507, AE 521, AE 545, AE 551, and AE 571. AE 521 may be taken concurrently. LAB.
AE 724. Propulsion System Design and Integration. 3 Hours.
Theory and design of propulsion systems for both low and high speed aircraft and their integration into the overall configuration. Internal and external design and analysis of inlets and nozzles including their effect on the external aerodynamics of the aircraft. Engine/inlet compatibility and the problems of matching both steady state and dynamic characteristics to obtain peak, stable performance. Prerequisite: AE 572. LEC.

AE 725. Numerical Optimization and Structural Design. 3 Hours.
Classical theories of unconstrained and constrained optimization. Numerical techniques for unconstrained optimization, including the simplest descent, conjugate gradient and "Newton's" methods. Numerical techniques for constrained optimization, including sequential approximate problem techniques as well as the method of feasible directions. Computer aided solutions to practical design problems in aerospace engineering. Final design project. Prerequisite: MATH 220 and MATH 290 or junior status. LEC.

AE 728. Wind Turbine Engineering. 3 Hours.
Course will cover the fundamentals of engineering wind-powered electric generators. Topics will include turbine configuration design, drive train engineering, composite rotor blade aerodynamic and structural design, characterizing the influence the wind conditions on the operation, loads, and performance of a wind turbine, wind turbine controls systems engineering, and power electronic conversion. Prerequisite: AE 507, AE 545, and EECS 316 and EECS 318 or consent of instructor. LEC.

AE 730. Advanced Experimental Fluid Dynamics. 3 Hours.
Theory, operation, and hands-on laboratory experiments on various flow measurement techniques including: multi-hole directional pitot probes, hot-wire anemometry, laser-Doppler velocimetry and particle image velocimetry. Flow visualization techniques including smoke injection, dye injection, helium bubbles, etc. Prerequisite: AE 430, AE 545, or consent of instructor. LEC.

AE 731. Supersonic Aerodynamics Laboratory. 1 Hour.
Supersonic wind tunnel and shock tube operations, techniques, and instrumentation. Flow study and model testing. Prerequisite: AE 545. LAB.

AE 732. Introduction to Flight Test Engineering. 3 Hours.
Course presents flight test principles, instrumentation, planning, and operation of aerospace vehicle flight testing. Course is structured with lectures, laboratories, and flight experiments. Student teams plan and execute a series of flight test experiments including: familiarization with flight test measurements, static system calibration, rate-of-climb performance, and determination of vehicle flight dynamics. Prerequisite: AE 445 and AE 550 or consent of instructor. LEC.

AE 743. Compressible Aerodynamics. 3 Hours.
Compressible flow with heat and friction; shock polars, 1-D unsteady gas dynamics, shock tube, conical flows, methods of characteristics, hypersonic flow theory. Prerequisite: AE 545. LEC.

AE 744. Introduction to Turbulent Flow. 3 Hours.
Reynolds averaged equations for turbulent flow, basic energy relations and spectra in turbulent flow, analysis of turbulent boundary layer, turbulent pipe flow, turbulence models and simulation. Prerequisite: AE 545 or equivalent. LEC.

AE 745. Applied Wing and Airfoil Theory. 3 Hours.
Applications of potential flow theory to aerodynamics of airfoil sections; wings and wing-body combinations. Introduction to high angle-of-attack and transonic aerodynamics. Prerequisite: AE 545. LEC.

AE 746. Computational Fluid Dynamics. 3 Hours.
Applications of numerical techniques and digital computers to solving fluid flow problems. Solutions involving incompressible and compressible flows, inviscid and viscous flows. Finite difference techniques for different types of partial differential equations governing the fluid flow. Prerequisite: AE 545. LEC.

AE 748. Helicopter Aerodynamics. 3 Hours.
Helicopter components and their functioning: rotor aerodynamics, performance, stability and control, aeroelastic effects and vibrations. Prerequisite: AE 551. LEC.

AE 750. Applied Optimal Control. 3 Hours.
Introduction to optimal control analysis and design tools useful for the design of Multi-Input/Multi-Output controllers. Linear Quadratic Regulator problem extended by including advanced command techniques and advanced controller structures. The techniques are illustrated with aerospace applications. Prerequisite: AE 551 or ME 682 or consent of instructor. LEC.

AE 751. Advanced Airplane Dynamics. 2 Hours.

AE 753. Digital Flight Controls. 3 Hours.
Introduction to the classical Z-plane analysis and design tools useful for the design of control systems containing continuous dynamics and a digital computer. Mathematical modeling of the digital computer and design of digital compensators. Aerospace applications used to demonstrate the concepts. Prerequisite: AE 551 or ME 682 or consent of instructor. LEC.

AE 754. Missile Dynamics. 3 Hours.
Design of missile configurations. General equations of motion. Aerodynamics of missiles in subsonic through hypersonic flight regimes. Theory of missile trajectory. Linear and nonlinear theories of missile flight dynamics. Introduction to guidance and control. Launching problems and free flight dispersions. Prerequisite: AE 551. LEC.

AE 755. Robust and Nonlinear Control. 3 Hours.
The robustness is one of the most critical qualities of an appropriately designed feedback control system. In this course the ability of the closed-loop system to continue performing satisfactorily despite uncertainties in estimated state variables and/or large variations in the (open-loop) plant dynamics will be investigated. This course will lay down the mathematical and theoretical background needed for the analysis and design of robust feedback control systems. Modern controller design methods (e.g. H-inf control) will be used to design controller highly nonlinear and transient dynamics. Prerequisite: AE 550, AE 551, AE 750, MATH 590 or consent of instructor. LEC.

AE 756. Rule-Based Control Systems. 3 Hours.
Introduction to rule-based systems with an emphasis on a cognitive architecture. Realistic examples of using such systems will be covered in the context of unmanned aircraft control. A brief review of programming in LISP language, on which the cognitive architecture is based. Prerequisite: EECS 316 and EECS 318, AE 550, AE 551 or equivalent. LEC.

AE 757. Rule-Based UAV Control Lab. 1 Hour.
A guided experience on building an unmanned aircraft system. Uses and existing radio-controlled platform, and thus does not require an expertise in fabrication. Focuses on building the communication hardware and software that enables the use of a rule-based control system on a computer to control the aircraft remotely. Corequisite: AE 756. LEC.
AE 758. Introduction to Robotics. 3 Hours.
An introduction to robotics covering spatial descriptions and transformations, manipulator kinematics, Jacobians, and dynamics and control of manipulators. The successful completion of this course will prepare students for advanced studies in robotics. Prerequisite: CE 301 or equivalent, AE 551 or equivalent, and MATH 290 or equivalent; or by consent of instructor. LEC.

AE 760. Spacecraft Systems. 3 Hours.
Fundamentals of spacecraft systems and subsystems. Spacecraft systems engineering, space environment; basic astrodynamics; and the following spacecraft subsystems: attitude determination and control; electrical power; thermal; propulsion; structures and mechanisms; command, telemetry, and data handling; and communications. Same as AE 560 with the addition of a research paper. Not available for students who have taken AE 560. Prerequisite: AE 507, EECS 318, MATH 124, and ME 312 or equivalents. LEC.

AE 765. Orbital Mechanics. 3 Hours.
Motion of space vehicles under the influence of gravitational forces. Two body trajectories, orbit determination, orbit transfer, universal variables, mission planning using patched conics. Transfer orbits. Prerequisite: MATH 220, MATH 290, and CE 301 or equivalent.

AE 766. Spacecraft Attitude Dynamics and Control. 3 Hours.
Dynamics of rigid spacecraft, attitude control devices including momentum exchange, mass movement, gravity gradient and reactor rockets. Design of feedback control systems for linear and bang-bang control devices. Prerequisite: AE 551 or permission of instructor. LEC.

AE 767. Spacecraft Environments. 3 Hours.
Fundamentals of spacecraft environments. Description and analysis of the natural environment in which spacecraft operate post-launch. Includes optical, electromagnetic, corpuscular radiation, plasma and dust from low Earth orbit, through outer heliosphere. Prerequisite: PHSX 212 required, PHSX 313 or PHSX 351 recommended. LEC.

AE 768. Orbit Determination. 3 Hours.
Develops the theory of batch and sequential (Kalman filter) estimation theory related to orbit estimation, including a review of necessary concepts of probability and statistics. Course work includes a term project that allows students to apply classroom theory to an actual satellite orbit determination problem. Prerequisite: AE 360. Corequisite: AE 560 or AE 760. LEC.

AE 771. Rocket Propulsion. 3 Hours.
Basic elements of rocket propulsion: systems, propellants, and performance. Prerequisite: AE 545 or equivalent. LEC.

AE 772. Fluid Mechanics of Turbomachinery. 3 Hours.

AE 781. Introduction to Adaptive Aerostructures. 3 Hours.
This course covers the basic material properties and modeling techniques for structures that are capable of changing some physical property in response to a command signal. The course will be useful for students from nearly every branch of engineering and includes a fabrication and testing practicum introducing basic post processing and integration techniques used with piezoelectric, shape memory alloy and magnetorheological materials. The course concludes with an overview of applications and examples of adaptive products. Prerequisite: ME 311 or equivalent. LEC.

AE 790. Special Problems in Aerospace Engineering for Masters Students. 1-5 Hours.
Directed studies of advanced problems in aerospace engineering. Open only to graduate students with departmental approval. RSH.

AE 803. Aeroelasticity. 3 Hours.
Introduction to self-excited vibrations, wing flutter, panel flutter, unsteady aerodynamics, launch vehicle structural vibrations. Prerequisite: AE 508, AE 545, AE 551, and AE 704. LEC.

AE 821. Advanced Aircraft Design I. 3 Hours.
Aerodynamic design optimization. Aircraft cost prediction methods: development, manufacturing, and operating. Minimization of operation costs and implications to configuration design. Design to minimize life-cycle costs. Design decision making on the basis of cost. LEC.

AE 822. Advanced Aircraft Design II. 3 Hours.
Design of flight control systems, fuel systems, hydraulic systems, and electrical systems. Weapon system integration problems, design for low radar cross sections. The kinematics of landing gear retraction systems. LEC.

AE 830. Aerospace Graduate Internship. 1-12 Hours.
One credit hour per month of approved aerospace engineering internship satisfying one of the requirements for the MS or PhD program. Graded on a satisfactory/unsatisfactory basis. FLD.

AE 840. Aerodynamics of Viscous Fluids. 3 Hours.
Concepts of boundary layer equations of viscous fluids. Various transformations for compressible boundary-layer equations. Approximate and exact finite-difference solutions, including effects of suction and blowing. Transitions. Concept of turbulent flow and solutions of turbulent boundary layer equations. Applications in aeronautics. Prerequisite: AE 545. LEC.

AE 845. Transonic Aerodynamics. 3 Hours.
Applications of potential flow, Euler and Navier-Stokes solvers to transonic and vortex-flow aerodynamics. Concept of rotated finite difference scheme. Convergence acceleration and multigrid techniques. Methods of flux vector splitting, upwind differencing, and approximate factorization. Turbulence modeling. Prerequisite: AE 746. LEC.

AE 846. Advanced Computational Fluid Dynamics and Heat Transfer. 3 Hours.
Present recent advances in computational fluid dynamics and heat transfer with a focus on numerical algorithms designed for unstructured grids, including grid generation, convergence acceleration techniques, high-order algorithms and parallel computing on CPU and GPU clusters. It is expected that the students will understand the basics of the finite volume method for unstructured grids, and be able to program a 2D Euler solver for arbitrary grids after taking this class. Prerequisite: AE 746. This class is not open to undergraduate students. LEC.

AE 850. Advanced Control Seminar. 2 Hours.
Extension of AE 750 covering digital optimal control, optimal estimation, and advanced control topics. Combination of lecture, seminar, and project format. Review of current journal articles. Development of analysis and design computer programs. Prerequisite: AE 750 and consent of instructor. LEC.

AE 890. ME Internship. 1-6 Hours.
One credit per month of engineering internship. Prerequisite: Admission to Master of Engineering in Aerospace Engineering program and approved internship. FLD.
Bioengineering Courses

**BIOE 800. Bioengineering Colloquium. 0.5 Hours.**
A colloquium series featuring speakers from industry, government, other universities, research centers and research organizations of the university campus presenting talks on various topics related to bioengineering. LEC.

**BIOE 801. Responsible Conduct of Research in Engineering. 1 Hour.**
Lectures and discussion on ethical issues in the conduct of a scientific career, with emphasis on practical topics of special importance in bioengineering. Topics include the nature of ethics, the roles of the scientist as a reviewer, entrepreneur, employer and teacher, research ethics in the laboratory, social responsibility and research ethics regulation. (Same as ME 801.) Prerequisite: Permission of instructor. LEC.

**BIOE 802. Bioengineering Internship. 1-6 Hours.**
An approved bioengineering industrial or clinical internship. The student is supervised by a preceptor at the internship site. Biweekly reports and a final report detailing work performed are filed with the course instructor. Prerequisite: Permission of instructor. FLD.

**BIOE 899. Independent Investigation. 1-6 Hours.**
An original and independent research or design investigation involving analytical, experimental and/or modeling methodology applied to solve a bioengineering problem as a part of the degree requirements for the Doctor of Philosophy. THE.

**BIOE 999. Independent Investigation. 1-12 Hours.**
An original and independent research or design investigation involving analytical, experimental and/or modeling methodology applied to solve a bioengineering problem as a part of the degree requirements for the Master of Science. THE.
C&PE 221. Chemical Engineering Thermodynamics. 3 Hours.
Fundamentals and applications of the First and Second Laws of Thermodynamics with strong emphasis on material, energy and entropy balances to solve engineering problems involving pure components. Topics include: Cycles (Rankine, Brayton, refrigeration, etc.), the calculus of thermodynamics, equations of state for realistic thermodynamic properties, departure functions, equilibrium and stability criteria, fugacity, and single component phase equilibrium (vaporization, melting, sublimation). Prerequisite: MATH 122 or MATH 142; CPE 121; and CPE 211. Prerequisite or Corequisite: PHSX 211 or PHSX 213; or permission of instructor. LEC.

C&PE 327. Reservoir Engineering. 4 Hours.
Properties of porous rocks, reservoir fluids, and fluid saturated rocks. Introduction to multiphase flow in porous media including concepts of wettability, capillary pressure and relative permeability. Prerequisite: CHEM 175. LEC.

C&PE 511. Momentum Transfer. 3 Hours.
Solutions of continuity, momentum, and energy equations applied to fluids in confined flow or flowing past submerged objects. Laminar and turbulent flows of both incompressible and compressible fluids are considered. Engineering applications include pressure drop and network analysis of piping lines, flow measurements, fluid moving equipment including the performance of pumps. Prerequisite: (CPE 221 or ME 312); CPE 121 (or equivalent), and a course in differential equations (MATH 220 or MATH 221 or MATH 320 or MATH 321). LEC.

C&PE 512. Chemical Engineering Thermodynamics II. 3 Hours.
Further application of the laws of thermodynamics to multi-component mixtures and in multi-phase equilibria with focus on vapor-liquid, liquid-liquid, and solid-liquid equilibria. Mixture Fugacity expressions are developed using equations of state with mixing rules or Excess Gibbs Free Energy/activity coefficient models for data correlation or prediction. Chemical equilibrium of reactions is also discussed. Prerequisite: CPE 121; CPE 211; CPE 221; and CHEM 330 or CHEM 380 or CHEM 624; or permission of instructor. LEC.

C&PE 521. Heat Transfer. 3 Hours.
An applied study of the various (conductive, convective, and radiative) heat transfer mechanisms in solid and fluid systems both transient and steady-state. Engineering applications include: conduction in solids and fluids, free and forced convection in fluids, radiation, boiling and condensing fluids, and design of heat exchangers. Prerequisite: CPE 121, Thermodynamics (CPE 221 or ME 312); CPE 511 (or equivalent); AND a course in differential equations (MATH 220 or MATH 221 or MATH 320 or MATH 321). LEC.

C&PE 522. Economic Appraisal of Chemical and Petroleum Projects. 2 Hours.
Consideration of the economic factors important in the development of the chemical or petroleum enterprise. Applications of economic evaluation methods to engineering project development. Consideration of risk and uncertainty in project development. Prerequisite: MATH 122, or MATH 142; PHSX 211 or PHSX 213; and CPE 121 or consent of instructor. LEC.

C&PE 523. Mass Transfer. 4 Hours.
Includes one credit hour of calculations laboratory. Treatment of mass transfer phenomena with application to analysis and design of unit operations equipment such as distillation, extraction, absorption, and adsorption. Prerequisite: CPE 211, CPE 511, and CPE 512. Corequisite: CPE 521. LEC.

C&PE 524. Chemical Engineering Kinetics and Reactor Design. 3 Hours.
Development and solution of the material and energy balance equations for continuous and batch reactors. These balance equations are applied in (a) the determination of intrinsic kinetics, (b) the design of reactors and (c) the analysis of reactor behavior. Both homogeneous and heterogeneous reaction systems are considered. Prerequisite: CPE 511, CPE 512, and a course in differential equations. Corequisite: CPE 521. LEC.

C&PE 527. Reservoir Engineering II. 4 Hours.
Lectures on single phase flow and pressure distribution in reservoirs. Calculations in drawdown, buildup, multiple rate, fractured systems, gas and injection well testing. Material balance calculations for gas, gas-condensate, undersaturated, and saturated reservoirs. Prerequisite: CPE 517 or consent of instructor, a course in differential equations. LEC.

C&PE 528. Well Logging. 3 Hours.
Analysis of well logs to determine properties of reservoir rocks, fluid saturations and lithology, and production logging. Prerequisite: CPE 517 or consent of instructor. LEC.

C&PE 601. Undergraduate Topics in Chemical and Petroleum Engineering. 1-4 Hours.
Undergraduate study in various branches of Chemical and Petroleum Engineering on topics that may vary from year to year. Prerequisite: Varies. LEC.

C&PE 612. Environmental Assessment of Chemical Processes. 3 Hours.
A discussion and project-based survey of environmental issues in chemical engineering, including environmentally conscious design, environmental fate and transport, green chemistry, and life cycle analysis. Focus will be on the design, implementation and management of comprehensive environmental assessments for existing and new industrial facilities with an emphasis on the technical and economic impacts of catalytic systems on pollution control strategies. LEC.

C&PE 613. Chemical Engineering Design I. 4 Hours. AE61.
Synthesis, design and economic analysis of petrochemical and chemical plants. Applications in computer aided engineering applied to these topics. Prerequisite: CPE 511, CPE 512, CPE 521, CPE 522, CPE 523, and CPE 524. Corequisite: CPE 615. LEC.

C&PE 614. Reaction Engineering for Environmentally Benign Processes. 3 Hours.
Principles of reaction engineering and green chemistry applied to processes of the future. With a case-based introduction to the design and optimization of catalytic processes and reaction systems, focus will be on key reaction engineering concepts, including catalysis, mechanisms, reaction kinetics, heterogeneous reactions, reactor types and economic evaluation. Students will develop a multidisciplinary understanding of chemical, biological and molecular concepts and of the multiscale character of developing and designing processes from the micro level to the macro level. Prerequisite: Senior standing in engineering to the physical/biological sciences. LEC.

C&PE 615. Introduction to Process Dynamics and Control. 3 Hours.
The behavior of chemical processing equipment in the presence of disturbances in operating conditions is analyzed. Control systems are designed based on the criteria of system stability and optional system performance. Prerequisite: CPE 511, CPE 512, CPE 521, CPE 523 and CPE 524. LEC.

C&PE 616. Chemical Engineering Laboratory I. 3 Hours.
Laboratory study of chemical engineering concepts of thermodynamics, fluid flow, heat transfer, mass transfer, and reaction kinetics. Includes
emphasis on technical communication skills. Prerequisite: CPE 511, CPE 512, CPE 521, CPE 523, CPE 524, and ENGL 102. LAB.

C&PE 617. Drilling and Well Completion. 3 Hours.
Design and analysis of rotary drilling and well completion systems; casing design, cementing, and perforating. Safety and ethical considerations in drilling and fluid disposal operations. Prerequisite: CPE 517 and CPE 511 or ME 510 and CPE 217 or consent of instructor. LAB.

C&PE 618. Secondary Recovery. 4 Hours.
Study of waterflooding based upon linear displacement theory. Extension to two and three dimensions through correlations and stream tube models. Design of waterfloods including preparation of a reservoir description for waterflood evaluation. Prerequisite: CPE 527. LEC.

C&PE 619. Petroleum Engineering Laboratory I. 3 Hours.
Laboratory study of methods to determine rock and fluid properties related to petroleum engineering including phase behavior, viscosity, permeability, porosity, capillary pressure, oil recovery, water/oil displacement, fluid flow, and heat transfer coefficients. Analysis of experimental uncertainty. Oral and written presentations are required. Prerequisite: CPE 511 or ME 510; and CPE 517 or consent of instructor. LAB.

C&PE 620. Enhanced Oil Recovery. 3 Hours.
Enhanced Oil Recovery processes such as primary, secondary, and tertiary oil recovery techniques will be presented. This includes miscible/immiscible displacement, chemical processes such as polymerflood, surfactant and micellar flood, and thermal recovery techniques such as steam flooding, in-situ combustion, and other EOR techniques. Prerequisite: CPE 627 and CPE 618 or consent of instructor. LEC.

A continuation of CPE 613 with emphasis on individual student process design development and analysis. Prerequisite: CPE 613, CPE 615. LEC.

C&PE 624. Plant and Environmental Safety. 3 Hours.
An introductory course designed to acquaint students to topics including chemical plant and environmental accident analysis; review of hazard evaluation procedures including fault tree, hazard and operability studies and human error analysis; safety equipment design; EPA and TOSCA criteria and ethical considerations. Prerequisite: CPE 613 and CPE 615. LEC.

C&PE 626. Chemical Engineering Laboratory II. 3 Hours.
Laboratory study of chemical engineering concepts of thermodynamics, fluid flow, heat transfer, mass transfer, reaction kinetics, and process control. Includes emphasis on technical communication skills. Prerequisite: ENGL 102, CPE 511, CPE 512, CPE 521, CPE 523, CPE 524, CPE 615. LAB.

C&PE 627. Petroleum Production. 3 Hours.
Design and analysis of natural production and artificial lift systems, including beam pumping, gas lift, and submersible pumps. Vertical and horizontal two phase flow, compression, metering, acidizing, fracturing, and pipe line flow systems. Treatment of ethics considerations in production contracts and leasing arrangements. Prerequisite: CPE 511 or ME 510; and CPE 517. LEC.

C&PE 628. Petroleum Engineering Design. 3 Hours. AE61.
Design problems related to petroleum reservoir development such as selection of optimum well spacing for a specified reservoir, evaluation of a producing property or installation of a waterflood. Designs consider economic, uncertainty analysis, as well as conservation, environmental, and professional ethics factors. Prerequisite: CPE 522, CPE 527, and CPE 618. LEC.

C&PE 651. Undergraduate Problems. 1-6 Hours.
Investigation of a particular problem in the field of chemical or petroleum engineering. IND.

C&PE 654. Biocatalysis. 3 Hours.
Introductory and advanced topics in biocatalysis with focus on enzymatic reactions. Enzymology will provide the fundamental basis for discussion of kinetics and bio-process development. Advanced topics include: enzymes in non-aqueous solvents, immobilization techniques, whole-cell transformations, bio-reactors. LEC.

C&PE 655. Introduction to Semiconductor Processing. 3 Hours.
An overview of various processes to fabricate semiconductor devices and integrated circuits. Topics covered include crystal growth, oxidation, solid-state diffusion, ion implantation, photolithography, chemical vapor deposition, epitaxial growth, metalization, and plasma etching of thin films. (Same as EECS 670.) Prerequisite: Senior standing in CPE or EE or consent of instructor. LEC.

C&PE 656. Introduction to Biomedical Engineering. 3 Hours.
An interdisciplinary introduction to the field of biomedical engineering. This course covers a breadth of topics including biotransport, biomechanics, biomaterials, tissue engineering, drug delivery, biomedical imaging, computational biology, and biotechnology. Students are exposed to these broad topics, and go further in depth in a topic of their choice with the semester project. Prerequisite: Junior or Senior-level standing in Engineering or consent of instructor. LEC.

C&PE 657. Polymer Science and Technology. 3 Hours.
Polymer Science and Technology is a 3-hour introductory course to polymer chemistry, science, technology, and processing. The course targets junior, senior, and graduate chemical engineers and chemistry majors and is intended to provide a background which would allow young professionals to understand polymer chemistry and processes to which they would be exposed in industry and literature. The course would also assist them in selecting polymers and polymer specifications. Prerequisite: Senior or graduate student standing in chemical or petroleum engineering, or consent of instructor. LEC.

C&PE 661. Undergraduate Honors Research. 3 Hours.
This course involves the investigation of a particular problem in the field of chemical or petroleum engineering. CPE 661 should be taken, rather than CPE 651, for students seeking Departmental Honors in Chemical Petroleum Engineering. CPE 661 may also be used by students in the Honors Program to help satisfy the course requirement of this program. The design or research topic is identified jointly by the student and faculty research supervisor. Prerequisite: Completion of CPE 121, CPE 211, CPE 511, CPE 512, CPE 522, overall GPA >3.5, and engineering GPA >3.5, or permission of the department. IND.

C&PE 678. Applied Optimization Methods. 3 Hours.
Study of methods for solving optimization problems encountered in engineering and the natural sciences, with specific applications illustrating analytical and numerical techniques. Topics covered include methods, penalty functions, linear programming, nonlinear and integer programming, stochastic optimization approaches, and treatment of constrained problems. A semester project is required. Prerequisite: Senior standing. LEC.

C&PE 701. Methods of Chemical and Petroleum Calculations. 3 Hours.
The utilization of advanced mathematical methods and computing techniques in the solution of problems in these fields. LEC.

C&PE 710. Subsurface Methods in Formation Evaluation. 3 Hours.
Study of subsurface methods and their applications to exploration, evaluation, and production of hydrocarbon reservoirs. Emphasis is on
fundamentals of quantitative well log interpretations and the use of well
log data in solving geologic and reservoir engineering problems, e.g.,
porosity, hydrocarbon saturation, permeable bed thickness, permeability,
correlation, structural mapping, and stratigraphic and paleoenvironmental
studies. Laboratory. Prerequisite: GEOL 535 or CPE 517 or consent of
instructor. LEC.
C&PE 712. Environmental Assessment of Chemical Processes. 3
Hours.
A discussion and project-based survey of environmental issues in
chemical engineering, including environmental conscious design,
environmental fate and transport, green chemistry, and life cycle
analysis. Focus will be on the design, implementation and management
of comprehensive environmental assessments for existing and
new industrial facilities with in-depth analysis of the technical and
economic impacts of catalytic systems on pollution control strategies. A
comprehensive research paper is required as a final project. LEC.
C&PE 714. Reaction Engineering for Environmentally Benign
Processes. 3 Hours.
Principles of reaction engineering and green chemistry applied to
processes of the future. With a case-based introduction to the design and
optimization of catalytic processes and reaction systems, focus will be
on key reaction engineering concepts, including catalysis, mechanisms,
reaction kinetics, heterogeneous reactions, reactor types and economic
evaluation. Students will develop a multidisciplinary understanding of
chemical, biological and molecular concepts, and will develop and design
processes from the micro level to the macro level. A final research paper
is required. LEC.
C&PE 715. Topics in Chemical and Petroleum Engineering: ______
1-4 Hours.
Study in various branches of Chemical and Petroleum Engineering on
topics that may vary from year to year. LEC.
C&PE 721. Chemical Engineering Thermodynamics. 3 Hours.
Chemical engineering applications of advanced thermodynamics and
physical chemistry. Prerequisite: CPE 512. LEC.
C&PE 722. Kinetics and Catalysis. 3 Hours.
Modeling and analysis of chemical reactors with emphasis on
heterogenous catalytic reaction systems. Prerequisite: CPE 524. LEC.
C&PE 725. Molecular Cell Biology. 3 Hours.
Fundamentals and advanced concepts in cell biology and the molecular
interactions responsible for cell functions, homeostasis and disease will
be presented. Current analytical methods for examining cells and their
molecular components will be discussed. Emphasis will be placed on the
chemical and physical properties of individual proteins, nucleic acids and
lipids and their assembly into cellular and subcellular structures. (Same as
PHCH 725) Prerequisite: Graduate standing or consent of instructor. LEC.
C&PE 731. Convective Heat and Momentum Transfer. 3 Hours.
The formulation and solution of steady- and unsteady-state convective
heat and momentum transfer problems. Applications of boundary layer
equations to free and forced convection with study of similarity and
integral methods of solution for laminar and turbulent flow; development
of analogies; transport properties from kinetic theory of gases viewpoint;
introduction to numerical methods. Prerequisite: ME 610/CPE 511 and
ME 612/CPE 521 or equivalent. A concurrent course in partial differential
equations is helpful. LEC.
C&PE 732. Advanced Transport Phenomena II. 3 Hours.
The formulation and solution of steady- and unsteady-state mass transfer
problems (including those complicated by momentum and heat transfer).
This course is the sequel to CPE 731 and relies upon much of the
material treated there. The mathematical approach predominates and the
methods available for determining suitable mass transfer coefficients are
covered. LEC.
C&PE 751. Basic Rheology. 3 Hours.
Basic rheology including classification of classical bodies based on their
stress and strain tensors, rheological equation of state, material functions,
generalized Newtonian and general linear viscoelastic fluids, mechanical
models such as those of Jeffrey’s and Maxwell. Prerequisite: CPE 511 or
an equivalent course in fluid mechanics. LEC.
C&PE 752. Tissue Engineering. 3 Hours.
An introduction to the rapidly growing and continuously evolving field of
tissue engineering. Tissue engineering applies principles and methods
of engineering and life sciences toward understanding and development of
biological substitutes to restore, maintain and improve tissues
functions. In this course, students study the basic science, engineering
and medicine required for tissue engineering, learn state-of-the-art
technology and practice, and create a literature-based proposal for a
tissue engineered medical product. Prerequisite: Senior or graduate
standing in engineering; or consent of instructor. LEC.
C&PE 753. Introduction to Electrochemical Engineering. 3 Hours.
Basic principles of electrochemical engineering as they are applied
to energy conversion and storage devices, industrial electrolytic
processes and corrosion. Areas covered range from electrochemical
thermodynamics, ionic phase equilibria, electro-kinetics and ionic
mass transport to mathematical modeling of electrochemical systems.
Prerequisite: Graduate standing; CPE 511, CPE 512, CPE 524 or
equivalent; knowledge of a programming language. LEC.
C&PE 754. Biocatalysis. 3 Hours.
Introductory and advanced topics in biocatalysis with focus on enzymatic
reactions. Enzymology will provide the fundamental basis for discussion of
kinetics and bio-process development. Advanced topics include:
enzymes in non-aqueous solvents, immobilization techniques, whole-cell
transformations, bio-reactors. Knowledge of the theoretical basis for these
techniques and processes will be demonstrated within a class project.
LEC.
C&PE 755. Introduction to Semiconductor Processing. 3 Hours.
An overview of various processes to fabricate semiconductor devices
and integrated circuits. Topics covered include crystal growth, oxidation,
solid-state diffusion, ion implantation, photolithography, chemical vapor
deposition, epitaxial growth, metallization, and plasma etching of thin
films. A term paper on an approved topic of fabrication referencing current
peer reviewed literature is required. LEC.
C&PE 756. Introduction to Biomedical Engineering. 3 Hours.
The graduate elective form of CPE 656. Additional assignments
commensurate with the graduate-level course designation are required
for this section. Prerequisite: Graduate-level standing in Engineering, or
consent of instructor. LEC.
C&PE 765. Corrosion Engineering. 3 Hours.
Electrochemical basis of corrosion. Types of corrosion and corrosive
atmospheres. Corrosion control measures and industrial problems.
Prerequisite: ME 306 or CHEM 188. LEC.
C&PE 771. Advanced Reservoir Engineering. 2-3 Hours.
Physical principles of petroleum production; gas drive performance; partial
water drive performance; pressure maintenance through gas and water
injection. Prerequisite: CPE 527. LEC.
C&PE 778. Applied Optimization Methods. 3 Hours.
Study of methods for solving optimization problems encountered in
engineering and the natural sciences, with specific applications illustrating
analytical and numerical techniques. Topics covered include gradient
methods, penalty functions, linear programming, nonlinear and integer programming, stochastic optimization approaches, and treatment of constrained problems. Homework problems involving theoretical concepts and a theoretically-based semester project are required. LEC.

C&PE 790. Introduction to Flow in Porous Media. 3 Hours.
Generalized Darcy’s law, vector equations, solutions of partial differential equations with various boundary conditions as applied to the flow of fluids in porous media. Prerequisite: CPE 527. LEC.

C&PE 795. Enhanced Petroleum Recovery. 3 Hours.
A study of improved oil recovery processes such as miscible displacement, microemulsion displacement, and thermal methods. Prerequisite: CPE 618 or permission of instructor. LEC.

C&PE 798. Phase Equilibrium. 3 Hours.
A study of phase behavior and equilibrium from a molecular perspective. Focus will be on vapor-liquid, liquid-liquid and solid-liquid equilibrium with advanced topics in compressed and supercritical fluids, petroleum applications, ionic solutions and others. LEC.

C&PE 800. Seminar. 0.5-1 Hours.
Every fall, five to six seminar sessions will be devoted to providing incoming students information on available thesis/dissertation research projects, library resources, computing environment and other pertinent information. For the remainder of the year, the seminar will involve presentation of current research and other topics of interest to chemical and petroleum engineers. These presentations will be made by invited guests, faculty, and advanced graduate students. Graded on a satisfactory/unsatisfactory basis. LEC.

C&PE 801. Introduction to Research. 1 Hour.
One hour per week in which the staff introduces entering graduate students to research. Topics include discussion of research methods, methods of effectively tapping library resources, preparation of literature surveys, and presentation of results. Faculty members of the department will make presentations of their current research interests. Offered fall only. Corequisite: CPE 800. LEC.

C&PE 802. CEBC Colloquium. 0.5-1 Hours.
A forum in which graduate and postdoctoral students, and faculty present the results of CEBC research and literature surveys that support the mission of CEBC. LEC.

C&PE 803. Research. 1-6 Hours.
For M.S. candidates. THE.

C&PE 804. Petroleum Management Seminar. 1 Hour.
Structure, operation, and problems of the petroleum industry from a management viewpoint. Presentations will be made by faculty, advanced students, and invited guests. Prerequisite: Permission of instructor. LEC.

C&PE 825. Graduate Problems in Chemical and Petroleum Engineering. 1-5 Hours.
Advanced laboratory problems, special research problems, or library reading problems. Three hours maximum acceptable for master’s degree. RSH.

C&PE 902. Preparation for the Ph.D. Comprehensive Examination. 3 Hours.
Preparation of a research proposal in an area assigned by the student’s advisory committee. The grade received on the Ph.D. comprehensive examination will apply to this credit. RSH.

C&PE 904. Research. 1-12 Hours.
For Ph.D. candidates. THE.

C&PE 910. Industrial Development of Catalytic Processes. 3 Hours.
Students adopt an interdisciplinary team approach to developing strategies for the design and optimization of catalytic processes. Examples of case studies will be derived from industry or from research testbeds. Students collaborate in multiscale process development involving catalyst and reactor design, reaction system design, modeling and optimization, economic analysis and environmental assessment needed for the development of a catalytic process at either the pilot or production scale. LEC.

C&PE 911. Industrial Practicum. 1-3 Hours.
Graduate students engage in an industrial research internship experience with collaborators in industry. FLD.

C&PE 912. Teaching College Level Engineering and Science Practicum. 1 Hour.
Future university instructors learn how to critically examine course content and teaching strategies, and prepare courses that will address the learning needs of the diverse student populations of the future. Students participate in weekly in-class workshops and symposia, as well as a teaching practicum experience during this course. LEC.

C&PE 919. Advanced Topics in Process Modeling Simulation or Control: ____. 1-4 Hours.
Advanced study in process modeling, simulation or control on topics which may vary from year to year. LEC.

C&PE 929. Advanced Topics in Chemical and Petroleum Engineering: ____. 1-4 Hours.
Advanced study in various branches of chemical and petroleum engineering on topics which may vary from year to year. LEC.

C&PE 933. Heat and Mass Transport in Porous Media. 3 Hours.
A study of industrial problems involving heat and mass transport in porous media such as packed columns, catalyst beds, chemical reactors, and petroleum reservoirs. Mechanisms of interphase and intraphase transport, diffusion, and dispersion. Included are methods of solution of the describing differential equations. LEC.

C&PE 934. Heat Transport with Phase Change. 3 Hours.
A fundamental treatment of heat transfer occurring during boiling and condensation. Included are nucleate and film boiling, film and dropwise condensation, and two-phase flow. LEC.

C&PE 936. Industrial Separation Processes. 3 Hours.
Determination and treatment of vapor-liquid separations, including methods for obtaining and treating equilibrium data, procedures for calculating multi-component separations by distillation, absorption, extraction, and adsorption. LEC.

C&PE 937. Applied Rheology. 3 Hours.
Industrial applications of fluid mechanics including compressible flow, flow of non-Newtonian fluids, flow of drag reducing systems all to be considered in laminar and turbulent flow regimes, and within conduits, and porous media. LEC.

C&PE 939. Advanced Topics in the Transport Phenomena: ____. 1-4 Hours.
Advanced study in various branches of transport phenomena on topics which may vary from year to year. LEC.

C&PE 940. Data Analysis in Engineering and Natural Sciences. 3 Hours.
Statistical inference and data analysis, emphasizing interpretation of observations from areas of engineering and natural sciences where controlled experimentation is not possible. The basics of elementary statistics and matrix algebra are covered, followed by topics in time, series analysis, map analysis, including automatic contouring, and
multivariate procedures such as principal components, discrimination and factor analysis. A suite of computer programs is provided. Students are encouraged to use data from their own graduate research in class projects. LEC.

**Electrical Engr Computer Sci Courses**

**EECS 101. New Student Seminar. 1 Hour.**
A seminar intended to help connect freshmen and transfer EECS students to the EECS department, their chosen profession, and each other. Topics include overviews of the various disciplines, curricula and advising, ethics and professionalism, student organizations and extracurricular activities, senior projects, and career planning. Graded on a satisfactory/unsatisfactory basis. LEC.

**EECS 128. Foundations of Information Technology: _____. 3 Hours. NM.**
Introduction to information technology and the computer as a general tool processing information. Topics include internet tools (including browsers, search engines and web page construction), networking, computer organization, algorithms, programming languages, data representation and manipulation, binary numbers and Boolean logic, system and application software (including word processors, spreadsheets and presentation software), operating systems, databases, artificial intelligence, social and ethical issues in computing, information security, and mobile computing. Prerequisite: MATH 101 or MATH 104 or eligibility to enroll in MATH 115 or MATH 121. LEC.

**EECS 137. Visual Basic for Engineers. 3 Hours.**
Introduction of computer-based problem solving techniques for engineering practice with emphasis on good programming practices and the integration of appropriate computational and related tools. Solutions are computed using Visual Basic, specifically VBA within Excel. Elementary numerical and statistical methods are applied to the solution of sets of linear and nonlinear algebraic equations, linear regression, and root finding. Microsoft Office is used with the computational tools to provide integrated report generation capability. Two lectures and a weekly laboratory instruction. Prerequisite: MATH 104. LEC.

**EECS 138. Introduction to Computing: _____. 3 Hours. NM.**
Algorithm development, basic computer organization, syntax and semantics of a high-level programming language, including testing and debugging. Concept of structure in data and programs, arrays, top-down design, subroutines and library programs. Abstract data types. System concepts such as compilation and files. Nature and scope of computer science. Prerequisite: MATH 101 or MATH 104, or meeting the requirements to enroll in MATH 115 or MATH 121. LEC.

**EECS 140. Introduction to Digital Logic Design. 4 Hours.**
An introductory course in digital logic circuits covering number representation, digital codes, Boolean Algebra, combinatorial logic design, sequential logic design, and programmable logic devices. Corequisite: MATH 104. LEC.

**EECS 141. Introduction to Digital Logic: Honors. 4 Hours.**
An introductory course in digital logic circuits covering number representation, digital codes, Boolean algebra, combinatorial logic design, sequential logic design, and programmable logic devices. This course is intended for highly motivated students and includes honors-level assignments. Co-requisite: MATH 121, plus either acceptance into the KU Honors Program or consent of instructor. LEC.

**EECS 168. Programming I. 4 Hours.**
Problem solving using a high-level programming language and object-oriented software design. Fundamental stages of software development are discussed: problem specification, program design, implementation, testing, and documentation. Introduction to programming using an object-oriented language: using classes, defining classes, and extending classes. Introduction to algorithms and data structures useful for problem solving: arrays, lists, files, searching, and sorting. Students will be responsible for designing, implementing, testing, and documenting independent programming projects. Professional ethics are defined and discussed in particular with respect to computer rights and responsibilities. Corequisite: MATH 104. LEC.

**EECS 169. Programming I: Honors. 4 Hours.**
Problem solving using a high-level programming language and object-oriented software design. Fundamental stages of software development are discussed: problem specification, program design, implementation, testing, and documentation. Introduction to programming using an object-oriented language: using classes, defining classes, extending classes. Introduction to algorithms and data structures useful for problem solving: arrays, lists, files, searching, and sorting. Students will be responsible for designing, implementing, testing, and documenting independent programming projects. Professional ethics are defined and discussed in particular with respect to computer rights and responsibilities. This course is intended for highly motivated students and includes honors-level assignments. Co-requisite: MATH 121, plus either acceptance into the KU Honors Program or consent of instructor. LEC.

**EECS 210. Discrete Structures. 4 Hours.**
Mathematical foundations including logic, sets and functions, general proof techniques, mathematical induction, sequences and summations, number theory, basic and advanced counting techniques, solution of recurrence relations, equivalence relations, partial order relations, lattices, graphs and trees, algorithmic complexity, and algorithm design and analysis. Throughout there will be an emphasis on the development of general problem solving skills including algorithmic specification of solutions and the use of discrete structures in a variety of applications. Prerequisite: EECS 168 or 169 (or equivalent) and MATH 122. LEC.

**EECS 211. Circuits I. 3 Hours.**
Analysis of linear electrical circuits: Kirchoff’s laws; source, resistor, capacitor and inductor models; nodal and mesh analysis; network theorems; transient analysis; Laplace transform analysis; steady-state sinusoidal analysis; computer-aided analysis. Prerequisite: Co-requisite: Math 220 and MATH 290. LEC.

**EECS 212. Circuits II. 4 Hours.**
Continued study of electrical circuits: Steady-state power analysis, three-phase circuits, transformers, frequency response, and two-port network analysis. Prerequisite: EECS 211. LEC.

**EECS 220. Electromagnetics I. 4 Hours.**
Vector analysis. Electrostatic and magnetostatic fields in a vacuum and material media. Electromagnetic fields and Maxwell’s equations for time-varying sources. The relationship between field and circuit theory. Simple applications of Maxwell’s equations. Prerequisite: MATH 220, MATH 290, PHSX 211, and EECS 211. LEC.

**EECS 268. Programming II. 4 Hours.**
This course continues developing problem solving techniques by focusing on the imperative and object-oriented styles using Abstract Data Types. Basic data structures such as queues, stacks, trees, and graphs will be covered. Recursion. Basic notions of algorithmic efficiency and performance analysis in the context of sorting algorithms. Basic Object-Oriented techniques. An associated laboratory will develop projects reinforcing the lecture material. Three class periods and one laboratory period per week. Prerequisite: EECS 168 or EECS 169. LEC.
EECS 312. Electronic Circuits I. 3 Hours.
Introduction to diodes, BJTs and MOSFETs, and their use in electronic circuits, especially digital circuits. Prerequisite: Upper-level eligibility. Corequisite: EECS 212. LEC.

EECS 315. Electric Circuits and Machines. 3 Hours.
Introduction to DC and AC electrical circuit analysis techniques, AC power calculations, transformers, three-phase systems, magnetic circuits, and DC and AC machines with a focus on applications. Not open to electrical or computer engineering majors. Prerequisite: A course in differential equations and eight hours of physics. LEC.

EECS 316. Circuits, Electronics and Instrumentation. 3 Hours.
Introduction to DC and AC electrical circuit analysis, operational amplifiers, semiconductors, digital circuits and systems, and electronic instrumentation and measurements with a focus on applications. Not open to electrical or computer engineering majors. Students may not receive credit for both EECS 316 and EECS 317. Prerequisite: A course in differential equations and eight hours of physics. LEC.

EECS 317. Electronics and Instrumentation. 2 Hours.
Introduction to operational amplifiers, semiconductors, digital circuits and systems, and electronic instrumentation and measurements with a focus on applications. Not open to electrical or computer engineering majors. Students may not receive credit for both EECS 316 and EECS 317. Prerequisite: EECS 315. LEC.

EECS 318. Circuits and Electronics Lab. 1 Hour.
Laboratory exercises intended to complement EECS 315, EECS 316 and EECS 317. Experiments include DC circuits, analog electronics, and digital electronics. Not open to electrical or computer engineering majors. Co-requisite: EECS 316 or EECS 317. LAB.

EECS 360. Signal and System Analysis. 4 Hours.
Fourier signal analysis (series and transform); linear system analysis (continuous and discrete); Z-transforms; analog and digital filter analysis. Analysis and design of continuous and discrete time systems using MATLAB. Prerequisite: Upper level of EECS Eligibility. Corequisite: EECS 212. LEC.

EECS 368. Programming Language Paradigms. 3 Hours.
The course is a survey of programming languages: their attributes, uses, advantages, and disadvantages. Topics include scopes, parameter passing, storage management, control flow, exception handling, encapsulation and modularization mechanism, reusability through genericity and inheritance, and type systems. In particular, several different languages will be studied which exemplify different language philosophies (e.g., procedural, functional, object-oriented, logic, scripting). Prerequisite: EECS 268 and upper-level EECS eligibility. LEC.

EECS 388. Embedded Systems. 4 Hours.
Internal organization of microprocessor and microcontroller systems; programming in assembly language; input and output system; controlling external devices. The course will focus on one or two specific microprocessors and computer systems. Prerequisite: EECS 140 or EECS 141, EECS 168 or EECS 169, and upper-level EECS eligibility. LEC.

EECS 399. Projects. 1-5 Hours.
An electrical engineering, computer engineering, or computer science project pursued under the student’s initiative, culminating in a comprehensive report, with special emphasis on orderly preparation and effective composition. Prerequisite: Upper-level EECS eligibility and consent of instructor. IND.

EECS 412. Electronic Circuits II. 4 Hours.
Discrete and integrated amplifier analysis and design. Introduction to feedback amplifier analysis and design. Introduction to feedback amplifiers. Prerequisite: EECS 312 and upper-level EECS eligibility. LEC.

EECS 420. Electromagnetics II. 4 Hours.
This course applies electromagnetic analysis to high frequency devices and systems where wave propagation effects cannot be neglected. Topics covered include transmission lines, space waves, waveguides, radiation, and antennas. Laboratory experiments include transmission line, waveguide, and antenna measurements and characterizations. 3 hours lecture, 1 hour laboratory. Prerequisite: EECS 220 and upper-level EECS eligibility. LEC.

EECS 441. Power Systems Engineering II. 3 Hours.
Integrates system components into functional, safe, and reliable power distribution systems for commercial, industrial and institutional (CII) facilities. Service entrance design, distribution system layout and reliability, emergency and standby power system design, medium-voltage distribution systems, symmetrical fault analysis, and special equipment and occupancies. (Same as ARCE 641.) Prerequisite: ARCE 640 or EECS 212 or consent of instructor. LEC.

EECS 443. Digital Systems Design. 4 Hours.
The design of computer systems from hardware point of view. The implementation of functional and control units. Introduction to VHDL, and its use in modeling and designing digital systems. Prerequisite: EECS 388. LEC.

EECS 444. Control Systems. 3 Hours.
An introduction to the modeling, analysis, and design of linear control systems. Topics include mathematical models, feedback concepts, state-space methods, time response, system stability in the time and transform domains, design using PID control and series compensation, and digital controller implementation. Prerequisite: EECS 212 and EECS 360. LEC.

EECS 448. Software Engineering I. 4 Hours.
This course is an introduction to software engineering, and it covers the systematic development of software products. It outlines the scope of software engineering, including life-cycle models, software process, teams, tools, testing, planning, and estimating. It concentrates on requirements, analysis, design, implementation, and maintenance of software products. The laboratory covers CASE tools, configuration control tools, UML diagrams, integrated development environments, and project specific components. Prerequisite: EECS 268 and upper-level EECS eligibility. LEC.

EECS 461. Probability and Statistics. 3 Hours.
Introduction to probability and statistics with applications. Reliability of systems. Discrete and continuous random variables. Expectations, functions of random variables, and linear regression. Sampling distributions, confidence intervals, and hypothesis testing. Joint, marginal, and conditional distribution and densities. Prerequisite: MATH 290, MATH 220 and upper-level EECS eligibility. LEC.

EECS 470. Electronic Devices and Properties of Materials. 3 Hours.
An introduction to crystal structures, and metal, insulator, and semiconductor properties. Topics covered include the thermal, electric, dielectric, and optical properties of these materials. A significant portion of this course is devoted to the properties of semiconductors and semiconductor devices. Prerequisite: PHSX 313 and upper-level EECS eligibility. LEC.

EECS 498. Honors Research. 1-2 Hours.
Arranged to allow students to satisfy the independent research requirement for graduation with departmental honors. Prerequisite: Consent of instructor and upper-level EECS eligibility. IND.
EECS 501. Senior Design Laboratory I. 3 Hours.
A lecture/laboratory course involving the design and implementation of prototypes of electrical and computer type products and systems. The project specifications require consideration of ethics, economics, manufacturing, and safety. Prerequisite: EECS 412 and EECS 562. LEC.

EECS 502. Senior Design Laboratory II. 3 Hours. AE61.
A lecture/laboratory course involving the design and implementation of prototypes of electrical and computer type products and systems. The project specifications require consideration of ethics, economics, health, manufacturing, and safety. Prerequisite: EECS 501. LEC.

EECS 510. Introduction to the Theory of Computing. 3 Hours.
Finite state automata and regular expressions. Context-free grammars and pushdown automata. Turing machines. Models of computable functions and undecidable problems. The course emphasis is on the theory of computability, especially on showing limits of computation. May be taken for graduate credit. (Same as MATH 510.) Prerequisite: EECS 210 and upper-level EECS eligibility. LEC.

EECS 512. Electronic Circuits III. 3 Hours.
Feedback amplifier circuit analysis, power amplifiers, analog IC op-amp techniques and analysis, filter approximation and realization, oscillators, wave generators and shapers. Prerequisite: EECS 412. LEC.

EECS 541. Computer Systems Design Laboratory I. 3 Hours.
A two semester lecture/laboratory course involving the specification, design, implementation, analysis, and documentation of a significant hardware and software computer system. Laboratory work involves software, hardware, and hardware/software trade-offs. Project requirements include consideration of ethics, economics, manufacturing, safety, and health aspects of product development. Can be taken only during the senior year. Prerequisite: EECS 443 and EECS 448. LEC.

EECS 542. Computer Systems Design Laboratory II. 3 Hours. AE61.
A two semester lecture/laboratory course involving the specification, design, implementation, analysis, and documentation of a significant hardware and software computer system. Laboratory work involves software, hardware, and hardware/software trade-offs. Project requirements include consideration of ethics, economics, manufacturing, safety, and health aspects of product development. Can be taken only during the senior year. Prerequisite: EECS 541. LEC.

EECS 544. Electric Machines & Drives. 3 Hours.
Introduction to electric machine theory, operation, and control. Electric machines covered include DC generators and motors, AC synchronous generators and motors, AC induction generators and motors, as well as fractional horsepower and special purpose motors. Motor starting and controls for both DC and AC machines are also covered including an introduction to power electronics and variable frequency drives (VFD). (Same as ARCE 644.) Prerequisite: ARCE 640 or EECS 212 or consent of instructor. LEC.

EECS 545. Electric Energy Production and Storage. 3 Hours.
An introduction to utility scale and small scale (distributed generation) electric energy production and storage systems. This course addresses the technical, operational, economic, environmental, and social characteristics associated with both traditional and nontraditional electric energy production systems along with associated grid integration, energy delivery, and regulatory issues. Traditional energy production systems covered include fossil fuel, hydroelectric, and nuclear power plants. Non-traditional energy production systems covered include fuel cells, photovoltaics (PV), concentrated solar power (CSP), wind geothermal, and other emerging technologies. (Same as ARCE 645.) Prerequisite: ARCE 640 or EECS 212 or consent of instructor. LEC.

EECS 547. Power System Analysis I. 3 Hours.
Introduction to the analysis of commercial, industrial, and utility power systems. Emphasis is placed on modeling system components which include transmission and distribution lines, transformers, induction machines, and synchronous machines and the development of a power system model for analysis from these components. System modeling will be applied to short-circuit studies and used to analyze symmetrical faults, to develop sequence networks using symmetrical components, and analyze unsymmetrical faults. (Same as ARCE 647.) Prerequisite: ARCE 640 or EECS 212 or consent of instructor. LEC.

EECS 548. Power System Analysis II. 3 Hours.
Continuation of EECS 547 that uses power system modeling developed in EECS 547 to analyze power system load flow, operation and economic dispatch, stability, and transient response. The impact of alternative energy sources, energy storage, DC transmission and interties, and other emerging technologies on power system operation and reliability will be addressed throughout the course. (Same as ARCE 648.) Prerequisite: ARCE 647 or EECS 547 or consent of instructor. LEC.

EECS 560. Data Structures. 4 Hours.
Data abstraction and abstract data types. Topics include the design and implementation of dictionary, priority queues, concatenated queue, disjoint set structures, graphs, and other advanced data structures based on balanced and unbalanced tree structures. Special emphasis will be placed on the implementations of these structures and their performance tradeoffs. Both asymptotic complexity analysis and experimental profiling techniques will be introduced. Labs will be used to provide students with hands-on experience in the implementations of various abstract data types and to perform experimental performance analysis. Prerequisite: EECS 210 and EECS 448. LEC.

EECS 562. Introduction to Communication Systems. 4 Hours.
A first course in communications, including lectures and integrated laboratory experiments. After a review of spectral analysis and signal transmission, analog and digital communications are studied. Topics include: sampling, pulse amplitude modulation, and pulse code modulation; analog and digital amplitude, frequency, and phase modulation; frequency and time division multiplexing; and noise performance of analog modulation techniques. Prerequisite: EECS 212 and EECS 360. LEC.

EECS 563. Introduction to Communication Networks. 3 Hours.
An introduction to the principles used in communication networks is given in this course. Topics include a discussion of the uses of communications networks, network traffic, network impairments, standards, layered reference models for organizing network functions. Local Area Network technology and protocols are discussed. Link, network, transport layer protocols, and security are introduced. TCP/IP networks are stressed. VoIP is used as an example throughout the course. Basic concepts of network performance evaluation are studied, both analytical and simulation techniques are considered. Prerequisite: EECS 168 and either EECS 461 or MATH 526. LEC.

EECS 565. Introduction to Information and Computer Security. 3 Hours.
An introduction to the fundamentals of cryptography and information and computer security. Introduces the basic concepts, theories, and protocols in computer security. Discusses how to apply such knowledge to analyze, design and manage secure systems in the real world. Topic covered: the basics of cryptography, software security, operating system security, database security, network security, privacy and anonymity, social engineering, digital forensics, etc. Corequisite: EECS 678 and Prerequisite: Upper-Level EECS Eligibility. LEC.
EECS 581. Computer Science Design I. 3 Hours.
The background and planning phase of a two-semester, team-oriented lecture/laboratory course involving the specification, design, implementation, and documentation of a significant software system. The course includes the consideration of project management, ethics, economics, and technical writing. Can be taken only during the senior year. Prerequisite: EECS 448, EECS 510 and EECS 560. LEC.

EECS 582. Computer Science Design II. 3 Hours. AE61.
The design and implementation phase of a two-semester, team-oriented lecture/laboratory course involving the specification, design, implementation, and documentation of a significant software system. The course includes the consideration of project management, ethics, economics, and technical writing. Can be taken only during the senior year. Prerequisite: EECS 581. LEC.

EECS 611. Electromagnetic Compatibility. 3 Hours.
A study of unwanted generation and reception of radio-frequency radiation from analog and digital electronic systems and how these emissions/receptions can be reduced. Topics covered include sources of radiation, grounding, shielding, crosstalk, electrostatic discharge, and practical design and layout schemes for reducing unwanted radiation and reception. Also covered are the major governmental electromagnetic compatibility (EMC) regulations and standards that apply to commercial electronic devices and systems. Prerequisite: EECS 220 and EECS 312. LEC.

EECS 622. Microwave and Radio Transmission Systems. 3 Hours.
Introduction to radio transmission systems. Topics include radio transmitter and receiver design, radiowave propagation phenomenology, antenna performance and basic design, and signal detection in the presence of noise. Students will design radio systems to meet specified performance measure. Corequisite: EECS 420 and EECS 461. LEC.

EECS 628. Fiber Optic Communication Systems. 3 Hours.
Description and analysis of the key components in optical communication systems. Topics covered include quantum sources, fiber cable propagation and dispersion characteristics, receiver characteristics, and system gain considerations. Prerequisite: EECS 220 and PHSX 313 or equivalent and upper-level EECS eligibility. LEC.

EECS 638. Fundamentals of Expert Systems. 3 Hours.
Basic information about expert systems: architecture of an expert system, building expert systems, uncertainty in expert systems, taxonomy of expert systems. Knowledge representation: first order logic, production systems, semantic nets, frames. Uncertainty in expert systems, one-valued approaches: probability theory, systems using Bayes’ rule, and systems using certainty theory; two-valued approaches: systems using Dempster-Shafer theory and system INFERNO; set-valued approaches: systems using fuzzy set theory and systems using rough set theory. Prerequisite: EECS 560 or consent of instructor. LEC.

EECS 643. Advanced Computer Organization. 3 Hours.
Principles and techniques of instruction level parallelism, Tomasulo’s algorithm, branch prediction, reservation stations, reorder buffers, memory hierarchies. Parallel and scalable architectures, global directory caches, synchronization primitives, memory consistency, multithreading. Only one of EECS 643 and EECS 645 may be used to satisfy EECS degree requirements. Prerequisite: EECS 443. LEC.

EECS 644. Introduction to Digital Signal Processing. 3 Hours.
Discrete time signal and systems theory, sampling theorem, z-transforms, digital filter design, discrete Fourier transform, FFT, and hardware considerations. Prerequisite: EECS 360. LEC.

EECS 645. Computer Architecture. 3 Hours.
The structure and design of computing systems. Examination and analysis of computing systems. Examination and analysis of instruction set architectures, pipelined control and arithmetic units, vector processors, memory hierarchies, and performance evaluation. Prerequisite: EECS 388. LEC.

EECS 647. Introduction to Database Systems. 3 Hours.
Introduction to the concept of databases and their operations. Basic concepts, database architectures, storage structures and indexing, data structures: hierarchical, network, and relational database organizations. Emphasis on relational databases and retrieval languages SQL, QBE, and ones based on relational algebra and relational calculus; brief description of predicate calculus. Theory of databases, normal forms, normalization, candidates keys, decomposition, functional dependencies, multi-valued dependencies. Introduction to the design of a simple database structure and a data retrieval language. Student cannot receive credit for both EECS 647 and EECS 746. Prerequisite: EECS 448. LEC.

EECS 648. Software Engineering Tools. 3 Hours.
This course focuses on the software engineering tools and practices currently in use in the industry, supporting the complete software development lifecycle. The course provides hands-on experience with current software development tools. Topics include software engineering artifacts, team structure and roles, work contracts, requirements elicitation and analysis, specifications, supplementary specifications, use-case models, activity diagrams, use-case specifications, traceability, technical design, design review meetings, coding standards, code quality, code reviews, and modern software engineering tools. Prerequisite: EECS 448. LEC.

EECS 649. Introduction to Artificial Intelligence. 3 Hours.
General concepts, search procedures, two-person games, predicate calculus and automated theorem proving, nonmonotonic logic, probabilistic reasoning, rule based systems, semantic networks, frames, dynamic memory, planning, machine learning, natural language understanding, neural networks. Corequisite: EECS 368. LEC.

EECS 660. Fundamentals of Computer Algorithms. 3 Hours.
Basic concepts and techniques in the design and analysis of computer algorithms. Models of computations. Simple lower bound theory and optimality of algorithms. Computationally hard problems and the theory of NP-Completeness. Introduction to parallel algorithms. Prerequisite: EECS 560 and either EECS 461 or MATH 526. LEC.

EECS 662. Programming Languages. 3 Hours.
Formal definition of programming languages including specification of syntax and semantics. Simple statements including precedence, infix, prefix, and postfix notation. Global properties of algorithmic languages including scope of declaration, storage allocation, grouping of statements, binding time of constituents, subroutines, coroutines, and tasks. Run-time representation of program and data structures. Prerequisite: EECS 368 and EECS 388 and EECS 560. LEC.

EECS 664. Introduction to Digital Communication Systems. 3 Hours.
An introduction to building digital communication systems in discrete time, including lectures and integrated laboratory exercises. Topics covered include signal spaces, base-band modulation, bandpass modulation, phase-locked loops, carrier phase recovery, symbol timing recovery, and basic performance analysis. Prerequisite: EECS 360 and EECS 461. LAB.

EECS 665. Compiler Construction. 4 Hours.
Compilation of simple expressions and statements. Organization of a compiler including symbol tables, lexical analysis, syntax analysis, intermediate and object code generation, error diagnostics, code optimization techniques and run-time structures in a block-structured
language such as PASCAL or C. Programming assignments include using tools for lexer and parser generator, and intermediate, and object code generation techniques. Laboratory exercises will provide hands-on experience with the tools and concepts required for the programming assignments. Prerequisite: EECS 368, EECS 448, and EECS 510. LEC.

EECS 670. Introduction to Semiconductor Processing. 3 Hours.
An overview of various processes to fabricate semiconductor devices and integrated circuits. Topics covered include crystal growth, oxidation, solid-state diffusion, ion implantation, photolithography, chemical vapor deposition, epitaxial growth, metalization, and plasma etching of thin films. (Same as CPE 655.) Prerequisite: Senior standing in CPE or EECS, or consent of instructor. LEC.

EECS 672. Introduction to Computer Graphics. 3 Hours.
Foundations of 2D and 3D computer graphics. Structured graphics application programming. Basic 2D and 3D graphics algorithms (modelling and viewing transformations, clipping, projects, visible line/surface determination, basic empirical lighting, and shading models), and aliasing. Prerequisite: EECS 448. LEC.

EECS 678. Introduction to Operating Systems. 4 Hours.
The objective of this course is to provide the students with the concepts necessary to enable them to: a) identify the abstract services common to all operating system, b) define the basic system components that support the operating system's machine independent abstractions on particular target architectures, c) consider how the design and implementation of different systems components interact and constrain one another, not merely how one or two important parts work in isolation, and d) understand the means by which fundamental problems in operating systems can be analyzed and addressed. Programming assignments address topics including process creation, inter-process communication, system call implementation, process scheduling and virtual memory. Laboratory exercises primarily focus on use of tools and concepts required for the programming assignments but include a small number of independent topics. Prerequisite: EECS 388 and EECS 448. LEC.

EECS 690. Special Topics: ____. 1-3 Hours.
Arranged as needed to present appropriate material to groups of students. May be repeated for additional credit. Prerequisite: Upper-level EECS eligibility and consent of instructor. LEC.

EECS 692. Directed Reading. 1-3 Hours.
Reading under the supervision of an instructor on a topic chosen by the student with the advice of the instructor. May be repeated for additional credit. Consent of the department required for enrollment. Prerequisite: Upper-level EECS eligibility and consent of instructor. IND.

EECS 700. Special Topics: ____. 1-5 Hours.
Courses on special topics of current interest in electrical engineering, computer engineering, or computer science, given as the need arises. May be repeated for additional credit. Prerequisite: Variable. LEC.

EECS 710. Information Security and Assurance. 3 Hours.
This introductory security course covers a wide range of topics in the area of information and network security, privacy, and risk: the basic concepts: confidentiality, integrity and availability; introduction to cryptography; authentication; security models; information and database security; computer systems security; network security; Internet and web security; risk analysis; social engineering; computer forensics. Prerequisite: Graduate standing in EECS, or permission of the instructor. LEC.

EECS 711. Security Management and Audit. 3 Hours.
Administration and management of security of information systems and networks, intrusion detection systems, vulnerability analysis, anomaly detection, computer forensics, auditing and data management, risk management, contingency planning and incident handling, security planning, e-business and commerce security, privacy, traceability and cyber-evidence, human factors and usability issues, policy, legal issues in computer security. Prerequisite: EECS 710. LEC.

EECS 712. Network Security and its Application. 3 Hours.
This course focuses on network-based information and communication systems, and examines network technologies and service applications to provide the students with a comprehensive introduction to the field of network security and its application. The course covers key concepts and critical network security services including authentication and access control, integrity and confidentiality of data, routing, firewalls, virtual private networks, web security, virus protection, and network security architecture and policy development. The students are expected to understand the technical vulnerabilities of networked systems and to develop methods to eliminate or mitigate those vulnerabilities. Prerequisite: EECS 710 and EECS 780, or the instructor's approval. LEC.

EECS 713. High-Speed Digital Circuit Design. 3 Hours.
Basic concepts and techniques in the design and analysis of high-frequency digital and analog circuits. Topics include: transmission lines, ground and power planes, layer stacking, substrate materials, terminations, vias, component issues, clock distribution, cross-talk, filtering and decoupling, shielding, signal launching. Prerequisite: EECS 312 and senior or graduate standing. EECS 420 recommended. LEC.

EECS 716. Formal Language Theory. 3 Hours.
Formal language generation by grammars, recognition by automata (finite and pushdown automata, Turing machines), and equivalence of these formulations; elementary containment and closure properties. Emphasis on context-free, deterministic context-free and regular languages. Prerequisite: EECS 510 or equivalent. LEC.

EECS 718. Graph Algorithms. 3 Hours.
This course introduces students to computational graph theory and various graph algorithms and their complexities. Algorithms and applications covered will include those related to graph searching, connectivity and distance in graphs, graph isomorphism, spanning trees, shortest paths, matching, flows in network, independent and dominating sets, coloring and covering, and Traveling Salesman and Postman problems. Prerequisite: EECS 560 or graduate standing with consent of instructor. LEC.

EECS 721. Antennas. 3 Hours.
Gain, Pattern, and Impedance concepts for antennas. Linear, loop, helical, and aperture antennas (arrays, reflectors, and lenses). Cylindrical and biconical antenna theory. Prerequisite: EECS 360 and EECS 420, or EECS 720, or permission of the instructor. LEC.

EECS 723. Microwave Engineering. 3 Hours.
Survey of microwave systems, techniques, and hardware. Guided-wave theory, microwave network theory, active and passive microwave components. Prerequisite: EECS 420. LEC.

EECS 725. Introduction to Radar Systems. 3 Hours.
Basic radar principles and applications. Radar range equation. Pulsed and CW modes of operation for detection, ranging, and extracting Doppler information. Prerequisite: EECS 360, EECS 420, EECS 461. EECS 622 recommended. LEC.

EECS 728. Fiber-optic Measurement and Sensors. 3 Hours.
The course will focus on fundamental theory and various methods and applications of fiber-optic measurements and sensors. Topics include: optical power and loss measurements, optical spectrum analysis, wavelength measurements, polarization measurements, dispersion measurements, PMD measurements, optical amplifier characterization, OTDR, optical components characterization and industrial applications of fiber-optic sensors. Prerequisite: EECS 628 or equivalent. LEC.
EECS 730. Introduction to Bioinformatics. 3 Hours.
This course provides an introduction to bioinformatics. It covers computational tools and databases widely used in bioinformatics. The underlying algorithms of existing tools will be discussed. Topics include: molecular biology databases, sequence alignment, gene expression data analysis, protein structure and function, protein analysis, and proteomics. Prerequisite: Data Structures class equivalent to EECS 560, and Introduction to Biology equivalent to BIOL 150, or consent of instructor. LEC.

EECS 735. Automated Theorem Proving. 3 Hours.
Computer-based theorem-proving methods for selected domains such as plane geometry, symbolic integral calculus, and propositional calculus are reviewed. Mechanical theorem-proving procedures for the first-order predicate calculus are studied in depth. Includes resolution, semantic resolution, hyper-resolution, linear resolution, and paramodulation. Applications of these procedures to areas such as proofs of program correctness, deductive question answering, problem solving, and program synthesis. Prerequisite: EECS 649 and a knowledge of mathematical logic equivalent to that supplied by EECS 210. Infrequently offered. LEC.

EECS 738. Machine Learning. 3 Hours.
“Machine learning is the study of computer algorithms that improve automatically through experience” (Tom Mitchell). This course introduces basic concepts and algorithms in machine learning. A variety of topics such as Bayesian decision theory, dimensionality reduction, clustering, neural networks, hidden Markov models, combining multiple learners, reinforcement learning, Bayesian learning etc. will be covered. Prerequisite: Graduate standing in CS or CoE or consent of instructor. LEC.

EECS 739. Scientific Parallel Computing. 3 Hours.
This course is concerned with the application of parallel processing to problems in the natural sciences and engineering. State-of-the-art computing methodologies are studied along with contemporary applications. The course takes a performance-oriented approach, with attention to parallel algorithms, parallel architecture, compilation issues, and system evaluation. Prerequisite: Graduate standing or consent of instructor and experience with C, C++, or FORTRAN. LEC.

EECS 740. Digital Image Processing. 3 Hours.
This course gives a hands-on introduction to the fundamentals of digital image processing. Topics include: image formation, image transforms, image enhancement, image restoration, image reconstruction, image compression, and image segmentation. Prerequisite: EECS 672 or EECS 744. LEC.

EECS 741. Computer Vision. 3 Hours.
This course gives a hands-on introduction to the fundamentals of computer vision. Topics include: image formation, edge detection, image segmentation, line-drawing interpretation, shape from shading, texture analysis, stereo imaging, motion analysis, shape representation, object recognition. Prerequisite: EECS 672 or EECS 744. LEC.

EECS 742. Static Analysis. 3 Hours.
This course presents an introduction to techniques for statically analyzing programs. Converge includes theoretical analysis, definition and implementation of data flow analysis, control flow analysis, abstract interpretation, and type and effects systems. The course presents both the underlying definitions and pragmatic implementation of these systems. Prerequisite: EECS 665 or EECS 662 or equivalent. LEC.

EECS 743. Advanced Computer Architecture. 3 Hours.
This course will focus on the emerging technologies to build high-performance, low-power, and resilient microprocessors. Topics include multiprocessing, reliability-and-variability-aware computer architecture designs, energy-efficient computer systems, on-chip networks, 3D microprocessor designs, general-purpose computation on graphics processing units, and non-volatile computer memory. The course responds to VLSI technologies ability to provide increasing numbers of transistors and clock speeds to allow computer architects to build powerful microprocessors and computer systems and the challenges (e.g. resilience, energy-efficiency) that the growth in microprocessor performance is facing from the aggressive technology scaling. Prerequisite: EECS 643 or EECS 645, or equivalent. A good understanding of C/C++ and having basic Unix/Linux skills is required. LEC.

EECS 744. Communications and Radar Digital Signal Processing. 3 Hours.
The application of DSP techniques to specialized communications and radar signal processing subsystems. Topics include A-D converters, specialized digital filters, software receiver systems, adaptive subsystems and timing. Prerequisite: An undergraduate course in DSP such as EECS 644. LEC.

EECS 745. Implementation of Networks. 3 Hours.
EECS 745 is a laboratory-focused implementation of networks. Topics include direct link networks (encoding, framing, error detection, reliable transmission, SONET, FDDI, network adapters, Ethernet, 802.11 wireless networks); packet and cell switching (ATM, switching hardware, bridges and extended LANs); internetworking (Internet concepts, IPv6, multicast, naming/DNS); end-to-end protocols (UDP, TCP, APIs and sockets, RPCs, performance); end-to-end data (presentation formatting, data compression, security); congestion control (queuing disciplines, TCP congestion control and congestion avoidance); high-speed networking (issues, services, experiences); voice over IP (peer-to-peer calling, call managers, call signalling, PBX and call attendant functionality). Prerequisite: EECS 563 or EECS 780. LEC.

EECS 746. Database Systems. 3 Hours.
Introduction to the concept of databases and their operations. Basic database concepts, architectures, and data storage structures and indexing. Though other architectures are discussed, focus is on relational databases and the SQL retrieval language. Normalization, functional dependencies, and multivalued dependencies also covered. Culminates in the design and implementation of a simple database with a web interface. Prerequisite: EECS 448 or consent of instructor. Students cannot receive credit for both EECS 647 and EECS 746. LEC.

EECS 747. Mobile Robotics. 3 Hours.
Design, construction, and programming of mobile robots. Topics include computational hardware, designing and prototyping, sensors, mechanics, motors, power, robot programming, robot design principles, and current research in mobile robotics. Prerequisite: Knowledge of at least one modern programming language. LEC.

EECS 749. Knowledge Based Systems. 3 Hours.
General concepts of intelligent problem solving, rule-based systems, distributed AI, reasoning under uncertainty, case-based reasoning, subsymbolic techniques. Prerequisite: At least one class in Artificial Intelligence. LEC.

EECS 750. Advanced Operating Systems. 3 Hours.
In this course, we will study advanced topics in operating systems for modern hardware platforms. The topics include: multicore CPU scheduling, cache and DRAM management, flash-based storage systems and I/O management, power/energy management, and cloud systems. We will discuss classical and recent papers in each of these topics. We will also study advanced resource management capabilities in recent Linux kernels. The course will consist of lectures, student presentations, and a term project. Prerequisite: EECS 678. LEC.
EECS 753. Embedded and Real Time Computer Systems. 3 Hours.
This course will cover emerging and proposed techniques and issues in embedded and real time computer systems. Topics will include new paradigms, enabling technologies, and challenges resulting from emerging application domains. Prerequisite: EECS 645 and EECS 678. LEC.

EECS 755. Software Modeling and Analysis. 3 Hours.
Modern techniques for modeling and analyzing software systems. Course coverage concentrates on pragmatic, formal modeling techniques that support predictive analysis. Topics include formal modeling, static analysis, and formal analysis using model checking and theorem proving systems. Prerequisite: EECS 368 or equivalent. LEC.

EECS 761. Programming Paradigms. 3 Hours.
An investigation of alternative programming paradigms and their representative effect on programming expressiveness and style. Emphasis is on a comparative understanding of a spectrum of programming paradigms, with some facility in the use of at least one typical language representative of each paradigm studied. The course will review and investigate as appropriate imperative, functional, object-oriented, parallel, and logical programming paradigms, plus additional paradigms as relevant. Prerequisite: EECS 662 or equivalent, or consent of instructor. LEC.

EECS 762. Programming Language Foundation I. 3 Hours.
This course presents a basic introduction to the semantics of programming languages. The presentation begins with basic lambda calculus and mechanisms for evaluating lambda calculus terms. Types are introduced in the form of simply typed lambda calculus and techniques for type inference and defining type systems are presented. Finally, techniques for using lambda calculus to define, evaluate and type check common programming language constructs are presented. Prerequisite: EECS 662 or equivalent. LEC.

EECS 763. Introduction to Multiprocessor Systems on Chip. 3 Hours.
This course covers the latest trends in advanced computer architecture for multiprocessor systems on chip for embedded and real time systems (MPSoC). Topics covered include multicore architectures, modeling abstractions, run time systems, and Hw/Sw co-design techniques. Prerequisite: EECS 678 and EECS 645 or equivalents. LEC.

EECS 764. Analysis of Algorithms. 3 Hours.
Models of computations and performance measures; asymptotic analysis of algorithms; basic design paradigms including divide-and-conquer, dynamic programming, backtracking, branch-and-bound, greedy method and heuristics; design and analysis of approximation algorithms; lower bound theorem; polynomial transformation and the theory of NP-Completeness; additional topics may be selected from arithmetic complexity, graph algorithms, string matching, and other combinatorial problems. Prerequisite: EECS 660 or equivalent. LEC.

EECS 765. Introduction to Cryptography and Computer Security. 3 Hours.
Comprehensive coverage to the fundamentals of cryptography and computer and communication security. This course serves as the first graduate level security course, which introduces the core concepts, theories, algorithms and protocols in computer and communication security, and also prepares students for advanced security courses. This course first covers the mathematical foundation of cryptography and its applications in computer security. The course also covers a wide range of topics: information and database security, software and computer systems security, network security, Internet and web security. Prerequisite: EECS 678 and EECS 563 or EECS 780, or the instructor’s approval. LEC.

EECS 766. Resource Sharing for Broadband Access Networks. 3 Hours.
Connections between network customers and the network come in many forms, wireless data systems, e.g., IEEE 802.16, wireless cellular systems, e.g. 3G, coax cable networks, e.g., DOCSIS, fiber optic communications systems, e.g., EPON, copper twisted pair, e.g., DSL, and powerline communications systems. All of these systems use various resource sharing strategies. The resource sharing strategy is matched to the necessities of specific systems as well as their operating environments. There are commonalities between these strategies as well as differences. This course will look at resource sharing from a general perspective and then examine specific systems to underscore their commonalities and differences. Systems to be studied in detail include, DOCSIS, IEEE 802.16/Wi-Max, WCDMA/HSDPA/HSUPA, EV-DO, EPON, ZigBee/IEEE 802.15.4, powerline networks. The use of cognitive radio communications technologies in future access networks will be introduced. Prerequisite: EECS 461 and EECS 563 or EECS 780. LEC.

EECS 767. Information Retrieval. 3 Hours.
This class introduces algorithms and applications for retrieving information from large document repositories, including the Web. Topics span from classic information retrieval methods for text documents and databases, to recent developments in Web search, including: text algorithms, indexing, probabilistic modeling, performance evaluation, web structures, link analysis, multimedia information retrieval, social network analysis. Prerequisite: EECS 647 or permission of instructor. LEC.

EECS 768. Virtual Machines. 3 Hours.
Understand the fundamental principles and advanced implementation aspects of key virtual machine concepts. Topics include principles of virtualization, binary translation, process and system level virtual machines, JIT compilation and optimizations in managed environments, garbage collection, virtual machine implementation issues, and virtual machine security. Includes in-depth coverage of the latest developments and research issues in the field of virtual machines. Prerequisite: EECS 665 and either EECS 643 or EECS 645 or consent of instructor. LEC.

EECS 769. Information Theory. 3 Hours.
Information theory is the science of operations on data such as compression, storage, and communication. It is one of the few scientific fields fortunate enough to have an identifiable beginning - Claude Shannon’s 1948 paper. The main topics of mutual information, entropy, and relative entropy are essential for students, researchers, and practitioners in such diverse fields as communications, data compression, statistical signal processing, neuroscience, and machine learning. The topics covered in this course include mathematical definitions and properties of information, mutual information, source coding theorem, lossless compression of data, optimal lossless coding, noisy communication channels, channel coding theory, the source channel separation theorem, multiple access channels, broadcast channels, Gaussian noise, time-varying channels, and network information theory. Prerequisite: EECS 461 or an equivalent undergraduate probability course. LEC.

EECS 773. Advanced Graphics. 3 Hours.
Advanced topics in graphics and graphics systems. Topics at the state of the art are typically selected from: photorealistic rendering; physically-based lighting models; ray tracing; radiosity; physically-based modeling and rendering; animation; general texture mapping techniques; point-based graphics; collaborative techniques; and others. Prerequisite: EECS 672 or permission of instructor. LEC.

EECS 774. Geometric Modeling. 3 Hours.
Introduction to the representation, manipulation, and analysis of geometric models of objects. Implicit and parametric representations of curves and
surfaces with an emphasis on parametric freeform curves and surfaces such as Bezier and Nonuniform Rational B-Splines (NURBS). Curve and surface design and rendering techniques. Introduction to solid modeling; representations and base algorithms. Projects in C/C++ using OpenGL. Prerequisite: EECS 672 or permission of instructor. LEC.

EECS 775. Visualization. 3 Hours.
Data representations, algorithms, and rendering techniques typically used in Visualization applications. The emphasis is on Scientific Visualization and generally includes topics such as contouring and volumetric rendering for scalar fields, glyph and stream (integral methods) for vector fields, and time animations. Multidimensional, multivariate (MDMV) visualization techniques; scattered data interpolation; perceptual issues. Prerequisite: General knowledge of 3D graphics programming or instructor's permission. LEC.

EECS 776. Functional Programming and Domain Specific Languages. 3 Hours.
An introduction to functional programming. Topics include learning how to program in Haskell; IO and purity in software engineering; functional data structures and algorithms; monads and applicative functors; parsing combinators; Domain Specific Languages (DSLs) and DSL construction; advanced type systems; making assurance arguments; testing and debugging. Prerequisite: EECS 368 or equivalent or consent of instructor. LEC.

EECS 780. Communication Networks. 3 Hours.
Comprehensive in-depth coverage to communication networks with emphasis on the Internet and the PSTN (wired and wireless). Extensive coverage of protocols and algorithms will be presented at all levels, including: social networking, overlay networks, client/server and peer-to-peer applications; session control; transport protocols, the end-to-end arguments and end-to-end congestion control; network architecture, forwarding, routing, signaling, addressing, and traffic management; quality of service, queuing and multimedia applications; LAN architecture, link protocols, access networks and MAC algorithms; physical media characteristics and coding; network security and information assurance; network management. Prerequisite: EECS 563 or equivalent or permission of instructor. LEC.

EECS 781. Numerical Analysis I. 3 Hours.
Finite and divided differences. Interpolation, numerical differentiation, and integration. Gaussian quadrature. Numerical integration of ordinary differential equations. Curve fitting. (Same as MATH 781.) Prerequisite: MATH 320 and knowledge of a programming language. LEC.

EECS 782. Numerical Analysis II. 3 Hours.

EECS 800. Special Topics: ____. 1-5 Hours.
Advanced courses on special topics of current interest in electrical engineering, computer engineering, or computer science, given as the need arises. May be repeated for additional credit. Prerequisite: Variable. LEC.

EECS 801. Directed Graduate Readings. 1-3 Hours.
Graduate level directed readings on a topic in electrical engineering, computer engineering, or computer science, mutually agreed-on by the student and instructor. May be repeated for credit on another topic. Prerequisite: Consent of instructor. RSH.

EECS 802. Electrical Engineering and Computer Science Colloquium and Seminar on Professional Issues. 1 Hour.
A colloquium/seminar series in which presentation are provided on a broad variety of scholarly and professional topics. Topics related to the issues of responsible scholarship in the fields of computing and electrical engineering will be discussed. Student are also required to attend a series of colloquia and submit written reports. Course will be graded Satisfactory/Fail and is required for all EECS graduate students. Prerequisite: Graduate standing in the EECS Department. LEC.

EECS 810. Software Engineering and Management. 3 Hours.
Principal concepts in software engineering with a focus on formalism as well as managerial issues; software development models; software process models; software configuration management; software development life cycle activities; project management; planning and estimation; requirements engineering, software architecture, software modular design; software reusability; implementation strategies; testing techniques; software quality assurance; software evolution; metrics and measurements, ethics and professionalism. Prerequisite: Programming experience, preferably in Java or C++. LEC.

EECS 811. IT Project Management. 3 Hours.
Management issues in the creation, development, and maintenance of IT systems; effort and cost estimation techniques; project planning and scheduling; resource allocation; risk analysis and mitigation techniques; quality assurance; project administration; configuration management; organizational issues; software process modeling; process improvement; frameworks for quality software. LEC.

EECS 812. Software Requirements Engineering. 3 Hours.
Objectives, processes, and activities of requirements engineering and requirements management; characteristics of good requirements; types of requirements; managing changing requirements; languages, notations, and methodologies; formal and semi-formal methods of presenting and validating the requirements; requirements standards; traceability issues. Prerequisite: EECS 810. LEC.

EECS 814. Software Quality Assurance. 3 Hours.
Software quality engineering as an integral facet of development from requirements through delivery and maintenance; verification and validation techniques; manual and automated static analysis techniques; fundamental concepts in software testing; test case selection strategies such as black-box testing, white-box testing; formal verification; unit, integration, system, and acceptance testing; regression testing; designing for testability; models for quality assurance; reviews, inspection, documentation, and standards; industry and government standards for quality. Prerequisite: EECS 810. LEC.

EECS 816. Object-Oriented Software Development. 3 Hours.
Abstract data types, objects and classes, class associations, modeling with objects, domain modeling, use case modeling, interactive and incremental development, object-oriented analysis and design, components, frameworks, UML and Unified Process, reusability, design patterns, object management, and CORBA. Prerequisite: EECS 810. LEC.

EECS 818. Software Architecture. 3 Hours.
Designing architectures; software architectural styles and patterns; architectural components and connectors; architectural modeling and analysis, architectural deployment, designing for nonfunctional properties such as efficiency, scaleability, adaptability, and security; domainspecific software architectures; architecture product lines; architecture description languages (ADLs); standards. Prerequisite: EECS 810. LEC.
EECS 819. Cryptography. 3 Hours.
Introduction to the mathematical background, basic concepts, components, and protocols to enforce secrecy, integrity, and privacy through cryptographic mechanisms. The concept of symmetric and asymmetric encryption, integrity verification, authentication, key establishment and update, and authorization. Emphasis on the design of protocols that apply and integrate various modules to achieve safety objectives: time-stamping, digital signature, bit commitment, fair coin-flip, zero knowledge proof, oblivious transfer, and digital cash. The policies for key generation and management, information storage and access control, legal issues, and design of protocols for real applications. Prerequisite: EECS 765. LEC.

EECS 820. Advanced Electromagnetics. 3 Hours.
A theorem-based approach to solving Maxwell's equations for modeling electromagnetic problems encountered in microwave systems, antennas, scattering. Topics include waves, source modeling, Schelkunoff equivalence principle, scattered filed formulations, electromagnetic induction, reciprocity principles, Babinet's principle, and construction of solutions in various coordinate systems. Prerequisite: EECS 420. LEC.

EECS 823. Microwave Remote Sensing. 3 Hours.
Description and analysis of basic microwave remote sensing systems including radars and radiometers as well as the scattering and emission properties of natural targets. Topics covered include plane wave propagation, antennas, radiometers, atmospheric effects, radars, calibrated systems, and remote sensing applications. Prerequisite: EECS 420 and EECS 622. LEC.

EECS 824. Microwave Remote Sensing II. 3 Hours.
Description and analysis of basic microwave remote sensing systems including radars and radiometers as well as the scattering and emission properties of natural targets. Topics covered include measurement and discrimination, real-aperture side-looking airborne radars, synthetic-aperture side-looking airborne radar systems, scattering measurements, physical mechanisms and empirical models for scattering and emission. Prerequisite: EECS 823. LEC.

EECS 825. Radar Systems. 3 Hours.
Description and analysis of radars of various types. Resolution in angle, range, and speed. Ambiguities. Return from point and area targets. Detection in the presence of noise and fading. Tracking and MTI. Amplitude measurement. Imaging radars. Prerequisite: EECS 360, EECS 420, and EECS 461. LEC.

EECS 828. Advanced Fiber-Optic Communications. 3 Hours.
An advanced course in fiber-optic communications. The course will focus on various important aspects and applications of modern fiber-optic communications, ranging from photonic devices to systems and networks. Topics include: advanced semiconductor laser devices, external optical modulators, optical amplifiers, optical fiber nonlinearities and their impact in WDM and TDM optical systems, polarization effect in fiber-optic systems, optical receivers and high-speed optical system performance evaluation, optical solution systems, lightwave analog video transmission, SONET ATM optical networking, and advanced multi-access lightwave networks. Prerequisite: EECS 628 or equivalent. LEC.

EECS 830. Advanced Artificial Intelligence. 3 Hours.
A detailed examination of computer programs and techniques that manifest intelligent behavior, with examples drawn from current literature. The nature of intelligence and intelligent behavior. Development of, improvement to, extension of, and generalization from artificially intelligent systems, such as theorem-provers, pattern recognizers, language analyzers, problem solvers, question answerers, decision-makers, planners, and learners. Prerequisite: Graduate standing in the EECS department or Cognitive Science or permission of the instructor. LEC.

EECS 831. Introduction to Systems Biology. 3 Hours.
This course provides an introduction to systems biology. It covers computational analysis of biological systems with a focus on computational tools and databases. Topics include: basic cell biology, cancer gene annotation, micro RNA identification, Single Nucleotide Polymorphism (SNP) analysis, genetic marker identification, protein-DNA interaction, computational Neurology, vaccine design, cancer drug development, and computational development biology. Prerequisite: Introduction to Bioinformatics equivalent to EECS 730, or consent of instructor. LEC.

EECS 833. Neural Networks and Fuzzy Systems. 3 Hours.
Fundamental theory of adaptive systems. Evolution of artificial neural networks and training algorithms. Pattern classification, function approximation, and system optimization. Introduction to fuzzy set theory and neuro-fuzzy models for pattern classification. Application of neural networks in signal and image processing problems. Pattern classification for biological systems. Prerequisite: Graduate standing in the EECS department or permission of instructor. LEC.

EECS 835. Protein Bioinformatics. 3 Hours.
This course emphasizes the applications of computational algorithms to main problems in protein bioinformatics and molecular biology. A variety of topics, including protein sequence alignments, profiles and protein structure classification and prediction, will be either introduced briefly or discussed in detail. Students will be asked to present some selected research papers. Prerequisite: EECS 730. LEC.

EECS 837. Data Mining. 3 Hours.
Extracting data from data bases to data warehouses. Preprocessing of data: handling incomplete, uncertain, and vague data sets. Discretization methods. Methodology of learning from examples: rules of generalization, control strategies. Typical learning systems: ID3, AQ, C4.5, and LERS. Validation of knowledge. Visualization of knowledge bases. Data mining under uncertainty, using approaches based on probability theory, fuzzy set theory, and rough set theory. Prerequisite: Graduate standing in CS or CoE or consent of instructor. LEC.

EECS 838. Applications of Machine Learning in Bioinformatics. 3 Hours.
This course is introduction to the application of machine learning methods in bioinformatics. Major subjects include: biological sequence analysis, microarray interpretation, protein interaction analysis, and biological network analysis. Common biological and biomedical data types and related databases will also be introduced. Students will be asked to present some selected research papers. Prerequisite: EECS 730 and EECS 738. LEC.

EECS 839. Mining Special Data. 3 Hours.
Problems associated with mining incomplete and numerical data. The MLEM2 algorithm for rule induction directly from incomplete and numerical data. Association analysis and the Apriori algorithm. KNN and other statistical methods. Mining financial data sets. Problems associated with imbalanced data sets and temporal data. Mining medical and biological data sets. Induction of rule generations. Validation of data mining: sensitivity, specificity, and ROC analysis. Prerequisite: Graduate standing in CS or CoE or consent of instructor. LEC.

EECS 841. Computer Vision. 3 Hours.
The objective of this course is to give students a hands on introduction to the fundamentals of computer vision. Topics include: Image Formation, Image Segmentation, Binary Image Analysis, Edge Detection, Line Drawing Interpretation, Shape from Shading, Motion Analysis, Stereo, Shape Representation, and Object Recognition. The objective of this
course is to give students a hands-on introduction to the fundamentals of computer vision. Prerequisite: EECS 740 or equivalent. LEC.

EECS 843. Programming Language Foundation II. 3 Hours.
This course presents advanced topics in programming language semantics. Fixed point types are presented followed by classes of polymorphism and their semantics. System F and type variables are presented along with universal and existential types. The lambda cube is introduced along with advanced forms of polymorphism. Several interpreters are developed implementing various type systems and associated type inference algorithms. Prerequisite: EECS 762. LEC.

EECS 844. Adaptive Signal Processing. 3 Hours.
This course presents the theory and application of adaptive signal processing. Topics include adaptive filtering, mathematics for advanced signal processing, cost function modeling and optimization, signal processing algorithms for optimum filtering, array processing, linear prediction, interference cancellation, power spectrum estimation, steepest descent, and iterative algorithms. Prerequisite: EECS 861 and background in fundamental signal processing (such as EECS 644.) LEC.

EECS 845. Implementation of High Performance Integrated Networks. 3 Hours.

EECS 861. Random Signals and Noise. 3 Hours.
Fundamental concepts in random variables, random process models, power spectral density. Application of random process models in the analysis and design of signal processing systems, communication systems and networks. Emphasis on signal detection, estimation, and analysis of queues. This course is a prerequisite for most of the graduate level courses in radar signal processing, communication systems and networks. Prerequisite: An undergraduate course in probability and statistics, and signal processing. LEC.

EECS 862. Principles of Digital Communication Systems. 3 Hours.
A study of communication systems using noisy channels. Principal topics are: information and channel capacity, baseband data transmission, digital carrier modulation, error control coding, and digital transmission of analog signals. The course includes a laboratory/computer aided design component integrated into the study of digital communication systems. Prerequisite: EECS 562. Corequisite: EECS 861. LEC.

EECS 863. Network Analysis, Simulation, and Measurements. 3 Hours.
Prediction of communication network performance using analysis, simulation, and measurement. Topics include: an introduction to queueing theory, application of theory to prediction of communication network and protocol performance, and analysis of scheduling mechanisms. Modeling communication networks using analytic and simulation approaches, model verification and validation through analysis and measurement, and deriving statistically significant results. Analysis, simulation, and measurement tools will be discussed. Prerequisite: EECS 461 or MATH 526, and EECS 563 or EECS 780. LEC.

EECS 864. Multilevel Optical Networks. 3 Hours.
Introduce methodologies for multilevel optical network analysis, design, control, and survivability. The focus of the course is formulating the problem in the design of optical networks and studying several design methodologies. The control and management of optical networks are introduced as well as related protocols. Prerequisite: EECS 563 and EECS 780. LEC.

EECS 865. Wireless Communication Systems. 3 Hours.
The theory and practice of the engineering of wireless telecommunication systems. Topics include cellular principles, mobile radio propagation (including indoor and outdoor channels), radio link calculations, fading (including Rayleigh, Rician, and other models), packet radio, equalization, diversity, error correction coding, spread spectrum, multiple access techniques (including time, frequency, and code), and wireless networking. Current topics of interest will be covered. Corequisite: EECS 861. LEC.

EECS 866. Network Security. 3 Hours.
This course provides in-depth coverage on the concepts, principles, and mechanisms in network security and secure distributed systems. The topics that will be covered include: network security primitives, risks and vulnerabilities, authentication, key management, network attacks and defense, secure communication protocols, intrusion detection, exploit defenses, traffic monitoring and analysis, and privacy mechanisms. Prerequisite: EECS 765 and EECS 563 or EECS 780, or the instructor's approval. LEC.

EECS 869. Error Control Coding. 3 Hours.
A study of communication channels and the coding problem. An introduction to finite fields and linear block codes such as cyclic, Hamming, Golay, BCH, and Reed-Solomon. Convolutional codes and the Viterbi algorithm are also covered. Other topics include trellis coded modulation, iterative (turbo) codes, LDPC codes. Prerequisite: EECS 562 or equivalent. LEC.

EECS 876. Advanced Topics in Functional Languages. 3 Hours.
Topics may include: type classes; concurrency and STMs; the IO and ST monads; template Haskell and quasi-quoting; precise data structures; tools and testing support; generics; grammarware and parsing; operational Haskell; compiling functional languages; correctness by construction’ GADTs and dependent types; Rank-2 polymorphism and Rank-n polymorphism. Prerequisite: EECS 776 or equivalent or consent of instructor. LEC.

EECS 881. High-Performance Networking. 3 Hours.
Comprehensive coverage of the discipline of high-bandwidth low-latency networks and communication, including high bandwidth-x-delay products, with an emphasis on principles, architecture, protocols, and system design. Topics include high-performance network architecture, control, and signalling; high-speed wired, optical, and wireless links; fast packet, IP, and optical switching; IP lookup, classification, and scheduling; network processors, end system design and protocol optimization, network interfaces; storage networks; end-to-end protocols, mechanisms, and optimizations; and high-bandwidth low-latency applications. Principles will be illustrated with many leading-edge and emerging protocols and architectures. Prerequisite: EECS 563 or EECS 780, or permission of the instructor. LEC.

EECS 882. Mobile Wireless Networking. 3 Hours.
Comprehensive coverage of the disciplines of mobile and wireless networking, with an emphasis on architecture and protocols. Topics include cellular telephony, MAC algorithms, wireless PANs, LANs, MANs, and WANs; wireless and mobile Internet; mobile ad hoc networking; mobility management, sensor networks; satellite networks; and ubiquitous computing. Prerequisite: EECS 563 or EECS 780, or permission of the instructor. LEC.
EECS 888. Internet Routing Architectures. 3 Hours.
A detailed study of routing in IP networks. Topics include evolution of the Internet architecture, IP services and network characteristics, an overview of routing protocols, the details of common interior routing protocols and interdomain routing protocols, and the relationship between routing protocols and the implementation of policy. Issues will be illustrated through laboratories based on common routing platforms. Prerequisite: EECS 745. LEC.

EECS 891. Graduate Problems. 1-5 Hours.
Directed studies of advanced phases of electrical engineering, computer engineering, computer science or information technology not covered in regular graduate courses, including advanced laboratory work, special research, or library reading. Prerequisite: Consent of instructor. RSH.

EECS 899. Master’s Thesis or Report. 1-6 Hours.
The University of Kansas

EECS 900. Seminar. 0.5-3 Hours.
Group discussions of selected topics and reports on the progress of original investigations. Prerequisite: Consent of instructor. LEC.

EECS 929. Electromagnetic Propagation and Scattering in Random Media. 3 Hours.
Polarimetric plane-wave propagation, including the complex propagation matrix and Stokes vector representation. Electromagnetic scattering, including the scattering matrix, Mueller matrix, scattering cross-section, absorption cross-section, extinction cross-section, Mie scattering, and Rayleigh scattering. Volume scattering in random media, including the Born approximation, Rayleigh scattering statistics, multiple scattering mechanisms, Radiative transfer theory, and volume scattering above a dielectric half-space. Propagation through random media, including the extinction coefficient, the optical theorem, and the distorted Born approximation. Scattering from rough surfaces, including the Kirchoff, Physical Optics and small-perturbation models. Prerequisite: EECS 720. LEC.

EECS 940. Theoretic Foundation of Data Science. 3 Hours.
A review of statistical and mathematical principles that are utilized in data mining and machine learning research. Covered topics include asymptotic analysis of parameter estimation, sufficient statistics, model selection, information geometry, function approximation and Hilbert spaces. Prerequisite: EECS 738, EECS 837, EECS 844 or equivalent. LEC.

EECS 955. Theoretical Foundations of Software Construction. 3 Hours.
This course presents the mathematical basis for software that is correct-by-construction. Students will learn basic mathematical techniques for representing, composing and refining software specifications and how they are realized in software systems. Prerequisite: EECS 762 or EECS 755. LEC.

EECS 965. Detection and Estimation Theory. 3 Hours.
Detection of signals in the presence of noise and estimation of signal parameters. Narrowband signals, multiple observations, signal detectability and sequential detection. Theoretical structure and performance of the receiver. Prerequisite: EECS 861. LEC.

EECS 967. Mathematical Optimization with Communications Applications. 3 Hours.
A mathematical study of the minimization (or maximization) of functions. The course provides an introduction to the mathematical theory and application of a variety of optimization techniques, with an emphasis on applications related to communication systems. Optimization problem formulation. Unconstrained and constrained minimization, including conditions for optimal points. Specific techniques for solving linear and nonlinear programming problems. Convergence of algorithms. LEC.

EECS 983. Resilient and Survivable Networking. 3 Hours.
Graduate research seminar that provides an overview of the emerging field of resilient, survivable, disruption-tolerant, and challenged networks. These networks aim to remain operational and provide an acceptable level of service in the face of a number of challenges including: natural faults of network components; failures due to misconfiguration or operational errors; attacks against the network hardware, software, or protocol infrastructure; large-scale natural disasters; unpredictably long delay paths either due to length (e.g. satellite and interplanetary) or as a result of episodic connectivity; weak and episodic connectivity and asymmetry of wireless channels; high-mobility of nodes and subnetworks; unusual traffic load (e.g. flash crowds). Multi-level solutions that span all protocol layers, planes, and parts of the network will be systemically and systematically covered. In addition to lectures, students read and present summaries of research papers and execute a project. Prerequisite: EECS 780; previous experience in simulation desirable. LEC.

EECS 998. Post-Master’s Research. 1-6 Hours.
RSH.

EECS 999. Doctoral Dissertation. 1-12 Hours.

IT 310. Computer Organization and Platform Technologies. 3 Hours.
Machine-level representation of data, digital logic and digital systems, computer architecture and organization, computing infrastructure, introduction to multiprocessing systems, firmware, hardware and software integration, introduction to intersystems communications, enterprise deployment management, introduction to virtual machine emulation, platform technologies. Prerequisite: Completion of all courses on the transfer list. LEC.

IT 320. System and Network Administration. 3 Hours.
This course introduces operating systems and network administration and presents topics related to selection, installation, configuration, and maintenance of operating systems and computer networks. Topics to be covered include: Unix and Windows operating systems installation, configuration, and maintenance, server administration and management, client and server services, user and group management and support, software systems installation and configuration, content management and deployment, security management, network administration, backup management and disaster recovery, resource management, automation management, operating systems and Web domain management, operating systems and application version control management. A laboratory component will provide hands-on experience with system and network administration. Prerequisite: IT 310. LEC.

IT 330. Web Systems and Technologies. 3 Hours.
The objective of this course is to discuss how the Web systems are programmed and maintained and how online pages are created and delivered by Web servers and used by clients. Topics to be covered include: Web systems and technologies, information architecture, digital media, Web development, Web standards, vulnerabilities, social network software, client-side programming, server-side programming, Web services and servers, XHTML, CSS, flash and CGI programming, CSS, Web systems security, JavaScript, PHP, and emerging technologies. Prerequisite: IT 310. LEC.

IT 340. Computer and Information Security. 3 Hours.
Fundamentals of computer security, security mechanisms, information states, security attacks, threat analysis models, vulnerability analysis models, introduction to cryptography, authentication, intrusion detection, intrusion prevention (firewalls), operating systems security, database
security, software security, host hardening, incident and disaster response. Prerequisite: Completion of all courses on the transfer list. LEC.

IT 342. Information Security Management. 3 Hours.
The objective of this course is to present topics related to the administration and management of information security. Topics to be covered include: security fundamentals, operational issues, cost-benefit analysis, asset management, security risk management, security policies and enforcement, risk avoidance, risk prevention, risk transfer, security services, security forensics, contingency planning, security auditing. A laboratory component will provide hands-on experience with security management and administration. Prerequisite: IT 340. LEC.

IT 399. Directed Reading in IT. 1-4 Hours.
Reading under the supervision of an instructor on a topic in Information Technology. The topic, expected outcome, evaluation criteria, and the number of credit hours must be mutually agreed on by the student and the instructor. Course may not be used to fulfill major elective requirements. Consent of the department required for enrollment. Prerequisite: Consent of instructor. LEC.

IT 410. Software Engineering and Management. 3 Hours.
This course introduces the software development life cycle and key concepts related to software engineering. Topics include software process models, software project management, software requirements engineering, formal and informal modeling, software architecture, software design, coding and implementation, software testing and quality assurance, software deployment, and software evolution. Additional topics such as software metrics and measures, application domains, software engineering standards, and software configuration management will also be presented. This is a project-driven course. Prerequisite: Knowledge of programming (comparable to EECS 268), SAS 402, and MATH 365. LEC.

IT 416. System Integration and Architecture. 3 Hours.
This course introduces system integration and architecture. Key concepts to be presented include: system architecture, system requirements, organizational context, acquisition and sourcing, system and component integration, middleware platforms, design patterns, integrative coding, scripting coding, testing and quality assurance, system deployment. Prerequisite: IT 410 and IT 422. LEC.

IT 420. Operating Systems. 3 Hours.
This course introduces operating systems principles and associated key concepts. Topics to be discussed include: processes and threads, concurrency, scheduling and dispatch, memory management, processor management, device management, security and protection, file system, disk scheduling, real-time and embedded systems, fault tolerance, scripting, and an introduction to virtualization. Prerequisite: MATH 365, IT 320, and IT 342. LEC.

IT 422. Computer Networks. 3 Hours.
Foundations of computer networking with practical applications and network administration, with emphasis on the Internet and wireless public switched telephone network. Topics to be covered include routing and switching, routing algorithms, physical layer, data link layer, network layer, network security, network management, and application areas. Prerequisite: IT 330. LEC.

IT 424. Network Security. 3 Hours.
This course covers the fundamental concepts, principles, and mechanisms in network and distributed system security. The topics that will be covered include: network security primitives, distributed authentication, key management, secure communication protocols, firewalls, intrusion detection, traffic monitoring and analysis, email and Web security, etc. Prerequisite: IT 340, IT 422, and senior standing. LEC.

IT 430. Human-Computer Interaction. 3 Hours.
This course introduces principles of human-computer interaction. Important topics to be presented include: human factors, human-centered design and evaluation, graphical user interfaces, multimedia system integration, interactive systems development, computer-supported cooperative work, human cognitive skills, accessibility, alternative input/output media, and emerging technologies. LEC.

IT 450. Social and Professional Issues. 3 Hours.
This course will provide an overview of the history of computing and presents key concepts related to the social and professional aspects of IT. Topics to be covered include: pervasive themes in IT, social context of computing, intellectual property, legal issues in computing, professional and ethical issues and responsibilities, privacy and civil liberties. Prerequisite: IT 342. LEC.

IT 452. Special Topics in IT: _____. 3 Hours.
This course introduces a special topic of current interest in information technology, offered as the need arises. May be repeated for additional credit. Prerequisite: Senior Standing. LEC.

IT 490. IT Capstone I. 3 Hours. AE61.
Capstone is a senior level course designed to allow a student to review, analyze, integrate, and apply technical knowledge in a meaningful and practical manner. The student will be expected to complete an approved academic project in IT that may be in collaboration with an industrial partner. Prerequisite: Senior standing. LEC.

IT 492. IT Capstone II. 3 Hours.
IT Capstone II is a continuation of IT Capstone, is a senior level course designed to allow a student to review, analyze, integrate, and apply technical knowledge in a meaningful and practical manner. The student will be expected to complete an approved academic project in IT that may be in collaboration with an industrial partner. Prerequisite: Senior standing. LEC.

Engineering Management Courses

EMGT 608. Principles of Engineering Management. 3 Hours.
A study of the principles used by the engineer in managing a technology-based enterprise. Topics include planning, organizing, staffing, directing, and controlling. Prerequisite: Senior or graduate standing in an engineering curriculum or consent of the instructor. LEC.

EMGT 800. Special Topics in Engineering Management. 1-4 Hours.
Advanced or experimental work of a specialized nature representing unique or changing needs and resources in engineering management. RSH.

EMGT 801. Management Theory and Practice for Engineering Managers. 3 Hours.
This course is intended to introduce the student to the basic concepts of management and motivation for the engineering manager and general behavior of technical organizations. This course presents a history of the schools of management thought through the modern research that began the participative management movement. The course will investigate classical motivational theories and management style principles. The student will perform research to determine how their employer or clients apply these theories. LEC.

Applied statistical methods to engineering systems will be introduced in this course for analyzing engineering and management systems. Emphasis will be given to applied regression analysis, analysis of variance, analysis of time dependence by smoothing, Bayes method, time series analysis, auto-regressive moving averages and forecasting model.
Prerequisite: Skills in probability, statistics, and computer application. LEC.

EMGT 803. Technological Forecasting and Assessment. 3 Hours.
This course focuses on the impact of technology on society. Techniques of technology forecasting such as Delphi, cross-impact analysis, trend projection, decision trees, and scenarios are discussed. Case studies of technology assessments are presented. Each student is asked to conduct a preliminary technology assessment which is a systematic study of the effects on society which may occur when a technology is introduced or modified. Prerequisite: Elementary skills in statistics, computer programming, and linear algebra. LEC.

EMGT 804. Business Development and Marketing of Professional Services. 3 Hours.
Principles and theories of business development and marketing as applicable to professional engineering and architectural practices. LEC.

EMGT 805. Management of Innovation. 3 Hours.
Management of technology and technological change through innovation, imitation, and obsolescence; planning, organizing, motivation, and control for innovation; organizational climate and its effects on innovative ideas and entrepreneurship; project/product decisions and RD strategies in small and large companies; innovation in multinational corporations. LEC.

EMGT 806. Finance for Engineers. 3 Hours.
A study of finance including financial planning and management in technological based organizations. Topics covered include financial statement analysis, present value of financial markets, capital budgeting, taxes, investment decisions, replacement decisions, cash flow budgets, and sources of capital. LEC.

EMGT 807. Labor and Employee Relations for the Engineering Manager. 3 Hours.
This course is an introduction to labor relations and human resources, including employment practices in unionized and non-union organizations. The course will examine labor relations, human relations and collective bargaining with emphasis on the negotiation and administration of labor agreements. Included will be a survey of the historical, legal, and structural environments that influence the collective bargaining process. Research topics focus on some of the most important issues in the workplace: protecting jobs, increasing productivity, computerization, worker participation, expanding and declining labor markets, and new methods of decision making in the human resources field. LEC.

EMGT 808. Quality Management. 3 Hours.
The overwhelming challenge that faces the U.S. today is the need to regain its competitive position in the world marketplace. This course offers a broad view of Quality Management in that it focuses on the managerial aspects of quality, rather than just the technical. For example, students will learn the Malcolm Baldrige award criteria which focuses on leadership, data analysis, human resources, quality assurance, quality results, and customer satisfaction. In addition, a review of the theory and approaches of the major quality leaders such as Deming, Juran, and Crosby will be covered. Practical applications of TQM concepts in a technological environment will be stressed throughout the course. LEC.

EMGT 809. Personal Development for the Engineering Manager. 4 Hours.
Includes the study of theories, tests for, and objectives of engineering and management ethics. Explores personal values. Measures personality profile and preferred communication style for each student. Includes management of stress, time, and career. Each student prepares career and personal development plans. Managerial writing and communication skills are developed through weekly projects including report and proposal preparation, internal correspondence concerning praise and reprimand, and organizational policy preparation. Interpersonal and nonverbal communication styles are studied. Relies heavily on instructor-assisted peer mediation of topics after introduction of constructive techniques of interpersonal communication. LEC.

EMGT 810. Applications of Quantitative Analysis in Decision Making. 3 Hours.
This course emphasizes the use of general system theory, classical optimization and optimality conditions, model development, and theory and application of mathematical programming, to include: linear programming, dynamic programming, queuing models, integer and non-linear programming, and introduction to decision analysis. Prerequisite: Elementary skills in linear algebra, probability, calculus, and computer application. LEC.

EMGT 811. Engineering Systems Simulation. 3 Hours.
Methods of developing, implementing, and using computer simulations for engineering processes such as inventory control, waiting lines, project monitoring, and capital investment decisions are covered. Extensive use is made of simulation languages and interactive graphic-supported gaming and decision analysis. Engineering systems and chemical processes are studied under deterministic and stochastic conditions. Two hours lecture, three hours laboratory per week. LEC.

EMGT 812. Law and the Design Professional. 3 Hours.
This course covers: legal doctrines relating to owners, design professionals, and contractors; sources of law, forms of association, and agency; contracts, including formation, rights and duties, interpretation, performance problems, disputes, and claims; standards of care and the management of construction claims; duties and obligations of the design professional, the owner, and the contractor; surety bonds and insurance. Prerequisite: Admission to graduate study in engineering or architecture. LEC.

EMGT 813. Design Project Management in Professional Practice. 3 Hours.
Includes planning, organizing, staffing, directing, and controlling design projects. Treats those topics from viewpoints of profit, cost control, client satisfaction, and project team human relations. Also covers delegation, motivation, team building, performance reviews, conflict resolution, and group dynamics. Presents the project manager's job from an augmented model of the Blake-Mouton grid. Prerequisite: Admission to graduate study in engineering or architecture. LEC.

EMGT 814. Leadership Techniques and Methods for the Engineering Manager. 3 Hours.
Leadership is a balancing act. It requires communicating a compelling vision, convincing others to buy in to that vision, and marshaling resources and talent to make it happen. This course will help new leaders master the complex art of the leadership role by improving decision making and communications, earning trust and building momentum, and inspiring and enabling others to excel. Managers are under increasing pressure to deliver better results faster than the competition. But meeting today's tough challenges requires complete mastery of a full array of management skills, form communications and coaching to public speaking and managing people. LEC.

EMGT 815. Business Relationships and Selling Skills. 3 Hours.
This course will introduce students to the Fundamentals of Business Relationships and Professional Selling. It is suitable for any technical professional who would like to be more effective in "getting their message across" to external or internal customers. Students will learn and connect through class lectures on relationship management including ethical issues in business relationships, experimental exercises on conducting and evaluating dialogues/presentations with groups of Customers/Internal
EMGT 816. Energy Management. 3 Hours.
One of the most critical topics for an engineering manager is effective energy cost cutting. This class will be an introduction to the latest strategies for improving lighting, combustion processes, steam generation/distribution, and industrial waste re-utilization. Topics include distributed generation, energy auditing, rate structures, economic evaluation techniques, lighting efficiency improvement, HVAC optimization, combustion and use of industrial wastes, steam generation and distribution system performance, control systems and computers, energy systems maintenance, and renewable energy. LEC.

EMGT 817. Mathematics for the Engineering Manager. 3 Hours.
This comprehensive math course is designed for the needs of the Engineering Manager who may need a "refresher" or to gain greater understanding of math concepts and the relationship to Engineering Management decision-making. LEC.

EMGT 818. Advanced Mathematics for the Engineering Manager. 2 Hours.
This math course is designed to supplement Engineering Management students' math skill and knowledge that is relevant to both the program needs and career needs. This course begins with a higher level of trigonometry and ends with differential equations. LEC.

EMGT 821. Strategic Analysis of Technology Projects. 3 Hours.
A study of the economic feasibility of competing engineering projects including the application of break-even analysis, decisions under uncertainty, decision trees, stochastic models, risk vs. return, and forecasting. A study of the financial figures of merit used to evaluate competing engineering projects including the DuPont rate of return method, the accounting rate of return, the operating return method, return on equity, earnings per share, margin on sales, selling price of stock, corporate credit rating, total sales, market share, market entry, and proforma year-end statements. A study of the strategic evaluation of a project including the proposed product or service, the organization, the environment, and the venture in general. Prerequisite: Admission to the M.S. Engineering Management program or consent of instructor. EMGT 806, a course in applied statistics. LEC.

EMGT 823. Management of Internal Engineering Projects. 3 Hours.
The purpose of this course is to introduce the student to all aspects of managing a project within a company or organization. The entire project life cycle will be covered from inception to close-out, and many practical considerations will be discussed including material procurement, working with contractors and consultants, selecting software, and managing the project team. The course will focus on how to manage project scope, schedule budget, and resources using personal computer software. A semester project is required presenting an example of project management or investigating some aspect of project management in detail. LEC.

EMGT 824. Product Marketing for Engineering Managers. 3 Hours.
Basic principles of marketing as applicable to engineering managers in the production- or operations-based enterprise. Includes a broad overview of the major components of marketing (competition, product, price, promotion, and distribution). Also details the integration of those components into the marketing plan. The students will develop a group marketing plan for an agreed-upon product. Prerequisite: Admission to a graduate program in engineering or Pittsburgh State’s technology management program. LEC.

EMGT 830. Case Studies in Engineering Management. 2-3 Hours.
A capstone course for the program which provides an integration of the material presented in the other courses through the utilization of several engineering management case studies. Note: Research paper and presentation are part of the 3 credit hour option. Prerequisite: Completion of a minimum of 21 credit hours in the Engineering Management program. LEC.

EMGT 835. Field Project (M.S.). 1-3 Hours.
A problem in engineering management, the satisfactory completion of which satisfies the project requirement for the degree of Master of Science in Engineering Management. THE.

EMGT 840. Systems Approach to Engineering. 3 Hours.
This is a first course at the graduate level introducing the formal methods and processes in bringing complex systems into being and improving existing systems. Systems include both products and services. Emphasis is placed on: the definition of customer needs, the entire life cycle of systems, and introduction to formal specification methods, the value to cost ratio and the management of the systems engineering process. LEC.

EMGT 844. Managing Software Development Projects. 3 Hours.
This course investigates the area of managing software development and presents the management process as a means of optimizing business considerations and project demands. Uncertainties in product/service specifications, technology risks, cost and delivery requirements impact the management functions. Cost and schedule estimation techniques are presented together with project planning, risk control and measurement technologies. The techniques presented in this course are directly applicable to management in other industry segments. Guest speakers are used to demonstrate applications in this course. LEC.

EMGT 848. Information Technology for Management. 3 Hours.
This course is intended to bring the student up to date on developments in the field of information technology (IT) and to prepare the student to apply those technologies in the workplace. To this end, the course is divided into two components. First, current hardware, software, and networking technologies will be presented. Topics include relational databases, object oriented design and programming, client-server technologies, the Internet, and emerging communication technologies. Second, approaches to evaluating and implementing the range of information technology alternatives available to business will be presented. Topics in this area include software development, management and evaluation, IT project management, information integrity and security, and the effects of IT on people and the organization. LEC.

EMGT 850. Environmental Issues for Engineering Managers. 3 Hours.
This course provides a survey of the environmental regulations, environmental problems, and environmental solutions that must be dealt with by engineering managers regardless of their function or industry. A historical perspective on the environment is presented followed by discussion of pollution generation (sources), transportation, fate, and effects. The quantity and quality of various types of pollutants emitted to various media and the risk posed by these pollutants is analyzed. The regulatory process is examined from the perspective of the legislator, the regulator, the regulated, the engineer, and the public. LEC.

EMGT 854. Management of Business Intelligence and Security for Strategic Planning. 3 Hours.
Management of competitive intelligence and security in business strategic planning is a first course at the graduate level that introduces the formal methods, concepts, and processes of competitive intelligence and security which are vital to both strategic business planning and day-to-day business operations. This course provides access to the tools used to identify what is happening in the business environment including...
legislation, economics, regulatory changes, competition, customers, etc. that affect a business’ strategy and operations. Further, these tools are applied to determining what will likely happen in the future and how to use those forecasts to optimize strategic and operational plans. LEC.

EMGT 860. Special Problems in Engineering Management. 1-4 Hours. Graduate-level investigation requiring original, independent research on problems or subjects of immediate interest to a student or faculty member. Intended to develop a student’s capability in coordinating two or more of the following: technology, finance, economics, applied mathematics, and managerial communication. EMGT 860 may be repeated for credit to a maximum of four hours in the degree program. Prerequisite: Approval of an outline of the proposed project by the instructor and the program director. RSH.

EMGT 862. Manufacturing Systems Integration. 3 Hours. This course develops the rationale and need for the integration of manufacturing systems, and deals with the multitude of practical problems involved with manufacturing systems integration. Topics covered include intelligent manufacturing subsystems and vendor-specific islands of automation, on-line and off-line information sources, and end users of information in the manufacturing enterprise. Engineering details covered include the types of communication links available between systems, communication standards, network and protocol alternatives, and hardware platform alternatives. Management concepts covered include the top-down design/bottom-up implementation approach to system integration, long-range planning and management of integration projects, reliability and security issues, and human factors. LEC.

EMGT 867. Advanced Operations Management. 3 Hours. This course provides the student with up-to-date information of the management of manufacturing operations. Emphasis is on quantitative methods for designing and analyzing manufacturing processes, simulation of manufacturing processes, and recent paradigms in manufacturing including just-in-time production, synchronous manufacturing, and agile manufacturing. A semester project is required covering some aspect of operations management in detail. LEC.

EMGT 868. Project Management Fundamentals III. 3 Hours. Concepts and skills development in relation to planning for management of communications, human resource aspects of project team formation and development, procurement, and quality. Examples of specific topics considered include information handling, reporting, and stakeholder relationships. Planning content is complementary to that of PMGT 818. LEC.

PMGT 817. Project Management Fundamentals II. 3 Hours. Planning concepts and skills development in relation to developing needed information on project scope, time, cost, and risk, and making direct use of such information to develop key documentation such as the project schedule and budget. Examples of specific topics considered include project work content and change, documentation, and resource requirements. Planning content is complementary to that of PMGT 818. LEC.

PMGT 818. Project Management Fundamentals III. 3 Hours. Concepts and skills development in relation to planning for management of communications, human resource aspects of project team formation and development, procurement, and quality. Examples of specific topics considered include information handling, reporting, and stakeholder relationships. Planning content is complementary to that of PMGT 817. LEC.

PMGT 819. Project Management Fundamentals IV. 3 Hours. Concepts and skills development in relation to project execution, including processes monitoring and controlling, and project closure. Examples of specific topics considered include handling change requests, procurement, teamwork and team development, and cost management. Course content represents systematic treatment of all aspects of project management beyond planning—but is, in project execution and closing phrases. LEC.

PMGT 820. Management of Intra-Organizational Projects. 3 Hours. Application area course exposing students to specialized knowledge, standards, and regulations involved in managing organizations’ internal projects. Attention is directed to unique characteristics of internal project environments, major project phases—from selection to closing—and related management processes. LEC.

PMGT 821. Management of Consulting Projects. 3 Hours. Application area course exposing students to specialized knowledge, standard, and regulations involved in managing consulting projects. Attention is directed to unique characteristics of consulting project environments, major project phases—from selection to closing—and related management processes. LEC.

PMGT 822. Management of Governmental Projects. 3 Hours. Application area course exposing students to specialized knowledge, standards, and regulations involved in managing projects for governmental entities. Attention is directed to unique characteristics of the governmental project environments, major project phases—from selection to closing—and related management processes. LEC.

PMGT 823. Risk Management for Project Managers. 3 Hours. Advanced study of risk management theory and practice as applied in managing projects. Basic concepts and methods of risk management are reviewed—such as qualitative and quantitative risk assessment—and details then examined. LEC.

PMGT 824. Project Cost Estimation, Analysis, and Control. 3 Hours. Advanced study of cost estimation methodology, cost engineering, and cost control applicable in project management. Includes review of commonly used supportive software. LEC.

PMGT 825. Portfolio Analysis for Project Managers. 3 Hours. Concepts and methods of intra-and inter-project finance including inter-organization funding, project evaluation and selection, project cost accounting, portfolio formulation and modification, and performance tracking. Introduces fundamentals of investment theory and real options analysis. LEC.

PMGT 826. Program Management. 3 Hours. Examination of program definition, structuring, and management in the context of organizational strategy, and the critical resources and skills required in long-term program evolution and execution. Facilitation of efforts across multi-tiered organizations will be stressed. LEC.

PMGT 827. Project Team Management and Development. 3 Hours. Concepts and methods of team and team member development, achieving higher-performance teams while satisfying organizational expectations. Specific topics include management concepts and
practices, team dynamics, and interpersonal skills in negotiation and conflict resolution. LEC.

**PMGT 828. Management of Global Projects. 3 Hours.** Survey of management challenges in conducting international projects, emphasizing cross-culture issues. Differences across world regions and selected key countries in relation to communication and interpersonal norms, business conventions, and legal systems will receive particular attention. LEC.

**PMGT 829. Management of Distributed Project Teams. 3 Hours.** Concepts and methods of conducting high-performance, multi-site team operations, focusing on intra-team communication, coordination, and control. Incorporates review of practical technologies with emphasis on web-enabled approaches. LEC.

**PMGT 830. Case Studies in Project Management. 2 Hours.** Reinforcement and demonstration of developing project management skills through case analysis and discussion. Goal is integration of learning across all core courses, and also drawing on content from general management, applications area, and advanced project management elective courses taken. Emphasis is on integrated project management. The students will develop their project in a written report and present their project during the final oral examination to the Project Management faculty and student’s employer or representative if practical. LEC.

**PMGT 832. Management of Internal Projects for Scientists and Technical Professionals. 3 Hours.** The purpose of this course is to introduce the student to all aspects of managing a project within a company or organization. The entire project life cycle will be covered from inception to close-out, and many practical considerations will be discussed including material procurement, working with contractors and consultants, selecting software, and managing the project team. The course will focus on how to manage project scope, schedule budget, and resources using personal computer software. A semester project is required presenting an example of project management or investigating some aspect of project management in detail. LEC.

**PMGT 835. Project Management Capstone. 3 Hours.** The capstone serves as a culminating experience for this degree. Students will develop an applied workforce project or benefit to in the student’s place of employment for full time students. The students will document their project in a written report and present their project during the final oral examination to the Project Management facility and student’s employer or representative if practical. LEC.

### Engineering Courses

**ENGR 101. Engineering Academic Success Seminar. 0-1 Hours.** This course will provide an introduction to the University and School of Engineering community and the value and role of higher education in our society, strategies for successful transition to and participation in that community, exploration of the University and School commitment to diversity and multiculturalism, and information about University and School resources and procedures. Prerequisite: Eligible students must have fewer than thirty credit hours from the University of Kansas. LEC.

**ENGR 102. Engineering Academic Recovery Program. 0 Hours.** The Engineering Academic Recovery Program is a mandatory course for freshman engineering students who are placed on academic probation.

**ENGR 108. Introduction to Engineering. 2 Hours.** An introductory level course with emphasis on engineering problem definition, methods simulation, and solution, including approaches to engineering design; engineering units and terminology; engineering disciplines and career areas, and engineering code of ethics. LEC.

**ENGR 111. Freshman Self Seminar. 0-1 Hours.** This course will serve as an introduction to the Self Engineering Leadership Fellows Program and will focus on building student’s skills in leadership, business, entrepreneurship, management, communication, engineering, and interpersonal skills. Prerequisite: Students must have applied, interviewed, and been accepted as a Self Engineering Leadership Fellows. LEC.

**ENGR 112. Sophomore Self Seminar. 0-1 Hours.** This course will serve as an introduction to the Self Engineering Leadership Fellows Program and will focus on building student’s skills in leadership, business, entrepreneurship, management, communication, engineering, and interpersonal skills. Prerequisite: Students must have applied, interviewed, and been accepted as a Self Engineering Leadership Fellows. LEC.

**ENGR 113. Junior Self Seminar. 0-1 Hours.** This course will serve as an introduction to the Self Engineering Leadership Fellows Program and will focus on building student’s skills in leadership, business, entrepreneurship, management, communication, engineering, and interpersonal skills. Prerequisite: Students must have applied, interviewed, and been accepted as a Self Engineering Leadership Fellows. LEC.

**ENGR 114. Senior Self Seminar. 0-1 Hours.** This course will serve as an introduction to the Self Engineering Leadership Fellows Program and will focus on building student’s skills in leadership, business, entrepreneurship, management, communication, engineering, and interpersonal skills. Prerequisite: Students must have applied, interviewed, and been accepted as a Self Engineering Leadership Fellows. LEC.

**ENGR 177. First Year Seminar: _____. 3 Hours. GE11.** A limited-enrollment, seminar course for first-time freshmen, organized around current issues in mechanical engineering. May not contribute to major requirements for School of Engineering students. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

**ENGR 180. Introduction to Naval Ships Systems I. 3 Hours.** The concept of weapons systems and the systems approach are explored. The techniques of linear analysis of ballistics and weapons are introduced. The dynamics of the basic components of weapons control systems are investigated and stated as transfer functions. This course provides the tools for the future development in the student’s understanding of the basic principles that underlie all modern naval weapons systems. Approved for degree credit in the College of Liberal Arts and Sciences effective fall 1971. Such courses count within the limit of 25 hours accepted from other schools and divisions. (Same as NAVY 180.) Prerequisite: MATH 002. LEC.

**ENGR 184. Introduction to Naval Ships Systems II. 3 Hours.** The concept of weapons systems and the systems approach are explored. The techniques of linear analysis of ballistics and weapons are introduced. The dynamics of the basic components of weapons control systems are investigated and stated as transfer functions. This course provides the tools for the future development in the student’s understanding of the basic principles that underlie all modern naval weapons systems. Approved for degree credit in the College of Liberal Arts and Sciences effective Fall 1971. Such courses count within the limit of 25 hours accepted from other schools and divisions. (Same as NAVY 184.) LEC.

**ENGR 300. Cooperative Engineering Education Experience. 1 Hour.** Engineering work experience with a recognized engineering organization. The work must be professional in nature and not merely routine. A final
summary report must be submitted to the student’s major department at
the conclusion of each continuous period of employment and may cover
more than one sequential semester or summer session. Credit for this
course cannot be used toward graduation requirements. Prerequisite:
Permission of major department. FLD.

ENGR 301. Navigation and Operations I. 3 Hours.
First semester juniors. Three hours classroom and two and one-half hours
laboratory per week. A comprehensive study of the theory, principles, and
procedures of ship navigation in coastal and open ocean environment.
Includes piloting, triangulation, ocean and tidal currents, navigational
astronomy, spherical trigonometry, sight reduction, publications and
logs; an introduction to electronic navigation, including theory of wave
propagation, hyperbolic and azimuthal systems, doppler, inertial, and
satellite systems. (Same as NAVY 300.) LEC.

ENGR 304. Technology: Its Past and Its Future. 3 Hours.
An examination of the role of technology and its influence on society. The
historical development of technology will be traced up to modern times
with an emphasis on its relations to the humanities. Attention will be given
to the future of different branches of technology and alternative programs
for their implementation. (Same as HIST 404.) LEC.

ENGR 305. Navigation and Operations II. 3 Hours.
Second semester juniors. Three hours classroom and two and one-
half hours laboratory per week. A study of laws for the prevention of
ship collisions; tactical formations and dispositions, relative motion,
and maneuvering board. Major portion of the semester is devoted
to operations research and analysis, with an introduction to discrete
probability theory, game theory, measures of effectiveness, active and
passive sonar equations, and review of systems analysis and cost
effectiveness. (Same as NAVY 304.) Prerequisite: MATH 111 or higher.
LEC.

ENGR 360. Special Topics: ____. 1-5 Hours.
Courses on special topics of current interest to engineers, such as ethics,
economics, engineering practice, communications, teamwork,
and professional and career development. Prerequisite: Approval of the
instructor. FLD.

ENGR 490. Engineering Internship. 1-6 Hours.
Engineering internship in an approved company. Internship hours do not
satisfy any course requirements for a bachelors degree in any School of
Engineering major, but will appear on the transcript. Credit assigned after
review of report on internship experience. FLD.

ENGR 504. Technical Writing for Engineers. 1-3 Hours.
The process of planning, organizing, initiating, drafting, and editing
engineering documents is covered through writing assignments and
discussion. Writing, editing, and publishing the Kansas Engineer
magazine. Graded on satisfactory/unsatisfactory basis. Prerequisite:
ENGL 102. FLD.

ENGR 515. Verbal Communications in Engineering. 1 Hour.
Meets one hour per week. Planning, preparing, and presenting speeches
on a variety of topics throughout the semester. Includes preparing
speeches, spontaneous speeches and the evaluation of speeches by
other students. Prerequisite: Two English courses and at least junior or
senior standing in engineering or consent of instructor. FLD.

ENGR 600. Engineering Applications in India: Technical, Business,
and Implementation Issues. 3 Hours.
Business principles play a crucial role in shaping engineering solutions.
This course will communicate key differences between the United States
and India in how engineering challenges and opportunities are shaped
by these principles and by culture. Students will travel to India to attend
lectures from schools, visit companies, engage in class discussion/
debate, and attend cultural excursions. Prerequisite: Major in Engineering.
LEC.

ENGR 835. Project (ME). 3-6 Hours.
A design problem or system study satisfying the project requirement for
the Master of Engineering degree. THE.

ENGR 940. Project (DE). 1-16 Hours.
A major design problem or system study satisfying the project requirement
for the Doctor of Engineering degree. THE.

Engineering Physics Courses

EPHX 400. Topics in Engineering Physics: ____. 1-3 Hours.
A course on special topics in engineering physics, given as the need
arises. Course may be repeated for different topics. Each section may
have additional prerequisites to be determined by the instructor. LEC.

EPHX 501. Honors Research. 1-4 Hours. AE61.
This course is for students seeking Departmental Honors in Astronomy,
Engineering Physics, or Physics to fulfill the undergraduate research
requirement. At the completion of the required four hours of total
enrollment, a written and oral report of the research is required. (Same
as PHSX 501.) Prerequisite: Junior/Senior standing in Astronomy,
Engineering Physics, or Physics. IND.

EPHX 503. Undergraduate Research. 1-4 Hours. AE61.
This course is for students seeking to fulfill the undergraduate research
requirement. Students are expected to participate in some area of
ongoing research in the department, chosen with the help of their advisor.
At the end of the term, students will present their results in a seminar
to other students and faculty. (Same as ASTR 503 and PHSX 503.)
Prerequisite: Junior/Senior standing in Astronomy, Engineering Physics,
or Physics, or permission of instructor. IND.

EPHX 511. Introductory Quantum Mechanics. 3 Hours.
An introduction to quantum mechanics, emphasizing a physical overview.
Topics should include the formalisms of non-relativistic quantum
mechanics, the 3-dimensional Schrodinger equation with applications to
the hydrogen atom; spin and angular momentum; multi-particle systems
of Fermi-Dirac and Bose-Einstein particles; time-independent perturbation
theory. (Same as PHSX 511.) Prerequisite: PHSX 313 and MATH 290.
LEC.

EPHX 516. Physical Measurements. 4 Hours.
A laboratory course emphasizing experimental techniques and data
analysis, as well as scientific writing and presentation skills. Experiments
will explore a range of classical and modern physics topics. (Same as
PHSX 516.) Prerequisite: PHSX 313, EPHX 316, and EPHX 521. (EPHX
521 may be taken concurrently.) LAB.

EPHX 518. Mathematical Physics. 3 Hours. N.
Applications of modern mathematical methods to problems in mechanics
and modern physics. Techniques include application of partial
differential equations and complex variables to classical field problems in
continuous mechanics, unstable and chaotic systems, electrodynamics,
hydrodynamics, and heat flow. Applications of elementary transformation
theory and group theory, probability and statistics, and nonlinear
analysis to selected problems in modern physics as well as to graphical
representation of experimental data. Prerequisite: PHSX 313 and MATH
320 or permission of instructor. (Same as PHSX 518.) LEC.

EPHX 521. Mechanics I. 3 Hours.
Newton’s laws of motion. Motion of a particle in one, two, and three
dimensions. Motion of a system of particles. Moving coordinate systems.
(Same as PHSX 521.) Prerequisite: PHSX 211 and PHSX 216, or PHSX
213; MATH 223; MATH 290; and MATH 220 or MATH 320. LEC.
EPHX 531. Electricity and Magnetism. 3 Hours.
The properties of electric and magnetic fields, including electrostatics, Gauss’ Law, boundary value methods, electric fields in matter, electromagnetic induction, magnetic fields in matter, the properties of electric and magnetic dipoles and of dielectric and magnetic materials. (Same as PHSX 531.) Prerequisite: PHSX 214, or PHSX 212 and PHSX 236; PHSX 521 or special permission; MATH 223; MATH 290; and MATH 220 or MATH 320. LEC.

EPHX 536. Electronic Circuit Measurement and Design. 4 Hours.
A laboratory course that explores the theory and experimental techniques of analog and digital electronic circuit design and measurements. Topics include transient response, transmission lines, transistors, operational amplifiers, and digital logic. (Same as PHSX 536.) Prerequisite: PHSX 214 or PHSX 212 and PHSX 236; MATH 223; and MATH 290. PHSX 313 and 316 recommended. LEC.

EPHX 600. Special Topics in Physics and Astrophysics: ______. 3 Hours.
Different topics will be covered as needed. This course will address topics in physics and astrophysics not covered in regularly offered courses. May be repeated if topic differs. (Same as PHSX 600.) Prerequisite: Permission of instructor. LEC.

EPHX 601. Design of Physical and Electronic Systems. 4 Hours.
AE61.
A laboratory course emphasizing the application of physical principles to the design of systems for research, monitoring, or control. Topics include the use of microcomputers as controllers, interfacing microcomputers with measurement devices, and use of approximations and/or computer simulation to optimize design parameters, linear control systems, and noise. (Same as PHSX 601.) Prerequisite: Twelve hours of junior-senior credit in physics or engineering, including one laboratory course. LEC.

EPHX 615. Numerical and Computational Methods in Physics. 3 Hours.
An introduction to the use of numerical methods in the solution of problems in physics for which simplifications allowing closed-form solutions are not applicable. Examples are drawn from mechanics, electricity, magnetism, thermodynamics, and optics. (Same as PHSX 615.) Prerequisite: PHSX 313, MATH 320 or equivalent, and EECS 138 or equivalent. LEC.

EPHX 621. Mechanics II. 3 Hours.
Continuation of PHSX 521. Lagrange’s equations and generalized coordinates. Mechanics of continuous media. Tensor algebra and rotation of a rigid body. Special relativity and relativistic dynamics. (Same as PHSX 621.) Prerequisite: EPHX 521 or PHSX 521. LEC.

EPHX 623. Physics of Fluids. 3 Hours.
An introduction to basic fluid mechanics in which fundamental concepts and equations will be covered. Topics will include hydrostatics, hydrodynamics, wave propagation in fluids, and applications in the areas such as astrophysics, atmospheric physics, and geophysics. (Same as PHSX 623.) Prerequisite: MATH 223; MATH 290; PHSX 212 and PHSX 236 (or PHSX 214 can replace PHSX 212 and PHSX 236.) LEC.

EPHX 631. Electromagnetic Theory. 3 Hours.
Maxwell’s equations, wave propagation, optics and waveguides, radiation, relativistic transformations of fields and sources, use of covariance, and invariance of relativity. Normally a continuation of PHSX 531. (Same as PHSX 631.) Prerequisite: EPHX 531 or PHSX 531. LEC.

EPHX 641. Introduction to Nuclear Physics. 3 Hours.
Experimental methods in nuclear physics, elementary concepts and simple considerations about nuclear forces, alpha and beta decay, gamma radiation, nuclear structure, and reaction systematics. (Same as PHSX 641.) Prerequisite: PHSX 313 and PHSX 511. LEC.

EPHX 655. Optics. 3 Hours.
Geometric optics. Wave properties of light: interference, diffraction, coherence. Propagation of light through matter. Selected topics in modern optics, e.g., lasers, fibers. (Same as PHSX 655.) Prerequisite: PHSX 313 and PHSX 316. LEC.

EPHX 661. Introduction to Elementary Particle Physics. 3 Hours.
Properties and interactions of quarks, leptons, and other elementary particles; symmetry principles and conservation laws; broken symmetry; gauge bosons; the fundamental interactions, grand unified theories of strong, electromagnetic, and weak interactions; the cosmological implications of elementary particle physics. (Same as PHSX 661.) Prerequisite: PHSX 313 and MATH 320. LEC.

EPHX 671. Thermal Physics. 3 Hours.
Development of thermodynamics from statistical considerations. Elementary techniques of calculating thermodynamic properties of systems. Application to classical problems of thermodynamics. Elementary kinetic theory of transport processes. Fermi-Dirac and Bose-Einstein systems. (Same as PHSX 671.) Prerequisite: PHSX 511. LEC.

EPHX 681. Concepts in Solids. 3 Hours.
Properties of common types of crystals and amorphous solids. Lattice vibrations and thermal properties of solids. Electrons and holes in energy bands of metals, semiconductors, superconductors, and insulators. (Same as PHSX 681.) Prerequisite: PHSX 313 and PHSX 611. LEC.

EPHX 691. Astrophysics I. 3 Hours.
An introduction to radiation processes, thermal processes, and radiative transfer in stellar atmospheres and the interstellar medium. (Same as ASTR 691 and PHSX 691.) Prerequisite: PHSX 313 or consent of instructor. LEC.

EPHX 693. Gravitation and Cosmology. 3 Hours.
An overview of topics relevant to gravitation and modern cosmology: special relativity, tensor notation, the equivalence principle, the Schwarzschild solution, black holes, and Friedman models. Cosmic black body radiation, dark matter, and the formation of large-scale structure. The idea of quantum gravity and an introduction to the current literature in cosmology. (Same as PHSX 693.) Prerequisite: PHSX 313 and MATH 320. LEC.

Mechanical Engineering Courses
ME 201. Statics. 2 Hours.
The principles of statics, with particular attention to engineering applications. Prerequisite: PHSX 211. LEC.

ME 208. Introduction to Digital Computational Methods in Mechanical Engineering. 3 Hours.
Digital computing methods for solving mechanical engineering problems utilizing current programming languages and commercial software. Topics from the course are applied through open-ended team projects throughout the semester which also give students an introduction to mechanical engineering. One lecture and lab meets with ME 228, therefore ME 208 cannot be taken concurrently with ME 228, but should be taken in back-to-back semesters. Corequisite: MATH 116 or MATH 121. LEC.

ME 210. Introduction to Mechanics. 1 Hour.
An introduction to mechanics of materials including stress, strain, and axial loading. Prerequisite: ME 201. LEC.

ME 211. Statics and Introduction to Mechanics. 3 Hours.
The principles of statics, with particular attention to engineering applications and an introduction to mechanics of materials. This course is
ME 228. Computer Graphics. 3 Hours.
An introduction to solid modeling computer graphics used in mechanical
design. Visualization skills and drawing practices are developed. Topics
from the course are applied through open-ended team projects throughout
the semester which also give students an introduction to mechanical
engineering. One lecture and lab meets with ME 208, therefore ME 228
cannot be taken concurrently with ME 208, but should be taken in back-to-
back semesters. LEC.

ME 306. Science of Materials. 3 Hours.
An introductory course on materials. Emphasis is placed on structure
and the relation of structure to the behavior and properties of engineering
materials. Prerequisite: CHEM 150 or CHEM 130 or consent of instructor.
LEC.

Laboratory to supplement lecture on engineering materials properties
and selection, manufacturing processes, and design for manufacturing.
Prerequisite: CHEM 150 or CHEM 130. Corequisite: ME 306 and ME 311.
LAB.

ME 311. Mechanics of Materials. 3 Hours.
The principles of mechanics of materials with particular emphasis on
mechanical systems including theories of failure. Prerequisite: ME 211.
Corequisite: MATH 220. LEC.

ME 312. Basic Engineering Thermodynamics. 3 Hours.
An introduction to the concepts of heat, work, the first and second laws
of thermodynamics and equations of state. These concepts are applied
to flow and nonflow systems including power and refrigeration cycles.
Prerequisite: PHSX 211 or (Corequisite: PHSX 211 and CHEM 135/175).
Corequisite: MATH 122. LEC.

ME 320. Dynamics. 3 Hours.
Kinematics and kinetics of particles and of rigid bodies as applied to
mechanical engineering problems. Prerequisite: ME 201 or ME 211,
MATH 220, and MATH 290. LEC.

ME 321. Dynamics Simulations. 1 Hour.
Introduction to dynamics simulations on the computer. Corequisite: ME
320. LEC.

ME 360. Mechanical Engineering Problems. 1-3 Hours.
An analytical or experimental study of problems or subjects of immediate
interest to a student and faculty member and which is intended to develop
student capability for independent research or application of engineering
science and technology. After completion of the project, a report is
required. Maximum credit is three hours. Not open to students who have
taken ME 361. Prerequisite: Approval of an outline of the proposed project
by the instructor and department chair. IND.

ME 361. Undergraduate Honors Research. 1-3 Hours.
Investigation of a particular mechanical engineering problem. Research
will involve defining the problem, developing a research methodology,
applying the research methodology and gathering data, analyzing and
interpreting the data, and presenting the results of the research. The
student must have a faculty sponsor and submit a proposal in writing
stating the objective of the research, the planned research method that
will be used, and the method of reporting the results. Maximum credit is
three hours. Not open to students who have taken ME 360. Prerequisite:
Participation in the University Honors Program, consent of instructor, and
approval of the chair required. IND.

ME 390. Special Topics: ____. 1-5 Hours.
Courses on special topics of current interest in mechanical engineering,
given as the need arises. Prerequisite: Approval of instructor. LEC.

ME 412. Thermal Systems. 3 Hours.
Application of the principles of thermodynamics to the analysis and design
of thermal systems. Prerequisite: ME 312. LEC.

ME 420. Mechanisms. 3 Hours.
Design and analysis of mechanisms composed of linkages, cams, and
gears. Mechanical vibration. Prerequisite: PHSX 211 and MATH 220.
LEC.

ME 455. Mechanical Engineering Measurements and
Experimentation. 4 Hours.
Lectures and laboratories on the basics of measurement, instrumentation,
data acquisition, analysis, design and execution of experiments, and
written and oral reports. Topics selected from heat transfer, fluid
mechanics, thermodynamics, mechanics, strength of materials, and
dynamics. Prerequisite: ME 208 and ME 311. Co-requisite: EECS 318,
ME 510, ME 320, ME 612, and Statistics. LEC.

ME 501. Mechanical Engineering Design Process. 2 Hours.
The design process of a mechanical or thermal system. Establishment
of specifications and consideration of realistic constraints such as safety,
codes, economic factors, reliability, oral and written communications, and
other factors as they impact the design process. Prerequisite: ME 311 and
ME 312. Corequisite: ME 228 and ME 307. LEC.

ME 508. Numerical Analysis of Mechanical Engineering Problems. 3
Hours.
Introduction to numerical methods for solution of mechanical engineering
problems by use of digital computers. Prerequisite: ME 208 or equivalent,
MATH 220 and MATH 290. LEC.

ME 510. Fluid Mechanics. 3 Hours.
An introduction to the mechanics of fluid flow. The principles of
conservation of mass, momentum, and energy are developed in
differential and integral form. Laws of dimensional analysis and similitude
are presented as the basis for empirical correlations. Engineering
applications include: calculation of hydrostatic forces on submerged
objects, analysis of flow and pressure loss in piping systems, estimation
of aerodynamic lift and drag, and performance characteristics of pumps
and fans. Prerequisite: ME 211, ME 201, or CE 201 and MATH 122;
Corequisite: ME 312. LEC.

ME 590. Special Topics: ____. 1-5 Hours.
Courses on special topics of current interest in mechanical engineering,
given as the need arises. Prerequisite: Approval of instructor. LEC.

ME 612. Heat Transfer. 3 Hours.
An applied study of conductive, convective, and radiative heat transfer
mechanisms in solid and fluid systems. Engineering applications include
solid conduction, free and forced convection in fluids, thermal radiation
and heat exchangers, evaporators, and furnaces. Prerequisite: MATH 220
and ME 312. Corequisite: ME 510. LEC.

ME 627. Automotive Design. 4 Hours.
Basic concepts of automotive design and manufacture. Primary focus of
course on vehicle design and performance. Design is subdivided into
vehicle components of frame, suspension, front and rear axle, steering
power train, front and rear wheel drive, and braking. Integration of these
ideas into a vehicle design project with analysis of its performance
culminates the course. Prerequisite: Permission of instructor. LEC.

ME 628. Mechanical Design. 3 Hours.
Design of mechanical components and systems. Prerequisite: ME 311.
LEC.
ME 633. Basic Biomechanics. 3 Hours.  
Provides an overview of musculoskeletal anatomy. Biodynamics includes linear and angular dynamics of human movement, energy expenditure and power required to perform a given activity. Students will learn to determine joint forces and torques (in 2-D) from kinematic data for body segments and force plate data. The tissue mechanics section builds on mechanics of materials. Students will learn about tissue properties, appropriate constitutive models and determination of stresses and strains in tissues and structures under normal loading conditions. Prerequisite: ME 311 and ME 320 or equivalent. LEC.

ME 636. Internal Combustion Engines. 3 Hours.  
Study and analysis of internal combustion engine physical phenomena, dynamic function, components, and system design. Emphasis on spark ignition and compression ignition engine analysis. Performance, current technology, thermodynamics, fluid-mechanics, combustion products and pollution, fuels and lubrication, and mechanical design. Prerequisite: ME 412. LEC.

ME 637. Steam Power Plants. 3 Hours.  
A study of steam power plant equipment including thermodynamic analysis, design and performance of modern steam generators, prime movers, and auxiliaries. Prerequisite: ME 412 or permission of instructor. LEC.

ME 639. Alternative Energy Systems. 3 Hours.  
This course is a survey of energy resources and the available technology for meeting current energy needs with alternative energy systems. An overview of the U.S. energy system and world-wide energy consumption is included to provide context. The primary course objective is to develop the students' ability to apply engineering fundamentals to the design and operation of alternative energy systems. The students will be introduced to databases and modeling methods used to represent alternative energy resources. Assignments will include: engineering problem analysis, group design projects, individual research papers, oral and written presentations. Prerequisite: ME 510, AE 345, or CPE 511 and (ME 412 or ME 612 or CPE 521). LEC.

ME 640. Design Project. 1-2 Hours.  
Planning for a capstone design project. Development of a formal project proposal is required. Must be used with two credit hours of ME 641, ME 643, ME 644 or ME 645 in the subsequent semester to complete the capstone design requirements. Prerequisite: Approval of instructor. LEC.

ME 641. Design Project Option A. 2-3 Hours. AE61.  
Design and development of a mechanical or thermal/fluid system. An individual or group report that includes designs, analysis/testing, drawings, and/or schematics is required. Establishment of specifications and consideration of realistic constraints such as safety, economic factors, design impact, aesthetics, and reliability are required. Prerequisite: ME 412, ME 501, and ME 628. LEC.

ME 642. Design Project Option B. 3 Hours. AE61.  
Manufacturing and testing of a mechanical system designed and developed in ME 627 - Vehicle Design. A group report with individual assignments which details the manufacturing procedures and testing procedures and results is required. A completed, working project with a design file documenting all aspects of the project development must be submitted. Prerequisite: ME 627, ME 501 and ME 628. Corequisite: ME 412 and ME 455. LEC.

ME 643. Design Project Option C. 2-3 Hours. AE61.  
Design and development of a mechanical system related to biomechanics that has been investigated in ME 633 - Basic Tissue Mechanics and Biodynamics. A report that includes designs, analysis/testing, drawings and/or schematics is required. Establishment of specifications and consideration of realistic constraints such as safety, ergonomics, economic factors, design impact, aesthetics, and reliability are required. Prerequisite: ME 501, ME 628, ME 633 and ME 640. Corequisite: ME 455. LEC.

ME 644. Design Project Option D. 2-3 Hours. AE61.  
Design and development of a thermal or fluid system. A group report that includes design, analysis/testing, drawings, and/or schematics is required. Establishment of specifications and consideration of realistic constraints such as safety, economic factors, design impact, aesthetics, and reliability are required. Prerequisite: ME 412, ME 455, and ME 501. Corequisite: ME 628. LEC.

ME 645. Design Project Option E. 2-3 Hours. AE61.  
Design and development of a mechanical, electrical or thermal/fluid system related to a sustainable approach to automobiles and energy infrastructure. This may include, but is not limited to alternative fuels, biomass, batteries and advanced vehicle powertrains along with solar/ wind energy at various scales. An individual or group report that includes designs, analysis/testing, drawings and/or schematics is required. Establishment of specifications and consideration of realistic constraints such as safety, economic factors, design impact, aesthetics and reliability are required. Prerequisite: ME 501, ME 510, and ME 628. Corequisite: ME 412 and ME 455. LEC.

ME 661. The Finite Element Method. 3 Hours.  
An introduction to the underlying theory of the finite element (FE) method and its application to linear solid and structural mechanics. FE formulations are derived for bars, beams, 2D formulations such as: plane stress, plane strain, and 3D solids. Basic issues are treated such as assembly and generation of FE equations, computation, post-processing, and interpretation of FE solutions (e.g. stresses and strains analysis). Prerequisite: ME 311, MATH 220, and MATH 290. LEC.

ME 682. System Dynamics and Control Systems. 3 Hours.  
An introduction to the modeling and analysis of analog linear systems and the design of control systems. Topics include mathematical models of mechanical, electrical, fluid and thermal systems, feedback concepts, transient response, frequency response and vibration, system stability, and design of feedback control systems including PID. Prerequisite: ME 320. LEC.

ME 696. Design for Manufacturability. 3 Hours.  
Tools to incorporate manufacturing and life-cycle concerns into the design of products. Prerequisite: ME 501 or equivalent. LEC.

ME 702. Mechanical Engineering Analysis. 3 Hours.  
A study of advanced methods for engineering analysis of practical problems utilizing fundamental principles from engineering disciplines. The emphasis is on the solution of these problems and the interpretation and generalization of the results. Prerequisite: A course in differential equations. LEC.

ME 708. Microcomputer Applications in Mechanical Engineering. 3 Hours.  
Design and implementation of interfaces of microcomputers to mechanical equipment. Includes laboratory experiments presenting selected industrial applications. Emphasis on human factors, functional design parameters and microprocessor interfaces. Includes instruction concerning specifications of practical hardware configurations and writing of programs necessary to accomplish mechanical systems applications. Prerequisite: Permission of instructor. LEC.

ME 711. Bearings and Bearing Lubrication. 3 Hours.  
Theoretical aspects of lubrication, determination of pressure distribution in bearings from viscous flow theory, application of hydrodynamic and hydrostatic bearing theories to the design of bearings, high speed
bearing design problems, properties of lubricants, methods of testing. Prerequisite: ME 510 and a course in differential equations. LEC.

**ME 712. Advanced Engineering Thermodynamics. 3 Hours.**
An advanced course in thermodynamics, mathematical in nature, with emphasis on a critical re-evaluation of the laws of thermodynamics, thermodynamics of one-dimensional gas flow, development of the classical thermodynamic relations and their application to engineering problems. Prerequisite: ME 508 and ME 412. LEC.

**ME 714. Thin Film Flow. 3 Hours.**
In thin film theory, the lubrication approximation (also called the long-wave approximation) is used to simplify the Navier-Stokes equations to study the flow of thin films. Even with this simplification, the thin film equation is still a challenging nonlinear PDE, and numerical and analytical methods are used to solve and analyze the equation. Similarity solutions, linear stability analysis, and travelling waves are useful tools for analysis. This course will focus on coating flows of thin films so the students can learn these techniques and discover the current knowledge gaps at the frontiers of this research area. Thin film flows are found in many applications, such as microchip production or biomedical applications, and experiments with thin film flows often yield stunning photos and videos. Prerequisite: ME 510, MATH 290, ME 508 or equivalents. LEC.

**ME 720. Advanced Dynamics of Machinery. 3 Hours.**
Dynamics of particles and of rigid bodies with advanced engineering applications; generalized coordinates; Hamilton’s principles; Lagrange’s equations; Hamilton-Jacobi theory. Prerequisite: ME 320 or equivalent. LEC.

**ME 722. Modeling Dynamics of Mechanical Systems. 3 Hours.**
Modeling, analysis and simulation of dynamic mechanical systems. Emphasis on the analysis of kinematics and dynamics of rigid mechanical multibody systems undergoing large overall motion using interactive computer simulation programs. Applications to the design and control of dynamic systems such as robots, machine tools, and artificial limbs. Prerequisite: ME 320 or CE 300. LEC.

**ME 733. Gas Dynamics. 3 Hours.**
A study of the thermodynamics and fluid dynamics of gaseous media. Emphasis is placed on the rigorous application of conservation laws to represent physical processes. Classical and statistical models for the thermodynamic and transport properties are examined. Applications include determination of gas properties, wave propagation, and high-speed flow. Prerequisite: ME 412 and ME 510 or equivalents. LEC.

**ME 736. Catalytic Exhaust Aftertreatment Modeling. 3 Hours.**
Fundamental concepts behind catalytic exhaust aftertreatment devices for automobiles including both monolithic catalysts and particulate filters. Studies of other catalytic devices intended for applications in the mechanical and chemical engineering fields. Topics covered are the development of governing equations based on conservation laws and their numerical solutions using finite difference methods. Studies will include a monolithic catalyst. Project assignments will be included. Prerequisite: ME 412 and ME 510 or permission of instructor. LEC.

**ME 750. Biomechanics of Human Motion. 3 Hours.**
Fundamental concepts of anatomy and physiology are introduced but the focus is on the biomechanics of human motion. Human body segment kinematics and joint kinematics are analyzed. An introduction to muscle mechanics is provided. Applications in balance and gait are covered. Corequisite: ME 320 or equivalent. LEC.

**ME 751. Experimental Methods in Biomechanics. 3 Hours.**
This course will focus on methods of experimental measurement and computational modeling used in biomechanics. Instrumentation used to measure three-dimensional motion, ground reaction forces, center of pressure and EMG measures are considered. Methods used for inverse dynamics, direct dynamics and simulation are introduced. Prerequisite: ME 320 or equivalent. LEC.

**ME 752. Acoustics. 3 Hours.**
This course will teach the production, propagation, and effects of sound waves. Detailed topics include plane wave, spherical wave, and cylindrical wave propagation in free space and waveguides, wave reflection and transmission on an interface, piston radiation, wave scattering and diffraction. Prerequisite: ME 320 or permission of instructor. LEC.

**ME 753. Bone Biomechanics. 3 Hours.**
Provides an in-depth knowledge of bone as a living mechanical system. Topics include the microstructure, biology, mechanical properties, mechanical modeling, adaptation of bone to the mechanical environment, and its simulation. Students assignments include homework, a poster presentation, basic finite element analysis laboratory, and bone remodeling simulations. Prerequisite: ME 311 or equivalent. LEC.

**ME 754. Biomedical Optics. 3 Hours.**
This course will cover the fundamentals of photon transport in biological tissues, including explanations of Rayleigh and Mie scattering, Monte Carlo simulations, the radiative transport equations and more. Also, the basic physics and engineering of various optical imaging techniques for biological tissues, including ballistic or quasi-ballistic imaging (such as confocal microscopy, and optical coherence tomography), diffuse imaging, photoacoustic imaging, will be introduced. Prerequisite: ME 508 or permission of instructor. LEC.

**ME 755. Computer Simulation in Biomechanics. 3 Hours.**
Provides an in-depth knowledge of 1) the process of developing a research question to be addressed with computer simulation, 2) various techniques for medical imaging to obtain model geometries (including hands-on experience with low-field MR imaging), 3) image segmentation techniques, 4) issues affecting geometric accuracy in model building, 5) the determination and specification of loading and/or kinematic boundary conditions, 6) the interpretation of model results in the context of the model limitations and the medical application. Knowledge and/or experience with finite elements is desirable, but not required. Prerequisite: ME 311 and ME 320 or equivalent. LEC.

**ME 756. Biofluid Dynamics. 3 Hours.**
An introduction to the fundamentals of biofluid dynamics, and the application of these principles to a variety of biological flows. Fluid flows in physiology, drug delivery, and biotechnology are investigated at a variety of scales, ranging from subcellular to organ groups. Topics include non-Newtonian constitutive equations, solution techniques, and principles of modeling and simulating. Prerequisite: ME 208 and ME 510 or equivalents. LEC.

**ME 757. Biomechanical Systems. 3 Hours.**
A course on the dynamics and motor control of human and animal motion. The course will focus on applying mechanical principles of dynamics, lumped parameter systems, and control theory to problems in biomechanics. Topics include muscle mechanics and dynamics, reflex and voluntary control, proprioception, anatomy of the muscular and nervous systems, and system dynamics in locomotion and other movements. Prerequisite: ME 682 or permission of instructor. LEC.

**ME 758. Physiological System Dynamics. 3 Hours.**
This course covers the use of engineering systems modeling approaches to understand the function of physiological systems. Systems covered include the cardiovascular system, the respiratory system, the renal system, the gastrointestinal system, and the musculoskeletal system. Prerequisite: ME 510, ME 320, Physics 212 or permission of instructor. LEC.
ME 760. Biomedical Product Development. 3 Hours.
Introduction to methods of taking medical product inventions from conception to initial stage production. Students work in cross-functional teams to investigate development potential of inventions. Topics covered include product development processes, regulatory issues with the FDA, quality system requirements, SBIR/STTR funding pathways, biomaterial and biomechanics issues in medical product design, and ethical considerations. Prerequisite: Senior or graduate student standing in engineering, business, industrial design, or an applicable life science field and permission of instructor. LEC.

ME 765. Biomaterials. 3 Hours.
An introductory course on biomaterials science and consideration of biomaterials in the design of biomedical implants. Topics including ethical considerations in biomaterials research and the role of the FDA in medical device design are also presented. Prerequisite: ME 306. LEC.

ME 770. Conductive Heat Transfer. 3 Hours.
The formulation of steady- and unsteady-state conduction heat transfer problems and their solution by analytical and numerical methods. Prerequisite: ME 612 or equivalent. LEC.

ME 774. Radiative Heat Transfer. 3 Hours.
The formulation of steady and unsteady radiation heat transfer problems and their solution by analytical and numerical methods. Prerequisite: ME 612 or equivalent. LEC.

ME 790. Special Topics: ____. 1-5 Hours.
Advanced courses on special topics of current interest in mechanical engineering, given as the need arises. Prerequisite: Approval of instructor. LEC.

ME 801. Responsible Conduct of Research in Engineering. 1 Hour.
Lectures and discussion on ethical issues in the conduct of a scientific career, with emphasis on practical topics of special importance in bioengineering. Topics include the nature of ethics, the roles of the scientist as a reviewer, entrepreneur, employer and teacher, research ethics in the laboratory, social responsibility and research ethics regulation. (Same as BiOE 801.) Prerequisite: Permission of instructor. LEC.

ME 808. Advanced Microprocessor Applications. 3 Hours.
Advanced design and development of microprocessor based mechanical systems. Individual and team projects involving the development and integration of hardware and software into a “smart” system which includes the sensing, processing, and controlling functions are accomplished. Emphasis is on the use of the latest sensors and development tools. Prerequisite: Permission of instructor. LEC.

ME 810. Advanced Fluid Mechanics. 3 Hours.
Topics include kinematic and dynamic behavior of fluids, derivation of Navier-Stokes equations, flow classification, solutions of viscous and inviscid flows for simple geometries, potential flow theory and laminar and turbulent boundary layer theory. Prerequisite: ME 510 or equivalent. LEC.

ME 831. Convective Heat and Momentum Transfer. 3 Hours.
The formulation and solution of steady and unsteady convective heat, mass, and momentum transfer problems. Topics include boundary layers, duct flows, natural convection with and without phase change, development of analogies, transport properties, numerical methods. Prerequisite: ME 612 or equivalent. LEC.

ME 832. Computational Fluid Dynamics and Heat Transfer. 3 Hours.
The fundamentals of the finite-difference method are presented and applied to the formulation of numerical models for heat and momentum transfer. The accuracy, stability, and computational efficiency of different algorithms are analyzed. Computer programs are developed for classical benchmark problems. Prerequisite: ME 508, ME 510, and ME 612 or equivalents. LEC.

ME 840. Continuum Mechanics I. 3 Hours.
Principles of Continuum Mechanics for solids, fluids, and gases. Frames of references, measures of motion, deformation, strains, stresses, their rates, objectivity and invariance. Conservation laws, constitutive equations, equations of state and thermodynamic principles for developing mathematical models of continuum matter. Theoretical solutions of model problems. Corequisite: MATH 647 or ME 702; or permission of instructor. LEC.

ME 841. Continuum Mechanics II. 3 Hours.
Fundamental principles of Continuum Plasticity, measures of plastic strains, stresses and constitutive equations for flow theory of plasticity. Internal variable theory of thermo-mechanical behaviors and endochronic theory of plasticity and viscoplasticity. Anisotropic plasticity and advanced topics. Continuum mechanics principles for viscoelastic solids with emphasis on constitutive equations. Development of complete mathematical models and solutions of selected model problems. Prerequisite: ME 840 or equivalent. LEC.

ME 854. Continuum Mechanics for Soft Tissues. 3 Hours.
An introductory course in the analysis of the mechanical behavior of materials modeled on the continuum assumption. The course will provide background on soft tissue properties and will focus on the tools necessary to model soft tissues, including the essential mathematics, stress principles, kinematics of deformation and motion, and viscoelasticity. Prerequisite: ME 311 or equivalent. LEC.

ME 860. Advanced Mechanical Engineering Problems. 1-3 Hours.
An analytical or experimental study of problems or subjects of immediate interest to a student and faculty member and which is intended to develop students capability for independent research or application of engineering science and technology. Maximum credit toward any degree is three hours unless waived in writing by the departmental chairperson. Prerequisite: Approval of instructor. RSH.

ME 861. Theory of the Finite Element Method. 3 Hours.
Finite element method for solid mechanics, heat transfer, fluid mechanics, and dynamics. Modeling techniques, software implementation, and solution of problems. Prerequisite: ME 508 or equivalent. LEC.

ME 862. Finite Element Method for Transient Analysis. 3 Hours.
Advanced treatment of dynamic and transient response for linear and nonlinear problems in solid mechanics. Formulation and solution of time dependent linear and nonlinear field problems using finite element techniques. Prerequisite: ME 861 or equivalent. LEC.

ME 864. Mesh Generation and Adaptivity for Finite Element Simulations in Engineering. 3 Hours.
The generation of Finite Element meshes in the analysis and simulation of engineering systems. Important topics are treated such as initial mesh generation and refinements (i.e. geometric modeling and mesh adaptivity or grading), choice of type of element, and assessment of solution accuracy (i.e. error estimation). Assignments include solving problems using FE software. Prerequisite: ME 661, ME 861, or equivalent. LEC.

ME 882. Advanced Control Systems. 3 Hours.
Advanced methods in the modeling, analysis and design of linear and nonlinear control systems. Topics include but not limited to digital controls methods, energy-based modeling, and state-space methods. Prerequisite: ME 862. LEC.
ME 899. Independent Investigation. 1-6 Hours.
An analytical or experimental investigation of an engineering problem requiring independent research. If the thesis option is selected six credit hours are required for the degree. If the project option is selected three credit hours are required for the degree. (See requirements for the Master of Science degree for additional details.) THE.

ME 901. Doctor of Engineering Internship. 1-12 Hours.
A twelve month internship in industry or government for doctor of engineering candidates. The student is supervised by a preceptor at the internship site. Bimonthly progress reports are to be filed with the student’s advisory committee. One credit hour per month of internship. FLD.

ME 961. Finite Element Method for Nonlinear Problems in Solid Mechanics. 3 Hours.
Advanced treatment of finite element techniques for structural analysis including material and geometric non-linearity as well as large strain deformation. Prerequisite: ME 861 or equivalent. LEC.

ME 962. p-Approximation, Error Estimation, and Other Advanced Topics in the Finite Element Method. 3 Hours.
Advanced treatment of p-Approximation, error estimation, and other advanced topics in the finite element method. Prerequisite: ME 861 or equivalent. LEC.

ME 965. Mathematical Modeling and Computational Method in Multi-Scale Processes. 3 Hours.
An overview of classical averaging and homogenization methods, as well as current multi-scale modeling techniques for the analysis of the micro- and nano-mechanics of materials. Models and numerical techniques are introduced based on continuum as well as particle descriptions. Assignments include the simulation of micro- and nano-mechanics problems by using existing finite element software and molecular dynamics packages. Prerequisite: ME 861 and ME 840. LEC.

ME 990. Special Topics: _____. 1-5 Hours.
Advanced courses on special topics of current interest in mechanical engineering, given as the need arises. Prerequisite: Approval of instructor. RSH.

ME 999. Independent Investigation. 1-16 Hours.
An analytical or experimental investigation of an engineering problem requiring independent research. Twenty four hours as a minimum are awarded for the Ph.D. dissertation. An original contribution suitable for publication in a refereed journal is required of Ph.D. candidates. Twenty four credit hours as a minimum are awarded for the D.E. project. The D.E. candidate will have technical and supervisory responsibility for a multiperson project and a formal final project report suitable for publication is required. THE.

Department of Aerospace Engineering

Aerospace Engineering

The aerospace engineering discipline involves the design, production, operation, and support of aircraft and spacecraft. Aerospace engineers solve problems, design aircraft and spacecraft, conduct research, and improve processes for the aerospace industry.
around some of the most noteworthy manufacturers and designers, including: Douglas, Boeing, Lockheed, Fokker, Heinikel, Messerschmitt, Fairey, Handley Page, Piaggio, Tupelov, Mikoyan-Gurevich, Sud Aviation and many others. Topics are handled vertically in that the history of an individual designer/company/bureau is covered from start-to-finish per lecture module. This course represents a very unique opportunity for students to study under one of the most important and famous Aircraft Designers ever to practice in the US. No prerequisite is required. The course is open to all KU students. 

AE 241. Private Flight Course. 1 Hour. 
One hour of academic credit is given upon the awarding of the private pilot's license by the Federal Aviation Administration. Required documentation includes a letter from the F.A.A. designated examiner giving the check ride and a copy of the private license. The Department of Aerospace Engineering provides no ground or flight instruction. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Aerospace Engineering students only, with consent of instructor. IND.

AE 242. Private Flight Aeronautics. 3 Hours. 
Three hours of academic credit is given for the successful completion of the F.A.A. private pilot's written examination. Required documentation is a copy of the written score. Available only to Aerospace Engineering transfer students as a course substitute for AE 245. IND.

AE 245. Introduction to Aerospace Engineering. 3 Hours. 
Basic systems of an aerospace vehicle, meteorology, vehicle performance, navigation and safety. Specific examples emphasize general aviation. Open enrollment. Corequisite: MATH 121. LEC.

AE 290. Aerospace Colloquium. 0.25 Hours. 
This is a required course for all aerospace engineering majors each fall semester. Topics of importance and new developments are discussed by aerospace industry representatives and representatives of F.A.A., D.O.T., D.O.D., N.A.S.A., related sciences, and engineering disciplines. A forum for student activities at all levels. Technical films. Open enrollment. LEC.

AE 292. Aerospace Industrial Internship. 1 Hour. 
Engineering internship in an approved company. Internship hours do not satisfy any course requirements for the bachelors degree in Aerospace Engineering but will appear on the official transcript. Credit assigned after review of report on internship experience. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Completion of freshman year. FLD.

AE 345. Fluid Mechanics. 3 Hours. 
Study of fundamental aspects of fluid motions and basic principles of gas dynamics with application to the design and analysis of aircraft. Open enrollment. Corequisite: CE 201 or CE 301. LEC.

AE 360. Introduction to Astronautics. 3 Hours. 
Introduction to astronautical engineering. The history of astronautics, including rocketry and space flight. Fundamentals of astronautics, including space environment, astrodynamics and the analysis and design of spacecraft systems. Design, construction and launch of a prototype earth-satellite using a high-altitude balloon. Prerequisite: MATH 122. Corequisite: A course in computer programming. LEC.

AE 390. Aerospace Industrial Internship. 1 Hour. 
Engineering internship in an approved company. Internship hours do not satisfy any course requirements for the bachelors degree in Aerospace Engineering but will appear on the official transcript. Credit assigned after review of report on internship experience. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Completion of Sophomore year. FLD.

AE 421. Aerospace Computer Graphics. 4 Hours. 
Development of skills in depicting aerospace vehicles and their components and subsystems for the purpose of illustration, design, and analysis using traditional and modern (Computer Aided Design) drafting tools. LEC.

AE 430. Aerospace Instrumentation Laboratory. 3 Hours. 
Review and hands-on laboratory experiments with basic electronic elements (resistors, capacitors, conductors, transistors, linear circuits, logic devices, and integrated circuits). Overview and hands-on laboratory experiments using various experimental techniques available to the aerospace engineers (pressure probes, thermocouples, strain gauges, hot-wire anemometer, laser Doppler velocimeter, and flow visualization techniques). Prerequisite: AE 445 and EECS 318. LAB.

AE 441. Advanced Flight Training. 1-3 Hours. 
Academic credit is given for the successful completion of advanced flight training beyond the private pilot rating. One hour is given for each of the following: commercial, instrument rating, certified flight instructor. The Aerospace Engineering Department provides no ground or flight instruction. Graded on a satisfactory/unsatisfactory basis. Open enrollment. Prerequisite: AE 241. IND.

AE 445. Aircraft Aerodynamics and Performance. 3 Hours. 
Study of airfoil and wing aerodynamics, component drag, static and special performance, and maneuvers of aircraft. Open enrollment. Prerequisite: AE 345, CE 301. LEC.

AE 490. Aerospace Industrial Internship. 1 Hour. 
Engineering internship in an approved company. Internship hours do not satisfy any course requirements for the bachelors degree in Aerospace Engineering but will appear on the official transcript. Credit assigned after review of report on internship experience. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Completion of junior year. FLD.

AE 507. Aerospace Structures I. 3 Hours. 
Analysis and design of aerospace structures from the standpoint of preliminary design. Deflection and stress analysis of structural components, including thin-walled beams and built-up (semimonocoque) structures. Material failure of highly stressed components, including connections. Buckling of thin-walled beams and semimonocoque structures. Durability and damage tolerance strategies for aerospace structures to avoid corrosion, fatigue, and fracture. Prerequisite: CE 310. LEC.

AE 508. Aerospace Structures II. 3 Hours. 
Stress and deflection analysis of aerospace structures using the finite element method. Introduction to work-energy principles, including Castigliano’s Theorems, for the analysis of statically indeterminate structures. Rod, beam, shaft, membrane, and plate finite elements. Prerequisite: AE 507. LEC.

AE 509. Honors Aerospace Structures. 3 Hours. 
Indeterminate structures, principle of virtual work, Castigliano’s theorems, displacement method of finite element analysis; rod, beam, shaft, and membrane elements; analysis of aerospace structures with the finite element method. Prerequisite: AE 507. LEC.

AE 510. Aerospace Materials and Processes. 4 Hours. 
Properties and applications of aircraft materials, forming methods, and manufacturing processes. Ethics and social responsibility for engineers. Oral technical presentations. Prerequisite: AE 507 and CHEM 130 or CHEM 150. LEC.

Preliminary design techniques for an aerospace system. Aerodynamic design, drag prediction, stability and control criteria, civil and military specifications. Weight and balance, Configuration integration, design and safety, design and ethics, and social responsibility for engineers. Written
AE 571. Fundamentals of Airplane Reciprocating Propulsion Systems. 3 Hours.
Study of the basic principles of operation and systems of internal and external combustion engines with emphasis on airplane reciprocating engines. Cycle analysis, propeller theory, propeller selection and performance analysis. Prerequisite: AE 445 and ME 312. LEC.

AE 572. Fundamentals of Jet Propulsion. 3 Hours.
Lecture and laboratory, study of basic principles of propulsion systems with emphasis on jets and fan systems. Study of inlets, compressors, burners, fuels, turbines, jets, methods of analysis, testing, performance; environmental considerations. Prerequisite: AE 545 and AE 571. LEC.

AE 573. Honors Propulsion. 3 Hours.
Lecture and laboratory, study of basic principles of propulsion systems with emphasis on jets and fan systems. Study of inlets, compressors, burners, fuels, turbines, jets, methods of analysis, testing, performance; environmental considerations. Prerequisite: AE 545 and AE 571. LEC.

AE 590. Aerospace Senior Seminar. 1 Hour.
Presentation and discussion of technical and professional paper reports. Methods for improving oral communication. Discussion of topics such as ethics, registration, interviewing, professional societies, personal planning. Prerequisite: Senior standing. LEC.

AE 592. Special Projects in Aerospace Engineering for Undergraduate Students. 1-5 Hours.
Directed design and research projects in aerospace engineering. Prerequisite: Consent of instructor. IND.

AE 593. Honors Research. 1-5 Hours.
Directed design and research projects in aerospace engineering. Prerequisite: Consent of instructor. IND.

AE 592. Special Projects in Aerospace Engineering for Undergraduate Students. 1-5 Hours.
Directed design and research projects in aerospace engineering. Prerequisite: Consent of instructor. IND.

AE 593. Honors Research. 1-5 Hours.
Directed design and research projects in aerospace engineering. Prerequisite: Consent of instructor. IND.

AE 628. Wind Turbine Engineering. 3 Hours.
Course will cover the fundamentals of engineering wind-powered electric generators. Topics will include turbine configuration design, drive train engineering, composite rotor blade aerodynamic and structural design, characterizing the influence of the wind conditions on the operation, loads, and performance of a wind turbine, wind turbine controls systems engineering, and power electronic conversion. Prerequisite: AE 508, AE 545, and EECS 316 and EECS 318 or equivalent. LEC.

AE 670. Aerospace Propulsion III. 3 Hours.
Advanced theory of turbojet, fanjet (multi-spool), variable cycle engines, ramjet and bypass air breathing propulsion systems. Theory and design of inlets, compressors, burners and turbines. Component matching, cooling, regenerative systems, test methods and corrections. Prerequisite: AE 572. LEC.

AE 690. Professional Development for Graduate Studies. 0.25 Hours.
Professional development for graduate students. Presentation and discussion of graduate student research. Meets approximately monthly. Each meeting will include either a faculty-guided seminar on one of the core course topics or presentations by students on a research topic. Some class sessions will be devoted to 10-15 minute informal presentations on work in progress. Others will allow students to make informal presentations as a “dress rehearsal” for presentations to be given.
at a technical conference. Two semesters of enrollment required for all MS, ME PhD and DE aspirants and candidates. Graded on a satisfactory/unsatisfactory basis. LEC.

**AE 701. Structural Design. 3 Hours.**
Design and internal construction of major structural components: wing, fuselage, empennage, landing gear, engine pylons. Layout of major structures and system interfaces, internal geometry, material alternates, manufacturing alternates and design constraints. Certification and proof of design requirements. Prerequisite: AE 421, AE 508, and AE 510. LEC.

**AE 704. Dynamics and Vibrations. 3 Hours.**
Problems in engineering dynamics and vibrations. Topics include applications of generalized forces and coordinates, Lagrange equations, and a study of the performance of single and multiple degree of freedom in vibrational systems. (Same as CE 704.) Prerequisite: AE 508. LEC.

**AE 705. Structural Vibrations and Modal Testing. 4 Hours.**

**AE 707. Aerospace Structural Loads. 3 Hours.**
Steady state spanwise and chordwise airloads, windshears, gusts, landing gear loads, bird strike, traumatic loads, special commercial and military load requirements. Prerequisite: AE 507 and AE 545. LEC.

**AE 708. Aerospace Structures III. 3 Hours.**

**AE 709. Structural Composites. 3 Hours.**
Fiber materials, tapes, cloths, resin systems; general aeolotropic theory, elastic constants, matrix formulation; computer analysis, strength, theory of failure; introduction to design with composites, preliminary design, optimization, processing variables, product design. Prerequisite: CHEM 184 or CHEM 150, CPE 121, AE 508 or CE 761; and AE 510 or ME 346 or CE 710. LEC.

**AE 710. Advanced Structural Composites. 3 Hours.**
The course objectives are to provide each student with a more in-depth understanding of and practical hands-on experiences with available fiber and matrix materials, manufacturing methods, and the mechanical behavior of composite materials and structures. Modern software tools and manufacturing methods are addressed, to include optimization techniques and design for manufacturability. Classical plate theory, bending, buckling, and vibration of anisotropic plates is addressed. Damage tolerance and repairability, as well as nondestructive evaluation techniques are also covered. Skills learned in previous composite courses will be utilized to design, analyze, and fabricate structures of current industrial relevance. Prerequisite: AE 508 or similar, AE 709 or similar, or consent of instructor. LEC.

**AE 712. Techniques of Engineering Evaluation. 3 Hours.**
The formulation of problems arising in aerodynamics, heat transfer, stress analysis, thermodynamics, and vibrations. The expression of these problems in a form amenable to quantitative evaluation by dimensional reasoning, analog techniques, relaxation methods, and classical analysis. LEC.

**AE 713. Stochastic Systems, Estimation and Identification in Aerospace Engineering. 3 Hours.**
Stochastic adaptive control theory is concerned with recursive estimation of unknown parameters and control for systems with uncertainties modeled as random variables or random processes. The theory is motivated by applications in such diverse areas as aerospace guidance and control, signal processing and communications, manufacturing processes, and financial economics. Mathematical theory of stochastic adaptive control for models based on stochastic difference equations such as autoregressive processes and stochastic differential equations as Markov diffusion processes have been developed and will be presented. This course focuses on filtering and system identification theory. Prerequisite: AE 430, AE 550, AE 551, AE 750, MATH 590 and MATH 627 or equivalent. LEC.

**AE 721. Aircraft Design Laboratory I. 4 Hours.**
The purpose of this course is to provide aerospace engineering students with an opportunity to gain more in-depth airplane design education through team design work. This team design work will involve detailed design efforts in such areas as: landing gear design, systems design, propulsion system integration, structures design, and aerodynamic design. Prerequisite: AE 507, AE 521, AE 545 , AE 551, and AE 571. AE 521 may be taken concurrently. LAB.

**AE 722. Aircraft Design Laboratory II. 4 Hours.**
The purpose of this course is to provide aerospace engineering students with an opportunity to gain more in-depth airplane design education through team design work. This team design work will involve detailed design efforts in such areas as: landing gear design, systems design, propulsion system integration, structures design, and aerodynamic design. Prerequisite: AE 507, AE 521, AE 545 , AE 551, and AE 571. AE 521 may be taken concurrently. LAB.

**AE 724. Propulsion System Design and Integration. 3 Hours.**
Theory and design of propulsion systems for both low and high speed aircraft and their integration into the overall configuration. Internal and external design and analysis of inlets and nozzles including their effect on the external aerodynamics of the aircraft. Engine/inlet compatibility and the problems of matching both steady state and dynamic characteristics to obtain peak, stable performance. Prerequisite: AE 572. LEC.

**AE 725. Numerical Optimization and Structural Design. 3 Hours.**
Classical theories of unconstrained and constrained optimization. Numerical techniques for unconstrained optimization, including the steepest descent, conjugate gradient and “Newton’s” methods. Numerical techniques for constrained optimization, including sequential approximate problem techniques as well as the method of feasible directions. Computer aided solutions to practical design problems in aerospace engineering. Final design project. Prerequisite: MATH 220 and MATH 290 or junior status. LEC.

**AE 728. Wind Turbine Engineering. 3 Hours.**
Course will cover the fundamentals of engineering wind-powered electric generators. Topics will include turbine configuration design, drive train engineering, composite rotor blade aerodynamic and structural design, characterizing the influence the wind conditions on the operation, loads, and performance of a wind turbine, wind turbine controls systems engineering, and power electronic conversion. Prerequisite: AE 507, AE 545, and EECS 316 and EECS 318 or consent of instructor. LEC.

**AE 730. Advanced Experimental Fluid Dynamics. 3 Hours.**
Theory, operation, and hands-on laboratory experiments on various flow measurement techniques including: multi-hole directional pitot probes, hot-wire anemometry, laser-Doppler velocimetry and particle image velocimetry. Flow visualization techniques including smoke injection, dye injection, helium bubbles, etc. Prerequisite: AE 430, AE 545, or consent of instructor. LEC.
AE 731. Supersonic Aerodynamics Laboratory. 1 Hour.
Supersonic wind tunnel and shock tube operations, techniques, and instrumentation. Flow study and model testing. Prerequisite: AE 545. LAB.

AE 732. Introduction to Flight Test Engineering. 3 Hours.
Course presents flight test principles, instrumentation, planning, and operation of aerospace vehicle flight testing. Course is structured with lectures, laboratories, and flight experiments. Student teams plan and execute a series of flight test experiments including: familiarization with flight test measurements, static system calibration, rate-of-climb performance, and determination of vehicle flight dynamics. Prerequisite: AE 445 and AE 550 or consent of instructor. LEC.

AE 743. Compressible Aerodynamics. 3 Hours.
Compressible flow with heat and friction; shock polaris, 1-D unsteady gas dynamics, shock tube, conical flows, methods of characteristics, hypersonic flow theory. Prerequisite: AE 545. LEC.

AE 744. Introduction to Turbulent Flow. 3 Hours.
Reynolds averaged equations for turbulent flow, basic energy relations and spectra in turbulent flow, analysis of turbulent boundary layer, turbulent pipe flow, turbulence models and simulation. Prerequisite: AE 545 or equivalent. LEC.

AE 745. Applied Wing and Airfoil Theory. 3 Hours.
Applications of potential flow theory to aerodynamics of airfoil sections; wings and wing-body combinations. Introduction to high angle-of-attack and transonic aerodynamics. Prerequisite: AE 545. LEC.

AE 746. Computational Fluid Dynamics. 3 Hours.
Applications of numerical techniques and digital computers to solving fluid flow problems. Solutions involving incompressible and compressible flows, inviscid and viscous flows. Finite difference techniques for different types of partial differential equations governing the fluid flow. Prerequisite: AE 545. LEC.

AE 748. Helicopter Aerodynamics. 3 Hours.
Helicopter components and their functioning: rotor aerodynamics, performance, stability and control, aeroelastic effects and vibrations. Prerequisite: AE 551. LEC.

AE 750. Applied Optimal Control. 3 Hours.
Introduction to optimal control analysis and design tools useful for the design of Multi-Input/Multi-Output controllers. Linear Quadratic Regulator problem extended by including advanced command techniques and advanced controller structures. The techniques are illustrated with aerospace applications. Prerequisite: AE 551 or ME 682 or consent of instructor. LEC.

AE 751. Advanced Airplane Dynamics. 2 Hours.

AE 753. Digital Flight Controls. 3 Hours.
Introduction to the classical Z-plane analysis and design tools useful for the design of control systems containing continuous dynamics and a digital computer. Mathematical modeling of the digital computer and design of digital compensators. Aerospace applications used to demonstrate the concepts. Prerequisite: AE 551 or ME 682 or consent of instructor. LEC.

AE 754. Missile Dynamics. 3 Hours.
AE 768. Orbit Determination. 3 Hours.
Develops the theory of batch and sequential (Kalman filter) estimation theory related to orbit estimation, including a review of necessary concepts of probability and statistics. Course work includes a term project that allows students to apply classroom theory to an actual satellite orbit determination problem. Prerequisite: AE 360. Corequisite: AE 560 or AE 760. LEC.

AE 771. Rocket Propulsion. 3 Hours.
Basic elements of rocket propulsion: systems, propellants, and performance. Prerequisite: AE 545 or equivalent. LEC.

AE 772. Fluid Mechanics of Turbomachinery. 3 Hours.

AE 781. Introduction to Adaptive Aerostructures. 3 Hours.
This course covers the basic material properties and modeling techniques for structures that are capable of changing some physical property in response to a command signal. The course will be useful for students from nearly every branch of engineering and includes a fabrication and testing practicum introducing basic post processing and integration techniques used with piezoelectric, shape memory alloy and magnetorheological materials. The course concludes with an overview of applications and examples of adaptive products. Prerequisite: ME 311 or equivalent. LEC.

AE 790. Special Problems in Aerospace Engineering for Masters Students. 1-5 Hours.
Directed studies of advanced problems in aerospace engineering. Open only to graduate students with departmental approval. RSH.

AE 803. Aeroelasticity. 3 Hours.
Introduction to self-excited vibrations, wing flutter, panel flutter, unsteady aerodynamics, launch vehicle structural vibrations. Prerequisite: AE 508, AE 545, AE 551, and AE 704. LEC.

AE 821. Advanced Aircraft Design I. 3 Hours.
Aerodynamic design optimization. Aircraft cost prediction methods: development, manufacturing, and operating. Minimization of operation costs and implications to configuration design. Design to minimize lifecycle costs. Decision making based on the basis of cost. LEC.

AE 822. Advanced Aircraft Design II. 3 Hours.
Design of flight control systems, fuel systems, hydraulic systems, and electrical systems. Weapon system integration problems, design for low radar cross sections. The kinematics of landing gear retraction systems. LEC.

AE 830. Aerospace Graduate Internship. 1-12 Hours.
One credit hour per month of approved aerospace engineering internship satisfying one of the requirements for the MS or PhD program. Graded on a satisfactory/unsatisfactory basis. FLD.

AE 840. Aerodynamics of Viscous Flows. 3 Hours.
Concepts of boundary layer equations of viscous fluids. Various transformations for compressible boundary-layer equations. Approximate and exact finite-difference solutions, including effects of suction and blowing. Transitions. Concept of turbulent flow and solutions of turbulent boundary layer equations. Applications in aeronautics. Prerequisite: AE 545. LEC.

AE 845. Transonic Aerodynamics. 3 Hours.
Applications of potential flow, Euler and Navier-Stokes solvers to transonic and vortex-flow aerodynamics. Concept of rotated finite difference scheme. Convergence acceleration and multigrid techniques. Methods of flux vector splitting, upwind differencing, and approximate factorization. Turbulence modeling. Prerequisite: AE 746. LEC.

AE 846. Advanced Computational Fluid Dynamics and Heat Transfer. 3 Hours.
Present recent advances in computational fluid dynamics and heat transfer with a focus on numerical algorithms designed for unstructured grids, including grid generation, convergence acceleration techniques, high-order algorithms and parallel computing on CPU and GPU clusters. It is expected that the students will understand the basics of the finite volume method for unstructured grids, and be able to program a 2D Euler solver for arbitrary grids after taking this class. Prerequisite: AE 746. This class is not open to undergraduate students. LEC.

AE 850. Advanced Control Seminar. 2 Hours.
Extension of AE 750 covering digital optimal control, optimal estimation, and advanced control topics. Combination of lecture, seminar, and project format. Review of current journal articles. Development of analysis and design computer programs. Prerequisite: AE 750 and consent of instructor. LEC.

AE 890. ME Internship. 1-6 Hours.
One credit per month of engineering internship. Prerequisite: Admission to Master of Engineering in Aerospace Engineering program and approved internship. FLD.

AE 892. Special Problems in Aerospace Engineering for Doctoral Students. 1-8 Hours.
Directed studies of advanced problems in aerospace engineering. Open only to graduate students with consent of instructor. RSH.

AE 895. M.S. Thesis or Project. 1-6 Hours.
Original research or project which satisfies the requirements for the degree of Master of Science in Aerospace Engineering. Restricted to Aerospace MS students. THE.

AE 896. ME Project. 3-6 Hours.
A design problem or system study satisfying the project requirement for the Master of Engineering degree in Aerospace Engineering. Prerequisite: Admission to Master of Engineering in Aerospace Engineering program. THE.

AE 941. Hypersonic Aerodynamics I. 3 Hours.
The gasdynamics of aerospace vehicles operating in the speed range above Mach 5. Rarified and dissociated gas flows; magnetogasdynamic and heat transfer problems. Prerequisite: Consent of instructor. LEC.

AE 990. DE Internship. 1-12 Hours.
One credit per month of engineering internship. Prerequisite: Admission to DE program and approved internship. FLD.

Restricted to Aerospace Ph.D. candidates. Prerequisite: Successful completion of Comprehensive Oral Exam. THE.

AE 997. DE Project. 1-16 Hours.
A major design problem or system study satisfying the project requirements for the Doctor of Engineering in Aerospace Engineering degree. Restricted to Aerospace DE candidates. Prerequisite: Successful completion of Comprehensive Oral Exam. THE.
Bachelor of Science in Aerospace Engineering

Careers
Professional Opportunities
Aerospace engineers design, develop, and test aircraft, spacecraft, and missiles and supervise manufacture of these products. They explore advances in air flight and space exploration. Aerospace engineers typically work for aircraft, guided missile and space vehicle industries, national research laboratories, commercial airlines, and federal government agencies.

Undergraduate Admission to the School of Engineering
First-year undergraduate students may be admitted, but all admissions, both in-state and out-of-state, are selective. Visit the Office of Admissions (http://admissions.ku.edu/whyku/index.shtml) for admission requirements. Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Applications are judged on several factors, including but not limited to high school record, scores on national tests, academic record at college or university level, and trend of grades. High school transcripts and ACT scores are required. Equivalent SAT scores may be substituted.

Minimum Academic Standards for Admission
To be considered for admission to the School of Engineering, beginning first-year students must meet or exceed the following minimum standards:

- A 3.0 grade-point average on a 4.0 scale on the Kansas Board of Regents Qualified Admissions (http://admissions.ku.edu/apply/regents_curriculum.shtml) college-preparatory curriculum.
- Top 50 percent of the graduating class of an accredited high school or the equivalent.
- Mathematics ACT score of 22 (or mathematics SAT score of 540).

Some engineering degree programs may require a higher mathematics ACT score.

These minimum admission standards apply to all departments. Meeting minimum requirements does not guarantee admission.

Transfer Admission Standards
Applications from all transfer students, whether from other institutions or from other KU units, are evaluated on a case-by-case basis. In general, students with grade-point averages under 2.5 are not considered. Students must submit mathematics ACT or SAT scores or proof of competence in calculus (grade of C or higher). No upper-level engineering credits from non-ABET-accredited engineering programs are acceptable as transfer credit for engineering programs. Admission is selective, and meeting the minimum requirements does not guarantee admission.

Four Year Degree Completion Plan
The following are recommended enrollments:

<table>
<thead>
<tr>
<th>Semester</th>
<th>Fall Hours</th>
<th>Spring Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td></td>
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</tr>
<tr>
<td>Math 121 (KU GE 1.2)</td>
<td>5</td>
<td>Math 122</td>
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<tr>
<td>ENGL 101 (KU GE 2.1)</td>
<td>3</td>
<td>ENGL 102 (KU GE 2.2)</td>
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<tr>
<td>CHEM 150 or 130 (KU GE 3N)</td>
<td>5</td>
<td>PHSX 211 (KU GE 1.1)</td>
</tr>
<tr>
<td>AE 245 (part of KU GE 5)</td>
<td>3</td>
<td>AE 290 (part of KU GE 2.2 or AE 5)</td>
</tr>
<tr>
<td>AE 290 (part of KU GE 2.2 or AE 5)</td>
<td>0.25</td>
<td>Econ 104, 142, or 144</td>
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<tr>
<td>Sophomore</td>
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<td></td>
</tr>
<tr>
<td>MATH 220</td>
<td>3</td>
<td>MATH 290</td>
</tr>
<tr>
<td>PHSX 212</td>
<td>3</td>
<td>AE 360</td>
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<tr>
<td>PHSX 216 or 236</td>
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<td>AE 445</td>
</tr>
<tr>
<td>AE 211</td>
<td>3</td>
<td>CE 310</td>
</tr>
<tr>
<td>AE 345</td>
<td>3</td>
<td>ME 312</td>
</tr>
<tr>
<td>CE 301</td>
<td>5</td>
<td>AE 290 (part of KU GE 2.2 or AE 5)</td>
</tr>
<tr>
<td>AE 290 (part of KU GE 2.2 or AE 5)</td>
<td>0.25</td>
<td>16.25</td>
</tr>
<tr>
<td>Junior</td>
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</tr>
<tr>
<td>MATH 223</td>
<td>3</td>
<td>AE 421 (part of KU GE 2.2)</td>
</tr>
<tr>
<td>AE 507 (part of KU GE 5)</td>
<td>3</td>
<td>AE 508 (part of KU GE 2.2 or AE 5)</td>
</tr>
<tr>
<td>AE 545</td>
<td>4</td>
<td>AE 551</td>
</tr>
<tr>
<td>AE 550 (part of KU GE 2.2)</td>
<td>4</td>
<td>AE 572</td>
</tr>
<tr>
<td>AE 571</td>
<td>3</td>
<td>EECS 316</td>
</tr>
<tr>
<td>AE 290 (part of KU GE 2.2 or AE 5)</td>
<td>0.25</td>
<td>EECS 318</td>
</tr>
<tr>
<td>AE 290 (part of KU GE 2.2 or AE 5)</td>
<td>0.25</td>
<td>17.25</td>
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<tr>
<td>Senior</td>
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<tr>
<td>AE 521 (KU GE 6)</td>
<td>4</td>
<td>AE 430</td>
</tr>
<tr>
<td>AE 510 (part of KU GE 5)</td>
<td>4</td>
<td>AE 522, 523, or 524 (part of KU GE 2.2 or AE 6)</td>
</tr>
<tr>
<td>AE 560 (or Technical Elective)</td>
<td>3</td>
<td>AE 290 (part of KU GE 2.2 or AE 5)</td>
</tr>
<tr>
<td>AE 590 (part of KU GE 5)</td>
<td>1</td>
<td>Technical Electives</td>
</tr>
<tr>
<td>AE 290 (part of KU GE 2.2 or AE 5)</td>
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<td>KU GE 4.2</td>
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<tr>
<td>KU Core GE 3H</td>
<td>3</td>
<td>18.25</td>
</tr>
</tbody>
</table>

Total Hours: 135-136
Requirements for Enrollment in Junior-Level Aerospace Courses

Enrollment in junior-level aerospace courses is limited to students who have received grades of C or higher in all first- and second-year courses in mathematics, physics, ME 312, CE 301, CE 310, AE 245, AE 345, and AE 445.

Bachelor of Science in Aerospace Engineering Degree Requirements

A minimum of 134 credit hours is required for the B.S. in aerospace engineering, distributed as follows:

Aerospace Engineering Courses (35)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE 245</td>
<td>Introduction to Aerospace Engineering</td>
<td>3</td>
</tr>
<tr>
<td>AE 290</td>
<td>Aerospace Colloquium</td>
<td>2</td>
</tr>
<tr>
<td>AE 345</td>
<td>Fluid Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>AE 360</td>
<td>Introduction to Astronautics</td>
<td>3</td>
</tr>
<tr>
<td>AE 421</td>
<td>Aerospace Computer Graphics</td>
<td>4</td>
</tr>
<tr>
<td>AE 430</td>
<td>Aerospace Instrumentation Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>AE 445</td>
<td>Aircraft Aerodynamics and Performance</td>
<td>3</td>
</tr>
<tr>
<td>AE 507</td>
<td>Aerospace Structures I</td>
<td>3</td>
</tr>
<tr>
<td>AE 508</td>
<td>Aerospace Structures II</td>
<td>3</td>
</tr>
<tr>
<td>AE 510</td>
<td>Aerospace Materials and Processes</td>
<td>4</td>
</tr>
<tr>
<td>AE 521</td>
<td>Aerospace Systems Design I</td>
<td>4</td>
</tr>
<tr>
<td>AE 522</td>
<td>Aerospace Systems Design II</td>
<td></td>
</tr>
<tr>
<td>AE 523</td>
<td>Space Systems Design</td>
<td></td>
</tr>
<tr>
<td>AE 524</td>
<td>Propulsion Systems Design I</td>
<td></td>
</tr>
<tr>
<td>AE 545</td>
<td>Fundamentals of Aerodynamics</td>
<td>4</td>
</tr>
<tr>
<td>AE 550</td>
<td>Dynamics of Flight I</td>
<td>4</td>
</tr>
<tr>
<td>AE 551</td>
<td>Dynamics of Flight II</td>
<td>4</td>
</tr>
<tr>
<td>AE 571</td>
<td>Fundamentals of Airplane Reciprocating Propulsion Systems</td>
<td>3</td>
</tr>
<tr>
<td>AE 572</td>
<td>Fundamentals of Jet Propulsion</td>
<td>3</td>
</tr>
<tr>
<td>AE 590</td>
<td>Aerospace Senior Seminar</td>
<td>1</td>
</tr>
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</table>

Select one of the following: (23) 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE 546</td>
<td>Honors Aerodynamics</td>
<td>5</td>
</tr>
<tr>
<td>AE 573</td>
<td>Honors Propulsion</td>
<td>3</td>
</tr>
<tr>
<td>AE 509</td>
<td>Honors Aerospace Structures</td>
<td>3</td>
</tr>
<tr>
<td>AE 552</td>
<td>Honors Dynamics of Flight II</td>
<td>4</td>
</tr>
<tr>
<td>AE 593</td>
<td>Honors Research</td>
<td>1-5</td>
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</table>

Engineering Science Courses (19)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE 211</td>
<td>Computing for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>CE 301</td>
<td>Statics and Dynamics</td>
<td>5</td>
</tr>
<tr>
<td>CE 310</td>
<td>Strength of Materials</td>
<td>4</td>
</tr>
<tr>
<td>ME 312</td>
<td>Basic Engineering Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>EECS 316</td>
<td>Circuits, Electronics and Instrumentation</td>
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</tr>
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<td>EECS 318</td>
<td>Circuits and Electronics Lab</td>
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</table>

Science Courses (13)

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHEM 150</td>
<td>Chemistry for Engineers</td>
<td>5</td>
</tr>
<tr>
<td>PHSX 211</td>
<td>General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHSX 212</td>
<td>General Physics II</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 216</td>
<td>General Physics I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>or PHSX 236</td>
<td>General Physics II Laboratory</td>
<td></td>
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</table>

Mathematics Courses (18)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 122</td>
<td>Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>MATH 223</td>
<td>Vector Calculus</td>
<td>3</td>
</tr>
</tbody>
</table>

MATH 220   Applied Differential Equations 3
MATH 290   Elementary Linear Algebra 2

KU Core (18-19)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>English</td>
<td>(KU Core GE 2.1)</td>
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<tr>
<td>KU Core GE 3H</td>
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<td>3</td>
</tr>
<tr>
<td>ECON 104</td>
<td>Introductory Economics (KU Core GE 3S)</td>
<td>3-4</td>
</tr>
<tr>
<td>or ECON 142</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>or ECON 144</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>KU Core AE 4.1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>KU Core AE 4.2</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Technical Electives (9) 9

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE 546</td>
<td>Honors Aerodynamics</td>
<td>5</td>
</tr>
<tr>
<td>AE 573</td>
<td>Honors Propulsion</td>
<td>3</td>
</tr>
<tr>
<td>AE 509</td>
<td>Honors Aerospace Structures</td>
<td>3</td>
</tr>
<tr>
<td>AE 552</td>
<td>Honors Dynamics of Flight II</td>
<td>4</td>
</tr>
<tr>
<td>AE 593</td>
<td>Honors Research</td>
<td>1-5</td>
</tr>
</tbody>
</table>

Credit for ROTC Courses. A student enrolled in one of the ROTC programs can receive 5 hours of technical electives if the ROTC program is completed.

Students must take one of the courses (PHSX 216 or PHSX 236), but are not required to take both.

Students must ensure the electives they choose fulfill all remaining KU Core requirements. At least one course in humanities, at least one course in social science, including ECON 104, 142, or 144, and at least two courses from one department, totaling 12 hours.

Aerospace Engineering Department requires a minimum of 6 hours in English course work, not matter how a student completes the 2.1 Core requirement.

Technical Electives are selected from upper level aerospace courses, approved courses from other engineering departments or approved math courses.

Departmental Honors

To complete the departmental honors program, an aerospace engineering undergraduate student must

• Graduate with a KU grade-point average of 3.5.
• Take at least one departmental honors course. The departmental honors courses are

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE 546</td>
<td>Honors Aerodynamics</td>
<td>5</td>
</tr>
<tr>
<td>AE 573</td>
<td>Honors Propulsion</td>
<td>3</td>
</tr>
<tr>
<td>AE 509</td>
<td>Honors Aerospace Structures</td>
<td>3</td>
</tr>
<tr>
<td>AE 552</td>
<td>Honors Dynamics of Flight II</td>
<td>4</td>
</tr>
<tr>
<td>AE 593</td>
<td>Honors Research</td>
<td>1-5</td>
</tr>
</tbody>
</table>

Students who intend to use departmental honors courses to meet the requirements of the University Honors Program or the departmental honors program must meet with the departmental honors advisor for permission to enroll.
Master of Engineering in Aerospace Engineering

Aerospace Engineering

The aerospace engineering discipline involves the design, production, operation, and support of aircraft and spacecraft. Aerospace engineers solve problems, design aircraft and spacecraft, conduct research, and improve processes for the aerospace industry.

Mission

KU aerospace engineering is an international leader in aerospace education and is committed to developing a global community of choice for students, educators, and researchers by strategically aligning teaching, research, and service missions. A world-class graduate and undergraduate education focused on designing, simulating, building, testing, and flying aerospace vehicles is provided. The department invests in research infrastructure and chooses outstanding students, faculty, and staff to conduct basic and applied research of relevance to aerospace vehicles and systems. The department supports the aerospace profession by educating the public, by maintaining the KU aerospace short-course program, and by advising policy-makers in government, industry, and disciplinary professional organizations.

Educational Objectives

Aerospace engineering prepares graduates for professional practice in the aerospace industry and graduate study in aerospace engineering. Achievement is measured through assessment of the performance of graduates three to six years after graduation. Graduates must demonstrate the following measurable learning outcomes:

1. Competence in the analysis, test, and design of aerospace systems and components using contemporary techniques, equipment, and software.
2. An understanding of the professional responsibilities associated with the special public safety and economic aspects of the aerospace industry.
3. The ability to communicate analysis test, and design results to engineers and nonengineers.
4. The ability to work effectively in interdisciplinary teams.
5. An understanding of the need for lifelong learning.

Graduate Admission to the Department of Aerospace Engineering

Application Requirements

In order for applications to be considered complete, the following materials must be submitted online with the application by the posted deadline:

1. Transcripts from all degree granting institutions (If admitted, official transcripts must be sent for all applicants - including KU undergraduate students). In order for transcripts to be considered official, they must be sent directly from the institution either by mail or e-mailed directly to the university. KU does not consider transcripts that come from applicants or that have been in the applicant’s possession as official. You may be admitted with the transcript you uploaded to the application; however, Graduate Admissions must receive your official transcript - sent directly from your institution – before you will be permitted to enroll for your second semester of courses. The official transcript must show that your undergraduate degree has been conferred.
2. Three letters of recommendation with completed form (Graduate Letter of Recommendation Form). Recommenders will receive instructions on submission at the time the application is submitted.
3. Resume or CV
4. GRE score report
5. Statement of Objectives Form (Statement of Objectives Form)
6. TOEFL or IELTS score report (International students only)
7. Statement of Financial Resources (International students only)

* Please note: All application materials must be received before any kind of decision is made. Documentation sent in addition to that requested above is not required and may be destroyed. Do not send paper documents unless requested.

Admissions Deadline

Our department deadlines for admission are:

Fall Admission: March 1 (all applicants)
Spring Admission: December 1 (all applicants)
Summer Admission: April 1 (all applicants)

For full consideration for fellowships, scholarships and research/teaching assistantships, applications should be received by January 1st (for fall admissions). Application materials should indicate the interest in financial assistance or research/teaching assistantships.

Application Fees

Domestic: $55
International: $65

Document Specifications

Letters of Recommendation

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The essay should be brief and to the point.

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Acceptable evidence includes:
Bank statement from checking, savings, stock holdings and/or certificate of deposit
• Bank letter on letterhead indicating date account opened, average balance and current balance
• Scholarship or sponsorship letter verifying amount, source and dates of award

Contact Information
Aerospace Engineering Graduate Advisor:
Graduate Advisor
The University of Kansas
Aerospace Engineering
2120 Learned Hall
1530 W. 15th Street
Lawrence, Kansas, 66045
E-mail Graduate Advisor, Dr. Charlie Zheng, at aerohawk@ku.edu

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Funding
Scholarships/Fellowships - The Aerospace Engineering department nominates applicants for University and School of Engineering scholarships and fellowships based on academic merit and other selection criteria.

Graduate Teaching Assistantships (GTAs) - Teaching Assistantships are available and are awarded competitively based on academic qualifications through the department or school.

Graduate Research Assistantships (GRAs) - Students work with their potential academic advisor/mentor to obtain a funded position on a research project.
A variety of scholarships, fellowships, and assistantships are available to graduates of engineering programs at the University of Kansas. Learn more at [http://www.engr.ku.edu/prospective/graduate/scholarships.html](http://www.engr.ku.edu/prospective/graduate/scholarships.html)

**English Proficiency Requirement**

All graduate students in the School of Engineering who are required to take courses at the Applied English Center (http://www.aec.ku.edu) must pass the AEC's English Proficiency Examination within 3 semesters of their initial enrollment. Failure to complete the English proficiency requirement within this time limit may result in dismissal from the graduate engineering program.

**Visit Us**

The graduate program staff is happy to work with all prospective students in determining the fit between the student and the program. In order to determine this, we feel that visiting our campus in Lawrence is a very important step. In order to facilitate your visit to KU, there are two main options:

The first, and most preferred, option entails simply applying for admission to the program. All prospective students are welcome to attend our Open House in early November and some highly qualified admitted students may be invited to participate in Visitation Days in late February or early March (prior to the fall semester of your intended matriculation). These organized visitation opportunities will allow you time to gather a great deal of first-hand information which we hope will help you in making a final decision about whether to attend KU.

The second option is making arrangements to visit us on your own, outside of organized events. With early notification, we will do our best to work with you to provide information and schedule appointments with faculty when possible. Please contact us if you feel that this is the best option for you.

**Contact Information**

Please contact the AE Program Assistant at aerohawk@ku.edu or (785) 864-4267, to schedule a visit or with questions about the application process.

**The University of Kansas**
Department of Aerospace Engineering
Learned Hall
1530 W. 15th St., Room 2120
Lawrence, KS 66045-7618

**M.E. Degree Requirements**

The Master of Engineering (M.E) program in Aerospace Engineering (AE) is a program which emphasizes systems design and management skills and procedures rather than the more analytical emphasis of the M.S. program. The M.E. program requires a total of 36 semester hours of graduate work, including a 6 hour requirement for an industrial internship in an industry or government organization. The internship is a degree requirement, and because neither the University nor the Department of Aerospace Engineering can guarantee internship employment, students must indicate in writing before they have completed their first semester how the internship requirement will be satisfied.

**General Description**

To earn the M.E. in AE degree the student must:

1. Complete the technical course requirements;
2. Complete the design, technology and management course requirements (all according to an approved plan of study);
3. Prepare and defend a design project report approved by the student’s M.E. Committee;
4. Complete a minimum of 6 months of industrial internship.

A seven-step outline of a typical MEAE program is as follows:

**Step 1:** After earning the B.S. in Aerospace Engineering (or equivalent), the student applies for admission to the M.E. program in AE.

**Step 2:** The student selects or (upon request) is assigned a major advisor based upon the student’s area of interest. The major advisor assists the student in selecting courses for the first year of study and the preparation of an initial plan of study (completed online [https://gradplan.engr.ku.edu/accounts/login/?next=]) including the formation of an initial project committee.

**Step 3:** After completing the first semester of study with a GPA of at least 3.0/4.0 (grades of D or F will not count toward the graduate degree) the student prepares a final plan of study.

**Step 4:** The student completes the final plan of study, finishes the required course work with a GPA of at least 3.0/4.0 (grades of D or F will not count toward the graduate degree).

**Step 5:** The student completes the project research in accordance with the original research plan of Step 4 and writes a project report. The thesis or project must be approved by the thesis/project committee.

**Step 6:** The student completes the 6-month industrial internship requirement.

**Step 7:** After approval by the project committee the student defends the project.

**Project Committee**

As part of the Plan of Study ([https://gradplan.engr.ku.edu/accounts/login/?next=](https://gradplan.engr.ku.edu/accounts/login/?next=)) a student is required to form a Project Committee with a minimum of two AE faculty members and one Engineering Management faculty member. Additional committee members may be selected by the student from either AE or other School of Engineering faculty members. The chairman of the Project Committee must be an AE faculty member.

**Example of an M.E. Course Distribution**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE 712</td>
<td>Techniques of Engineering Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>AE 732</td>
<td>Introduction to Flight Test Engineering</td>
<td>3</td>
</tr>
<tr>
<td>AE 743</td>
<td>Compressible Aerodynamics</td>
<td>3</td>
</tr>
<tr>
<td>AE 745</td>
<td>Applied Wing and Airfoil Theory</td>
<td>3</td>
</tr>
<tr>
<td>AE 724</td>
<td>Propulsion System Design and Integration</td>
<td>3</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>AE 821</td>
<td>Advanced Aircraft Design I</td>
<td>3</td>
</tr>
<tr>
<td>AE 830</td>
<td>Aerospace Graduate Internship</td>
<td>1-12</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>AE 896</td>
<td>ME Project</td>
<td>3-6</td>
</tr>
<tr>
<td>AE 890</td>
<td>ME Internship</td>
<td>1-6</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td><strong>36</strong></td>
</tr>
</tbody>
</table>
Plan of Study
Before the end of the first semester of graduate study the student must complete an online Plan of Study (https://gradplan.engr.ku.edu/accounts/login/?next=) which includes the following information:

1. Names of the three members of the design project committee. One member must be from the Engineering Management (EMGT) Program. As a general rule the other committee members will be drawn from the AE faculty but exceptions may be approved.
2. Proposed design project title or, at least, the proposed area; and
3. Proposed sequence of courses (Blank forms for the plan of study can be obtained from the AE department secretary.)

The minimum course requirements for the M.E. degree are:

1. At least 15 semester credit hours in technical courses beyond the B.S. in AE;
2. At least 9 semester hours of design, technology and management courses;
3. At least 6 semester hours of design project; and
4. At least 6 hours of industrial internship.

The plan of study shall indicate for each course which requirement is being satisfied. Unique situations can be accommodated with the combined approval of the AE department graduate advisor and the students major advisor.

A letter stating how the student intends to satisfy the internship requirement must be attached to the plan of study.

If a student enters the M.E. program without an equivalent B.S. in Aerospace Engineering the department graduate advisor may require the student to make up certain undergraduate courses in AE to achieve B.S. equivalence. Such make-up courses do not count toward the M.E. degree.

Educational Objectives
Aerospace engineering prepares graduates for professional practice in the aerospace industry and graduate study in aerospace engineering. Achievement is measured through assessment of the performance of graduates three to six years after graduation. Graduates must demonstrate the following measurable learning outcomes:

1. Competence in the analysis, test, and design of aerospace systems and components using contemporary techniques, equipment, and software.
2. An understanding of the professional responsibilities associated with the special public safety and economic aspects of the aerospace industry.
3. The ability to communicate analysis test, and design results to engineers and nonengineers.
4. The ability to work effectively in interdisciplinary teams.
5. An understanding of the need for lifelong learning.

Master of Science in Aerospace Engineering

Aerospace Engineering
The aerospace engineering discipline involves the design, production, operation, and support of aircraft and spacecraft. Aerospace engineers solve problems, design aircraft and spacecraft, conduct research, and improve processes for the aerospace industry.

Mission
KU aerospace engineering is an international leader in aerospace education and is committed to developing a global community of choice for students, educators, and researchers by strategically aligning teaching, research, and service missions. A world-class graduate and undergraduate education focused on designing, simulating, building, testing, and flying aerospace vehicles is provided. The department invests in research infrastructure and chooses outstanding students, faculty, and staff to conduct basic and applied research of relevance to aerospace vehicles and systems. The department supports the aerospace profession by educating the public, by maintaining the KU aerospace short-course program, and by advising policy-makers in government, industry, and disciplinary professional organizations.

Graduate Admission to the Department of Aerospace Engineering

Application Requirements
In order for applications to be considered complete, the following materials must be submitted online with the application by the posted deadline:

1. Transcripts from all degree granting institutions (If admitted, official transcripts must be sent for all applicants - including KU undergraduate students). In order for transcripts to be considered official, they must be sent directly from the institution either by mail or e-mailed directly to the university. KU does not consider transcripts that come from applicants or that have been in the applicant’s possession as official. You may be admitted with the transcript you uploaded to the application; however, Graduate Admissions must receive your official transcript - sent directly from your institution – before you will be permitted to enroll for your second semester of courses. The official transcript must show that your undergraduate degree has been conferred.
2. Three letters of recommendation with completed form (Graduate Letter of Recommendation Form). Recommenders will receive instructions on submission at the time the application is submitted.
3. Resume/CV
4. GRE score report
5. Statement of Objectives Form (Statement of Objectives Form)
6. TOEFL or IELTS score report (International students only)
7. Statement of Financial Resources (International students only)

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Admissions Deadline
Our department deadlines for admission are:

Fall Admission: March 1 (all applicants)
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For full consideration for fellowships, scholarships and research/teaching assistantships, applications should be received by January 1st (for fall admissions). Application materials should indicate the interest in financial assistance or research/teaching assistantships.

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Domestic: $55  
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The essay should be brief and to the point.

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**Minimum Requirements for Doctoral Applicants**

Students applying for admission to the Ph.D. or D.E. programs must have as a minimum an M.S. or M.E. in Aerospace Engineering, unless they are admitted on a Fast Track basis with a bachelor degree in engineering. The department graduate advisor will evaluate the total academic preparation to determine if additional courses are required to prepare the student for graduate work in aerospace engineering. Any undergraduate courses which must be taken do not carry graduate credit. Internships are not guaranteed.

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Applicants must have a minimum GPA of 3.0 for a regular admission status. In exceptional cases applicants with a GPA between 2.75-2.99 may be granted provisional admission. In such instances the student must maintain a GPA of at least 3.0 during the first semester of graduate study at KU. Grades of D and F are not accepted. A student failing to maintain these standards will be dismissed from the graduate program. On rare occasions and as supported by other strong evidence of achievement (e.g., significant industrial experience), a provisional admission status may be granted to students with a cumulative GPA below 2.75. After one semester of full-time graduate studies and maintaining a GPA of at least 3.0, a provisionally-admitted students must file a petition to change his/her status to regular status.

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M.S. Degree Requirements
The M.S. program has 2 options. The Thesis Option requires a minimum of 30 credit hours of graduate work including 6 hours earned in the satisfactory completion of a thesis. The Project Option requires a minimum of 33 hours of graduate work with an emphasis on an independent investigation that must include 3 hours of Special Problems, but a thesis is not required.

The candidate must pass a final oral examination in which the thesis or research project (results of the independent investigation) is defended and the candidate demonstrates a working knowledge in aerospace engineering.

Advisory Committee
As part of the Plan of Study, a student is required to form an advisory committee with a minimum of three Graduate Faculty, a minimum of two must be AE faculty members. Additional committee members may be selected by the student from either AE or other School of Engineering faculty members. The chairman of the committee must be an AE faculty member.

Plan of Study
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**Doctor of Engineering in Aerospace Engineering**

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Contact Information

Please contact the AE Program Assistant at aerohawk@ku.edu or (785) 864-4267, to schedule a visit or with questions about the application process.

The University of Kansas
Department of Aerospace Engineering
Learned Hall
1530 W. 15th St., Room 2120
Lawrence, KS 66045-7618

Doctor of Engineering in Aerospace Engineering

The Doctor of Engineering emphasizes systems design and management skills and requires 66 credit hours beyond the B.S degree. These 66 hours consist of 36 credit hours of course work, 18 credit hours of project and 12 credit hours of industrial internship. Breadth courses of at least 12 credit hours must be distributed outside the area of specialization in aerodynamics, structures and materials, dynamics and controls, design, propulsion and astronautics. Depth courses of at least 15 credit hours of technical courses (600 and above) in the area of specialization are required

Core courses of at least 9 credit hours of graduate mathematics beyond the B.S. are required. The 9 credit hours must include a minimum of 6 credit hours of graduate-level mathematics courses. AE 712 is considered
The comprehensive exam is made up of two parts. The first part must consist of a written project proposal outlining in some detail the work to be done for the project. The second part is an oral examination in which she or he must defend the project plans and demonstrate competence in his or her particular and related areas. Upon passing the comprehensive examination, the aspirant becomes a candidate for the D.E. The project committee directs preparation of the approved project topic. A formal oral and public defense of the project is required before the committee, any other interested members of the Graduate Faculty, and the general public. Candidates for the D.E. must satisfy the university’s general requirements for the degree.

A 12-month continuous internship in an industrial or governmental organization is required before assumption of the project responsibilities. This internship must be under joint guidance of a preceptor, who is appointed to the adjunct faculty and a regular faculty member. The internship requirement cannot be satisfied by working in any KU facility.

Because the internship is a degree requirement and because KU cannot guarantee internship employment, the student must indicate in writing how the internship requirement is to be satisfied before completing the first semester after passing the qualifying examination. This can be a letter from the faculty advisor indicating a grant availability, notice of a project appointment or assignment, or a letter from a company or agency (U.S. or abroad) expressing willingness to sponsor the student in an internship.

**Doctor of Philosophy in Aerospace Engineering**

**Aerospace Engineering**

The aerospace engineering discipline involves the design, production, operation, and support of aircraft and spacecraft. Aerospace engineers solve problems, design aircraft and spacecraft, conduct research, and improve processes for the aerospace industry.

**Mission**

KU aerospace engineering is an international leader in aerospace education and is committed to developing a global community of choice for students, educators, and researchers by strategically aligning teaching, research, and service missions. A world-class graduate and undergraduate education focused on designing, simulating, building, testing, and flying aerospace vehicles is provided. The department invests in research infrastructure and chooses outstanding students, faculty, and staff to conduct basic and applied research of relevance to aerospace vehicles and systems. The department supports the aerospace profession by educating the public, by maintaining the KU aerospace short-course program, and by advising policy-makers in government, industry, and disciplinary professional organizations.

**Educational Objectives**

Aerospace engineering prepares graduates for professional practice in the aerospace industry and graduate study in aerospace engineering. Achievement is measured through assessment of the performance of graduates three to six years after graduation. Graduates must demonstrate the following measurable learning outcomes:

1. Competence in the analysis, test, and design of aerospace systems and components using contemporary techniques, equipment, and software.
2. An understanding of the professional responsibilities associated with the special public safety and economic aspects of the aerospace industry.
3. The ability to communicate analysis test, and design results to engineers and nonengineers.
4. The ability to work effectively in interdisciplinary teams.
5. An understanding of the need for lifelong learning.

**Graduate Admission to the Department of Aerospace Engineering**

**Application Requirements**

In order for applications to be considered complete, the following materials must be submitted online with the application by the posted deadline:

1. Transcripts from all degree granting institutions (If admitted, official transcripts must be sent for all applicants - including KU undergraduate students). In order for transcripts to be considered official, they must be sent directly from the institution either by mail or e-mailed directly to the university. KU does not consider transcripts that come from applicants or that have been in the applicant’s possession as official. You may be admitted with the transcript you uploaded to the application; however, Graduate Admissions must receive your official transcript - sent directly from your institution – before you will be permitted to enroll for your second semester of courses. The official transcript must show that your undergraduate degree has been conferred.
2. Three letters of recommendation with completed form (Graduate Letter of Recommendation Form). Recommenders will receive instructions on submission at the time the application is submitted.
3. Resume or CV
4. GRE score report
5. Statement of Objectives Form (Statement of Objectives Form)
6. TOEFL or IELTS score report (International students only)
7. Statement of Financial Resources (International students only)

* Please note: All application materials must be received before any kind of decision is made. Documentation sent in addition to that requested above is not required and may be destroyed. Do not send paper documents unless requested.

**Admissions Deadline**

Our department deadlines for admission are:

Fall Admission: March 1 (all applicants)
Spring Admission: December 1 (all applicants)
Summer Admission: April 1 (all applicants)

For full consideration for fellowships, scholarships and research/teaching assistantships, applications should be received by January 1st (for fall admissions). Application materials should indicate the interest in financial assistance or research/teaching assistantships.

**Application Fees**

Domestic: $55
International: $65

Document Specifications

Letters of Recommendation
The letter of recommendation form should be completed and sent with a signed document from your chosen references (Graduate Letters of Recommendation Form). Recommenders will receive instructions on submission at the time the application is submitted.

Statement of Purpose
The essay should be brief and to the point.

Statement of Financial Resources

As a part of the application process, all students must submit credible evidence of financial support for the first year of study. Financial documents must be less than 6 months old, indicating the type and amount of currency in US dollars. If the bank account is not in the applicant’s name, please attach a statement signed by the account holder indicating the relationship to the student for whom the support will be provided. There is no form for the Statement of Financial Resources, please send only the form(s) of documentation listed below. Applications cannot be submitted for consideration without the proper financial documentation.

Acceptable evidence includes:

- Bank statement from checking, savings, stock holdings and/or certificate of deposit
- Bank letter on letterhead indicating date account opened, average balance and current balance
- Scholarship or sponsorship letter verifying amount, source and dates of award

Contact Information

Aerospace Engineering Graduate Advisor:

Graduate Advisor
The University of Kansas
Aerospace Engineering
2120 Learned Hall
1530 W. 15th Street
Lawrence, Kansas, 66045

E-mail Graduate Advisor, Dr. Charlie Zheng, at aerohawk@ku.edu

KU Office of Graduate Studies:

The University of Kansas
Graduate Applications Processing Center
1450 Jayhawk Blvd, Room 313
Lawrence, Kansas 66045-7535
785-864-8040

E-mail the main university Office of Graduate Studies at Graduate@ku.edu or contact the School of Engineering Research & Graduate Studies office at GradEngr@ku.edu with general questions about admission.

KU (http://www.graduate.ku.edu) Graduate Studies Website (http://www.graduate.ku.edu)

Admissions Standards

Minimum Requirements for Doctoral Applicants

Students applying for admission to the Ph.D. or D.E. programs must have as a minimum an M.S. or M.E. in Aerospace Engineering, unless they are admitted on a Fast Track basis with a bachelor degree in engineering. The department graduate advisor will evaluate the total academic preparation to determine if additional courses are required to prepare the student for graduate work in aerospace engineering. Any undergraduate courses which must be taken do not carry graduate credit. Internships are not guaranteed.

Except for BSAE, MSAE or MEAE graduates from KU, all applicants must supply a recent Graduate Record Examination (GRE) and three letters of recommendation from individuals familiar with their academic record and performance. Applicants must have as a minimum a GPA of 3.5/4.0 for all courses taken during their M.S. or M.E. program.

GPA Requirements

Applicants must have a minimum GPA of 3.0 for a regular admission status. In exceptional cases applicants with a GPA between 2.75-2.99 may be granted provisional admission. In such instances the student must maintain a GPA of at least 3.0 during the first semester of graduate study at KU. Grades of D and F are not accepted. A student failing to maintain these standards will be dismissed from the graduate program. On rare occasions and as supported by other strong evidence of achievement (e.g., significant industrial experience), a provisional admission status may be granted to students with a cumulative GPA below 2.75. After one semester of full-time graduate studies and maintaining a GPA of at least 3.0, a provisionally-admitted students must file a petition to change his/her status to regular status.

Applicants from outside KU must submit Graduate Record Examination (GRE) scores and three letters of recommendation from individuals familiar with their academic performance.

Transfer Credit for Graduate Courses

Up to six hours of approved graduate work may be transferred to KU from other universities. Students with a B.S. degree from KU may transfer up to eight hours of approved graduate work from other universities.

GRE Requirements

Applicants must have a minimum of 50% on the Verbal and Analytical sections of the GRE and 85% on the Quantitative section. Applicants with lower scores, but otherwise exceptional record, will be considered for provisional admission.

Non-English Speaking Students

Applicants for whom English is not the native language must submit an institutional copy of their TOEFL (Test of English as a Foreign Language) score achieved no more than two years prior to the semester of admission. The following standards will be applied (with the first score being the paper test and the second being the computer test):

- Applicants with total TOEFL scores of 570 for the paper-based exam (230 for computer-based or 88 for internet-based) or higher and with a minimum of 57 on all three parts of the TOEFL examination may be admitted to the graduate program as a regular student.
- Applicants with a TOEFL score between 550 (213 cbt or 79 ibt) and 569 (227 cbt or 90 ibt) may be admitted to the graduate program with provisional admission status.
• Applicants with TOEFL scores below 550 (213 cbt or 79 ibt) will be denied admission.

Once on the Lawrence campus, all students, regardless of their TOEFL scores, will be screened by the Applied English Center (AEC). If a student is judged by the AEC to have a written or a verbal deficiency, the student may be required to take not-for-degree AEC courses. This will limit the number of degree-counting courses, which a student can take. In such a case the student should expect to take a longer calendar time to complete the graduate program. All students who have not satisfied the AEC requirements by the end of the third semester on the Lawrence campus will be dismissed from the graduate program.

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Contact Information
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Ph.D. Degree Requirements
The Ph.D. program requires 60 credit hours beyond the B.S. These 60 credit hours consists of 36 credit hours of course work and at least 24 credit hours of dissertation. Breadth courses of at least 12 credit hours must be distributed outside the area of specialization in aerodynamics, structures and materials, dynamics and controls, design, propulsion and astronautics. Depth courses of at least 15 credit hours of technical courses (600 and above) in the area of specialization is required.

Core courses of at least 9 credit hours of graduate mathematics beyond the B.S. are required. The 9 credit hours must include a minimum of 6 credit hours of graduate-level mathematics courses. AE 712 is considered a mathematics-intensive engineering course. Graduate mathematics courses include MATH 590 or any math course 600 level or above.

Credit hours earned in completing a master’s degree can be used to satisfy a portion of these requirements when appropriate. Unique situations can be accommodated with the approval of the graduate advisor and the candidate’s major professor.

In addition to general rules and regulations, a student must meet departmental Ph.D. requirements. After 2 semesters following the completion of M.S. requirements (or at a comparable level for non-M.S. students), the student is evaluated. To be allowed to continue for the Ph.D., the student must

1. Have a minimum grade-point average of 3.5 in M.S. course work,
2. Pass a qualifying examination, and
3. Submit a Plan of Study.

The qualifying examination tests breadth of knowledge and determines the student’s ability to formulate mathematical representations of real physical situations. The examination covers mathematics and 3 of these 5 areas:

• Aerodynamics,
• Astronautics,
• Structures and materials
• Dynamics and controls, and
• Propulsion.

A student is allowed only 2 attempts to pass this examination.

The aspirant forms a dissertation committee and completes a Plan of Study after the first semester and before the end of the second semester. The dissertation committee must have 5 members, including 3 tenured or tenure-track faculty from aerospace engineering and at least 1 member from a department other than aerospace engineering. The committee
approves the aspirant’s program and administers the comprehensive examination and the formal oral defense and dissertation.

When the aspirant has completed most of the course work and satisfied the research skills, responsible scholarship and residency requirements, he or she must take the comprehensive examination. The research skill requirement provides the aspirant with a research skill distinct from, but strongly supportive of, the dissertation research. One research skill is required. Possible research skills include computer science, mathematics, statistics, specific laboratory skills, and specific skills in the physical or biological sciences. The selected research skill must be listed on the Plan of Study form. A separate statement attached to the Plan of Study must list the work to be completed to obtain the research skill. The responsible scholarship requirement serves to ensure that students are trained in responsible research practices. Aspirants can satisfy the responsible scholarship requirement by enrolling in 2 semesters of AE 690, Professional Development for Graduate Students. This course covers ethical behavior for graduate students, intellectual property, and technical writing. The residency requirement is met by completing 2 semesters, which may include 1 summer session, in resident study and enrollment in 6 credit hours or more. During the period of residence the student must be involved full time in academic pursuits, which may include up to half-time teaching or research.

The comprehensive examination is made up of two parts. The first part must consist of a written research proposal outlining in some detail the work to be done for the dissertation. The second part is an oral examination in which she or he must defend the research plans and demonstrate competence in her or his particular and related areas. Upon passing the comprehensive examination, the aspirant becomes a candidate for the Ph.D. The dissertation committee directs preparation of the approved dissertation topic and research. A formal oral and public defense of the dissertation is required before the candidate’s committee, any other interested members of the Graduate Faculty, and the general public. Candidates for the Ph.D. must also satisfy the university’s general requirements for the degree.

Some examples of experimental and computational courses are

<table>
<thead>
<tr>
<th>Experimental Courses (13)</th>
<th>Computational Courses (15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE 705 Structural Vibrations and Modal Testing</td>
<td>EECS 744 Communications and Radar Digital Signal Processing</td>
</tr>
<tr>
<td>AE 730 Advanced Experimental Fluid Dynamics</td>
<td>ME 861 Theory of the Finite Element Method</td>
</tr>
<tr>
<td>AE 732 Introduction to Flight Test Engineering</td>
<td>MATH 781 Numerical Analysis I</td>
</tr>
<tr>
<td>CE 721 Experimental Stress Analysis</td>
<td>MATH 782 Numerical Analysis II</td>
</tr>
<tr>
<td>MATH 783 Applied Numerical Methods for Partial Differential Equations</td>
<td></td>
</tr>
</tbody>
</table>

Bioengineering Graduate Program

Bioengineering

The bioengineering graduate program prepares students to become leading researchers, educators, and entrepreneurs. The program provides knowledge breadth in engineering and the biological sciences and knowledge depth in the student’s area of research interest. The program offers the Master of Science and Doctor of Philosophy degrees in bioengineering and the M.D./Ph.D. combined degree in conjunction with the KU School of Medicine (http://medicine.kumc.edu). Students have access to innovative research and educational facilities on KU’s Lawrence and KU Medical Center campuses. The student selects from 6 tracks:

1. Bioimaging,
2. Bioinformatics,
3. Biomaterials and tissue engineering,
4. Biomechanics and neural engineering,
5. Biomedical product design and development, and

The student, in consultation with his or her advisor and advisory committee, develops a Plan of Study and a research program to satisfy degree requirements.

The program’s goals are:

1. To give students an in-depth understanding of mathematics, engineering principles, physics, chemistry, physiology, and modern biology;
2. To train students to apply basic sciences to biological problems using engineering principles;
3. To train students to do bioengineering research and solve problems related to the design and development of diagnostic and therapeutic technologies that improve human health; and
4. To train students to apply bioengineering research to commercially viable technologies.

Bioengineering research projects typically focus on 1 of 2 broad categories:

1. The development of fundamental scientific knowledge and
2. The development and application of materials, devices, and systems with the goal of improving biological processes, systems, and health care.

Bioengineering students are often involved in measurements, analysis, modeling, computations, design, and development. The program prepares students for careers in industry, academia, health care settings, or government.

Financial Aid

Once admitted, students become eligible for financial aid. Graduate students in the bioengineering graduate program are most often supported through research assistantships, teaching assistantships, or fellowships (e.g., the Madison and Lila Self Fellowship). Research assistantships are arranged by the student and faculty advisor with assistance from the Bioengineering Academic Director if needed. Teaching assistantships are arranged by the Bioengineering Academic Director. Highly qualified applicants are considered for additional support and fellowships. For more information about external and other KU funding options, please visit http://www.engr.ku.edu/prospective/graduate/scholarships.html.

Courses

**BIOE 800. Bioengineering Colloquium. 0.5 Hours.**

A colloquium series featuring speakers from industry, government, other universities, research centers and research organizations of the university campus presenting talks on various topics related to bioengineering. LEC.
Bioengineering Graduate Programs

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Graduate Admission to the Department of Bioengineering

M.S. applicants are expected to have at least a 3.0 grade point average on a 4.0 scale from an accredited post-secondary institution. Ph.D. applicants are expected to have an undergraduate grade point average of 3.5 or higher on a 4.0 scale. The appropriate academic preparation includes both general and track prerequisites. General prerequisites include calculus I and II, differential equations, linear algebra, general physics I and II, chemistry, and biology. Track prerequisites depend on the student's track of study. More complete details about academic preparation can be found on the program's website (http://www.bio.engr.ku.edu).

Applicants normally have a B.S. and/or an M.S. degree in an engineering discipline, physical sciences, the life sciences, or a closely related field. Students with a degree in an engineering discipline outside of bioengineering may be required to take additional courses (e.g., in the life sciences). Students with a degree from outside engineering may be required to take additional courses (e.g., in the physical sciences, mathematics, and engineering). These additional courses generally do not count toward the graduate degree.

A highly qualified applicant (with a grade-point average higher than 3.75) may apply for admission directly into the Ph.D. program after completing the B.S. degree. Generally, a student who does not have an undergraduate degree in an engineering discipline must complete the M.S. before entering the Ph.D. program.
A student may enter the bioengineering graduate program before meeting all the prerequisites if approved by the Graduate Studies Committee. This student must plan to complete the prerequisites during the program in addition to the degree requirements. Consultation with the academic director is required to determine which courses satisfy these requirements. Course credits from prerequisites generally do not apply toward the graduate degree; they must be completed with a grade of B or higher.

The application deadline for fall admission is December 15 and the deadline for spring admission is the last working day of September. A complete application should include: completed online application, application fee payment, transcripts of all college-level work, 3 letters of recommendation, a letter of intent or statement of purpose, and scores from the Graduate Record Examination (verbal, quantitative, and analytical). A strong applicant should have outstanding academic credentials, some formal research experience, research interests that fit one of the tracks of study, and a strong potential for advanced study.

Unless the applicant’s native language is English or the applicant has received a baccalaureate degree or higher from an accredited U.S. institution of higher education, he or she must meet the program’s standard for the Test of English as a Foreign Language (TOEFL). Applicants for graduate teaching assistantships must obtain satisfactory scores on the Test of Spoken English (SPEAK).

Submit your graduate application online (http://www.graduate.ku.edu).

Application Instructions

CLICK HERE FOR DETAILED INSTRUCTIONS ON THE APPLICATION PROCESS

General Information

Admissions to the Bioengineering Graduate Program is granted to domestic and international students who have a superior record of achievement in their previous studies and show strong potential to succeed in study and research at the graduate level.

Applicants normally have a Bachelors of Science degree or a Masters of Science degree in an engineering discipline, physical sciences (e.g. Chemistry, Physics, etc.), the life sciences (e.g. Biology, Biochemistry, etc.), or a closely related field.

Highly qualified undergraduate students may apply for admission directly into our Ph.D. program after completing their B.S. degree. Students who do not have an undergraduate degree in an Engineering discipline will generally be admitted to the MS degree.

Application Deadlines

In order to receive full consideration for fellowships and other awards, a complete application package should be submitted by the following deadlines:

Fall Admission: December 15, 2014 (all applicants)

Spring Admission: September 30, 2014 (all applicants)

Funding

Scholarships/Fellowships - The Bioengineering graduate admissions committee nominates applicants for University and School of Engineering scholarships and fellowships based on academic merit and other selection criteria, as specified by the fellowship selection committees.

Graduate Teaching Assistantships (GTAs) - Teaching Assistantships are available and are awarded competitively based on academic qualifications. You do not need a separate application to be considered.

Graduate Research Assistantships (GRAs) - Students work with their potential academic advisor/mentor to obtain a funded position on a research project at the time of matriculation or within the first year. It is NOT required for prospective students to have KU faculty pledge a GRA position prior to your admission.

Visit Us

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The second option is making arrangements to visit us on your own, outside of organized events. With early notification, we will do our best to work with you to provide information and schedule appointments with faculty when possible. Please contact us if you feel that this is the best option for you.

Contact Information

Please contact the Bioengineering Program Assistant, bioe@ku.edu or (785) 864-5258, to schedule a visit or with questions about the bioengineering application process.

The University of Kansas
Bioengineering Graduate Program
Eaton Hall
1520 W. 15th Street, Room 1
Lawrence, KS 66045-7605

M.S. Degree Requirements

In addition to general rules and regulations, the student must meet the program’s M.S. requirements. Requirements for the M.S. include course work, a thesis, and a final oral examination.

In the first semester, the student selects a track of study, an advisor, and an advisory committee. The advisory committee guides the student’s development through the Plan of Study (https://gradplan.engr.ku.edu/accounts/login/?next=) in the chosen track, helps the student select a topic for research leading to the thesis, and participates in the final oral examination. Should the student’s interests change, the advisory committee membership may be changed accordingly, with the approval of the program’s Graduate Studies Director.
The student’s advisory committee consists of a minimum of 3 graduate faculty members and is chaired by the student’s advisor. A more detailed description is available on the program’s website (http://www.bio.engr.ku.edu).

Course Requirements
The M.S. program requires a minimum of 30 credit hours beyond the B.S. to meet degree requirements.

- Core Courses (6 hours)
- Track Courses (18 hours) Students must complete the depth, breadth, and elective courses required in the chosen track (see the program’s website (http://www.bio.engr.ku.edu) for track requirements).
- Research (6 hours)

Plan of Study
Students are expected to complete a Plan of Study before beginning the second semester of graduate study. To complete a Plan of Study, a student should have identified a research advisor and thesis committee. Students should work with their research advisors to identify an appropriate list of courses that fulfill degree requirements and support the student’s educational and research objectives. A Plan of Study can be completed online (https://gradplan.engr.ku.edu/accounts/login/?next=). The advisor, committee members, and graduate studies director must approve the Plan of Study. The Plan of Study can be modified later, if needed, with approval of the advisor, committee members, and Graduate Studies Director. Students are required to complete their masters degree within 7 years from initial enrollment in the program, but typically finish within 2-3 years. A timeline is available here.

Thesis and Final Examination
The M.S. student is expected to conduct original research, prepare a written thesis detailing the results, and defend the thesis in a final oral examination. The research generally is expected to be of sufficient quality to permit publication in reputable scientific journals. The final oral examination is scheduled when the advisory committee agrees that the research is complete.

Doctor of Philosophy in Bioengineering

Bioengineering Graduate Programs
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5. Biomedical product design and development, and

The student, in consultation with his or her advisor and advisory committee, develops a Plan of Study (https://gradplan.engr.ku.edu/accounts/login/?next=) and a research program to satisfy degree requirements.

The program’s goals are:
1. To give students an in-depth understanding of mathematics, engineering principles, physics, chemistry, physiology, and modern biology;
2. To train students to apply basic sciences to biological problems using engineering principles;
3. To train students to do bioengineering research and solve problems related to the design and development of diagnostic and therapeutic technologies that improve human health; and
4. To train students to apply bioengineering research to commercially viable technologies.

Bioengineering research projects typically focus on 1 of 2 broad categories:

1. The development of fundamental scientific knowledge and
2. The development and application of materials, devices, and systems with the goal of improving biological processes, systems, and health care.

Bioengineering students are often involved in measurements, analysis, modeling, computations, design, and development. The program prepares students for careers in industry, academia, health care settings, or government.

Financial Aid
Once admitted, students become eligible for financial aid. Graduate students in the bioengineering graduate program are most often supported through research assistantships, teaching assistantships, or fellowships (e.g., the Madison and Lila Self Fellowship). Research assistantships are arranged by the student and faculty advisor with assistance from the Bioengineering Academic Director if needed. Teaching assistantships are arranged by the Bioengineering Academic Director. Highly qualified applicants are considered for additional support and fellowships. For more information about external and other KU funding options, please visit http://www.engr.ku.edu/prospective/graduate/scholarships.html.

Graduate Admission to the Department of Bioengineering
Ph.D. applicants are expected to have an undergraduate grade point average of 3.5 or higher on a 4.0 scale. The appropriate academic preparation includes both general and track prerequisites. General prerequisites include calculus I and II, differential equations, linear algebra, general physics I and II, chemistry, and biology. Track prerequisites depend on the student’s track of study. More complete details about academic preparation can be found on the program’s website.

Applicants normally have a B.S. and/or an M.S. degree in an engineering discipline, physical sciences, the life sciences, or a closely related field. Students with a degree in an engineering discipline outside of bioengineering may be required to take additional courses (e.g., in the life sciences). Students with a degree from outside engineering may
be required to take additional courses (e.g., in the physical sciences, mathematics, and engineering). These additional courses generally do not count toward the graduate degree.

A highly qualified applicant (with a grade-point average higher than 3.75) may apply for admission directly into the Ph.D. program after completing the B.S. degree. Generally, a student who does not have an undergraduate degree in an engineering discipline must complete the M.S. before entering the Ph.D. program.

A student may enter the bioengineering graduate program before meeting all the prerequisites if approved by the Graduate Studies Committee. This student must plan to complete the prerequisites during the program in addition to the degree requirements. Consultation with the academic director is required to determine which courses satisfy these requirements. Course credits from prerequisites generally do not apply toward the graduate degree; they must be completed with a grade of B or higher.

The application deadline for fall admission is December 15 and the deadline for spring admission is the last working day of September. A complete application should include: completed online application, application fee payment, transcripts of all college-level work, 3 letters of recommendation, a letter of intent or statement of purpose, and scores from the Graduate Record Examination (verbal, quantitative, and analytical). A strong applicant should have outstanding academic credentials, some formal research experience, research interests that fit one of the tracks of study, and a strong potential for advanced study.

Unless the applicant’s native language is English or the applicant has received a baccalaureate degree or higher from an accredited U.S. institution of higher education, he or she must meet the program’s standard for the Test of English as a Foreign Language (TOEFL). Applicants for graduate teaching assistantships must obtain satisfactory scores on the Test of Spoken English (SPEAK).

Submit your graduate application online.

Application Instructions

CLICK HERE FOR DETAILED INSTRUCTIONS ON THE APPLICATION PROCESS

General Information

Admissions to the Bioengineering Graduate Program is granted to domestic and international students who have a superior record of achievement in their previous studies and show strong potential to succeed in study and research at the graduate level.

Applicants normally have a Bachelors of Science degree or a Masters of Science degree in an engineering discipline, physical sciences (e.g. Chemistry, Physics, etc.), the life sciences (e.g. Biology, Biochemistry, etc.), or a closely related field.

Highly qualified undergraduate students may apply for admission directly into our Ph.D. program after completing their B.S. degree. Students who do not have an undergraduate degree in an Engineering discipline will generally be admitted to the MS degree.

Ph.D. Degree Requirements

In addition to general rules and regulations, the student must meet the program’s Ph.D. requirements. Requirements for the Ph.D. include coursework, a doctoral qualifying examination, research skills and residence requirement, a comprehensive examination, a dissertation, and a final oral examination.
In the first semester, the student selects a track of study, an advisor, and an advisory committee. The advisory committee guides the student’s development through the Plan of Study (https://gradplan.engr.ku.edu/accounts/login/?next=) in the chosen track, participates in the comprehensive and final examination, and helps the student select a topic for research leading to the dissertation. Should the student’s interests change, the advisory committee membership may be changed accordingly, with the approval of the program’s Graduate Studies Director. The student’s advisory committee consists of a minimum of 5 graduate faculty members and is chaired by the student’s advisor. A more detailed description is available on the program’s website (http://www.bio.engr.ku.edu).

Course Requirements

The Ph.D. program requires a minimum of 60 credit hours beyond the B.S. to meet degree requirements.

- Core Courses (6 hours)
- Track Courses (30-36 hours) Students must complete the number of hours, including the depth and breadth courses, required in the chosen track (see the program’s website (http://www.bio.engr.ku.edu) for track requirements).
- Research (18-24 hours).

Plan of Study

Students are expected to complete a Plan of Study before beginning the second semester of graduate study. To complete a Plan of Study, a student should have identified a research advisor and dissertation committee. Students should work with their research advisors to identify an appropriate list of courses that fulfill degree requirements and support the student’s educational and research objectives. A Plan of Study can be completed online (https://gradplan.engr.ku.edu/accounts/login/?next=). The advisor, committee members, and graduate studies director must approve the Plan of Study. The Plan of Study can be modified later, if needed, with approval of the advisor, committee members, and Graduate Studies Director. Students are required to complete their PhD degree within 8 years from initial enrollment in the program, but typically finish within 4-5 years. A timeline is available here (http://www.engr.ku.edu/graduate/steps.html).

Qualifying Examination

Each doctoral student must pass the doctoral qualifying examination, normally taken at the end of the first year of graduate study. The written and oral examination measures the student’s ability to comprehend and communicate technical literature in the chosen track of study. The qualifying examination may be taken twice in a students graduate career. A more detailed description of the examination is available on the program’s website (http://www.bio.engr.ku.edu).

Research Skills and Responsible Scholarship

In addition to passing the qualifying examination, the doctoral student is required to demonstrate proficiency in research skills and responsible scholarship. The research skill requirement is fulfilled through successful completion of BIOE 800, Bioengineering Colloquium. The responsible scholarship requirement is fulfilled through successful completion of BIOE 801, Responsible Conduct of Research in Engineering.

Residence Requirement

Doctoral students must spend a minimum of 2 semesters, which may include the summer session, involved in full-time academic or professional pursuits beyond the baccalaureate degree in graduate study at KU. This may include an appointment for teaching or research and requires that the student be enrolled in a minimum of 6 credit hours a semester. More information can be found in the general doctoral degree requirements of the graduate catalog.

Comprehensive Examination

Doctoral students must take the comprehensive examination after passing the qualifying examination, completing the research skills requirement, residency requirement, responsible scholarship requirement, and at least ¾ of the course work required in the Plan of Study. The examining committee for the comprehensive examination is generally the student’s doctoral advisory committee. Before the examination, the student must submit in writing to the committee a detailed NIH or NSF-style research proposal for a possible Ph.D. dissertation project. Any modifications to the format should be approved by the student’s doctoral advisory committee. The comprehensive examination evaluates the student’s ability to write an original research proposal, design experiments, and interpret results in a sound and critical manner. A more detailed description of the examination is available on the program’s website (http://www.bio.engr.ku.edu). Passing the examination advances the student to doctoral candidacy.

Dissertation and Final Examination

The doctoral candidate is expected to conduct original research, prepare a written dissertation detailing the results, and defend the dissertation in a final oral examination. The research is expected to be of sufficient quality to permit publication in reputable scientific journals. The final oral examination is scheduled when the advisory committee agrees that the research is complete.

M.D./Ph.D. Combined Degree Requirements

The Bioengineering Graduate Program offers the combined M.D./Ph.D. degrees, in conjunction with the School of Medicine, for the student who wishes to combine a focus on medicine with interests in bioengineering research. The requirements for the Ph.D. component of the M.D./Ph.D. program are the same as for the Ph.D. program. Completion of the M.D./Ph.D. degrees is expected to take approximately 7 years. The M.D./Ph.D. student is encouraged to defend the dissertation before clinical rotations. Scholarships are available for both the M.D. and Ph.D. components of the program.

Department of Chemical & Petroleum Engineering

Chemical and Petroleum Engineering

Chemical engineering has grown out of a combination of chemistry and engineering associated with industrial processes. Today, it comprises knowledge used in processes that change the physical state or composition of materials. Chemical engineers hold key roles in the design, development, production, and purification of materials that are considered essential to human life and well-being, such as food products, fuels and lubricants, pharmaceuticals, fertilizers, synthetic fibers, microelectronic components, and plastics. Chemical engineers are involved in reducing the use of energy to make these products in safe and sustainable ways. They are responsible for minimizing environmental effects of chemical production on the environment.
Petroleum engineering is concerned with the drilling, recovery, production, and distribution of petroleum and natural gas. Petroleum engineers use knowledge of fluid and rock properties in subsurface environments with methods of producing oil and gas safely and economically. At KU, the focus is on reservoir engineering, improving production from oil and gas reservoirs. Reservoir engineers use geological detection with computerized mathematical analysis to produce these valuable raw materials. Through such techniques, petroleum engineers continue to extract oil and gas from reservoirs that were considered uneconomical only a few years ago. Petroleum engineering is uniquely challenging in that the raw product must be recovered far from physical observation.


Mission

The overall mission of the B.S. degree program is to prepare students for the practice of chemical or petroleum engineering with engineering science and its practical application to problem solving and design. Graduates are prepared for professional practice in industry or government and graduate training in engineering, medicine, law, and the sciences. In addition to math, the sciences, and engineering, the B.S. degrees provide a broad education in written and oral communication, the humanities, and the social sciences.

Undergraduate Programs

The Department of Chemical and Petroleum Engineering offers the Bachelor of Science degree in chemical engineering and petroleum engineering.

The B.S. program in chemical engineering offers a General Program, a Biomedical concentration, a Petroleum concentration, a Premedical concentration, and an Environmental concentration, as well as a Co-Op program.

Graduate Programs

C&PE graduate programs provide an in-depth academic understanding of chemical engineering and petroleum engineering for students who plan careers in academia, research, or development. The department offers the M.S. degree in chemical engineering and petroleum engineering and the Ph.D. degree in chemical and petroleum engineering. See the Graduate Studies (p. 2059) section of the online catalog for requirements for admission and degrees.

In the master’s programs, the primary emphasis is on formal course work in engineering and related subjects. Students take a sequence of core courses in heat, mass and momentum transport, thermodynamics, reaction kinetics, applied mathematics, reservoir engineering, and petroleum recovery.

In the doctoral program, the student completes an independent and novel research project in a significant engineering area. Specific Ph.D. course work depends on the research area and the specific education needed by the student for the project. The general research area reflects the research interests of the faculty. In addition to specialized courses in the department, advanced courses in mathematics and computer science, life sciences, physical sciences, and other branches of engineering may be used to prepare the Ph.D. student for the research project.

These guidelines include departmental requirements and are intended to assist the student and advisory committee in preparing a Plan of Study for the graduate degree.

Courses

C&PE 111. Introduction to the Chemical Engineering Profession. 2 Hours.

An introduction to the University of Kansas and work done by professional engineers. Students are introduced to the resources available to them at KU, in the School of Engineering, and in the Chemical and Petroleum Engineering Department. They are introduced to the curricula requirements and expectations of chemical engineering students. The career opportunities for chemical engineers are described. Students are introduced to engineering ethics, basic safety considerations, teamwork, and technical writing. The course includes fundamental calculations of material and energy balances and fluid flow. LEC.

C&PE 117. Energy in the Modern World. 1 Hour.

A survey course on global energy supply and demand, production methods and energy economics. Course begins with the matrix of energy supply and demand focusing on fossil fuels and nuclear energy and includes transportation/distribution patterns and issues and current production technologies. We then analyze alternate energy realities and potentials such as solar energy, wind energy, biomass utilization, hydrogen, fuel cells, hydroelectric, geothermal, wave/tidal, and others based on thermodynamic principles and economics. Course is also open to non-engineering students. LEC.

C&PE 121. Introduction to Computers in Engineering. 3 Hours.

Formulation of engineering problems for machine computation with emphasis on good programming practices and the integration of appropriate computational and related tools. Solutions are computed using Excel, Visual Basic, and general purpose languages such as Mathcad and/or MATLAB. Computing methods are introduced as tools for developing solutions using elementary numerical techniques including linear interpolation, linear regression, numerical integration, and root finding. Microsoft Office is used with the computational tools to provide integrated report generation capability. Two lectures and weekly laboratory instruction. Prerequisite: MATH 121 or MATH 141. LEC.

C&PE 127. Introduction to Petroleum Engineering Profession. 1 Hour.

An introduction to principles of reservoir engineering and an application of economic principles will be introduced along with the use of computer spreadsheets. A mini petroleum engineering design project will be assigned to illustrate the integration of petroleum engineering principles and the use of computers. CPE 127 is required of all Petroleum Engineering freshmen but is optional for others. Transfer students who don’t take the course must substitute CPE 127 with one hour of engineering science. LEC.

C&PE 211. Material and Energy Balances. 3 Hours.

The application of the laws of chemistry, physics, and mathematics to the solution of material and energy balance problems occurring in the process industries. Prerequisite: CPE 121; and CHEM 135 or CHEM 175 or CHEM 195; or consent of instructor. LEC.

C&PE 217. Introduction to Petroleum Drilling Engineering. 2 Hours.

An introduction to modern rotary drilling. Topics covered include: rig systems/hardware, management practices, cost analysis, drilling fluid function formulations and testing, well control systems, cement formulation and placement, drilling bits. LEC.
C&PE 219. Drilling Fluids Laboratory. 1 Hour.
Laboratory study of formulation and properties of drilling fluids. "Mud" measurements covered include density, solids content, filtration control and viscosity. Other measurements include compressive strength of cement and cuttings transport properties. Corequisite: CPE 217. LAB.

C&PE 221. Chemical Engineering Thermodynamics. 3 Hours.
Fundamentals and applications of the First and Second Laws of Thermodynamics with strong emphasis on material, energy and entropy balances to solve engineering problems involving pure components. Topics include: Cycles (Rankine, Brayton, refrigeration, etc.), the calculus of thermodynamics, equations of state for realistic thermodynamic properties, departure functions, equilibrium and stability criteria, fugacity, and single component phase equilibrium (vaporization, melting, sublimation). Prerequisite: MATH 122 or MATH 142; CPE 121; and CPE 211. Prerequisite or Corequisite: PHSX 211 or PHSX 213; or permission of instructor. LEC.

C&PE 327. Reservoir Engineering. 4 Hours.
Properties of porous rocks, reservoir fluids, and fluid saturated rocks. Introduction to multiphase flow in porous media including concepts of wettability, capillary pressure and relative permeability. Prerequisite: CHEM 175. LEC.

C&PE 511. Momentum Transfer. 3 Hours.
Solutions of continuity, momentum, and energy equations applied to fluids in confined flow or flowing past submerged objects. Laminar and turbulent flows of both incompressible and compressible fluids are considered. Engineering applications include pressure drop and network analysis of piping lines, flow measurements, fluid moving equipment including the performance of pumps. Prerequisite: (CPE 221 or ME 312); CPE 121 (or equivalent), and a course in differential equations (MATH 220 or MATH 221 or MATH 320 or MATH 321). LEC.

C&PE 512. Chemical Engineering Thermodynamics II. 3 Hours.
Further application of the laws of thermodynamics to multi-component mixtures and in multi-phase equilibria with focus on vapor-liquid, liquid-liquid, and solid-liquid equilibria. Mixture Fugacity expressions are developed using equations of state with mixing rules or Excess Gibbs Free Energy/activity coefficient models for data correlation or prediction. Chemical equilibrium of reactions is also discussed. Prerequisite: CPE 121; CPE 211; CPE 221; and CHEM 330 or CHEM 380 or CHEM 624; or permission of instructor. LEC.

C&PE 521. Heat Transfer. 3 Hours.
An applied study of the various (conductive, convective, and radiative) heat transfer mechanisms in solid and fluid systems both transient and steady-state. Engineering applications include: conduction in solids and fluids, free and forced convection in fluids, radiation, boiling and condensing fluids, and design of heat exchangers. Prerequisite: CPE 121, Thermodynamics (CPE 221 or ME 312); CPE 511 (or equivalent); AND a course in differential equations (MATH220 or MATH 221 or MATH 320 or MATH 321). LEC.

C&PE 522. Economic Appraisal of Chemical and Petroleum Projects. 2 Hours.
Consideration of the economic factors important in the development of the chemical or petroleum enterprise. Applications of economic evaluation methods to engineering project development. Consideration of risk and uncertainty in project development. Prerequisite: MATH 122, or MATH 142; PHSX 211 or PHSX 213; and CPE 121 or consent of instructor. LEC.

C&PE 523. Mass Transfer. 4 Hours.
Includes one credit hour of calculations laboratory. Treatment of mass transfer phenomena with application to analysis and design of unit operations equipment such as distillation, extraction, absorption, and adsorption. Prerequisite: CPE 211, CPE 511, and CPE 512. Corequisite: CPE 521. LEC.

C&PE 524. Chemical Engineering Kinetics and Reactor Design. 3 Hours.
Development and solution of the material and energy balance equations for continuous and batch reactors. These balance equations are applied in (a) the determination of intrinsic kinetics, (b) the design of reactors and (c) the analysis of reactor behavior. Both homogeneous and heterogeneous reaction systems are considered. Prerequisite: CPE 511, CPE 512, and a course in differential equations. Corequisite: CPE 521. LEC.

C&PE 527. Reservoir Engineering II. 4 Hours.
Lectures on single phase flow and pressure distribution in reservoirs. Calculations in drawdown, buildup, multiple rate, fractured systems, gas and injection well testing. Material balance calculations for gas, gas-condensate, undersaturated, and saturated reservoirs. Prerequisite: CPE 517 or consent of instructor, a course in differential equations. LEC.

C&PE 528. Well Logging. 3 Hours.
Analysis of well logs to determine properties of reservoir rocks, fluid saturations and lithology, and production logging. Prerequisite: CPE 517 or consent of instructor. LEC.

C&PE 601. Undergraduate Topics in Chemical and Petroleum Engineering. 1-4 Hours.
Undergraduate study in various branches of Chemical and Petroleum Engineering on topics that may vary from year to year. Prerequisite: Varies. LEC.

C&PE 612. Environmental Assessment of Chemical Processes. 3 Hours.
A discussion and project-based survey of environmental issues in chemical engineering, including environmentally conscious design, environmental fate and transport, green chemistry, and life cycle analysis. Focus will be on the design, implementation and management of comprehensive environmental assessments for existing and new industrial facilities with an emphasis on the technical and economic impacts of catalytic systems on pollution control strategies. LEC.

C&PE 613. Chemical Engineering Design I. 4 Hours. AE61.
Synthesis, design and economic analysis of petrochemical, and chemical plants. Applications in computer aided engineering applied to these topics. Prerequisite: CPE 511, CPE 512, CPE 521, CPE 522, CPE 523, and CPE 524. Corequisite: CPE 615. LEC.

C&PE 614. Reaction Engineering for Environmentally Benign Processes. 3 Hours.
Principles of reaction engineering and green chemistry applied to processes of the future. With a case-based introduction to the design and optimization of catalytic processes and reaction systems, focus will be on key reaction engineering concepts, including catalysis, mechanisms, reaction kinetics, heterogeneous reactions, reactor types and economic evaluation. Students will develop a multidisciplinary understanding of chemical, biological and molecular concepts and of the multiscale character of developing and designing processes from the micro level to the macro level. Prerequisite: Senior standing in engineering to the physical/biological sciences. LEC.

C&PE 615. Introduction to Process Dynamics and Control. 3 Hours.
The behavior of chemical processing equipment in the presence of disturbances in operating conditions is analyzed. Control systems are designed based on the criteria of system stability and optional system performance. Prerequisite: CPE 511, CPE 512, CPE 521, CPE 523 and CPE 524. LEC.
C&PE 616. Chemical Engineering Laboratory I. 3 Hours.
Laboratory study of chemical engineering concepts of thermodynamics, fluid flow, heat transfer, mass transfer, and reaction kinetics. Includes emphasis on technical communication skills. Prerequisite: CPE 511, CPE 512, CPE 521, CPE 523, CPE 524, and ENGL 102. LAB.

C&PE 617. Drilling and Well Completion. 3 Hours.
Design and analysis of rotary drilling and well completion systems; casing design, cementing, and perforating. Safety and ethical considerations in drilling and fluid disposal operations. Prerequisite: CPE 517 and CPE 511 or ME 510 and CPE 217 or consent of instructor. LEC.

C&PE 618. Secondary Recovery. 4 Hours.
Study of waterflooding based upon linear displacement theory. Extension to two and three dimensions through correlations and stream tube models. Design of waterfloods including preparation of a reservoir description for waterflood evaluation. Prerequisite: CPE 527. LEC.

C&PE 619. Petroleum Engineering Laboratory I. 3 Hours.
Laboratory study of methods to determine rock and fluid properties related to petroleum engineering including phase behavior, viscosity, permeability, porosity, capillary pressure, oil recovery, water/oil displacement, fluid flow, and heat transfer coefficients. Analysis of experimental uncertainty. Oral and written presentations are required. Prerequisite: ENGL 102 or ENGL 105; and CPE 511 or ME 510; and CPE 517; or consent of instructor. LAB.

C&PE 620. Enhanced Oil Recovery. 3 Hours.
Enhanced Oil Recovery processes such as primary, secondary, and tertiary oil recovery techniques will be presented. This includes miscible/immiscible displacement, chemical processes such as polymerflood, surfactant and micellar flood, and thermal recovery techniques such as steam flooding, in-situ combustion, and other EOR techniques. Prerequisite: CPE 627 and CPE 618 or consent of instructor. LEC.

A continuation of CPE 613 with emphasis on individual student process design development and analysis. Prerequisite: CPE 613, CPE 615. LEC.

C&PE 624. Plant and Environmental Safety. 3 Hours.
An introductory course designed to acquaint students to topics including chemical plant and environmental accident analysis; review of hazard evaluation procedures including fault tree, hazard and operability studies and human error analysis; safety equipment design; EPA and TOSCA criteria and ethical considerations. Prerequisite: CPE 613 and CPE 615. LEC.

C&PE 626. Chemical Engineering Laboratory II. 3 Hours.
Laboratory study of chemical engineering concepts of thermodynamics, fluid flow, heat transfer, mass transfer, reaction kinetics, and process control. Includes emphasis on technical communication skills. Prerequisite: ENGL 102, CPE 511, CPE 512, CPE 521, CPE 523, CPE 524, CPE 615. LAB.

C&PE 627. Petroleum Production. 3 Hours.
Design and analysis of natural production and artificial lift systems, including beam pumping, gas lift, and submersible pumps. Vertical and horizontal two phase flow, compression, metering, acidizing, fracturing, and pipe line flow systems. Treatment of ethics considerations in production contracts and leasing arrangements. Prerequisite: CPE 511 or ME 510; and CPE 517. LEC.

C&PE 628. Petroleum Engineering Design. 3 Hours. AE61.
Design problems related to petroleum reservoir development such as selection of optimum well spacing for a specified reservoir, evaluation of a producing property or installation of a waterflood. Designs consider economic, uncertainty analysis, as well as conservation, environmental, and professional ethics factors. Prerequisite: CPE 522, CPE 527, and CPE 618. LEC.

C&PE 651. Undergraduate Problems. 1-6 Hours.
Investigation of a particular problem in the field of chemical or petroleum engineering. IND.

C&PE 654. Biocatalysis. 3 Hours.
Introductory and advanced topics in biocatalysis with focus on enzymatic reactions. Enzymology will provide the fundamental basis for discussion of kinetics and bio-process development. Advanced topics include: enzymes in non-aqueous solvents, immobilization techniques, whole-cell transformations, bio-reactors. LEC.

C&PE 655. Introduction to Semiconductor Processing. 3 Hours.
An overview of various processes to fabricate semiconductor devices and integrated circuits. Topics covered include crystal growth, oxidation, solid-state diffusion, ion implantation, photolithography, chemical vapor deposition, epitaxial growth, metalization, and plasma etching of thin films. (Same as EECS 670.) Prerequisite: Senior standing in CPE or EE or consent of instructor. LEC.

C&PE 656. Introduction to Biomedical Engineering. 3 Hours.
An interdisciplinary introduction to the field of biomedical engineering. This course covers a breadth of topics including biotransport, biomechanics, biomaterials, tissue engineering, drug delivery, biomedical imaging, computational biology, and biotechnology. Students are exposed to these broad topics, and go further in depth in a topic of their choice with the semester project. Prerequisite: Junior or Senior-level standing in Engineering or consent of instructor. LEC.

C&PE 657. Polymer Science and Technology. 3 Hours.
Polymer Science and Technology is a 3-hour introductory course to polymer chemistry, science, technology, and processing. The course targets junior, senior, and graduate chemical engineers and chemistry majors and is intended to provide a background which would allow young professionals to understand polymer chemistry and processes to which they would be exposed to in industry and literature. The course would also assist them in selecting polymers and polymer specifications. Prerequisite: Senior or graduate student standing in chemical or petroleum engineering, or consent of instructor. LEC.

C&PE 661. Undergraduate Honors Research. 3 Hours.
This course involves the investigation of a particular problem in the field of chemical or petroleum engineering. CPE 661 should be taken, rather than CPE 651, for students seeking Departmental Honors in Chemical Petroleum Engineering. CPE 661 may also be used by students in the Honors Program to help satisfy the course requirement of this program. The design or research topic is identified jointly by the student and faculty research supervisor. Prerequisite: Completion of CPE 121, CPE 211, CPE 511, CPE 512, CPE 522, overall GPA >3.5, and engineering GPA >3.5, or permission of the department. IND.

C&PE 678. Applied Optimization Methods. 3 Hours.
Study of methods for solving optimization problems encountered in engineering and the natural sciences, with specific applications illustrating analytical and numerical techniques. Topics covered include methods, penalty functions, linear programming, nonlinear and integer programming, stochastic optimization approaches, and treatment of constrained problems. A semester project is required. Prerequisite: Senior standing. LEC.

C&PE 701. Methods of Chemical and Petroleum Calculations. 3 Hours.
The utilization of advanced mathematical methods and computing techniques in the solution of problems in these fields. LEC.
C&PE 710. Subsurface Methods in Formation Evaluation. 3 Hours.
Study of subsurface methods and their applications to exploration, evaluation, and production of hydrocarbon reservoirs. Emphasis is on fundamentals of quantitative well log interpretations and the use of well log data in solving geologic and reservoir engineering problems, e.g., porosity, hydrocarbon saturation, permeable bed thickness, permeability, correlation, structural mapping, and stratigraphic and paleoenvironmental studies. Laboratory. Prerequisite: GEOL 535 or CPE 517 or consent of instructor. LEC.

C&PE 712. Environmental Assessment of Chemical Processes. 3 Hours.
A discussion and project-based survey of environmental issues in chemical engineering, including environmental conscious design, environmental fate and transport, green chemistry, and life cycle analysis. Focus will be on the design, implementation and management of comprehensive environmental assessments for existing and new industrial facilities with in-depth analysis of the technical and economic impacts of catalytic systems on pollution control strategies. A comprehensive research paper is required as a final project. LEC.

C&PE 714. Reaction Engineering for Environmentally Benign Processes. 3 Hours.
Principles of reaction engineering and green chemistry applied to processes of the future. With a case-based introduction to the design and optimization of catalytic processes and reaction systems, focus will be on key reaction engineering concepts, including catalysis, mechanisms, reaction kinetics, heterogeneous reactions, reactor types and economic evaluation. Students will develop a multidisciplinary understanding of chemical, biological and molecular concepts, and will develop and design processes from the micro level to the macro level. A final research paper is required. LEC.

C&PE 715. Topics in Chemical and Petroleum Engineering: ______. 1-4 Hours.
Study in various branches of Chemical and Petroleum Engineering on topics that may vary from year to year. LEC.

C&PE 721. Chemical Engineering Thermodynamics. 3 Hours.
Chemical engineering applications of advanced thermodynamics and physical chemistry. Prerequisite: CPE 512. LEC.

C&PE 722. Kinetics and Catalysis. 3 Hours.
Modeling and analysis of chemical reactors with emphasis on heterogeneous catalytic reaction systems. Prerequisite: CPE 524. LEC.

C&PE 725. Molecular Cell Biology. 3 Hours.
Fundamentals and advanced concepts in cell biology and the molecular interactions responsible for cell functions, homeostasis and disease will be presented. Current analytical methods for examining cells and their molecular components will be discussed. Emphasis will be placed on the chemical and physical properties of individual proteins, nucleic acids and lipids and their assembly into cellular and subcellular structures. (Same as PHCH 725) Prerequisite: Graduate standing or consent of instructor. LEC.

C&PE 731. Convective Heat and Momentum Transfer. 3 Hours.
The formulation and solution of steady- and unsteady-state convective heat and momentum transfer problems. Applications of boundary layer equations to free and forced convection with study of similarity and integral methods of solution for laminar and turbulent flow; development of analogies; transport properties from kinetic theory of gases viewpoint; introduction to numerical methods. Prerequisite: ME 610/CPE 511 and ME 612/CPE 521 or equivalent. A concurrent course in partial differential equations is helpful. LEC.

C&PE 732. Advanced Transport Phenomena II. 3 Hours.
The formulation and solution of steady- and unsteady-state mass transfer problems (including those complicated by momentum and heat transfer). This course is the sequel to CPE 731 and relies upon much of the material treated there. The mathematical approach predominates and the methods available for determining suitable mass transfer coefficients are covered. LEC.

C&PE 751. Basic Rheology. 3 Hours.
Basic rheology including classification of classical bodies based on their stress and strain tensors, rheological equation of state, material functions, generalized Newtonian and general linear viscoelastic fluids, mechanical models such as those of Jeffreys and Maxwell. Prerequisite: CPE 511 or an equivalent course in fluid mechanics. LEC.

C&PE 752. Tissue Engineering. 3 Hours.
An introduction to the rapidly growing and continuously evolving field of tissue engineering. Tissue engineering applies principles and methods of engineering and life sciences toward understanding and development of biological substitutes to restore, maintain and improve tissues and functions. In this course, students study the basic science, engineering and medicine required for tissue engineering, learn state-of-the-art technology and practice, and create a literature-based proposal for a tissue engineered medical product. Prerequisite: Senior or graduate standing in engineering; or consent of instructor. LEC.

C&PE 753. Introduction to Electrochemical Engineering. 3 Hours.
Basic principles of electrochemical engineering as they are applied to energy conversion and storage devices, industrial electrolytic processes and corrosion. Areas covered range from electrochemical thermodynamics, ionic phase equilibria, electro-kinetics and ionic mass transport to mathematical modeling of electrochemical systems. Prerequisite: Graduate standing; CPE 511, CPE 512, CPE 524 or equivalent; knowledge of a programming language. LEC.

C&PE 754. Biocatalysis. 3 Hours.
Introductory and advanced topics in biocatalysis with focus on enzymatic reactions. Enzymology will provide the fundamental basis for discussion of kinetics and bio-process development. Advanced topics include: enzymes in non-aqueous solvents, immobilization techniques, whole-cell transformations, bio-reactors. Knowledge of the theoretical basis for these techniques and processes will be demonstrated within a class project. LEC.

C&PE 755. Introduction to Semiconductor Processing. 3 Hours.
An overview of various processes to fabricate semiconductor devices and integrated circuits. Topics covered include crystal growth, oxidation, solid-state diffusion, ion implantation, photolithography, chemical vapor deposition, epitaxial growth, metallization, and plasma etching of thin films. A term paper on an approved topic of fabrication referencing current peer reviewed literature is required. LEC.

C&PE 756. Introduction to Biomedical Engineering. 3 Hours.
The graduate elective form of CPE 656. Additional assignments and a research project will be required for this section. Prerequisite: Graduate-level standing in Engineering, or consent of instructor. LEC.

C&PE 765. Corrosion Engineering. 3 Hours.
Electrochemical basis of corrosion. Types of corrosion and corrosive atmospheres. Corrosion control measures and industrial problems. Prerequisite: ME 306 or CHEM 188. LEC.

C&PE 771. Advanced Reservoir Engineering. 2-3 Hours.
Physical principles of petroleum production; gas drive performance; partial water drive performance; pressure maintenance through gas and water injection. Prerequisite: CPE 527. LEC.
C&PE 778. Applied Optimization Methods. 3 Hours.
Study of methods for solving optimization problems encountered in engineering and the natural sciences, with specific applications illustrating analytical and numerical techniques. Topics covered include gradient methods, penalty functions, linear programming, nonlinear and integer programming, stochastic optimization approaches, and treatment of constrained problems. Homework problems involving theoretical concepts and a theoretically-based semester project are required. LEC.

C&PE 790. Introduction to Flow in Porous Media. 3 Hours.
Generalized Darcy’s law, vector equations, solutions of partial differential equations with various boundary conditions as applied to the flow of fluids in porous media. Prerequisite: CPE 527. LEC.

C&PE 795. Enhanced Petroleum Recovery. 3 Hours.
A study of improved oil recovery processes such as miscible displacement, microemulsion displacement, and thermal methods. Prerequisite: CPE 618 or permission of instructor. LEC.

C&PE 798. Phase Equilibrium. 3 Hours.
A study of phase behavior and equilibrium from a molecular perspective. Focus will be on vapor-liquid, liquid-liquid and solid-liquid equilibrium with advanced topics in compressed and supercritical fluids, petroleum applications, ionic solutions and others. LEC.

C&PE 800. Seminar. 0.5-1 Hours.
Every fall, five to six seminar sessions will be devoted to providing incoming students information on available thesis/dissertation research projects, library resources, computing environment and other pertinent information. For the remainder of the year, the seminar will involve presentation of current research and other topics of interest to chemical and petroleum engineers. These presentations will be made by invited guests, faculty, and advanced graduate students. Graded on a satisfactory/unsatisfactory basis. LEC.

C&PE 801. Introduction to Research. 1 Hour.
One hour per week in which the staff introduces entering graduate students to research. Topics include discussion of research methods, methods of effectively tapping library resources, preparation of literature surveys, and presentation of results. Faculty members of the department will make presentations of their current research interests. Offered fall only. Corequisite: CPE 800. LEC.

C&PE 802. CEBC Colloquium. 0.5-1 Hours.
A forum in which graduate and postdoctoral students, and faculty present the results of CEBC research and literature surveys that support the mission of CEBC. LEC.

C&PE 803. Research. 1-6 Hours.
For M.S. candidates. THE.

C&PE 804. Petroleum Management Seminar. 1 Hour.
Structure, operation, and problems of the petroleum industry from a management viewpoint. Presentations will be made by faculty, advanced students, and invited guests. Prerequisite: Permission of instructor. LEC.

C&PE 825. Graduate Problems in Chemical and Petroleum Engineering. 1-5 Hours.
Advanced laboratory problems, special research problems, or library reading problems. Three hours maximum acceptable for master’s degree. RSH.

C&PE 902. Preparation for the Ph.D. Comprehensive Examination. 3 Hours.
Preparation of a research proposal in an area assigned by the student’s advisory committee. The grade received on the Ph.D. comprehensive examination will apply to this credit. RSH.
statistics and matrix algebra are covered, followed by topics in time, series analysis, map analysis, including automatic contouring, and multivariate procedures such as principal components, discrimination and factor analysis. A suite of computer programs is provided. Students are encouraged to use data from their own graduate research in class projects. LEC.

Bachelor of Science in Chemical Engineering

B.S. in Chemical Engineering Program

Chemical engineering has grown out of a combination of chemistry and engineering associated with industrial processes. Today, it possesses a body of knowledge used in the synthesis, design testing, scale-up, operation, control, and optimization of processes that change the physical state or composition of materials. Chemical engineers have played central roles in the industrial development of materials that have had major social influence, such as the production of fuels and lubricants, fertilizer, synthetic fibers, and plastics. They will be centrally involved in reducing the polluting effects of certain byproducts and cleaning up unwanted residues from previous processes.

The first part of the program offers courses on the fundamental principles underlying the conversion of raw materials into a desired product by chemical and physical processes. Development of the concepts of engineering design begins with the application of fundamental principles to solve engineering problems in these courses and culminates in a series of senior-level design courses that require comprehensive integration of technical knowledge as well as consideration of economic, environmental, safety, and societal concerns. This experience is essential in preparing graduates for entry-level positions.

Educational Objective

The objective of the program is to prepare graduates for professional practice in industry, government, or post-undergraduate training in chemical engineering, medicine, and other related disciplines.

Professional Opportunities

Chemical engineers are concerned with the chemical processes that turn raw materials into valuable products. They serve industrial and other activities where processes occur in which materials undergo a chemical or physical change. Chemical engineers build a bridge between science and manufacturing, applying the principles of chemistry, biology and engineering to solve problems involving the production or use of chemicals. Chemical engineers typically work for manufacturing companies, environmental companies, health care and pharmaceuticals, petroleum industry, biotechnology, or consulting firms.

Undergraduate Admission to the School of Engineering

First-year undergraduate students may be admitted, but all admissions, both in-state and out-of-state, are selective. Visit the Office of Admissions (http://admissions.ku.edu/whyku/index.shtml) for admission requirements. Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Applications are judged on several factors, including but not limited to high school record, scores on national tests, academic record at college or university level, and trend of grades. High school transcripts and ACT scores are required. Equivalent SAT scores may be substituted.

Minimum Academic Standards for Admission

To be considered for admission to the School of Engineering, beginning first-year students must meet or exceed the following minimum standards:

- 3.0 grade-point average on a 4.0 scale on the Kansas Board of Regents Qualified Admissions (http://admissions.ku.edu/apply/regents_curriculum.shtml) college-preparatory curriculum.
- Top 50 percent of the graduating class of an accredited high school or the equivalent.
- Mathematics ACT score of 22 (or mathematics SAT score of 540).
  Some engineering degree programs may require a higher mathematics ACT score.

These minimum admission standards apply to all departments. Meeting minimum requirements does not guarantee admission.

Transfer Admission Standards

Applications from all transfer students, whether from other institutions or from other KU units, are evaluated on a case-by-case basis. In general, students with grade-point averages under 2.5 are not considered. Students must submit mathematics ACT or SAT scores or proof of competence in calculus (grade of C or higher). No upper-level engineering credits from non-ABET-accredited engineering programs are acceptable as transfer credit for engineering programs. Admission is selective, and meeting the minimum requirements does not guarantee admission.

General Education Requirements

The KU Core is the university-wide curriculum that all incoming undergraduate students will complete as part of their degree requirements. It comprises three general education goals and three advanced education goals. Associated with each goal are one or more learning outcomes:

- GE1.1, Goal 1, Outcome 1, Critical Thinking;
- GE1.2, Goal 1, Outcome 2, Quantitative Literacy;
- GE2.1, Goal 2, Outcome 1, Written Communication;
- GE2.2, Goal 2, Outcome 2, Oral Communication;
- GE3H, Goal 3, Outcome 1, Arts & Humanities;
- GE3N Goal 3, Outcome 2, Natural Sciences;
- GE3S Goal 3, Outcome 3, Social Sciences;
- AE4.1, Goal 4, Outcome 1, Diversity;
- AE4.2 Goal 4, Outcome 2 Culture;
- AE5.1, Goal 5, Outcome 1, Social Responsibility & Ethics (course);
- AE5.2, Goal 5, Outcome 2, Social Responsibility & Ethics (practice);
- AE6.1, Goal 6, Outcome 1 and 2, Integration & Creativity.

Details of the KU Core can be found at kucore.ku.edu. Some required courses in the Chemical Engineering curricula satisfy a KU Core goal and/or outcome. For these courses, the goal/outcome code is given in parentheses after the course on the pages below. Where required courses do NOT satisfy KU Core goals (Goals 3H, 3S, 4.1, and 4.2) students must choose from a list of several courses to satisfy the required goals.
### First- and Second-Year Preparation

Recommended enrollments for the first 2 years are as follows:

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C&amp;PE 111</td>
<td>2 MATH 122</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 101 (KU Core Goal 2.1)</td>
<td>3 ENGL 102 (KU Core Goal 2.1)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 121 (KU Core Goal 1.2)</td>
<td>5 C&amp;PE 121</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 130 or 170 (KU Core Goal 3N)</td>
<td>5 CHEM 135 or 175</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
<td>16</td>
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</table>

<table>
<thead>
<tr>
<th>Sophomore</th>
<th>Hours</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C&amp;PE 211</td>
<td>3 C&amp;PE 221</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 210 (KU Core Goal 1.1)</td>
<td>3 PHSX 212</td>
<td>1-3</td>
</tr>
<tr>
<td>MATH 220 (or MATH 320 if Option A)</td>
<td>3 PHSX 216 (KU Core Goal 5)</td>
<td>1</td>
</tr>
<tr>
<td>MATH 290</td>
<td>2 MATH 223 (or MSEHS elective if Option B)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 330</td>
<td>3 Advanced Chemistry elective</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 331</td>
<td>2 KU Core - Choose from Goal 3H, 3S, 4.1, or 4.2</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16</td>
<td>14-16</td>
</tr>
</tbody>
</table>

Total Hours: 61-63

### Bachelor of Science in Chemical Engineering Degree Requirements

Following are descriptions of the General Program, the Biomedical concentration, the Petroleum concentration, the Premedical concentration, and the Environmental concentration, as well as the Co-Op program.

1. A student must achieve a combined 2.0 GPA in C&PE 211 and C&PE 221 to progress to junior-level core courses.
2. A student must attain a cumulative grade-point average of at least 2.0 in required C&PE courses taken at KU through the junior year before being admitted to senior-level courses.
3. A student must attain a cumulative grade-point average of at least 2.0 in C&PE courses taken at KU for graduation with a B.S. degree in chemical or petroleum engineering.

### General Program

A total of 131 hours is required:

#### Chemical Engineering Science (17)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;PE 111</td>
<td>Introduction to the Chemical Engineering Profession</td>
<td>2</td>
</tr>
<tr>
<td>C&amp;PE 121</td>
<td>Introduction to Computers in Engineering</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 211</td>
<td>Material and Energy Balances</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 221</td>
<td>Chemical Engineering Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 511</td>
<td>Momentum Transfer</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;PE 521</td>
<td>Heat Transfer</td>
<td>3</td>
</tr>
</tbody>
</table>

### Chemical Engineering Sciences and Design (13)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;PE 512</td>
<td>Chemical Engineering Thermodynamics II</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 523</td>
<td>Mass Transfer</td>
<td>4</td>
</tr>
<tr>
<td>C&amp;PE 524</td>
<td>Chemical Engineering Kinetics and Reactor Design</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 615</td>
<td>Introduction to Process Dynamics and Control</td>
<td>3</td>
</tr>
</tbody>
</table>

### Chemical and Petroleum Engineering Design and Integrating Courses (17)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;PE 522</td>
<td>Economic Appraisal of Chemical and Petroleum Projects (KU Core Goal 5)</td>
<td>2</td>
</tr>
<tr>
<td>C&amp;PE 613</td>
<td>Chemical Engineering Design I (KU Core Goal 2.2, Goal 6)</td>
<td>4</td>
</tr>
<tr>
<td>C&amp;PE 616</td>
<td>Chemical Engineering Laboratory I (KU Core Goal 2.2)</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 623</td>
<td>Chemical Engineering Design II</td>
<td>2</td>
</tr>
<tr>
<td>C&amp;PE 624</td>
<td>Plant and Environmental Safety (KU Core Goal 5)</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 626</td>
<td>Chemical Engineering Laboratory II (KU Core Goal 2.2)</td>
<td>3</td>
</tr>
</tbody>
</table>

### Engineering Science/Design Electives (12)

7 hours of engineering science are required from any field of engineering. The remaining 5 hours may be engineering science or design. At least 5 elective hours must be in engineering areas outside the department, and 3 hours must be in chemical and petroleum engineering. A maximum of 6 hours may be taken in chemical engineering. All electives must be selected from an approved list available in the department.

### Basic Sciences (16-18)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>or CHEM 170</td>
<td>Chemistry for the Chemical Sciences I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 135</td>
<td>General Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>or CHEM 175</td>
<td>Chemistry for the Chemical Sciences II</td>
<td>5</td>
</tr>
<tr>
<td>PHSX 210</td>
<td>General Physics I for Engineers (KU Core Goal 1.1)</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 216</td>
<td>General Physics I Laboratory (KU Core Goal 5)</td>
<td>1</td>
</tr>
<tr>
<td>PHSX 212</td>
<td>General Physics II</td>
<td>1-3</td>
</tr>
<tr>
<td>PHSX 236</td>
<td>General Physics II Laboratory</td>
<td>1</td>
</tr>
</tbody>
</table>

### Advanced Chemistry (15)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 330</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 331</td>
<td>Organic Chemistry I Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>Chemistry or biochemistry electives, selected from courses numbered 300 and above or approved natural science courses.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CHEM 530</td>
<td>Physical Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 535</td>
<td>Physical Chemistry II</td>
<td>4</td>
</tr>
</tbody>
</table>

### Mathematics (15-18)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 122</td>
<td>Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>Select one of the following options:</td>
<td></td>
<td>5-8</td>
</tr>
</tbody>
</table>

**Option A:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 223</td>
<td>Vector Calculus</td>
<td></td>
</tr>
<tr>
<td>MATH 290</td>
<td>Elementary Linear Algebra</td>
<td></td>
</tr>
<tr>
<td>MATH 320</td>
<td>Elementary Differential Equations</td>
<td></td>
</tr>
</tbody>
</table>

**Option B:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 220</td>
<td>Applied Differential Equations</td>
<td></td>
</tr>
<tr>
<td>MATH 290</td>
<td>Elementary Linear Algebra</td>
<td></td>
</tr>
</tbody>
</table>
Elective: Mathematics (selected from courses numbered above MATH 124, except MATH 320), science, engineering, humanities, or social sciences elective.

**General Education Component (18)**

Students with an initial term of Fall 2014 or later must meet the minimum requirements of the KU Core. Learn more about KU Core requirements at http://kucore.ku.edu

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition (KU Core Goal 2.1)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing (KU Core Goal 2.2)</td>
<td>3</td>
</tr>
<tr>
<td>KU Core Goal 3S</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>KU Core Goal 3H</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>KU Core Goal 4.1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>KU Core Goal 4.2</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Biomedical Concentration**

The student in the biomedical concentration takes the same courses specified for the General Program, with the following additions or specifications:

**Advanced Chemistry (4)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 600</td>
<td>Introductory Biochemistry, Lectures</td>
<td>4</td>
</tr>
</tbody>
</table>

**Basic Sciences (6)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 100</td>
<td>Principles of Biology (meets Advanced Chemistry requirement of Chemical Engineering BS)</td>
<td>3</td>
</tr>
<tr>
<td>or BIOL 152</td>
<td>Principles of Organismal Biology</td>
<td></td>
</tr>
<tr>
<td>BIOL 246</td>
<td>Principles of Human Physiology</td>
<td>3</td>
</tr>
<tr>
<td>or BIOL 646</td>
<td>Mammalian Physiology</td>
<td></td>
</tr>
</tbody>
</table>

**Engineering Science/Design Electives (11)**

7 hours of engineering science are required from any engineering field. The remaining 4 hours may be engineering science or design. At least 5 elective hours must be in engineering areas outside the department, and 3 hours must be in chemical and petroleum engineering. A maximum of 6 hours may be taken in chemical engineering. All electives must be selected from an approved list available in the department.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;PE 651</td>
<td>Undergraduate Problems (recommended, not required)</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 656</td>
<td>Introduction to Biomedical Engineering</td>
<td>3</td>
</tr>
</tbody>
</table>

5 hours of engineering science/design electives subject to requirements above

**Petroleum Engineering Concentration**

The petroleum engineering concentration in chemical engineering is distinct from the B.S. in petroleum engineering degree (see below). A total of 131 credit hours is required for this concentration. The student takes the same courses specified for the General Program, with the following following additions or specifications:

**Geology (5)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 101</td>
<td>The Way The Earth Works and Geology Fundamentals Laboratory (meets Advanced Chemistry requirement of Chemical Engineering BS)</td>
<td>5</td>
</tr>
<tr>
<td>&amp; GEOL 103</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Engineering Science (2)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;PE 117</td>
<td>Energy in the Modern World</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;PE 127</td>
<td>Introduction to Petroleum Engineering Profession</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(Recommended instead of C&amp;PE 111.)</td>
<td></td>
</tr>
</tbody>
</table>

**Engineering Science/Design Electives (14)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;PE 327</td>
<td>Reservoir Engineering</td>
<td>4</td>
</tr>
<tr>
<td>C&amp;PE 527</td>
<td>Reservoir Engineering II</td>
<td>4</td>
</tr>
<tr>
<td>Petroleum engineering elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Engineering elective</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Premedical Concentration**

A total of 137 credit hours is required for a B.S. in chemical engineering for students who plan to apply for admission to medical school. Additional hours are recommended (see Biological Science below). Premedical students take the same courses specified for the general program with the following additions or specifications:

**Engineering Science/Design Electives (11)**

7 hours of engineering science are required from any field of engineering. The remaining 4 hours may be engineering science or design. At least 5 elective hours must be in engineering areas outside the department, and 3 hours must be in chemical and petroleum engineering. A maximum of 6 hours may be taken in chemical engineering. All electives must be selected from an approved list available in the department.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 104</td>
<td>General Psychology (KU Core Goal 3S)</td>
<td>3</td>
</tr>
<tr>
<td>SOC 104</td>
<td>Elements of Sociology (KU Core Goal 4.1)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Advanced Chemistry (5)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 335</td>
<td>Organic Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 336</td>
<td>Organic Chemistry II Laboratory</td>
<td>2</td>
</tr>
</tbody>
</table>

**Biological Science (20-21)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 152</td>
<td>Principles of Organismal Biology</td>
<td>4</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>5-6</td>
<td></td>
</tr>
<tr>
<td>BIOL 646</td>
<td>Mammalian Physiology</td>
<td></td>
</tr>
<tr>
<td>or BIOL 246</td>
<td>Principles of Human Physiology</td>
<td></td>
</tr>
<tr>
<td>The following courses are recommended but not required:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 350</td>
<td>Principles of Genetics</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 416</td>
<td>Cell Structure and Function</td>
<td>3</td>
</tr>
</tbody>
</table>

**Environmental Concentration**

The student in the environmental concentration takes the same courses specified for the General Program, with the following additions or specifications:

**Engineering Science/Design Electives (12)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 477</td>
<td>Introduction to Environmental Engineering and Science</td>
<td>3</td>
</tr>
</tbody>
</table>

Select 6 hours from the following principles courses: 6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 570/770</td>
<td>Concepts of Environmental Chemistry</td>
<td></td>
</tr>
<tr>
<td>CE 571/771</td>
<td>Environmental Chemical Analysis</td>
<td></td>
</tr>
<tr>
<td>CE 772</td>
<td>Physical Principles of Environmental Engineering Processes</td>
<td></td>
</tr>
<tr>
<td>CE 573/773</td>
<td>Biological Principles of Environmental Engineering</td>
<td></td>
</tr>
<tr>
<td>CE 774</td>
<td>Chemical Principles of Environmental Engineering Processes</td>
<td></td>
</tr>
</tbody>
</table>
Co-Op Program

The Co-Op Program is essentially the same as the General Program with the timing modified to include Co-Op employment.

Credit for ROTC Courses

Only ROTC courses qualifying as engineering electives and humanities/social sciences may be used.

Departmental Honors

An undergraduate may receive departmental honors by completing the B.S. with an overall grade-point average of 3.5 in courses taken at KU and 3.5 in KU engineering courses and by completing C&PE 661 Undergraduate Honors Research for a minimum of 3 credit hours with a grade of A or B. Students with overall grade-point averages of 3.5 in courses taken at KU and 3.5 in KU engineering courses are allowed to enroll in C&PE 661 in the second semester of the junior year. Enrollment in C&PE 661 constitutes acceptance into the honors program. The departmental honors designation appears in the commencement program and on the transcript.

Bachelor of Science in Petroleum Engineering

B.S. in Petroleum Engineering Program

Petroleum engineering is the branch of engineering concerned with the drilling, recovery, production, and distribution of petroleum and natural gas. It includes knowledge of the properties of fluids and rocks in surface and subsurface environments as well as methods of exploiting the economic production of oil and gas from petroleum reservoirs. A major subdivision at KU is reservoir engineering, or the development of processes to improve production from oil and gas reservoirs. Reservoir engineers use sophisticated mathematical techniques and computer technology to obtain optimum production. Through such techniques, petroleum engineers continue to extract oil and gas from reservoirs that only a few years ago would have been considered uneconomical. This branch of engineering is somewhat different from the other in that production is far removed from physical observation.

The curriculum develops fundamental concepts that describe the properties of fluids and rocks in surface and subsurface environments. These are integrated with courses covering fluid flow in reservoirs along with drilling and production equipment to develop a broad understanding of how fundamental concepts are used to solve technical problems. The development of engineering design concepts begins with the application of fundamental principles and concepts to solve engineering problems in these courses and culminates in a series of senior-level design courses that require comprehensive integration of technical knowledge as well as consideration of economic, environmental, safety, and societal concerns. This experience is essential in the preparation of graduates for entry-level positions.

Educational Objective

The objective of the program is to prepare graduates for professional practice in industry, government, or post-undergraduate training in petroleum engineering and other related disciplines.

Professional Opportunities

Petroleum engineers search the world for reservoirs containing oil and natural gas. Once these resources are discovered, petroleum engineers work to understand the geologic formation and properties of the rock containing the reservoir, determine the drilling methods to be used, and monitor drilling and production operations. They design equipment and processes to achieve the maximum profitable recovery of oil and gas. Petroleum engineers typically work for major oil companies, independent oil exploration, and production and service companies.

Undergraduate Admission to the School of Engineering

First-year undergraduate students may be admitted, but all admissions, both in-state and out-of-state, are selective. Visit the Office of Admissions (http://admissions.ku.edu/whyku/index.shtml) for admission requirements. Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Applications are judged on several factors, including but not limited to high school record, scores on national tests, academic record at college or university level, and trend of grades. High school transcripts and ACT scores are required. Equivalent SAT scores may be substituted.

Minimum Academic Standards for Admission

To be considered for admission to the School of Engineering, beginning first-year students must meet or exceed the following minimum standards:

- 3.0 grade-point average on a 4.0 scale on the Kansas Board of Regents Qualified Admissions (http://admissions.ku.edu/apply/regents_curriculum.shtml) college-preparatory curriculum.
- Top 50 percent of the graduating class of an accredited high school or the equivalent.
- Mathematics ACT score of 22 (or mathematics SAT score of 540).
- Some engineering degree programs may require a higher mathematics ACT score.

These minimum admission standards apply to all departments. Meeting minimum requirements does not guarantee admission.

Transfer Admission Standards

Applications from all transfer students, whether from other institutions or from other KU units, are evaluated on a case-by-case basis. In general, students with grade-point averages under 2.5 are not considered. Students must submit mathematics ACT or SAT scores or proof of competence in calculus (grade of C or higher). No upper-level engineering credits from non-ABET-accredited engineering programs are acceptable as transfer credit for engineering programs. Admission is selective, and meeting the minimum requirements does not guarantee admission.

General Education Requirements

The KU Core is the university-wide curriculum that all incoming undergraduate students will complete as part of their degree.
requirements. It comprises three general education goals and three advanced education goals. Associated with each goal are one or more learning outcomes:

- GE1.1, Goal 1, Outcome 1, Critical Thinking;
- GE1.2, Goal 1, Outcome 2, Quantitative Literacy;
- GE2.1, Goal 2, Outcome 1, Written Communication;
- GE2.2, Goal 2, Outcome 2, Oral Communication;
- GE3H, Goal 3, Outcome 1, Arts & Humanities;
- GE3N, Goal 3, Outcome 2, Natural Sciences;
- GE3S, Goal 3, Outcome 3, Social Sciences;
- AE4.1, Goal 4, Outcome 1, Diversity;
- AE4.2, Goal 4, Outcome 2, Culture;
- AE5.1, Goal 5, Outcome 1, Social Responsibility & Ethics (course);
- AE5.2, Goal 5, Outcome 2, Social Responsibility & Ethics (practice);
- AE6.1, Goal 6, Outcome 1 and 2, Integration & Creativity.

Details of the KU Core can be found at kucore.ku.edu. Some required courses in the Petroleum Engineering curricula satisfy a KU Core goal and/or outcome. For these courses, the goal/outcome code is given in parentheses after the course on the pages below. Where required courses do NOT specially satisfy KU Core goals (Goals 2.2, 3H, 3S, 4.1, and 4.2) students must choose from a list of several courses to satisfy the required goals.

First- and Second-Year Preparation

Recommended enrollments for the first 2 years are as follows:

### Freshman

<table>
<thead>
<tr>
<th>Course</th>
<th>Fall Hours</th>
<th>Spring Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;PE 117</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 101 (KU Core Goal 2.1)</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 170 or 130 (KU Core Goal 3N)</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>MATH 121 (KU Core Goal 1.2)</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 175 or 135</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Total Hours: 62-64</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Sophomore

<table>
<thead>
<tr>
<th>Course</th>
<th>Fall Hours</th>
<th>Spring Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;PE 217</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>C&amp;PE 219</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>GEOL 101</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MATH 220</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>MATH 290</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 210 (KU Core Goal 1.1)</td>
<td>3</td>
<td>1-3</td>
</tr>
<tr>
<td>PHSX 216</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total Hours: 16-18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bachelor of Science in Petroleum Engineering Degree Requirements

A student must have an average GPA for the highest grade earned in ME 312 (or C&PE 221) and C&PE 327 of at least 2.0 to be eligible for the junior year courses: C&PE 527 and 528.

A student must attain a cumulative grade-point average of at least 2.0 in required C&PE courses taken at KU through the junior year before being admitted to senior-level courses.

A student must attain a cumulative grade-point average of at least 2.0 in C&PE courses taken at KU for graduation with a B.S. degree in chemical or petroleum engineering.

A total of 131 hours is required, as follows:

### Petroleum Engineering Science (25)

- C&PE 117 Energy in the Modern World 1
- C&PE 127 Introduction to Petroleum Engineering Profession 1
- C&PE 121 Introduction to Computers in Engineering 3
- C&PE 217 Introduction to Petroleum Drilling Engineering 2
- C&PE 219 Drilling Fluids Laboratory 1
- ME 312 Basic Engineering Thermodynamics 3
- C&PE 327 Reservoir Engineering 4
- C&PE 511 Momentum Transfer 3
- C&PE 521 Heat Transfer 3
- C&PE 527 Reservoir Engineering II 4

### Design and Integrating Courses (21)

- C&PE 522 Economic Appraisal of Chemical and Petroleum Projects (KU Core Goal 5) 2
- C&PE 528 Well Logging 3
- C&PE 617 Drilling and Well Completion (KU Core Goal 5) 3
- C&PE 618 Secondary Recovery 4
- C&PE 619 Petroleum Engineering Laboratory I 3
- C&PE 627 Petroleum Production 3
- C&PE 628 Petroleum Engineering Design (KU Core goal 6) 3

### Engineering Science Electives (12)

- CE 201 Statics 2
- EECS 315 Electric Circuits and Machines 3
- CE 310 Strength of Materials 4
- Basic Science or Engineering Elective 3

### Basic Sciences (35)

- CHEM 170 Chemistry for the Chemical Sciences I (KU Core Goal 3.2) 5
- or CHEM 130 General Chemistry I 5
- CHEM 175 Chemistry for the Chemical Sciences II 5
- or CHEM 135 General Chemistry II 5
- PHSX 210 General Physics I for Engineers (KU Core Goal 1.1) 3
- PHSX 216 General Physics I Laboratory (KU Core Goal 5) 1
- PHSX 236 General Physics II Laboratory 1
- PHSX 212 General Physics II 4
- Basic science or engineering science elective 3
- GEOL 101 The Way The Earth Works 5
- & GEOL 103 and Geology Fundamentals Laboratory 5
Chemical engineers are involved in reducing the composition of materials. They are responsible for minimizing environmental effects of chemical production on the environment.

Petroleum engineering is concerned with the drilling, recovery, production, and distribution of petroleum and natural gas. Petroleum engineers use knowledge of fluid and rock properties in subsurface environments with methods of producing oil and gas safely and economically. At KU, the focus is on reservoir engineering, improving production from oil and gas reservoirs. Reservoir engineers use geological detection with computerized mathematical analysis to produce these valuable raw materials. Through such techniques, petroleum engineers continue to extract oil and gas from reservoirs that were considered uneconomical only a few years ago. Petroleum engineering is uniquely challenging in that the raw product must be recovered far from physical observation.

**Mission**

The overall mission of the B.S. degree program is to prepare students for the practice of chemical or petroleum engineering with engineering science and its practical application to problem solving and design. Graduates are prepared for professional practice in industry or government and graduate training in engineering, medicine, law, and the sciences. In addition to math, the sciences, and engineering, the B.S. degrees provide a broad education in written and oral communication, the humanities, and the social sciences.

**Graduate Admission**

Applicants are considered for admission by the department’s graduate faculty on recommendation by the Graduate Standards Committee (GSC). Admission is based on demonstrated potential to complete a graduate degree successfully. The measures of performance used in the decision process are undergraduate and graduate grade-point averages, Graduate Record Exam (GRE) scores, letters of recommendation, and research performance. A student who has not received a degree from a university in an English-based nation also must submit scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) and is expected to meet general KU requirements.

Admitted students with baccalaureate degrees in chemical or petroleum engineering usually are able to enroll in the graduate core courses listed below. Students with degrees in other branches of engineering or in mathematics, chemistry, physics, or other sciences usually must take some undergraduate course work to provide the necessary background for the graduate courses, and are admitted provisionally.

All graduate applications should be submitted online.

**Visit Us**

The graduate program staff is happy to work with all prospective students in determining the fit between the student and the program. In order to determine this, we feel that visiting our campus in Lawrence is a very important step. In order to facilitate your visit to KU, there are two main options:

The first, and most preferred, option entails simply applying for admission to the program. All prospective students are welcome to attend our Open House in early November and some highly qualified admitted students may be invited to participate in Visitation Days in late February or early March (prior to the fall semester of your intended matriculation). These organized visitation opportunities will allow you time to gather a great deal...
of first-hand information which we hope will help you in making a final
decision about whether to attend KU.

The second option is making arrangements to visit us on your own,
outside of organized events. With early notification, we will do our best
to work with you to provide information and schedule appointments with
faculty when possible. Please contact us if you feel that this is the best
option for you.

Contact Information

Please contact the CPE Program Assistant at cpe@ku.edu or (785)
864-4965, to schedule a visit or with questions about the application
process.

The University of Kansas
CPE Graduate Program
4163 Learned Hall
1530 W. 15th Street, Room 1
Lawrence, KS 66045-7605

M.S. Degree Requirements

M.S. in Chemical Engineering

Two degree options, Option A or Option B, are available for the M.S.
degree in chemical engineering.

Option A requires a thesis, and students in Option A are considered
for departmental research assistantships, teaching assistantships, and
fellowships.

Option B does not require a thesis, but does require a written report
on a 3-hour special project. Students in Option B are not eligible for
departmental research assistantships and fellowships, but may be
considered for teaching assistantships, although priority is given to
students in Option A.

Once admitted, students may change from one option to the other with
faculty approval.

For an M.S. in chemical engineering, the undergraduate prerequisite
courses are C&PE 511, C&PE 512, C&PE 521, C&PE 523, and
C&PE 524. Depending on a student’s academic background and
proposed Plan of Study, additional undergraduate prerequisite courses
may be required. Up to 3 credit hours of the undergraduate prerequisite
courses (numbered 500 or above) may be counted toward the M.S.
degree as elective hours.

The following tables represent typical plans of study that might be
established by a student and his or her advisor. It is recommended that part of the
elective hours be from other departments.

M.S. in Chemical Engineering: Option A

<table>
<thead>
<tr>
<th>Chemical Engineering Graduate Core Courses (15)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;PE 701 Methods of Chemical and Petroleum Calculations</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 721 Chemical Engineering Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 722 Kinetics and Catalysis</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 731 Convective Heat and Momentum Transfer</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 732 Advanced Transport Phenomena II</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

Research (9)

Only the first 6 hours of enrollment in C&PE 803 meet degree
requirements.

| C&PE 800 Seminar (or 1.5 credits C&PE 800 and 1.5 credit for another seminar series if mandatory for fellowship or academic center involvement, etc.) | 3 |
| C&PE 803 Research                                      | 6 |

M.S. in Chemical Engineering: Option B

<table>
<thead>
<tr>
<th>Chemical Engineering Graduate Core Courses (15)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;PE 701 Methods of Chemical and Petroleum Calculations</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 721 Chemical Engineering Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 722 Kinetics and Catalysis</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 731 Convective Heat and Momentum Transfer</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 732 Advanced Transport Phenomena II</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>9</td>
</tr>
</tbody>
</table>

Research (3)

| C&PE 825 Graduate Problems in Chemical and Petroleum Engineering | 3 |

Total Hours 33

M.S. in Petroleum Engineering

For an M.S. in petroleum engineering, the undergraduate prerequisite
courses are C&PE 511, C&PE 521, C&PE 527, and C&PE 618.

Depending on a student’s academic background and proposed Plan of
Study, additional undergraduate prerequisite courses may be required.
Up to 3 credit hours of undergraduate prerequisite courses (numbered
500 or above) may be counted toward the M.S. degree as elective
hours. If a student has not completed an advanced-level, reservoir-
related course in geology as an undergraduate, such a course must be
taken as an elective. GEOL 535 Petroleum and Subsurface Geology are
recommended.

The following table represents a typical plan of study that might be
established by a student and his or her advisor.

M.S. in Petroleum Engineering

<table>
<thead>
<tr>
<th>Petroleum Engineering Graduate Core Courses (12)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;PE 701 Methods of Chemical and Petroleum Calculations</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 731 Convective Heat and Momentum Transfer</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 771 Advanced Reservoir Engineering</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 795 Enhanced Petroleum Recovery</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>9</td>
</tr>
</tbody>
</table>

Research (9)

| C&PE 800 Seminar (or 1.5 credits C&PE 800 and 1.5 credit for another seminar series if mandatory for fellowship or academic center involvement, etc.) | 3 |
| C&PE 803 Research                                      | 6 |
Doctor of Philosophy in Chemical and Petroleum Engineering

Chemical and Petroleum Engineering

Chemical engineering has grown out of a combination of chemistry and engineering associated with industrial processes. Today, it comprises knowledge used in processes that change the physical state or composition of materials. Chemical engineers hold key roles in the design, development, production, and purification of materials that are considered essential to human life and well-being, such as food products, fuels and lubricants, pharmaceuticals, fertilizers, synthetic fibers, microelectronic components, and plastics. Chemical engineers are involved in reducing the use of energy to make these products in safe and sustainable ways. They are responsible for minimizing environmental effects of chemical production on the environment.

Petroleum engineering is concerned with the drilling, recovery, production, and distribution of petroleum and natural gas. Petroleum engineers use knowledge of fluid and rock properties in subsurface environments with methods of producing oil and gas safely and economically. At KU, the focus is on reservoir engineering, improving production from oil and gas reservoirs. Reservoir engineers use geological detection with computerized mathematical analysis to produce these valuable raw materials. Through such techniques, petroleum engineers continue to extract oil and gas from reservoirs that were considered uneconomical only a few years ago. Petroleum engineering is uniquely challenging in that the raw product must be recovered far from physical observation.

Mission

The overall mission of the B.S. degree program is to prepare students for the practice of chemical or petroleum engineering with engineering science and its practical application to problem solving and design. Graduates are prepared for professional practice in industry or government and graduate training in engineering, medicine, law, and the sciences. In addition to math, the sciences, and engineering, the B.S. degrees provide a broad education in written and oral communication, the humanities, and the social sciences.

Graduate Admission to the School of Engineering

Procedure

Admission requirements for the School of Engineering follow the general KU requirements plus those of each engineering graduate program. All applicants must apply online (http://www.graduate.ku.edu/apply). Detailed information about supplemental application materials for each program is listed here (http://www.engr.ku.edu/prospective/graduate/apply/). Important information for prospective international students is available from International Student & Scholar Services (http://www2.ku.edu/~issfacts). Download a PDF (http://www.engr.ku.edu/prospective/graduate/apply/grad_app_process.pdf) for more information about the review process for graduate applications.

Some departments and programs require the Graduate Record Examination. Applications must be accompanied by a nonrefundable fee. See Admission (p. 2059) in the Graduate Studies section of the online catalog.

Baccalaureate Preparation

To qualify for graduate work in any field of engineering, a student generally must hold an accredited baccalaureate degree in that field and have at least a 3.0 grade-point average. A student with good preparation in such fields as mathematics, chemistry, or physics, or in a related engineering field, may be admitted on the basis of performance in specific undergraduate courses, determined by the department of interest to the prospective student. Undergraduate hours do not count as part of a student’s Plan of Study, but they must be completed with grades of B or higher.

Exceptionally qualified undergraduates may be admitted directly to a Fast-Track Ph.D. program, which does not require the master’s as an intermediate degree. Students who wish to earn a Ph.D. and believe that they meet this criterion are encouraged to contact the graduate advisor in their field of interest.

English Proficiency Requirement

All graduate students in the School of Engineering who are required to take courses at the Applied English Center (http://www.aec.ku.edu) must pass the AEC’s English Proficiency Examination within 3 semesters of their initial enrollment. Failure to complete the English proficiency requirement within this time limit may result in dismissal from the graduate engineering program.

Ph.D. Admission Requirements

Applicants are considered for admission by the department’s graduate faculty on recommendation by the Graduate Standards Committee (GSC). Admission is based on demonstrated potential to complete a graduate degree successfully. The measures of performance used in the decision process are undergraduate and graduate grade-point averages, Graduate Record Examination (GRE) scores, letters of recommendation, and research performance. A student who has not received a degree from a university in an English-based nation also must submit scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) and is expected to meet general KU requirements.

Admitted students usually complete the M.S. in chemical or petroleum engineering before they pursue the Ph.D. Students with a completed M.S. degree take the graduate core courses and/or corresponding qualifying examinations based on their previous course work and training, as specified by the graduate standards committee.

An M.S. student in the thesis option (Option A) may apply for a change of status to Ph.D. aspirant if the student

1. Has achieved a grade-point average of 3.6 or higher in the graduate core,
2. Has earned no C grades in the graduate core, and
3. Has passed the preliminary examination of research.

These criteria are evaluated during the third semester of residence by the department’s Graduate Faculty on recommendation of the graduate standards committee. Students who do not meet these criteria must complete the M.S. degree before applying to the Ph.D. program.

In some cases, a student may be admitted directly to the Ph.D. program without an M.S. degree. Such admission normally is granted only when
the applicant has clearly demonstrated exceptional performance in an undergraduate program and in any graduate work. Students who are admitted to the Ph.D. degree program and who do not complete an M.S. degree in chemical and petroleum engineering generally must satisfy the same grade-point average and preliminary examination requirements for Ph.D. aspirant status as students admitted to the M.S. program, or they complete the M.S. degree before readmission to the Ph.D. program.

Graduate applications should be submitted online (http://www.graduate.ku.edu).

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The second option is making arrangements to visit us on your own, outside of organized events. With early notification, we will do our best to work with you to provide information and schedule appointments with faculty when possible. Please contact us if you feel that this is the best option for you.

Contact Information

Please contact the CPE Program Assistant at cpe@ku.edu or (785) 864-2900, to schedule a visit or with questions about the application process.

The University of Kansas
CPE Graduate Program
4163 Learned Hall
1530 W. 15th Street, Room 1
Lawrence, KS 66045-7605

Ph.D. Degree Requirements

One of the goals of the department is to develop quality Ph.D. researchers that are well prepared for vocational and personal success. This practice sets forth a balanced program to develop and evaluate these students in an efficient and fair manner. Equal consideration is given to the academic and research ability of the student as these are the areas required for a successful industrial or academic vocation.

An advisory committee of 5 or more members is formed for each Ph.D. aspirant: at least 3 tenure / tenure track faculty from the department and 1 member from outside the department at KU are required. The student’s research advisor normally serves as the committee chair. See the Graduate Catalog for doctoral committee composition requirements. The committee works with the aspirant to develop a plan of study and monitors the progress of the student throughout the remainder of the Ph.D. program.

A plan of study must be approved by the student’s advisor and examining committee and the departmental Graduate Studies director by the end of the first semester. Before scheduling the comprehensive examination, the aspirant must satisfy residency, basic research skills, and the responsible scholarship requirements.

The research skill requirement provides the aspirant with a research skill distinct from, but strongly supportive of, the dissertation research. Possible research skills include foreign language, computer science, mathematics, statistics, specific laboratory skills, and specific skills in the physical or biological sciences. The foreign language skill can be obtained by taking a 2-course sequence in the selected language or demonstrated by passing an examination. A separate statement attached to the Plan of Study must list the work to be completed to obtain the research skill.

Preliminary Examination of Research - B.S. to Ph.D.

The Preliminary Examination of Research is administered to students requesting admission to the Ph.D. program without earning the M.S. degree. Successful completion of the preliminary examination admits the student into the Ph.D. program with Ph.D. aspirant status. Students taking this examination must have completed the graduate core courses at KU with the required GPA. The examination determines the student’s aptitudes for: (a) Independent, original, critical thinking; (b) Planning and organizing a research program; (c) Use of previous work and background literature to demonstrate understanding of the planned research within the scope of the larger project and ability to conduct that research; (d) Application of fundamental theory (e.g., equations) to the proposed work and; (e) Effective communication of technical work. The preliminary examination consists of a written report (5 pages maximum), oral presentation (15 minutes maximum), and questions by the examining committee (25 minutes maximum). The written and oral portions are prepared by the student only, with no review or editing by the research advisor or any other person. The written report is submitted to the committee one week before the oral examination. Questions are directed toward determining the 5 aptitudes listed above. A rubric for the oral and written portions will be provided to the student beforehand.

Comprehensive Examination

The Ph.D. aspirant takes the comprehensive examination after the completion of a majority of the course work for the Ph.D. and all department, school, and general requirements prerequisite to this examination, including residency, research skills, and responsible scholarship requirements. To prepare the aspirant for the comprehensive examination, the advisory committee may require enrollment in C&PE 902 Preparation for the Ph.D. Comprehensive Examination during the first year of the Ph.D. program. The examination consists of 2 parts: a written proposal for research and an oral examination based on, but not limited to, the research proposal.

For the research proposal, the student is assigned a topic of current interest to the chemical and/or petroleum engineering profession. This assignment is made by an examining committee of at least 5 persons, at least 3 must be tenure / tenure track faculty from within the department including the advisor and at least 1 person from outside the department at KU. The aspirant identifies a research problem in the assigned topic area and prepares a written proposal for research on this problem. Normally, the written proposal must be prepared over a specified time period of 30 consecutive days. Except in unusual circumstances, the problem must be distinctly different from the dissertation problem.
The examining committee evaluates the research proposal upon completion. If the committee judges it satisfactory, the oral examination part of the comprehensive examination is held. The oral examination is based on the research proposal but may also cover areas peripheral to the proposal.

A student must pass both parts of the examination. Failure of either part constitutes an unsatisfactory grade on the entire examination. An aspirant who receives a grade of unsatisfactory may repeat the examination upon the recommendation of the examining committee, but the exam may not be taken more than two times. The examination may not be repeated until at least 90 days have elapsed since the unsuccessful attempt. On receipt of a grade of Honors or Satisfactory on the comprehensive examination, the aspirant is admitted to candidacy for the degree of Doctor of Philosophy.

**Ph.D. Dissertation and Final Oral Examination**

The doctoral dissertation, based on independent research conducted by the candidate, constitutes the final phase of the doctoral work and must be completed within the prescribed time constraints. Upon acceptance of the dissertation by the advisory committee, the candidate defends the dissertation in a final oral examination. The examining committee consists of at least five persons, including the advisory committee members and at least one person from outside the department.

**Department of Civil, Environmental, and Architectural Engineering**

**Civil, Environmental, and Architectural Engineering**

Civil engineering (CE) is the oldest engineering program at KU. The first graduating class in 1873 included a civil engineer. Civil engineers design roads, water systems, bridges, dams, and other structures, providing nearly all the infrastructure needed by modern society. Civil engineers were the first engineers to address environmental issues and are the lead engineering discipline in treating water supplies to protect public health. In recognition of the significant issues concerning the environment, the department name was changed in 1992 to civil and environmental engineering.

Architectural engineering (ARCE) combines study in architecture with engineering science and design courses in electrical, mechanical, construction, and structures to prepare students for building design projects of all kinds. Architectural engineering dates to 1912 at KU, and the first female graduate of the School of Engineering was an architectural engineering major. Architectural engineering merged with civil and environmental engineering in 2001 to form the Department of Civil, Environmental, and Architectural Engineering (CEAE).

**Mission**

CEAE’s mission is to provide students with an outstanding engineering education and be a leader in research and service. This mission is supported by the following three goals:

1. Prepare students for productive engineering careers
2. Maintain and grow strong research programs
3. Serve the profession

**Undergraduate Programs**

Civil, environmental, and architectural engineering offers undergraduate degree programs in both civil engineering and architectural engineering. Each bachelor of science program is EAC/ABET-accredited (www.abet.org (http://www.abet.org)). The B.S. in civil engineering is a 4-year, 132-hour degree. The B.S. in architectural engineering is a 4-year, 128-hour program.

Students in civil engineering can identify either civil or environmental engineering as their concentration. Students in architectural engineering can specialize in one of four areas of emphasis: mechanical/energy systems, lighting/electrical systems, building structures, or construction, or a hybrid such as pre-architecture, sustainable buildings, acoustics, or fire protection.

Both degree programs require a student to take the Fundamentals of Engineering examination, part of the process toward registration as a Professional Engineer (P.E.), to graduate. To help students complete their degrees efficiently and to aid with professional development, all undergraduates in CEAE have individual faculty members as their academic advisors.

**Graduate Programs**

The department offers graduate programs leading to the following degrees:

- Master of Science in Architectural Engineering
- Master of Science in Civil Engineering
- Master of Science in Environmental Engineering
- Master of Science in Environmental Science
- Master of Civil Engineering
- Master of Construction Management
- Doctor of Philosophy in Civil Engineering
- Doctor of Philosophy in Environmental Engineering
- Doctor of Philosophy in Environmental Science

An ABET-accredited baccalaureate degree in engineering, or the equivalent from abroad, is required for admission to the graduate degree programs in civil, environmental and architectural engineering. The graduate degree programs in environmental science and construction management are intended primarily for students with baccalaureate degrees in fields other than engineering.

Graduate students in the civil engineering degree programs can specialize in structural engineering, environmental engineering, water resources engineering, geotechnical engineering, transportation engineering, construction, or engineering mechanics.

Students in the Master of Science (M.S.) degree in architectural engineering program can specialize in mechanical/energy systems, lighting/electrical systems, building structures, or construction, or a hybrid such as sustainable buildings, acoustics, or fire protection. M.S. ARCE students often have bachelor degrees from other engineering disciplines.

The M.S. degree programs in civil and architectural engineering include a Design Option, which can be completed in 2 semesters of full-time study. Students in the Design Option take 4 regular academic courses each semester and work together as a consulting group on the design of a major engineering project. The Design Option is open to students in
all areas of interest. Students in the Design Option must start in the fall semester and complete 15 credit hours, including the design project, in the fall and spring semesters.

The Master of Civil Engineering degree provides a course-work-only option for working professionals who do not need the research component of the M.S. degree. This degree requires 2 courses in engineering management (EMGT) to complement the engineering graduate courses. The courses for the M.C.E. degree are offered in the evening.

The interdisciplinary Master of Science degree in environmental science is intended primarily for students with baccalaureate degrees in fields other than engineering.

The Master of Construction Management is a professional non-thesis degree intended for part-time graduate students employed in the construction industry or for full-time students. Graduate courses in construction management (CMGT) are taught in the evening.

The department’s doctoral degrees are the Doctor of Philosophy degrees in civil engineering, environmental engineering, and environmental science. Most doctoral students hold M.S. degrees, but direct admission to a doctoral program is possible for especially well-qualified engineering B.S. holders.

Courses

ARCE 101. Introduction to Architectural Engineering. 2 Hours.
An introduction to the study of and careers in architectural engineering. Topics include problem solving and study skills, the building design and construction process, design documents, and professional practice issues such as licensing requirements and ethics. LEC.

ARCE 217. Computer-Assisted Building Design. 3 Hours.
Introduction to computer-aided design (CAD) tools for architectural engineering practice. The course covers building information modeling (BIM) including object-oriented 3D modeling, databases, virtual walkthroughs, basic customization, and creating BIM families. Prerequisite: ARCE 101 and MATH 121, or consent of instructor. LEC.

ARCE 350. Building Materials Science. 3 Hours.
An introduction to the structural, thermal, electrical, and optical properties of building materials. Manufacturing, testing, integration, and specification of materials with emphasis on commercial, institutional, and industrial buildings. Prerequisite: PHSX 212 and CHEM 130 or CHEM 150, or consent of instructor. LEC.

ARCE 390. Special Problems. 1-3 Hours.
Special problems in architectural engineering. The study of a particular problem involving individual research and report. Prerequisite: Students must submit, in writing, a proposal including a statement of the problem the student wishes to pursue, the methodology the student plans to use in the program, and objectives of the special problems. The student must also have a signed agreement with the faculty member proposed as instructor for the course. Consent of the instructor. IND.

ARCE 640. Power Systems Engineering I. 3 Hours.
This course introduces the design of commercial and industrial power systems. Emphasis is placed on the proper selection, specification, and installation of materials and equipment that comprise commercial and industrial power systems. This course covers the application of materials and equipment in accordance with industry standards, independent laboratory testing, and the National Electrical Code. Prerequisite: EECS 315 or consent of instructor. LEC.

ARCE 641. Power Systems Engineering II. 3 Hours.
A continuation of ARCE 640 that integrates system components into functional, safe, and reliable power distribution systems for commercial, industrial and institutional (CII) facilities. Service entrance design, distribution system layout and reliability, emergency and standby power system design, medium-voltage distribution systems, symmetrical fault analysis, and special equipment and occupancies. (Same as EECS 441.) Prerequisite: ARCE 640 or EECS 212 or consent of instructor. LEC.

ARCE 642. Power System Protection. 3 Hours.
This course introduces techniques and methods used to analyze and predict the performance of commercial and industrial power systems and equipment under balanced and unbalanced fault conditions. Emphasis is placed on the selection, application, and coordination of protective devices to detect and clear power system faults in a safe and reliable manner. Prerequisite: ARCE 640 or EECS 212 or consent of instructor. LEC.

ARCE 644. Electric Machines and Drives. 3 Hours.
Introduction to electric machine theory, operation, and control. Electric machine covered include DC generators and motors, AC synchronous generators and motors, AC induction generators and motors, as well as fractional horsepower and special purpose motors. Motor starting and controls for both DC and AC machines are also covered including as introduction to power electronics and variable frequency drives (VFD). (Same as EECS 544.) Prerequisite: ARCE 640 or EECS 212 or consent of instructor. LEC.

ARCE 645. Electric Energy Production and Storage. 3 Hours.
An introduction to the design of utility scale and small scale (distributed generation) electric energy production and storage systems. This course addresses the technical, operational, economic, and environmental characteristics associated with both traditional and nontraditional electric energy production systems along with associated grid integration, energy delivery, and regulatory issues. Traditional energy production systems covered include fossil fuel, hydroelectric, and nuclear power plants. Non-traditional energy productions systems covered include fuel cells, photovoltaics (PV), concentrated solar power (CSP), wind, geothermal, and other emerging technologies. (Same as EECS 545.) Prerequisite: ARCE 640 or EECS 212 or consent of instructor. LEC.

ARCE 647. Power System Analysis I. 3 Hours.
Introduction to the analysis of commercial, industrial, and utility power systems. Emphasis is placed on modeling system components which include transmission and distribution lines, transformers, induction machines, and synchronous machines and the development of a power system model for analysis from these components. System modeling will be applied to short-circuit studies and used to analyze symmetrical faults, to develop sequence networks using symmetrical components, and analyze unsymmetrical faults. (Same as EECS 547.) Prerequisite: ARCE 640 or EECS 212 or consent of instructor. LEC.

ARCE 648. Power System Analysis II. 3 Hours.
Continuation of ARCE 647 that uses power system modeling developed in ARCE 647 to analyze power system load flow, operation and economic dispatch, stability, and transient response. The impact of alternative energy sources, energy storage, DC transmission and interties, and other emerging technologies on power system operation and reliability will be addressed throughout the course. (Same as EECS 548.) Prerequisite: ARCE 647 or consent of instructor. LEC.

ARCE 650. Illumination Engineering. 3 Hours.
Students are introduced to lighting fundamentals, measurement, and technology and to their application in the analysis and design of architectural lighting systems. Prerequisite: PHSX 212 or consent of instructor. LEC.
ARCE 660. Building Thermal Science. 3 Hours.
The fundamentals of moist air processes, air and moisture exchange, and building heat transfer. Determination of heating and cooling loads under steady-state and transient conditions. Prerequisite: ARCE 217, ME 312, and either ME 510, AE 345, CE 330, or CPE 511, or consent of instructor. LEC.

ARCE 661. HVAC&R Systems Design. 3 Hours.
Analysis and design of heating, ventilating, air-conditioning, and refrigeration equipment and systems. Prerequisite: ARCE 660 or consent of the instructor. LEC.

ARCE 662. Water Systems Design. 3 Hours.
The analysis and design of hydronic systems for buildings including piping, plumbing, pumping, and the water-side of heating, ventilating, and air-conditioning (HVAC). Prerequisite: ME 510, AE 345, CE 330, or CPE 511, or consent of the instructor. LEC.

ARCE 663. Energy Management. 3 Hours.
Energy usage in commercial buildings and industry, energy auditing methodology, utility analysis, management measures, and economic evaluation are covered. Includes fieldwork. Corequisite: ARCE 660, or consent of instructor. LEC.

ARCE 664. Fire Protection Engineering. 3 Hours.
An introduction to human response, fire science, combustion calculations, compartment fires, piping and sprinkler design, and smoke management. Analytical methods, experimental data, codes, case-studies, and videos are presented in this engineering design course. Prerequisite: ME 312 or CPE 221, and ME 510, AE 345, CE 330, or CPE 511, or consent of instructor. LEC.

ARCE 665. Solar Energy Systems Design. 3 Hours.
A quantitative and qualitative study of active, passive, wind, and photovoltaic energy conversion systems for buildings. Solar radiation and system performance prediction. Prerequisite: ME 312 or CPE 221, or consent of instructor. LEC.

ARCE 667. Sound and Vibration Control. 3 Hours.
An introduction to the physics and measurement of sound, wave phenomena, acoustics, and methods of noise and excessive vibration control for various applications. Prerequisite: PHSX 212 and MATH 220 or MATH 320, or consent of instructor. LEC.

ARCE 680. Architectural Engineering Design I. 6 Hours.
Capstone engineering design course that includes the analysis, design, and integration of structural, mechanical, electrical, and lighting systems for a commercial, industrial, or institutional building. Prerequisite: CMGT 500, ARCE 640, ARCE 650, ARCE 661, CE 562, and CE 563, or consent of instructors. Fifth year senior standing in architectural engineering. LAB.

ARCE 681. Architectural Engineering Design II. 6 Hours.
Comprehensive architectural engineering design project in a specific area of professional practice. Prerequisite: ARCE 680 or consent of instructor. Fifth year senior standing in architectural engineering. LAB.

ARCE 690. Special Problems. 1-3 Hours.
The study of a particular problem in architectural engineering involving individual research and presentation. Prerequisite: Student must submit, in writing, a proposal including a statement of the problem the student wishes to pursue, the methodology the student plans to use in the program, and objectives of the special problems. The student must also have a signed agreement with the faculty member proposed as instructor for the course. Consent of instructor. IND.

ARCE 691. Honors Research. 3 Hours.
Research a particular architectural engineering problem. Research will involve defining the problem, developing a research methodology, applying the research methodology and gathering data, analyzing and interpreting the data, and presenting the results of the research. The student must have a faculty sponsor and submit a proposal in writing stating the objective of the research, the planned research method that will be used, and the method of reporting the results. Prerequisite: Participation in the University Honors Program, consent of instructor, and approval of the chair are required. LEC.

ARCE 698. Comprehensive Design Project. 3 Hours.
Capstone architectural engineering design course that includes the analysis, design, and integration of a building's structural, mechanical, electrical, and lighting systems. Building codes, standards, performance, and sustainability are addressed, and BIM software utilized. Prerequisite: CMGT 357, CMGT 500, ARCE 640, ARCE 650, ARCE 661, and CE 562. LAB.

ARCE 700. Directed Readings in Architectural Engineering. 1-3 Hours.
Individual study of special topics and problems. May be repeated for credit. Prerequisite: Student must submit, in writing, a proposal including a statement of the problem the student wishes to pursue and a bibliography of the articles and books required to complete the project. The student must also have a signed agreement with the faculty member proposed as instructor for the course. Consent of instructor. RSH.

ARCE 705. Daylighting. 3 Hours.
This course will cover daylighting design concepts. Solar position, daylight availability, sky luminance distribution models, daylight delivery methods, integration of daylighting and electric lighting controls, physical modeling, and computer analysis techniques. Prerequisite: PHSX 212, or ARCH 531, or consent of instructor LEC.

ARCE 750. Lighting Measurement and Design. 3 Hours.
This course will cover conventional lighting and solid-state lighting measurement, daylighting measurement, camera-aided lighting measurement technologies, advanced computer-aided lighting simulations, effective and efficient integration of natural and artificial lighting, modeling and analysis of light sources and spaces, simulation of lighting systems, and design of lighting control systems. Prerequisite: ARCE 217 and ARCE 650 or consent of instructor. LEC.

ARCE 751. Advanced Lighting Design. 3 Hours.
Advanced analysis, design, and modeling of luminous environments. It covers impact of lighting on human perception and interaction with space, human factors in lighting, camera-aided light measurement technologies, advanced computer-aided lighting simulations, effective and efficient integration of natural and artificial lighting, modeling and analysis of light sources and spaces, simulation of lighting systems, and design of lighting control systems. Prerequisite: ARCE 217 and ARCE 650 or consent of instructor. LEC.

ARCE 752. Lighting Measurement and Design. 3 Hours.
This course will cover conventional lighting and solid-state lighting measurement, daylighting measurement, camera-aided lighting measurement technologies and applications, and design and development of custom luminaries in an LED workshop and innovative daylighting devices. Prerequisite: ARCE 650, or consent of instructor LEC.

ARCE 760. Automatic Controls for Building Mechanical Systems. 3 Hours.
An introduction to controls for building mechanical systems. Discussions of the theory, design, and equipment used for control systems. The benefits of pneumatic, electrical, and electronic (DDC) controls will be examined. Prerequisite: ARCE 660 or consent of instructor. LEC.

ARCE 761. Advanced Thermal Analysis of Buildings. 3 Hours.
Manual and computational methods for determining steady-state and transient thermal loads in buildings. Advanced analysis of energy consumption given choices in building materials and mechanical systems. Prerequisite: ARCE 217 and ARCE 660, or consent of instructor. LEC.

ARCE 764. Advanced Thermal Analysis of Buildings. 3 Hours.
Manual and computational methods for determining steady-state and transient thermal loads in buildings. Advanced analysis of energy consumption given choices in building materials and mechanical systems. Prerequisite: ARCE 217 and ARCE 660, or consent of instructor. LEC.

ARCE 890. Architectural Engineering Seminar: ______. 1-3 Hours.
Individual or group studies in building engineered systems or construction engineering. Prerequisite: Graduate standing in Architectural Engineering and consent of instructor. RSH.
ARCE 895. Master's Project. 1-3 Hours.
Directed study and reporting of a specialized topic of interest to the architectural engineering profession. Prerequisite: Consent of instructor. RSH.

ARCE 899. Master's Thesis. 1-6 Hours.
Directed research and reporting of a specialized topic of interest to the architectural engineering profession. Prerequisite: Consent of instructor. THE.

CE 191. Introduction to Civil Engineering. 2 Hours.
A discussion of engineering logic through examination of current concepts in engineering education, practice and professional development. Not open to juniors and seniors. LEC.

CE 192. Civil Engineering Graphics. 3 Hours.
Introduction to computer-aided design (CAD) tools for civil and environmental engineering practice. This course covers 2D drafting and 3D modeling. Prerequisite: MATH 104. LEC.

CE 201. Statics. 2 Hours.
The principles of statics, with particular attention to engineering applications. Prerequisite: PHSX 211 and MATH 121. LEC.

CE 240. Surveying. 3 Hours.
A course for all students in the use of surveying instruments. Includes field and office problems involving land measurements, construction, layouts, stadia methods, areas, and U.S. Public Land Surveys. Two lectures periods and one field period per week. Prerequisite: MATH 121, CE 192 or ARCE 217 or consent of instructor. LEC.

CE 300. Dynamics. 3 Hours.
The principles of kinematics and kinetics, with particular attention to engineering applications. Prerequisite: CE 201 or ME 201 and MATH 122. LEC.

CE 301. Statics and Dynamics. 5 Hours.
A combination of statics and dynamics covered in CE 201 and CE 300. This course must be taken as a five-hour unit. Prerequisite: PHSX 211 and MATH 122. LEC.

CE 310. Strength of Materials. 4 Hours.
Three one-hour lectures and one two-hour laboratory. Principles of stress and deformation in structures and machines. Prerequisite: CE 201 or ME 201 or CE 301, and MATH 220 or consent of instructor. LEC.

CE 311. Strength of Materials. 3 Hours.
A course that includes a basic treatment of stress and deformation in elastic bodies. Prerequisite: CE 201 or ME 201, MATH 220 and MATH 290 or consent of instructor. LEC.

CE 330. Fluid Mechanics. 4 Hours.
Three one-hour lectures and one two-hour laboratory. A study of the basic principles of the mechanics of fluids and their application. The lecture material will be supplemented by demonstrations, experiments, and individual projects. Prerequisite: ENGL 101, ENGL 102, CE 300 or CE 301. LEC.

CE 412. Structural Engineering Materials. 3 Hours.
Study of the engineering properties of structural materials and their control with emphasis on timber, concrete, and steel. Two one-hour lectures and one three-hour laboratory. Prerequisite: CE 310 or consent of instructor and ENGL 102. LEC.

CE 450. Sustainability: Population, Energy and Water. 3 Hours.
The course will examine the concepts regarding the continued advancement of humankind while maintaining our ecological niche on earth. Key topics include: population growth, poverty, and impacts of development; energy consumption, sources, storage, conservation and policy; water quality and quantity; materials and building; and policy implications. Prerequisite: Junior standing or participation in KU Honors Program. LEC.

CE 455. Hydrology. 3 Hours.
An introduction to the fundamentals of hydrologic analysis. Subjects covered include collection and initial reduction of hydrologic data; rainfall-runoff relationships, hydrograph development, hydrologic routing, well equations and their application and hydrologic frequency analysis. Prerequisite: ENGL 101, ENGL 102, and CE 330. LEC.

CE 461. Structural Analysis. 4 Hours.
Three one-hour lectures and one two-hour laboratory. Analysis of statically determinate and indeterminate beams, frames, and trusses using classical methods and introducing computer-based methods. Prerequisite: CE 310 and MATH 290. Corequisite: EECS 138 or CPE 121 or equivalent. LEC.

CE 477. Introduction to Environmental Engineering and Science. 3 Hours.
Application of fundamental scientific principles to the protection of atmospheric, aquatic, and terrestrial environments through the use of pollution abatement processes, with consideration also given to economic, social, political, and legal aspects of pollution control. Prerequisite: ENGL 102, MATH 101 or MATH 104, and CHEM 150 or CHEM 188. LEC.

CE 480. Introduction to Transportation Engineering. 3 Hours.
An introductory study of the various modes of transportation, emphasizing highways, railroads, and air transport. The planning, design and operations of these modes are discussed. There is a multimodal project included in this course. Prerequisite: CE 240. LEC.

CE 484. Material for Transportation Facilities. 3 Hours.
Principles involved in the testing, behavior, and selection of materials for use in the transportation field. Emphasis is on bituminous materials, aggregate, and soil stabilization. Prerequisite: CE 310. LEC.

CE 487. Soil Mechanics. 4 Hours.
Three lecture periods and one laboratory period. Fundamental theories of soil mechanics and their applications in engineering. Prerequisite: CE 310, CE 330 or concurrent enrollment. LEC.

CE 490. Special Problems. 1-5 Hours.
An advanced study related to a special problem in the field of civil engineering or allied fields, for upper-division undergraduate students. IND.

CE 495. Special Topics: ______. 1-3 Hours.
A course or colloquium to present topics of special interest. Prerequisite: Varies by topic. LEC.

CE 498. Engineering Honors Seminar. 3 Hours.
Prerequisite: Participation in or eligibility for the University Honors Program. Sophomore or higher standing. LEC.

CE 499. Seminar. 1 Hour.
Concepts of professional development. LEC.

CE 535. Engineering Applications of GIS. 3 Hours.
This course introduces engineering applications of geographic information system (GIS) using ArcGIS. The focus of this course is on practical application of GIS to civil engineering problems. Prerequisite: Junior or Senior standing, or consent of instructor. LEC.

CE 552. Water Resources Engineering Design. 4 Hours.
Three one-hour lectures and one three-hour laboratory. Study of water resources structures and systems with design emphasis on the hydraulic features: dams, drainage, river engineering, pipelines, channels and hydraulic machinery. Prerequisite: CE 330 and CE 455. LEC.
CE 562. Design of Steel Structures. 3 Hours. AE61.
Two one-hour lectures and one three-hour laboratory. Fundamentals of structural design with steel. Prerequisite: CE 461. LEC.

CE 563. Design of Reinforced Concrete Structures. 3 Hours.
Two one-hour lectures and one three-hour laboratory. Fundamentals of structural design with reinforced concrete. Prerequisite: CE 461; CE 412 or CE 484 or consent of the instructor. LEC.

CE 570. Concepts of Environmental Chemistry. 2 Hours.
The fundamentals of aquatic chemistry, with emphasis on application to water purification and wastewater treatment. Prerequisite: Undergraduate standing, CE 477, and MATH 115 or MATH 121. LEC.

CE 571. Environmental Chemical Analysis. 1 Hour.
A laboratory introducing the basic chemical tests used in the water and wastewater fields of environmental engineering and science. Prerequisite: Undergraduate standing, and credit or co-enrollment in CE 570. LAB.

CE 573. Biological Principles of Environmental Engineering. 3 Hours.
A basic study of the microorganisms of importance in environmental engineering. Emphasis is placed on the microbiology of dilute nutrient solutions. Microbial physiology, microbial ecology, and biochemistry will be discussed as they pertain to environmental engineering and science. Both biodegradation and public health aspects are included. (Two lecture hours and one three-hour laboratory per week.) Prerequisite: Undergraduate standing, CE 477 or equivalent, and MATH 115 or MATH 121. LEC.

CE 574. Design of Air Pollution Control Systems. 3 Hours.
This course emphasizes understanding of air pollution problems and their solution through engineering design and science. Topics covered include: types of air pollutants; monitoring of air pollutants; transport of air pollutants in the atmosphere; and control of air pollution emissions from both stationary and mobile sources. Prerequisite: CE 330, CE 477, MATH 122, PHSX 212; or consent of instructor. LEC.

CE 576. Municipal Water Supply and Wastewater Treatment. 4 Hours.
AE61.
The principles of public water supply design, including source selection, collection, purification, and distribution; for municipal wastewater, collection, treatment, and disposal. Prerequisite: CE 330, CE 455, and CE 477. LEC.

CE 577. Industrial Water and Wastes. 3 Hours.
A review of the methods of industrial water treatment and the fundamentals of industrial water pollution control. Topics include: water budgets, cooling tower and boiler treatment, corrosion control, government regulations, wastewater characterization, waste minimization, pilot plants, pretreatment, final treatment, and site selection. Prerequisite: Undergraduate standing, and CE 477 or equivalent. LEC.

CE 580. Transportation Planning and Management. 3 Hours.
The course covers the major technical aspects of traditional planning methodologies, computer applications in transportation and the impact of technology on the management and planning processes. Topics discussed will include origin-destination surveys, demand analysis models, supply analysis, traffic impact studies, computer simulation and modeling, economics, management systems, intelligent transportation systems (ITS), and geographic information systems (GIS). Prerequisite: CE 390 and senior standing. LEC.

CE 582. Highway Engineering. 3 Hours.
A comprehensive study of the planning, design, construction, operations, and maintenance of highway systems with emphasis on the design aspects of a highway. Prerequisite: CE 455 and CE 480. LEC.

CE 588. Foundation Engineering. 3 Hours.
A study of the interaction of the characteristics of soil or rocks and structures. The estimation of settlement and bearing capacity of foundation elements. Principles governing the choice and design of footings, rafts, piers, and piles. Prerequisite: CE 487. LEC.

CE 625. Applied Probability and Statistics. 3 Hours.
Course topics include data description, measures of central tendency and dispersion, sampling and sampling designs, quality control, persistence, periodicity, sampling distributions, hypothesis testing, ANOVA, correlation, linear regression, multiple correlation, and multiple regression. Applications and real world problems are stressed. Prerequisite: MATH 121 or MATH 115 and MATH 116. LEC.

CE 684. Materials for Transportation Facilities. 3 Hours.
Principles involved in the testing, behavior, and selection of materials for use in the transportation field. Emphasis is on bituminous materials, aggregate, and soil stabilization. Readings. Prerequisite: CE 310 and CE 487. LEC.

CE 704. Dynamics and Vibrations. 3 Hours.
Problems in engineering dynamics and vibrations. Topics include applications of generalized forces and coordinates, Lagrange equations, and a study of the performance of single and multiple degree of freedom vibrational systems. (Same as AE 704.) LEC.

CE 710. Structural Mechanics. 3 Hours.
Basic concepts in the analysis of stress and strain and the behavior of materials. Topics include elementary theory and problems in elasticity, theories of failure of materials including fracture mechanics and introduction to plasticity. LEC.

CE 715. Corrosion Engineering. 3 Hours.
Electrochemical basis of corrosion. Estimating probability and rate of corrosion. Identifying different conditions likely to cause specific types of corrosion. Corrosion mitigation techniques. Prerequisite: CHEM 135, CHEM 150 or equivalent. LEC.

CE 721. Experimental Stress Analysis. 3 Hours.
Introduction to experimental stress-analysis techniques. Theory and application of mechanical strain gages, electrical strain gages, photoelastic techniques, and brittle coatings. LEC.

CE 725. Multivariate Statistical Methods. 3 Hours.
The emphasis of this course is on the solution of typical engineering and science-related problems drawn from real-world situations. Topics covered include: the use of various multivariate statistical and graphical computer software packages; eigenvectors; principal component analysis; factor analysis; discriminant analysis; multivariate regression; logistic regression; experimental design; MANOVA; and cluster analysis. The course involves the preparation and presentation of information gathered by the student on assigned topics. Prerequisite: CE 625 or equivalent or consent of instructor. LEC.

CE 730. Intermediate Fluid Mechanics. 3 Hours.
Fall semester. Principles of steady and unsteady flows, theories of potential, viscous, and turbulent flows, and applications in water resources engineering. Prerequisite: CE 330 and MATH 320. LEC.

CE 735. Engineering Applications of GIS. 3 Hours.
This course introduces engineering applications of geographic information system (GIS) using ArcGIS. The focus of this course is on practical application of GIS to civil engineering problems. LEC.

CE 746. Pavement Construction. 3 Hours.
Introduction to the equipment, materials, and construction practices employed in the construction of flexible and rigid highway and airfield pavements, and the relationship of each to pavement design and...
performance. The principles of statistical based quality control and quality assurance methods and specification writing will be introduced. Prerequisite: CE 484 or CE 412, CE 582, and CE 625 or equivalent. LEC.

CE 748. Asphalt Technology. 3 Hours.
An introduction to the production of asphalt cements and its use in pavement construction and maintenance applications. Pavement distress identification. Design and use of bituminous pavements and materials for other than highway applications. Prerequisite: CE 484 or consent of instructor. LEC.

CE 751. Watershed Hydrology. 3 Hours.
Study of hydrologic processes at the earth’s surface: evaporation, transpiration, snowmelt, precipitation, infiltration, runoff, and streamflow. Modeling of hydrologic processes; statistical analysis of hydrologic data; applications to the analysis and design of engineering projects. Prerequisite: CE 455 or equivalent. LEC.

CE 752. Physical Hydrogeology. 3 Hours.
Study of fluid flow in subsurface hydrologic systems. Investigation of the ground water environment including porosity, and hydraulic conductivity and their relationship to typical geologic materials. Examination of Darcy’s law and the continuity equation leading to the general flow equations. Discussion of typical hydraulic testing methods to estimate aquifer parameters in various situations and apply these to water resource problems. Study of the basic mechanisms that determine the behavior of typical regional flow systems. (Same as GEOL 751.) LEC.

CE 753. Chemical and Microbial Hydrogeology. 4 Hours.
Lecture and discussion of chemical and microbiological controls on groundwater chemistry. Topics include thermodynamic and microbiological controls on water-rock reactions; kinetics; and microbiological, chemical and isotopic tools for interpreting water chemistry with respect to chemical weathering and shallow diagenesis. Origins of water chemistry, changes along groundwater flow paths, and an introduction to contaminant biogeochemistry will be discussed through the processes of speciation, solubility, sorption, ion exchange, oxidation-reduction, elemental and isotopic partitioning, microbial metabolic processes and microbial ecology. An overview of the basics of environmental microbiology, including cell structure and function, microbial metabolism and respiration, microbial genetics and kinetics of microbial growth will be covered. (Same as GEOL 753.) Prerequisite: One year of chemistry, one year of calculus, one year of biology, an introductory course in hydrogeology, or consent of the instructors. LEC.

CE 754. Contaminant Transport. 3 Hours.
A study of the transport of conservative and non-conservative pollutants in subsurface waters. Case studies are used to illustrate and develop a conceptual understanding of such processes as diffusion, advection, dispersion, retardation, chemical reactions, and biodegradation. Computer models are developed and used to quantify these processes. (Same as GEOL 754.) Prerequisite: Introductory Hydrogeology or consent of instructor. LEC.

CE 755. Free Surface Flow I. 3 Hours.
A study of uniform and non-uniform steady flow of water in open channels, including backwater curves, the hydraulic jump, and the delivery of canals. Prerequisite: CE 330. LEC.

CE 756. Wetlands Hydrology and Introduction to Management. 3 Hours.
A study of the basic structure and functions of wetlands; the physical, chemical, and biological processes involved; and an introduction to the management of wetlands. Also a brief introduction to the legal aspects of wetlands, the Section 404 permitting processes, and mitigation requirements. Prerequisite: Senior or graduate standing in engineering or a science area, or consent of instructor. LEC.

CE 757. Pipe-Flow Systems. 3 Hours.
Hydraulic analysis and design of pipelines, pipe networks, and pumping systems. Analysis and control of hydraulic transients. Engineering of water distribution systems. Prerequisite: CE 330 or equivalent. LEC.

CE 759. Water Quality Modeling. 3 Hours.
Analytical and numerical modeling of transport and transformation processes in the aquatic environment. Mass balance principles and transport phenomena. Eutrophication of lakes. Transport and fate of conventional pollutants and toxic organic chemicals in rivers, lakes, and estuaries. Prerequisite: CE 330 and CE 477 or equivalent. LEC.

CE 761. Matrix Analysis of Framed Structures. 3 Hours.
Analysis of 2-D and 3-D frame and truss structures by the direct stiffness method. Computer techniques required to implement the analysis procedure. LEC.

CE 763. Design of Prestressed Concrete Structures. 3 Hours.
The theory and design of prestressed concrete structures based on service load and strength criteria. Prerequisite: CE 563. LEC.

CE 764. Advanced Design of Reinforced Concrete Structures. 3 Hours.
The theory and design of reinforced concrete members and structures with emphasis on frames and slabs. Introduction to bridge design and earthquake design. Prerequisite: CE 563. LEC.

CE 765. Advanced Steel Design - Building Structures. 3 Hours.
The theory and design of standard steel framed structures (primarily buildings). Design philosophies, stability, composite design, structural behavior, preliminary design, and connections. Prerequisite: CE 562 or equivalent. LEC.

CE 766. Advanced Steel Design - Bridge Structures. 3 Hours.
Introduction to simple plastic design principles. Analysis and design of steel bridges including composite and noncomposite plate girders, curved girders, box girders, and other specialized bridge types. Fatigue and connection design considered. Prerequisite: CE 562 or equivalent. LEC.

CE 767. Introduction to Fracture Mechanics. 3 Hours.
Theories and modes of structural failure as related to structural design. Application of fracture mechanics to failure analysis, fracture control plans, fatigue crack growth, and stress-corrosion crack growth. Prerequisite: CE 310 or CE 311 plus a structural or mechanical design course. LEC.

CE 770. Concepts of Environmental Chemistry. 2 Hours.
The fundamentals of aquatic chemistry, with emphasis on application to water purification and wastewater treatment. May not be taken for credit by students with credit in CE 570. Prerequisite: CE 477 or equivalent, calculus, and five hours of chemistry. LEC.

CE 771. Environmental Chemical Analysis. 1 Hour.
A laboratory introducing the basic chemical tests used in the water and wastewater fields of environmental engineering and science. May not be taken for credit by students with credit in CE 571. Prerequisite: Credit or co-enrollment in CE 770. LAB.

CE 772. Physical Principles of Environmental Engineering Processes. 3 Hours.
Physical principles of suspensions, kinetics, fluid flow, filtration, and gas transfer are applied to various environmental physical processes. Prerequisite: CE 477 or equivalent, calculus, and four hours of physics. LEC.
CE 773. Biological Principles of Environmental Engineering. 3 Hours.
A basic study of the microorganisms of importance in environmental engineering. Emphasis is placed on the microbiology of dilute nutrient solutions. Microbial physiology, microbial ecology, and biochemistry will be discussed as they pertain to environmental engineering and science. Both biodegradation and public health aspects are included. (Two lectures and one three-hour laboratory per week.) May not be taken for credit by students with credit in CE 573. Prerequisite: CE 477 or equivalent, calculus, and five hours of chemistry. LEC.

CE 774. Chemical Principles of Environmental Engineering Processes. 3 Hours.
Chemical principles of stoichiometry, thermodynamics, and kinetics are applied to various chemical processes having application in the field of environmental engineering and science, including adsorption, ion exchange, coagulation, oxidation, and precipitation. Prerequisite: CE 477 or equivalent, calculus, and credit or registration in CE 570 or CE 770. LEC.

CE 775. Stormwater Treatment Systems Design. 3 Hours.
This course will address the design of stormwater treatment systems to provide hydrological control and water quality improvement. Specific topics include common stormwater pollutants, contaminant loading during storm events, design of structural BMPs (detention basins, traps, filters, and vegetated control systems) and low impact development practices. Prerequisite: CE 477, either CE 455 or CPE 511 or consent of instructor. LEC.

CE 777. Industrial Water and Wastes. 3 Hours.
A review of the methods of industrial water treatment and the fundamentals of industrial wastewater pollution control. Topics include: water budgets, cooling tower and boiler treatment, corrosion control, government regulations, wastewater characterization, waste minimization, pilot plants, pretreatment, final treatment, and site selection. May not be taken for credit by students with credit in CE 577. Prerequisite: CE 477 or equivalent. LEC.

CE 778. Air Quality. 3 Hours.
The course is intended to provide a working knowledge of pollutant sources, effects, meteorological factors, measurements, modeling approaches, legislation and controls associated with air quality problems. Students work on problems drawn from typical industrial situations, and use models to address specific air pollution scenarios. Prerequisite: CE 477 or equivalent, and MATH 115 or MATH 121. LEC.

CE 779. Water Quality. 3 Hours.
Examination of water quality principles, policy, processes, practices, computer programs, laws and regulations as they relate to the integrated planning and control of point and nonpoint sources of pollution. Prerequisite: MATH 121 or equivalent, CE 477, and CE 570 or CE 770. LEC.

CE 780. Environmental Instrumental Analysis. 3 Hours.
The course will provide a basis for theoretical understanding and practical experience with state-of-the-art environmental analytical methods organic and inorganic analytes in aqueous matrices. Methods to be covered include liquid, gas and ion chromatography; mass spectrometry; spectrophotometric, FID, EC, and conductivity detection; atomic absorption; spectrophotometric methods; and potentiometric analysis. Statistical methods for analytical methods development, validation and interpretation will also be covered. Prerequisite: General chemistry, and graduate standing. Senior level undergraduates may enroll with consent of instructor. LEC.

CE 781. Traffic Engineering Characteristics. 3 Hours.
A study of fundamental traits and behavior patterns of the road user and his or her vehicle in traffic. The major content involves techniques for obtaining data, analyzing data and interpreting data on traffic speed, volume, streamflow, parking and accidents. Capacity analyses using the most up to date procedures for major traffic facilities such as undivided highways, city streets, freeways, interchanges and intersections are also discussed at length. Prerequisite: CE 582 or equivalent. LEC.

CE 782. Public Works Engineering. 3 Hours.
The functions of a public works director are presented. Topics discussed are concerns with the environment, solid waste, traffic drainage, maintenance of facilities, personnel, etc. LEC.

CE 783. Railroad Engineering. 3 Hours.
A comprehensive study of the railroad industry, including the development of the railway system, an overview of the railroad industry, basic track work, right-of-way and roadway concerns, drainage, track design, railroad structures, electrification, and rail passenger service. A final design project is required. Prerequisite: CE 240; CE 582 or equivalent. LEC.

CE 784. Airport Planning and Design. 3 Hours.
A comprehensive study of the planning design and operations of airports. Both ground side and air side capacity and design elements will be presented. Other topics covered are airport master planning, air traffic control passenger terminal design, and environmental impacts of airports. Prerequisite: CE 240, CE 582 or equivalent. LEC.

CE 785. Terrain Analysis. 3 Hours.
A study of the applications of the science of aerial-photographic interpretation as it pertains to the field of civil engineering including the recognition of soil types and classes, engineering materials surveys, route location, and the delineation of watersheds and estimates of runoff there from. Prerequisite: CE 487 or equivalent. LEC.

CE 786. Highway Safety. 3 Hours.
Several topics dealing with highway safety are presented and discussed. Typical topics are railroad/highway crossings, accident reconstruction, distractions to the drivers, speed and crashes, elderly drivers, traffic control devices, roadside design, access management, traffic calming devices, and crash rates. LEC.

CE 787. Advanced Soil Mechanics. 3 Hours.
Three lecture periods. A study of the strength and compression characteristics of cohesive and noncohesive soils under various loading conditions. Prerequisite: CE 487 or equivalent. LEC.

CE 788. Geotechnical Engineering Testing. 3 Hours.
Three lectures. Field testing techniques, sampling methods, and laboratory testing procedures used to determine soil properties for engineering projects. Prerequisite: CE 487. LAB.

CE 789. Pavement Management Systems. 3 Hours.
Basic components of pavement management systems. Emphasis is given to pavement evaluation, planning pavement investment, rehabilitation design alternatives, and pavement management program implementation. Prerequisite: CE 487, CE 484 or equivalent. LEC.

CE 791. Waste Facility Siting and Design. 3 Hours.
A review of current site characterization and design methods for solid and hazardous waste facilities with particular emphasis on working within the modern regulatory environment. Prerequisite: CE 487 or equivalent. LEC.

CE 792. Knowledge Based/Expert Systems in Engineering. 3 Hours.
Introduction to the use of knowledge-based systems for engineering problem solving. These systems have a separation between the facts and concepts (the knowledge base) and the reasoning process used to draw conclusions (the inference mechanism). A wide variety of applications
are addressed including civil, chemical and petroleum, computer, and aerospace engineering. Prerequisite: Computer literacy, bachelor’s degree in engineering, or consent of instructor. LEC.

CE 793. Advanced Concepts in CADD. 3 Hours.
Advanced concepts related to the application of computer aided design and drafting to the practice of civil engineering are presented. This includes: developing macros, understanding CADD programming languages, and relating CADD and other civil engineering based programs. An engineering approach to Geographical Information Systems (GIS) will be presented. Prerequisite: Working knowledge of one computer aided design graphics software package. LEC.

CE 794. Environmental Graduate Student Orientation. 1 Hour.
An introductory graduate level course with emphasis on selecting a research topic and preparing a thesis or special problem report, technical reports, oral presentations, papers, and grant proposals. This course will also provide orientation information for new students and advice on preparing a plan of study. LEC.

CE 795. Scanning Electron Microscopy and X-Ray Microanalysis. 3 Hours.
The course covers electron optics, electron beam-specimen interaction, image formation, x-ray spectral measurement, qualitative and quantitative x-ray microanalysis, practical techniques of x-ray analysis and specimen preparation techniques. Emphasis is placed on materials, but most techniques apply to biological specimens as well. Prerequisite: PHSX 212. LEC.

CE 797. Environmental Engineering and Science in Developing Countries. 3 Hours.
This course begins with a focus on basic sanitation, including control of infectious diseases, water supply and treatment, and proper disposal of excreta, wastewater, and solid wastes. The course then delves into other environmental topics such as sustainability, wastewater reuse, project planning and implementation, air pollution, deforestation, hazardous waste disposal, and the roles of various governmental and non-governmental organizations in addressing environmental issues. The course topics are addressed by a combination of lectures, guest lectures, and student presentations, with each student choosing a presentation topic of personal or professional interest that is relevant to the course. Prerequisite: CE 477 or permission of instructor. LEC.

CE 800. Theory of Elasticity. 3 Hours.
The basic equations of the theory of elasticity; stress and strain transformation, strain-displacement, compatibility and stress-strain relations. Formulation of problems and exact solutions. Introduction to approximate solution methods based on energy methods and finite elements. LEC.

CE 801. Energy Methods. 3 Hours.
The methods of analysis by energy methods of mechanics problems. Includes variational energy principles, calculus of variations, stationary energy and complementary energy principles, and the principle of virtual work. Applications. Prerequisite: CE 310 and MATH 320. LEC.

CE 802. Nondestructive Evaluation of Materials and Structures. 3 Hours.
This course covers nondestructive methods and their application to engineered structures and components. Methods covered include: ultrasonic testing, acoustic emission, vibration, impact-echo, visual inspection, and frequency response. LEC.

CE 810. Theory of Elastic Stability. 3 Hours.
Buckling of columns in the elastic or hyperelastic region. Lateral and torsional buckling of straight and curved members. Buckling of plates and shells. LEC.

CE 848. Pavement Materials Characterization. 3 Hours.
Laboratory and field test methods for determining engineering properties of bituminous pavements. Asphalt mix design methods and the relationship between mix design and pavement structural design and performance. Prerequisite: CE 484 or consent of instructor. LEC.

CE 855. Free Surface Flow II. 3 Hours.
Continuation of CE 755 with concentration on computer modeling of open channel flow using HEC-RAS, WSPRO, and other programs. Analysis of bridge scour using FHWA methods is also considered. Prerequisite: CE 755. LEC.

CE 856. Wetland Design, Engineering, and Management. 3 Hours.
Introduction of design concepts in creating and restoring wetland systems. Review of wetland hydrology and hydraulics. Interaction of wetland hydrology, soils, and vegetation providing environmental benefits. Considerations in project planning, site selection and preparation, construction and operation, and maintenance. Use of state and local legal and management tools to protect and restore wetlands. Emerging concepts of mitigation and banking. Prerequisite: CE 756 or equivalent. LEC.

CE 857. Sediment Transport. 3 Hours.
A study of the transport of sediment in alluvial channels. Specific topics include properties of sediment, mechanics of bed forms, particle entrainment, scour analysis, prediction of suspended load and bed load, design of stable channels and diversion works, and sedimentation of reservoirs. Prerequisite: CE 755 or consent of instructor. LEC.

CE 858. Urban Hydrology and Stormwater Management. 3 Hours.
Hydrology of urban watersheds; floodplain management; hydrologic modeling; storm drainage; stormwater detention; water quality improvement; geomorphology of urban streams; stream corridor management and stream restoration. Prerequisite: CE 751. LEC.

CE 861. Finite Element Methods for Solid Mechanics. 3 Hours.
Stress analysis of 2-D and 3-D solids, plates, and shells by the finite element method. Element formulations and behavior with emphasis on the isoparametric concept. Computer modeling and interpretation of results. Introduction to material and geometric nonlinear analysis of solids. Prerequisite: CE 761 or equivalent. LEC.

CE 862. Behavior of Reinforced Concrete Members. 3 Hours.
This mechanics course covers in detail the constitutive behavior of reinforced concrete members subjected to various types of loading and presents the basis for modeling the response of reinforced concrete structures in the nonlinear range of response. Topics covered include: stress-strain behavior of concrete under multi axial states of stress; moment-curvature analysis; advanced analysis of r/c members subjected to shear (variable angle truss models, modified compression field theory, strut-and-tie models); behavior of r/c members subjected to cyclic loading; modeling and effects of slip at the interface between reinforcing steel and concrete. Suggested prerequisite CE 764 or equivalent. Prerequisite: CE 563. LEC.

CE 864. Seismic Performance of Structures. 3 Hours.
This course builds on topics from structural dynamics to introduce principles of structural performance during earthquake events. Emphasis is placed on estimating the response of building structures as represented by simple and complex models. Topics covered include strong ground motion, response of simple systems to ground motion, nonlinear response of building systems, and performance-based earthquake engineering. Prerequisite: CE 704. LEC.
CE 865. Structural Design for Dynamic Loads. 3 Hours.
The behavior and design of structural systems subjected to dynamic forces such as blasts, earthquakes, and wind loads. Prerequisite: CE 704 or equivalent. LEC.

CE 869. Plates and Shells. 3 Hours.
The analysis and design of plates and shells including thin and thick plates, membrane theory of shells and bending theories of shells. LEC.

CE 871. Fundamentals of Bioremediation. 3 Hours.
A study of microbial ecology and physiology as they relate to the degradation of environmental contaminants. Emphasis is placed on the interrelationship between the physiological traits of microorganisms, and the physical and chemical properties of the contaminants and the treatment environments. Case studies involving in-situ bioremediation and reactor design are discussed. Prerequisite: CE 573 or CE 773 or equivalent, and five hours of chemistry. LEC.

CE 873. Environmental Monitoring. 2 Hours.
A lecture-laboratory course to familiarize students with environmental monitoring techniques, regulations, and systems. Dimensions of environmental monitoring will be considered for air, soil, and water measurements. The major emphasis will be on monitoring techniques and their principles, utility, and limitations. LEC.

CE 874. Air Pollution Control. 3 Hours.
The design of control devices for the abatement of air pollutants, both gaseous and particulate, emitted from stationary sources. This includes the basic theory of control device operation and economic factors associated with each type of control device design. Prerequisite: CE 772 and CE 778 or equivalent. LEC.

CE 875. Solid and Hazardous Wastes. 3 Hours.
Fundamental issues associated with solid and hazardous wastes are presented. Topics include government regulations, waste characteristics and quantities, the transport and attenuation of wastes in the environment, risk assessment, and handling, treatment and disposal techniques. Special emphasis is placed on hazardous waste remediation strategies in terrestrial systems. Prerequisite: Graduate standing in the Environmental Science and Engineering program, or consent of instructor. CE 770 and CE 773 are recommended. LEC.

CE 876. Wastewater Treatment Plant Design. 3 Hours.
Application of physical, chemical, and biological principles to the design of wastewater treatment systems for domestic and other wastewaters. Special emphasis is placed on biological treatment processes. Prerequisite: CE 576 or equivalent, or CE 573 or CE 773 or equivalent. LEC.

CE 877. Water Treatment Plant Design. 3 Hours.
Application of physical, chemical, and biological principles to the design of water treatment plants and processes for domestic water supply from surface and ground water sources. Prerequisite: CE 774, or concurrent enrollment. LEC.

CE 878. Air Quality Modeling. 3 Hours.
Fundamental physical and mathematical principles applied to air quality modeling; considered are factors that influence the choice and application of air quality models, as well as the interpretation of model output data. Practical applications are stressed using standard models. Prerequisite: CE 778 or equivalent and MATH 121 or CE 625. LEC.

CE 879. Environmental Research Seminar. 1 Hour.
Discussion of current topics in environmental engineering and science and related fields by staff, students, and visiting lecturers. May be taken only once for credit. LEC.

CE 881. Traffic Engineering Operations. 3 Hours.
A study of theory and practical applications of a number of traffic operational and management tools to achieve the convenient, safe and efficient movement of people and goods in urban street networks. The major content involves signalized intersection capacity, design and operation; signalized intersection coordination; and modern roundabout design. Prerequisite: CE 582 or equivalent. LEC.

CE 882. Geometric Design of Traffic Facilities. 3 Hours.
A study of basic principles in the design of freeways, urban street systems, parking terminal and other traffic facilities with emphasis on capacity, safety, level of service, and dynamic design concept. Prerequisite: CE 781 or equivalent. LEC.

CE 883. Urban Transportation Planning. 3 Hours.
A detailed study of the comprehensive transportation planning process which involves the determination of urban travel characteristics and needs from studies of traffic, social-economic, and environmental factors, as well as the applications of land use, trip generation, trip distribution, model split, and traffic assignment models. Prerequisite: CE 781 or equivalent. LEC.

CE 884. Principles of Pavement Design. 3 Hours.
A study of the scientific principles of pavement design as applied to airfield and highway pavements, considering loading conditions, stress distribution, and the properties of the various pavement components, for both rigid and flexible pavements. Prerequisite: CE 487 or equivalent. LEC.

CE 885. Advanced Foundation Engineering. 3 Hours.
A study in the design, construction, and behavior of footings and rafts, piles and drilled shafts founded on soils and rocks. Prerequisite: CE 588 or equivalent. LEC.

CE 886. Engineering Rock Mechanics. 3 Hours.
Rock properties and behavior; theories of failure of brittle, jointed, and anisotropic rocks; rock support; laboratory and in-situ testing techniques. Prerequisite: A course in physical geology and CE 487 or equivalent. LEC.

CE 887. Earth Structures. 3 Hours.
Current theory and practice relating to the design of retaining walls, earth slopes, large embankments, and landslide mitigation. Application of geotextiles to the design of earth retaining structures and slope stabilization. Prerequisite: CE 588 or consent of instructor. LEC.

CE 888. Ground Improvement. 3 Hours.
Basic descriptions, classification, principles, advantages, and limitations of ground improvement techniques. Design, construction, and quality assurance/control of ground improvement techniques. Prerequisite: CE 588 or equivalent. LEC.

CE 889. Designing with Geosynthetics. 3 Hours.
Basic description and properties of geosynthetics including geotextiles, geogrids, geomembranes, geonets, geocomposites, and geosynthetic clay liners. Geosynthetic functions and mechanisms including separation, filtration, drainage, reinforcement, and containment. Design with geosynthetics for roadways, embankments/slopes, earth retaining structures, and landfills. Prerequisite: CE 588 or equivalent. LEC.

CE 890. Master’s Project. 1-4 Hours.
Directed study and reporting of a specialized topic of interest in civil engineering or an allied field. Prerequisite: Consent of instructor. RSH.

CE 891. Advanced Special Problems. 1-3 Hours.
A directed study of a particular complex problem in an area of civil engineering or allied field. Prerequisite: Varies by topic, or with consent of instructor. LEC.
CE 892. Structural Engineering and Mechanics Seminar. 1 Hour.
Presentation and discussion of current research and design in structural engineering and mechanics. LEC.

CE 895. Advanced Special Topics: ______. 1-3 Hours.
A graduate course or colloquium in a topic of civil engineering or an allied field. Prerequisite: Varies by topic, or with consent of instructor. LEC.

CE 899. Master’s Thesis. 1-10 Hours.
Directed research and reporting of a specialize topic of interest in civil engineering or an allied field. Prerequisite: Consent of instructor. THE.

CE 902. Advanced Vibrations. 3 Hours.
Vibrations of mechanical systems and structures. Nonlinear vibrations. Random vibration. Prerequisite: CE 704 or AE 704. LEC.

CE 912. Theory of Plasticity. 3 Hours.
Plastic stress-strain relationships. Stress and deformation in thick-walled shells, rotating discs, and bars subjected to torsion and bending for ideally plastic materials. Plastic flow of strain-hardening materials. Theory of metal-forming processes including problems in drawing and extruding. LEC.

CE 913. Advanced Fracture Mechanics. 3 Hours.
Development of Griffith-Irwin crack theory and plane strain-stress intensity factors. Advanced analytical and experimental aspects of fracture and fatigue. Development of fracture control plans. Prerequisite: CE 767 or consent of instructor. LEC.

CE 927. Advanced Mechanics. 3 Hours.
The mechanics of continuous media. A unified treatment of the fundamental principles and theories governing applications in solid and fluid mechanics. Topics covered are stress, strain and deformation, general physical principles for the continuum, and various constitutive equations. LEC.

CE 929. Advanced Topics in Solid Mechanics. 2-4 Hours.
Topics such as thermal stresses, vibrations in elastic continuum, dynamic instability, and other advanced topics. LEC.

CE 961. Finite Element Methods for Nonlinear and Dynamic Systems. 3 Hours.
Advanced treatment of finite element techniques for structural analysis including material and geometric non-linearity and the solution of large scale dynamics problems. Prerequisite: CE 861 or ME 761 or equivalent. LEC.

CE 983. Implementation of the Urban Transportation Planning System--UTPS. 3 Hours.
A study of the principles and implementation skills of the most up-to-date versions of several urban transportation planning software packages. The course involves a two-hour lecture and a three-hour laboratory period. Prerequisite: CE 883, or UBPL 750, or equivalent. LEC.

CE 991. Research. 1-15 Hours.
An investigation of a special problem directly related to civil engineering. RSH.

Restricted to Ph.D. candidates. Before candidacy, aspirants performing their research should enroll in CE 991. Prerequisite: Consent of instructor. THE.

CMGT 357. Engineering Economics. 3 Hours.
Analysis of design alternatives and investment opportunities based on the time value of money. Topics include financial statements and accounting concepts related to economic analysis, time value of money and cash flow equivalence, cost of capital and minimum attractive rate of return (MARR), defining mutually exclusive alternatives, developing alternative after-tax cash flows, performing investment and replacement studies, and methods for addressing uncertainty and risk. Prerequisite: MATH 122, or consent of the instructor. LEC.

CMGT 500. Construction Engineering. 3 Hours.
An introduction to the construction industry, construction project management, and construction operations. Topics include project participant roles and responsibilities; project delivery systems; procurement of construction services; sustainable construction; contracts, bonds, and insurance; equipment selection and use; constructability and value engineering; estimating and bidding; planning and scheduling; operations management; safety; and project commissioning and closeout. Prerequisite: Junior or Senior standing in the School of Engineering, or consent of the instructor. LEC.

CMGT 700. Construction Project Management. 3 Hours.
An introduction to the management of construction projects. This course addresses project delivery systems, project organization, estimating and bidding, planning and scheduling, legal and safety issues, among other topics. Prerequisite: Graduate standing or consent of instructor. Not open to those with credit in CMGT 500. LEC.

CMGT 701. Construction Planning and Scheduling. 3 Hours.
An introduction to the planning and scheduling of projects, for both construction and design. Emphasis is placed on the critical path method including network development, production of time schedules, time-cost considerations, and the efficient utilization of resources. Manual and computer techniques are covered. Prerequisite: CMGT 500 or CMGT 700, and MATH 526 or EMGT 802, or consent of instructor. LEC.

CMGT 702. Construction Equipment and Methods. 3 Hours.
This course introduces the student to the multitude of construction equipment employed in construction. The underlying technology and engineering principles are reviewed. Principles of equipment selection, equipment utilization, and equipment economic analysis are covered. Prerequisite: CMGT 500 or CMGT 700, MATH 526 or EMGT 802, and CMGT 357 or EMGT 806, or consent of instructor. LEC.

CMGT 703. Construction Quality, Productivity, and Safety. 3 Hours.
Operations analysis for work improvement in construction using process charts, crew balancing, time-lapse photography, and planning techniques. Regulations, accident prevention, and safety management are covered. Prerequisite: CMGT 500 or CMGT 700, MATH 526 or EMGT 802, and CMGT 357 or EMGT 806, or consent of instructor. LEC.

CMGT 704. Construction Estimating and Bidding. 3 Hours.
A study of the quantity survey, cost estimating, scheduling and project controls; construction operations; and methods of building construction. Prerequisite: CMGT 500 or CMGT 700, MATH 526 or EMGT 802, and CMGT 357 or EMGT 806, or consent of instructor. LEC.

CMGT 705. Construction Contracts, Bonds, and Insurance. 3 Hours.
Legal doctrines relating to owners, design professionals, and contractors. Sources of law, forms of association, and agency. Contract formation, rights and duties, interpretation, performance problems, disputes, and claims. Surety bonds and insurance. Prerequisite: CMGT 500 or CMGT 700, or consent of instructor. LEC.

CMGT 708. Introduction to Sustainable Design and Construction. 3 Hours.
This course introduces students to Sustainable Design Concepts that are applicable to Civil and Architectural Engineering. Prerequisite: Senior or graduate standing in Architectural Engineering, Architecture, or Civil Engineering or consent of instructor. LEC.
Bachelor of Science in Architectural Engineering

B.S. in Architectural Engineering Program

Students in the B.S. in architectural engineering (ARCE) program are admitted by and must fulfill the graduation requirements of the School of Engineering. The program is administered by the School of Engineering’s Department of Civil, Environmental, and Architectural Engineering (CEAE).

In KU’s ARCE program students learn to analyze and design the engineered systems of buildings. After their basic preparatory courses in all areas, they may choose an emphasis in:

1. Structural design and analysis,
2. Illumination and power systems,
3. Building mechanical and energy systems,
4. Construction management, or
5. A hybrid such as pre-architecture, sustainability, acoustics, or fire protection.

To use this knowledge, the graduate must have a good foundation in engineering science and design as they relate to building systems and construction, as well as an appreciation for architectural design and history.

Educational Objective

Graduates who pursue a career in architectural engineering will be successfully engaged in professional engineering practice or graduate study in the analysis, design, construction, and operation of building systems.

Careers

Professional Registration and Licensing

Architectural Engineers are involved in building projects that directly affect the health and safety of the public. Graduates are strongly encouraged to become registered Professional Engineers as soon as possible after graduation. In Kansas, and may other states with similar registration laws, this involves completing an ABET-accredited B.S. degree in architectural engineering, passing the Fundamentals of Engineering and Professional Engineering examinations, and obtaining four years of satisfactory engineering experience. Students in architectural engineering must take the FE examination before graduation. Some architectural engineers also practice as architects after completing an NAAB-accredited professional undergraduate or graduate architecture degree program and becoming Registered Architects. Students with this interest should consider KU’s Track II and III Master of Architecture degree programs in addition to their B.S. in architectural engineering.

Professional Opportunities

Architectural engineering focuses on building systems analysis and design, including structural, mechanical, energy, lighting, and electrical systems, and construction methods applied to buildings. Increasingly, architectural engineers are interested in specializations such as green buildings, acoustics, and fire protection. Architectural engineers center their attention on the performance, safety, sustainability, cost-effectiveness, and construction of these systems. They typically work for engineering consulting firms, construction companies, or government agencies.
Undergraduate Admission to the School of Engineering

First-year undergraduate students may be admitted, but all admissions, both in-state and out-of-state, are selective. Visit the Office of Admissions (http://admissions.ku.edu/whyku/index.shtml) for admission requirements. Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Applications are judged on several factors, including but not limited to high school record, scores on national tests, academic record at college or university level, and trend of grades. High school transcripts and ACT scores are required. Equivalent SAT scores may be substituted.

Minimum Academic Standards for Admission

To be considered for admission to the School of Engineering, beginning first-year students must meet or exceed the following minimum standards:

- 3.0 grade-point average on a 4.0 scale on the Kansas Board of Regents Qualified Admissions (http://admissions.ku.edu/apply/regents_curriculum.shtml) college-preparatory curriculum.
- Top 50 percent of the graduating class of an accredited high school or the equivalent.
- Mathematics ACT score of 22 (or mathematics SAT score of 540). Some engineering degree programs may require a higher mathematics ACT score.

These minimum admission standards apply to all departments. Meeting minimum requirements does not guarantee admission.

Transfer Admission Standards

Applications from all transfer students, whether from other institutions or from other KU units, are evaluated on a case-by-case basis. In general, students with grade-point averages under 2.5 are not considered.

Students must submit mathematics ACT or SAT scores or proof of competence in calculus (grade of C or higher). No upper-level engineering credits from non-ABET-accredited engineering programs are acceptable as transfer credit for engineering programs. Admission is selective, and meeting the minimum requirements does not guarantee admission.

First- and Second-Year Preparation

The following are recommended enrollments:

### Freshman

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCE 101</td>
<td>3</td>
<td>ARCE 217</td>
<td>3</td>
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<tr>
<td>CHEM 150</td>
<td>5</td>
<td>ENGL 102</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>3</td>
<td>MATH 122</td>
<td>5</td>
</tr>
<tr>
<td>MATH 121</td>
<td>5</td>
<td>Social science elective (GE3S)</td>
<td>3</td>
</tr>
<tr>
<td>Basic science elective</td>
<td>1</td>
<td>PHSX 211</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PHSX 216</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>18</td>
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</table>

### Sophomore

<table>
<thead>
<tr>
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<th>Hours</th>
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<tbody>
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<td>CE 301</td>
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<td>MATH 220</td>
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<td>MATH 290</td>
<td>2 COMS 130</td>
<td>3</td>
</tr>
<tr>
<td>ME 312</td>
<td>3 MATH 526</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 212</td>
<td>3 ME 510</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 236</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>15</td>
</tr>
</tbody>
</table>

Total Hours: 67

Bachelor of Science in Architectural Engineering Degree Requirements

A total of 128 credit hours is required for the degree. Substitutions may be made only by submitting a petition to the academic advisor for the department’s and school’s consideration. The student’s design experience is developed throughout all four years of the undergraduate curriculum, beginning with the introductory course and continuing with required architectural, structural, illumination, power, HVAC, and construction management courses. Each student also takes an elective course in his or her selected emphasis; a list of elective courses is available on the CEAE website (http://www.ceae.engr.ku.edu). In the fourth year, an ARCE capstone design course is required; it integrates the overall design experience for the student. In this course, the student designs the structural, mechanical, illumination, and power distribution systems for a building.

Students who want to earn a professional Master of Architecture degree in addition to the B.S. in architectural engineering should apply for the “Track III Professional” program via the School of Architecture, Design, and Planning and discuss it each year with their ARCE advisor so that electives can be chosen carefully.

Mathematics (18)

<table>
<thead>
<tr>
<th></th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td>5</td>
</tr>
<tr>
<td>MATH 122</td>
<td>5</td>
</tr>
<tr>
<td>MATH 220</td>
<td>3</td>
</tr>
<tr>
<td>MATH 290</td>
<td>2</td>
</tr>
<tr>
<td>MATH 526</td>
<td>3</td>
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</tbody>
</table>

Basic Sciences (12-15)

<table>
<thead>
<tr>
<th></th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 216</td>
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<tr>
<td>PHSX 211</td>
<td>4</td>
</tr>
<tr>
<td>PHSX 212</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 236</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 150</td>
<td>5</td>
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</table>

Basic science elective 1

English (6)

<table>
<thead>
<tr>
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<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>3</td>
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</table>

Humanities/Social Science/KU Core (21)

<table>
<thead>
<tr>
<th></th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 540</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 541</td>
<td>3</td>
</tr>
<tr>
<td>COMS 130</td>
<td>3</td>
</tr>
</tbody>
</table>

GE 3S Social Science 3
The undergraduate program gives students the theoretical background, instruction in engineering application of scientific principles, and professional attitude to serve the public. It typically leads to entry-level positions or to graduate work in technical specialties (e.g., environmental, geotechnical, structural, and transportation), business administration, or other professions.

Courses that address the behavior and design of steel and reinforced concrete structures, environmental pollution, control systems, water resources systems, foundations, and surface transportation systems are integrated into the curriculum, culminating in a series of senior-level professional design courses. These simulate the design processes used in the major areas of civil engineering and prepare students for entry-level positions. Most faculty members are licensed professional engineers. KU graduates have successful records in professional practice, research in academic institutions, government and private laboratories, and in managing firms and corporations of all sizes.

Educational Objective

Graduates who pursue a career in civil engineering will successfully engage in professional engineering practice or graduate studies in the analysis, design, construction, and operation of public and private infrastructure systems.

Combined Civil Engineering and Business Program

A student who wants to combine business with engineering may enroll in a program leading to a B.S. degree in both fields. Full-time enrollment enables the student to earn the 2 degrees in 5 years. During the first 2 years, the student enrolls in the School of Engineering. After that, the student enrolls simultaneously in the schools of Business (http://www.business.ku.edu) and of Engineering (http://www.engr.ku.edu).

Careers

Professional Registration and Licensing

Engineers are involved in projects that directly affect the health and safety of the public. Graduates are strongly encouraged to become registered Professional Engineers. This involves completing a B.S. degree in civil engineering, completing the Fundamentals of Engineering and Professional Engineering examinations, and obtaining 4 years of satisfactory engineering experience. Students in civil engineering must take the FE examination before graduation.

Professional Opportunities

Civil engineers plan, design, construct, and oversee public and private infrastructure systems as well as maintain essential structures such as bridges, buildings, tunnels, roads, and water supply and sewage systems. Civil engineers typically work for major industrial and commercial centers, construction industry, state departments of transportation, manufacturing companies, oil or electrical companies, aerospace industries, or consulting firms.

Undergraduate Admission to the School of Engineering

First-year undergraduate students may be admitted, but all admissions, both in-state and out-of-state, are selective. Visit the Office of Admissions (http://admissions.ku.edu/whyku/index.shtml) for admission requirements. Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Applications are judged on several factors, including but not limited to high school record, scores on national tests, academic record at college...
or university level, and trend of grades. High school transcripts and ACT scores are required. Equivalent SAT scores may be substituted.

**Minimum Academic Standards for Admission**

To be considered for admission to the School of Engineering, beginning first-year students must meet or exceed the following minimum standards:

- 3.0 grade-point average on a 4.0 scale on the Kansas Board of Regents Qualified Admissions (http://admissions.ku.edu/apply/regents_curriculum.shtml) college-preparatory curriculum.
- Top 50 percent of the graduating class of an accredited high school or the equivalent.
- Mathematics ACT score of 22 (or mathematics SAT score of 540). Some engineering degree programs may require a higher mathematics ACT score.

These minimum admission standards apply to all departments. Meeting minimum requirements does not guarantee admission.

**Transfer Admission Standards**

Applications from all transfer students, whether from other institutions or from other KU units, are evaluated on a case-by-case basis. In general, students with grade-point averages under 2.5 are not considered. Students must submit mathematics ACT or SAT scores or proof of competence in calculus (grade of C or higher). No upper-level engineering credits from non-ABET-accredited engineering programs are acceptable as transfer credit for engineering programs. Admission is selective, and meeting the minimum requirements does not guarantee admission.

**First- and Second-Year Preparation**

The following are recommended enrollments:

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 121 (KU Core GE 1.2)</td>
<td>5</td>
<td>MATH 122</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 101 (KU Core GE 2.1)</td>
<td>3</td>
<td>ENGL 102 (KU Core GE 2.1)</td>
<td>3</td>
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<tr>
<td>CHEM 150 (KU Core GE 3N)</td>
<td>5</td>
<td>CE 192</td>
<td>3</td>
</tr>
<tr>
<td>CE 191</td>
<td>2</td>
<td>PHSX 211 (KU Core GE 1.1)</td>
<td>3</td>
</tr>
<tr>
<td></td>
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<td>PHSX 216</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>KU Core GE 3H Arts and Humanities elective</td>
<td>3</td>
</tr>
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<td></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Sophomore</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CE 301</td>
<td>5</td>
<td>CE 240</td>
<td>3</td>
</tr>
<tr>
<td>COMS 130 (KU Core GE 2.2)</td>
<td>3</td>
<td>COMS 310</td>
<td>4</td>
</tr>
<tr>
<td>MATH 220</td>
<td>3</td>
<td>ECON 104 (KU Core GE 3S)</td>
<td>4</td>
</tr>
<tr>
<td>MATH 290</td>
<td>2</td>
<td>EECS 137 or 138 (C++ or FORTRAN or Matlab)</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 212</td>
<td>3</td>
<td>Basic science elective</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 236</td>
<td>1</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

Total Hours: 67

**Bachelor of Science in Civil Engineering Degree Requirements**

Students take required courses and select electives that best fulfill their personal goals from the following general areas of study. A total of 132 credit hours is required for graduation.

**Mathematics (18)**

- MATH 121 Calculus I (KU Core GE 1.2) 5
- MATH 122 Calculus II 5
- MATH 220 Applied Differential Equations 3
- MATH 290 Elementary Linear Algebra 2
- MATH 526 Applied Mathematical Statistics I 3

**Basic Sciences (17)**

- PHSX 211 General Physics I (KU Core GE 1.1) 4
- PHSX 216 General Physics I Laboratory 1
- PHSX 212 General Physics II 3
- PHSX 236 General Physics II Laboratory 1
- CHEM 150 Chemistry for Engineers (KU Core GE 3N) 5

Science elective (minimum of 3 hours). Select one of the following: 3

- General Civil Engineering students select from:
  - GEOL 101 The Way The Earth Works
  - GEOL 105 History of the Earth
  - GEOL 351 Environmental Geology
  - GEOL 551 Engineering Geology
  - Or an approved physics or chemistry elective

- Environmental Engineering students select from:
  - ATMO 105 Introductory Meteorology
  - ATMO 521 Microclimatology
  - BIOL 100 Principles of Biology
  - BIOL 400 Fundamentals of Microbiology
  - BIOL 414 Principles of Ecology
  - BIOL 661 Ecology of Rivers and Lakes
  - CHEM 310 Fundamentals of Organic Chemistry
  - CHEM 530 Physical Chemistry I
  - GEOG 358 Principles of Geographic Information Systems
  - GEOG 521 Microclimatology
  - GEOL 101 The Way The Earth Works
  - GEOL 302 Oceanography
  - GEOL 351 Environmental Geology
  - GEOL 551 Engineering Geology

**KU Core Component (24-25)**

- Written Communication (KU Core GE 2.1) 6
- COMS 130 Speaker-Audience Communication (KU Core GE 2.2) 3

Economics electives, Select one of the following: 3-4

- ECON 104 Introductory Economics (KU Core GE 3S)
- ECON 142 Principles of Microeconomics (KU Core GE 3S)
- ECON 144 Principles of Macroeconomics (KU Core GE 3S)

Humanities elective course meeting KU Core objective GE 3H 3

Human diversity elective course meeting KU Core objective AE 4.1 3

Global awareness elective course meeting KU Core objective AE 4.2 3

Ethics & Social Responsibility elective course meeting KU Core objective AE 5 3
### Basic Engineering Sciences (19)
Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 301</td>
<td>Statics and Dynamics</td>
<td>5</td>
</tr>
<tr>
<td>CE 201 &amp; CE 300</td>
<td>Statics and Dynamics</td>
<td></td>
</tr>
<tr>
<td>CE 310</td>
<td>Strength of Materials</td>
<td>4</td>
</tr>
<tr>
<td>CE 330</td>
<td>Fluid Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>CMGT 357</td>
<td>Engineering Economics</td>
<td>3</td>
</tr>
<tr>
<td>CE 192</td>
<td>Civil Engineering Graphics</td>
<td>3</td>
</tr>
</tbody>
</table>

### Computer Programming Elective (3)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EECS 138</td>
<td>Introduction to Computing: ____ (C++, Fortran, or Matlab)</td>
<td>3</td>
</tr>
<tr>
<td>or EECS 137</td>
<td>Visual Basic for Engineers</td>
<td></td>
</tr>
</tbody>
</table>

### Engineering Science (select two of the following) (6)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME 312</td>
<td>Basic Engineering Thermodynamics</td>
<td></td>
</tr>
<tr>
<td>or C&amp;PE 221</td>
<td>Chemical Engineering Thermodynamics</td>
<td></td>
</tr>
<tr>
<td>ME 306</td>
<td>Science of Materials</td>
<td>3</td>
</tr>
<tr>
<td>or ARCE 350</td>
<td>Building Materials Science</td>
<td></td>
</tr>
<tr>
<td>EECS 315</td>
<td>Electric Circuits and Machines</td>
<td></td>
</tr>
<tr>
<td>or EECS 316</td>
<td>Circuits, Electronics and Instrumentation</td>
<td></td>
</tr>
</tbody>
</table>

EECS 137 is preferred; EECS 138 Web option is not allowed.

### Undergraduate Concentrations

Students may identify broad concentrations in either general civil engineering or environmental engineering. Within these, students may choose elective courses to permit additional exposure to selected areas of civil or environmental engineering such as transportation, structural, geotechnical, environmental, and water resources engineering. In environmental engineering, electives may be selected to focus on water quality and treatment, bioremediation, solid and hazardous wastes, air quality, and air pollution control.

### Civil and Environmental Engineering Sciences and Introduction to Design

#### General Civil Engineering Option (23)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 240</td>
<td>Surveying</td>
<td>3</td>
</tr>
<tr>
<td>CE 455</td>
<td>Hydrology</td>
<td>3</td>
</tr>
<tr>
<td>CE 461</td>
<td>Structural Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CE 477</td>
<td>Introduction to Environmental Engineering and Science</td>
<td>3</td>
</tr>
<tr>
<td>CE 487</td>
<td>Soil Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>CE 480</td>
<td>Introduction to Transportation Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CE 484/684</td>
<td>Material for Transportation Facilities</td>
<td>3</td>
</tr>
<tr>
<td>or CE 412</td>
<td>Structural Engineering Materials</td>
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</tbody>
</table>

#### Environmental Engineering Option (20)

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CE 240</td>
<td>Surveying</td>
<td>3</td>
</tr>
<tr>
<td>CE 455</td>
<td>Hydrology</td>
<td>3</td>
</tr>
<tr>
<td>CE 461</td>
<td>Structural Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CE 477</td>
<td>Introduction to Environmental Engineering and Science</td>
<td>3</td>
</tr>
<tr>
<td>CE 487</td>
<td>Soil Mechanics</td>
<td>4</td>
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</tbody>
</table>

### Engineering Analysis and Design

#### General Civil Engineering Concentration (16 hours)

#### Structural Engineering Design (6)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 562</td>
<td>Design of Steel Structures (KU Core AE 6)</td>
<td>3</td>
</tr>
<tr>
<td>CE 563</td>
<td>Design of Reinforced Concrete Structures</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Water Resources and Environmental Engineering (4)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 576</td>
<td>Municipal Water Supply and Wastewater Treatment (KU Core AE 6)</td>
<td>4</td>
</tr>
<tr>
<td>or CE 552</td>
<td>Water Resources Engineering Design</td>
<td></td>
</tr>
</tbody>
</table>

### Elective Courses (6)

Select two of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMGT 500</td>
<td>Construction Engineering</td>
<td></td>
</tr>
<tr>
<td>CE 582</td>
<td>Highway Engineering</td>
<td></td>
</tr>
<tr>
<td>CE 588</td>
<td>Foundation Engineering</td>
<td></td>
</tr>
<tr>
<td>CE 576</td>
<td>Municipal Water Supply and Wastewater Treatment (if not taken as Water Resources and Environmental Elective)</td>
<td>4</td>
</tr>
<tr>
<td>or CE 552</td>
<td>Water Resources Engineering Design (if not taken as Water Resources and Environmental Elective)</td>
<td></td>
</tr>
</tbody>
</table>

### Environmental Engineering Concentration (20 hours)

#### Water Resources and Environmental Engineering (8)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 552</td>
<td>Water Resources Engineering Design</td>
<td>4</td>
</tr>
<tr>
<td>CE 576</td>
<td>Municipal Water Supply and Wastewater Treatment</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Structural Design Elective (3)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 562</td>
<td>Design of Steel Structures (KU Core AE 6)</td>
<td>3</td>
</tr>
<tr>
<td>or CE 563</td>
<td>Design of Reinforced Concrete Structures</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Civil Engineering Design Elective (3)

Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMGT 500</td>
<td>Construction Engineering</td>
<td></td>
</tr>
<tr>
<td>CE 582</td>
<td>Highway Engineering</td>
<td></td>
</tr>
<tr>
<td>CE 588</td>
<td>Foundation Engineering</td>
<td></td>
</tr>
</tbody>
</table>

#### Environmental Engineering Principles Elective (3)

Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 570</td>
<td>Concepts of Environmental Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>&amp; CE 571</td>
<td>Environmental Chemical Analysis</td>
<td></td>
</tr>
<tr>
<td>CE 573</td>
<td>Biological Principles of Environmental Engineering</td>
<td></td>
</tr>
</tbody>
</table>

#### Environmental Design Elective (3)

Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 574</td>
<td>Design of Air Pollution Control Systems</td>
<td>3</td>
</tr>
<tr>
<td>CE 755</td>
<td>Free Surface Flow I</td>
<td></td>
</tr>
<tr>
<td>CE 757</td>
<td>Pipe-Flow Systems</td>
<td></td>
</tr>
<tr>
<td>CE 791</td>
<td>Waste Facility Siting and Design</td>
<td></td>
</tr>
</tbody>
</table>

### Electives in Selected Areas of Emphasis

A student who completes the minimum requirements in each of the four areas of the curriculum will have earned 125-126 hours in the general civil concentration and 126-127 hours in the environmental concentration (depending on the ECON choice). Both concentrations require a total
of 132 hours for graduation. The remaining hours may be any courses that qualify for inclusion in one or more of the four curricular areas in accordance to the restrictions outlined below.

The content of an elective course must differ substantially from the content of any course taken to fulfill a degree requirement.

**Suggested Electives (5)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 191</td>
<td>Introduction to Civil Engineering</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 362</td>
<td>Foundations of Technical Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Introductory Courses**

CE 191 Introduction to Civil Engineering, ENGR 108 Introduction to Engineering, or an introduction to engineering course from another engineering department will count as an elective course. Credit hours from only one introduction-to-the-profession course may be applied toward graduation.

**Mathematics and Basic Sciences**

Students may take elective courses designated as natural sciences and mathematics (N). Elective courses in mathematics must require MATH 122 as a prerequisite. Physics courses numbered below 211 and chemistry courses numbered below 130 are not accepted as general electives.

**General Education Courses**

Students may take elective courses designated as humanities (H) and social sciences (S). The humanities and social sciences courses are identified in the online timetable and in the Undergraduate Catalog with the letters H for humanities and S for social science courses. Western Civilization courses count as general electives. English courses taken as general electives must have ENGL 102 as a prerequisite. Any communication studies course (COMS) may be taken as a general elective.

**Architectural Engineering Courses**

Any course number above 300 is acceptable.

**Architecture Courses**

Up to five credit-hours of building technology and site planning courses numbered 250 or above may be used.

**Business Courses**

Any course offered by the KU School of Business is acceptable. Business courses offered at other colleges or universities will be accepted only if the courses are substantially equivalent to business courses taught at KU.

**Urban Planning Courses**

Any course offered by the KU Department of Urban Planning is acceptable.

**Graduate Courses in Civil and Environmental Engineering**

A student who wishes to study a particular civil engineering area in greater depth can take courses at the 600 or 700 level. The 700-level courses are primarily for graduate students but are open to seniors who have completed the prerequisites. The 700-level courses are not recommended for students with low grade point averages. A student not wishing to specialize can attain a broader background in civil engineering design by taking additional courses beyond the minimum requirements in area IV.

**Engineering Courses**

Any course offered by the various departments of the School of Engineering is acceptable except AE 241 Private Flight Course and AE 242 Private Flight Aeronautics

**Honors Courses**

Courses with the honors program designation (HNRS) will be accepted as general electives.

**ROTC Courses**

Students completing the ROTC program may count a maximum of 6 hours of ROTC courses as general electives. A maximum of six hours of ROTC courses in social sciences or humanities may be counted in excess of the 24 hrs required in the general education area. Up to six hours of ROTC courses may be counted as general electives if related to the physical sciences or engineering, and up to 3 credit hours may be used as electives in engineering technology and design.

**Master of Science in Architectural, Civil, and Environmental Engineering and Environmental Science**

**Civil, Environmental, and Architectural Engineering**

Civil engineering is the oldest engineering program at KU. The first graduating class in 1873 included a civil engineer. Civil engineers design roads, water systems, bridges, dams, and other structures, providing nearly all the infrastructure needed by modern society. Civil engineers were the first engineers to address environmental issues and are the lead engineering discipline in treating water supplies to protect public health. In recognition of the significant issues concerning the environment, the department name was changed in 1992 to civil and environmental engineering.

Architectural engineering combines study in architecture with engineering science and design courses in electrical, mechanical, construction, and structures to prepare students for building design projects of all kinds. Architectural engineering dates to 1913 at KU, and the first female graduate of the School of Engineering was an architectural engineering major. Architectural engineering merged with civil and environmental engineering in 2001 to form the the Department of Civil, Environmental, and Architectural Engineering (CEAE).

**Mission**

CEAE’s mission is to provide students with an outstanding engineering education and be a leader in research and service. This mission is supported by the following 3 goals:

1. Prepare students for productive engineering careers.
2. Maintain and grow strong research programs.
3. Serve the profession.
Graduate Admission to the School of Engineering

Procedure

Admission requirements for the School of Engineering follow the general KU requirements plus those of each engineering graduate program. All applicants must apply online (http://www.graduate.ku.edu/apply). Detailed information about supplemental application materials for each program is listed here (http://www.engr.ku.edu/prospective/graduate/apply). Important information for prospective international students is available from International Student & Scholar Services (http://www2.ku.edu/~issfacts). Download a PDF (http://www.engr.ku.edu/prospective/graduate/apply/grad_app_process.pdf) for more information about the review process for graduate applications.

Some departments and programs require the Graduate Record Examination. Applications must be accompanied by a nonrefundable fee. See Admission (p. 2059) in the Graduate Studies section of the online catalog.

Baccalaureate Preparation

To qualify for graduate work in any field of engineering, a student generally must hold an accredited baccalaureate degree in that field and have at least a 3.0 grade-point average. A student with good preparation in such fields as mathematics, chemistry, or physics, or in a related engineering field, may be admitted on the basis of performance in specific undergraduate courses, determined by the department of interest to the prospective student. Undergraduate hours do not count as part of a student’s Plan of Study, but they must be completed with grades of B or higher.

Exceptionally qualified undergraduates may be admitted directly to a Fast-Track Ph.D. program, which does not require the master’s as an intermediate degree. Students who wish to earn a Ph.D. and believe that they meet this criterion are encouraged to contact the graduate advisor in their field of interest.

English Proficiency Requirement

All graduate students in the School of Engineering who are required to take courses at the Applied English Center (http://www.aec.ku.edu) must pass the AEC’s English Proficiency Examination within 3 semesters of their initial enrollment. Failure to complete the English proficiency requirement within this time limit may result in dismissal from the graduate engineering program.

Graduate Admission

The department admits for all semesters. Students may pursue degrees full-time or part-time. An ABET-accredited baccalaureate degree in engineering is required for admission to the M.S. degree programs in civil engineering, environmental engineering, and architectural engineering. Applicants with baccalaureate degrees in engineering are expected to have undergraduate grade-point averages of 3.0 or higher on a 4.0 scale for regular admission to a master’s program. Applicants with slightly lower grade-point averages may be admitted on provisional status. Graduate Record Examination scores are required and are used in the evaluation process, but minimum scores for admission have not been established. The GRE engineering and other subject examinations are not required. The Test of English as a Foreign Language is required for international applicants. Applicants should take the GRE and TOEFL examinations as early as possible to expedite the admission process.

Graduate applications should be submitted online (http://www.graduate.ku.edu).

Visiting Us

The graduate program staff is happy to work with all prospective students in determining the fit between the student and the program. In order to determine this, we feel that visiting our campus in Lawrence is a very important step. In order to facilitate your visit to KU, there are two main options:

The first, and most preferred, option entails simply applying for admission to the program. All prospective students are welcome to attend our Open House in early November and some highly qualified admitted students may be invited to participate in Visitation Days in late February or early March (prior to the fall semester of your intended matriculation). These organized visitation opportunities will allow you time to gather a great deal of first-hand information which we hope will help you in making a final decision about whether to attend KU.

The second option is making arrangements to visit us on your own, outside of organized events. With early notification, we will do our best to work with you to provide information and schedule appointments with faculty when possible. Please contact us if you feel that this is the best option for you.

Contact Information

Please contact the CEAE Program Assistant at sbscott@ku.edu or (785) 864-3826, to schedule a visit or with questions about the application process.

The University of Kansas
Department of Civil, Environmental, and Architectural Engineering
Graduate Administrative Assistant
Learned Hall
1530 W. 15th St., Room 2150
Lawrence, KS 66045-7618

M.S. Degree Requirements

Candidates for the Master of Science degrees have 2 options. Option A requires 30 credit hours including a thesis of 6 hours (6 to 10 hours for the environmental degrees) and a final oral examination including defense of the thesis. Option B requires 30 hours including a 3- or 4-hour special problem investigation in the specialization and a final oral examination. It does not require a thesis.

The M.S. degree in civil engineering requires a minimum of 9 hours of graduate-level courses in one of the following seven areas: structural engineering, environmental engineering, water resources engineering, geotechnical engineering, transportation engineering, construction engineering/management, and engineering mechanics.

In addition, a minimum of 6 hours of graduate-level work is required in any of the other above departmental areas.

The M.S. degrees in environmental engineering and environmental science require an understanding of chemical, biological, and physical principles of environmental engineering processes, i.e., satisfactory completion of CE 770, CE 772, CE 773, and CE 774 or equivalents.
Substitutions require the approval of both the student's committee and the graduate advisor.

The M.S. degree in architectural engineering is intentionally flexible in its course requirements because graduate study in architectural engineering requires specialization in one of many areas of professional practice. Each student works with his or her committee to select appropriate graduate courses that support the research project and the student's career goals. Students can pursue specializations in, for example, building mechanical, energy, electrical, lighting, or structural systems, or construction engineering. Emerging or hybrid specializations such as sustainability, acoustics, or fire protection are also encouraged.

Courses for any of the M.S. degrees must be listed on a Plan of Study and approved by the student's major professor, examining committee, and the departmental graduate advisor. All graduate students must have an approved Plan of Study (https://gradplan.engr.ku.edu/accounts/login/?next=) by the beginning of their second semester of study. No more than 9 hours of courses from other departments or more than 6 hours of courses numbered below 700 (of which only 3 hours may be within the department) may be applied toward any of the M.S. degrees without approval of the departmental graduate studies committee. No more than 4 hours of special-problem credit may be applied toward any of the master's degrees without approval of the department's graduate advisor.

**Master of Civil Engineering**

**Civil, Environmental, and Architectural Engineering**

Civil engineering is the oldest engineering program at KU. The first graduating class in 1873 included a civil engineer. Civil engineers design roads, water systems, bridges, dams, and other structures, providing nearly all the infrastructure needed by modern society. Civil engineers were the first engineers to address environmental issues and are the lead engineering discipline in treating water supplies to protect public health. In recognition of the significant issues concerning the environment, the department name was changed in 1992 to civil and environmental engineering.

Architectural engineering combines study in architecture with engineering science and design courses in electrical, mechanical, construction, and structures to prepare students for building design projects of all kinds. Architectural engineering dates to 1913 at KU, and the first female graduate of the School of Engineering was an architectural engineering major. Architectural engineering merged with civil and environmental engineering in 2001 to form the Department of Civil, Environmental, and Architectural Engineering (CEAE).

**Mission**

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1. Prepare students for productive engineering careers.
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3. Serve the profession.

**Graduate Admission to the School of Engineering**

**Procedure**

Admission requirements for the School of Engineering follow the general KU requirements plus those of each engineering graduate program. All applicants must apply online (http://www.graduate.ku.edu/apply). Detailed information about supplemental application materials for each program is listed here (http://www.engr.ku.edu/prospective/graduate/apply). Important information for prospective international students is available from International Student & Scholar Services (http://www2.ku.edu/~issfacts). Download a PDF (http://www.engr.ku.edu/prospective/graduate/apply/grad_app_process.pdf) for more information about the review process for graduate applications.

Some departments and programs require the Graduate Record Examination. Applications must be accompanied by a nonrefundable fee. See Admission (p. 2059) in the Graduate Studies section of the online catalog.

**Baccalaureate Preparation**

To qualify for graduate work in any field of engineering, a student generally must hold an accredited baccalaureate degree in that field and have at least a 3.0 grade-point average. A student with good preparation in such fields as mathematics, chemistry, or physics, or in a related engineering field, may be admitted on the basis of performance in specific undergraduate courses, determined by the department of interest to the prospective student. Undergraduate hours do not count as part of a student's Plan of Study, but they must be completed with grades of B or higher.

Exceptionally qualified undergraduates may be admitted directly to a Fast-Track Ph.D. program, which does not require the master's as an intermediate degree. Students who wish to earn a Ph.D. and believe that they meet this criterion are encouraged to contact the graduate advisor in their field of interest.

**English Proficiency Requirement**

All graduate students in the School of Engineering who are required to take courses at the Applied English Center (http://www.aec.ku.edu) must pass the AEC's English Proficiency Examination within 3 semesters of their initial enrollment. Failure to complete the English proficiency requirement within this time limit may result in dismissal from the graduate engineering program.

**Graduate Admission**

The department admits for all semesters. Only part-time (evening) students may pursue the M.C.E. degree. An ABET-accredited baccalaureate degree in engineering is required. Applicants are expected to have undergraduate grade-point averages of 3.0 or higher on a 4.0 scale for regular admission. Applicants with slightly lower grade-point averages may be admitted on provisional status. Graduate Record Examination scores are not required. The GRE engineering and other subject examinations are not required. The Test of English as a Foreign Language is required for international applicants. International applicants should take the TOEFL examination as early as possible to expedite the admission process.

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Exceptionally qualified undergraduates may be admitted directly to a Fast-Track Ph.D. program, which does not require the master’s as an intermediate degree. Students who wish to earn a Ph.D. and believe that they meet this criterion are encouraged to contact the graduate advisor in their field of interest.

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point averages of 3.0 or higher on a 4.0 scale for regular admission to a master’s program. An undergraduate grade-point average of 3.3 or higher is expected for applicants with baccalaureate degrees in other fields. Applicants with slightly lower grade-point averages may be admitted on provisional status. Graduate Record Examination scores are required and are used in the evaluation process, but minimum scores for admission have not been established. The GRE engineering and other subject examinations are not required. The Test of English as a Foreign Language is required for international applicants. Applicants should take the GRE and TOEFL examinations as early as possible to expedite the admission process.

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M.C.M. Degree Requirements
The Master of Construction Management degree requires 33 credit hours, consisting of 18 hours of core courses, 12 hours of electives, and 3 hours of master’s project. Core courses are CMGT 700, CMGT 701, CMGT 702, CMGT 703, CMGT 704, and CMGT 705.

Courses for the M.C.M. degree must be listed on a Plan of Study approved by the student’s major professor, examining committee, and department graduate advisor. All graduate students must have an approved Plan of Study (https://gradplan.engr.ku.edu/accounts/login/?next=) by the beginning of their second semester of study.

Doctor of Philosophy in Civil Engineering, Environmental Engineering, and Environmental Science

Civil, Environmental, and Architectural Engineering
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requirement within this time limit may result in dismissal from the graduate engineering program.

**Graduate Admission**

The department admits for all semesters. Students may pursue degrees full or part time. An ABET-accredited baccalaureate degree in engineering is required for admission to the Ph.D. degree programs in civil engineering and environmental engineering. Applicants are expected to have undergraduate grade-point averages of 3.0 or higher on a 4.0 scale for regular admission. Graduate Record Examination scores are required and are used in the evaluation process, but minimum scores for admission have not been established. The GRE engineering and other subject examinations are not required. The Test of English as a Foreign Language is required for international applicants. Applicants should take the GRE and TOEFL examinations as early as possible to expedite the admission process.

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**The University of Kansas**

**Department of Civil, Environmental, and Architectural Engineering**

**Graduate Administrative Assistant**

**Learned Hall**

1530 W. 15th St., Room 2150

Lawrence, KS 66045-7618

**Ph.D. Degree Requirements**

Candidates for the Ph.D. degree must satisfy the University’s general requirements for the degree. A Plan of Study must be approved by the student’s major professor, examining committee, and departmental graduate studies committee.

An aspirant for the Ph.D. degree must pass a qualifying examination. The department normally gives this examination upon completion of the aspirant’s M.S. work or at a comparable level for non-M.S. students.

Before being admitted to the comprehensive examination, the aspirant must satisfy the research skill, residency, and responsible scholarship requirements for the degree. The research skill requirement provides the aspirant with a research skill distinct from, but strongly supportive of, the dissertation research. One research skill is required. Possible research skills include foreign language, computer science, mathematics, statistics, specific laboratory skills, and specific skills in the physical or biological sciences. The foreign language skill can be obtained by taking a 2-course sequence in the selected language or demonstrated by passing an examination. The selected research skill must be listed on the Plan of Study form. A separate statement attached to the Plan of Study must list the work to be completed to obtain the research skill. The responsible scholarship requirement serves to ensure that students are trained in responsible research practices and is fulfilled by attending a Responsible Scholarship Training Seminar offered each fall semester.

All graduate students must have an approved Plan of Study (https://gradplan.engr.ku.edu/accounts/login/?next=) on file by the beginning of their second semester of study.

**Department of Electrical Engineering and Computer Science**

**Electrical Engineering and Computer Science**

The technological advances that have made our society what it is today are due largely to the efforts of electrical engineers, computer engineers, and computer scientists. Among these advances are radio, television, telephones, wireless and mobile communications, personal computers, workstations, mainframe computers, aircraft avionics, satellite electronics, automobile electronics, office machinery, medical electronic equipment, video games, electric power generation and distribution systems, telecommunications, computer networks (including the Internet), personal entertainment products, radar, defense electronics, artificial intelligence, and a variety of computer software.

**Vision and Mission**

The vision of the EECS department is to provide a stimulating and challenging intellectual environment.

- To have classes populated by outstanding students.
- To be world class in an increasing number of selected areas of research.
- To have faculty members with high visibility among their peers.

The mission of the EECS department is

- To educate the next generation of electrical engineers, computer engineers, and computer scientists.
- To discover, apply, and disseminate knowledge.
- To be an asset to the community and to society.
Undergraduate Programs

The department offers 5 Bachelor of Science (B.S.) degrees:

- Electrical Engineering,
- Computer Engineering,
- Computer Science,
- Interdisciplinary Computing, and
- Information Technology.

Each features a firm grounding in mathematics, basic science, computer and engineering science, and advanced studies in the theory and design of various systems as well as hands-on experience. Degree programs in electrical engineering, computer engineering and computer science are accredited. The recently approved interdisciplinary computing and information technology degree programs are not yet eligible for accreditation review.

Graduate Programs

The department offers Ph.D. degrees in electrical engineering and computer science; and M.S. degrees in electrical engineering, computer engineering, computer science, and information technology. The M.S. degree in information technology can be completed at the KU Edwards Campus (http://edwardscampus.ku.edu) in the Kansas City area.

The department has graduate focus areas in applied electromagnetics, communications systems, computer systems design, computing in the biosciences, information assurance and management, intelligent informatics, internet engineering and management, languages and semantics, network engineering, network systems, radar systems and remote sensing, RF systems engineering, security and assurance, signal processing, software engineering and management and theory of computing. Class lists and teaching schedules are available in the graduate office or on the department’s website (http://www.eecs.ku.edu). Other areas of study can be constructed, in conjunction with a faculty advisor, to fit individual student needs.

Courses

EECS 101. New Student Seminar. 1 Hour.
A seminar intended to help connect freshmen and transfer EECS students to the EECS department, their chosen profession, and each other. Topics include overviews of the various disciplines, curricula and advising, ethics and professionalism, student organizations and extracurricular activities, senior projects, and career planning. Graded on a satisfactory/unsatisfactory basis. LEC.

EECS 128. Foundations of Information Technology: ___. 3 Hours. NM.
Introduction to information technology and the computer as a general tool processing information. Topics include internet tools (including browsers, search engines and web page construction), networking, computer organization, algorithms, programming languages, data representation and manipulation, binary numbers and Boolean logic, system and application software (including word processors, spreadsheets and presentation software), operating systems, databases, artificial intelligence, social and ethical issues in computing, information security, and mobile computing. Prerequisite: MATH 101 or MATH 104 or eligibility to enroll in MATH 115 or MATH 121. LEC.

EECS 137. Visual Basic for Engineers. 3 Hours.
Introduction of computer-based problem solving techniques for engineering practice with emphasis on good programming practices and the integration of appropriate computational and related tools. Solutions are computed using Visual Basic, specifically VBA within Excel. Elementary numerical and statistical methods are applied to the solution of sets of linear and nonlinear algebraic equations, linear regression, and root finding. Microsoft Office is used with the computational tools to provide integrated report generation capability. Two lectures and a weekly laboratory instruction. Prerequisite: MATH 104. LEC.

EECS 138. Introduction to Computing: ____. 3 Hours. NM.
Algorithm development, basic computer organization, syntax and semantics of a high-level programming language, including testing and debugging. Concept of structure in data and programs, arrays, top-down design, subroutines and library programs. Abstract data types. System concepts such as compilation and files. Nature and scope of computer science. Prerequisite: MATH 101 or MATH 104, or meeting the requirements to enroll in MATH 115 or MATH 121. LEC.

EECS 140. Introduction to Digital Logic Design. 4 Hours.
An introductory course in digital logic circuits covering number representation, digital codes, Boolean Algebra, combinatorial logic design, sequential logic design, and programmable logic devices. Corequisite: MATH 104. LEC.

EECS 141. Introduction to Digital Logic: Honors. 4 Hours.
An introductory course in digital logic circuits covering number representation, digital codes, Boolean algebra, combinatorial logic design, sequential logic design, and programmable logic devices. This course is intended for highly motivated students and includes honors-level assignments. Co-requisite: MATH 121, plus either acceptance into the KU Honors Program or consent of instructor. LEC.

EECS 168. Programming I. 4 Hours.
Problem solving using a high level programming language and object oriented software design. Fundamental stages of software development are discussed: problem specification, program design, implementation, testing, and documentation. Introduction to programming using an object oriented language: using classes, defining classes, and extending classes. Introduction to algorithms and data structures useful for problem solving: arrays, lists, files, searching, and sorting. Student will be responsible for designing, implementing, testing, and documenting independent programming projects. Professional ethics are defined and discussed in particular with respect to computer rights and responsibilities. Corequisite: MATH 104. LEC.

EECS 169. Programming I: Honors. 4 Hours.
Problem solving using a high level programming language and object oriented software design. Fundamental stages of software development are discussed: problem specification, program design, implementation, testing, and documentation. Introduction to programming using an object oriented language: using classes, defining classes, and extending classes. Introduction to algorithms and data structures useful for problem solving: arrays, lists, files, searching, and sorting. Students will be responsible for designing, implementing, testing, and documenting independent programming projects. Professional ethics are defined and discussed in particular with respect to computer rights and responsibilities. This course is intended for highly motivated students and includes honors-level assignments. Co-requisite: MATH 121, plus either acceptance into the KU Honors Program or consent of instructor. LEC.

EECS 210. Discrete Structures. 4 Hours.
Mathematical foundations including logic, sets and functions, general proof techniques, mathematical induction, sequences and summations, number theory, basic and advanced counting techniques, solution of
recurrence relations, equivalence relations, partial order relations, lattices, graphs and trees, algorithmic complexity, and algorithm design and analysis. Throughout there will be an emphasis on the development of general problem solving skills including algorithmic specification of solutions and the use of discrete structures in a variety of applications. Prerequisite: EECS 168 or 169 (or equivalent) and MATH 122. LEC.

EECS 211. Circuits I. 3 Hours.
Analysis of linear electrical circuits: Kirchhoff’s laws; source, resistor, capacitor and inductor models; nodal and mesh analysis; network theorems; transient analysis; Laplace transform analysis; steady-state sinusoidal analysis; computer-aided analysis. Prerequisite: Co-requisite: Math 220 and MATH 290. LEC.

EECS 212. Circuits II. 4 Hours.
Continued study of electrical circuits: Steady-state power analysis, three-phase circuits, transformers, frequency response, and two-port network analysis. Prerequisite: EECS 211. LEC.

EECS 220. Electromagnetics I. 4 Hours.
Vector analysis. Electrostatic and magnetostatic fields in a vacuum and material media. Electromagnetic fields and Maxwell’s equations for time-varying sources. The relationship between field and circuit theory. Simple applications of Maxwell’s equations. Prerequisite: MATH 220, MATH 290, PHYSX 211, and EECS 211. LEC.

EECS 268. Programming II. 4 Hours.
This course continues developing problem solving techniques by focusing on the imperative and object-oriented styles using Abstract Data Types. Basic data structures such as queues, stacks, trees, and graphs will be covered. Recursion. Basic notions of algorithmic efficiency and performance analysis in the context of sorting algorithms. Basic Object-Oriented techniques. An associated laboratory will develop projects reinforcing the lecture material. Three class periods and one laboratory period per week. Prerequisite: EECS 168 or EECS 169. LEC.

EECS 312. Electronic Circuits I. 3 Hours.
Introduction to diodes, BJTs and MOSFETs, and their use in electronic circuits, especially digital circuits. Prerequisite: Upper-level eligibility. Corequisite: EECS 212. LEC.

EECS 315. Electric Circuits and Machines. 3 Hours.
Introduction to DC and AC electrical circuit analysis techniques, AC power calculations, transformers, three-phase systems, magnetic circuits, and DC and AC machines with a focus on applications. Not open to electrical or computer engineering majors. Prerequisite: A course in differential equations and eight hours of physics. LEC.

EECS 316. Circuits, Electronics and Instrumentation. 3 Hours.
Introduction to DC and AC electrical circuit analysis, operational amplifiers, semiconductors, digital circuits and systems, and electronic instrumentation and measurements with a focus on applications. Not open to electrical or computer engineering majors. Prerequisite: A course in differential equations and eight hours of physics. LEC.

EECS 317. Electronics and Instrumentation. 2 Hours.
Introduction to operational amplifiers, semiconductors, digital circuits and systems, and electronic instrumentation and measurements with a focus on applications. Not open to electrical or computer engineering majors. Prerequisite: EECS 316 and EECS 317. LEC.

EECS 318. Circuits and Electronics Lab. 1 Hour.
Laboratory exercises intended to complement EECS 315, EECS 316 and EECS 317. Experiments include DC circuits, analog electronics, and digital electronics. Not open to electrical or computer engineering majors. Co-requisite: EECS 316 or EECS 317. LAB.

EECS 360. Signal and System Analysis. 4 Hours.
Fourier signal analysis (series and transform); linear system analysis (continuous and discrete); Z-transforms; analog and digital filter analysis. Analysis and design of continuous and discrete time systems using MATLAB. Prerequisite: Upper level of EECS Eligibility. Corequisite: EECS 212. LEC.

EECS 368. Programming Language Paradigms. 3 Hours.
The course is a survey of programming languages: their attributes, uses, advantages, and disadvantages. Topics include scopes, parameter passing, storage management, control flow, exception handling, encapsulation and modularization mechanism, reusability through generality and inheritance, and type systems. In particular, several different languages will be studied which exemplify different language philosophies (e.g., procedural, functional, object-oriented, logic, scripting). Prerequisite: EECS 268 and upper-level EECS eligibility. LEC.

EECS 388. Embedded Systems. 4 Hours.
Internal organization of microprocessor and microcontroller systems; programming in assembly language; input and output system; controlling external devices. The course will focus on one or two specific microprocessors and computer systems. Prerequisite: EECS 140 or EECS 141, EECS 168 or EECS 169, and upper-level EECS eligibility. LEC.

EECS 399. Projects. 1-5 Hours.
An electrical engineering, computer engineering, or computer science project pursued under the student’s initiative, culminating in a comprehensive report, with special emphasis on orderly preparation and effective composition. Prerequisite: Upper-level EECS eligibility and consent of instructor. IND.

EECS 412. Electronic Circuits II. 4 Hours.
Discrete and integrated amplifier analysis and design. Introduction to feedback amplifier analysis and design. Introduction to feedback amplifiers. Prerequisite: EECS 312 and upper-level EECS eligibility. LEC.

EECS 420. Electromagnetics II. 4 Hours.
This course applies electromagnetic analysis to high frequency devices and systems where wave propagation effects cannot be neglected. Topics covered include transmission lines, space waves, waveguides, radiation, and antennas. Laboratory experiments include transmission line, waveguide, and antenna measurements and characterizations. 3 hours lecture, 1 hour laboratory. Prerequisite: EECS 220 and upper-level EECS eligibility. LEC.

EECS 441. Power Systems Engineering II. 3 Hours.
Integrates system components into functional, safe, and reliable power distribution systems for commercial, industrial and institutional (CII) facilities. Service entrance design, distribution system layout and reliability, emergency and standby power system design, medium-voltage distribution systems, symmetrical fault analysis, and special equipment and occupancies. (Same as ARCE 641.) Prerequisite: ARCE 640 or EECS 212 or consent of instructor. LEC.

EECS 443. Digital Systems Design. 4 Hours.
The design of computer systems from hardware point of view. The implementation of functional and control units. Introduction to VHDL, and its use in modeling and designing digital systems. Prerequisite: EECS 388. LEC.

EECS 444. Control Systems. 3 Hours.
An introduction to the modeling, analysis, and design of linear control systems. Topics include mathematical models, feedback concepts, state-
space methods, time response, system stability in the time and transform
domains, design using PID control and series compensation, and digital
controller implementation. Prerequisite: EECS 212 and EECS 360. LEC.

EECS 448. Software Engineering I. 4 Hours.
This course is an introduction to software engineering, and it covers
the systematic development of software products. It outlines the scope
of software engineering, including life-cycle models, software process,
teams, tools, testing, planning, and estimating. It concentrates on
requirements, analysis, design, implementation, and maintenance of
software products. The laboratory covers CASE tools, configuration
control tools, UML diagrams, integrated development environments, and
project specific components. Prerequisite: EECS 268 and upper-level
EECS eligibility. LEC.

EECS 461. Probability and Statistics. 3 Hours.
Introduction to probability and statistics with applications. Reliability
of systems. Discrete and continuous random variables. Expectations,
functions of random variables, and linear regression. Sampling
distributions, confidence intervals, and hypothesis testing. Joint, marginal,
and conditional distribution and densities. Prerequisite: MATH 290, MATH
220 and upper-level EECS eligibility. LEC.

EECS 470. Electronic Devices and Properties of Materials. 3 Hours.
An introduction to crystal structures, and metal, insulator, and
semiconductor properties. Topics covered include the thermal, electric,
dielectric, and optical properties of these materials. A significant portion
of this course is devoted to the properties of semiconductors and
semiconductor devices. Prerequisite: PHSX 313 and upper-level EECS
eligibility. LEC.

EECS 498. Honors Research. 1-2 Hours.
Arranged to allow students to satisfy the independent research
requirement for graduation with departmental honors. Prerequisite:
Consent of instructor and upper-level EECS eligibility. IND.

EECS 501. Senior Design Laboratory I. 3 Hours.
A lecture/laboratory course involving the design and implementation
of prototypes of electrical and computer type products and systems.
The project specifications require consideration of ethics, economics,
manufacturing, and safety. Prerequisite: EECS 412 and EECS 562. LEC.

EECS 502. Senior Design Laboratory II. 3 Hours. AE61.
A lecture/laboratory course involving the design and implementation of
prototypes of electrical and computer type products and systems. The
project specifications require consideration of ethics, economics, health,
manufacturing, and safety. Prerequisite: EECS 501. LEC.

EECS 510. Introduction to the Theory of Computing. 3 Hours.
Finite state automata and regular expressions. Context-free grammars
and pushdown automata. Turing machines. Models of computable
functions and undecidable problems. The course emphasis is on the
theory of computability, especially on showing limits of computation. May
be taken for graduate credit. (Same as MATH 510.) Prerequisite: EECS
210 and upper-level EECS eligibility. LEC.

EECS 512. Electronic Circuits III. 3 Hours.
Feedback amplifier circuit analysis, power amplifiers, analog IC op-amp
techniques and analysis, filter approximation and realization, oscillators,
wave generators and shapers. Prerequisite: EECS 412. LEC.

EECS 541. Computer Systems Design Laboratory I. 3 Hours.
A two semester lecture/laboratory course involving the specification,
design, implementation, analysis, and documentation of a significant
hardware and software computer system. Laboratory work involves
software, hardware, and hardware/software trade-offs. Project
requirements include consideration of ethics, economics, manufacturing,
safety, and health aspects of product development. Can be taken only
during the senior year. Prerequisite: EECS 443 and EECS 448. LEC.

EECS 542. Computer Systems Design Laboratory II. 3 Hours. AE61.
A two semester lecture/laboratory course involving the specification,
design, implementation, analysis, and documentation of a significant
hardware and software computer system. Laboratory work involves
software, hardware, and hardware/software trade-offs. Project
requirements include consideration of ethics, economics, manufacturing,
safety, and health aspects of product development. Can be taken only
during the senior year. Prerequisite: EECS 541. LEC.

EECS 544. Electric Machines & Drives. 3 Hours.
Introduction to electric machine theory, operation, and control. Electric
machines covered include DC generators and motors, AC synchronous
generators and motors, AC induction generators and motors, as well as
fractional horsepower and special purpose motors. Motor starting and
controls for both DC and AC machines are also covered including an
introduction to power electronics and variable frequency drives (VFD).
(Same as ARCE 644.) Prerequisite: ARCE 640 or EECS 212 or consent
of instructor. LEC.

EECS 545. Electric Energy Production and Storage. 3 Hours.
An introduction to utility scale and small scale (distributed generation)
electric energy production and storage systems. This course addresses
the technical, operational, economic, environmental, and social
characteristics associated with both traditional and nontraditional electric
energy production systems along with associated grid integration, energy
delivery, and regulatory issues. Traditional energy production systems
covered include fossil fuel, hydroelectric, and nuclear power plants.
Non-traditional energy production systems covered include fuel cells,
photovoltaics (PV), concentrated solar power (CSP), wind geothermal,
and other emerging technologies. (Same as ARCE 645.) Prerequisite:
ARCE 640 or EECS 212 or consent of instructor. LEC.

EECS 547. Power System Analysis I. 3 Hours.
Introduction to the analysis of commercial, industrial, and utility power
systems. Emphasis is laced on modeling system components which
include transmission and distribution lines, transformers, induction
machines, and synchronous machines and the development of a power
system model for analysis from these components. System modeling
will be applied to short-circuit studies and used to analyze symmetrical
faults, to develop sequence networks using symmetrical components, and
analyze unsymmetrical faults. (Same as ARCE 647.) Prerequisite: ARCE
640 or EECS 212 or consent of instructor. LEC.

EECS 548. Power System Analysis II. 3 Hours.
Continuation of EECS 547 that uses power system modeling developed in
EECS 547 to analyze power system load flow, operation and economic
dispatch, stability, and transient response. The impact of alternative
energy sources, energy storage, DC transmission and interties, and other
emerging technologies on power system operation and reliability will be
addressed throughout the course. (Same as ARCE 648.) Prerequisite:
ARCE 647 or EECS 547 or consent of instructor. LEC.

EECS 560. Data Structures. 4 Hours.
Data abstraction and abstract data types. Topics include the design
and implementation of dictionary, priority queues, concatenated queue,
disjoint set structures, graphs, and other advanced data structures based
on balanced and unbalanced tree structures. Special emphasis will be
placed on the implementations of these structures and their performance
tradeoffs. Both asymptotic complexity analysis and experimental profiling
techniques will be introduced. Labs will be used to provide students with
hands-on experience in the implementations of various abstract data
types and to perform experimental performance analysis. Prerequisite:
EECS 210 and EECS 448. LEC.
EECS 562. Introduction to Communication Systems. 4 Hours.
A first course in communications, including lectures and integrated laboratory experiments. After a review of spectral analysis and signal transmission, analog and digital communications are studied. Topics include: sampling, pulse amplitude modulation, and pulse code modulation; analog and digital amplitude, frequency, and phase modulation; frequency and time division multiplexing; and noise performance of analog modulation techniques. Prerequisite: EECS 212 and EECS 360. LEC.

EECS 563. Introduction to Communication Networks. 3 Hours.
An introduction to the principles used in communication networks is given in this course. Topics include a discussion of the uses of communications networks, network traffic, network impairments, standards, layered reference models for organizing network functions. Local Area Network technology and protocols are discussed. Link, network, transport layer protocols, and security are introduced. TCP/IP networks are stressed. VoIP is used as an example throughout the course. Basic concepts of network performance evaluation are studied, both analytical and simulation techniques are considered. Prerequisite: EECS 168 and either EECS 461 or MATH 526. LEC.

EECS 565. Introduction to Information and Computer Security. 3 Hours.
An introduction to the fundamentals of cryptography and information and computer security. Introduces the basic concepts, theories, and protocols in computer security. Discusses how to apply such knowledge to analyze, design and manage secure systems in the real world. Topic covered: the basics of cryptography, software security, operating system security, database security, network security, privacy and anonymity, social engineering, digital forensics, etc. Corequisite: EECS 678 and Prerequisite: Upper-Level EECS Eligibility. LEC.

EECS 581. Computer Science Design I. 3 Hours.
The background and planning phase of a two-semester, team-oriented lecture/laboratory course involving the specification, design, implementation, and documentation of a significant software system. The course includes the consideration of project management, ethics, economics, and technical writing. Can be taken only during the senior year. Prerequisite: EECS 448, EECS 510 and EECS 560. LEC.

EECS 582. Computer Science Design II. 3 Hours. AE61.
The design and implementation phase of a two-semester, team-oriented lecture/laboratory course involving the specification, design, implementation, and documentation of a significant software system. The course includes the consideration of project management, ethics, economics, and technical writing. Can be taken only during the senior year. Prerequisite: EECS 581. LEC.

EECS 611. Electromagnetic Compatibility. 3 Hours.
A study of unwanted generation and reception of radio-frequency radiation from analog and digital electronic systems and how these emissions/receptions can be reduced. Topics covered include sources of radiation, grounding, shielding, crosstalk, electrostatic discharge, and practical design and layout schemes for reducing unwanted radiation and reception. Also covered are the major governmental electromagnetic compatibility (EMC) regulations and standards that apply to commercial electronic devices and systems. Prerequisite: EECS 220 and EECS 312. LEC.

EECS 622. Microwave and Radio Transmission Systems. 3 Hours.
Introduction to radio transmission systems. Topics include radio transmitter and receiver design, radiowave propagation phenomenology, antenna performance and basic design, and signal detection in the presence of noise. Students will design radio systems to meet specified performance measure. Corequisite: EECS 420 and EECS 461. LEC.

EECS 628. Fiber Optic Communication Systems. 3 Hours.
Description and analysis of the key components in optical communication systems. Topics covered include quantum sources, fiber cable propagation and dispersion characteristics, receiver characteristics, and system gain considerations. Prerequisite: EECS 220 and PHSX 313 or equivalent and upper-level EECS eligibility. LEC.

EECS 638. Fundamentals of Expert Systems. 3 Hours.
Basic information about expert systems: architecture of an expert system, building expert systems, uncertainty in expert systems, taxonomy of expert systems. Knowledge representation: first order logic, production systems, semantic nets, frames. Uncertainty in expert systems, one-valued approaches: probability theory, systems using Bayes’ rule, and systems using certainty theory; two-valued approaches: systems using Dempster-Shafer theory and system INFERNO; set-valued approaches: systems using fuzzy set theory and systems using rough set theory. Prerequisite: EECS 560 or consent of instructor. LEC.

EECS 643. Advanced Computer Organization. 3 Hours.
Principles and techniques of instruction level parallelism, Tomasulo’s algorithm, branch prediction, reservation stations, recorder buffers, memory hierarchies. Parallel and scalable architectures, global directory caches, synchronization primitives, memory consistency, multitreading. Only one of EECS 643 and EECS 645 may be used to satisfy EECS degree requirements. Prerequisite: EECS 443. LEC.

EECS 644. Introduction to Digital Signal Processing. 3 Hours.
Discrete time signal and systems theory, sampling theorem, z-transforms, digital filter design, discrete Fourier transform, FFT, and hardware considerations. Prerequisite: EECS 360. LEC.

EECS 645. Computer Architecture. 3 Hours.
The structure and design of computing systems. Examination and analysis of computing systems. Examination and analysis of instruction set architectures, pipelined control and arithmetic units, vector processors, memory hierarchies, and performance evaluation. Prerequisite: EECS 388. LEC.

EECS 647. Introduction to Database Systems. 3 Hours.
Introduction to the concept of databases and their operations. Basic concepts, database architectures, storage structures and indexing, data structures: hierarchical, network, and relational database organizations. Emphasis on relational databases and retrieval languages SQL, QBE, and ones based on relational algebra and relational calculus; brief description of predicate calculus. Theory of databases, normal forms, normalization, candidates keys, decomposition, functional dependencies, multi-valued dependencies. Introduction to the design of a simple database structure and a data retrieval language. Student cannot receive credit for both EECS 647 and EECS 746. Prerequisite: EECS 448. LEC.

EECS 648. Software Engineering Tools. 3 Hours.
This course focuses on the software engineering tools and practices currently in use in the industry, supporting the complete software development lifecycle. The course provides hands-on experience with current software development tools. Topics include software engineering artifacts, team structure and roles, work contracts, requirements elicitation and analysis, specifications, supplementary specifications, use-case models, activity diagrams, use-case specifications, traceability, technical design, design review meetings, coding standards, code quality, code reviews, and modern software engineering tools. Prerequisite: EECS 448. LEC.
EECS 649. Introduction to Artificial Intelligence. 3 Hours.
General concepts, search procedures, two-person games, predicate calculus and automated theorem proving, nonmonotonic logic, probabilistic reasoning, rule based systems, semantic networks, frames, dynamic memory, planning, machine learning, natural language understanding, neural networks. Corequisite: EECS 368. LEC.

EECS 660. Fundamentals of Computer Algorithms. 3 Hours.
Basic concepts and techniques in the design and analysis of computer algorithms. Models of computations. Simple lower bound theory and optimality of algorithms. Computationally hard problems and the theory of NP-Completeness. Introduction to parallel algorithms. Prerequisite: EECS 560 and either EECS 461 or MATH 526. LEC.

EECS 662. Programming Languages. 3 Hours.
Formal definition of programming languages including specification of syntax and semantics. Simple statements including precedence, infix, prefix, and postfix notation. Global properties of algorithmic languages including scope of declaration, storage allocation, grouping of statements, binding time of constituents, subroutines, coroutines, and tasks. Run-time representation of program and data structures. Prerequisite: EECS 368 and either EECS 388 and EECS 448. LEC.

EECS 664. Introduction to Digital Communication Systems. 3 Hours.
An introduction to building digital communication systems in discrete time, including lectures and integrated laboratory exercises. Topics covered include signal spaces, base-band modulation, bandpass modulation, phase-locked loops, carrier phase recovery, symbol timing recovery, and basic performance analysis. Prerequisite: EECS 360 and EECS 461. LAB.

EECS 665. Compiler Construction. 4 Hours.
Compilation of simple expressions and statements. Organization of a compiler including symbol tables, lexical analysis, syntax analysis, intermediate and object code generation, error diagnostics, code optimization techniques and run-time structures in a block-structured language such as PASCAL or C. Programming assignments include using tools for lexer and parser generator, and intermediate , and object code generation techniques. Laboratory exercises will provide hands-on experience with the tools and concepts required for the programming assignments. Prerequisite: EECS 368, EECS 448, and EECS 510. LEC.

EECS 670. Introduction to Semiconductor Processing. 3 Hours.
An overview of various processes to fabricate semiconductor devices and integrated circuits. Topics covered include crystal growth, oxidation, solid-state diffusion, ion implantation, photolithography, chemical vapor deposition, epitaxial growth, metalization, and plasma etching of thin films. (Same as CPE 655.) Prerequisite: Senior standing in CPE or EECS, or consent of instructor. LEC.

EECS 672. Introduction to Computer Graphics. 3 Hours.
Foundations of 2D and 3D computer graphics. Structured graphics application programming. Basic 2D and 3D graphics algorithms (modeling and viewing transformations, clipping, projects, visible line/surface determination, basic empirical lighting, and shading models), and aliasing. Prerequisite: EECS 448. LEC.

EECS 678. Introduction to Operating Systems. 4 Hours.
The objective of this course is to provide the students with the concepts necessary to enable them to: a) identify the abstract services common to all operating system, b) define the basic system components that support the operating system’s machine independent abstractions on particular target architectures, c) consider how the design and implementation of different systems components interact and constrain one another, not merely how one or two important parts work in isolation, and d) understand the means by which fundamental problems in operating systems can be analyzed and addressed. Programming assignments address topics including process creation, inter-process communication, system call implementation, process scheduling and virtual memory. Laboratory exercises primarily focus on use of tools and concepts required for the programming assignments but include a small number of independent topics. Prerequisite: EECS 388 and EECS 448. LEC.

EECS 690. Special Topics: ______. 1-3 Hours.
Arranged as needed to present appropriate material to groups of students. May be repeated for additional credit. Prerequisite: Upper-level EECS eligibility and consent of instructor. LEC.

EECS 692. Directed Reading. 1-3 Hours.
Reading under the supervision of an instructor on a topic chosen by the student with the advice of the instructor. May be repeated for additional credit. Consent of the department required for enrollment. Prerequisite: Upper-level EECS eligibility and consent of instructor. IND.

EECS 700. Special Topics: ______. 1-5 Hours.
Courses on special topics of current interest in electrical engineering, computer engineering, or computer science, given as the need arises. May be repeated for additional credit. Prerequisite: Variable. LEC.

EECS 710. Information Security and Assurance. 3 Hours.
This introductory security course covers a wide range of topics in the area of information and network security, privacy, and risk: the basic concepts: confidentiality, integrity and availability; introduction to cryptography; authentication; security models; information and database security; computer systems security; network security; Internet and web security; risk analysis; social engineering; computer forensics. Prerequisite: Graduate standing in EECS, or permission of the instructor. LEC.

EECS 711. Security Management and Audit. 3 Hours.
Administration and management of security of information systems and networks, intrusion detection systems, vulnerability analysis, anomaly detection, computer forensics, auditing and data management, risk management, contingency planning and incident handling, security planning, e-business and commerce security, privacy, traceability and cyber-evidence, human factors and usability issues, policy, legal issues in computer security. Prerequisite: EECS 710. LEC.

EECS 712. Network Security and Its Application. 3 Hours.
This course focuses on network-based information and communication systems, and examines network technologies and service applications to provide the students with a comprehensive introduction to the field of network security and its application. The course covers key concepts and critical network security services including authentication and access control, integrity and confidentiality of data, routing, firewalls, virtual private networks, web security, virus protection, and network security architecture and policy development. The students are expected to understand the technical vulnerabilities of networked systems and to develop methods to eliminate or mitigate those vulnerabilities. Prerequisite: EECS 710 and EECS 780, or the instructor’s approval. LEC.

EECS 713. High-Speed Digital Circuit Design. 3 Hours.
Basic concepts and techniques in the design and analysis of high-frequency digital and analog circuits. Topics include: transmission lines, ground and power planes, layer stacking, substrate materials, terminations, vias, component issues, clock distribution, cross-talk, filtering and decoupling, shielding, signal launching. Prerequisite: EECS 312 and senior or graduate standing. EECS 420 recommended. LEC.

EECS 716. Formal Language Theory. 3 Hours.
Formal language generation by grammars, recognition by automata (finite and pushdown automata, Turing machines), and equivalence of these formulations; elementary containment and closure properties. Emphasis on context-free, deterministic context-free and regular languages. Prerequisite: EECS 510 or equivalent. LEC.
EECS 718. Graph Algorithms. 3 Hours.
This course introduces students to computational graph theory and various graph algorithms and their complexities. Algorithms and applications covered will include those related to graph searching, connectivity and distance in graphs, graph isomorphism, spanning trees, shortest paths, matching, flows in network, independent and dominating sets, coloring and covering, and Traveling Salesman and Postman problems. Prerequisite: EECS 560 or graduate standing with consent of instructor. LEC.

EECS 721. Antennas. 3 Hours.
Gain, Pattern, and Impedance concepts for antennas. Linear, loop, helical, and aperture antennas (arrays, reflectors, and lenses). Cylindrical and biconical antenna theory. Prerequisite: EECS 360 and EECS 420, or EECS 720, or permission of the instructor. LEC.

EECS 723. Microwave Engineering. 3 Hours.
Survey of microwave systems, techniques, and hardware. Guided-wave theory, microwave network theory, active and passive microwave components. Prerequisite: EECS 420. LEC.

EECS 725. Introduction to Radar Systems. 3 Hours.
Basic radar principles and applications. Radar range equation. Pulsed and CW modes of operation for detection, ranging, and extracting Doppler information. Prerequisite: EECS 360, EECS 420, EECS 461. EECS 622 recommended. LEC.

EECS 728. Fiber-optic Measurement and Sensors. 3 Hours.
The course will focus on fundamental theory and various methods and applications of fiber-optic measurements and sensors. Topics include: optical power and loss measurements, optical spectrum analysis, wavelength measurements, polarization measurements, dispersion measurements, PMD measurements, optical amplifier characterization, OTDR, optical components characterization and industrial applications of fiber-optic sensors. Prerequisite: EECS 628 or equivalent. LEC.

EECS 730. Introduction to Bioinformatics. 3 Hours.
This course provides an introduction to bioinformatics. It covers computational tools and databases widely used in bioinformatics. The underlying algorithms of existing tools will be discussed. Topics include: molecular biology databases, sequence alignment, gene expression data analysis, protein structure and function, protein analysis, and proteomics. Prerequisite: Data Structures class equivalent to EECS 560, and Introduction to Biology equivalent to BIOL 150, or consent of instructor. LEC.

EECS 735. Automated Theorem Proving. 3 Hours.
Computer-based theorem-proving methods for selected domains such as plane geometry, symbolic integral calculus, and propositional calculus are reviewed. Mechanical theorem-proving procedures for the first-order predicate calculus are studied in depth. Includes resolution, semantic resolution, hyper-resolution, linear resolution, and paramodulation. Applications of these procedures to areas such as proofs of program correctness, deductive question answering, problem solving, and program synthesis. Prerequisite: EECS 649 and a knowledge of mathematical logic equivalent to that supplied by EECS 210. Infrequently offered. LEC.

EECS 738. Machine Learning. 3 Hours.
"Machine learning is the study of computer algorithms that improve automatically through experience" (Tom Mitchell). This course introduces basic concepts and algorithms in machine learning. A variety of topics such as Bayesian decision theory, dimensionality reduction, clustering, neural networks, hidden Markov models, combining multiple learners, reinforcement learning, Bayesian learning etc. will be covered. Prerequisite: Graduate standing in CS or CoE or consent of instructor. LEC.

EECS 739. Scientific Parallel Computing. 3 Hours.
This course is concerned with the application of parallel processing to problems in the natural sciences and engineering. State-of-the-art computing methodologies are studied along with contemporary applications. The course takes a performance-oriented applied approach, with attention to parallel algorithms, parallel architecture, compilation issues, and system evaluation. Prerequisite: Graduate standing or consent of instructor and experience with C, C++, or FORTRAN. LEC.

EECS 740. Digital Image Processing. 3 Hours.
This course gives a hands-on introduction to the fundamentals of digital image processing. Topics include: image formation, image transforms, image enhancement, image restoration, image reconstruction, image compression, and image segmentation. Prerequisite: EECS 672 or EECS 744. LEC.

EECS 741. Computer Vision. 3 Hours.
This course gives a hands-on introduction to the fundamentals of computer vision. Topics include: image formation, edge detection, image segmentation, line-drawing interpretation, shape from shading, texture analysis, stereo imaging, motion analysis, shape representation, object recognition. Prerequisite: EECS 672 or EECS 744. LEC.

EECS 742. Static Analysis. 3 Hours.
This course presents an introduction to techniques for statically analyzing programs. Converge includes theoretical analysis, definition and implementation of data flow analysis, control flow analysis, abstract interpretation, and type and effects systems. The course presents both the underlying definitions and pragmatic implementation of these systems. Prerequisite: EECS 665 or EECS 662 or equivalent. LEC.

EECS 743. Advanced Computer Architecture. 3 Hours.
This course will focus on the emerging technologies to build high-performance, low-power, and resilient microprocessors. Topics include multiprocessing, reliability-and-variability-aware computer architecture designs, energy-efficient computer systems, on-chip networks, 3D microprocessor designs, general-purpose computation on graphics processing units, and non-volatile computer memory. The course responds to VLSI technologies ability to provide increasing numbers of transistors and clock speeds to allow computer architects to build powerful microprocessors and computer systems and the challenges (e.g. resilience, energy-efficiency) that the growth in microprocessor performance is facing from the aggressive technology scaling. Prerequisite: EECS 643 or EECS 645, or equivalent. A good understanding of C/C++ and having basic Unix/Linux skills is required. LEC.

EECS 744. Communications and Radar Digital Signal Processing. 3 Hours.
The application of DSP techniques to specialized communications and radar signal processing subsystems. Topics include A-D converters, specialized digital filters, software receiver systems, adaptive subsystems and timing. Prerequisite: An undergraduate course in DSP such as EECS 644. LEC.

EECS 745. Implementation of Networks. 3 Hours.
EECS 745 is a laboratory-focused implementation of networks. Topics include direct link networks (encoding, framing, error detection, reliable transmission, SONET, FDDI, network adapters, Ethernet, 802.11 wireless networks); packet and cell switching (ATM, switching hardware, bridges and extended LANs); internetworking (Internet concepts, IPv6, multicast, naming/DNS); end-to-end protocols (UDP, TCP, APIs and sockets, RPCs, performance); end-to-end data (presentation formatting, data compression, security); congestion control (queueing disciplines, TCP congestion control and congestion avoidance); high-speed networking
(issues, services, experiences); voice over IP (peer-to-peer calling, call managers, call signalling, PBX and call attendant functionality). Prerequisite: EECS 563 or EECS 780. LEC.

EECS 746. Database Systems. 3 Hours. 
Introduction to the concept of databases and their operations. Basic database concepts, architectures, and data storage structures and indexing. Though other architectures are discussed, focus is on relational databases and the SQL retrieval language. Normalization, functional dependencies, and multivalued dependencies also covered. Culminates in the design and implementation of a simple database with a web interface. Prerequisite: EECS 448 or consent of instructor. Students cannot receive credit for both EECS 647 and EECS 746. LEC.

EECS 747. Mobile Robotics. 3 Hours. 
Design, construction, and programming of mobile robots. Topics include computational hardware, designing and prototyping, sensors, mechanics, motors, power, robot programming, robot design principles, and current research in mobile robotics. Prerequisite: Knowledge of at least one modern programming language. LEC.

EECS 749. Knowledge Based Systems. 3 Hours. 
General concepts of intelligent problem solving, rule-based systems, distributed AI, reasoning under uncertainty, case-based reasoning, subsymbolic techniques. Prerequisite: At least one class in Artificial Intelligence. LEC.

EECS 750. Advanced Operating Systems. 3 Hours. 
In this course, we will study advanced topics in operating systems for modern hardware platforms. The topics include: multiprocessor CPU scheduling, cache and DRAM management, flash-based storage systems and I/O management, power/energy management, and cloud systems. We will discuss classical and recent papers in each of these topics. We will also study advanced resource management capabilities in recent Linux kernels. The course will consist of lectures, student presentations, and a term project. Prerequisite: EECS 678. LEC.

EECS 753. Embedded and Real Time Computer Systems. 3 Hours. 
This course will cover emerging and proposed techniques and issues in embedded and real time computer systems. Topics will include new paradigms, enabling technologies, and challenges resulting from emerging application domains. Prerequisite: EECS 645 and EECS 678. LEC.

EECS 755. Software Modeling and Analysis. 3 Hours. 
Modern techniques for modeling and analyzing software systems. Course coverage concentrates on pragmatic, formal modeling techniques that support predictive analysis. Topics include formal modeling, static analysis, and formal analysis using model checking and theorem proving systems. Prerequisite: EECS 368 or equivalent. LEC.

EECS 761. Programming Paradigms. 3 Hours. 
An investigation of alternative programming paradigms and their representative effect on programming expressiveness and style. Emphasis is on a comparative understanding of a spectrum of programming paradigms, with some facility in the use of at least one typical language representative of each paradigm studied. The course will review and investigate as appropriate imperative, functional, object-oriented, parallel, and logical programming paradigms, plus additional paradigms as relevant. Prerequisite: EECS 662 or equivalent, or consent of instructor. LEC.

EECS 762. Programming Language Foundation I. 3 Hours. 
This course presents a basic introduction to the semantics of programming languages. The presentation begins with basic lambda calculus and mechanisms for evaluating lambda calculus terms. Types are introduced in the form of simply typed lambda calculus and techniques for type inference and defining type systems are presented. Finally, techniques for using lambda calculus to define, evaluate and type check common programming language constructs are presented. Prerequisite: EECS 662 or equivalent. LEC.

EECS 763. Introduction to Multiprocessor Systems on Chip. 3 Hours. 
This course covers the latest trends in advanced computer architecture for multiprocessor systems on chip for embedded and real time systems (MPSoC). Topics covered include multicore architectures, modeling abstractions, run time systems, and Hw/Sw co-design techniques. Prerequisite: EECS 678 and EECS 645 or equivalents. LEC.

EECS 764. Analysis of Algorithms. 3 Hours. 
Models of computations and performance measures; asymptotic analysis of algorithms; basic design paradigms including divide-and-conquer, dynamic programming, backtracking, branch-and-bound, greedy method and heuristics; design and analysis of approximation algorithms; lower bound theory; polynomial transformation and the theory of NP-Completeness; additional topics may be selected from arithmetic complexity, graph algorithms, string matching, and other combinatorial problems. Prerequisite: EECS 660 or equivalent. LEC.

EECS 765. Introduction to Cryptography and Computer Security. 3 Hours. 
Comprehensive coverage to the fundamentals of cryptography and computer and communication security. This course serves as the first graduate level security course, which introduces the core concepts, theories, algorithms and protocols in computer and communication security, and also prepares students for advanced security courses. This course first covers the mathematical foundation of cryptography and its applications in computer security. The course also covers a wide range of topics: information and database security, software and computer systems security, network security, Internet and web security. Prerequisite: EECS 678 and EECS 563 or EECS 780, or the instructor's approval. LEC.

EECS 766. Resource Sharing for Broadband Access Networks. 3 Hours. 
Connections between network customers and the network come in many forms, wireless data systems, e.g., IEEE 802.16, wireless cellular systems, e.g. 3G, coax cable networks, e.g., DOSCIS, fiber optic communications systems, e.g., EPON, copper twisted pair, e.g., DSL, and powerline communications systems. All of these systems use various resource sharing strategies. The resource sharing strategy is matched to the necessities of specific systems as well as their operating environments. There are commonalities between these strategies as well as differences. This course will look at resource sharing from a general perspective and then examine specific systems to underscore their commonalities and differences. Systems to be studied in detail include, DOSCIS, IEEE 802.16/Wi-Max, WCDMA, HSDPA/HSUPA, EV-DO, EPON, ZigBee/IEEE 802.15.4, powerline networks. The use of cognitive radio communications technologies in future access networks will be introduced. Prerequisite: EECS 461 and EECS 563 or EECS 780. LEC.

EECS 767. Information Retrieval. 3 Hours. 
This class introduces algorithms and applications for retrieving information from large document repositories, including the Web. Topics span from classic information retrieval methods for text documents and databases, to recent developments in Web search, including: text algorithms, indexing, probabilistic modeling, performance evaluation, web structures, link analysis, multimedia information retrieval, social network analysis. Prerequisite: EECS 647 or permission of instructor. LEC.

EECS 768. Virtual Machines. 3 Hours. 
Understand the fundamental principles and advanced implementation aspects of key virtual machine concepts. Topics include principles of virtualization, binary translation, process and system level virtual
machines, JIT compilation and optimizations in managed environments, garbage collection, virtual machine implementation issues, and virtual machine security. Includes in-depth coverage of the latest developments and research issues in the field of virtual machines. Prerequisite: EECS 665 and either EECS 643 or EECS 645 or consent of instructor. LEC.

EECS 769. Information Theory. 3 Hours.
Information theory is the science of operations on data such as compression, storage, and communication. It is one of the few scientific fields fortunate enough to have an identifiable beginning - Claude Shannon’s 1948 paper. The main topics of mutual information, entropy, and relative entropy are essential for students, researchers, and practitioners in such diverse fields as communications, data compression, statistical signal processing, neuroscience, and machine learning.

The topics covered in this course include mathematical definitions and properties of information, mutual information, source coding theorem, lossless compression of data, optimal lossless coding, noisy communication channels, channel coding theorem, the source channel separation theorem, multiple access channels, broadcast channels, Gaussian noise, time-varying channels, and network information theory. Prerequisite: EECS 461 or an equivalent undergraduate probability course. LEC.

EECS 773. Advanced Graphics. 3 Hours.
Advanced topics in graphics and graphics systems. Topics at the state of the art are typically selected from: photorealistic rendering; physically-based lighting models; ray tracing; radiosity; physically-based modeling and rendering; animation; general texture mapping techniques; point-based graphics; collaborative techniques; and others. Prerequisite: EECS 672 or permission of instructor. LEC.

EECS 774. Geometric Modeling. 3 Hours.
Introduction to the representation, manipulation, and analysis of geometric models of objects. Implicit and parametric representations of curves and surfaces with an emphasis on parametric freeform curves and surfaces such as Bezier and Nonuniform Rational B-Splines (NURBS). Curve and surface design and rendering techniques. Introduction to solid modeling: representations and base algorithms. Projects in C/C++ using OpenGL. Prerequisite: EECS 672 or permission of instructor. LEC.

EECS 775. Visualization. 3 Hours.
Data representations, algorithms, and rendering techniques typically used in Visualization applications. The emphasis is on Scientific Visualization and generally includes topics such as contouring and volumetric rendering for scalar fields, glyph and stream (integral methods) for vector fields, and time animations. Multidimensional, multivariate (MDMV) visualization techniques; scattered data interpolation; perceptual issues. Prerequisite: General knowledge of 3D graphics programming or instructor’s permission. LEC.

EECS 776. Functional Programming and Domain Specific Languages. 3 Hours.
An introduction to functional programming. Topics include learning how to program in Haskell; IO and purity in software engineering; functional data structures and algorithms; monads and applicative functors; parsing combinators; Domain Specific Languages (DSLs) and DSL construction; advanced type systems; making assurance arguments; testing and debugging. Prerequisite: EECS 368 or equivalent or consent of instructor. LEC.

EECS 780. Communication Networks. 3 Hours.
Comprehensive in-depth coverage to communication networks with emphasis on the Internet and the PSTN (wired and wireless). Extensive coverage of protocols and algorithms will be presented at all levels, including: social networking, overlay networks, client/server and peer-to-peer applications; session control; transport protocols, the end-to-end arguments and end-to-end congestion control; network architecture, forwarding, routing, signaling, addressing, and traffic management; quality of service, queuing and multimedia applications; LAN architecture, link protocols, access networks and MAC algorithms; physical media characteristics and coding; network security and information assurance; network management. Prerequisite: EECS 563 or equivalent or permission of instructor. LEC.

EECS 781. Numerical Analysis I. 3 Hours.
Finite and divided differences. Interpolation, numerical differentiation, and integration. Gaussian quadrature. Numerical integration of ordinary differential equations. Curve fitting. (Same as MATH 781.) Prerequisite: MATH 320 and knowledge of a programming language. LEC.

EECS 782. Numerical Analysis II. 3 Hours.
Direct and interactive methods for solving systems of linear equations. Numerical solution of partial differential equations. Numerical determination of eigenvectors and eigenvalues. Solution of nonlinear equations. (Same as MATH 782.) Prerequisite: EECS 781. LEC.

EECS 800. Special Topics: ______. 1-5 Hours.
Advanced courses on special topics of current interest in electrical engineering, computer engineering, or computer science, given as the need arises. May be repeated for additional credit. Prerequisite: Variable. LEC.

EECS 801. Directed Graduate Readings. 1-3 Hours.
Graduate level directed readings on a topic in electrical engineering, computer engineering, or computer science, mutually agreed-on by the student and instructor. May be repeated for credit on another topic. Prerequisite: Consent of instructor. RSH.

EECS 802. Electrical Engineering and Computer Science Colloquium and Seminar on Professional Issues. 1 Hour.
A colloquium/seminar series in which presentation are provided on a broad variety of scholarly and professional topics. Topics related to the issues of responsible scholarship in the fields of computing and electrical engineering will be discussed. Student are also required to attend a series of colloquia and submit written reports. Course will be graded Satisfactory/Fail and is required for all EECS graduate students. Prerequisite: Graduate standing in the EECS Department. LEC.

EECS 810. Software Engineering and Management. 3 Hours.
Principal concepts in software engineering with a focus on formalism as well as managerial issues; software development models; software process models; software configuration management; software development life cycle activities; project management; planning and estimation; requirements engineering, software architecture, software modular design; software reusability; implementation strategies; testing techniques; software quality assurance; software evolution; metrics and measurements, ethics and professionalism. Prerequisite: Programming experience, preferably in Java or C++. LEC.

EECS 811. IT Project Management. 3 Hours.
Management issues in the creation, development, and maintenance of IT systems; effort and cost estimation techniques; project planning and scheduling; resource allocation; risk analysis and mitigation techniques; quality assurance; project administration; configuration management; organizational issues; software process modeling; process improvement; frameworks for quality software. LEC.

EECS 812. Software Requirements Engineering. 3 Hours.
Objectives, processes, and activities of requirements engineering and requirements management; characteristics of good requirements; types of requirements; managing changing requirements; languages, notations, and methodologies; formal and semi-formal methods of presenting and
validating the requirements; requirements standards; traceability issues. Prerequisite: EECS 810. LEC.

**EECS 814. Software Quality Assurance. 3 Hours.**
Software quality engineering as an integral facet of development from requirements through delivery and maintenance; verification and validation techniques; manual and automated static analysis techniques; fundamental concepts in software testing; test case selection strategies such as black-box testing, white-box testing; formal verification; unit, integration, system, and acceptance testing; regression testing; designing for testability; models for quality assurance; reviews, inspection, documentation, and standards; industry and government standards for quality. Prerequisite: EECS 810. LEC.

**EECS 816. Object-Oriented Software Development. 3 Hours.**
Abstract data types, objects and classes, class associations, modeling with objects, domain modeling, use case modeling, interactive and incremental development, object-oriented analysis and design, components, frameworks, UML and Unified Process, reusability, design patterns, object management, and CORBA. Prerequisite: EECS 810. LEC.

**EECS 818. Software Architecture. 3 Hours.**
Designing architectures; software architectural styles and patterns; architectural components and connectors; architectural modeling and analysis, architectural deployment, designing for nonfunctional properties such as efficiency, scaleability, adaptability, and security; domain-specific software architectures; architecture product lines; architecture description languages (ADLs); standards. Prerequisite: EECS 810. LEC.

**EECS 819. Cryptography. 3 Hours.**
Introduction to the mathematical background, basic concepts, components, and protocols to enforce secrecy, integrity, and privacy through cryptographic mechanisms. The concept of symmetric and asymmetric encryption, integrity verification, authentication, key establishment and update, and authorization. Emphasis on the design of protocols that apply and integrate various modules to achieve safety objectives: time-stamping, digital signature, bit commitment, fair coin-flip, zero knowledge proof, oblivious transfer, and digital cash. The policies for key generation and management, information storage and access control, legal issues, and design of protocols for real applications. Prerequisite: EECS 765. LEC.

**EECS 820. Advanced Electromagnetics. 3 Hours.**
A theorem-based approach to solving Maxwell’s equations for modeling electromagnetic problems encountered in microwave systems, antennas, scattering. Topics include waves, source modeling, Schelkunoff equivalence principle, scattered filed formulations, electromagnetic induction, reciprocity principles, Babinet’s principle, and construction of solutions in various coordinate systems. Prerequisite: EECS 420. LEC.

**EECS 823. Microwave Remote Sensing. 3 Hours.**
Description and analysis of basic microwave remote sensing systems including radars and radiometers as well as the scattering and emission properties of natural targets. Topics covered include plane wave propagation, antennas, radiometers, atmospheric effects, radars, calibrated systems, and remote sensing applications. Prerequisite: EECS 420 and EECS 622. LEC.

**EECS 824. Microwave Remote Sensing II. 3 Hours.**
Description and analysis of basic microwave remote sensing systems including radars and radiometers as well as the scattering and emission properties of natural targets. Topics covered include measurement and discrimination, real-aperture side-looking airborne radars, synthetic-aperture side-looking airborne radar systems, scattering measurements, physical mechanisms and empirical models for scattering and emission. Prerequisite: EECS 823. LEC.

**EECS 825. Radar Systems. 3 Hours.**
Description and analysis of radars of various types. Resolution in angle, range, and speed. Ambiguities. Return from point and area targets. Detection in the presence of noise and fading. Tracking and MTI. Amplitude measurement. Imaging radars. Prerequisite: EECS 360, EECS 420, and EECS 461. LEC.

**EECS 828. Advanced Fiber-Optic Communications. 3 Hours.**
An advanced course in fiber-optic communications. The course will focus on various important aspects and applications of modern fiber-optic communications, ranging from photonic devices to systems and networks. Topics include: advanced semiconductor laser devices, external optical modulators, optical amplifiers, optical fiber nonlinearities and their impact in WDM and TDM optical systems, polarization effect in fiber-optic systems, optical receivers and high-speed optical system performance evaluation, optical solution systems, lightwave analog video transmission, SONET ATM optical networking, and advanced multi-access lightwave networks. Prerequisite: EECS 628 or equivalent. LEC.
under uncertainty, using approaches based on probability theory, fuzzy set theory, and rough set theory. Prerequisite: Graduate standing in CS or CoE or consent of instructor. LEC.

EECS 838. Applications of Machine Learning in Bioinformatics. 3 Hours.

This course is introduction to the application of machine learning methods in bioinformatics. Major subjects include: biological sequence analysis, microarray interpretation, protein interaction analysis, and biological network analysis. Common biological and biomedical data types and related databases will also be introduced. Students will be asked to present some selected research papers. Prerequisite: EECS 730 and EECS 738. LEC.

EECS 839. Mining Special Data. 3 Hours.

Problems associated with mining incomplete and numerical data. The MLEM2 algorithm for rule induction directly from incomplete and numerical data. Association analysis and the Apriori algorithm. KNN and other statistical methods. Mining financial data sets. Problems associated with imbalanced data sets and temporal data. Mining medical and biological data sets. Induction of rule generation. Validation of data mining: sensitivity, specificity, and ROC analysis. Prerequisite: Graduate standing in CS or CoE or consent of instructor. LEC.

EECS 841. Computer Vision. 3 Hours.

The objective of this course is to give students a hands on introduction to the fundamentals of computer vision. Topics include: Image Formation, Image Segmentation, Binary Image Analysis, Edge Detection, Line Drawing Interpretation, Shape from Shading, Motion Analysis, Stereo, Shape Representation, and Object Recognition. The objective of this course is to give students a hands-on introduction to the fundamentals of computer vision. Prerequisite: EECS 740 or equivalent. LEC.

EECS 843. Programming Language Foundation II. 3 Hours.

This course presents advanced topics in programming language semantics. Fixed point types are presented followed by classes of polymorphism and their semantics. System F and type variables are presented along with universal and existential types. The lambda cube is introduced along with advanced forms of polymorphism. Several interpreters are developed implementing various type systems and associated type inference algorithms. Prerequisite: EECS 762. LEC.

EECS 844. Adaptive Signal Processing. 3 Hours.

This course presents the theory and application of adaptive signal processing. Topics include adaptive filtering, mathematics for advanced signal processing, cost function modeling and optimization, signal processing algorithms for optimum filtering, array processing, linear prediction, interference cancellation, power spectrum estimation, steepest descent, and iterative algorithms. Prerequisite: EECS 861 and background in fundamental signal processing (such as EECS 644.) LEC.

EECS 845. Implementation of High Performance Integrated Networks. 3 Hours.


EECS 861. Random Signals and Noise. 3 Hours.

Fundamental concepts in random variables, random process models, power spectral density. Application of random process models in the analysis and design of signal processing systems, communication systems and networks. Emphasis on signal detection, estimation, and analysis of queues. This course is a prerequisite for most of the graduate level courses in radar signal processing, communication systems and networks. Prerequisite: An undergraduate course in probability and statistics, and signal processing. LEC.

EECS 862. Principles of Digital Communication Systems. 3 Hours.

A study of communication systems using noisy channels. Principal topics are: information and channel capacity, baseband data transmission, digital carrier modulation, error control coding, and digital transmission of analog signals. The course includes a laboratory/computer aided design component integrated into the study of digital communication systems. Prerequisite: EECS 562. Corequisite: EECS 861. LEC.

EECS 863. Network Analysis, Simulation, and Measurements. 3 Hours.

Prediction of communication network performance using analysis, simulation, and measurement. Topics include: an introduction to queueing theory, application of theory to prediction of communication network and protocol performance, and analysis of scheduling mechanisms. Modeling communication networks using analytic and simulation approaches, model verification and validation through analysis and measurement, and deriving statistically significant results. Analysis, simulation, and measurement tools will be discussed. Prerequisite: EECS 461 or MATH 526, and EECS 563 or EECS 780. LEC.

EECS 864. Multiwavelength Optical Networks. 3 Hours.

Introduce methodologies for multiwavelength optical network analysis, design, control, and survivability. The focus of the course is formulating the problem in the design of optical networks and studying several design methodologies. The control and management of optical networks are introduced as well as related protocols. Prerequisite: EECS 563 and EECS 780. LEC.

EECS 865. Wireless Communication Systems. 3 Hours.

The theory and practice of the engineering of wireless telecommunication systems. Topics include cellular principles, mobile radio propagation (including indoor and outdoor channels), radio link calculations, fading (including Rayleigh, Rician, and other models), packet radio, equalization, diversity, error correction coding, spread spectrum, multiple access techniques (including time, frequency, and code), and wireless networking. Current topics of interest will be covered. Corequisite: EECS 861. LEC.

EECS 866. Network Security. 3 Hours.

This course provides in-depth coverage on the concepts, principles, and mechanisms in network security and secure distributed systems. The topics that will be covered include: network security primitives, risks and vulnerabilities, authentication, key management, network attacks and defense, secure communication protocols, intrusion detection, exploit defenses, traffic monitoring and analysis, and privacy mechanisms. Prerequisite: EECS 765 and EECS 563 or EECS 780, or the instructor’s approval. LEC.

EECS 869. Error Control Coding. 3 Hours.

A study of communication channels and the coding problem. An introduction to finite fields and linear block codes such as cyclic, Hamming, Golay, BCH, and Reed-Solomon. Convolutional codes and the Viterbi algorithm are also covered. Other topics include trellis coded modulation, iterative (turbo) codes, LDPC codes. Prerequisite: EECS: 562 or equivalent. LEC.

EECS 876. Advanced Topics in Functional Languages. 3 Hours.

Topics may include: type classes; concurrency and STMs; the IO and ST monads; template Haskell and quasi-quoting; precise data structures; tools and testing support; generics; grammarware and parsing;
EECS 881. High-Performance Networking. 3 Hours.
Comprehensive coverage of the discipline of high-bandwidth low-latency networks and communication, including high bandwidth-x-delay products, with an emphasis on principles, architecture, protocols, and system design. Topics include high-performance network architecture, control, and signalling; high-speed wired, optical, and wireless links; fast packet, IP, and optical switching; IP lookup, classification, and scheduling; network processors, end system design and protocol optimization, network interfaces; storage networks; end-to-end protocols, mechanisms, and optimizations; and high-bandwidth low-latency applications. Principles will be illustrated with many leading-edge and emerging protocols and architectures. Prerequisite: EECS 563 or EECS 780, or permission of the instructor. LEC.

EECS 882. Mobile Wireless Networking. 3 Hours.
Comprehensive coverage of the disciplines of mobile and wireless networking, with an emphasis on architecture and protocols. Topics include cellular telephony, MAC algorithms, wireless PANs, LANs, MANs, and WANs; wireless and mobile Internet; mobile ad hoc networking; mobility management, sensor networks; satellite networks; and ubiquitous computing. Prerequisite: EECS 563 or EECS 780, or permission of the instructor. LEC.

EECS 888. Internet Routing Architectures. 3 Hours.
A detailed study of routing in IP networks. Topics include evolution of the Internet architecture, IP services and network characteristics, an overview of routing protocols, the details of common interior routing protocols and interdomain routing protocols, and the relationship between routing protocols and the implementation of policy. Issues will be illustrated through laboratories based on common routing platforms. Prerequisite: EECS 745. LEC.

EECS 891. Graduate Problems. 1-5 Hours.
Directed studies of advanced phases of electrical engineering, computer engineering, computer science or information technology not covered in regular graduate courses, including advanced laboratory work, special research, or library reading. Prerequisite: Consent of instructor. RSH.

EECS 899. Master’s Thesis or Report. 1-6 Hours.
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EECS 900. Seminar. 0.5-3 Hours.
Group discussions of selected topics and reports on the progress of original investigations. Prerequisite: Consent of instructor. LEC.

EECS 929. Electromagnetic Propagation and Scattering in Random Media. 3 Hours.
Polarimetric plane-wave propagation, including the complex propagation matrix and Stokes vector representation. Electromagnetic scattering, including the scattering matrix, Mueller matrix, scattering cross-section, absorption cross-section, extinction cross-section, Mie scattering, and Rayleigh scattering. Volume scattering in random media, including the Born approximation, Rayleigh scattering statistics, multiple scattering mechanisms, Radiative transfer theory, and volume scattering above a dielectric half-space. Propagation through random media, including the extinction coefficient, the optical theorem, and the distorted Born approximation. Scattering from rough surfaces, including the Kirchoff, Physical Optics and small-perturbation models. Prerequisite: EECS 720. LEC.

EECS 940. Theoretic Foundation of Data Science. 3 Hours.
A review of statistical and mathematical principles that are utilized in data mining and machine learning research. Covered topics include asymptotic analysis of parameter estimation, sufficient statistics, model selection, information geometry, function approximation and Hilbert spaces. Prerequisite: EECS 738, EECS 837, EECS 844 or equivalent. LEC.

EECS 955. Theoretical Foundations of Software Construction. 3 Hours.
This course presents the mathematical basis for software that is correct-by-construction. Students will learn basic mathematical techniques for representing, composing and refining software specifications and how they are realized in software systems. Prerequisite: EECS 762 or EECS 755. LEC.

EECS 965. Detection and Estimation Theory. 3 Hours.
Detection of signals in the presence of noise and estimation of signal parameters. Narrowband signals, multiple observations, signal detectability and sequential detection. Theoretical structure and performance of the receiver. Prerequisite: EECS 761. LEC.

EECS 967. Mathematical Optimization with Communications Applications. 3 Hours.
A mathematical study of the minimization (or maximization) of functions. The course provides an introduction to the mathematical theory and application of a variety of optimization techniques, with an emphasis on applications related to communication systems. Optimization problem formulation. Unconstrained and constrained minimization, including conditions for optimal points. Specific techniques for solving linear and nonlinear programming problems. Convergence of algorithms. LEC.

EECS 983. Resilient and Survivable Networking. 3 Hours.
Graduate research seminar that provides an overview of the emerging field of resilient, survivable, disruption-tolerant, and challenged networks. These networks aim to remain operational and provide an acceptable level of service in the face of a number of challenges including: natural faults of network components; failures due to misconfiguration or operational errors; attacks against the network hardware, software, or protocol infrastructure; large-scale natural disasters; unpredictably long delay paths either due to length (e.g. satellite and interplanetary) or as a result of episodic connectivity; weak and episodic connectivity and asymmetry of wireless channels; high-mobility of nodes and subnetworks; unusual traffic load (e.g. flash crowds). Multi-level solutions that span all protocol layers, planes, and parts of the network will be systematically and systematically covered. In addition to lectures, students read and present summaries of research papers and execute a project. Prerequisite: EECS 780; previous experience in simulation desirable. LEC.

EECS 999. Doctoral Dissertation. 1-12 Hours.
RSH.

IT 310. Computer Organization and Platform Technologies. 3 Hours.
Machine-level representation of data, digital logic and digital systems, computer architecture and organization, computing infrastructure, introduction to multiprocessing systems, firmware, hardware and software integration, introduction to interconnected systems, communications, enterprise deployment management, introduction to virtual machine emulation, platform technologies. Prerequisite: Completion of all courses on the transfer list. LEC.

IT 320. System and Network Administration. 3 Hours.
This course introduces operating systems and network administration and presents topics related to selection, installation, configuration, and
maintenance of operating systems and computer networks. Topics to be covered include: Unix and Windows operating systems installation, configuration, and maintenance, server administration and management, client and server services, user and group management and support, software systems installation and configuration, content management and deployment, security management, network administration, backup management and disaster recovery, resource management, automation management, operating systems and Web domain management, operating systems and application version control management. A laboratory component will provide hands-on experience with system and network administration. Prerequisite: IT 310. LEC.

IT 330. Web Systems and Technologies. 3 Hours.
The objective of this course is to discuss how the Web systems are programmed and maintained and how online pages are created and delivered by Web servers and used by clients. Topics to be covered include: Web systems and technologies, information architecture, digital media, Web development, Web standards, vulnerabilities, social network software, client-side programming, server-side programming, Web services and servers, XHTML, CSS, flash and CGI programming, CSS, Web systems security, JavaScript, PHP, and emerging technologies. Prerequisite: IT 310. LEC.

IT 340. Computer and Information Security. 3 Hours.
Fundamentals of computer security, security mechanisms, information states, security attacks, threat analysis models, vulnerability analysis models, introduction to cryptography, authentication, intrusion detection, intrusion prevention (firewalls), operating systems security, database security, software security, host hardening, incident and disaster response. Prerequisite: Completion of all courses on the transfer list. LEC.

IT 342. Information Security Management. 3 Hours.
The objective of this course is to present topics related to the administration and management of information security. Topics to be covered include: security fundamentals, operational issues, cost-benefit analysis, asset management, security risk management, security policies and enforcement, risk avoidance, risk prevention, risk transfer, security services, security forensics, contingency planning, security auditing. A laboratory component will provide hands-on experience with security management and administration. Prerequisite: IT 340. LEC.

IT 399. Directed Reading in IT. 1-4 Hours.
Reading under the supervision of an instructor on a topic in Information Technology. The topic, expected outcome, evaluation criteria, and the number of credit hours must be mutually agreed on by the student and the instructor. Course may not be used to fulfill major elective requirements. Consent of the department required for enrollment. Prerequisite: Consent of instructor. LEC.

IT 410. Software Engineering and Management. 3 Hours.
This course introduces the software development life cycle and key concepts related to software engineering. Topics include software process models, software project management, software requirements engineering, formal and informal modeling, software architecture, software design, coding and implementation, software testing and quality assurance, software deployment, and software evolution. Additional topics such as software metrics and measures, application domains, software engineering standards, and software configuration management will also be presented. This is a project-driven course. Prerequisite: Knowledge of programming (comparable to EECS 268), SAD 402, and MATH 365. LEC.

IT 416. System Integration and Architecture. 3 Hours.
This course introduces system integration and architecture. Key concepts to be presented include: system architecture, system requirements, organizational context, acquisition and sourcing, system and component integration, middleware platforms, design patterns, integrative coding, scripting coding, testing and quality assurance, system deployment. Prerequisite: IT 410 and IT 422. LEC.

IT 420. Operating Systems. 3 Hours.
This course introduces operating systems principles and associated key concepts. Topics to be discussed include: processes and threads, concurrency, scheduling and dispatch, memory management, processor management, device management, security and protection, file system, disk scheduling, real-time and embedded systems, fault tolerance, scripting, and an introduction to virtualization. Prerequisite: MATH 365, IT 320, and IT 342. LEC.

IT 422. Computer Networks. 3 Hours.
Foundations of computer networking with practical applications and network administration, with emphasis on the Internet and wireless public switched telephone network. Topics to be covered include routing and switching, routing algorithms, physical layer, data link layer, network layer, network security, network management, and application areas. Prerequisite: IT 330. LEC.

IT 424. Network Security. 3 Hours.
This course covers the fundamental concepts, principles, and mechanisms in network and distributed system security. The topics that will be covered include: network security primitives, distributed authentication, key management, secure communication protocols, firewalls, intrusion detection, traffic monitoring and analysis, email and Web security, etc. Prerequisite: IT 340, IT 422, and senior standing. LEC.

IT 430. Human-Computer Interaction. 3 Hours.
This course will provide an overview of the history of computing and presents key concepts related to the social and professional aspects of IT. Topics to be covered include: pervasive themes in IT, social context of computing, intellectual property, legal issues in computing, professional and ethical issues and responsibilities, privacy and civil liberties. Prerequisite: IT 342. LEC.

IT 452. Special Topics in IT: _____. 3 Hours.
This course introduces a special topic of current interest in information technology, offered as the need arises. May be repeated for additional credit. Prerequisite: Senior Standing. LEC.

IT 490. IT Capstone I. 3 Hours. AE61.
Capstone is a senior level course designed to allow a student to review, analyze, integrate, and apply technical knowledge in a meaningful and practical manner. The student will be expected to complete an approved academic project in IT that may be in collaboration with an industrial partner. Prerequisite: Senior standing. LEC.

IT 492. IT Capstone II. 3 Hours.
IT Capstone II is a continuation of IT Capstone, is a senior level course designed to allow a student to review, analyze, integrate, and apply technical knowledge in a meaningful and practical manner. The student will be expected to complete an approved academic project in IT that may be in collaboration with an industrial partner. Prerequisite: Senior standing. LEC.
Bachelor of Science in Electrical Engineering

B.S. in Electrical Engineering Program

Educational Objectives

Graduates who have earned the bachelor’s degree in electrical engineering, within a few years following graduation, will have demonstrated technical proficiency, collaborative activities, and professional development.

Technical Proficiency

Graduates will have achieved success and visibility in their chosen careers as shown by technical accomplishments in industry, government, entrepreneurial activities, or academia.

Collaborative Activities

Graduates will have exercised shared responsibilities through activities such as contributions to multiperson or multidisciplinary technical projects, participation in professional society/organization functions, or performing collaborative research. In all such cases, graduates will have contributed to documentation of the collaborative activities.

Professional Development

Graduates will have demonstrated continual technical updating to extend their expertise and adapt to a changing environment through graduate studies; short courses, conferences, and seminars; or professional self-study. In addition, graduates will have demonstrated evidence of increasing technical and/or managerial impact.

Careers

Professional Opportunities

Electrical engineers may work in circuit design, electronic devices, electrical and optical communications, control and automation, electromagnetics, instrumentation, energy and power, or signal processing. Electrical engineers may work in telecommunications, consumer electronics, or public utility companies; government agencies; and defense-related or consulting firms.

Undergraduate Admission to the School of Engineering

First-year undergraduate students may be admitted, but all admissions, both in-state and out-of-state, are selective. Visit the Office of Admissions (http://admissions.ku.edu/whyku/index.shtml) for admission requirements. Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Applications are judged on several factors, including but not limited to high school record, scores on national tests, academic record at college or university level, and trend of grades. High school transcripts and ACT scores are required. Equivalent SAT scores may be substituted.

Minimum Academic Standards for Admission

To be considered for admission to the School of Engineering, beginning first-year students must meet or exceed the following minimum standards:

• 3.0 grade-point average on a 4.0 scale on the Kansas Board of Regents Qualified Admissions (http://admissions.ku.edu/apply/regents_curriculum.shtml) college-preparatory curriculum.
• Top 50 percent of the graduating class of an accredited high school or the equivalent.
• Mathematics ACT score of 22 (or mathematics SAT score of 540). Some engineering degree programs may require a higher mathematics ACT score.

These minimum admission standards apply to all departments. Meeting minimum requirements does not guarantee admission.

Transfer Admission Standards

Applications from all transfer students, whether from other institutions or from other KU units, are evaluated on a case-by-case basis. In general, students with grade-point averages under 2.5 are not considered. Students must submit mathematics ACT or SAT scores or proof of competence in calculus (grade of C or higher). No upper-level engineering credits from non-ABET-accredited engineering programs are acceptable as transfer credit for engineering programs. Admission is selective, and meeting the minimum requirements does not guarantee admission.

Bachelor of Science in Electrical Engineering Degree Requirements

The KU Core

This is the university-wide curriculum that all incoming undergraduate students will complete as part of their degree requirements. It comprises three general education goals and three advanced education goals. Associated with each goal is one or more learning outcomes:

• GE11, Goal 1/Outcome 1, Critical Thinking;
• GE12, Goal 1/Outcome 2, Quantitative Literacy;
• GE21, Goal 2/Outcome 1, Written Communication (2 units);
• GE22, Goal 2/Outcome 2, Oral Communication;
• GE3H, Goal 3/Outcome 1, Arts & Humanities;
• GE3N Goal 3/Outcome 2, Natural Sciences;
• GE3S Goal 3 /Outcome 3, Social Sciences;
• AE41, Goal 4/Outcome 1, Diversity;
• AE42 Goal 4/Outcome 2, Culture;
• AE51/2, Goal 5/Outcome 1/2, Social Responsibility & Ethics (course and/or practice);
• AE61, Goal 6/Outcome 1/2, Integration & Creativity.

Details of the KU Core can be found at kucore.ku.edu. Some required courses in the EECS curricula satisfy a KU Core goal and/or outcome. For these courses, the goal/outcome code is given in parentheses after the course on the pages below. Where required courses do NOT specifically satisfy KU Core goals (Goals 2, 3, and 4) students must choose from a list of several means to satisfy the required goals.

A total of 129 credit hours¹ is required for the B.S. degree in electrical engineering, as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EECS 101</td>
<td>New Student Seminar (Part of AE51)</td>
<td>1</td>
</tr>
<tr>
<td>EECS 140</td>
<td>Introduction to Digital Logic Design</td>
<td>4</td>
</tr>
<tr>
<td>EECS 168</td>
<td>Programming I</td>
<td>4</td>
</tr>
</tbody>
</table>

¹The above credits do not include transfers.
EECS 211  Circuits I  3
EECS 212  Circuits II  4
EECS 312  Electronic Circuits I  3
EECS 360  Signal and System Analysis  4
EECS 388  Embedded Systems  4
EECS 412  Electronic Circuits II  4
EECS 420  Electromagnetics II  4
EECS 443  Digital Systems Design  4
EECS 444  Control Systems  3
EECS 470  Electronic Devices and Properties of Materials  3
EECS 501  Senior Design Laboratory I (Part of AE51)  3
EECS 502  Senior Design Laboratory II (AE61)  3
EECS 562  Introduction to Communication Systems  4

Senior electives (Any EECS course numbered 400 or above excluding EECS 498 and EECS 692. Only one of EECS 643 and EECS 645 may be used to satisfy EE degree requirements. Under unusual circumstances other courses can be considered but only with an accompanying petition.)

Mathematics (18)
MATH 121  Calculus I (GE12)  5
MATH 122  Calculus II  5
MATH 220  Applied Differential Equations  3
MATH 290  Elementary Linear Algebra  2
EECS 461  Probability and Statistics  3

Basic Science (17)
CHEM 130  General Chemistry I  5
CHEM 150  Chemistry for Engineers  5
PHSX 210  General Physics I for Engineers  3
PHSX 216  General Physics I Laboratory (Part of AE51)  1
EECS 220  Electromagnetics I  4
PHSX 313  General Physics III (GE3N)  3
PHSX 316  Intermediate Physics Laboratory I  1

Professional Electives (6)
2 courses from the following list of approved technical, scientific, and professional courses:

EECS: Any course except EECS 128, EECS 137, EECS 138, EECS 315, EECS 316, EECS 317, EECS 318, EECS 498 and 692. Only 1 of EECS 643 or EECS 645 may be used.

Engineering: Any course from any engineering department numbered 200 or above, except ENGR 300, ENGR 504, ME 208, ME 228, and CE 390.

Natural science: Any course designated GE3N, except PHSX 111, PHSX 112, PHSX 114, PHSX 115, PHSX 212, PHSX 236, and CHEM 125.

Mathematics: Any MATH course numbered 500 or above, except MATH 701.

Business: Any course from the School of Business that applies toward a business major or minor except for statistics and computing.

ROTC Courses: Up to 6 hours of ROTC may be petitioned to count toward the professional elective requirement.

Communications (9)
Satisfy GE21  6
Satisfy GE22  3

Arts/Humanities/Social Science (9)
Economics elective:  3
Select one of the following:
- ECON 142  Principles of Microeconomics (GE3S, preferred)
- ECON 144  Principles of Macroeconomics (GE3S)

Satisfy GE3H Arts & Humanities  3
Additional Arts, Humanities, and Social Sciences (from GE3H or GE3S lists)  3

Satisfy AE41 and AE42 (6)  6

Course Prerequisites and Corequisites
Students must pass (at the appropriate grade level) all prerequisite courses for a given course before taking the subsequent course. If Course A is a Corequisite for Course B, Course A must be taken in the same semester as Course B or be completed prior to taking Course B.

Upper Level Eligibility
In addition to prerequisites and co-requisites, EECS undergraduates are required to earn Upper Level Course Eligibility by attaining grades of C or better in each of the following 15 courses:

GE 21 (both)
PHSX 210 & 216
MATH 121, 122, 220, 290
EECS 101, 140, 168, 211, 212, 220
CHEM 130 or 150

If students earn less than a C in any of the above listed courses, they must repeat the course at the next available opportunity and must not take a course for which that course is a prerequisite. It is the students' responsibility to contact their advisors before beginning the new semester regarding any required repetitions and the associated enrollment adjustments (drops and adds).

To enroll in any upper-level EECS course (numbered 300 and above), students must have fulfilled the Upper Level Eligibility Requirements detailed above. Exceptions: EECS 312, EECS 360, EECS 368 and EECS 388 may be taken in the same semester as students are completing their upper level eligibility. Students may also petition for a Partial Waiver of Upper Level Eligibility Requirements by completing the appropriate petition, found in the EECS office or at www.eecs.ku.edu.

Double Major
If students wish to double-major (earn two degrees), they must fulfill all the requirements for the degrees in question. They must also consult the Engineering Dean's office and the department and/or school of the second major to find out if there are any additional requirements. If they wish to obtain two degrees offered by the EECS department, the following rule applies: a course that is required for one EECS degree program may not be used to satisfy a Senior Elective or General Elective requirement of another EECS degree program.
Electrical Engineering 4-Year Graduation Plan

### Freshman

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<td>EECS 101</td>
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<td>GE21 (first)</td>
<td>3</td>
<td>MATH 122</td>
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<td>MATH 121</td>
<td>5</td>
<td>PHSX 210</td>
<td>3</td>
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<tr>
<td>EECS 140 or 168</td>
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<tr>
<td>ECON 142 or 144</td>
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<td>EECS 168 or 140</td>
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### Sophomore

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<td>MATH 220</td>
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<td>4</td>
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<tr>
<td>MATH 290</td>
<td>2</td>
<td>EECS 388</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 130 or 150</td>
<td>5 Additional Arts/Humanities/ Social Science (from GE3H or GE3S lists)</td>
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### Junior

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<td>EECS 412</td>
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<tr>
<td>PHSX 313</td>
<td>4</td>
<td>EECS 444</td>
<td>3</td>
</tr>
<tr>
<td>&amp; PHSX 316</td>
<td>4</td>
<td>EECS 461</td>
<td>3</td>
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<tr>
<td>EECS 360</td>
<td>4</td>
<td>EECS 562</td>
<td>4</td>
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<tr>
<td>AE41</td>
<td>3</td>
<td>Professional elective 1</td>
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<tr>
<td>GE22</td>
<td>3</td>
<td>Professional elective 2</td>
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### Senior

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<td>EECS 443</td>
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<tr>
<td>EECS 470</td>
<td>3</td>
<td>EECS 502</td>
<td>3</td>
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<tr>
<td>EECS 501</td>
<td>3</td>
<td>Senior elective 2</td>
<td>3</td>
</tr>
<tr>
<td>Senior elective 1</td>
<td>3</td>
<td>Senior elective 3</td>
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</tr>
<tr>
<td>Professional elective 2</td>
<td>3</td>
<td>AE42</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours: 129

1 Means of satisfying KU Core Goals are chosen from a variety of options (see kucore.ku.edu). Hours listed are assuming the goals are satisfied with course work.

### Departmental Honors

An undergraduate student may graduate with departmental honors in electrical engineering, computer engineering, computer science, or interdisciplinary computing by graduating with a minimum grade-point average requirement while maintaining full-time status. In addition, students must enroll in EECS 498 Honors Research for their last 2 semesters and must complete an independent research project paper and oral presentation to a panel of 3 judges. See the EECS Undergraduate Handbook for full details.

### Bachelor of Science in Computer Engineering

#### B.S. in Computer Engineering Program

#### Educational Objectives

Graduates who have earned the bachelor’s degree in computer engineering, within a few years following graduation, will have demonstrated technical proficiency, collaborative activities, and professional development.

#### Technical Proficiency

Graduates will have achieved success and visibility in their chosen careers as shown by technical accomplishments in industry, government, entrepreneurial activities, or academia.

#### Collaborative Activities

Graduates will have exercised shared responsibilities through activities such as contributions to multiperson or multidisciplinary technical projects, participation in professional society/organization functions, or performing collaborative research. In all such cases, graduates will have contributed to documentation of the collaborative activities.

#### Professional Development

Graduates will have demonstrated continual technical updating to extend their expertise and adapt to a changing environment through graduate studies; short courses, conferences, and seminars; or professional self-study. In addition, graduates will have demonstrated evidence of increasing technical and/or managerial impact.

#### Careers

#### Professional Opportunities

Computer engineers may work in computer elements and architectures, very large-scale integrated circuits for data processing and storage, embedded and real-time computer systems, or computer networking. Computer engineers may work in the computer industry, telecommunications, government and defense, software companies or consulting firms.

### Undergraduate Admission to the School of Engineering

First-year undergraduate students may be admitted, but all admissions, both in-state and out-of-state, are selective. Visit the Office of Admissions (http://admissions.ku.edu/whyku/index.shtml) for admission requirements. Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Applications are judged on several factors, including but not limited to high school record, scores on national tests, academic record at college or university level, and trend of grades. High school transcripts and ACT scores are required. Equivalent SAT scores may be substituted.
Minimum Academic Standards for Admission

To be considered for admission to the School of Engineering, beginning first-year students must meet or exceed the following minimum standards:

- 3.0 grade-point average on a 4.0 scale on the Kansas Board of Regents Qualified Admissions (http://admissions.ku.edu/apply/regents_curriculum.shtml) college-preparatory curriculum.
- Top 50 percent of the graduating class of an accredited high school or the equivalent.
- Mathematics ACT score of 22 (or mathematics SAT score of 540). Some engineering degree programs may require a higher mathematics ACT score.

These minimum admission standards apply to all departments. Meeting minimum requirements does not guarantee admission.

Transfer Admission Standards

Applications from all transfer students, whether from other institutions or from other KU units, are evaluated on a case-by-case basis. In general, students with grade-point averages under 2.5 are not considered. Students must submit mathematics ACT or SAT scores or proof of competence in calculus (grade of C or higher). No upper-level engineering credits from non-ABET-accredited engineering programs are acceptable as transfer credit for engineering programs. Admission is selective, and meeting the minimum requirements does not guarantee admission.

Bachelor of Science in Computer Engineering Degree Requirements

The KU Core

This is the university-wide curriculum that all incoming undergraduate students will complete as part of their degree requirements. It comprises three general education goals and three advanced education goals. Associated with each goal is one or more learning outcomes:

- GE11, Goal 1/Outcome 1, Critical Thinking;
- GE12, Goal 1/Outcome 2, Quantitative Literacy;
- GE21, Goal 2/Outcome 1, Written Communication (2 units);
- GE22, Goal 2/Outcome 2, Oral Communication;
- GE3H, Goal 3/Outcome 1, Arts & Humanities;
- GE3N Goal 3/Outcome 2, Natural Sciences;
- GE3S Goal 3/Outcome 3, Social Sciences;
- AE41, Goal 4/Outcome 1, Diversity;
- AE42 Goal 4/Outcome 2, Culture;
- AE51/2, Goal 5/Outcome 1/2, Social Responsibility & Ethics (course and/or practice);
- AE61, Goal 6/Outcome 1/2, Integration & Creativity.

Details of the KU Core can be found at kucore.ku.edu. Some required courses in the EECS curricula satisfy a KU Core goal and/or outcome. For these courses, the goal/outcome code is given in parentheses after the course on the pages below. Where required courses do NOT specifically satisfy KU Core goals (Goals 2, 3, and 4) students must choose from a list of several means to satisfy the required goals.

A total of 128 credit hours 1 is required for the B.S. degree in computer engineering, as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EECS 101</td>
<td>New Student Seminar (Part of AE51)</td>
<td>1</td>
</tr>
<tr>
<td>EECS 140</td>
<td>Introduction to Digital Logic Design</td>
<td>4</td>
</tr>
<tr>
<td>EECS 168</td>
<td>Programming I</td>
<td>4</td>
</tr>
<tr>
<td>EECS 211</td>
<td>Circuits I</td>
<td>3</td>
</tr>
<tr>
<td>EECS 212</td>
<td>Circuits II</td>
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</tr>
<tr>
<td>EECS 268</td>
<td>Programming II</td>
<td>4</td>
</tr>
<tr>
<td>EECS 312</td>
<td>Electronic Circuits I</td>
<td>3</td>
</tr>
<tr>
<td>EECS 360</td>
<td>Signal and System Analysis</td>
<td>4</td>
</tr>
<tr>
<td>EECS 368</td>
<td>Programming Language Paradigms</td>
<td>3</td>
</tr>
<tr>
<td>EECS 388</td>
<td>Embedded Systems</td>
<td>4</td>
</tr>
<tr>
<td>EECS 443</td>
<td>Digital Systems Design</td>
<td>4</td>
</tr>
<tr>
<td>EECS 448</td>
<td>Software Engineering I</td>
<td>4</td>
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<td>EECS 541</td>
<td>Computer Systems Design Laboratory I (Part of AE51)</td>
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<td>EECS 542</td>
<td>Computer Systems Design Laboratory II (AE61)</td>
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<tr>
<td>EECS 563</td>
<td>Introduction to Communication Networks</td>
<td>3</td>
</tr>
<tr>
<td>EECS 643</td>
<td>Advanced Computer Organization</td>
<td>3</td>
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<tr>
<td>EECS 678</td>
<td>Introduction to Operating Systems</td>
<td>4</td>
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<tr>
<td>Senior electives (Any EECS course numbered 400 or above except EECS 498, EECS 645, and EECS 692. Under unusual circumstances, other courses can be considered but only with an accompanying petition.)</td>
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Mathematics (22)

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>MATH 121</td>
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<td>MATH 122</td>
<td>Calculus II</td>
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<td>MATH 220</td>
<td>Applied Differential Equations</td>
<td>3</td>
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<tr>
<td>MATH 290</td>
<td>Elementary Linear Algebra</td>
<td>2</td>
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<tr>
<td>EECS 210</td>
<td>Discrete Structures</td>
<td>4</td>
</tr>
<tr>
<td>EECS 461</td>
<td>Probability and Statistics</td>
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</table>

Basic Science (12)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHSX 210</td>
<td>General Physics I for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 216</td>
<td>General Physics I Laboratory (Part of AE51)</td>
<td>1</td>
</tr>
<tr>
<td>EECS 220</td>
<td>Electromagnetics I</td>
<td>4</td>
</tr>
<tr>
<td>PHSX 313</td>
<td>General Physics III (GE3N)</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 316</td>
<td>Intermediate Physics Laboratory I</td>
<td>1</td>
</tr>
</tbody>
</table>

Professional Elective (3)

To be taken from the following list of approved technical, scientific, and professional courses:

EECS: Any course except EECS 128, EECS 137, EECS 138, EECS 315, EECS 316, EECS 317, EECS 318, EECS 498, EECS 692, and EECS 645.

Engineering: Any course from any engineering department numbered 200 or above, except ENGR 300, ENGR 504, ME 208, ME 228, and CE 390.

Natural science: Any course designated GE3N, except PHSX 111, PHSX 112, PHSX 114, PHSX 115, PHSX 212, PHSX 236, and CHEM 125 if CHEM 130 or CHEM 150 has already been taken or will be taken.

Mathematics: Any MATH course numbered 500 or above, except MATH 701.

Business: Any course from the School of Business that applies toward a business major or minor except for statistics and computing.
ROTC Courses: Up to 6 hours of ROTC may be petitioned to count toward the professional elective requirement.

Communications (9)

1. Satisfy GE21
2. Satisfy GE22

Arts/Humanities/Social Science (9)

Resources: Select one of the following:
- ECON 142 Principles of Microeconomics (GE3S, preferred)
- ECON 144 Principles of Macroeconomics (GE3S)

1. Satisfy GE3H
2. Additional Arts, Humanities, and Social Sciences (from GE3H or GE3S lists)
3. Satisfy AE41 and AE42 (6)

1. Means of satisfying KU Core Goals are chosen from a variety of options (see kucore.ku.edu). Hours listed are assuming the goals are satisfied with course work.

Course Prerequisites and Corequisites

Students must pass (at the appropriate grade level) all prerequisite courses for a given course before taking the subsequent course. If Course A is a Corequisite for Course B, Course A must be taken in the same semester as Course B or be completed prior to taking Course B.

Upper Level Eligibility

In addition to prerequisites and corequisites, EECS undergraduates are required to earn Upper Level Course Eligibility by attaining grades of C or better in each of the following 16 courses:

- GE21 (both)
- PHSX 210 & 216
- MATH 121, 122, 220, 290
- EECS 101, 140, 168, 210, 211, 212, 220, 268

If students earn less than a C in any of the above listed courses, they must repeat the course at the next available opportunity and must not take a course for which that course is a prerequisite. It is the students' responsibility to contact their advisors before beginning the new semester regarding any required repetitions and the associated enrollment adjustments (drops and adds).

To enroll in any upper-level EECS course (numbered 300 and above), students must have fulfilled the Upper Level Eligibility Requirements detailed above. Exceptions: EECS 312, EECS 360, EECS 368 and EECS 388 may be taken in the same semester as students are completing their upper level eligibility. Students may also petition for a Partial Waiver of Upper Level Eligibility Requirements by completing the appropriate petition, found in the EECS office or at www.eecs.ku.edu.

Double Major

If students wish to double-major (earn two degrees), they must fulfill all the requirements for the degrees in question. They must also consult the Engineering Dean’s office and the department and/or school of the second major to find out if there are any additional requirements. If they wish to obtain two degrees offered by the EECS department, the following rule applies: a course that is required for one EECS degree program may not be used to satisfy a Senior Elective or General Elective requirement of another EECS degree program.

Computer Engineering 4-Year Graduation Plan

**Freshman**

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<td>1 GE21 (second)</td>
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<td>3 MATH 122</td>
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<td>5 PHSX 210</td>
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<td>EECS 140 or 168</td>
<td>4 PHSX 216</td>
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**Sophomore**

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<td>3 EECS 220</td>
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<td>EECS 268</td>
<td>4 EECS 368</td>
<td>3</td>
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<td>MATH 220</td>
<td>3 GE22</td>
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<td>MATH 290</td>
<td>2 GE3H</td>
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**Junior**

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<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EECS 312</td>
<td>3 EECS 360</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EECS 388</td>
<td>4 EECS 443</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EECS 448</td>
<td>4 EECS 461</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Additional Arts/Humanities/Social Science (from GE3H or GE3S lists)</td>
<td>3 AE41</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Professional elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>14</td>
<td>17</td>
</tr>
</tbody>
</table>

**Senior**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EECS 541</td>
<td>3 EECS 542</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>EECS 563</td>
<td>3 EECS 678</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EECS 643</td>
<td>3 Senior elective</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Senior elective 1</td>
<td>3 Senior elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHSX 313 &amp; PHSX 316</td>
<td>4 AE42</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>

Total Hours: 128

1. Means of satisfying KU Core Goals are chosen from a variety of options (see kucore.ku.edu). Hours listed are assuming the goals are satisfied with course work.

Departmental Honors

An undergraduate student may graduate with departmental honors in electrical engineering, computer engineering, computer science, or interdisciplinary computing by graduating with a minimum grade-point average requirement while maintaining full-time status. In addition,
students must enroll in EECS 498 Honors Research for their last 2 semesters and must complete an independent research project paper and oral presentation to a panel of 3 judges. See the EECS Undergraduate Handbook for full details.

Bachelor of Science in Computer Science

B.S. in Computer Science Program

Educational Objectives

Graduates who have earned the bachelor’s degree in computer science, within a few years following graduation, will have demonstrated technical proficiency, collaborative activities, and professional development.

Technical Proficiency

Graduates will have achieved success and visibility in their chosen careers as shown by technical accomplishments in industry, government, entrepreneurial activities, or academia.

Collaborative Activities

Graduates will have exercised shared responsibilities through activities such as contributions to multiperson or multidisciplinary technical projects, participation in professional society/organization functions, or performing collaborative research. In all such cases, graduates will have contributed to documentation of the collaborative activities.

Professional Development

Graduates will have demonstrated continual technical updating to extend their expertise and adapt to a changing environment through graduate studies; short courses, conferences, and seminars; or professional self-study. In addition, graduates will have demonstrated evidence of increasing technical and/or managerial impact.

Careers

Professional Opportunities

Computer scientists may pursue the design, analysis, and implementation of computer algorithms; study the theory of programming methods and languages; or design and develop software systems. They also may work in artificial intelligence, database systems, parallel and distributed computation, human-computer interaction, computer graphics, operating systems, or computer systems analysis and administration. Computer scientists may work for software companies, government and defense, telecommunications, or consulting firms.

Undergraduate Admission to the School of Engineering

First-year undergraduate students may be admitted, but all admissions, both in-state and out-of-state, are selective. Visit the Office of Admissions (http://admissions.ku.edu/whyku/index.shtml) for admission requirements. Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Applications are judged on several factors, including but not limited to high school record, scores on national tests, academic record at college or university level, and trend of grades. High school transcripts and ACT scores are required. Equivalent SAT scores may be substituted.

Minimum Academic Standards for Admission

To be considered for admission to the School of Engineering, beginning first-year students must meet or exceed the following minimum standards:

- 3.0 grade-point average on a 4.0 scale on the Kansas Board of Regents Qualified Admissions (http://admissions.ku.edu/apply/regents_curriculum.shtml) college-preparatory curriculum.
- Top 50 percent of the graduating class of an accredited high school or the equivalent.
- Mathematics ACT score of 22 (or mathematics SAT score of 540).

Some engineering degree programs may require a higher mathematics ACT score.

These minimum admission standards apply to all departments. Meeting minimum requirements does not guarantee admission.

Transfer Admission Standards

Applications from all transfer students, whether from other institutions or from other KU units, are evaluated on a case-by-case basis. In general, students with grade-point averages under 2.5 are not considered.

Students must submit mathematics ACT or SAT scores or proof of competence in calculus (grade of C or higher). No upper-level engineering credits from non-ABET-accredited engineering programs are acceptable as transfer credit for engineering programs. Admission is selective, and meeting the minimum requirements does not guarantee admission.

Bachelor of Science in Computer Science Degree Requirements

The KU Core

This is the university-wide curriculum that all incoming undergraduate students will complete as part of their degree requirements. It comprises three general education goals and three advanced education goals. Associated with each goal are one or more learning outcomes:

- GE11, Goal 1/Outcome 1, Critical Thinking;
- GE12, Goal 1/Outcome 2, Quantitative Literacy;
- GE21, Goal 2/Outcome 1, Written Communication (2 units);
- GE22, Goal 2/Outcome 2, Oral Communication;
- GE3H, Goal 3/Outcome 1, Arts & Humanities;
- GE3N Goal 3/Outcome 2, Natural Sciences;
- GE3S Goal 3 /Outcome 3, Social Sciences;
- AE41, Goal 4/Outcome 1, Diversity;
- AE42 Goal 4/Outcome 2, Culture;
- AE51/2, Goal 5/Outcome 1/2, Social Responsibility & Ethics (course and/or practice);
- AE61, Goal 6/Outcome 1/2, Integration & Creativity.

Details of the KU Core can be found at kucore.ku.edu. Some required courses in the EECS curricula satisfy a KU Core goal and/or outcome. For these courses, the goal/outcome code is given in parentheses after the course on the pages below. Where required courses do NOT specifically satisfy KU Core goals (Goals 2, 3, and 4) students must choose from a list of several means to satisfy the required goals.
A total of 128 credit hours is required for the B.S. degree in computer science, as follows:

<table>
<thead>
<tr>
<th>Computer Science (66)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EEC 101 New Student Seminar (Part of AE51)</td>
<td>1</td>
</tr>
<tr>
<td>EEC 140 Introduction to Digital Logic Design</td>
<td>4</td>
</tr>
<tr>
<td>EEC 168 Programming I</td>
<td>4</td>
</tr>
<tr>
<td>EEC 252 Programming II</td>
<td>4</td>
</tr>
<tr>
<td>EEC 268 Programming Language Paradigms</td>
<td>3</td>
</tr>
<tr>
<td>EEC 308 Embedded Systems</td>
<td>4</td>
</tr>
<tr>
<td>EEC 448 Software Engineering I</td>
<td>4</td>
</tr>
<tr>
<td>EEC 510 Introduction to the Theory of Computing</td>
<td>3</td>
</tr>
<tr>
<td>EEC 560 Data Structures</td>
<td>4</td>
</tr>
<tr>
<td>EEC 581 Computer Science Design I (Part of AE51)</td>
<td>3</td>
</tr>
<tr>
<td>EEC 582 Computer Science Design II (AE61)</td>
<td>3</td>
</tr>
<tr>
<td>EEC 645 Computer Architecture</td>
<td>3</td>
</tr>
<tr>
<td>EEC 660 Fundamentals of Computer Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>EEC 662 Programming Languages</td>
<td>3</td>
</tr>
<tr>
<td>EEC 665 Compiler Construction</td>
<td>4</td>
</tr>
<tr>
<td>EEC 678 Introduction to Operating Systems</td>
<td>4</td>
</tr>
</tbody>
</table>

Select 12 credits of the following Senior electives. Under unusual circumstances, other courses can be considered but only with an accompanying petition.

<table>
<thead>
<tr>
<th>Mathematics (22)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121 Calculus I (GE12)</td>
<td>5</td>
</tr>
<tr>
<td>MATH 122 Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>MATH 223 Vector Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MATH 290 Elementary Linear Algebra</td>
<td>2</td>
</tr>
<tr>
<td>MATH 526 Applied Mathematical Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>EEC 210 Discrete Structures</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Basic Science (11)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 210 General Physics I for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 216 General Physics I Laboratory (Part of AE51)</td>
<td>1</td>
</tr>
<tr>
<td>PHSX 212 General Physics II (GE3N)</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 236 General Physics II Laboratory</td>
<td>1</td>
</tr>
</tbody>
</table>

Select one of the following Natural science electives:

| ASTR 391 Physical Astronomy, Honors             | 1       |
| BIOL 150 Principles of Molecular and Cellular Biology | 1       |
| BIOL 152 Principles of Organismal Biology       | 1       |
| CHEM 130 General Chemistry I                    | 1       |
| CHEM 135 General Chemistry II                   | 1       |
| CHEM 150 Chemistry for Engineers                | 1       |
| GEOG 104 Principles of Physical Geography       | 1       |
| GEOG 105 & GEOG 106 Introductory Laboratory in Physical Geography (together count as one course) | 1       |

<table>
<thead>
<tr>
<th>Professional Elective (3)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering: Any course from any engineering department numbered 200 or above, except ENGR 300, ENGR 504, ME 208, ME 228, and CE 390.</td>
<td>3</td>
</tr>
<tr>
<td>Natural science: Any course designated GE3N, except PHSX 111, PHSX 112, PHSX 114, PHSX 115, and CHEM 125 if CHEM 130 or CHEM 150 has already been taken or will be taken.</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics: Any MATH course numbered 500 or above, except MATH 701.</td>
<td>3</td>
</tr>
<tr>
<td>Business: Any course from the School of Business that applies toward a business major or minor except for statistics and computing.</td>
<td>3</td>
</tr>
<tr>
<td>ROTC Courses: Up to 6 hours of ROTC may be petitioned to count toward the professional elective requirement.</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Communications (9)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfy GE21</td>
<td>6</td>
</tr>
<tr>
<td>Satisfy GE22</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Arts/Humanities/Social Science (12)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfy GE3H</td>
<td>3</td>
</tr>
<tr>
<td>Satisfy GE3S</td>
<td>3</td>
</tr>
<tr>
<td>Additional Arts/Humanities (from GE3H list)</td>
<td>3</td>
</tr>
<tr>
<td>Additional Social Science (from GE3S list)</td>
<td>3</td>
</tr>
<tr>
<td>Satisfy AE41 and AE42 (6)</td>
<td>6</td>
</tr>
</tbody>
</table>

1 Means of satisfying KU Core Goals are chosen from a variety of options (see kucore.ku.edu). Hours listed are assuming the goals are satisfied with course work.

<table>
<thead>
<tr>
<th>Course Prerequisites and Corequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students must pass (at the appropriate grade level) all prerequisite courses for a given course before taking the subsequent course. If Course A is a Corequisite for Course B, Course A must be taken in the same semester as Course B or be completed prior to taking Course B.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Upper Level Eligibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>In addition to prerequisites and co-requisites, EECS undergraduates are required to earn Upper Level Course Eligibility by attaining grades of C or better in each of the following 15 courses:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GE21 (both)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 210 &amp; 216, 212 &amp; 236</td>
</tr>
<tr>
<td>MATH 121, 122, 223, 290</td>
</tr>
<tr>
<td>EEC 101, 140, 168, 210, 268</td>
</tr>
</tbody>
</table>

If students earn less than a C in any of the above listed courses, they must repeat the course at the next available opportunity and must not take a course for which that course is a prerequisite. It is the students’ responsibility to contact their advisors before beginning the new semester. |
regarding any required repetitions and the associated enrollment adjustments (drops and adds).

To enroll in any upper level EECS course (numbered 300 and above), students must have fulfilled the Upper Level Eligibility Requirements detailed above. Exceptions: EECS 312, EECS 360, EECS 368 and EECS 388 may be taken in the same semester as students are completing their upper level eligibility. Students may also petition for a Partial Waiver of Upper Level Eligibility Requirements by completing the appropriate petition, found in the EECS office or at www.eecs.ku.edu.

Double Major

If students wish to double-major (earn two degrees), they must fulfill all the requirements for the degrees in question. They must also consult the Engineering Dean’s office and the department and/or school of the second major to find out if there are any additional requirements. If they wish to obtain two degrees offered by the EECS department, the following rule applies: a course that is required for one EECS degree program may not be used to satisfy a Senior Elective or General Elective requirement of another EECS degree program.

Computer Science 4-Year Graduation Plan

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EECS 101</td>
<td>1 GE21 (second)</td>
<td></td>
</tr>
<tr>
<td>GE21 (first)</td>
<td>3 MATH 122</td>
<td></td>
</tr>
<tr>
<td>MATH 121</td>
<td>5 PHSX 210</td>
<td></td>
</tr>
<tr>
<td>EECS 140 or 168</td>
<td>4 PHSX 216</td>
<td></td>
</tr>
<tr>
<td>GE3H</td>
<td>3 EECS 168 or 140</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Sophomore</td>
<td>Hours Spring</td>
<td>Hours</td>
</tr>
<tr>
<td>Fall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EECS 210</td>
<td>4 EECS 368</td>
<td></td>
</tr>
<tr>
<td>EECS 268</td>
<td>4 EECS 388</td>
<td></td>
</tr>
<tr>
<td>MATH 290</td>
<td>2 MATH 223</td>
<td></td>
</tr>
<tr>
<td>PHSX 212</td>
<td>3 Natural science course</td>
<td></td>
</tr>
<tr>
<td>PHSX 236</td>
<td>1 Additional Arts/ Humanities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 (from GE3H list)</td>
<td></td>
</tr>
<tr>
<td>GE3S</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Junior</td>
<td>Hours Spring</td>
<td>Hours</td>
</tr>
<tr>
<td>Fall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EECS 448</td>
<td>4 MATH 526</td>
<td></td>
</tr>
<tr>
<td>EECS 510</td>
<td>3 EECS 560</td>
<td></td>
</tr>
<tr>
<td>EECS 645</td>
<td>3 EECS 678</td>
<td></td>
</tr>
<tr>
<td>GE22</td>
<td>3 Professional elective</td>
<td></td>
</tr>
<tr>
<td>Additional Social Science</td>
<td>3 AE41</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(from GE3S list)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>Senior</td>
<td>Hours Spring</td>
<td>Hours</td>
</tr>
<tr>
<td>Fall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EECS 581</td>
<td>3 EECS 582</td>
<td></td>
</tr>
<tr>
<td>EECS 662</td>
<td>3 EECS 660</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours: 129

1 Means of satisfying KU Core Goals are chosen from a variety of options (see kucore.ku.edu). Hours listed are assuming the goals are satisfied with course work.

Departmental Honors

An undergraduate student may graduate with departmental honors in electrical engineering, computer engineering, computer science, or interdisciplinary computing by graduating with a minimum grade-point average requirement while maintaining full-time status. In addition, students must enroll in EECS 498 Honors Research for their last 2 semesters and must complete an independent research project paper and oral presentation to a panel of 3 judges. See the EECS Undergraduate Handbook for full details.

Bachelor of Science in Information Technology

Bachelor of Science in Information Technology Program

Graduates who have earned a bachelor’s degree in information technology will combine technical expertise with modern problem-solving and communication skills to plan, configure, implement, integrate, and maintain computing and information technology solutions for an organization’s computing infrastructure.

The undergraduate program in Information Technology is offered in its entirety only at the KU Edwards Campus, 12600 Quivira Rd., Overland Park, KS 66213. Students considering this degree option should contact the Information Technology advisor on the Edwards Campus, Lauren McEnaney, bsit@ku.edu, 785-864-8623 (from Lawrence) or 913-897-8623 (outside Lawrence), for advising.

This program is funded by the Education and Research Triangle (http://edwardscampus.ku.edu/johnson-county-education-research-triangle) initiative.

Careers

Professional Opportunities

Information technology (IT) professionals are needed in nearly every business sector. They may find careers in information security, software development, platform technologies, network and system administration, Web system development, and IT project management.

Undergraduate Admission to the B.S. in Information Technology Program

Applications to the B.S. in Information Technology program will generally be considered under the guidelines of the Transfer Admission Standards.
In addition, to be considered for admission, students will need to complete the B.S. in Information Technology prerequisite course work listed below.

### Transfer Admission Standards

Applications from all transfer students, whether from other institutions or from other KU units, are evaluated on a case-by-case basis. In general, students with grade-point averages under 2.5 are not considered. No upper-level engineering credits from non-ABET-accredited engineering programs are acceptable as transfer credit for engineering programs.

Admission is selective, and meeting the minimum requirements does not guarantee admission.

### First-year Students

First-year undergraduate students may be admitted, but all admissions, both in-state and out-of-state, are selective. Visit the Office of Admissions (http://admissions.ku.edu/whyku/index.shtml) for admission requirements. Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Applications are judged on several factors, including but not limited to high school record, scores on national tests, academic record at college or university level, and trend of grades. High school transcripts and ACT scores are required. Equivalent SAT scores may be substituted.

### Minimum Academic Standards for Admission

To be considered for admission to the School of Engineering, beginning first-year students must meet or exceed the following minimum standards:

- 3.0 grade-point average on a 4.0 scale on the Kansas Board of Regents Qualified Admissions (http://admissions.ku.edu/apply/regents_curriculum.shtml) college-preparatory curriculum.
- Top 50 percent of the graduating class of an accredited high school or the equivalent.
- Mathematics ACT score of 22 (or mathematics SAT score of 540). Some engineering degree programs may require a higher mathematics ACT score.

These minimum admission standards apply to all School of Engineering departments. Meeting minimum requirements does not guarantee admission.

### B.S. in Information Technology Prerequisite Course Work

The successful completion of the following requirements is needed for admission into the B.S. in Information Technology program:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfy GE21 (Typically completed with ENGL 101 and ENGL 102.)</td>
<td>6</td>
</tr>
<tr>
<td>Satisfy GE22 (Typically completed with COMS 130.)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 101 College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 114 College Physics I</td>
<td>4</td>
</tr>
<tr>
<td>Discrete Structures I</td>
<td>3</td>
</tr>
<tr>
<td>Discrete Structures II</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 150 Principles of Molecular and Cellular Biology</td>
<td>4-5</td>
</tr>
<tr>
<td>or CHEM 130 General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>Programming Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>EECS 168 Programming I</td>
<td>4</td>
</tr>
<tr>
<td>EECS 268 Programming II</td>
<td>4</td>
</tr>
</tbody>
</table>

UNIX Scripting and Utilities | 3 |
Database Management | 4 |
PSYC 104 General Psychology | 3 |
ECON 104 Introductory Economics (or equivalent) | 3-4 |
or ECON 142 Principles of Microeconomics | 4 |
or ECON 144 Principles of Macroeconomics | 4 |
ACCT 205 Survey of Accounting (or equivalent) | 3-4 |
or ACCT 200 Fundamentals of Financial Accounting | 4 |

1. Means of satisfying KU Core Goals are chosen from a variety of options (see kucore.ku.edu). Hours listed are assuming the goals are satisfied with course work.
2. This specific course is not offered at KU, however an equivalent course from KU may be substituted. Consult your advisor.
3. No equivalent course is offered at KU; it must be transferred from a different college or university. Consult your advisor.

### Bachelor of Science in Information Technology Degree Requirements

#### The KU Core

This is the university-wide curriculum that all incoming undergraduate students will complete as part of their degree requirements. It comprises three general education goals and three advanced education goals. Associated with each goal is one or more learning outcomes:

- GE11, Goal 1/Outcome 1, Critical Thinking;
- GE12, Goal 1/Outcome 2, Quantitative Literacy;
- GE21, Goal 2/Outcome 1, Written Communication;
- GE22, Goal 2/Outcome 2, Oral Communication;
- GE3H, Goal 3/Outcome 1, Arts & Humanities;
- GE3N Goal 3/Outcome 2, Natural Sciences;
- GE3S Goal 3/Outcome 3, Social Sciences;
- AE41, Goal 4/Outcome 1, Diversity;
- AE42 Goal 4/Outcome 2 Culture;
- AE51, Goal 5/Outcome 1, Social Responsibility & Ethics (course);
- AE52, Goal 5/Outcome 2, Social Responsibility & Ethics (practice);
- AE61, Goal 6/Outcome 1/2, Integration & Creativity.

Details of the KU Core can be found at kucore.ku.edu. Some required courses in the IT curricula satisfy a KU Core goal and/or outcome. For these courses, the goal/outcome code is given in parentheses after the course on the pages below. Where required courses do NOT specifically satisfy KU Core goals (Goals 2, 3, and 4) students must choose from a list of several means to satisfy the required goals.

A minimum of 120 credit hours is required for the B.S. in Information Technology, as follows:

#### Information Technology (64)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programming Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>EECS 168 Programming I</td>
<td>4</td>
</tr>
<tr>
<td>EECS 268 Programming II</td>
<td>4</td>
</tr>
<tr>
<td>UNIX Scripting and Utilities</td>
<td>3</td>
</tr>
<tr>
<td>Database Management</td>
<td>4</td>
</tr>
</tbody>
</table>

Details of the KU Core can be found at kucore.ku.edu. Some required courses in the IT curricula satisfy a KU Core goal and/or outcome. For these courses, the goal/outcome code is given in parentheses after the course on the pages below. Where required courses do NOT specifically satisfy KU Core goals (Goals 2, 3, and 4) students must choose from a list of several means to satisfy the required goals.

A minimum of 120 credit hours is required for the B.S. in Information Technology, as follows:

#### Information Technology (64)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programming Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>EECS 168 Programming I</td>
<td>4</td>
</tr>
<tr>
<td>EECS 268 Programming II</td>
<td>4</td>
</tr>
<tr>
<td>UNIX Scripting and Utilities</td>
<td>3</td>
</tr>
<tr>
<td>Database Management</td>
<td>4</td>
</tr>
</tbody>
</table>
IT 310  Computer Organization and Platform Technologies  3
IT 320  System and Network Administration  3
IT 330  Web Systems and Technologies  3
IT 340  Computer and Information Security  3
IT 342  Information Security Management  3
IT 410  Software Engineering and Management  3
IT 416  System Integration and Architecture  3
IT 420  Operating Systems  3
IT 422  Computer Networks  3
IT 430  Human-Computer Interaction  3
IT 450  Social and Professional Issues  3
Senior IT elective 1  3
Senior IT elective 2  3
IT 490  IT Capstone I (AE61)  3
IT 492  IT Capstone II  3
Mathematics (12)
MATH 101  College Algebra (GE12)  3
Discrete Structures I  2  3
Discrete Structures II  2  3
MATH 365  Elementary Statistics  3
Basic Science (8-9)
BIOL 150  Principles of Molecular and Cellular Biology  (GE3N)  4-5
or CHEM 130  General Chemistry I  3
PHSX 114  College Physics I  4
Business and Management (9-10)
ACCT 205  Survey of Accounting (or equivalent)  3-4
or ACCT 200  Fundamentals of Financial Accounting  3
MGMT 305  Survey of Management and Leadership  3
SA&D 402  Introduction to Project Management  3
Written and Oral Communication (12)
Satisfy GE21 (Typically completed by ENGL 101 and ENGL 102.)  1  6
ENGL 362  Foundations of Technical Writing  3
Satisfy GE22 (Typically completed by COMS 130.)  1  3
Social Science and Humanities (9-10)
ECON 104  Introductory Economics (or equivalent)  3-4
or ECON 142  Principles of Microeconomics  3
or ECON 144  Principles of Macroeconomics  3
PSYC 104  General Psychology (GE3S)  3
Satisfy GE3H  3
Culture and Diversity (6)
Satisfy AE41  3
Satisfy AE42  3

1 Means of satisfying KU Core Goals are chosen from a variety of options (see kucore.ku.edu). Hours listed are assuming the goals are satisfied with course work.
2 This specific course is not offered at KU, however an equivalent course from KU may be substituted. Consult your advisor.
3 No equivalent course is offered at KU; it must be transferred from a different college or university. Consult your advisor.

4 Two required courses in the IT curricula are currently under review to satisfy GE11 and AE51. Please check with an advisor for current information on completing these KU Core goals.

Upper Level Eligibility

In addition to prerequisites and co-requisites, Information Technology undergraduates are required to earn Upper Level Course Eligibility by attaining grades of C or better in each of the following 8 courses:
- GE 21 (both)
- PHSX 114
- MATH 101
- Discrete Structures I and II (EECS 210, MATH 450, or equivalent)
- EECS 168
- EECS 268

If students earn less than a C in any of the above listed courses, they must repeat the course at the next available opportunity and must not take a course for which that course is a prerequisite. It is the students’ responsibility to contact their advisors before beginning the new semester regarding any required repetitions and the associated enrollment adjustments (drops and adds).

To enroll in any upper-level IT course (numbered 300 and above), students must have fulfilled the Upper Level Eligibility Requirements detailed above. Students may also petition for a Partial Waiver of Upper Level Eligibility Requirements by completing the appropriate petition; contact the BSIT advisor at bsit@ku.edu for more information.

Information Technology 4-Year Graduation Plan

The undergraduate program in Information Technology is offered in its entirety only at the KU Edwards Campus in Overland Park, 12600 Quivira Rd., Overland Park, KS 66213. This program is designed for students who have earned an associate’s degree or equivalent hours and wish to complete the upper-level courses necessary for a bachelor’s degree. Students planning to attain the degree will need to transfer key credits from other academic institutions as not all required courses are available through KU.

First and Second Year Preparation

The first two years of study for this degree program are typically completed at Johnson County Community College. Students considering this degree option should contact the Information Technology advisor on the KU Edwards Campus, Lauren McEnaney, bsit@ku.edu, 864-8623 (from Lawrence) or 913-897-8623 (outside Lawrence), for advising on the first two years of study.

Year 1

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Hours</th>
<th>Semester 2</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE21 (first) 1</td>
<td>3</td>
<td>GE21 (second) 1</td>
<td>3</td>
</tr>
<tr>
<td>MATH 101 (GE12)</td>
<td>3</td>
<td>EECS 168</td>
<td>4</td>
</tr>
<tr>
<td>Programming</td>
<td>4</td>
<td>GE3H</td>
<td>3</td>
</tr>
</tbody>
</table>

Fundamentals 2
Bachelor of Science in Interdisciplinary Computing

B.S. in Interdisciplinary Computing Program

Educational Objectives

Graduates who have earned the bachelor's degree in interdisciplinary computing, within a few years following graduation, will have demonstrated technical proficiency, collaborative activities, and professional development.

Technical Proficiency

Graduates will have achieved success and visibility in their chosen careers as shown by technical accomplishments in industry, government, entrepreneurial activities, or academia.

Collaborative Activities

Graduates will have exercised shared responsibilities through activities such as contributions to multiperson or multidisciplinary technical projects, participation in professional society/organization functions, or performing collaborative research. In all such cases, graduates will have contributed to documentation of the collaborative activities.

Professional Development

Graduates will have demonstrated continual technical updating to extend their expertise and adapt to a changing environment through graduate studies; short courses, conferences, and seminars; or professional self-study. In addition, graduates will have demonstrated evidence of increasing technical and/or managerial impact.

Undergraduate Admission to the School of Engineering

First-year undergraduate students may be admitted, but all admissions, both in-state and out-of-state, are selective. Visit the Office of Admissions (http://admissions.ku.edu/whyku/index.shtml) for admission requirements. Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Applications are judged on several factors, including but not limited to high school record, scores on national tests, academic record at college or university level, and trend of grades. High school transcripts and ACT scores are required. Equivalent SAT scores may be substituted.

Minimum Academic Standards for Admission

To be considered for admission to the School of Engineering, beginning first-year students must meet or exceed the following minimum standards:

- 3.0 grade-point average on a 4.0 scale on the Kansas Board of Regents Qualified Admissions (http://admissions.ku.edu/apply/regents_curriculum.shtml) college-preparatory curriculum.
- Top 50 percent of the graduating class of an accredited high school or the equivalent.
- Mathematics ACT score of 22 (or mathematics SAT score of 540). Some engineering degree programs may require a higher mathematics ACT score.

These minimum admission standards apply to all departments. Meeting minimum requirements does not guarantee admission.

Transfer Admission Standards

Applications from all transfer students, whether from other institutions or from other KU units, are evaluated on a case-by-case basis. In general, students with grade-point averages under 2.5 are not considered. Students must submit mathematics ACT or SAT scores or proof of competence in calculus (grade of C or higher). No upper-level engineering credits from non-ABET-accredited engineering programs are acceptable.
as transfer credit for engineering programs. Admission is selective, and meeting the minimum requirements does not guarantee admission.

**Bachelor of Science in Interdisciplinary Computing Degree Requirements**

Through the recently approved interdisciplinary computing major, students receive an enriched computer science experience, with a focus in one of 5 fields:

1. Astronomy,
2. Biology,
3. Chemistry,
4. Geography, or
5. Physics.

**The KU Core**

This is the university-wide curriculum that all incoming undergraduate students will complete as part of their degree requirements. It comprises three general education goals and three advanced education goals. Associated with each goal is one or more learning outcomes:

- GE11, Goal 1/Outcome 1, Critical Thinking;
- GE12, Goal 1/Outcome 2, Quantitative Literacy;
- GE21, Goal 2/Outcome 1, Written Communication (2 units);
- GE22, Goal 2/Outcome 2, Oral Communication;
- GE3H, Goal 3/Outcome 1, Arts & Humanities;
- GE3N Goal 3/Outcome 2, Natural Sciences;
- GE3S Goal 3 /Outcome 3, Social Sciences;
- AE41, Goal 4/Outcome 1, Diversity;
- AE42 Goal 4/Outcome 2, Culture;
- AE51/2, Goal 5/Outcome 1/2, Social Responsibility & Ethics (course and/or practice);
- AE61, Goal 6/Outcome 1/2, Integration & Creativity.

Details of the KU Core can be found at kucore.ku.edu. Some required courses in the EECS curricula satisfy a KU Core goal and/or outcome. For these courses, the goal/outcome code is given in parentheses after the course on the pages below. Where required courses do NOT specifically satisfy KU Core goals (Goals 2, 3, and 4) students must choose from a list of several means to satisfy the required goals.

A minimum of 125 to 128 credit hours is required for the B.S. degree in interdisciplinary computing, as follows:

**Core Courses**

**Computer Science (50)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EECS 101</td>
<td>New Student Seminar (Part of AE51)</td>
<td>1</td>
</tr>
<tr>
<td>EECS 140</td>
<td>Introduction to Digital Logic Design</td>
<td>4</td>
</tr>
<tr>
<td>EECS 168</td>
<td>Programming I</td>
<td>4</td>
</tr>
<tr>
<td>EECS 268</td>
<td>Programming II</td>
<td>4</td>
</tr>
<tr>
<td>EECS 368</td>
<td>Programming Language Paradigms</td>
<td>3</td>
</tr>
<tr>
<td>EECS 388</td>
<td>Embedded Systems</td>
<td>4</td>
</tr>
<tr>
<td>EECS 448</td>
<td>Software Engineering I</td>
<td>4</td>
</tr>
<tr>
<td>EECS 510</td>
<td>Introduction to the Theory of Computing</td>
<td>3</td>
</tr>
<tr>
<td>EECS 560</td>
<td>Data Structures</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EECS 581</td>
<td>Computer Science Design I (Part of AE51)</td>
<td>3</td>
</tr>
<tr>
<td>EECS 582</td>
<td>Computer Science Design II (AE61)</td>
<td>3</td>
</tr>
<tr>
<td>EECS 678</td>
<td>Introduction to Operating Systems</td>
<td>4</td>
</tr>
</tbody>
</table>

Select 9 credits of the following Senior electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EECS 563</td>
<td>Introduction to Communication Networks</td>
<td>3</td>
</tr>
<tr>
<td>EECS 638</td>
<td>Fundamentals of Expert Systems</td>
<td>3</td>
</tr>
<tr>
<td>EECS 645</td>
<td>Computer Architecture</td>
<td>3</td>
</tr>
<tr>
<td>EECS 647</td>
<td>Introduction to Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>EECS 648</td>
<td>Software Engineering Tools</td>
<td>3</td>
</tr>
<tr>
<td>EECS 649</td>
<td>Introduction to Artificial Intelligence</td>
<td>3</td>
</tr>
<tr>
<td>EECS 660</td>
<td>Fundamentals of Computer Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>EECS 662</td>
<td>Programming Languages</td>
<td>3</td>
</tr>
<tr>
<td>EECS 665</td>
<td>Compiler Construction</td>
<td>3</td>
</tr>
<tr>
<td>EECS 672</td>
<td>Introduction to Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>EECS 690</td>
<td>Special Topics: _____</td>
<td>3</td>
</tr>
</tbody>
</table>

Any EECS course numbered 700 or above

**Mathematics (22)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td>Calculus I (GE12)</td>
<td>5</td>
</tr>
<tr>
<td>MATH 122</td>
<td>Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>MATH 223</td>
<td>Vector Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MATH 290</td>
<td>Elementary Linear Algebra</td>
<td>2</td>
</tr>
<tr>
<td>MATH 526</td>
<td>Applied Mathematical Statistics I (GE11 for BIOL focus only)</td>
<td>3</td>
</tr>
<tr>
<td>EECS 210</td>
<td>Discrete Structures</td>
<td>4</td>
</tr>
</tbody>
</table>

**Communications (9)**

Satisfy GE21 1

Satisfy GE22 1

**Arts/Humanities/Social Science (6)**

Satisfy GE3H Arts & Humanities 1

Satisfy GE3S 1

Satisfy AE41 and AE42 (6) 1

1 Means of satisfying KU Core Goals are chosen from a variety of options (see kucore.ku.edu.) Hours listed are assuming the goals are satisfied with course work.

**Astronomy Concentration**

In addition to the core courses above, students in the astronomy concentration take the following courses:

**Natural Science and Other Disciplines (34)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 220</td>
<td>Applied Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 210</td>
<td>General Physics I for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 216</td>
<td>General Physics I Laboratory (Part of AE51)</td>
<td>1</td>
</tr>
<tr>
<td>PHSX 212</td>
<td>General Physics II (GE3N)</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 236</td>
<td>General Physics II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>PHSX 313</td>
<td>General Physics III</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 316</td>
<td>Intermediate Physics Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>ASTR 391</td>
<td>Physical Astronomy, Honors</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 503</td>
<td>Undergraduate Research</td>
<td>2</td>
</tr>
<tr>
<td>ASTR 591</td>
<td>Stellar Astronomy</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 592</td>
<td>Galactic and Extragalactic Astronomy</td>
<td>3</td>
</tr>
</tbody>
</table>
Select one of the following Astronomy electives:

- ASTR courses numbered 500 and above
- MATH 581 Numerical Methods
- MATH 611 Time Series Analysis
- PHSX 615 Numerical and Computational Methods in Physics

**Biology Concentration**

In addition to the core courses above, students in the biology concentration take the following courses:

**Natural Science and Other Disciplines (33)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 152</td>
<td>Principles of Organismal Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 350</td>
<td>Principles of Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 400</td>
<td>Fundamentals of Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>or BIOL 435</td>
<td>Introduction to Neurobiology</td>
<td></td>
</tr>
<tr>
<td>BIOL 408</td>
<td>Physiology of Organisms</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 412</td>
<td>Evolutionary Biology</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following Biology electives: 3

- BIOL 413 History and Diversity of Organisms
- BIOL 414 Principles of Ecology
- BIOL 416 Cell Structure and Function
- BIOL 417 Biology of Development
- BIOL 428 Introduction to Systematics

**Chemistry Concentration**

In addition to the core courses above, students in the chemistry concentration take the following courses:

**Natural Science and Other Disciplines (35)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 220</td>
<td>Applied Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 210</td>
<td>General Physics I for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 216</td>
<td>General Physics I Laboratory (Part of AE51)</td>
<td>1</td>
</tr>
<tr>
<td>PHSX 212</td>
<td>General Physics II (GE3N)</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 236</td>
<td>General Physics II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 135</td>
<td>General Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 330</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 530</td>
<td>Physical Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 531</td>
<td>Physical Chemistry I Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 535</td>
<td>Physical Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 698</td>
<td>Undergraduate Research Problems</td>
<td>2</td>
</tr>
</tbody>
</table>

**Geography Concentration**

In addition to the core courses above, students in the geography concentration take the following courses:

**Natural Science and Other Disciplines (33)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 210</td>
<td>General Physics I for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 216</td>
<td>General Physics I Laboratory (Part of AE51)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Physics Concentration**

In addition to the core courses above, students in the physics concentration take the following courses:

**Natural Science and Other Disciplines (32)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 220</td>
<td>Applied Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 210</td>
<td>General Physics I for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 216</td>
<td>General Physics I Laboratory (Part of AE51)</td>
<td>1</td>
</tr>
<tr>
<td>PHSX 212</td>
<td>General Physics II (GE3N)</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 236</td>
<td>General Physics II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>PHSX 313</td>
<td>General Physics III</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 316</td>
<td>Intermediate Physics Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>PHSX 503</td>
<td>Undergraduate Research</td>
<td>2</td>
</tr>
<tr>
<td>PHSX 511</td>
<td>Introductory Quantum Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 521</td>
<td>Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 531</td>
<td>Electricity and Magnetism</td>
<td>3</td>
</tr>
</tbody>
</table>

Physics electives (chosen from PHSX courses numbered 600 and above) 6

Total Hours 32

**Course Prerequisites and Corequisites**

Students must pass (at the appropriate grade level) all prerequisite courses for a given course before taking the subsequent course. If Course A is a Corequisite for Course B, Course A must be taken in the same semester as Course B or be completed prior to taking Course B.

**Upper Level Eligibility**

In addition to prerequisites and co-requisites, EECS undergraduates are required to earn **Upper Level Course Eligibility** by attaining grades of C or better in each of the following courses:

IC ASTR: (16 courses) GE21 (both); PHSX 210, & 216, 212 & 236; MATH 121, 122, 220, 223, 290; EECS 101, 140, 168, 210, 268

IC BIOL: (15 courses) GE21 (both); MATH 121,122, 223 290; EECS 101, 140, 168, 210, 268; CHEM 130, 135; BIOL 150, 152
IC CHEM: (18 courses) GE 21 (both); PHSX 210 & 216, 212 & 236; MATH 121, 122, 220, 223, 290; EECS 101, 140, 168, 210, 268; CHEM 184, 188

IC GEOG: (13 courses) GE 21 (both); PHSX 210 & 216; MATH 121, 122, 223, 290; EECS 101, 140, 168, 210, 268

IC PHSX: (16 courses) GE 21 (both); PHSX 210 & 216, 212 & 236; MATH 121, 122, 220, 223, 290; EECS 101, 140, 168, 210, 268

If students earn less than a C in any of the above listed courses, they must repeat the course at the next available opportunity and must not take a course for which that course is a prerequisite. It is the students’ responsibility to contact their advisors before beginning the new semester regarding any required repetitions and the associated enrollment adjustments (drops and adds).

To enroll in any upper level EECS course (numbered 300 and above), students must have fulfilled the Upper Level Eligibility Requirements detailed above. Exceptions: EECS 312, EECS 360, EECS 368 and EECS 388 may be taken in the same semester as students are completing their upper level eligibility. Students may also petition for a Partial Waiver of Upper Level Eligibility Requirements by completing the appropriate petition, found in the EECS office or at www.eecs.ku.edu.

Double Major

If students wish to double-major (earn two degrees), they must fulfill all the requirements for the degrees in question. They must also consult the Engineering Dean’s office and the department and/or school of the second major to find out if there are any additional requirements. If they wish to obtain two degrees offered by the EECS department, the following rule applies: a course that is required for one EECS degree program may not be used to satisfy a Senior Elective or General Elective requirement of another EECS degree program.

Interdisciplinary Computing with Astronomy 4-Year Graduation Plan

Students Entering in Fall of Odd Years

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EECS 101</td>
<td>1</td>
<td>GE21 (second)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE21 (first)</td>
<td>3</td>
<td>MATH 122</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>MATH 121</td>
<td>5</td>
<td>PHSX 210</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>EECS 140 or 168</td>
<td>4</td>
<td>PHSX 216</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE3H</td>
<td>3</td>
<td>EECS 168 or 140</td>
<td>4</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sophomore</th>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
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<tbody>
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<th>Spring</th>
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Total Hours: 127

1 Means of satisfying KU Core Goals are chosen from a variety of options (see kucore.ku.edu). Hours listed are assuming the goals are satisfied with course work.

Students Entering in Fall of Even Years

<table>
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<tr>
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<th>Spring</th>
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<tbody>
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<td>GE3H</td>
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<td>EECS 168 or 140</td>
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<th>Spring</th>
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<tbody>
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<td>GE3H</td>
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<td>PHSX 236</td>
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<th>Junior</th>
<th>Fall</th>
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<th>Spring</th>
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<td>EECS 678</td>
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<td>PHSX 313</td>
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</tr>
<tr>
<td>GE22</td>
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<td>PHSX 316</td>
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16
Senior

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<tr>
<th>Fall</th>
<th>Hours Spring</th>
<th>Hours</th>
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<tr>
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<td>ASTR 503</td>
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<td>ASTR 596</td>
<td>2 ASTR elective 2</td>
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<td>Total Hours: 16</td>
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Means of satisfying KU Core Goals are chosen from a variety of options (see kucore.ku.edu). Hours listed are assuming the goals are satisfied with course work.

### Interdisciplinary Computing with Biology Concentration 4-Year Graduation Plan

#### Freshman

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<tr>
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<td>GE21 (first)$^1$</td>
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<tr>
<td>MATH 121</td>
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<td>EECS 140 or 168</td>
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Means of satisfying KU Core Goals are chosen from a variety of options (see kucore.ku.edu). Hours listed are assuming the goals are satisfied with course work.

#### Sophomore

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours Spring</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EECS 210</td>
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<td>3</td>
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<tr>
<td>EECS 268</td>
<td>4 EECS 388</td>
<td>4</td>
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<tr>
<td>MATH 290</td>
<td>2 MATH 223</td>
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<tr>
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#### Junior

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<td>EECS 510</td>
<td>3 MATH 122</td>
<td>4</td>
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<tr>
<td>GE22$^1$</td>
<td>3 CHEM 531</td>
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<tr>
<td>GE3H$^1$</td>
<td>3 CHEM 535</td>
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#### Senior

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<td>MATH 526</td>
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Means of satisfying KU Core Goals are chosen from a variety of options (see kucore.ku.edu). Hours listed are assuming the goals are satisfied with course work.
Interdisciplinary Computing with Geography Concentration 4-Year Graduation Plan

**Freshman**

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<td>MATH 121</td>
<td>5</td>
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<tr>
<td>GE3H</td>
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<td>PHSX 216</td>
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**Sophomore**

<table>
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<td>EECS 268</td>
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<td>EECS 388</td>
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<td>MATH 223</td>
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<td>GEGO BASICS II</td>
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**Junior**

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<td>EECS 678</td>
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**Senior**

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Total Hours: 126

1 Means of satisfying KU Core Goals are chosen from a variety of options (see kucore.ku.edu). Hours listed are assuming the goals are satisfied with course work.

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Interdisciplinary Computing with Physics Concentration 4-Year Graduation Plan

**Freshman**

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<tbody>
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**Sophomore**

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**Junior**

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<td>GE22</td>
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**Senior**

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| Total Hours: 125 |

1 Means of satisfying KU Core Goals are chosen from a variety of options (see kucore.ku.edu). Hours listed are assuming the goals are satisfied with course work.

---

Departmental Honors

An undergraduate student may graduate with departmental honors in electrical engineering, computer engineering, computer science, or interdisciplinary computing by graduating with a minimum grade-point average requirement while maintaining full-time status. In addition, students must enroll in EECS 498 Honors Research for their last 2 semesters and must complete an independent research project paper and oral presentation to a panel of 3 judges. See the EECS Undergraduate Handbook for full details.

Master of Science in Electrical Engineering

Electrical Engineering and Computer Science

The technological advances that have made our society what it is today are due largely to the efforts of electrical engineers, computer engineers, and computer scientists. Among these advances are radio, television, telephones, wireless and mobile communications, personal computers,
workstations, mainframe computers, aircraft avionics, satellite electronics, automobile electronics, office machinery, medical electronic equipment, video games, electric power generation and distribution systems, telecommunications, computer networks (including the Internet), personal entertainment products, radar, defense electronics, artificial intelligence, and a variety of computer software.

**Vision and Mission**

The vision of the EECS department is to provide a stimulating and challenging intellectual environment.

- To have classes populated by outstanding students.
- To be world class in an increasing number of selected areas of research.
- To have faculty members with high visibility among their peers.

The mission of the EECS department is

- To educate the next generation of electrical engineers, computer engineers, and computer scientists.
- To discover, apply, and disseminate knowledge.
- To be an asset to the community and to society.

**Graduate Admission to the Department of Electrical Engineering and Computer Science**

Applicants for the Master of Science degree in Electrical Engineering (M.S.E.E.) normally possess a degree in electrical engineering or computer engineering. However, a student with good preparation in some other field of engineering, mathematics, business, or science may qualify by taking appropriate additional undergraduate courses. Such courses normally do not count toward the graduate degree. A list of specific prerequisite courses for the M.S. in Electrical Engineering degree is available in the graduate office or on the department’s website.

Applicants must demonstrate evidence of aptitude for graduate work, as shown by suitable performance in undergraduate and any graduate course work, by aptitude test scores on the Graduate Record Examination, and by academic letters of reference.

The application deadline for fall admission is **March 1**. For full consideration for fellowships and assistantships, a complete application packet should be submitted by **January 1**. The deadline for spring admission is **October 1**. See Graduate Studies (http://www.graduate.ku.edu) for the application procedure and fees.

**Application materials**

- Application
- GRE scores (school code 6871)
- Statement of objectives and resume
- Official transcript
- Letters of recommendation
- TOEFL scores (international students)
- Financial statement (international students only)

Submit all supporting documents and your graduate application online (http://www.graduate.ku.edu).

**Visiting Us**

The graduate program staff is happy to work with all prospective students in determining the fit between the student and the program. In order to determine this, we feel that visiting our campus in Lawrence is a very important step. In order to facilitate your visit to KU, there are two main options:

The first, and most preferred, option entails simply applying for admission to the program. All prospective students are welcome to attend our Open House in early November and some highly qualified admitted students may be invited to participate in Visitation Days in late February or early March (prior to the fall semester of your intended matriculation). These organized visitation opportunities will allow you time to gather a great deal of first-hand information which we hope will help you in making a final decision about whether to attend KU.

The second option is making arrangements to visit us on your own, outside of organized events. With early notification, we will do our best to work with you to provide information and schedule appointments with faculty when possible. Please contact us if you feel that this is the best option for you.

**Contact Information**

Please contact the EECS Program Assistant at eecs_graduate@ku.edu or (785) 864-4487, to schedule a visit or with questions about the application process.

**The University of Kansas**

Department of Electrical Engineering and Computer Science

Graduate Office

Eaton Hall

1520 W. 15th Street, Suite 2001E

Lawrence, KS 66045-7605

**M.S. Degree Requirements**

The master’s program in Electrical Engineering offers a thesis and nonthesis option. The thesis option requires a minimum of 8 approved graduate courses, 6 hours of Master’s Thesis, EECS 802 and an oral defense of the thesis in the final semester. A master’s thesis should address an open problem in EECS. After evaluating current literature related to the problem of interest, students must design, build, and evaluate hardware or software systems or system models to prove or disprove their research hypothesis. Completing a thesis typically takes 2 semesters and produces results that could be published as a paper in conference proceedings or a professional journal. The nonthesis option requires a minimum of 9 approved graduate courses, 3 hours of Graduate conference proceedings or a professional journal. The nonthesis option requires a minimum of 8 approved graduate courses, 3 hours of Graduate Problems, EECS 802, and an oral defense of the project report in the final semester.

Electrical engineering students are encouraged to choose a focus area for their project or thesis topic early in their graduate career, and identify a faculty advisor who is interested in supervising their work.

**Associated Focus Areas**

- Applied Electromagnetics
- Communications Systems
- Network Engineering
- Radar Systems and Remote Sensing
- RF Systems Engineering
Central to the master’s program in electrical engineering is the development of each student’s Plan of Study. The plan must be approved by a committee of 3 EECS Graduate Faculty members. At least 2 members of the committee must be tenured or tenure track members of the department graduate faculty. The plan must be developed and approved by the graduate office during the first semester, and must be consistent with the identified degree and goals. The Plan of Study outlines all course work and designates the thesis or nonthesis option. All plans must include at least 1 semester of EECS 802 Electrical Engineering and Computer Science Colloquium and Seminar on Professional Issues.

The student may select a set of courses from one of the predefined areas, or work in conjunction with an advisor to customize the course selection. A current list of the areas and their requirements is available on the EECS website (http://www.eecs.ku.edu/current_students/graduate/focus_areas). The graduate faculty members who approve the plan verify that courses selected meet the guidelines and are appropriate for the M.S. degree program. Modifications to the plan must be approved by the student’s committee and resubmitted to the graduate office for approval.

If an M.S. Plan of Study does not follow a predefined course listing, students will be required to have the EECS graduate committee assess the submitted Plan of Study, goals and justification for approval. The plan must include a minimum of 5 EECS courses numbered 700 or higher, excluding EECS 801 Directed Graduate Readings, EECS 891 Graduate Problems, and EECS 899 Master’s Thesis or Report. A maximum of 3 courses outside the department and a maximum of 2 courses numbered below 700 may be counted toward the requirements for the degree. Courses numbered below 500 do not count toward the degree. All plans of study must include at least one semester of EECS 802 Electrical Engineering and Computer Science Colloquium and Seminar on Professional Issues.

Subject to the general restrictions on M.S. course work, the thesis option requires a minimum of 8 courses approved in a Plan of Study, 6 hours of EECS 899 Master’s Thesis or Report, EECS 802 Electrical Engineering and Computer Science Colloquium and Seminar on Professional Issues, and a general oral examination. For students completing the thesis option, EECS 891 Graduate Problems does not count toward the 8 courses required for the degree. Before thesis work begins, the student selects a thesis advisor who is a graduate faculty member of the department. A thesis proposal of research into a specific research question is to be submitted to and accepted by the student’s graduate committee at least one semester before completion of the program.

Subject to the general restrictions on M.S. course work, the nonthesis option requires a minimum of 9 courses approved in a Plan of Study, 3 hours of EECS 891 Graduate Problems, EECS 802 Electrical Engineering and Computer Science Colloquium and Seminar on Professional Issues, and a general oral examination. The nonthesis option requires the execution and completion of a substantial project whose topic and scope is agreed to between the student and advisor. A project is a creative endeavor such as designing and implementing hardware, software system or the integration of existing knowledge.

The general oral examination must be taken in the last semester. It is conducted by an examining committee consisting of the student’s advisor and at least 2 other Graduate Faculty members of the department selected by the student and advisor. The committee determines if the written thesis or project report, oral presentation of research, and general knowledge of the discipline meet the department’s standards.

Master of Science in Computer Engineering

Electrical Engineering and Computer Science

The technological advances that have made our society what it is today are due largely to the efforts of electrical engineers, computer engineers, and computer scientists. Among these advances are radio, television, telephones, wireless and mobile communications, personal computers, workstations, mainframe computers, aircraft avionics, satellite electronics, automobile electronics, office machinery, medical electronic equipment, video games, electric power generation and distribution systems, telecommunications, computer networks (including the Internet), personal entertainment products, radar, defense electronics, artificial intelligence, and a variety of computer software.

Vision and Mission

The vision of the EECS department is to provide a stimulating and challenging intellectual environment.

- To have classes populated by outstanding students.
- To be world class in an increasing number of selected areas of research.
- To have faculty members with high visibility among their peers.

The mission of the EECS department is to:

- To educate the next generation of electrical engineers, computer engineers, and computer scientists.
- To discover, apply, and disseminate knowledge.
- To be an asset to the community and to society.

Graduate Admission to the School of Engineering

Procedure

Admission requirements for the School of Engineering follow the general KU requirements plus those of each engineering graduate program. All applicants must apply online (http://www.graduate.ku.edu/apply). Detailed information about supplemental application materials for each program is listed here (http://www.engr.ku.edu/prospective/graduate/apply). Important information for prospective international students is available from International Student & Scholar Services (http://www2.ku.edu/~issfacts). Download a PDF (http://www.engr.ku.edu/prospective/graduate/apply/grad_app_process.pdf) for more information about the review process for graduate applications.

Some departments and programs require the Graduate Record Examination. Applications must be accompanied by a nonrefundable fee. See Admission (p. 2059) in the Graduate Studies section of the online catalog.

Baccalaureate Preparation

To qualify for graduate work in any field of engineering, a student generally must hold an accredited baccalaureate degree in that field and have at least a 3.0 grade-point average. A student with good preparation in such fields as mathematics, chemistry, or physics, or in a related
engineering field, may be admitted on the basis of performance in specific undergraduate courses, determined by the department of interest to the prospective student. Undergraduate hours do not count as part of a student's Plan of Study, but they must be completed with grades of B or higher.

Exceptionally qualified undergraduates may be admitted directly to a Fast-Track Ph.D. program, which does not require the master’s as an intermediate degree. Students who wish to earn a Ph.D. and believe that they meet this criterion are encouraged to contact the graduate advisor in their field of interest.

English Proficiency Requirement
All graduate students in the School of Engineering who are required to take courses at the Applied English Center (http://www.aec.ku.edu) must pass the AEC’s English Proficiency Examination within 3 semesters of their initial enrollment. Failure to complete the English proficiency requirement within this time limit may result in dismissal from the graduate engineering program.

Graduate Admission
Applicants for the Master of Science degree in Computer Engineering (M.S.Co.E.) normally possess a degree in computer engineering or electrical engineering. However, a student with good preparation in some other field of engineering, mathematics, business, or science may qualify by taking appropriate additional undergraduate courses. Such courses normally do not count toward the graduate degree. A list of specific prerequisite courses for the M.S. in Computer Engineering degree is available in the graduate office or on the department’s website.

Applicants must demonstrate evidence of aptitude for graduate work, as shown by suitable performance in undergraduate and any graduate course work, by aptitude test scores on the Graduate Record Examination, and by academic letters of reference.

The application deadline for fall admission is March 1. For full consideration for fellowships and assistantships, a complete application packet should be submitted by January 1. The deadline for spring admission is October 1. See Graduate Studies (http://www.graduate.ku.edu) for the application procedure and fees.

Application materials
- Application
- GRE scores (school code 6871)
- Statement of objectives and resume
- Official transcript
- Letters of recommendation
- TOFEL scores (international students)
- Financial statement (international students only)

Submit all supporting documents and your graduate application online (http://www.graduate.ku.edu).

Visiting Us
The graduate program staff is happy to work with all prospective students in determining the fit between the student and the program. In order to determine this, we feel that visiting our campus in Lawrence is a very important step. In order to facilitate your visit to KU, there are two main options:

The first, and most preferred, option entails simply applying for admission to the program. All prospective students are welcome to attend our Open House in early November and some highly qualified admitted students may be invited to participate in Visitation Days in late February or early March (prior to the fall semester of your intended matriculation). These organized visitation opportunities will allow you time to gather a great deal of first-hand information which we hope will help you in making a final decision about whether to attend KU.

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Computer engineering students are encouraged to choose a focus area for their project or thesis topic early in their graduate career, and identify a faculty advisor who is interested in supervising their work.

Associated Focus Areas
- Computer Systems Design
- Computing in the Biosciences
- Network Engineering
- Network Systems
- Security and Assurance

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Master of Science in Computer Science

Electrical Engineering and Computer Science

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Vision and Mission

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- To be world class in an increasing number of selected areas of research.
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Graduate Admission to the School of Engineering

Procedure

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engineering field, may be admitted on the basis of performance in specific undergraduate courses, determined by the department of interest to the prospective student. Undergraduate hours do not count as part of a student’s Plan of Study, but they must be completed with grades of B or higher.

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English Proficiency Requirement

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Graduate Admission

Applicants for the Master of Science degree in Computer Science (M.S.C.S.) normally possess a degree in computer science. However, a student with good preparation in some other field of engineering, mathematics, business, or science may qualify by taking appropriate additional undergraduate courses. Such courses normally do not count toward the graduate degree. A list of specific prerequisite courses for the M.S. in Computer Science degree is available in the graduate office or on the department’s website.

Applicants must demonstrate evidence of aptitude for graduate work, as shown by suitable performance in undergraduate and any graduate course work, by aptitude test scores on the Graduate Record Examination, and by academic letters of reference.

The application deadline for fall admission is March 1. For full consideration for fellowships and assistantships, a complete application packet should be submitted by January 1. The deadline for spring admission is October 1. See the Graduate Studies website (http://www.graduate.ku.edu) for the application procedure and fees.

Application materials

- Application
- GRE scores (school code 6871)
- Statement of objectives and resume
- Official transcript
- Letters of recommendation
- TOFEL scores (international students)
- Financial statement (international students only)

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Visiting Us

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M.S. Degree Requirements

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Computer science students are encouraged to choose a focus area for their project or thesis topic early in their graduate career, and identify a faculty advisor who is interested in supervising their work.

Associated Focus Areas

- Computer Systems Design
- Computing in the Biosciences
- Intelligent Informatics
- Language and Semantics
- Network Systems
- Security and Assurance
- Theory of Computing

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Master of Science in Information Technology

Electrical Engineering and Computer Science

The technological advances that have made our society what it is today are due largely to the efforts of electrical engineers, computer engineers, and computer scientists. Among these advances are radio, television, telephones, wireless and mobile communications, personal computers, workstations, mainframe computers, aircraft avionics, satellite electronics, automobile electronics, office machinery, medical electronic equipment, video games, electric power generation and distribution systems, telecommunications, computer networks (including the Internet), personal entertainment products, radar, defense electronics, artificial intelligence, and a variety of computer software.

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• To educate the next generation of electrical engineers, computer engineers, and computer scientists.
• To discover, apply, and disseminate knowledge.
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Graduate Admission to the School of Engineering

Procedure

Admission requirements for the School of Engineering follow the general KU requirements plus those of each engineering graduate program. All applicants must apply online (http://www.graduate.ku.edu/apply). Detailed information about supplemental application materials for each program is listed here (http://www.engr.ku.edu/prospective/graduate/apply). Important information for prospective international students is available from International Student & Scholar Services (http://www2.ku.edu/~issfacts). Download a PDF (http://www.engr.ku.edu/prospective/graduate/grad_app_process.pdf) for more information about the review process for graduate applications.

Some departments and programs require the Graduate Record Examination. Applications must be accompanied by a nonrefundable fee. See Admission (p. 2059) in the Graduate Studies section of the online catalog.

Baccalaureate Preparation

To qualify for graduate work in any field of engineering, a student generally must hold an accredited baccalaureate degree in that field and have at least a 3.0 grade-point average. A student with good preparation in such fields as mathematics, chemistry, or physics, or in a related
Engineering

engineering field, may be admitted on the basis of performance in specific undergraduate courses, determined by the department of interest to the prospective student. Undergraduate hours do not count as part of a student’s Plan of Study, but they must be completed with grades of B or higher.

Exceptionally qualified undergraduates may be admitted directly to a Fast-Track Ph.D. program, which does not require the master’s as an intermediate degree. Students who wish to earn a Ph.D. and believe that they meet this criterion are encouraged to contact the graduate advisor in their field of interest.

English Proficiency Requirement

All graduate students in the School of Engineering who are required to take courses at the Applied English Center (http://www.aec.ku.edu) must pass the AEC’s English Proficiency Examination within 3 semesters of their initial enrollment. Failure to complete the English proficiency requirement within this time limit may result in dismissal from the graduate engineering program.

Admission

The Master of Science degree in Information Technology (M.S.I.T.) is designed for IT professionals in the Kansas City area. Courses are offered in the evening on the Edwards Campus, which is conveniently located in Johnson County. The M.S.I.T. program is intended for students who have a bachelor’s degree in information technology, computer science, computer information systems, computer engineering, or a related field who enter the program for advanced studies, or for those who seek additional academic studies for professional growth or career advancement. A student with good preparation in some other field of engineering, mathematics, business, or science may qualify by taking appropriate additional undergraduate courses. Such courses normally do not count toward the graduate degree.

Applicants who hold an undergraduate degree in information technology, computer science, computer information systems, computer engineering, or related discipline are required to have a minimum of 2 years of professional work experience in I.T. Applications without an undergraduate degree in a computer-related field must have 4 years of relevant professional work experience in I.T. The professional work experience requirement may be waived for recent graduates with an undergraduate degree in I.T. Applicants must be able to demonstrate knowledge of programming via experience or equivalent coursework in data structures and a modern programming language. As an applicant for a technology-based degree that requires probability, statistics, and advanced algebra, an applicant must be able to demonstrate sufficient mathematics aptitude via academic background, GRE scores, and work history.

The application deadline for fall admission is March 1. For full consideration for fellowships and assistantships, a complete application packet should be submitted by January 1. The deadline for spring admission is October 1. See the Graduate Studies website (http://www.graduate.ku.edu) for the application procedure and fees.

Application materials

- Application
- GRE scores (school code 6871)
- Statement of objectives and resume
- Official transcript
- Letters of recommendation
- TOEFL scores (international students)
- Financial statement (international students only)

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M.S. Degree Requirements

Individuals completing the M.S.I.T. program are expected to understand fundamental principles and underlying technologies of IT. Individuals must

- Understand how to realize an IT infrastructure, from defining requirements, design, implementation, deployment, integration, and on through its lifecycle.
- Understand how to apply IT within an organizational context to increase productivity and competitiveness and to meet business goals.
- Understand the policy, security, privacy, ethical, and legal aspects of IT and its evolution and future trends.
- Have the ability to effectively communicate to affect technological decisions.

The master’s program in Information Technology offers a thesis and nonthesis option. The thesis option requires a minimum of 8 approved graduate courses, 6 hours of Master’s Thesis, EECS 802 and an oral defense of the thesis in the final semester. A master’s thesis should address an open problem in EECS. After evaluating current literature related to the problem of interest, students must design, build, and evaluate hardware or software systems or system models to prove or disprove their research hypothesis. Completing a thesis typically takes 2 semesters and produces results that could be published as a paper in conference proceedings or a professional journal. The nonthesis option requires a minimum of 9 approved graduate courses, 3 hours of Graduate Problems, EECS 802, and an oral defense of the project report in the final semester.

Information Technology students are required to choose a focus area for their project or thesis topic early in their graduate career and identify a faculty advisor who is interested in supervising their work. Students are required to take their courses from the focus area of their choice. To deviate from the core and elective courses defined for the M.S.I.T. program requires advisor concurrence, petition and approval of the EECS graduate committee, and for other EECS courses, permission of the instructor.

Associated Focus Areas

- Information Assurance and Management
- Internet Engineering and Management
Central to the master’s program in Information Technology is the development of each student’s Plan of Study. The plan must be approved by a committee of 3 EECS Graduate Faculty members. At least 2 members of the committee must be tenured or tenure track members of the department graduate faculty. The plan must be developed and approved by the graduate office during the first semester. The Plan of Study outlines all course work and designates the thesis or nonthesis option. It must include 6 core courses, 2 courses from the associated elective list if the student pursues a thesis option, or 3 courses from the associated elective list if the student pursues the non-thesis option. Both options require at least one semester of EECS 802 Electrical Engineering and Computer Science Colloquium and Seminar on Professional Issues. A current list of the areas and their requirements is available on the EECS website (http://www.eecs.ku.edu/current_students/graduate/focus_areas). The 3 graduate faculty members who approve the plan verify that courses selected meet the guidelines and are appropriate for the M.S.I.T. degree program. Modifications to the plan must be approved by the student’s committee and resubmitted to the graduate office for approval.

Subject to the general restrictions on M.S. course work, the thesis option requires a minimum of 8 courses approved in a Plan of Study, 6 hours of EECS 899 Master’s Thesis or Report, EECS 802 Electrical Engineering and Computer Science Colloquium and Seminar on Professional Issues, and a general oral examination. For students completing the thesis option, EECS 891 Graduate Problems does not count toward the 8 courses required for the degree. Before thesis work begins, the student selects a thesis advisor who is a graduate faculty member of the department. A thesis proposal of research into a specific research question is to be submitted to and accepted by the student’s graduate committee at least one semester before completion of the program.

Subject to the general restrictions on M.S. course work, the nonthesis option requires a minimum of 9 courses approved in a Plan of Study, 3 hours of EECS 891 Graduate Problems, EECS 802 Electrical Engineering and Computer Science Colloquium and Seminar on Professional Issues, and a general oral examination. The non-thesis option requires the execution and completion of a substantial project whose topic and scope is agreed to between the student and advisor. A project is a creative endeavor such as designing and implementing hardware, software system or the integration of existing knowledge.

The general oral examination must be taken in the last semester. It is conducted by an examining committee consisting of the student’s advisor and at least 2 other Graduate Faculty members of the department selected by the student and advisor. The committee determines if the written thesis or project report, oral presentation of research, and general knowledge of the discipline meet the department’s standards.

Doctor of Philosophy in Computer Science

Electrical Engineering and Computer Science

The technological advances that have made our society what it is today are due largely to the efforts of electrical engineers, computer engineers, and computer scientists. Among these advances are radio, television, telephones, wireless and mobile communications, personal computers, workstations, mainframe computers, aircraft avionics, satellite electronics, automobile electronics, office machinery, medical electronic equipment, video games, electric power generation and distribution systems, telecommunications, computer networks (including the Internet), personal entertainment products, radar, defense electronics, artificial intelligence, and a variety of computer software.

Vision and Mission

The vision of the EECS department is to provide a stimulating and challenging intellectual environment.

• To have classes populated by outstanding students.
• To be world class in an increasing number of selected areas of research.
• To have faculty members with high visibility among their peers.

The mission of the EECS department is

• To educate the next generation of electrical engineers, computer engineers, and computer scientists.
• To discover, apply, and disseminate knowledge.
• To be an asset to the community and to society.

Graduate Admission to the School of Engineering

Procedure

Admission requirements for the School of Engineering follow the general KU requirements plus those of each engineering graduate program. All applicants must apply online (http://www.graduate.ku.edu/apply). Detailed information about supplemental application materials for each program is listed here (http://www.engr.ku.edu/prospective/graduate/apply). Important information for prospective international students is available from International Student & Scholar Services (http://www2.ku.edu/~issfacts). Download a PDF (http://www.engr.ku.edu/prospective/graduate/apply/grad_app_process.pdf) for more information about the review process for graduate applications.

Some departments and programs require the Graduate Record Examination. Applications must be accompanied by a nonrefundable fee. See Admission (p. 2059) in the Graduate Studies section of the online catalog.

Baccalaureate Preparation

To qualify for graduate work in any field of engineering, a student generally must hold an accredited baccalaureate degree in that field and have at least a 3.0 grade-point average. A student with good preparation in such fields as mathematics, chemistry, or physics, or in a related engineering field, may be admitted on the basis of performance in specific undergraduate courses, determined by the department of interest to the prospective student. Undergraduate hours do not count as part of a student’s Plan of Study, but they must be completed with grades of B or higher.

Exceptionally qualified undergraduates may be admitted directly to a Fast-Track Ph.D. program, which does not require the master’s as an intermediate degree. Students who wish to earn a Ph.D. and believe that they meet this criterion are encouraged to contact the graduate advisor in their field of interest.
English Proficiency Requirement

All graduate students in the School of Engineering who are required to take courses at the Applied English Center (http://www.aec.ku.edu) must pass the AEC’s English Proficiency Examination within 3 semesters of their initial enrollment. Failure to complete the English proficiency requirement within this time limit may result in dismissal from the graduate engineering program.

Graduate Admission

Admission is open to college and university graduates whose previous records indicate an ability to succeed with graduate work in the chosen discipline. Applicants with strong academic credentials may be admitted directly into the Ph.D. computer science program without an M.S. in the requisite field.

Applicants must demonstrate evidence of aptitude for graduate work, as shown by suitable performance in undergraduate and any graduate course work, by aptitude test scores on the Graduate Record Examination, and by academic letters of reference.

Unless the applicant’s native language is English or the applicant has received a baccalaureate degree or higher from an accredited U.S. institution of higher education, he or she must meet the department’s standard for the Test of English as a Foreign Language, which is higher than the general KU requirement. Applicants for graduate teaching assistantships must earn satisfactory scores on the Test of Spoken English.

The application deadline for fall admission is March 1. For full consideration for fellowships and assistantships, a complete application packet should be submitted by January 1. The deadline for spring admission is October 1. See the Graduate Studies website (http://www.graduate.ku.edu) for the application procedure and fees.

Application Materials

- Application
- GRE scores (school code 6871).
- Statement of objectives and resume
- Official transcript
- Letters of recommendation
- TOEFL scores (international students)
- Financial statement (international students only)

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Visiting Us

The graduate program staff is happy to work with all prospective students in determining the fit between the student and the program. In order to determine this, we feel that visiting our campus in Lawrence is a very important step. In order to facilitate your visit to KU, there are two main options:

The first, and most preferred, option entails simply applying for admission to the program. All prospective students are welcome to attend our Open House in early November and some highly qualified admitted students may be invited to participate in Visitation Days in late February or early March (prior to the fall semester of your intended matriculation). These organized visitation opportunities will allow you time to gather a great deal of first-hand information which we hope will help you in making a final decision about whether to attend KU.

The second option is making arrangements to visit us on your own, outside of organized events. With early notification, we will do our best to work with you to provide information and schedule appointments with faculty when possible. Please contact us if you feel that this is the best option for you.

Contact Information

Please contact the EECS Program Assistant at eecs_graduate@ku.edu or (785) 864-4487, to schedule a visit or with questions about the application process.

The University of Kansas
Department of Electrical Engineering and Computer Science
Graduate Office
Eaton Hall
1520 W. 15th Street, Suite 2001E
Lawrence, KS 66045-7605

Ph.D. Degree Requirements

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In the first semester, the student must select a major advisor and a committee. The student’s committee consists of a minimum of 5 graduate faculty members and is chaired by the major advisor. The advisor and at least 2 other members of the committee must be tenured or tenure-track members of the graduate faculty in EECS, and 1 committee member must be a regular KU graduate faculty member outside of the EECS department. This committee guides the student’s selection of courses, participates in the comprehensive and final examinations, and helps the student select a topic for research leading to the dissertation. Should the student’s interests change, the committee membership may be changed accordingly, with the approval of the department’s graduate studies committee.

All doctoral students must have an approved Plan of Study (https://gradplan.egr.ku.edu/accounts/login/?next=) on file by the beginning of their second semester of study.

Each doctoral student must pass a doctoral qualifying examination, which also meets the research skills requirement. This is a written examination taken within a single day that measures the student’s ability to comprehend and interpret technical literature in an unfamiliar topical area in the discipline. The examination is offered once a year, in the spring semester, and the student must take it at the first opportunity after completing the M.S. or after initial enrollment in the doctoral program. It may be retaken once, in the following spring semester. A more detailed description of the examination, including samples, is available in the graduate office (http://www.eecs.ku.edu).

Programs leading to the Ph.D. in computer science require a minimum of 18 semester credit hours of course work beyond the requirements for the M.S. degree and a minimum of 18 credit hours of dissertation research. A minimum of 15 of these 18 hours must be EECS classes numbered
The University of Kansas

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Students admitted to a doctoral program without an M.S. in the intended field also must meet the 24-hour course work requirement for the M.S. thesis option, for a total of 42 credit hours of course work. In this case, 30 of the 42 hours must be EECS classes numbered 700 and above, excluding EECS 801 Directed Graduate Readings, EECS 891 Graduate Problems, and EECS 899. Waiver of required hours on the basis of graduate work done elsewhere may be allowed by petition to the graduate studies committee.

Each aspirant to the Ph.D. degree must complete a responsible scholarship requirement, which is met by completing and passing EECS 802.

The student must take the doctoral comprehensive examination after passing the qualifying examination, completing the research skills
ENGR 113. Junior Self Seminar. 0-1 Hours.
This course will serve as an introduction to the Self Engineering Leadership Fellows Program and will focus on building student’s skills in leadership, business, entrepreneurship, management, communication, engineering, and interpersonal skills. Prerequisite: Students must have applied, interviewed, and been accepted as a Self Engineering Leadership Fellow. LEC.

ENGR 114. Senior Self Seminar. 0-1 Hours.
This course will serve as an introduction to the Self Engineering Leadership Fellows Program and will focus on building student’s skills in leadership, business, entrepreneurship, management, communication, engineering, and interpersonal skills. Prerequisite: Students must have applied, interviewed, and been accepted as a Self Engineering Leadership Fellow. LEC.

ENGR 177. First Year Seminar: _____ 3 Hours. GE11.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in mechanical engineering. May not contribute to major requirements for School of Engineering students. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

ENGR 180. Introduction to Naval Ships Systems I. 3 Hours.
The concept of weapons systems and the systems approach are explored. The techniques of linear analysis of ballistics and weapons are introduced. The dynamics of the basic components of weapons control systems are investigated and stated as transfer functions. This course provides the tools for the future development in the student’s understanding of the basic principles that underlie all modern naval weapons systems. Approved for degree credit in the College of Liberal Arts and Sciences effective Fall 1971. Such courses count within the limit of 25 hours accepted from other schools and divisions. (Same as NAVY 180.) Prerequisite: MATH 002. LEC.

ENGR 184. Introduction to Naval Ships Systems II. 3 Hours.
The concept of weapons systems and the systems approach are explored. The techniques of linear analysis of ballistics and weapons are introduced. The dynamics of the basic components of weapons control systems are investigated and stated as transfer functions. This course provides the tools for the future development in the student’s understanding of the basic principles that underlie all modern naval weapons systems. Approved for degree credit in the College of Liberal Arts and Sciences effective Fall 1971. Such courses count within the limit of 25 hours accepted from other schools and divisions. (Same as NAVY 184.) LEC.

ENGR 300. Cooperative Engineering Education Experience. 1 Hour.
Engineering work experience with a recognized engineering organization. The work must be professional in nature and not merely routine. A final summary report must be submitted to the student’s major department at the conclusion of each continuous period of employment and may cover more than one sequential semester or summer session. Credit for this course cannot be used toward graduation requirements. Prerequisite: Permission of major department. FLD.

ENGR 301. Navigation and Operations I. 3 Hours.
First semester juniors. Three hours classroom and two and one-half hours laboratory per week. A comprehensive study of the theory, principles, and procedures of ship navigation in coastal and open ocean environment. Includes piloting, triangulation, ocean and tidal currents, navigational astronomy, spherical trigonometry, sight reduction, publications and logs; an introduction to electronic navigation, including theory of wave propagation, hyperbolic and azimuthal systems, doppler, inertial, and satellite systems. (Same as NAVY 300.) LEC.
ENGR 304. Technology: Its Past and Its Future. 3 Hours.
An examination of the role of technology and its influence on society. The historical development of technology will be traced up to modern times with an emphasis on its relations to the humanities. Attention will be given to the future of different branches of technology and alternative programs for their implementation. (Same as HIST 404.) LEC.

ENGR 305. Navigation and Operations II. 3 Hours.
Second semester juniors. Three hours classroom and two and one-half hours laboratory per week. A study of laws for the prevention of ship collisions; tactical formations and dispositions, relative motion, and maneuvering board. Major portion of the semester is devoted to operations research and analysis, with an introduction to discrete probability theory, game theory, measures of effectiveness, active and passive sonar equations, and review of systems analysis and cost effectiveness. (Same as NAVY 304.) Prerequisite: MATH 111 or higher. LEC.

ENGR 360. Special Topics: ______. 1-5 Hours.
Courses on special topics of current interest to engineers, such as ethics, engineering economics, engineering practice, communications, teamwork, and professional and career development. Prerequisite: Approval of the instructor. FLD.

ENGR 490. Engineering Internship. 1-6 Hours.
Engineering internship in an approved company. Internship hours do not satisfy any course requirements for a bachelor's degree in any School of Engineering major, but will appear on the transcript. Credit assigned after review of report on internship experience. FLD.

ENGR 504. Technical Writing for Engineers. 1-3 Hours.
The process of planning, organizing, initiating, drafting, and editing engineering documents is covered through writing assignments and discussion. Writing, editing, and publishing the Kansas Engineer magazine. Graded on satisfactory/unsatisfactory basis. Prerequisite: ENGL 102. FLD.

ENGR 515. Verbal Communications in Engineering. 1 Hour.
Meets one hour per week. Planning, preparing, and presenting speeches on a variety of topics throughout the semester. Includes preparing speeches, spontaneous speeches and the evaluation of speeches by other students. Prerequisite: Two English courses and at least junior or senior standing in engineering or consent of instructor. FLD.

ENGR 600. Engineering Applications in India: Technical, Business, and Implementation Issues. 3 Hours.
Business principles play a crucial role in shaping engineering solutions. This course will communicate key differences between the United States and India in how engineering challenges and opportunities are shaped by these principles and by culture. Students will travel to India to attend lectures from schools, visit companies, engage in class discussion/debate, and attend cultural excursions. Prerequisite: Major in Engineering. LEC.

ENGR 835. Project (ME). 3-6 Hours.
A design problem or system study satisfying the project requirement for the Master of Engineering degree. THE.

ENGR 940. Project (DE). 1-16 Hours.
A major design problem or system study satisfying the project requirement for the Doctor of Engineering degree. THE.

Engineering Management Graduate Program

Engineering Management Graduate Programs

KU Edwards Campus

KU's Engineering Management (EMGT) program is pioneering global education by teaming with industry to provide a delivery method that will allow professionals to access the highest quality training regardless of their location or current job assignment.

The M.S. program provides a superior graduate education for technical managers from engineering, science, mathematics, and computer science. EMGT graduates are more effective managers in technology-based organizations and are better able to promote entrepreneurial activities for new businesses.

The EMGT program integrates management with technology by focusing on 3 dimensions:

1. Technical: an understanding of and proficiency in engineering and science.
2. Human: the ability to build a collaborative effort within a group.
3. Conceptual: the ability to apply analytical thought to the management process and to the enterprise as a total system.

The EMGT program offers these emphasis areas: consulting engineering services, manufacturing/process engineering and systems and information technology.

The Project Management (PMGT) program will help fill the rising demand for project management expertise in science, information technology, manufacturing, business, construction and engineering.

Project Management responsibilities include creating clear and attainable project objectives, building the project requirements, and managing the triple constraint for projects: cost, time and scope. Project Management uses cross-functional teams to assist in the process of planning, organizing, securing, leading, delegating and controlling of resources to achieve specific goals to meet project objectives. A project manager is often also a client representative and has to determine and implement the exact needs of the client based on knowledge of the firm they are representing.

Program Options:

- Master of Engineering, Project Management (M.E.) provides the engineering manager with the skills and knowledge to successfully bridge the fields of engineering, technology, people and business.
- Master of Science, Project Management (M.S.) provides the management knowledge and performance competencies which can be used by graduates from multiple disciplines involved in managing a variety of projects.

Courses are taught on weekday evenings or Saturdays on the KU Edwards Campus (http://edwardscampus.ku.edu) by Graduate Faculty members of the School of Engineering. All courses are available by e-learning.
Courses

EMGT 808. Principles of Engineering Management. 3 Hours.
A study of the principles used by the engineer in managing a technology-based enterprise. Topics include planning, organizing, staffing, directing, and controlling. Prerequisite: Senior or graduate standing in an engineering curriculum or consent of the instructor. LEC.

EMGT 800. Special Topics in Engineering Management. 1-4 Hours.
Advanced or experimental work of a specialized nature representing unique or changing needs and resources in engineering management. RSH.

EMGT 801. Management Theory and Practice for Engineering Managers. 3 Hours.
This course is intended to introduce the student to the basic concepts of management and motivation for the engineering manager and general behavior of technical organizations. This course presents a history of the schools of management thought through the modern research that began the participative management movement. The course will investigate classical motivational theories and management style principles. The student will perform research to determine how their employer or clients apply these theories. LEC.

Applied statistical methods to engineering systems will be introduced in this course for analyzing engineering and management systems. Emphasis will be given to applied regression analysis, analysis of variance, analysis of time dependency by smoothing, Bayes method, time series analysis, auto-regressive moving averages and forecasting model. Prerequisite: Skills in probability, statistics, and computer application. LEC.

EMGT 803. Technological Forecasting and Assessment. 3 Hours.
This course focuses on the impact of technology on society. Techniques of technology forecasting such as Delphi, cross-impact analysis, trend projection, decision trees, and scenarios are discussed. Case studies of technology assessments are presented. Each student is asked to conduct a preliminary technology assessment which is a systematic study of the effects on society which may occur when a technology is introduced or modified. Prerequisite: Elementary skills in statistics, computer programming, and linear algebra. LEC.

EMGT 804. Business Development and Marketing of Professional Services. 3 Hours.
Principles and theories of business development and marketing as applicable to professional engineering and architectural practices. LEC.

EMGT 805. Management of Innovation. 3 Hours.
Management of technology and technological change through innovation, imitation, and obsolescence; planning, organizing, motivation, and control for innovation; organizational climate and its effects on innovative ideas and entrepreneurship; project/product decisions and RD strategies in small and large companies; innovation in multinational corporations. LEC.

EMGT 806. Finance for Engineers. 3 Hours.
A study of finance including financial planning and management in technological based organizations. Topics covered include financial statement analysis, present value of financial markets, capital budgeting, taxes, investment decisions, replacement decisions, cash flow budgets, and sources of capital. LEC.

EMGT 807. Labor and Employee Relations for the Engineering Manager. 3 Hours.
This course is an introduction to labor relations and human resources, including employment practices in unionized and non-union organizations.

The course will examine labor relations, human relations and collective bargaining with emphasis on the negotiation and administration of labor agreements. Included will be a survey of the historical, legal, and structural environments that influence the collective bargaining process. Research topics focus on some of the most important issues in the workplace: protecting jobs, increasing productivity, computerization, worker participation, expanding and declining labor markets, and new methods of decision making in the human resources field. LEC.

EMGT 808. Quality Management. 3 Hours.
The overwhelming challenge that faces the U.S. today is the need to regain its competitive position in the world marketplace. This course offers a broad view of Quality Management in that it focuses on the managerial aspects of quality, rather than just the technical. For example, students will learn the Malcolm Baldrige award criteria which focuses on leadership, data analysis, human resources, quality assurance, quality results, and customer satisfaction. In addition, a review of the theory and approaches of the major quality leaders such as Deming, Juran, and Crosby will be covered. Practical applications of TQM concepts in a technological environment will be stressed throughout the course. LEC.

EMGT 809. Personal Development for the Engineering Manager. 4 Hours.
Includes the study of theories, tests for, and objectives of engineering and management ethics. Explores personal values. Measures personality profile and preferred communication style for each student. Includes management of stress, time, and career. Each student prepares career and personal development plans. Managerial writing and communication skills are developed through weekly projects including report and proposal preparation, internal correspondence concerning praise and reprimand, and organizational policy preparation. Interpersonal and nonverbal communication styles are studied. Relies heavily on instructor-assisted peer mediation of topics after introduction of constructive techniques of interpersonal communication. LEC.

EMGT 810. Applications of Quantitative Analysis in Decision Making. 3 Hours.
This course emphasizes the use of general system theory, classical optimization and optimality conditions, model development, and theory and application of mathematical programming, to include: linear programming, dynamic programming, queuing models, integer and non-linear programming, and introduction to decision analysis. Prerequisite: Elementary skills in linear algebra, probability, calculus, and computer application. LEC.

EMGT 811. Engineering Systems Simulation. 3 Hours.
Methods of developing, implementing, and using computer simulations for management processes such as inventory control, waiting lines, project monitoring, and capital investment decisions are covered. Extensive use is made of simulation languages and interactive graphic-supported gaming and decision analysis. Engineering systems and chemical processes are studied under deterministic and stochastic conditions. Two hours lecture, three hours laboratory per week. LEC.

EMGT 812. Law and the Design Professional. 3 Hours.
This course covers: legal doctrines relating to owners, design professionals, and contractors; sources of law, forms of association, and agency; contracts, including formation, rights and duties, interpretation, performance problems, disputes, and claims; standards of care and the management of construction claims; duties and obligations of the design professional, the owner, and the contractor; surety bonds and insurance. Prerequisite: Admission to graduate study in engineering or architecture. LEC.
EMGT 813. Design Project Management in Professional Practice. 3 Hours.
Includes planning, organizing, staffing, directing, and controlling design projects. Treats those topics from viewpoints of profit, cost control, client satisfaction, and project team human relations. Also covers delegation, motivation, team building, performance reviews, conflict resolution, and group dynamics. Presents the project manager's job from an augmented model of the Blake-Mouton grid. Prerequisite: Admission to graduate study in engineering or architecture. LEC.

EMGT 814. Leadership Techniques and Methods for the Engineering Manager. 3 Hours.
Leadership is a balancing act. It requires communicating a compelling vision, convincing others to buy in to that vision, and marshaling resources and talent to make it happen. This course will help new leaders master the complex art of the leadership role by improving decision making and communications, earning trust and building momentum, and inspiring and enabling others to excel. Managers are under increasing pressure to deliver better results faster than the competition. But meeting today's tough challenges requires complete mastery of a full array of management skills, form communications and coaching to public speaking and managing people. LEC.

EMGT 815. Business Relationships and Selling Skills. 3 Hours.
This course will introduce students to the Fundamentals of Business Relationships and Professional Selling. It is suitable for any technical professional who would like to be more effective in "getting their message across" to external or internal customers. Students will learn and connect through class lectures on relationship management including ethical issues in business relationships, experimental exercises on conducting and evaluating dialogues/presentations with groups of Customers/Internal Audiences/Upper Management and through assignments via Blackboard. LEC.

EMGT 816. Energy Management. 3 Hours.
One of the most critical topics for an engineering manager is effective energy cost cutting. This class will be an introduction to the latest strategies for improving lighting, combustion processes, steam generation/distribution, and industrial waste re-utilization. Topics include distributed generation, energy auditing, rate structures, economic evaluation techniques, lighting efficiency improvement, HVAC optimization, combustion and use of industrial wastes, steam generation and distribution system performance, control systems and computers, energy systems maintenance, and renewable energy. LEC.

EMGT 817. Mathematics for the Engineering Manager. 3 Hours.
This comprehensive math course is designed for the needs of the Engineering Manager who may need a "refresher" or to gain greater understanding of math concepts and the relationship to Engineering Management decision-making. LEC.

EMGT 818. Advanced Mathematics for the Engineering Manager. 2 Hours.
This math course is designed to supplement Engineering Management students' math skill and knowledge that is relevant to both the program needs and career needs. This course begins with a higher level of trigonometry and ends with differential equations. LEC.

EMGT 821. Strategic Analysis of Technology Projects. 3 Hours.
A study of the economic feasibility of competing engineering projects including the application of break-even analysis, decisions under uncertainty, decision trees, stochastic models, risk vs. return, and forecasting. A study of the financial figures of merit used to evaluate competing engineering projects including the DuPont rate of return method, the accounting rate of return, the operating return method, return on equity, earnings per share, margin on sales, selling price of stock, corporate credit rating, total sales, market share, market entry, and proforma year-end statements. A study of the strategic evaluation of a project including the proposed product or service, the organization, the environment, and the venture in general. Prerequisite: Admission to the M.S. Engineering Management program or consent of instructor. EMGT 806, a course in applied statistics. LEC.

EMGT 823. Management of Internal Engineering Projects. 3 Hours.
The purpose of this course is to introduce the student to all aspects of managing a project within a company or organization. The entire project life cycle will be covered from inception to close-out, and many practical considerations will be discussed including material procurement, working with contractors and consultants, selecting software, and managing the project team. The course will focus on how to manage project scope, schedule budget, and resources using personal computer software. A semester project is required presenting an example of project management or investigating some aspect of project management in detail. LEC.

EMGT 824. Product Marketing for Engineering Managers. 3 Hours.
Basic principles of marketing as applicable to engineering managers in the production- or operations-based enterprise. Includes a broad overview of the major components of marketing (competition, product, price, promotion, and distribution). Also details the integration of those components into the marketing plan. The students will develop a group marketing plan for an agreed-upon product. Prerequisite: Admission to a graduate program in engineering or Pittsburgh State's technology management program. LEC.

EMGT 830. Case Studies in Engineering Management. 2-3 Hours.
A capstone course for the program which provides an integration of the material presented in the other courses through the utilization of several engineering management case studies. Note: Research paper and presentation are part of the 3 credit hour option. Prerequisite: Completion of a minimum of 21 credit hours in the Engineering Management program. LEC.

EMGT 835. Field Project (M.S.). 1-3 Hours.
A problem in engineering management, the satisfactory completion of which satisfies the project requirement for the degree of Master of Science in Engineering Management. THE.

EMGT 840. Systems Approach to Engineering. 3 Hours.
This is a first course at the graduate level introducing the formal methods and processes in bringing complex systems into being and improving existing systems. Systems include both products and services. Emphasis is placed on: the definition of customer needs, the entire life cycle of systems, and introduction to formal specification methods, the value to cost ratio and the management of the systems engineering process. LEC.

EMGT 844. Managing Software Development Projects. 3 Hours.
This course investigates the area of managing software development and presents the management process as a means of optimizing business considerations and project demands. Uncertainties in product/service specifications, technology risks, cost and delivery requirements impact the management functions. Cost and schedule estimation techniques are presented together with project planning, risk control and measurement technologies. The techniques presented in this course are directly applicable to management in other industry segments. Guest speakers are used to demonstrate applications in this course. LEC.

EMGT 848. Information Technology for Management. 3 Hours.
This course is intended to bring the student up to date on developments in the field of information technology (IT) and to prepare the student to apply those technologies in the workplace. To this end, the course is divided into two components. First, current hardware, software, and networking
technologies will be presented. Topics include relational databases, object-oriented design and programming, client-server technologies, the Internet, and emerging communication technologies. Second, approaches to evaluating and implementing the range of information technology alternatives available to business will be presented. Topics in this area include software development, management and evaluation, IT project management, information integrity and security, and the effects of IT on people and the organization. LEC.

EMGT 850. Environmental Issues for Engineering Managers. 3 Hours.
This course provides a survey of the environmental regulations, environmental problems, and environmental solutions that must be dealt with by engineering managers regardless of their function or industry. A historical perspective on the environment is presented followed by discussion of pollution generation (sources), transportation, fate, and effects. The quantity and quality of various types of pollutants emitted to various media and the risk posed by these pollutants is analyzed. The regulatory process is examined from the perspective of the legislator, the regulator, the regulated, the engineer, and the public. LEC.

EMGT 854. Management of Business Intelligence and Security for Strategic Planning. 3 Hours.
Management of competitive intelligence and security in business strategic planning is a first course at the graduate level that introduces the formal methods, concepts, and processes of competitive intelligence and security which are vital to both strategic business planning and day-to-day business operations. This course provides access to the tools used to identify what is happening in the business environment including legislation, economics, regulatory changes, competition, customers, etc. that affect a business’ strategy and operations. Further, these tools are applied to determining what will likely happen in the future and how to use those forecasts to optimize strategic and operational plans. LEC.

EMGT 860. Special Problems in Engineering Management. 1-4 Hours.
Graduate-level investigation requiring original, independent research on problems or subjects of immediate interest to a student or faculty member. Intended to develop a student’s capability in coordinating two or more of the following: technology, finance, economics, applied mathematics, and managerial communication. EMGT 860 may be repeated for credit to a maximum of four hours in the degree program. Prerequisite: Approval of an outline of the proposed project by the instructor and the program director. RSH.

EMGT 862. Manufacturing Systems Integration. 3 Hours.
This course develops the rationale and need for the integration of manufacturing systems, and deals with the multitude of practical problems involved with manufacturing systems integration. Topics covered include intelligent manufacturing subsystems and vendor-specific islands of automation, on-line and off-line information sources, and end users of information in the manufacturing enterprise. Engineering details covered include the types of communication links available between systems, communication standards, network and protocol alternatives, and hardware platform alternatives. Management concepts covered include the top-down design/bottom-up implementation approach to system integration, long-range planning and management of integration projects, reliability and security issues, and human factors. LEC.

EMGT 867. Advanced Operations Management. 3 Hours.
This course provides the student with up-to-date information of the management of manufacturing operations. Emphasis is on quantitative methods for designing and analyzing manufacturing processes, simulation of manufacturing processes, and recent paradigms in manufacturing including just-in-time production, synchronous manufacturing, and agile manufacturing. A semester project is required covering some aspect of operations management in detail. LEC.

PMGT 806. Finance for Project Manager. 3 Hours.
A study of finance including financial planning and management in technological based organizations. Topics covered include financial statement analysis, present value of financial markets, capital budgeting, taxes, investment decisions, replacement decisions, cash flow budgets and sources of capital. LEC.

PMGT 809. Personal Development for Project Managers. 4 Hours.
Concepts and skills development in the primary areas of communication methods, ethical behavior, conflict resolution, workforce diversity, and continuous learning, and secondary areas of basic project and project team contexts and related interpersonal relations. Career development is emphasized. LEC.

PMGT 816. Project Management Fundamentals I. 3 Hours.
Managerial concepts and skills development in relation to the project-oriented business environment, project lifecycle, integrated project management, project selection, and project initiation. Focus is on management of a single project. LEC.

PMGT 817. Project Management Fundamentals II. 3 Hours.
Planning concepts and skills development in relation to developing needed information on project scope, time, cost, and risk, and making direct use of such information to develop key documentation such as the project schedule and budget. Examples of specific topics considered include project work content and change, documentation, and resource requirements. Planning content is complementary to that of PMGT 818. LEC.

PMGT 818. Project Management Fundamentals III. 3 Hours.
Concepts and skills development in relation to planning for management of communications, human resource aspects of project team formation and development, procurement, and quality. Examples of specific topics considered include information handling, reporting, and stakeholder relationships. Planning content is complementary to that of PMGT 817. LEC.

PMGT 819. Project Management Fundamentals IV. 3 Hours.
Concepts and skills development in relation to project execution, including processes monitoring and controlling, and project closure. Examples of specific topics considered include handling change requests, procurement, teamwork and team development, and cost management. Course content represents systematic treatment of all aspects of project management beyond planning—but is, in project execution and closing phrases. LEC.

PMGT 820. Management of Intra-Organizational Projects. 3 Hours.
Application area course exposing students to specialized knowledge, standards, and regulations involved in managing organizations’ internal projects. Attention is directed to unique characteristics of internal project environments, major project phases—from selection to closing—and related management processes. LEC.

PMGT 821. Management of Consulting Projects. 3 Hours.
Application area course exposing students to specialized knowledge, standard, and regulations involved in managing consulting projects. Attention is directed to unique characteristics of consulting project environments, major project phases—from selection to closing—and related management processes. LEC.

PMGT 822. Management of Governmental Projects. 3 Hours.
Application area course exposing students to specialized knowledge, standards, and regulations involved in managing projects for governmental entities. Attention is directed to unique characteristics of the
governmental project environments, major project phases-from selection to closing-and related management processes. LEC.

PMGT 823. Risk Management for Project Managers. 3 Hours.
Advanced study of risk management theory and practice as applied in managing projects. Basic concepts and methods of risk management are reviewed-such as qualitative and quantitative risk assessment-and details then examined. LEC.

PMGT 824. Project Cost Estimation, Analysis, and Control. 3 Hours.
Advanced study of cost estimation methodology, cost engineering, and cost control applicable in project management. Includes review of commonly used supportive software. LEC.

PMGT 825. Portfolio Analysis for Project Managers. 3 Hours.
Concepts and methods of intra- and inter-project finance including organization funding, project evaluation and selection, project cost accounting, portfolio formulation and modification, and performance tracking. Introduces fundamentals of investment theory and real options analysis. LEC.

PMGT 826. Program Management. 3 Hours.
Examination of program definition, structuring, and management in the context of organizational strategy, and the critical resources and skills required in long-term program evolution and execution. Facilitation of efforts across multi-tiered organizations will be stressed. LEC.

PMGT 827. Project Team Management and Development. 3 Hours.
Concepts and methods of team and team member development, achieving higher-performance teams while satisfying organizational expectations. Specific topics include management concepts and practices, team dynamics, and interpersonal skills in negotiation and conflict resolution. LEC.

PMGT 828. Management of Global Projects. 3 Hours.
Survey of management challenges in conducting international projects, emphasizing cross-culture issues. Differences across world regions and selected key countries in relation to communication and interpersonal norms, business conventions, and legal systems will receive particular attention. LEC.

PMGT 829. Management of Distributed Project Teams. 3 Hours.
Concepts and methods of conducting high-performance, multi-site team operations, focusing on intra-team communication, coordination, and control. Incorporates review of practical technologies with emphasis on web-enabled approaches. LEC.

PMGT 830. Case Studies in Project Management. 2 Hours.
Reinforcement and demonstration of developing project management skills through case analysis and discussion. Goal is integration of learning across all core courses, and also drawing on content from general management, applications area, and advanced project management elective courses taken. Emphasis is on integrated project management. The students will document their project in a written report and present their project during the final oral examination to the Project Management faculty and student’s employer or representative if practical. LEC.

PMGT 833. Management of Internal Projects for Scientists and Technical Professionals. 3 Hours.
The purpose of this course is to introduce the student to all aspects of managing a project within a company or organization. The entire project life cycle will be covered from inception to close-out, and many practical considerations will be discussed including material procurement, working with contractors and consultants, selecting software, and managing the project team. The course will focus on how to manage project scope, schedule, budget, and resources using personal computer software. A semester project is required presenting an example of project management or investigating some aspect of project management in detail. LEC.

PMGT 835. Project Management Capstone. 3 Hours.
The capstone serves as a culminating experience for this degree. Students will develop an applied workforce project or benefit to in the student’s place of employment for full time students. The students will document their project in a written report and present their project during the final oral examination to the Project Management facility and student’s employer or representative if practical. LEC.

Master of Science in Engineering Management

Engineering Management Graduate Program

KU Edwards Campus

The M.S. program provides a superior graduate education for technical managers from engineering, science, mathematics, and computer science. EMGT graduates are more effective managers in technology-based organizations and are better able to promote entrepreneurial activities for new businesses.

The EMGT program integrates management with technology by focusing on 3 dimensions:

1. Technical: an understanding of and proficiency in engineering and science.
2. Human: the ability to build a collaborative effort within a group.
3. Conceptual: the ability to apply analytical thought to the management process and to the enterprise as a total system.

The EMGT program offers these emphasis areas: consulting engineering services, manufacturing/ process engineering and systems and information technology.

Courses are taught on weekday evenings or Saturdays on the KU Edwards Campus (http://edwardscampus.ku.edu) by Graduate Faculty members of the School of Engineering. All courses are available by e-learning.

Graduate Admission to the School of Engineering

Procedure

Admission requirements for the School of Engineering follow the general KU requirements plus those of each engineering graduate program. All applicants must apply online (http://www.graduate.ku.edu/apply). Detailed information about supplemental application materials for each program is listed here (http://www.engr.ku.edu/prospective/graduate/apply). Important information for prospective international students is available from International Student & Scholar Services (http://www2.ku.edu/~issfacts). Download a PDF (http://www.engr.ku.edu/prospective/graduate/grad_app_process.pdf) for more information about the review process for graduate applications.

Some departments and programs require the Graduate Record Examination. Applications must be accompanied by a nonrefundable fee.
Baccalaureate Preparation
To qualify for graduate work in any field of engineering, a student generally must hold an accredited baccalaureate degree in that field and have at least a 3.0 grade-point average. A student with good preparation in such fields as mathematics, chemistry, or physics, or in a related engineering field, may be admitted on the basis of performance in specific undergraduate courses, determined by the department of interest to the prospective student. Undergraduate hours do not count as part of a student’s Plan of Study, but they must be completed with grades of B or higher.

Exceptionally qualified undergraduates may be admitted directly to a Fast-Track Ph.D. program, which does not require the master’s as an intermediate degree. Students who wish to earn a Ph.D. and believe that they meet this criterion are encouraged to contact the graduate advisor in their field of interest.

English Proficiency Requirement
All graduate students in the School of Engineering who are required to take courses at the Applied English Center (http://www.aec.ku.edu) must pass the AEC’s English Proficiency Examination within 3 semesters of their initial enrollment. Failure to complete the English proficiency requirement within this time limit may result in dismissal from the graduate engineering program.

Graduate Admission
KU Edwards Campus
To enter KU’s Master of Science in Engineering Management program, applicants must have:

1. Bachelor of Science undergraduate degree in engineering or related science from an accredited institution. Technology degrees are considered only with a very high (e.g. 3.8) GPA and substantial experience (8-10 years).
2. A 3.0 or higher undergraduate grade point average (on a 4.0 scale). Admission may be granted on a provisional basis if an applicant’s GPA is between 2.50 and 2.99.
3. Two year’s full-time, post-undergraduate work experience in a technological environment.
4. International students must also meet the English requirement by taking either the Test of English as a Foreign Language (TOEFL), the International English Language Testing System (IELTS) or have a degree from an English speaking institution. Financial support requirements must also be met.

Engineering Management (EMGT) does not require the GRE or GMAT.

A completed application includes the application fee, application form, résumé, 1 original transcript, and 3 recommendation forms. International students must also meet English and financial requirements. Course schedules, faculty biographical information, and other program information may be requested from the EMGT office or downloaded from the program’s website.

Graduate applications should be submitted online (http://www.graduate.ku.edu).

M.S. Degree Requirements
KU Edwards Campus
The Master of Science program in Engineering Management has two options available:

Option A requires 30 hours of credits (21 credits in required core courses, 6 credits in electives and a field project of 3 hours) with a final oral examination. This option is recommended for students who plan to pursue additional degrees or who have a specific work-related project that needs further exploration.

Option B requires 34 hours of credits (22 credits in required core courses and 12 credits in elective courses) with an oral examination. It does not require a field project.

Option A (Field project) (30 hours)
Required Core Courses including the Field Project - 24 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMGT 802</td>
<td>Statistical Analysis and Prediction of Engineering Systems</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 806</td>
<td>Finance for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 809</td>
<td>Personal Development for the Engineering Manager</td>
<td>4</td>
</tr>
<tr>
<td>EMGT 821</td>
<td>Strategic Analysis of Technology Projects (prerequisite: EMGT 806)</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 830</td>
<td>Case Studies in Engineering Management (prerequisite: complete 21 credits hours)</td>
<td>2</td>
</tr>
</tbody>
</table>

Select one of the following for Core Quantitative Course Requirement:

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>EMGT 810</td>
<td>Applications of Quantitative Analysis in Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 811</td>
<td>Engineering Systems Simulation</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following for Core Project Management Course Requirement:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMGT 813</td>
<td>Design Project Management in Professional Practice</td>
<td></td>
</tr>
<tr>
<td>EMGT 823</td>
<td>Management of Internal Engineering Projects</td>
<td></td>
</tr>
</tbody>
</table>

Capstone:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMGT 835</td>
<td>Field Project (M.S.) (prerequisite: complete XX number of hours)</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours 24

Required Electives (6 hours)

Option B (34 hours)
Required Core Courses - 22 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>EMGT 806</td>
<td>Finance for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 809</td>
<td>Personal Development for the Engineering Manager</td>
<td>4</td>
</tr>
<tr>
<td>EMGT 821</td>
<td>Strategic Analysis of Technology Projects (prerequisite: EMGT 806)</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours 34
### Project Management (M.E. & M.S.)

#### Project Management Graduate Program

**Master of Engineering (M.E.) or Master of Science (M.S.)**

### KU Edwards Campus

Project Management (http://www.pmgt.ku.edu) is driven by globalization, the internet, and the rapid advancement for work processes. Organizations must implement projects faster than ever before. These organizations are looking for technically oriented and highly skilled project managers. The Project Management degree addresses workforce needs by providing those individuals from multiple disciplines with the skills, confidence, and competence to manage a variety of projects, as well as bridge the fields of engineering, technology, people, and business. Individuals may opt for a Master of Engineering (http://www.pmgt.ku.edu/me-pm) (M.E.) in Project Management or a Master of Science (http://www.pmgt.ku.edu/ms-pm) (M.S.) in Project Management depending on their undergraduate discipline.

The Project Management (PMGT) Fundamentals courses will strengthen one’s knowledge and ability to apply theory and concepts of Project Management. Electives will be offered on a rotational basis and will remain current with Project Management trends and demands.

Courses can be completed in Overland Park on the KU Edwards Campus (http://edwardscampus.ku.edu) on weekday evenings and are also available by e-learning with permission from the instructor. Classes are taught by Graduate Faculty members of the School of Engineering and members of the professional community.

### Graduate Admission Requirements

#### KU Edwards Campus

To enter KU’s Master of Engineering in Project Management, applicants must have:

1. An undergraduate degree in engineering or related science from an accredited institution.
2. A 3.0 or higher undergraduate grade point average (on a 4.0 scale).
3. Two year’s full-time, post-undergraduate work experience in a technological environment.
4. International students must also meet the English requirement by taking either the Test of English as a Foreign Language (TOEFL), the International English Language Testing System (IELTS) or have a degree from an English speaking institution. Financial support requirements must also be met.

All applications are completed online. A complete application includes the application fee, application form, résumé, 1 original transcript showing degree conferral, and 3 recommendation forms. Course schedules, faculty biographical information, and other program information may be requested from the PMGT office or downloaded from the Project Management website.

Graduate applications should be submitted online (http://www.graduate.ku.edu).

### Electives

All elective courses outside of the EMGT program must be listed as graduate courses, taken for graduate credit, and approved by an EMGT faculty member in order to apply toward the Master of Science in Engineering Management degree. Approved EMGT elective courses are listed below:

<table>
<thead>
<tr>
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<tr>
<td>EMGT 811</td>
<td>Engineering Systems Simulation</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 813</td>
<td>Design Project Management in Professional Practice</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 814</td>
<td>Leadership Techniques and Methods for the Engineering Manager</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 815</td>
<td>Business Development and Marketing of Professional Services</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 816</td>
<td>Management Theory and Practice for Engineering Managers</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 817</td>
<td>Statistical Analysis and Prediction of Engineering Systems</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 818</td>
<td>Technological Forecasting and Assessment</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 819</td>
<td>Labor and Employee Relations for the Engineering Manager</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 820</td>
<td>Quality Management</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 821</td>
<td>Law and the Design Professional</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 822</td>
<td>Leadership Techniques and Methods for the Engineering Manager</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 823</td>
<td>Business Relationships and Selling Skills</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 824</td>
<td>Energy Management</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 825</td>
<td>Mathematics for the Engineering Manager</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 826</td>
<td>Advanced Mathematics for the Engineering Manager</td>
<td>2</td>
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<tr>
<td>EMGT 827</td>
<td>Product Marketing for Engineering Managers</td>
<td>3</td>
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<td>EMGT 828</td>
<td>Systems Approach to Engineering</td>
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<tr>
<td>EMGT 829</td>
<td>Environmental Issues for Engineering Managers</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 830</td>
<td>Special Problems in Engineering Management</td>
<td>1-4</td>
</tr>
<tr>
<td>EMGT 831</td>
<td>Manufacturing Systems Integration</td>
<td>3</td>
</tr>
<tr>
<td>EMGT 832</td>
<td>Advanced Operations Management</td>
<td>3</td>
</tr>
</tbody>
</table>

### Required Electives (6 hours)

#### Electives

Electives can be completed in Overland Park on the KU Edwards Campus (http://edwardscampus.ku.edu) on weekday evenings and are also available by e-learning with permission from the instructor. Classes are taught by Graduate Faculty members of the School of Engineering and members of the professional community.
To enter KU’s Master of Science in Project Management, applicants must have:

1. Bachelor of Science degree from an accredited institution.
2. A 3.0 or higher undergraduate grade point average (on a 4.0 scale).
3. GRE score, sent directly to the Project Management Program Coordinator.
4. International students must also meet the English requirement by taking either the Test of English as a Foreign Language (TOEFL), the International English Language Testing System (IELTS) or have a degree from an English speaking institution. Financial support requirements must also be met.

All applications are completed online. A complete application includes the application fee, application form, résumé, 1 original transcript showing degree conferral, and 3 recommendation forms. Course schedules, faculty biographical information, and other program information may be requested from the PMGT office or downloaded from the Project Management website.

Graduate applications should be submitted online (http://www.graduate.ku.edu).

Degree Requirements

The Masters in Project Management requires a total of 33 semester hours of graduate work. A total of 12 hours will be completed in Project Management (PMGT) fundamentals for both the Master of Engineering and Master of Science, while the remaining 21 hours will be completed in varying required course work and electives depending on the degree program. Please refer to the Plan of Study below for the corresponding degree program. Students will work with their faculty advisor and the program coordinator to finalize course selections to meet department and university requirements for degree completion and complete their Plan of Study (https://gradplan.engr.ku.edu/accounts/login/?next=).

Master of Engineering in Project Management

Required Courses (19)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMGT 816</td>
<td>Project Management Fundamentals I</td>
<td>3</td>
</tr>
<tr>
<td>PMGT 817</td>
<td>Project Management Fundamentals II</td>
<td>3</td>
</tr>
<tr>
<td>PMGT 818</td>
<td>Project Management Fundamentals III</td>
<td>3</td>
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<tr>
<td>PMGT 819</td>
<td>Project Management Fundamentals IV</td>
<td>3</td>
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<tr>
<td>PMGT 806</td>
<td>Finance for Project Manager</td>
<td>3</td>
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<tr>
<td>PMGT 809</td>
<td>Personal Development for Project Managers</td>
<td>4</td>
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Research & Practica (2)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>PMGT 830</td>
<td>Case Studies in Project Management</td>
<td>2</td>
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</table>

PMGT Electives (12)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>PMGT 818</td>
<td>Project Management Fundamentals III</td>
<td>3</td>
</tr>
<tr>
<td>PMGT 819</td>
<td>Project Management Fundamentals IV</td>
<td>3</td>
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Core Courses (12)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ACCT 708</td>
<td>Accounting and Finance for Professionals</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 701</td>
<td>Starting Your Own Business</td>
<td>3</td>
</tr>
<tr>
<td>COMS 730</td>
<td>Writing and Speaking for Decision Makers</td>
<td>3</td>
</tr>
<tr>
<td>COMS 930</td>
<td>Seminar in Speech: ______ (Applied Organizational Communication)</td>
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Capstone (3)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>PMGT 835</td>
<td>Project Management Capstone</td>
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PMGT Electives (6)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Total Hours</td>
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<td>33</td>
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Please note that electives may be taken outside of PMGT with the pre-approval of advisors for the Master of Engineering degree program.

Master of Science in Project Management

Concentration Courses (12)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>PMGT 816</td>
<td>Project Management Fundamentals I</td>
<td>3</td>
</tr>
<tr>
<td>PMGT 817</td>
<td>Project Management Fundamentals II</td>
<td>3</td>
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</table>

Courses

EMGT 608. Principles of Engineering Management. 3 Hours.
A study of the principles used by the engineer in managing a technology-based enterprise. Topics include planning, organizing, staffing, directing, and controlling. Prerequisite: Senior or graduate standing in an engineering curriculum or consent of the instructor. LEC.

EMGT 800. Special Topics in Engineering Management. 1-4 Hours.
Advanced or experimental work of a specialized nature representing unique or changing needs and resources in engineering management. RSH.

EMGT 801. Management Theory and Practice for Engineering Managers. 3 Hours.
This course is intended to introduce the student to the basic concepts of management and motivation for the engineering manager and general behavior of technical organizations. This course presents a history of the schools of management thought through the modern research that began the participative management movement. The course will investigate classical motivational theories and management style principles. The student will perform research to determine how their employer or clients apply these theories. LEC.

Applied statistical methods to engineering systems will be introduced in this course for analyzing engineering and management systems. Emphasis will be given to applied regression analysis, analysis of variance, analysis of time dependence by smoothing, Bayes method, time series analysis, auto-regressive moving averages and forecasting model. Prerequisite: Skills in probability, statistics, and computer application. LEC.

EMGT 803. Technological Forecasting and Assessment. 3 Hours.
This course focuses on the impact of technology on society. Techniques of technology forecasting such as Delphi, cross-impact analysis, trend projection, decision trees, and scenarios are discussed. Please note that electives may be taken outside of PMGT with the pre-approval of advisors for the Master of Engineering degree program.

EMGT 804. Business Development and Marketing of Professional Services. 3 Hours.
Principles and theories of business development and marketing as applicable to professional engineering and architectural practices. LEC.
EMGT 805. Management of Innovation. 3 Hours.
Management of technology and technological change through innovation, imitation, and obsolescence; planning, organizing, motivation, and control for innovation; organizational climate and its effects on innovative ideas and entrepreneurship; project/product decisions and RD strategies in small and large companies; innovation in multinational corporations. LEC.

EMGT 806. Finance for Engineers. 3 Hours.
A study of finance including financial planning and management in technological based organizations. Topics covered include financial statement analysis, present value of financial markets, capital budgeting, taxes, investment decisions, replacement decisions, cash flow budgets, and sources of capital. LEC.

EMGT 807. Labor and Employee Relations for the Engineering Manager. 3 Hours.
This course is an introduction to labor relations and human resources, including employment practices in unionized and non-union organizations. The course will examine labor relations, human relations and collective bargaining with emphasis on the negotiation and administration of labor agreements. Included will be a survey of the historical, legal, and structural environments that influence the collective bargaining process. Research topics focus on some of the most important issues in the workplace: protecting jobs, increasing productivity, computerization, worker participation, expanding and declining labor markets, and new methods of decision making in the human resources field. LEC.

EMGT 808. Quality Management. 3 Hours.
The overwhelming challenge that faces the U.S. today is the need to regain its competitive position in the world marketplace. This course offers a broad view of Quality Management in that it focuses on the managerial aspects of quality, rather than just the technical. For example, students will learn the Malcolm Baldridge award criteria which focuses on leadership, data analysis, human resources, quality assurance, quality results, and customer satisfaction. In addition, a review of the theory and approaches of the major quality leaders such as Deming, Juran, and Crosby will be covered. Practical applications of TQM concepts in a technological environment will be stressed throughout the course. LEC.

EMGT 809. Personal Development for the Engineering Manager. 4 Hours.
Includes the study of theories, tests for, and objectives of engineering and management ethics. Explores personal values. Measures personality profile and preferred communication style for each student. Includes management of stress, time, and career. Each student prepares career and personal development plans. Managerial writing and communication skills are developed through weekly projects including report and proposal preparation, internal correspondence concerning praise and reprimand, and organizational policy preparation. Interpersonal and nonverbal communication styles are studied. Relies heavily on instructor-assisted peer mediation of topics after introduction of constructive techniques of interpersonal communication. LEC.

EMGT 810. Applications of Quantitative Analysis in Decision Making. 3 Hours.
This course emphasizes the use of general system theory, classical optimization and optimality conditions, model development, and theory and application of mathematical programming, to include: linear programming, dynamic programming, queuing models, integer and non-linear programming, and introduction to decision analysis. Prerequisite: Elementary skills in linear algebra, probability, calculus, and computer application. LEC.

EMGT 811. Engineering Systems Simulation. 3 Hours.
Methods of developing, implementing, and using computer simulations for management processes such as inventory control, waiting lines, project monitoring, and capital investment decisions are covered. Extensive use is made of simulation languages and interactive graphic-supported gaming and decision analysis. Engineering systems and chemical processes are studied under deterministic and stochastic conditions. Two hours lecture, three hours laboratory per week. LEC.

EMGT 812. Law and the Design Professional. 3 Hours.
This course covers: legal doctrines relating to owners, design professionals, and contractors; sources of law, forms of association, and agency; contracts, including formation, rights and duties, interpretation, performance problems, disputes, and claims; standards of care and the management of construction claims; duties and obligations of the design professional, the owner, and the contractor; surety bonds and insurance. Prerequisite: Admission to graduate study in engineering or architecture. LEC.

EMGT 813. Design Project Management in Professional Practice. 3 Hours.
Includes planning, organizing, staffing, directing, and controlling design projects. Treats those topics from viewpoints of profit, cost control, client satisfaction, and project team human relations. Also covers delegation, motivation, team building, performance reviews, conflict resolution, and group dynamics. Presents the project manager's job from an augmented model of the Blake-Mouton grid. Prerequisite: Admission to graduate study in engineering or architecture. LEC.

EMGT 814. Leadership Techniques and Methods for the Engineering Manager. 3 Hours.
Leadership is a balancing act. It requires communicating a compelling vision, convincing others to buy in to that vision, and marshaling resources and talent to make it happen. This course will help new leaders master the complex art of the leadership role by improving decision making and communications, earning trust and building momentum, and inspiring and enabling others to excel. Managers are under increasing pressure to deliver better results faster than the competition. But meeting today's tough challenges requires complete mastery of a full array of management skills, form communications and coaching to public speaking and managing people. LEC.

EMGT 815. Business Relationships and Selling Skills. 3 Hours.
This course will introduce students to the Fundamentals of Business Relationships and Professional Selling. It is suitable for any technical professional who would like to be more effective in “getting their message across” to external or internal customers. Students will learn and connect through class lectures on relationship management including ethical issues in business relationships, experimental exercises on conducting and evaluating dialogues/presentations with groups of Customers/Internal Audiences/Upper Management and through assignments via Blackboard. LEC.

EMGT 816. Energy Management. 3 Hours.
One of the most critical topics for an engineering manager is effective energy cost cutting. This class will be an introduction to the latest strategies for improving lighting, combustion processes, steam generation/distribution, and industrial waste re-utilization. Topics include distributed generation, energy auditing, rate structures, economic evaluation techniques, lighting efficiency improvement, HVAC optimization, combustion and use of industrial wastes, steam generation and distribution system performance, control systems and computers, energy systems maintenance, and renewable energy. LEC.

EMGT 817. Mathematics for the Engineering Manager. 3 Hours.
This comprehensive math course is designed for the needs of the Engineering Manager who may need a "refresher" or to gain greater understanding of math concepts and the relationship to Engineering Management decision-making. LEC.
EMGT 818. Advanced Mathematics for the Engineering Manager. 2 Hours.
This math course is designed to supplement Engineering Management students’ math skill and knowledge that is relevant to both the program needs and career needs. This course begins with a higher level of trigonometry and ends with differential equations. LEC.

EMGT 821. Strategic Analysis of Technology Projects. 3 Hours.
A study of the economic feasibility of competing engineering projects including the application of break-even analysis, decisions under uncertainty, decision trees, stochastic models, risk vs. return, and forecasting. A study of the financial figures of merit used to evaluate competing engineering projects including the DuPont rate of return method, the accounting rate of return, the operating return method, return on equity, earnings per share, margin on sales, selling price of stock, corporate credit rating, total sales, market share, market entry, and proforma year-end statements. A study of the strategic evaluation of a project including the proposed product or service, the organization, the environment, and the venture in general. Prerequisite: Admission to the M.S. Engineering Management program or consent of instructor, EMGT 806, a course in applied statistics. LEC.

EMGT 823. Management of Internal Engineering Projects. 3 Hours.
The purpose of this course is to introduce the student to all aspects of managing a project within a company or organization. The entire project life cycle will be covered from inception to close-out, and many practical considerations will be discussed including material procurement, working with contractors and consultants, selecting software, and managing the project team. The course will focus on how to manage project scope, schedule budget, and resources using personal computer software. A semester project is required presenting an example of project management or investigating some aspect of project management in detail. LEC.

EMGT 824. Product Marketing for Engineering Managers. 3 Hours.
Basic principles of marketing as applicable to engineering managers in the production- or operations-based enterprise. Includes a broad overview of the major components of marketing (competition, product, price, promotion, and distribution). Also details the integration of those components into the marketing plan. The students will develop a group marketing plan for an agreed-upon product. Prerequisite: Admission to a graduate program in engineering or Pittsburgh State’s technology management program. LEC.

EMGT 830. Case Studies in Engineering Management. 2-3 Hours.
A capstone course for the program which provides an integration of the material presented in the other courses through the utilization of several engineering management case studies. Note: Research paper and presentation are part of the 3 credit hour option. Prerequisite: Completion of a minimum of 21 credit hours in the Engineering Management program. LEC.

EMGT 835. Field Project (M.S.). 1-3 Hours.
A problem in engineering management, the satisfactory completion of which satisfies the project requirement for the degree of Master of Science in Engineering Management. THE.

EMGT 840. Systems Approach to Engineering. 3 Hours.
This is a first course at the graduate level introducing the formal methods and processes in bringing complex systems into being and improving existing systems. Systems include both products and services. Emphasis is placed on: the definition of customer needs, the entire life cycle of systems, and introduction to formal specification methods, the value to cost ratio and the management of the systems engineering process. LEC.

EMGT 844. Managing Software Development Projects. 3 Hours.
This course investigates the area of managing software development and presents the management process as a means of optimizing business considerations and project demands. Uncertainties in product/service specifications, technology risks, cost and delivery requirements impact the management functions. Cost and schedule estimation techniques are presented together with project planning, risk control and measurement technologies. The techniques presented in this course are directly applicable to management in other industry segments. Guest speakers are used to demonstrate applications in this course. LEC.

EMGT 848. Information Technology for Management. 3 Hours.
This course is intended to bring the student up to date on developments in the field of information technology (IT) and to prepare the student to apply those technologies in the workplace. To this end, the course is divided into two components. First, current hardware, software, and networking technologies will be presented. Topics include relational databases, object oriented design and programming, client-server technologies, the Internet, and emerging communication technologies. Second, approaches to evaluating and implementing the range of information technology alternatives available to business will be presented. Topics in this area include software development, management and evaluation, IT project management, information integrity and security, and the effects of IT on people and the organization. LEC.

EMGT 850. Environmental Issues for Engineering Managers. 3 Hours.
This course provides a survey of the environmental regulations, environmental problems, and environmental solutions that must be dealt with by engineering managers regardless of their function or industry. A historical perspective on the environment is presented followed by discussion of pollution generation (sources), transportation, fate, and effects. The quantity and quality of various types of pollutants emitted to various media and the risk posed by these pollutants is analyzed. The regulatory process is examined from the perspective of the legislator, the regulator, the regulated, the engineer, and the public. LEC.

EMGT 854. Management of Business Intelligence and Security for Strategic Planning. 3 Hours.
Management of competitive intelligence and security in business strategic planning is a first course at the graduate level that introduces the formal methods, concepts, and processes of competitive intelligence and security which are vital to both strategic business planning and day-to-day business operations. This course provides access to the tools used to identify what is happening in the business environment including legislation, economics, regulatory changes, competition, customers, etc. that affect a business’ strategy and operations. Further, these tools are applied to determining what will likely happen in the future and how to use those forecasts to optimize strategic and operational plans. LEC.

EMGT 860. Special Problems in Engineering Management. 1-4 Hours.
Graduate-level investigation requiring original, independent research on problems or subjects of immediate interest to a student or faculty member. Intended to develop a student’s capability in coordinating two or more of the following: technology, finance, economics, applied mathematics, and managerial communication. EMGT 860 may be repeated for credit to a maximum of four hours in the degree program. Prerequisite: Approval of an outline of the proposed project by the instructor and the program director. RSH.

EMGT 862. Manufacturing Systems Integration. 3 Hours.
This course develops the rationale and need for the integration of manufacturing systems, and deals with the multitude of practical problems involved with manufacturing systems integration. Topics covered include intelligent manufacturing subsystems and vendor-specific islands of
automation, on-line and off-line information sources, and end users of information in the manufacturing enterprise. Engineering details covered include the types of communication links available between systems, communication standards, network and protocol alternatives, and hardware platform alternatives. Management concepts covered include the top-down design/bottom-up implementation approach to system integration, long-range planning and management of integration projects, reliability and security issues, and human factors. 

EMGT 867. Advanced Operations Management. 3 Hours.
This course provides the student with up-to-date information of the management of manufacturing operations. Emphasis is on quantitative methods for designing and analyzing manufacturing processes, simulation of manufacturing processes, and recent paradigms in manufacturing including just-in-time production, synchronous manufacturing, and agile manufacturing. A semester project is required covering some aspect of operations management in detail. LEC.

PMGT 806. Finance for Project Manager. 3 Hours.
A study of finance including financial planning and management in technological based organizations. Topics covered include financial statement analysis, present value of financial markets, capital budgeting, taxes, investment decisions, replacement decisions, cash flow budgets and sources of capital. LEC.

PMGT 809. Personal Development for Project Managers. 4 Hours.
Concepts and skills development in the primary areas of communication methods, ethical behavior, conflict resolution, workforce diversity, and continuous learning, and secondary areas of basic project and project team contexts and related interpersonal relations. Career development is emphasized. LEC.

PMGT 816. Project Management Fundamentals I. 3 Hours.
Managerial concepts and skills development in relation to the project-oriented business environment, project lifecycle, integrated project management, project selection, and project initiation. Focus is on management of a single project. LEC.

PMGT 817. Project Management Fundamentals II. 3 Hours.
Planning concepts and skills development in relation to developing needed information on project scope, time, cost, and risk, and making direct use of such information to develop key documentation such as the project schedule and budget. Examples of specific topics considered include project work content and change, documentation, and resource requirements. Planning content is complementary to that of PMGT 818. LEC.

PMGT 818. Project Management Fundamentals III. 3 Hours.
Concepts and skills development in relation to planning for management of communications, human resource aspects of project team formation and development, procurement, and quality. Examples of specific topics considered include information handling, reporting, and stakeholder relationships. Planning content is complementary to that of PMGT 817. LEC.

PMGT 819. Project Management Fundamentals IV. 3 Hours.
Concepts and skills development in relation to project execution, including processes monitoring and controlling, and project closure. Examples of specific topics considered include handling change requests, procurement, teamwork and team development, and cost management. Course content represents systematic treatment of all aspects of project management beyond planning—but is, in project execution and closing phases. LEC.

PMGT 820. Management of Intra-Organizational Projects. 3 Hours.
Application area course exposing students to specialized knowledge, standards, and regulations involved in managing organizations’ internal projects. Attention is directed to unique characteristics of internal project environments, major project phases—from selection to closing—and related management processes. LEC.

PMGT 821. Management of Consulting Projects. 3 Hours.
Application area course exposing students to specialized knowledge, standard, and regulations involved in managing consulting projects. Attention is directed to unique characteristics of consulting project environments, major project phases—from selection to closing—and related management processes. LEC.

PMGT 822. Management of Governmental Projects. 3 Hours.
Application area course exposing students to specialized knowledge, standards, and regulations involved in managing projects for governmental entities. Attention is directed to unique characteristics of the governmental project environments, major project phases—from selection to closing—and related management processes. LEC.

PMGT 823. Risk Management for Project Managers. 3 Hours.
Advanced study of risk management theory and practice as applied in managing projects. Basic concepts and methods of risk management are reviewed—such as qualitative and quantitative risk assessment—and details then examined. LEC.

PMGT 824. Project Cost Estimation, Analysis, and Control. 3 Hours.
Advanced study of cost estimation methodology, cost engineering, and cost control applicable in project management. Includes review of commonly used supportive software. LEC.

PMGT 825. Portfolio Analysis for Project Managers. 3 Hours.
Concepts and methods of intra- and inter-project finance including inter-organization funding, project evaluation and selection, project cost accounting, portfolio formulation and modification, and performance tracking. Introduces fundamentals of investment theory and real options analysis. LEC.

PMGT 826. Program Management. 3 Hours.
Examination of program definition, structuring, and management in the context of organizational strategy, and the critical resources and skills required in long-term program evolution and execution. Facilitation of efforts across multi-tiered organizations will be stressed. LEC.

PMGT 827. Project Team Management and Development. 3 Hours.
Concepts and methods of team and team member development, achieving higher-performance teams while satisfying organizational expectations. Specific topics include management concepts and practices, team dynamics, and interpersonal skills in negotiation and conflict resolution. LEC.

PMGT 828. Management of Global Projects. 3 Hours.
Survey of management challenges in conducting international projects, emphasizing cross-cultural issues. Differences across world regions and selected key countries in relation to communication and interpersonal norms, business conventions, and legal systems will receive particular attention. LEC.

PMGT 829. Management of Distributed Project Teams. 3 Hours.
Concepts and methods of conducting high-performance, multi-site team operations, focusing on intra-team communication, coordination, and control. Incorporates review of practical technologies with emphasis on web-enabled approaches. LEC.

PMGT 830. Case Studies in Project Management. 2 Hours.
Reinforcement and demonstration of developing project management skills through case analysis and discussion. Goal is integration of learning across all core courses, and also drawing on content from general management, applications area, and advanced project management elective courses taken. Emphasis is on integrated project management.
The students will document their project in a written report and present their project during the final oral examination to the Project Management facility and student’s employer or representative if practical. LEC.

**PMGT 833. Management of Internal Projects for Scientists and Technical Professionals. 3 Hours.**
The purpose of this course is to introduce the student to all aspects of managing a project within a company or organization. The entire project life cycle will be covered from inception to close-out, and many practical considerations will be discussed including material procurement, working with contractors and consultants, selecting software, and managing the project team. The course will focus on how to manage project scope, schedule budget, and resources using personal computer software. A semester project is required presenting an example of project management or investigating some aspect of project management in detail. LEC.

**PMGT 835. Project Management Capstone. 3 Hours.**
The capstone serves as a culminating experience for this degree. Students will develop an applied workforce project or benefit to in the student’s place of employment for full time students. The students will document their project in a written report and present their project during the final oral examination to the Project Management facility and student’s employer or representative if practical. LEC.

## Engineering Physics Undergraduate Program

### Engineering Physics Undergraduate Program

The engineering physics program is designed for undergraduates with an interest in both science and engineering. The program is focused on those students who wish to work in areas of rapid technological change, where a good background in the underlying science is an important ingredient to success in their careers. The curriculum includes classical and modern physics, mathematics, and their applications to one or more areas of engineering. The student learns the physical science and engineering principles underlying modern technology. Four design concentrations are offered:

- Aerospace systems
- Chemical systems
- Digital electronic systems
- Electromechanical control systems

Each option incorporates a significant design component and provides a strong base in one or more engineering disciplines. The degree is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

For programs in physics, see Physics and Astronomy (p. 1587) in the College of Liberal Arts and Sciences section of the online catalog.

## Educational Objectives

Engineering physics graduates will be capable of

- Completing or successfully progressing toward completion of an advanced degree in graduate or professional school,
- Using their analytical, problem-solving, and communications skills to conduct research or contribute to technology development projects, individually or as a team member,
- Using their background knowledge in physics and engineering fundamentals as a foundation for developing new knowledge and experience in their chosen disciplines.

## Careers

### Professional Opportunities

Engineering physics enable graduates to combine an extensive background in physics, the science that underlies modern technology, with an engineering degree. Their broad training and technical breadth provide a unique flexibility. They have the science background to pursue pure research opportunities, the engineering degree and design concentration to solve practical problems in industry or a variety of other settings, and the understanding to act as a communication link between highly diversified divisions of an organization. Engineering physics graduates typically work in aerospace and avionic industries, electronics industries, research and development laboratories, telecommunications, design and consulting firms, and government agencies, and as defense contractors. Many engineering physics graduates attend graduate or professional school before entering the work force.

## Courses

**EPHX 400. Topics in Engineering Physics: _____. 1-3 Hours.**
A course on special topics in engineering physics, given as the need arises. Course may be repeated for different topics. Each section may have additional prerequisites to be determined by the instructor. LEC.

**EPHX 501. Honors Research. 1-4 Hours. AE61.**
This course is for students seeking Departmental Honors in Astronomy, Engineering Physics, or Physics to fulfill the undergraduate research requirement. At the completion of the required four hours of total enrollment, a written and oral report of the research is required. (Same as PHSX 501.) Prerequisite: Junior/Senior standing in Astronomy, Engineering Physics, or Physics. IND.

**EPHX 503. Undergraduate Research. 1-4 Hours. AE61.**
This course is for students seeking to fulfill the undergraduate research requirement. Students are expected to participate in some area of ongoing research in the department, chosen with the help of their advisor. At the end of the term, students will present their results in a seminar to other students and faculty. (Same as ASTR 503 and PHSX 503.) Prerequisite: Junior/Senior standing in Astronomy, Engineering Physics, or Physics, or permission of instructor. IND.

**EPHX 511. Introductory Quantum Mechanics. 3 Hours.**
An introduction to quantum mechanics, emphasizing a physical overview. Topics should include the formalisms of non-relativistic quantum mechanics, the 3-dimensional Schrodinger equation with applications to the hydrogen atom; spin and angular momentum; multi-particle systems of Fermi-Dirac and Bose-Einstein particles; time-independent perturbation theory. (Same as PHSX 511.) Prerequisite: PHSX 313 and MATH 290. LEC.

**EPHX 516. Physical Measurements. 4 Hours.**
A laboratory course emphasizing experimental techniques and data analysis, as well as scientific writing and presentation skills. Experiments will explore a range of classical and modern physics topics. (Same as PHSX 516.) Prerequisite: PHSX 313, EPHX 316, and EPHX 521. (EPHX 521 may be taken concurrently.) LAB.

**EPHX 518. Mathematical Physics. 3 Hours. N.**
Applications of modern mathematical methods to problems in mechanics and modern physics. Techniques include application of partial differential equations and complex variables to classical field problems in
continuous mechanics, unstable and chaotic systems, electrodynamics, hydrodynamics, and heat flow. Applications of elementary transformation theory and group theory, probability and statistics, and nonlinear analysis to selected problems in modern physics as well as to graphical representation of experimental data. Prerequisite: PHSX 313 and MATH 320 or permission of instructor. (Same as PHSX 518.) LEC.

EPHX 521. Mechanics I. 3 Hours.
Newton's laws of motion. Motion of a particle in one, two, and three dimensions. Motion of a system of particles. Moving coordinate systems. (Same as PHSX 521.) Prerequisite: PHSX 211 and PHSX 216, or PHSX 213; MATH 223; MATH 290; and MATH 220 or MATH 320. LEC.

EPHX 531. Electricity and Magnetism. 3 Hours.
The properties of electric and magnetic fields, including electrostatics, Gauss' Law, boundary value methods, electric fields in matter, electromagnetic induction, magnetic fields in matter, the properties of electric and magnetic dipoles and of dielectric and magnetic materials. (Same as PHSX 531.) Prerequisite: PHSX 214, or PHSX 212 and PHSX 236; PHSX 521 or special permission; MATH 223; MATH 290; and MATH 220 or MATH 320. LEC.

EPHX 536. Electronic Circuit Measurement and Design. 4 Hours.
A laboratory course that explores the theory and experimental techniques of analog and digital electronic circuit design and measurements. Topics include transient response, transmission lines, transistors, operational amplifiers, and digital logic. (Same as PHSX 536.) Prerequisite: PHSX 214 or PHSX 212 and PHSX 236; MATH 223; MATH 290. PHSX 313 and 316 recommended. LEC.

EPHX 600. Special Topics in Physics and Astrophysics: ______. 3 Hours.
Different topics will be covered as needed. This course will address topics in physics and astrophysics not covered in regularly offered courses. May be repeated if topic differs. (Same as PHSX 600.) Prerequisite: Permission of instructor. LEC.

EPHX 601. Design of Physical and Electronic Systems. 4 Hours.
AE61.
A laboratory course emphasizing the application of physical principles to the design of systems for research, monitoring, or control. Topics include the use of microcomputers as controllers, interfacing microcomputers with measurement devices, and use of approximations and/or computer simulation to optimize design parameters, linear control systems, and noise. (Same as PHSX 601.) Prerequisite: Twelve hours of junior-senior credit in physics or engineering, including one laboratory course. LEC.

EPHX 615. Numerical and Computational Methods in Physics. 3 Hours.
An introduction to the use of numerical methods in the solution of problems in physics for which simplifications allowing closed-form solutions are not applicable. Examples are drawn from mechanics, electricity, magnetism, thermodynamics, and optics. (Same as PHSX 615.) Prerequisite: PHSX 313, MATH 320 or equivalent, and EECS 138 or equivalent. LEC.

EPHX 621. Mechanics II. 3 Hours.
Continuation of PHSX 521. Lagrange's equations and generalized coordinates. Mechanics of continuous media. Tensor algebra and rotation of a rigid body. Special relativity and relativistic dynamics. (Same as PHSX 621.) Prerequisite: EPHX 521 or PHSX 521. LEC.

EPHX 623. Physics of Fluids. 3 Hours.
An introduction to basic fluid mechanics in which fundamental concepts and equations will be covered. Topics will include hydrostatics, hydrodynamics, wave propagation in fluids, and applications in the areas such as astrophysics, atmospheric physics, and geophysics. (Same as PHSX 623.) Prerequisite: MATH 223; MATH 290; PHSX 212 and PHSX 236 (or PHSX 214 can replace PHSX 212 and PHSX 236.) LEC.

EPHX 631. Electromagnetic Theory. 3 Hours.
Maxwell's equations, wave propagation, optics and waveguides, radiation, relativistic transformations of fields and sources, use of covariance, and invariance of relativity. Normally a continuation of PHSX 531. (Same as PHSX 631.) Prerequisite: EPHX 531 or PHSX 531. LEC.

EPHX 641. Introduction to Nuclear Physics. 3 Hours.
Experimental methods in nuclear physics, elementary concepts and simple considerations about nuclear forces, alpha and beta decay, gamma radiation, nuclear structure, and reaction systematics. (Same as PHSX 641.) Prerequisite: PHSX 313 and PHSX 511. LEC.

EPHX 655. Optics. 3 Hours.
Geometric optics. Wave properties of light: interference, diffraction, coherence. Propagation of light through material. Selected topics in modern optics, e.g., lasers, fibers. (Same as PHSX 655.) Prerequisite: PHSX 313 and PHSX 316. LEC.

EPHX 661. Introduction to Elementary Particle Physics. 3 Hours.
Properties and interactions of quarks, leptons, and other elementary particles; symmetry principles and conservation laws; broken symmetry; gauge bosons; the fundamental interactions, grand unified theories of strong, electromagnetic, and weak interactions; the cosmological implications of elementary particle physics. (Same as PHSX 661.) Prerequisite: PHSX 313 and MATH 320. LEC.

EPHX 671. Thermal Physics. 3 Hours.
Development of thermodynamics from statistical considerations. Elementary techniques of calculating thermodynamic properties of systems. Application to classical problems of thermodynamics. Elementary kinetic theory of transport processes. Fermi-Dirac and Bose-Einstein systems. (Same as PHSX 671.) Prerequisite: PHSX 511. LEC.

EPHX 681. Concepts in Solids. 3 Hours.
Properties of common types of crystals and amorphous solids. Lattice vibrations and thermal properties of solids. Electrons and holes in energy bands of metals, semiconductors, superconductors, and insulators. (Same as PHSX 681.) Prerequisite: PHSX 313 and PHSX 611. LEC.

EPHX 691. Astrophysics I. 3 Hours.
An introduction to radiation processes, thermal processes, and radiative transfer in stellar atmospheres and the interstellar medium. (Same as ASTR 691 and PHSX 691.) Prerequisite: PHSX 313 or consent of instructor. LEC.

EPHX 693. Gravitation and Cosmology. 3 Hours.
An overview of topics relevant to gravitation and modern cosmology: special relativity, tensor notation, the equivalence principle, the Schwarzschild solution, black holes, and Friedmann models. Cosmic black body radiation, dark matter, and the formation of large-scale structure. The idea of quantum gravity and an introduction to the current literature in cosmology. (Same as PHSX 693.) Prerequisite: PHSX 313 and MATH 320. LEC.

Bachelor of Science in Engineering Physics

Engineering Physics Undergraduate Program

The engineering physics program is designed for undergraduates with an interest in both science and engineering. The program is focused on those students who wish to work in areas of rapid technological change, where
a good background in the underlying science is an important ingredient to success in their careers. The curriculum includes classical and modern physics, mathematics, and their applications to one or more areas of engineering. The student learns the physical science and engineering principles underlying modern technology. Four design concentrations are offered:

- Aerospace systems
- Chemical systems
- Digital electronic systems
- Electromechanical control systems

Each option incorporates a significant design component and provides a strong base in one or more engineering disciplines. The degree is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

For programs in physics, see Physics and Astronomy (p. 1587) in the College of Liberal Arts and Sciences section of the online catalog.

**Educational Objectives**

Engineering physics graduates will be capable of

- Completing or successfully progressing toward completion of an advanced degree in graduate or professional school,
- Using their analytical, problem-solving, and communications skills to conduct research or contribute to technology development projects, individually or as a team member,
- Using their background knowledge in physics and engineering fundamentals as a foundation for developing new knowledge and experience in their chosen disciplines.

**Careers**

**Professional Opportunities**

Engineering physics enable graduates to combine an extensive background in physics, the science that underlies modern technology, with an engineering degree. Their broad training and technical breadth provide a unique flexibility. They have the science background to pursue pure research opportunities, the engineering degree and design concentration to solve practical problems in industry or a variety of other settings, and the understanding to act as a communication link between highly diversified divisions of an organization. Engineering physics graduates typically work in aerospace and avionic industries, electronics industries, research and development laboratories, telecommunications, design and consulting firms, and government agencies, and as defense contractors. Many engineering physics graduates attend graduate or professional school before entering the work force.

**Undergraduate Admission to the School of Engineering**

First-year undergraduate students may be admitted, but all admissions, both in-state and out-of-state, are selective. Visit the Office of Admissions (http://admissions.ku.edu/whyku/index.shtml) for admission requirements. Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Applications are judged on several factors, including but not limited to high school record, scores on national tests, academic record at college or university level, and trend of grades. High school transcripts and ACT scores are required. Equivalent SAT scores may be substituted.

**Minimum Academic Standards for Admission**

To be considered for admission to the School of Engineering, beginning first-year students must meet or exceed the following minimum standards:

- 3.0 grade-point average on a 4.0 scale on the Kansas Board of Regents Qualified Admissions (http://admissions.ku.edu/apply/regents_curriculum.shtml) college-preparatory curriculum.
- Top 50 percent of the graduating class of an accredited high school or the equivalent.
- Mathematics ACT score of 22 (or mathematics SAT score of 540).

Some engineering degree programs may require a higher mathematics ACT score.

These minimum admission standards apply to all departments. Meeting minimum requirements does not guarantee admission.

**Transfer Admission Standards**

Applications from all transfer students, whether from other institutions or from other KU units, are evaluated on a case-by-case basis. In general, students with grade-point averages under 2.5 are not considered. Students must submit mathematics ACT or SAT scores or proof of competence in calculus (grade of C or higher). No upper-level engineering credits from non-ABET-accredited engineering programs are acceptable as transfer credit for engineering programs. Admission is selective, and meeting the minimum requirements does not guarantee admission.

**First- and Second-Year Preparation**

Recommended enrollments for the first 2 years vary with the design concentration selected (see below). Consult a departmental advisor as early as possible. Courses common to all concentrations are

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 150 or 130</td>
<td>5</td>
<td>ENGL 102</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>3</td>
<td>MATH 122</td>
<td>5</td>
</tr>
<tr>
<td>MATH 121</td>
<td>5</td>
<td>PHSX 211, 216, or 213</td>
<td>5</td>
</tr>
<tr>
<td>PHSX 150</td>
<td>0.5</td>
<td></td>
<td></td>
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<tr>
<td></td>
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<td>13.5</td>
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<table>
<thead>
<tr>
<th>Sophomore</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MATH 290</td>
<td>2</td>
<td>PHSX 313</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 212, and PHSX 236, or PHSX 214</td>
<td>1-3</td>
<td>PHSX 316</td>
<td>1</td>
</tr>
<tr>
<td>MATH 220 or 320</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 223</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9-11</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

Total Hours: 39.5-41.5

\(^1\) Note: the sequence of MATH courses during the sophomore year depends on the student’s design concentration.
Bachelor of Science in Engineering
Physics Degree Requirements

A total of 127-128 hours is required for the degree. Each student takes a
common core of courses and selects 1 of 4 design concentrations.

**Common Core (71.5 credit hours)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 150</td>
<td>Seminar in Physics, Astronomy and Engineering Physics</td>
<td>0.5</td>
</tr>
<tr>
<td>PHSX 211 &amp;</td>
<td>General Physics I</td>
<td>5</td>
</tr>
<tr>
<td>PHSX 216 &amp;</td>
<td>General Physics I Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHSX 213 &amp;</td>
<td>General Physics I Honors</td>
<td></td>
</tr>
<tr>
<td>PHSX 212 &amp;</td>
<td>General Physics II</td>
<td>4</td>
</tr>
<tr>
<td>PHSX 236 &amp;</td>
<td>General Physics II Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHSX 214 &amp;</td>
<td>General Physics II Honors</td>
<td></td>
</tr>
<tr>
<td>PHSX 313</td>
<td>General Physics III</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 316</td>
<td>Intermediate Physics Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>PHSX 516</td>
<td>Physical Measurements</td>
<td>4</td>
</tr>
<tr>
<td>PHSX 521</td>
<td>Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 531</td>
<td>Electricity and Magnetism</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 601</td>
<td>Design of Physical and Electronic Systems</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 150</td>
<td>Chemistry for Engineers</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
<td></td>
</tr>
<tr>
<td>MATH 121</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 122</td>
<td>Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>MATH 223</td>
<td>Vector Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MATH 290</td>
<td>Elementary Linear Algebra</td>
<td>2</td>
</tr>
<tr>
<td>MATH 220</td>
<td>Applied Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 320</td>
<td>Elementary Differential Equations</td>
<td></td>
</tr>
</tbody>
</table>

**KU Core Curriculum Goals 2.1, 2.2, 3H, 3S, 4.1, & 4.2 (21)** 21

**Total Hours** 71.5

**Design Concentrations (56-59 hours)**

**Aerospace Systems (57)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE 245</td>
<td>Introduction to Aerospace Engineering</td>
<td>3</td>
</tr>
<tr>
<td>AE 345</td>
<td>Fluid Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>AE 421</td>
<td>Aerospace Computer Graphics</td>
<td>4</td>
</tr>
<tr>
<td>AE 445</td>
<td>Aircraft Aerodynamics and Performance</td>
<td>3</td>
</tr>
<tr>
<td>AE 507</td>
<td>Aerospace Structures I</td>
<td>3</td>
</tr>
<tr>
<td>AE 545</td>
<td>Fundamentals of Aerodynamics</td>
<td>4</td>
</tr>
<tr>
<td>AE 550</td>
<td>Dynamics of Flight I</td>
<td>4</td>
</tr>
<tr>
<td>AE 551</td>
<td>Dynamics of Flight II</td>
<td>4</td>
</tr>
<tr>
<td>AE 572</td>
<td>Fundamentals of Jet Propulsion</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 121</td>
<td>Introduction to Computers in Engineering</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 221</td>
<td>Chemical Engineering Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>CE 301</td>
<td>Statics and Dynamics</td>
<td>5</td>
</tr>
<tr>
<td>CE 310</td>
<td>Strength of Materials</td>
<td>4</td>
</tr>
<tr>
<td>EPHX 536</td>
<td>Electronic Circuit Measurement and Design</td>
<td>4</td>
</tr>
</tbody>
</table>

Select one of the following tracks:

For the aircraft track

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE 508</td>
<td>Aerospace Structures II</td>
<td>3</td>
</tr>
<tr>
<td>AE 521</td>
<td>Aerospace Systems Design I</td>
<td>4</td>
</tr>
</tbody>
</table>

Or for the spacecraft track

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>AE 560</td>
<td>Spacecraft Systems</td>
<td>3</td>
</tr>
<tr>
<td>AE 523</td>
<td>Space Systems Design</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Hours** 57

**Chemical Systems (57)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;PE 121</td>
<td>Introduction to Computers in Engineering</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 221</td>
<td>Chemical Engineering Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 511</td>
<td>Momentum Transfer</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 512</td>
<td>Chemical Engineering Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 521</td>
<td>Heat Transfer</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;PE 522</td>
<td>Economic Appraisal of Chemical and Petroleum Projects</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 135</td>
<td>General Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 330</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 530</td>
<td>Physical Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>EPHX 536</td>
<td>Electronic Circuit Measurement and Design</td>
<td>4</td>
</tr>
<tr>
<td>EPHX 511</td>
<td>Introductory Quantum Mechanics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Hours** 57

**Digital Electronic Systems (59)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EECS 140</td>
<td>Introduction to Digital Logic Design</td>
<td>4</td>
</tr>
<tr>
<td>EECS 168</td>
<td>Programming I</td>
<td>4</td>
</tr>
<tr>
<td>EECS 268</td>
<td>Programming II</td>
<td>4</td>
</tr>
<tr>
<td>EECS 211</td>
<td>Circuits I</td>
<td>3</td>
</tr>
<tr>
<td>EECS 212</td>
<td>Circuits II</td>
<td>4</td>
</tr>
<tr>
<td>EECS 312</td>
<td>Electronic Circuits I</td>
<td>3</td>
</tr>
<tr>
<td>EECS 360</td>
<td>Signal and System Analysis</td>
<td>4</td>
</tr>
<tr>
<td>EECS 388</td>
<td>Embedded Systems</td>
<td>4</td>
</tr>
<tr>
<td>EECS 443</td>
<td>Digital Systems Design</td>
<td>4</td>
</tr>
<tr>
<td>EECS 448</td>
<td>Software Engineering I</td>
<td>4</td>
</tr>
<tr>
<td>EECS 461</td>
<td>Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>EECS 470</td>
<td>Electronic Devices and Properties of Materials</td>
<td>3</td>
</tr>
<tr>
<td>EECS 541</td>
<td>Computer Systems Design Laboratory I</td>
<td>3</td>
</tr>
<tr>
<td>EECS 542</td>
<td>Computer Systems Design Laboratory II</td>
<td>3</td>
</tr>
<tr>
<td>EECS 645</td>
<td>Computer Architecture</td>
<td>3</td>
</tr>
<tr>
<td>or EECS 643</td>
<td>Advanced Computer Organization</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following EECS Elective:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EECS 644</td>
<td>Introduction to Digital Signal Processing</td>
<td></td>
</tr>
<tr>
<td>EECS 670</td>
<td>Introduction to Semiconductor Processing</td>
<td></td>
</tr>
<tr>
<td>EECS 672</td>
<td>Introduction to Computer Graphics</td>
<td></td>
</tr>
<tr>
<td>EECS 678</td>
<td>Introduction to Operating Systems</td>
<td></td>
</tr>
<tr>
<td>EECS 713</td>
<td>High-Speed Digital Circuit Design</td>
<td></td>
</tr>
</tbody>
</table>

**Total Hours** 57
The Department of Mechanical Engineering offers a 128-hour bachelor of science degree in mechanical engineering and is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org. Students interested in biomedical engineering or applying to medical school after graduation may elect to complete a concentration in biomedical (or follow a pre-medicine plan). There is also a five-year dual degree program in which students earn a B.S. in mechanical engineering as well as a bachelor of business administration degree. Depending on the employer, mechanical engineering graduates might be expected to become licensed. Formal study in an accredited engineering program, such as at the University of Kansas, is the first step to becoming licensed in Kansas and other states. After completion of a majority of coursework, students are encouraged to take the Fundamentals of Engineering examination which is necessary to become a licensed Professional Engineer (P.E.).

The mechanical engineering curriculum builds on the basic foundation of mathematics and physical sciences, and focuses on engineering design and analysis in 2 primary areas:

Credit for Foreign Language
Foreign language courses are not applicable to this degree program.

Graduation Plans
A suggested graduation plan for each of the design concentrations is available on the Physics and Astronomy website (http://www.physics.ku.edu/~physics/undergraduate/underg.shtml).

Departmental Honors
Engineering physics undergraduates may graduate with departmental honors by achieving a minimum grade-point average of 3.5 in major courses taken in residence and at other institutions, by completing at least 1 credit hour of undergraduate research with a grade of B or better in EPHX 501 or EPHX 503, and the results presented in a manner specified by the Department. Please see your advisor for details.

Mechanical Engineering
The broad discipline of mechanical engineering enables students to have productive and rewarding careers, and to develop and improve new technologies in both traditional an emerging fields. Mechanical engineers apply fundamental principles to develop, design, manufacture, and test machines and other mechanical devices. Such devices include but are not limited to power-producing machines as well as power-consuming machines. Mechanical engineers are employed in diverse areas including but not limited to: the energy and power industries, the automotive and aerospace industries, and industrial manufacturing. Mechanical Engineering graduates also have careers in medicine and medical device development, patent law, engineering and corporate management, forensic engineering, and engineering sales.

The mission of the Mechanical Engineering Department is to provide our students with a high quality education, to generate and apply knowledge, and to serve both society and the engineering profession.

In support of our mission, upon graduation our undergraduate students will be:

1. technically skilled in the application of the principles of mechanical engineering, and will demonstrate the ability to work collaboratively and in teams;
2. successful in their chosen career paths, demonstrating the attitudes, abilities, and personal leadership to effectively adapt to our changing global society while maintaining and promoting the highest engineering, professional, and ethical standards; and
3. actively engaged in continuous learning and professional growth throughout their careers while productively contributing to their organizations and communities.

In support of our mission, upon graduation our graduate students will be:

1. capable of performing research at the highest possible level and contribute valuable advances to their chosen areas of specialization;
2. enthusiastic and have a strong desire to instruct young engineers in their chosen areas of specialization; and
3. qualified to work at the most prestigious research institutions and universities in the world.

Undergraduate Programs
The broad discipline of mechanical engineering enables students to have productive and rewarding careers, and to develop and improve new technologies in both traditional an emerging fields. Mechanical engineers apply fundamental principles to develop, design, manufacture, and test
Graduate Programs

The University of Kansas Department of Mechanical Engineering offers the Master of Science in Mechanical Engineering degree, the Doctor of Philosophy and the Doctor of Engineering degrees. Areas of study in Mechanical Engineering include:

1. Biomechanics and Biomaterials: biomechanics of human motion, biomaterials, orthopedic biomechanics and biomedical product design, transport phenomena, and drug delivery.

2. Computational Mechanics and Mathematics of Computations: computational mechanics, finite element analysis, finite element methods and software.

3. Thermal-Fluid Systems and Heat Transfer: energy and thermal-power system design, heat transfer, and computational fluid dynamics.


Graduate Admission

To qualify for any of the graduate programs, a student generally must have earned an accredited baccalaureate degree in mechanical engineering. A student with good preparation in some other engineering discipline, or a related field such as physics, may qualify by taking appropriate undergraduate courses specified by the graduate admissions director.

For admission to regular status, the student must have an undergraduate grade-point average of at least B (3.0 on a 4.0 scale). For students whose undergraduate grade-point averages are below 3.0 but no lower than 2.75 on a 4.0 scale, provisional admission is considered on a case-by-case basis. Graduate Record Examination scores are required.

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the department:

The University of Kansas
Department of Mechanical Engineering
Learned Hall
1530 W. 15th St., Room 3013
Lawrence, KS 66045-7618

Graduate Financial Aid

Various types of financial aid are available, including teaching and research assistantships and graduate fellowships. Students holding teaching assistantships for 40-percent time or more receive tuition waivers but must pay campus fees. Students holding research assistantships may pay reduced tuition. Fellowships with stipends plus fees may be available for particularly outstanding students. Applications for fellowships or assistantships should be submitted before the academic year for which the fellowship or assistantship is desired. Similarly, applications for assistantships should be submitted 2 months before the desired entry date.

Courses

ME 201. Statics. 2 Hours.
The principles of statics, with particular attention to engineering applications. Prerequisite: PHSX 211. LEC.

ME 208. Introduction to Digital Computational Methods in Mechanical Engineering. 3 Hours.
Digital computing methods for solving mechanical engineering problems utilizing current programming languages and commercial software. Topics from the course are applied through open-ended team projects throughout the semester which also give students an introduction to mechanical engineering. One lecture and lab meets with ME 228, therefore ME 208 cannot be taken concurrently with ME 228, but should be taken in back-to-back semesters. Corequisite: MATH 116 or MATH 121. LEC.

ME 210. Introduction to Mechanics. 1 Hour.
An introduction to mechanics of materials including stress, strain, and axial loading. Prerequisite: ME 201. LEC.

ME 211. Statics and Introduction to Mechanics. 3 Hours.
The principles of statics, with particular attention to engineering applications and an introduction to mechanics of materials. This course is a combination of material covered in ME 201 and ME 210. Prerequisite: PHSX 211. LEC.

ME 228. Computer Graphics. 3 Hours.
An introduction to solid modeling computer graphics used in mechanical design. Visualization skills and drawing practices are developed. Topics from the course are applied through open-ended team projects throughout the semester which also give students an introduction to mechanical engineering. One lecture and lab meets with ME 208, therefore ME 228 cannot be taken concurrently with ME 208, but should be taken in back-to-back semesters. LEC.

ME 306. Science of Materials. 3 Hours.
An introductory course on materials. Emphasis is placed on structure and the relation of structure to the behavior and properties of engineering materials. Prerequisite: CHEM 150 or CHEM 130 or consent of instructor. LEC.

Laboratory to supplement lecture on engineering materials properties and selection, manufacturing processes, and design for manufacturing. Prerequisite: CHEM 150 or CHEM 130. Corequisite: ME 306 and ME 311. LAB.

ME 311. Mechanics of Materials. 3 Hours.
The principles of mechanics of materials with particular emphasis on mechanical systems including theories of failure. Prerequisite: ME 211. Corequisite: MATH 220. LEC.

ME 312. Basic Engineering Thermodynamics. 3 Hours.
An introduction to the concepts of heat, work, the first and second laws of thermodynamics and equations of state. These concepts are applied
ME 320. Dynamics. 3 Hours.
Kinematics and kinetics of particles and of rigid bodies as applied to mechanical engineering problems. Prerequisite: ME 201 or ME 211, MATH 220, and MATH 290. LEC.

ME 321. Dynamics Simulations. 1 Hour.
Introduction to dynamics simulations on the computer. Corequisite: ME 320. LEC.

ME 360. Mechanical Engineering Problems. 1-3 Hours.
An analytical or experimental study of problems or subjects of immediate interest to a student and faculty member and which is intended to develop student capability for independent research or application of engineering science and technology. After completion of the project, a report is required. Maximum credit is three hours. Not open to students who have taken ME 361. Prerequisite: Approval of an outline of the proposed project by the instructor and department chair. IND.

ME 361. Undergraduate Honors Research. 1-3 Hours.
Investigation of a particular mechanical engineering problem. Research will involve defining the problem, developing a research methodology, applying the research methodology and gathering data, analyzing and interpreting the data, and presenting the results of the research. The student must have a faculty sponsor and submit a proposal in writing stating the objective of the research, the planned research method that will be used, and the method of reporting the results. Maximum credit is three hours. Not open to students who have taken ME 360. Prerequisite: Participation in the University Honors Program, consent of instructor, and approval of the chair required. IND.

ME 390. Special Topics: ______. 1-5 Hours.
Courses on special topics of current interest in mechanical engineering, given as the need arises. Prerequisite: Approval of instructor. LEC.

ME 412. Thermal Systems. 3 Hours.
Application of the principles of thermodynamics to the analysis and design of thermal systems. Prerequisite: ME 312. LEC.

ME 420. Mechanisms. 3 Hours.
Design and analysis of mechanisms composed of linkages, cams, and gears. Mechanical vibration. Prerequisite: PHSX 211 and MATH 220. LEC.

ME 455. Mechanical Engineering Measurements and Experimentation. 4 Hours.
Lectures and laboratories on the basics of measurement, instrumentation, data acquisition, analysis, design and execution of experiments, and written and oral reports. Topics selected from heat transfer, fluid mechanics, thermodynamics, mechanics, strength of materials, and dynamics. Prerequisite: ME 208 and ME 311. Co-requisite: EECS 318, ME 510, ME 320, ME 612, and Statistics. LEC.

ME 501. Mechanical Engineering Design Process. 2 Hours.
The design process of a mechanical or thermal system. Establishment of specifications and consideration of realistic constraints such as safety, codes, economic factors, reliability, oral and written communications, and other factors as they impact the design process. Prerequisite: ME 311 and ME 312. Corequisite: ME 228 and ME 307. LEC.

ME 508. Numerical Analysis of Mechanical Engineering Problems. 3 Hours.
Introduction to numerical methods for solution of mechanical engineering problems by use of digital computers. Prerequisite: ME 208 or equivalent, MATH 220 and MATH 290. LEC.

ME 510. Fluid Mechanics. 3 Hours.
An introduction to the mechanics of fluid flow. The principles of conservation of mass, momentum, and energy are developed in differential and integral form. Laws of dimensional analysis and similitude are presented as the basis for empirical correlations. Engineering applications include: calculation of hydrostatic forces on submerged objects, analysis of flow and pressure loss in piping systems, estimation of aerodynamic lift and drag, and performance characteristics of pumps and fans. Prerequisite: ME 211, ME 201, or CE 201 and MATH 122; Corequisite: ME 312. LEC.

ME 590. Special Topics: ______. 1-5 Hours.
Courses on special topics of current interest in mechanical engineering, given as the need arises. Prerequisite: Approval of instructor. LEC.

ME 612. Heat Transfer. 3 Hours.
An applied study of conductive, convective, and radiative heat transfer mechanisms in solid and fluid systems. Engineering applications include solid conduction, free and forced convection in fluids, thermal radiation and heat exchangers, evaporators, and furnaces. Prerequisite: MATH 220 and ME 312. Corequisite: ME 510. LEC.

ME 627. Automotive Design. 4 Hours.
Basic concepts of automotive design and manufacture. Primary focus of course on vehicle design and performance. Design is subdivided into vehicle components of frame, suspension, front and rear axle, steering, power train, front and rear wheel drive, and braking. Integration of these ideas into a vehicle design project with analysis of its performance culminates the course. Prerequisite: Permission of instructor. LEC.

ME 628. Mechanical Design. 3 Hours.
Design of mechanical components and systems. Prerequisite: ME 311. LEC.

ME 633. Basic Biomechanics. 3 Hours.
Provides an overview of musculoskeletal anatomy. Biodynamics includes linear and angular dynamics of human movement, energy expenditure and power required to perform a given activity. Students will learn to determine joint forces and torques (in 2-D) from kinematic data for body segments and force plate data. The tissue mechanics section builds on mechanics of materials. Students will learn about tissue properties, appropriate constitutive models and determination of stresses and strains in tissues and structures under normal loading conditions. Prerequisite: ME 311 and ME 320 or equivalent. LEC.

ME 636. Internal Combustion Engines. 3 Hours.
Study and analysis of internal combustion engine physical phenomena dynamic function, components, and system design. Emphasis on spark ignition and compression ignition engine analysis. Performance, current technology, thermodynamics, fluid-mechanics, combustion products and pollution, fuels and lubrication, and mechanical design. Prerequisite: ME 412. LEC.

ME 637. Steam Power Plants. 3 Hours.
A study of steam power plant equipment including thermodynamic analysis, design and performance of modern steam generators, prime movers, and auxiliaries. Prerequisite: ME 412 or permission of instructor. LEC.

ME 639. Alternative Energy Systems. 3 Hours.
This course is a survey of energy resources and the available technology for meeting current energy needs with alternative energy systems. An overview of the U.S. energy system and world-wide energy consumption is included to provide context. The primary course objective is to develop the students’ ability to apply engineering fundamentals to the design and operation of alternative energy systems. The students will be introduced to databases and modeling methods used to represent alternative energy systems.
resources. Assignments will include: engineering problem analysis, group design projects, individual research papers, oral and written presentations. Prerequisite: ME 510, AE 345, or CPE 511 and (ME 412 or ME 612 or CPE 521). LEC.

ME 640. Design Project. 1-2 Hours.
Planning for a capstone design project. Development of a formal project proposal is required. Must be used with two credit hours of ME 641, ME 643, ME 644 or ME 645 in the subsequent semester to complete the capstone design requirements. Prerequisite: Approval of instructor. LEC.

ME 641. Design Project Option A. 2-3 Hours. AE61.
Design and development of a mechanical or thermal/fluid system. An individual or group report that includes designs, analysis/testing, drawings, and/or schematics is required. Establishment of specifications and consideration of realistic constraints such as safety, economic factors, design impact, aesthetics, and reliability are required. Prerequisite: ME 455, ME 501, and ME 628. LEC.

ME 642. Design Project Option B. 3 Hours. AE61.
Manufacturing and testing of a mechanical system designed and developed in ME 627 - Vehicle Design. A group report with individual assignments which details the manufacturing procedures and testing procedures and results is required. A completed, working project with a design file documenting all aspects of the project development must be submitted. Prerequisite: ME 627, ME 501 and ME 628. Corequisite: ME 412 and ME 455. LEC.

ME 643. Design Project Option C. 2-3 Hours. AE61.
Design and development of a mechanical system related to biomechanics that has been investigated in ME 633 - Basic Tissue Mechanics and Biodynamics. A report that includes designs, analysis/testing, drawings and/or schematics is required. Establishment of specifications and consideration of realistic constraints such as safety, ergonomics, economic factors, design impact, aesthetics, and reliability are required. Prerequisite: ME 501, ME 628, ME 633 and ME 640. Corequisite: ME 455. LEC.

ME 644. Design Project Option D. 2-3 Hours. AE61.
Design and development of a thermal or fluid system. A group report that includes design, analysis/testing, drawings, and/or schematics is required. Establishment of specifications and consideration of realistic constraints such as safety, economic factors, design impact, aesthetics, and reliability are required. Prerequisite: ME 412, ME 455, and ME 501. Corequisite: ME 628. LEC.

ME 645. Design Project Option E. 2-3 Hours. AE61.
Design and development of a mechanical, electrical or thermal/fluid system related to a sustainable approach to automobiles and energy infrastructure. This may include, but is not limited to alternative fuels, biomass, batteries and advanced vehicle powertrains along with solar/ wind energy at various scales. An individual or group report that includes designs, analysis/testing, drawings and/or schematics is required. Establishment of specifications and consideration of realistic constraints such as safety, economic factors, design impact, aesthetics and reliability are required. Prerequisite: ME 501, ME 510, and ME 628. Corequisite: ME 412 and ME 455. LEC.

ME 661. The Finite Element Method. 3 Hours.
An introduction to the underlying theory of the finite element (FE) method and its application to linear solid and structural mechanics. FE formulations are derived for bars, beams, 2D formulations such as: plane stress, plane strain, and 3D solids. Basic issues are treated such as assembly and generation of FE equations, computation, post-processing, and interpretation of FE solutions (e.g. stresses and strains analysis). Prerequisite: ME 311, MATH 220, and MATH 290. LEC.

ME 682. System Dynamics and Control Systems. 3 Hours.
An introduction to the modeling and analysis of analog linear systems and the design of control systems. Topics include mathematical models of mechanical, electrical, fluid and thermal systems, feedback concepts, transient response, frequency response and vibration, system stability, and design of feedback control systems including PID. Prerequisite: ME 320. LEC.

ME 696. Design for Manufacturability. 3 Hours.
Tools to incorporate manufacturing and life-cycle concerns into the design of products. Prerequisite: ME 501 or equivalent. LEC.

ME 702. Mechanical Engineering Analysis. 3 Hours.
A study of advanced methods for engineering analysis of practical problems utilizing fundamental principles from engineering disciplines. The emphasis is on the solution of these problems and the interpretation and generalization of the results. Prerequisite: A course in differential equations. LEC.

ME 708. Microcomputer Applications in Mechanical Engineering. 3 Hours.
Design and implementation of interfaces of microcomputers to mechanical equipment. Includes laboratory experiments presenting selected industrial applications. Emphasis on human factors, functional design parameters and microprocessor interfaces. Includes instruction concerning specifications of practical hardware configurations and writing of programs necessary to accomplish mechanical systems applications. Prerequisite: Permission of instructor. LEC.

ME 711. Bearings and Bearing Lubrication. 3 Hours.
Theoretical aspects of lubrication, determination of pressure distribution in bearings from viscous flow theory, application of hydrodynamic and hydrostatic bearing theories to the design of bearings, high speed bearing design problems, properties of lubricants, methods of testing. Prerequisite: ME 510 and a course in differential equations. LEC.

ME 712. Advanced Engineering Thermodynamics. 3 Hours.
An advanced course in thermodynamics, mathematical in nature, with emphasis on a critical re-evaluation of the laws of thermodynamics, thermodynamics of one-dimensional gas flow, development of the classical thermodynamic relations and their application to engineering problems. Prerequisite: ME 508 and ME 412. LEC.

ME 714. Thin Film Flow. 3 Hours.
In thin film theory, the lubrication approximation (also called the long-wave approximation) is used to simplify the Navier-Stokes equations to study the flow of thin films. Even with this simplification, the thin film equation is still a challenging nonlinear PDE, and numerical and analytical methods are used to solve and analyze the equation. Similarity solutions, linear stability analysis, and travelling waves are useful tools for analysis. This course will focus on coating flows of thin films so the students can learn these techniques and discover the current knowledge gaps at the frontiers of this research area. Thin film flows are found in many applications, such as microchip production or biomedical applications, and experiments with thin film flows often yield stunning photos and videos. Prerequisite: ME 510, MATH 290, ME 508 or equivalents. LEC.

ME 720. Advanced Dynamics of Machinery. 3 Hours.
Dynamics of particles and of rigid bodies with advanced engineering applications; generalized coordinates; Hamilton’s principles; Lagrange’s equations; Hamilton-Jacobi theory. Prerequisite: ME 320 or equivalent. LEC.

ME 722. Modeling Dynamics of Mechanical Systems. 3 Hours.
Modeling, analysis and simulation of dynamic mechanical systems. Emphasis on the analysis of kinematics and dynamics of rigid mechanical multibody systems undergoing large overall motion using interactive
computer simulation programs. Applications to the design and control of dynamic systems such as robots, machine tools, and artificial limbs. Prerequisite: ME 320 or CE 300.LEC.

ME 733. Gas Dynamics. 3 Hours.
A study of the thermodynamics and fluid dynamics of gaseous media. Emphasis is placed on the rigorous application of conservation laws to represent physical processes. Classical and statistical models for the thermodynamic and transport properties are examined. Applications include determination of gas properties, wave propagation, and high-speed flow. Prerequisite: ME 412 and ME 510 or equivalents. LEC.

ME 736. Catalytic Exhaust Aftertreatment Modeling. 3 Hours.
Fundamental concepts behind catalytic exhaust aftertreatment devices for automobiles including both monolithic catalysts and particulate filters. Studies of other catalytic devices intended for applications in the mechanical and chemical engineering fields. Topics covered are the development of governing equations based on conservation laws and their numerical solutions using finite difference methods. Studies will include a monolithic catalyst. Project assignments will be included. Prerequisite: ME 412 and ME 510 or permission of instructor. LEC.

ME 750. Biomechanics of Human Motion. 3 Hours.
Fundamental concepts of anatomy and physiology are introduced but the focus is on the biomechanics of human motion. Human body segment kinematics and joint kinematics are analyzed. An introduction to muscle mechanics is provided. Applications in balance and gait are covered. Corequisite: ME 320 or equivalent. LEC.

ME 751. Experimental Methods in Biomechanics. 3 Hours.
This course will focus on methods of experimental measurement and computational modeling used in biomechanics. Instrumentation used to measure three-dimensional motion, ground reaction forces, center of pressure and EMG measures are considered. Methods used for inverse dynamics, direct dynamics and simulation are introduced. Prerequisite: ME 320 or equivalent. LEC.

ME 752. Acoustics. 3 Hours.
This course will teach the production, propagation, and effects of sound waves. Detailed topics include plane wave, spherical wave, and cylindrical wave propagation in free space and waveguides, wave reflection and transmission on an interface, piston radiation, wave scattering and diffraction. Prerequisite: ME 320 or permission of instructor. LEC.

ME 753. Bone Biomechanics. 3 Hours.
Provides an in-depth knowledge of bone as a living mechanical system. Topics include the microstructure, biology, mechanical properties, mechanical modeling, adaptation of bone to the mechanical environment, and its simulation. Students assignments include homework, a poster presentation, basic finite element analysis laboratory, and bone remodeling simulations. Prerequisite: ME 311 or equivalent. LEC.

ME 754. Biomedical Optics. 3 Hours.
This course will cover the fundamentals of photon transport in biological tissues, including explanations of Rayleigh and Mie scattering, Monte Carlo simulations, the radiative transport equations and more. Also, the basic physics and engineering of various optical imaging techniques for biological tissues, including ballistic or quasi-ballistic imaging (such as confocal microscopy, and optical coherence tomography), diffuse imaging, photoacoustic imaging, will be introduced. Prerequisite: ME 508 or permission of instructor. LEC.

ME 755. Computer Simulation in Biomechanics. 3 Hours.
Provides an in-depth knowledge of 1) the process of developing a research question to be addressed with computer simulation, 2) various techniques for medical imaging to obtain model geometries (including hands-on experience with low-field MR imaging), 3) image segmentation techniques, 4) issues affecting geometric accuracy in model building, 5) the determination and specification of loading and/or kinematic boundary conditions, 6) the interpretation of model results in the context of the model limitations and the medical application. Knowledge and/or experience with finite elements is desirable, but not required. Prerequisite: ME 311 and ME 320 or equivalent. LEC.

ME 756. Biofluid Dynamics. 3 Hours.
An introduction to the fundamentals of biofluid dynamics, and the application of these principles to a variety of biological flows. Fluid flows in physiology, drug delivery, and biotechnology are investigated at a variety of scales, ranging from subcellular to organ systems. Topics include non-Newtonian constitutive equations, solution techniques, and principles of modeling and simulating. Prerequisite: ME 208 and ME 510 or equivalents. LEC.

ME 757. Biomechanical Systems. 3 Hours.
A course on the dynamics and motor control of human and animal motion. The course will focus on applying mechanical principles of dynamics, lumped parameter systems, and control theory to problems in biomechanics. Topics include muscle mechanics and dynamics, reflex and voluntary control, proprioception, anatomy of the muscular and nervous systems, and system dynamics in locomotion and other movements. Prerequisite: ME 682 or permission of instructor. LEC.

ME 758. Physiological System Dynamics. 3 Hours.
This course covers the use of engineering systems modeling approaches to understand the function of physiological systems. Systems covered include the cardiovascular system, the respiratory system, the renal system, the gastrointestinal system, and the musculoskeletal system. Prerequisite: ME 510, ME 320, Physics 212 or permission of instructor. LEC.

ME 760. Biomedical Product Development. 3 Hours.
Introduction to methods of taking medical product inventions from conception to initial stage production. Students work in cross-functional teams to investigate development potential of inventions. Topics covered include product development processes, regulatory issues with the FDA, quality system requirements, SBIR/STTR funding pathways, biomaterial and biomechanics issues in medical product design, and ethical considerations. Prerequisite: Senior or graduate student standing in engineering, business, industrial design, or an applicable life science field and permission of instructor. LEC.

ME 765. Biomaterials. 3 Hours.
An introductory course on biomaterials science and consideration of biomaterials in the design of biomedical implants. Topics including ethical considerations in biomaterials research and the role of the FDA in medical device design are also presented. Prerequisite: ME 306. LEC.

ME 770. Conductive Heat Transfer. 3 Hours.
The formulation of steady- and unsteady-state conduction heat transfer problems and their solution by analytical and numerical methods. Prerequisite: ME 612 or equivalent. LEC.

ME 774. Radiative Heat Transfer. 3 Hours.
The formulation of steady and unsteady radiation heat transfer problems and their solution by analytical and numerical methods. Prerequisite: ME 612 or equivalent. LEC.

ME 790. Special Topics: ___. 1-5 Hours.
Advanced courses on special topics of current interest in mechanical engineering, given as the need arises. Prerequisite: Approval of instructor. LEC.
ME 801. Responsible Conduct of Research in Engineering. 1 Hour.
Lectures and discussion on ethical issues in the conduct of a scientific career, with emphasis on practical topics of special importance in bioengineering. Topics include the nature of ethics, the roles of the scientist as a reviewer, entrepreneur, employer and teacher, research ethics in the laboratory, social responsibility and research ethics regulation. (Same as BIOE 801.) Prerequisite: Permission of instructor. LEC.

ME 808. Advanced Microprocessor Applications. 3 Hours.
Advanced design and development of microprocessor based mechanical systems. Individual and team projects involving the development and integration of hardware and software into a "smart" system which includes the sensing, processing, and controlling functions are accomplished. Emphasis is on the use of the latest sensors and development tools. Prerequisite: Permission of instructor. LEC.

ME 810. Advanced Fluid Mechanics. 3 Hours.
Topics include kinematic and dynamic behavior of fluids, derivation of Navier-Stokes equations, flow classification, solutions of viscous and inviscid flows for simple geometries, potential flow theory and laminar and turbulent boundary layer theory. Prerequisite: ME 510 or equivalent. LEC.

ME 831. Convective Heat and Momentum Transfer. 3 Hours.
The formulation and solution of steady and unsteady convective heat, mass, and momentum transfer problems. Topics include boundary layers, duct flows, natural convection with and without phase change, development of analogies, transport properties, numerical methods. Prerequisite: ME 612 or equivalent. LEC.

ME 832. Computational Fluid Dynamics and Heat Transfer. 3 Hours.
The fundamentals of the finite-difference method are presented and applied to the formulation of numerical models for heat and momentum transfer. The accuracy, stability, and computational efficiency of different algorithms are analyzed. Computer programs are developed for classical benchmark problems. Prerequisite: ME 508, ME 510, and ME 612 or equivalents. LEC.

ME 840. Continuum Mechanics I. 3 Hours.
Principles of Continuum Mechanics for solids, fluids, and gases. Frames of references, measures of motion, deformation, strains, stresses, their rates, objectivity and invariance. Conservation laws, constitutive equations, equations of state and thermodynamic principles for developing mathematical models of continuum matter. Theoretical solutions of model problems. Corequisite: MATH 647 or ME 702; or permission of instructor. LEC.

ME 841. Continuum Mechanics II. 3 Hours.
Fundamental principles of Continuum Plasticity, measures of plastic strains, stresses and constitutive equations for flow theory of plasticity. Internal variable theory of thermo-mechanical behaviors and endochronic theory of plasticity and viscoplasticity. Anisotropic plasticity and advanced topics. Continuum mechanics principles for viscoelastic solids with emphasis on constitutive equations. Development of complete mathematical models and solutions of selected model problems. Prerequisite: ME 840 or equivalent. LEC.

ME 854. Continuum Mechanics for Soft Tissues. 3 Hours.
An introductory course in the analysis of the mechanical behavior of materials modeled on the continuum assumption. The course will provide background on soft tissue properties and will focus on the tools necessary to model soft tissues, including the essential mathematics, stress principles, kinematics of deformation and motion, and viscoelasticity. Prerequisite: ME 311 or equivalent. LEC.

ME 860. Advanced Mechanical Engineering Problems. 1-3 Hours.
An analytical or experimental study of problems or subjects of immediate interest to a student and faculty member and which is intended to develop students capability for independent research or application of engineering science and technology. Maximum credit toward any degree is three hours unless waived in writing by the departmental chairperson. Prerequisite: Approval of instructor. RSH.

ME 861. Theory of the Finite Element Method. 3 Hours.
Finite element method for solid mechanics, heat transfer, fluid mechanics, and dynamics. Modeling techniques, software implementation, and solution of problems. Prerequisite: ME 508 or equivalent. LEC.

ME 862. Finite Element Method for Transient Analysis. 3 Hours.
Advanced treatment of dynamic and transient response for linear and nonlinear problems in solid mechanics. Formulation and solution of time dependent linear and nonlinear field problems using finite element techniques. Prerequisite: ME 861 or equivalent. LEC.

ME 864. Mesh Generation and Adaptivity for Finite Element Simulations in Engineering. 3 Hours.
The generation of Finite Element meshes in the analysis and simulation of engineering systems. Important topics are treated such as initial mesh generation and refinements (i.e. geometric modeling and mesh adaptivity or grading), choice of type of element, and assessment of solution accuracy (i.e. error estimation). Assignments include solving problems using FE software. Prerequisite: ME 661, ME 861, or equivalent. LEC.

ME 882. Advanced Control Systems. 3 Hours.
Advanced methods in the modeling, analysis and design of linear and nonlinear control systems. Topics include but not limited to digital controls methods, energy-based modeling, and state-space methods. Prerequisite: ME 682. LEC.

ME 890. Special Topics: ____. 1-5 Hours.
Advanced courses on special topics of current interest in mechanical engineering, given as the need arises. Prerequisite: Approval of instructor. RSH.

ME 899. Independent Investigation. 1-6 Hours.
An analytical or experimental investigation of an engineering problem requiring independent research. If the thesis option is selected six credit hours are required for the degree. If the project option is selected three credit hours are required for the degree. (See requirements for the Master of Science degree for additional details.) THE.

ME 901. Doctor of Engineering Internship. 1-12 Hours.
A twelve month internship in industry or government for doctor of engineering candidates. The student is supervised by a preceptor at the internship site. Bimonthly progress reports are to be filed with the student's advisory committee. One credit hour per month of internship. FLD.

ME 961. Finite Element Method for Nonlinear Problems in Solid Mechanics. 3 Hours.
Advanced treatment of finite element techniques for structural analysis including material and geometric non-linearity as well as large strain deformation. Prerequisite: ME 861 or equivalent. LEC.

ME 962. p-Approximation, Error Estimation, and Other Advanced Topics in the Finite Element Method. 3 Hours.
Advanced treatment of p-Approximation, error estimation, and other advanced topics in the finite element method. Prerequisite: ME 861 or equivalent. LEC.
ME 965. Mathematical Modeling and Computational Method in Multi-Scale Processes. 3 Hours.
An overview of classical averaging and homogenization methods, as well as current multi-scale modeling techniques for the analysis of the micro- and nano-mechanics of materials. Models and numerical techniques are introduced based on continuum as well as particle descriptions. Assignments include the simulation of micro- and nano-mechanics problems by using existing finite element software and molecular dynamics packages. Prerequisite: ME 861 and ME 840. LEC.

ME 990. Special Topics: ____. 1-5 Hours.
Advanced courses on special topics of current interest in mechanical engineering, given as the need arises. Prerequisite: Approval of instructor. RSH.

ME 999. Independent Investigation. 1-16 Hours.
An analytical or experimental investigation of an engineering problem requiring independent research. Twenty four hours as a minimum are awarded for the Ph.D. dissertation. An original contribution suitable for publication in a referred journal is required of Ph.D. candidates. Twenty four credit hours as a minimum are awarded for the D.E. project. The D.E. candidate will have technical and supervisory responsibility for a multiperson project and a formal final project report suitable for publication is required. THE.

Bachelor of Science in Mechanical Engineering

The 128-hour bachelor of science degree in mechanical engineering offered by the Department of Mechanical Engineering is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org. Students typically take four years to complete the program. The mechanical engineering curriculum builds on the basic foundation of mathematics and physical sciences learned in the first three semesters, and then focuses on engineering design and analysis in mechanical, thermal, fluids, and energy systems. First-year students are quickly immersed in hands-on design/build team projects as part of the cornerstone mechanical engineering courses. Engineering science, analysis, and design is integrated throughout the curriculum, culminating in a senior capstone design project where students complete a year-long hands-on design and build experience in one of four areas:

• Formula SAE vehicle design,
• Alternative energy transportation, EcoHawks,
• Biomechanics, and
• Industrial sponsored topics.

Students interested in biomedical engineering or applying to medical school after graduation may elect to complete a concentration in biomechanics (or follow a pre-medicine plan). There is also a five-year dual degree program in which students earn a B.S. in mechanical engineering as well as a bachelor of business administration degree. Students are encouraged to be active with the different engineering societies including The American Society of Mechanical Engineers, The Society of Automotive Engineers, Engineers Without Borders, The Biomedical Engineering Society, The Society of Women Engineers, The National Society of Black Engineers, and The Society of Hispanic Engineers. KU also has active chapters of Tau Beta Pi, the national engineering society, and Pi Tau Sigma, the national mechanical engineering honor society. Study abroad is strongly encouraged and generally does not delay students’ graduation since they will be taking engineering classes abroad.

Professional Licensing

Formal study in an accredited engineering program is the principal means of becoming licensed to practice engineering in Kansas and other states. During the junior or senior year, a student may take the national Fundamentals of Engineering examination. After 4 or more years (licensing regulations vary among states) of practice satisfactory to the board, the student may take the examination to become a registered professional engineer.

Job Search Assistance

The Engineering Career Center offers a comprehensive array of services to students seeking permanent employment and career-related summer or co-op employment. These include on-campus interviewing; 2 career fairs each year; individual advising and group workshops on résumés; interviewing, and job search strategies; online interviewing sign-up; online job postings from many employers not interviewing on campus; a library of employer and career literature; and an online résumé book searchable by employers.

The Engineering Career Center offers services to all engineering students. Students are encouraged to visit the Engineering Career Center early in their undergraduate or graduate studies. Many employers actively seek KU engineering and computer science students. Some prefer to hire students as early as the first-year level for internships. The Career Center is in 1001 Eaton Hall; additional information is available from 785-864-3891.

Undergraduate Admission to the School of Engineering

First-year undergraduate students may be admitted, but all admissions, both in-state and out-of-state, are selective. Visit the Office of Admissions (http://admissions.ku.edu/whyku/index.shtml) for admission requirements. Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Applications are judged on several factors, including but not limited to high school record, scores on national tests, academic record at college or university level, and trend of grades. High school transcripts and ACT scores are required. Equivalent SAT scores may be substituted.

Minimum Academic Standards for Admission

To be considered for admission to the School of Engineering, beginning first-year students must meet or exceed the following minimum standards:

• 3.0 grade-point average on a 4.0 scale on the Kansas Board of Regents Qualified Admissions (http://admissions.ku.edu/apply/regents_curriculum.shtml) college-preparatory curriculum.
• Top 50 percent of the graduating class of an accredited high school or the equivalent.
• Mathematics ACT score of 22 (or mathematics SAT score of 540).

Some engineering degree programs may require a higher mathematics ACT score.

These minimum admission standards apply to all departments. Meeting minimum requirements does not guarantee admission.
Transfer Admission Standards
Applications from all transfer students, whether from other institutions or from other KU units, are evaluated on a case-by-case basis. In general, students with grade-point averages under 2.5 are not considered. Students must submit mathematics ACT or SAT scores or proof of competence in calculus (grade of C or higher). No upper-level engineering credits from non-ABET-accredited engineering programs are acceptable as transfer credit for engineering programs. Admission is selective, and meeting the minimum requirements does not guarantee admission.

First- and Second-Year Preparation

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Total Hours: 64

Bachelor of Science in Mechanical Engineering Degree Requirements

Mathematics and Basic Sciences (35)

Mathematics:
- MATH 121 Calculus I (satisfies GE12) 5
- MATH 122 Calculus II 5
- MATH 220 Applied Differential Equations 3
- MATH 290 Elementary Linear Algebra 2
- MATH 365 Elementary Statistics 3
- ME 508 Numerical Analysis of Mechanical Engineering Problems 3

Basic Sciences:
- CHEM 150 Chemistry for Engineers (satisfies GE3N) 5
- PHSX 211 General Physics I (satisfies GE11) 4
- PHSX 216 General Physics I Laboratory 1
- PHSX 212 General Physics II 3
- PHSX 236 General Physics II Laboratory 1

Electives and KU Core Requirements (31)

English:
- ENGL 101 Composition (satisfies GE21) 3
- ENGL 102 Critical Reading and Writing (satisfies GE21) 3
- Oral Communication elective (COMS 130) - satisfies GE22 3
- Economics elective (ECON 104, ECON 142, ECON 144) - satisfies GE3S 3
- Ethics elective (PHIL 160, PHIL 180) - satisfies AE51 3
- Arts and Humanities elective (from GE3H list) 3
- Human Diversity elective (from AE41 List) 3
- Global Culture/Awareness elective (from AE42 list) 3
- General Electives 7

Mechanical Engineering (61-62)

Mechanics:
- ME 211 Statics and Introduction to Mechanics 3
- ME 311 Mechanics of Materials 3
- ME 320 Dynamics 3
- ME 321 Dynamics Simulations 1
- ME 306 Science of Materials 3
- ME 307 Engineering Materials Laboratory 2
- ME 628 Mechanical Design 3
- ME 682 System Dynamics and Control Systems 3

Thermal Fluids:
- ME 312 Basic Engineering Thermodynamics 3
- ME 412 Thermal Systems 3
- ME 510 Fluid Mechanics 3
- ME 612 Heat Transfer 3

Basic Engineering:
- ME 228 Computer Graphics 3
- ME 208 Introduction to Digital Computational Methods in Mechanical Engineering 3
- EECS 316 Circuits, Electronics and Instrumentation 3
- EECS 318 Circuits and Electronics Lab 1
- ME 455 Mechanical Engineering Measurements and Experimentation 4
- ME 661 The Finite Element Method 3

Capstone Design:
- ME 501 Mechanical Engineering Design Process 2
- ME 640 Design Project (enrollment in this course is required in the semester prior to taking ME 641, ME 643, ME 644, ME 645 - satisfies AE6) 1-2

Select one of the following: (all 2 credits except ME 642 which is 3 credits) 2
- ME 641 Design Project Option A
- ME 642 Design Project Option B
- ME 643 Design Project Option C
- ME 644 Design Project Option D
- ME 645 Design Project Option E

Advanced Engineering Electives 6

Approved General and Advanced Engineering Electives (13 hours)

A maximum of 7 credits of General Electives (and a minimum of 0) can be applied toward the B.S.M.E. degree and are meant to allow a student to broaden their education. These electives are taken throughout a student’s curriculum and include mathematics, basic science (ASTR, ATMO, BIOL, CHEM, EVRN, GEOG, GEOL, and PHSX,) and engineering courses beyond what is already required for the degree (without
The Department of Mechanical Engineering offers both a thesis option and a non-thesis option leading to the M.S. degree. Both options require a minimum of 30 credit hours of graduate work. The thesis option must include a thesis for at least six hours of credit. The non-thesis option must include at least three-credit hours of independent investigation.

The track options available within Mechanical Engineering include: energy and thermal-fluids, mechanical design, computational mechanics or biomechanics. A maximum of 6 hours of mechanical engineering courses numbered between 500 and 699 may be included in the program. Courses either required or used for the B.S. degree may not be used to fulfill M.S. degree requirements.

Plan of Study

Students select an adviser in their first semester of graduate study. The student and the student’s advisory committee determine a plan of study during the first semester of enrollment. The plan of study must include (1) a minimum of 12 credit hours in a major selected from Mechanical Engineering courses (excluding credit for mathematics and the independent investigation or thesis) and (2) no fewer than three credit hours dealing with advanced mathematics. The complete plan of study must be approved by the Advisory Committee and the Graduate Director before the beginning of the second semester of graduate enrollment and filed electronically with the Department and the Graduate Division of the School of Engineering. The online Plan of Study can be found at https://gradplan.engr.ku.edu/.

Thesis Option

The program of study for the thesis option includes the requirements above plus a minimum of six credit hours of thesis.

Non-Thesis Option

The program of study for the non-thesis option includes the requirements above plus a minimum of three credit hours of independent investigation.

Final Examination

Each masters’ degree candidate must pass a final examination that may be oral, or both written and oral, as determined by their advisory committee. The examination must be publicized at least one week before the date of the examination by the department. The examination will cover the field of mechanical engineering for both the thesis and non-thesis options and emphasize the thesis for the thesis option.

The thesis presentation portion of the examination shall be open. The written portion of the examination, if required, will be composed and
evaluated by their examination committee. The examination committee, which is normally the advisory committee, must consist of at least three members of the Graduate Faculty and at least two must be Mechanical Engineering Graduate Faculty (including the student’s main advisor). The request to schedule the examination must be submitted to the Mechanical Engineering Department at least two weeks prior to the examination date. Unbound thesis copies are to be submitted to the examination committee two weeks before the examination. See the online KU Electronic Thesis and Dissertation Page for more information at http://www.graduate.ku.edu/electronic-thesis-and-dissertation.

Only two attempts to pass the masters’ examination are allowed. If the examination is not passed in two attempts, the student will be terminated from the program and will not receive the degree. Only the thesis option is eligible for “Honors” designation during the final defense and then only in exceptionally meritorious cases.

*Note: Masters candidates must be enrolled for at least one credit hour during the semester in which they plan to graduate or the semester prior if meeting the early graduation deadline (see academic calendar for graduation deadlines at http://www.graduate.ku.edu/graduation).*

**Program Time Constraints**

Masters’ degree students are allowed up to seven years to complete all requirements for the degree. The Graduate Division may grant a one-year extension, on recommendation of the department/committee, in cases with a compelling reason or circumstances. In cases where more than eight years are requested, the appropriate appeals body of the school or division considers petitions for further extensions and, where evidence of continuous progress, currency of knowledge, and other reasons are compelling, may grant them.

**Credit by Transfer**

Six hours of graduate credit taken at a regionally accredited graduate school may be transferred and applied to the Masters’ degree, provided that the transfer has the approval of the Department and the Graduate Division. Eight hours may be approved for transfer if the student holds a baccalaureate degree from the University of Kansas. Only work graded A or B may be transferred. Further, students must be enrolled in at least one credit hour at KU during their final semester.

The University of Kansas does not accept the transfer of credit from other institutions for graduate-level courses completed in institutes and workshops or given for life/work experience, though well-qualified students may request a reduction of credit hours through the Department and Graduate Division.

**KU-KUT Joint M.S. Degree Requirements**

The department participates in a joint Master of Science degree option with the School of Mechatronics/School of Information Technology, Korea University of Technology and Education (KUT). The emphasis at KU is in biomechanics, and the emphasis at KUT is in mechatronics and systems engineering. KUT courses are taught in English.

An academic advisor is designated for each student by both KU and KUT; they are members of the academic advisory committee and oversee the Plan of Study. Support for each student — including access to course work, libraries, research facilities, computers, application for financial support, application for living quarters — is provided by both KUT and KU.

A minimum of 30 credit hours of graduate work is required, including 6 credit hours of thesis. At least 15 of the 30 semester credit hours, including the 6 hours of thesis, must be taken at either KU or KUT. The Plan of Study consists of either

1. KUT: 9 credit hours course work, 6 hours thesis; and KU: 15 hours course work; or
2. KU: 9 credit hours course work, 6 hours thesis; and KUT: 15 hours course work.

A list of approved KU and KUT courses is available from the Graduate Director. Three credit hours of approved mathematics are required. Any combination of KUT and KU credit consistent with the time spent by the faculty members in supervising thesis work that totals 6 credit hours is permissible.

The thesis topic must be approved by the academic advisors at both KUT and at KU. Review of work may be done by exchanging thesis materials electronically, by surface mail, or by direct participation in review meetings. The thesis defense committee consists of at least 1 faculty member from KUT and 2 tenure / tenure-track faculty from the KU mechanical engineering department. It is preferred that all committee members be present at the examination. Each candidate must pass a final examination, which may be oral, or both written and oral, as determined by the advisory committee.

The institution at which the major part of the thesis project is accomplished awards a single degree and diploma. The KU transcript of each student who completes the program states that the degree is awarded for a program of study accomplished in collaboration with Korea University of Technology and Education. Korea University of Technology and Education places a similar statement on the KUT transcript. The institution not awarding the degree and diploma may award a certificate.

**Admission Requirements**

To qualify for graduate study in any of the graduate programs in the Department of Mechanical Engineering, a student generally must have earned a baccalaureate degree from an accredited mechanical engineering program. However, a student with good preparation in some other engineering discipline or a related program, such as physics, may qualify by taking appropriate undergraduate courses as specified by the Mechanical Engineering Department Graduate Admissions Committee within their first year of graduate study beyond the requirements for the graduate degree.

**Regular Status**

For admission to regular status in the masters program, the student must have an undergraduate grade point average of at least B (3.0/4.0). For masters applicants whose undergraduate GPA is below 3.0/4.0, but no lower than 2.75/4.0, admission on provisional status will be considered on a case-by-case basis.

For admission to regular status in the PhD program, the student must have an undergraduate grade point average of at least 3.75/4.0 for direct admission into the PhD program or 3.5/4.0 for admission with an MS degree.

Graduate Record Examination (GRE) scores are required and are used in the evaluation process.
Provisional Status

For masters applicants whose undergraduate GPA is below 3.0/4.0, but no lower than 2.75/4.0, admission on provisional status will be considered on a case-by-case basis.

For students whose graduate GPA is below 3.5/4.0, admission on provisional status will be considered on a case-by-case basis.

After the equivalent of one semester of full-time study as a provisional graduate student, the performance of the student is reviewed and will be (1) transferred to regular status, (2) dismissed from the graduate program or (3) allowed to continue for one semester on provisional status. It is ordinarily expected that provisional status will not exceed two semesters.

Minimum English Proficiency Requirements

The following are acceptable means of verifying English proficiency for the purpose of admitting international students to a graduate program at KU:

Graduation with a baccalaureate degree (or higher) earned in residence from an accredited U.S. institution of higher education, or from such an institution whose medium of instruction is English. This does not apply to degrees earned online.

Receipt of official copy (not student's copy) of applicant's proficiency scores achieved not more than two years prior to the semester of admission.

All international students are required to check-in at the Applied English Center (AEC) upon arrival to campus. At that time, the AEC will confirm the student's level of English proficiency and determine if additional English courses are required. These guidelines also apply to U.S. citizens and permanent residents who are not native speakers of English; these guidelines are subject to change by official action of the appropriate Graduate Studies governing bodies.

Visit the full English Proficiency Requirement Policy for International Students, on the Graduate Studies website.

GTA and GRA eligibility:

Graduate teaching and research assistant eligibility requirements are distinct from admission requirements. Additional information on eligibility for graduate teaching assistants and graduate research assistants may be found in the GTA/GRA Eligibility Guidelines (https://documents.ku.edu/policies/Graduate_Studies/Guidelines_and_eligibility_for_GRAs_GTAs_and_GAs.htm).

The Board of Regents policy on spoken English competency for graduate teaching assistants requires that non-native speakers of English demonstrate English proficiency by obtaining a minimum score of 50 on the SPEAK or TSE, a 22 on the speaking portion of the iBT, or an 8 on the IELTS and that the student must be interviewed by three institutional representatives to determine sufficient English proficiency. More information may be found in the Kansas Board of Regents Policy on Spoken English Language Competency of Faculty and Graduate Teaching Assistants. (https://documents.ku.edu/policies/provost/SpokenEnglishLanguageCompetencyBORPolicy.htm)

Visiting Us

The graduate program staff is happy to work with all prospective students in determining the fit between the student and the program. In order to determine this, we feel that visiting our campus in Lawrence is a very important step. In order to facilitate your visit to KU, there are two main options:

The first, and most preferred, option entails simply applying for admission to the program. All prospective students are welcome to attend our Open House in early November and some highly qualified admitted students may be invited to participate in Visitation Days in late February or early March (prior to the fall semester of your intended matriculation). These organized visitation opportunities will allow you time to gather a great deal of first-hand information which we hope will help you in making a final decision about whether to attend KU.

The second option is making arrangements to visit us on your own, outside of organized events. With early notification, we will do our best to work with you to provide information and schedule appointments with faculty when possible. Please contact us if you feel that this is the best option for you.

Contact Information

Please contact the Mechanical Engineering Program Assistant at kume@ku.edu or (785) 864-3181, to schedule a visit or with questions about the application process.

The University of Kansas
Mechanical Engineering Graduate Program
3138 Learned Hall
1530 W. 15th Street, Room 1 Eaton Hall
Lawrence, KS 66045-7605

M.S. Degree Requirements

The Mechanical Engineering department offers a thesis option and a non-thesis option leading to the M.S. degree. Both options require a minimum of 30 credit hours of graduate work. The thesis option must include a thesis for at least 6 hours of credit. The nonthesis option requires a minimum of 30 credit hours of graduate work, which must include a 3-credit-hour independent investigation.

Graduate students select an advisor in their first semester of graduate study. The student and the student’s advisory committee determine a program of study during the first semester of enrollment. The program of study includes:

1. A major with a minimum of 12 credit hours (excluding credit for mathematics and the independent investigation or thesis) selected from mechanical engineering courses and
2. No fewer than 3 credit hours dealing with advanced mathematics.

Students enrolling in the thesis-option are expected to do original work that would be the basis of a paper suitable for publication in a refereed journal. A student enrolling in the non-thesis-option, who selects the 3-credit-hour independent investigation, must do an analytical or experimental study acceptable to their advisory committee.

The track options available within Mechanical Engineering include: energy and thermal-fluids, mechanical design, computational mechanics or biomechanics. A maximum of 6 hours of mechanical engineering courses numbered between 500 and 599 may be included in the program. Courses either required or used for the B.S. degree may not be used to fulfill M.S. degree requirements. Each M.S. candidate must pass a final examination, which may be oral, or both written and oral, as determined by the advisory committee. The M.S. advisory committee consists of at
Doctor of Engineering in Mechanical Engineering

Doctor of Engineering (D.E.) Degree

The degree of Doctor of Engineering is granted upon completion of at least 90 credit hours of post-baccalaureate work. The minimum coursework requirement is 54 credit hours, which must include:

Engineering Design 9 cr. hrs.
Engineering Management 9 cr. hrs.
Mathematics 9 cr. hrs.

The remaining 27 credit hours of coursework are selected to meet the student’s interests and goals subject to the approval of the student’s advisory committee. Coursework required for a masters’ degree may be included in this 54-credit hour total if approved by the advisory committee. A minimum of 21 credit hours of Mechanical Engineering courses numbered 700-990 (excluding 702, 899 and 901) must be included. In addition, the following research components are required for the degree:

Internship 12 cr. hrs.
Project 24 cr. hrs.

Each student will spend at least 12 consecutive months of approved internship in industry or government. No coursework will be completed during this time, except that one credit hour is given per month of approved internship experience, provided the student is enrolled in ME 901. During the internship, the student is supervised by a preceptor at the internship site in conjunction with the student’s regular faculty advisor. The preceptor may be appointed as an adjunct faculty member at the University, and can become a member of the student’s advisory committee. Monthly progress reports should be prepared by the student while on internship and submitted to the student’s regular faculty advisor.

The internship is intended to involve the student at a level that promotes experience in project management. Internship can be served in several ways:

1. on full-time grant for one year or more with a government laboratory or company, or
2. full-time employment for one year or more with a company in the U.S. or abroad.

The DE student must also demonstrate a proficiency in at least one research skill area and responsible scholarship (see Ph.D. requirements for more information).

Students must pass a qualifying examination during the first semester of participation and a comprehensive examination following the completion of the major portion of the course work. When the student’s advisory committee has accepted the final project report, the student must pass a final oral examination (see Ph.D. requirements).

Admission Requirements

To qualify for graduate study in any of the graduate programs in the Department of Mechanical Engineering, a student generally must have earned a baccalaureate degree from an accredited mechanical engineering program. However, a student with good preparation in some other engineering discipline or a related program, such as physics, may qualify by taking appropriate undergraduate courses as specified by the Mechanical Engineering Department Graduate Admissions Committee within their first year of graduate study beyond the requirements for the graduate degree.

Regular Status

For admission to regular status in the masters program, the student must have an undergraduate grade point average of at least B (3.0/4.0). For masters applicants whose undergraduate GPA is below 3.0/4.0, but no lower than 2.75/4.0, admission on probation status will be considered on a case-by-case basis.

For admission to regular status in the PhD program, the student must have an undergraduate grade point average of at least 3.75/4.0 for direct admission into the PhD program or 3.5/4.0 for admission with an MS degree.

Graduate Record Examination (GRE) scores are required and are used in the evaluation process.

Provisional Status

For masters applicants whose undergraduate GPA is below 3.0/4.0, but no lower than 2.75/4.0, admission on provisional status will be considered on a case-by-case basis.

For students whose MS GPA is below 3.5/4.0, admission on provisional status will be considered on a case-by-case basis.

After the equivalent of one semester of full-time study as a provisional graduate student, the performance of the student is reviewed and will be (1) transferred to regular status, (2) dismissed from the graduate program or (3) allowed to continue for one semester on provisional status. It is ordinarily expected that provisional status will not exceed two semesters.

Minimum English Proficiency Requirements

The following are acceptable means of verifying English proficiency for the purpose of admitting international students to a graduate program at KU:

Graduation with a baccalaureate degree (or higher) earned in residence from an accredited U.S. institution of higher education, or from such an institution whose medium of instruction is English. This does not apply to degrees earned online.

Receipt of official copy (not student’s copy) of applicant’s proficiency scores achieved not more than two years prior to the semester of admission.

All international students are required to check-in at the Applied English Center (AEC) upon arrival to campus. At that time, the AEC will confirm the student’s level of English proficiency and determine if additional English courses are required. These guidelines also apply to U.S. citizens and permanent residents who are not native speakers of English; these guidelines are subject to change by official action of the appropriate Graduate Studies governing bodies.

Visit the full English Proficiency Requirement Policy for International Students, on the Graduate Studies website.

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Graduate teaching and research assistant eligibility requirements are distinct from admission requirements. Additional information on eligibility
for graduate teaching assistants and graduate research assistants may be found in the GTA/GRA Eligibility Guidelines.

The Board of Regents policy on spoken English competency for graduate teaching assistants requires that non-native speakers of English demonstrate English proficiency by obtaining a minimum score of 50 on the SPEAK or TSE, a 22 on the speaking portion of the iBT, or an 8 on the IELTS and that the student must be interviewed by three institutional representatives to determine sufficient English proficiency. More information may be found in the Kansas Board of Regents Policy on Spoken English Language Competency of Faculty and Graduate Teaching Assistants.

Visit Us

The graduate program staff is happy to work with all prospective students in determining the fit between the student and the program. In order to determine this, we feel that visiting our campus in Lawrence is a very important step. In order to facilitate your visit to KU, there are two main options:

The first, and most preferred, option entails simply applying for admission to the program. All prospective students are welcome to attend our Open House in early November and some highly qualified admitted students may be invited to participate in Visitation Days in late February or early March (prior to the fall semester of your intended matriculation). These organized visitation opportunities will allow you time to gather a great deal of first-hand information which we hope will help you in making a final decision about whether to attend KU.

The second option is making arrangements to visit us on your own, outside of organized events. With early notification, we will do our best to work with you to provide information and schedule appointments with faculty when possible. Please contact us if you feel that this is the best option for you.

Contact Information

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The University of Kansas
Mechanical Engineering Graduate Program
3138 Learned Hall
1530 W. 15th Street, Room 1 Eaton Hall
Lawrence, KS 66045-7605

D.E. Degree Requirements

The Doctor of Engineering degree is granted upon completion of at least 90 credit hours of post-baccalaureate work. The minimum course work requirement is 54 credit hours, which must include the following:

- Engineering design 9
- Engineering management 9
- Mathematics 9

The remaining 27 credit hours of course work should meet the student’s interests and goals, subject to the approval of the advisory committee. Course work required for a master’s degree may be included in this 54-hour total if approved by the advisory committee. A minimum of 21 credit hours of mechanical engineering courses numbered 700-990 (excluding ME 702, ME 899, and ME 901) must be included. In addition, the following research components are required for the degree:

- Internship 12
- Project 24

Each student must spend at least 12 consecutive months of approved internship in industry or government. 1 credit hour is given for each month of approved internship experience, provided the student is enrolled in ME 901. The internship is intended to involve the student at a level that promotes experience in project management. Students must pass a qualifying examination and a comprehensive examination, complete a residency requirement, a research skill, and a responsible scholarship requirement, and pass a final oral examination. The responsible scholarship requirement may be met by taking ME 801, in addition to all other course and credit requirements.

All graduate students must have an approved Plan of Study (https://gradplan.engr.ku.edu/accounts/login/?next=) on file by the beginning of their second semester of study.

Doctor of Philosophy in Mechanical Engineering

Doctor of Philosophy (Ph.D.) Degree

A minimum of three full academic years, or the equivalent, beyond the baccalaureate degree must be spent in graduate study at the University of Kansas or some other approved university to complete requirements for the Ph.D. degree.

A minimum grade point average of 3.5/4.0 in masters’ degree work is normally required for admission to a doctoral program.

Doctoral Qualifying Examination

For a student with a master’s degree, a qualifying examination will normally be taken in the first semester of participation in the doctoral program on regular status. It may not be taken later than the end of the second semester. For a direct admit with a bachelor’s degree, a qualifying examination will typically be taken after completion of 30 hours of graduate course work. The Doctoral Qualifying Examination is defined below.

The Qualifying Examination Committee consists of three or more members of the graduate faculty within the area of emphasis and are normally expected to be members of the Research and Graduate Studies Committee of the Department of Mechanical Engineering. A grade of pass or fail will be assigned and kept in the departmental records.

Three evaluation criteria for the Qualifying Examination were established by the faculty.

- Criterion #1: The student must demonstrate an understanding in a core set of fundamental undergraduate mechanical engineering knowledge.
- Criterion #2: The student must demonstrate an understanding in a subset of core advanced mechanical engineering knowledge.
- Criterion #3: The student must demonstrate the ability to communicate effectively through writing, oral presentation, and open questioning.

The faculty from the four areas of study in Mechanical Engineering, as defined by the Graduate Student Handbook, are responsible for
developing separate methods to evaluate the criteria. The areas of study are: Biomechanics and Biomaterials; Computational Mechanics and Mathematics of Computations; Thermal-Fluid Systems and Heat Transfer; and Mechanical Design, Manufacturing, and Microprocessor Applications. The methods for the four areas to assess the three criteria are listed below.

**Criterion #1**

Assessment #1 (all four groups the same): This criterion will be assessed and satisfied with the current policies for entrance to the KUME graduate program. This includes the current requirements for satisfying deficiencies in the undergraduate mechanical engineering curriculum. At the time of the Ph.D. qualifying exam, the student must have satisfied and completed all requirements and conditions specified by the Department of Mechanical Engineering and the SOE to address deficiencies.

**Criterion #2**

Biomechanics and Biomaterials Criterion #2: The student will select three 3 credit mechanical engineering courses numbered 700-990 (excluding ME 702, ME 860, ME 899, ME 901, and ME 999) with the approval of his/her advisor and the qualifying committee chair. The chosen courses should reflect the student’s interest in the area(s) of biomechanics and biomaterials. To satisfy this criterion, the student must complete the three qualifying courses with an average GPA of 3.5 or above.

Computational Mechanics and Mathematics of Computations Criterion #2: The student is required to demonstrate an understanding of 1) the fundamentals of mechanics, 2) the theory of finite-element methods and 3) applied mathematics, by passing written exams in each of these areas. The series of three written exams will be scheduled during one week each spring semester. Each exam will be graded separately. A student must pass all three exams to pass the qualifying requirement. A CONDITIONAL PASS may be awarded in the case of a student passing in two areas and failing in just one area. Additional conditions that must be satisfied may include extra coursework and/or a repeat of the exam in the area failed. A student failing to pass in at least two areas must repeat the entire exam sequence the following year.

Thermal-Fluid Systems and Heat Transfer Criterion #2: A student must demonstrate that they have an understanding in a core advanced thermal-fluid systems and heat transfer knowledge by completing a graduate level course with grade “A” in the following areas: Fluids, Heat Transfer, Applied Thermodynamics and Advanced Mathematics. A course from each area may be selected from the following.

**Fluids Heat Transfer Applied Thermodynamics**
ME 711 ME 770 ME 636
ME 810 ME 774 ME 637
*ME 733 *ME 831 or C&PE 731 ME 712
*ME 831 or C&PE 731 *ME 733
* Course will count in one area only

**Advanced Mathematics**

Courses selected from approved list

Equivalent graduate courses that are completed at other institutions may be used to satisfy the requirements. For a conditional pass, a student must complete with an “A” grade courses in at least two areas and obtain a “B” grade in each of the remaining areas. The student will be required to pass courses with “A” grades in the areas in which he/she obtained “B” grades, within a year or before taking the Ph.D. comprehensive examination.

Mechanical Design, Manufacturing, and Microprocessor Applications Assessment #2: The student will select three 3 credit mechanical engineering courses numbered 700-990 (excluding ME 702, ME 860, ME 899, ME 901, and ME 999) with the approval of his/her advisor and the qualifying committee chair. The chosen courses should reflect the student’s interest in the area(s) of design, manufacturing, and microprocessor applications. To satisfy this criterion, the student must complete the three qualifying courses with an average GPA of 3.5 or above.

**Criterion #3**

After further reflection by the different research groups, there has been some discussion as to whether this should be included as part of the evaluation criteria. This will be decided at the faculty meeting.

Biomechanics and Biomaterials Criterion #3: This assessment will be done over a three day period. On the morning of the first day, the student will be provided three published manuscripts within his/her research area. The student will briefly review the articles and then select one for the examination. There are two steps to the examination.

Within the first three hours of the examination:

The student will write and submit a one page summary of the chosen manuscript. No outside help or resources are allowed. A computer with word processing will be provided. The written examination will last 3 hours or less.

Within the next three days of the examination:

The student will prepare a PowerPoint presentation to be presented to the qualifying examination committee. The presentation should include a discussion of the manuscript content and an evaluation of its strengths and weaknesses. No outside help will be allowed, although the student may utilize resources such as published manuscripts, textbooks, and references as needed to clarify the manuscript content. This is not an examination of research methods. It is also not an examination of the student’s ability to assimilate a broad research topic. This is an examination of the student’s ability to effectively communicate the information contained within the chosen manuscript. Therefore, no other manuscripts should be referred to during the presentation. The oral presentation will last 20 minutes or less. The presentation, including questions on the manuscript content, will last 60 minutes or less.

Note: A set of SAMPLE questions corresponding to a SAMPLE manuscript (i.e. not the manuscript selected by the student) will be provided prior to the exam to give the student insight into the types of questions he/she should expect on the manuscript content during the exam.

Computational Mechanics and Mathematics of Computations Criterion #3: Under development.

Thermal-Fluid Systems and Heat Transfer Criterion #3: The student will give a 20 minute oral presentation to the qualifying examination committee. The material for the presentation will be from one of the following: the results of the student’s MS thesis research, the manuscript of the student’s published paper, or the results of a special research
project assigned by the student’s major advisor. The student must provide to the committee an abstract of the presentation ahead of the examination. To receive a grade of pass, the student must demonstrate to the committee his/her ability to effectively communicate the information. For a student that receives a grade of conditional pass, the committee will recommend appropriate remedies. If a student receives a grade of fail, a second and final attempt will be granted.

Mechanical Design, Manufacturing, and Microprocessor Applications

Criterion #3: This assessment will be done over a three day period. On the morning of the first day, the student will be provided three published manuscripts within his/her research area. The student will briefly review the articles and then select one for the examination. There are two steps to the examination.

Within the first three hours of the examination:

The student will write and submit a one page summary of the chosen manuscript. No outside help or resources are allowed. A computer with word processing will be provided. The written examination will last 3 hours or less.

Within the next three days of the examination:

The student will prepare a PowerPoint presentation to be presented to the qualifying examination committee. The presentation should include a discussion of the manuscript content and an evaluation of its strengths and weaknesses. No outside help will be allowed, although the student may utilize resources such as published manuscripts, textbooks, and references as needed to clarify the manuscript content. This is not an examination of research methods. It is also not an examination of the student’s ability to assimilate a broad research topic. This is an examination of the student’s ability to effectively communicate the information contained within the chosen manuscript. Therefore, no other manuscripts should be referred to during the presentation. The oral presentation will last 20 minutes or less. The presentation, including questions on the manuscript content, will last 60 minutes or less.

Note: A set of SAMPLE questions corresponding to a SAMPLE manuscript (i.e. not the manuscript selected by the student) will be provided prior to the exam to give the student insight into the types of questions he/she should expect on the manuscript content during the exam.

Plan of Study

The complete plan of study must be submitted before the end of the first semester and include the specific courses and all other requirements (research skills, research topic, etc.), and filed electronically with the Department and the Graduate Division of the School of Engineering. Courses completed without an approved program of study filed will not necessarily count toward the degree. Students select a major professor from the Department to serve as the chairperson of the advisory committee and to direct their research. An advisory committee of at least five members, three must be Mechanical Engineering Graduate Faculty, are selected by the student and advisor to assist the student in preparing the plan of study, to conduct the comprehensive examination and to assist the student in planning research and graduation.

A minimum of 72 credit hours of graduate credit beyond the bachelor’s degree is required for a Ph.D. For students with a 30-credit masters’ degree in Mechanical Engineering, a minimum of an additional 18 credits of graduate course work and 24-hours of dissertation research are required. If a masters’ degree is not sought, 42 hours of graduate course work beyond the bachelor’s degree and 30-hours of dissertation research are required. A minimum of 9 credit hours of the 18 (or 21 of the 42) must be mechanical engineering courses numbered 700-900 (excluding ME 702, ME 899, ME 901 and ME 999). A minimum of 9 credit hours of advanced mathematics beyond the bachelor’s degree is required.

Proficiency in Research Skill Area and Responsible Scholarship

The Ph.D. student must demonstrate proficiency in at least one research skill area. Since the needs of students differ, the research skills are determined with the advice and approval of the advisory committee. Possible areas may include:

1. Foreign Language. The aspirant may demonstrate a reading knowledge in a foreign language in either of two ways:
   a. Receive a score in the language on the Educational Testing Service Graduate School Foreign Language Test at, or above, the minimal level prescribed by the Graduate School
   b. Complete a language course approved by the advisory committee with a grade of B or better.
2. Computer Science. To establish competence in computer science, it is necessary to satisfy the advisory committee by demonstrating proficiency in a commonly used programming language and creating at least one original program.

The responsible scholarship requirement may be met by taking ME 801 (http://catalog.ku.edu/201314/allcourses?type=department&group=ME&catalog_nbr=801&toggle=0), in addition to all other course and credit requirements.

All research skill and responsible scholarship requirements must be satisfied prior to the comprehensive examination and reported to the Graduate Division.

Doctoral Comprehensive Examination

Following the completion of at least 18 credit hours of coursework beyond the master’s degree, a comprehensive examination must be passed. The comprehensive examination shall consist of a presentation of the student’s proposal for research on a topic previously approved by the advisor, followed by a public oral examination based on the aspirant’s academic background. The Department submits a Progress to Degree (PtD) form to the School of Engineering Graduate Division to schedule the comprehensive oral examination at least two weeks prior to the examination date. The committee (typically the advising committee) for the comprehensive oral examination must consist of at least five members, all of whom must be members of the Graduate Faculty and at least three of whom must be Mechanical Engineering Faculty. At least one of the members must be from a department other than Mechanical Engineering, considered the “outside member.” This member represents Graduate Studies and must be a regular member of the Graduate Faculty. The examination may be scheduled provided that no less than five months have elapsed from the time of the aspirant’s first enrollment at this university considering that the Qualifying Exam has been successfully completed. The schedule for the examination should be announced (by email, web, and posted notices) throughout the Department at least 7 days in advance.

For every scheduled examination, the department will report a grade of honors, satisfactory, or unsatisfactory. If the aspirant receives a grade of
unsatisfactory on the comprehensive oral examination, it may be repeated upon the recommendation of the Department and the request of the aspirant. The examination may not be repeated until at least 90 days have elapsed since the last unsuccessful attempt and no later than one year from the date of the first attempt. Normally, the aspirant will be terminated from the doctoral program if the comprehensive examination is not passed after two attempts.

After passing the comprehensive oral examination for a doctoral degree, the candidate must be continuously enrolled, including summer sessions, until all requirements for the degree are completed, and each enrollment must reflect, as accurately as possible the candidate's demands on faculty time and university facilities. During this time, until all requirements for the degree are completed or until 18 post-comprehensive hours have been completed (whichever comes first), the candidate must enroll for a minimum of 6 hours a semester and 3 hours a summer session. Post-comprehensive enrollment may include enrollment during the semester or summer session in which the comprehensive oral examination was completed. If after 18 hours of post-comprehensive enrollment, the degree is not completed, the candidate must continue to enroll in at least one credit hour each semester and each summer session until all requirements for the degree have been met. Enrollment must be determined by the candidate’s dissertation advisor and must reflect as accurately as possible the candidate’s demands on faculty time and university facilities.

**Dissertation and Final Examination**

A dissertation is required of each doctoral candidate. The Ph.D. dissertation presents the results of the student’s research investigation. It is expected to make an original contribution to technical knowledge of sufficient quality to merit publication(s) in refereed journals. A candidate for a doctoral degree must satisfy all Graduate Studies requirements (https://documents.ku.edu/policies/Graduate_Studies/doctoraldegreerequirements.htm) for the degree and must submit to the major professor a paper or papers, based on the dissertation, suitable for publication in a refereed journal.

The committee (typically the advising committee) for the final oral examination must consist of at least five members, all of whom must be members of the Graduate Faculty and at least three of whom must be Mechanical Engineering Faculty. At least one of the members must be from a department other than Mechanical Engineering, considered the "outside member." This member represents Graduate Studies and must be a regular member of the Graduate Faculty. At least five months and no more than five years must elapse between the successful completion of the comprehensive oral examination and the date of the final oral examination. When the completed dissertation has been accepted by the Dissertation Committee, the department submits a Progress to Degree (PtD) form for every scheduled final oral examination with a grade of honors, satisfactory, or unsatisfactory for the candidate’s performance. If a grade of unsatisfactory is reported, the candidate may be allowed to repeat the examination upon the recommendation of the Department.

When the final oral examination has been passed and the dissertation has been signed by the members of the dissertation committee, a copy needs to be submitted electronically (http://dissertations.umi.com/ku) to the Graduate Division and Graduate Studies. In addition, the candidate may be required to submit bound copies to their department and dissertation advisor. Recommended binding services for personal or departmental copies may be found at http://www.graduate.ku.edu/etd/submitting.

**Program Time Constraints**

**Residence Requirement**

Two semesters, which may include one summer session, must be spent in resident study at the University of Kansas. During this period of residence the student must be involved full-time in academic or professional pursuits, which may include appointments in this university for teaching or research if it is directed specifically toward the student’s degree objectives. In this latter case, the student must be enrolled in a minimum of 6 hours per semester, and the increased research involvement must be fully supported and documented by the dissertation supervisor as being contributory to the student’s dissertation or program objectives. The research work must be performed under the direct supervision of the major advisor if on campus, or with adequate liaison if off campus.

**Maximum Tenure**

The following time constraints apply for completion of doctoral programs:

1. A student who enters graduate studies at this University with a masters’ degree from another university must complete all the work for the doctoral degree within eight years of the time of the initial enrollment in graduate work at this university.
2. A student who leaves after having received the masters’ degree from this University, and later decides to pursue the doctorate, may apply through the Department and Graduate Division for readmission to the Graduate School. If readmission is granted, the student must complete all the work for the doctoral degree within eight years of the time of the first enrollment after readmission.
3. A student who enrolls consecutively in both a masters and a doctoral program must complete all work for both degrees within ten years of the time of the initial enrollment in graduate work at this university.

Extension of the tenure periods specified above may be granted in exceptional circumstances for one year at a time by the Graduate Division upon receipt of a satisfactorily documented petition from the student concerned, supported by the Department.

A student in any of the categories listed above may request a leave of absence through their Department during either the pre- or post-comprehensive period to pursue full-time professional activities related to the student’s doctoral program and long-range professional goals. Leaves of absence may also be granted because of illness or other emergency and do not count against a students time to degree. Ordinarily a leave of absence is granted for one year, with the possibility of extension upon request. After an absence of five years, however, a doctoral aspirant or candidate loses status as such and, in order to continue, must apply for readmission to the Department and to the Graduate Division.

**Admission Requirements**

To qualify for graduate study in any of the graduate programs in the Department of Mechanical Engineering, a student generally must have earned a baccalaureate degree from an accredited mechanical engineering program. However, a student with good preparation in some other engineering discipline or a related program, such as physics, may qualify by taking appropriate undergraduate courses as specified by the Mechanical Engineering Department Graduate Admissions Committee.
within their first year of graduate study beyond the requirements for the graduate degree.

Regular Status

For admission to regular status in the masters program, the student must have an undergraduate grade point average of at least B (3.0/4.0). For masters applicants whose undergraduate GPA is below 3.0/4.0, but no lower than 2.75/4.0, admission on probational status will be considered on a case-by-case basis.

For admission to regular status in the PhD program, the student must have an undergraduate grade point average of at least 3.75/4.0 for direct admission into the PhD program or 3.5/4.0 for admission with an MS degree.

Graduate Record Examination (GRE) scores are required and are used in the evaluation process.

Provisional Status

For masters applicants whose undergraduate GPA is below 3.0/4.0, but no lower than 2.75/4.0, admission on provisional status will be considered on a case-by-case basis.

For students whose MS GPA is below 3.5/4.0, admission on provisional status will be considered on a case-by-case basis.

After the equivalent of one semester of full-time study as a provisional graduate student, the performance of the student is reviewed and will be (1) transferred to regular status, (2) dismissed from the graduate program or (3) allowed to continue for one semester on provisional status. It is ordinarily expected that provisional status will not exceed two semesters.

Minimum English Proficiency Requirements

The following are acceptable means of verifying English proficiency for the purpose of admitting international students to a graduate program at KU:

Graduation with a baccalaureate degree (or higher) earned in residence from an accredited U.S. institution of higher education, or from such an institution whose medium of instruction is English. This does not apply to degrees earned online.

Receipt of official copy (not student’s copy) of applicant’s proficiency scores achieved not more than two years prior to the semester of admission.

All international students are required to check-in at the Applied English Center (AEC) upon arrival to campus. At that time, the AEC will confirm the student’s level of English proficiency and determine if additional English courses are required. These guidelines also apply to U.S. citizens and permanent residents who are not native speakers of English; these guidelines are subject to change by official action of the appropriate Graduate Studies governing bodies.

Visit the full English Proficiency Requirement Policy for International Students, on the Graduate Studies website (https://documents.ku.edu/policies/Graduate_Studies/Guidelines_and_eligibility_for_GRAs_GTAs_and_GAs.htm).

Ph.D. Degree Requirements

Students must spend a minimum of 3 full academic years or the equivalent beyond the baccalaureate in resident graduate study at KU or some other approved university. A minimum grade-point average of 3.5 on a 4.0 scale in master’s degree work is typically required for admission. Students should plan to complete the qualifying examination in the first semester of participation in the doctoral program on regular status.

The doctoral qualifying examination covers basic material from major areas in mechanical engineering and advanced materials from the student’s specialty.

On successful completion of the qualifying examination, the student selects a major professor to serve as the chair of the advisory committee
and to direct the research. The advisory committee helps the student prepare a Plan of Study (https://gradplan.engr.ku.edu/accounts/login/?next=), conducts the comprehensive examination, and helps the student plan research and graduation.

The comprehensive examination has written and oral components. The written component contains a detailed literature review of existing research in the proposed area as well as a description of the work or research plan to be completed for the dissertation. For the oral component, the aspirant must defend the proposed work or research plan and demonstrate proficiency in the specialization.

A minimum of 72 hours of graduate credit beyond the bachelor’s degree is required for a Ph.D. For students with a 30-credit-hour master’s degree in mechanical engineering, a minimum of an additional 18 credit hours of graduate course work and a 24-hour dissertation are required. If a master’s degree is not sought, 42 hours of graduate course work beyond the bachelor’s degree and a 30-hour dissertation are required. A minimum of 9 credit hours of the 18 (or 21 of the 42) must be mechanical engineering courses numbered 700 to 990 (excluding ME 702, ME 899, ME 901, and ME 999). A minimum of 9 credit hours of advanced mathematics beyond the bachelor’s degree is required. Following completion of 18 credit hours of course work beyond the master’s degree, the student must pass a comprehensive examination.

The Ph.D. student must meet the Graduate Studies requirement for residency, demonstrate proficiency in at least 1 research skill area and must have training in responsible scholarship. Since the needs of each student differ, the research skills are determined with the advice and approval of the advisory committee. Possible research skills include foreign language and computer science. The responsible scholarship requirement may be met by taking ME 801, in addition to all other course and credit requirements.

A dissertation is required of each doctoral candidate. The Ph.D. dissertation presents the results of the student’s research investigation. It is expected to make an original contribution to technical knowledge of sufficient quality to merit publication in refereed journals. A final oral examination or a defense of the dissertation is required.
Health Professions

Located on the KU Medical Center campus in Kansas City, Kan., the School of Health Professions (http://healthprofessions.kumc.edu) offers more than 25 academic programs, from undergraduate and graduate degrees to certificate programs, that prepare students for careers in health care. Admission and degree requirements vary by program and are subject to change.

Audiology (p. 674)
- Doctor of Audiology (p. 680)
- Doctor of Philosophy in Speech-Language Pathology or Audiology (p. 681)

Clinical Laboratory Sciences (p. 682)
- Bachelor of Science in Clinical Laboratory Science (p. 685)

Diagnostic Cardiac Sonography (p. 690)
- Certificate in Diagnostic Cardiac Sonography (p. 690)

Diagnostic Ultrasound Technology (General and Vascular) (p. 691)
- Certificate in Diagnostic Ultrasound Technology (General and Vascular) (p. 691)

Dietetics and Nutrition (p. 692)
- Dietetic Internship Graduate Certificate (p. 697)
- Dietetics and Integrative Medicine Graduate Certificate (p. 698)
- Master of Science in Dietetics and Nutrition (p. 699)
- Doctor of Philosophy in Medical Nutrition Science (p. 700)

Health Information Management (p. 701)
- Bachelor of Science in Health Information Management (p. 703)

Molecular Biotechnology (p. 704)
- Master of Science in Molecular Biotechnology (p. 705)

Nuclear Medicine Technology (p. 705)
- Certificate in Nuclear Medicine Technology (p. 705)

Nurse Anesthesia (p. 706)
- Doctor of Nursing Practice (p. 709)

Occupational Therapy (p. 710)
- Master of Occupational Therapy (Bachelor of Science in Occupational Studies) (p. 714)
- Doctor of Occupational Therapy (p. 716)

Physical Therapy and Rehabilitation Science (p. 717)
- Doctor of Physical Therapy (p. 722)
- Doctor of Philosophy in Rehabilitation Science (p. 723)

Respiratory Care (p. 724)
- Bachelor of Science in Respiratory Care (p. 726)

Speech-Language Pathology (p. 728)
- Master of Arts in Speech-Language Pathology (p. 734)
- Doctor of Philosophy in Speech-Language Pathology or Audiology (p. 735)

Therapeutic Science (p. 736)
- Doctor of Philosophy in Therapeutic Science (p. 740)

The Office of Graduate Studies reviews and approves matters related to graduate study, including admission, course work and degree requirements. Each college or school at the University of Kansas has a graduate division reporting to KU Lawrence Graduate Studies. The Office of Graduate Studies (http://www.kumc.edu/academic-affairs/graduate-studies.html) serves as the graduate division for the three schools located on the medical center campus.

The School of Health Professions offers Bachelor of Science degrees in the following fields:
- Clinical laboratory science
- Health information management
- Respiratory care

In addition, certificate programs are available in cardiac sonography, diagnostic ultrasound technology (general and vascular), and nuclear medicine technology.

University Honors Program

The school encourages qualified students to participate in the University Honors Program (http://www.honors.ku.edu).

The School of Health Professions offers graduate programs in the fields of dietetics and nutrition, molecular biotechnology, nurse anesthesia, occupational therapy, physical therapy, rehabilitation science, and therapeutic science. In addition, programs in audiology and speech-language pathology are offered cooperatively with the Lawrence campus via the Intercampus Program in Communicative Disorders.

Basic admission requirements are listed in the Graduate Studies (p. 2059) section of the online catalog; however, individual graduate programs have specific requirements including prerequisite undergraduate courses.

The School of Health Professions (p. 647) offers the following graduate degrees:
- Master of Arts
- Master of Occupational Therapy
- Master of Science
- Doctor of Audiology
- Doctor of Occupational Therapy
- Doctor of Physical Therapy
- Doctor of Philosophy

Also available are certificate programs at the graduate level in the Department of Dietetics and Nutrition.

It is strongly recommended that students seek advising from the academic program of interest as soon as possible in his or her college study. Please refer to the specific academic program for appropriate contact information and advising availability.

Undergraduates on the Lawrence campus who are interested in health professions programs should consult Robin Merritt, health professions advisor in the Undergraduate Advising Center (http://advising.ku.edu), 785-864-2805, robing@ku.edu.
Undergraduate Regulations

For information about university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://www.policy.ku.edu). All students in the School of Health Professions are required to follow and abide by policies stated in the KU School of Health Professions Student Handbook (http://www.kumc.edu/school-of-health-professions/student-handbook.html) as well as those defined in the handbook of the student’s academic program.

Credit/No Credit

A Credit/No Credit option is available to all degree-seeking undergraduates. You may enroll in one course a semester under the option, if the course is not in your major or minor. For more information, visit the KU Policy Library (https://documents.ku.edu/policies/governance/USRR.htm#art2sect2).

Warning: Certain undesirable consequences may result from exercising the option. Some schools, scholarship committees, and honorary societies do not accept this grading system and convert grades of No Credit to F when computing grade-point averages.

Check with your department before electing the Credit/No Credit option because most programs will NOT accept this for prerequisite courses.

Grading

The Departments of Clinical Laboratory Sciences, Health Information Management, and Respiratory Care recognize only grades of A, B, or C as passing. Grades of D and F are not considered passing for the purpose of advancing in the curriculum.

Graduation with Distinction and Highest Distinction

The School of Health Professions awards the Highest Distinction honor to undergraduates who have achieved the highest grade-point average among the programs in the school upon graduation. Distinction honors are bestowed upon those with the next highest final grade-point average. The total number of these 2 categories combined may exceed 10 percent of that year’s graduating class.

Honor Roll

Students with grade-point averages of 3.5 who have completed at least 12 hours with letter grades are recognized on the honor roll or dean’s list in fall and spring. An Honor Roll notation appears on the transcript.

Transfer of Credit

Only transfer grades of C or higher apply toward graduation from the School of Health Professions at KU. Not all programs in the school accept transfer students. Please check with the appropriate program for full eligibility requirements.

CredTran (http://admissions.ku.edu/apply/credits) is a transfer course equivalency system that lists more than 2,200 colleges and universities from which KU has accepted transfer courses in the past. If your school or course is not listed, your evaluation will be completed when you are admitted to KU.

Graduate University Regulations

For information about university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://www.policy.ku.edu). All students in the School of Health Professions are required to follow and abide by policies stated in the KU School of Health Professions Student Handbook (http://www.kumc.edu/school-of-health-professions/student-handbook.html) as well as those defined in the handbook of the student’s academic program.

Credit/No Credit

Graduate students may select the Credit/No Credit option for certain courses. Students should follow the policy outlined in the University Senate Rules and Regulations, Section 2, article 2.27, and contact the department or program for more information.

Anatomy and Cell Biology Courses

ANTM 380. Special Topics In Anatomy. 1-5 Hours.
Advanced instruction is offered in the form of tutorials for a limited number of undergraduate students with prior experience in anatomical sciences. The title of the course will be advanced study of a specific area of gross anatomy, neuroanatomy, or histology. In gross anatomy and neuroanatomy, students will do a complete, detailed dissection of a specific area of the body and present it to the faculty with a term paper on a clinically significant aspect of the dissection. In histology, students will prepare specific organs for special histological and immunocytochemical techniques with an oral presentation and term paper. Prerequisite: Permission of instructor. LEC.

Hearing and Speech Courses

AUD 805. Introduction to Clinical Research. 1 Hour.
The course will provide a comprehensive overview to clinical research. The student will gain an understanding of how to develop clinical research questions including protocol design and the factors that should be considered in initiating a clinical research study. This will include biostatistical considerations, the recruitment of study participants, regulatory issues, and data management, and defining measures and instruments. Students will gain knowledge of how to define clinical research among the various institutional entities involved with clinical research at the University of Kansas Medical Center such as the Research Institute (RI), General Clinical Research Center (GCRC) and the Human Subjects Committee (HSC). Additionally, one component of the course will focus on how to apply for funding (grantsmanship), critical appraisal of research studies, and how to present research data. Prerequisite: Consent of instructor. LEC.

AUD 810. Diagnostic Audiology. 4 Hours.
Audiometric calibration, pure tone and speech testing, analysis of audiograms, middle ear testing. Prerequisite: AUD 697. LAB.

AUD 811. Hearing Disorders. 3 Hours.
A study of disorders of the auditory system including anatomical, physiological, perceptual, and audiological manifestations of pathologies affecting hearing. Prerequisite: AUD 810 and AUD 829. LAB.

AUD 813. Psychoacoustics and Theories of Hearing. 3 Hours.
A study of relations between common acoustic stimuli and the responses they elicit; consideration of sensory scales, noise phenomena, and speech intelligibility. Prerequisite: AUD 697 and AUD 829. LEC.

AUD 814. Hearing Conservation. 2 Hours.
A study of the major components of hearing conservation programs in industrial, educational, and military settings. Forensic audiology issues
related to occupational hearing loss are included. Prerequisite: AUD 697 and AUD 829. LAB.

**AUD 816. Speech Perception. 2 Hours.**
Acoustic and perceptual characteristics of phonemes, words, and connected speech for normal-hearing adults and infants; how speech perception is assessed clinically and is affected by hearing loss, aging, use of amplification, talker differences, and linguistic factors. LEC.

**AUD 817. Pediatric Audiology. 3 Hours.**
Normal and pathological development of the auditory system; pediatric audiometric testing; auditory and communication aspects in the habilitation of hearing-impaired children. Prerequisite: AUD 697 and AUD 810. LAB.

**AUD 818. Vestibular Systems and Disorders. 3 Hours.**
Study of the anatomy and physiology of the normal peripheral and central vestibular system; clinical assessment of vestibular disorders; vestibular rehabilitation. LEC.

**AUD 819. Hearing Aids I. 3 Hours.**
Study of the components, function, fitting, and performance characteristics of hearing aids, applications of amplification in rehabilitative audiology. Prerequisite: AUD 697 and AUD 810. LEC.

**AUD 820. Rehabilitative Audiology and Counseling. 3 Hours.**
Principles and methods of auditory, communication, and social assessment and intervention with hard of hearing and deaf adults, children, and their families. Prerequisite: AUD 810 and AUD 819 or equivalent. LEC.

**AUD 821. Hearing Aids II. 3 Hours.**
The advanced study of the theoretical bases, techniques, and clinical application of hearing aids and their assessment. Participants will review, present, and discuss contemporary issues in hearing aid literature and research. Prerequisite: AUD 819. LEC.

**AUD 822. Electro-Acoustics and Instrumentation. 3 Hours.**
A study of the generation, control and measurement of the simple and complex sounds essential to clinical audiology and hearing research. LAB.

**AUD 823. Cochlear Implants and Hearing Assistance Technologies. 2 Hours.**
Through lecture and discussion format, this course will cover the principles and methods of assessment, candidacy, surgery, programming and rehabilitation of patients receiving cochlear implants. In addition, hearing assistance technologies such as large area systems and alerting devices will be covered with emphasis on classroom amplification. Prerequisites: AUD 819 and AUD 821 or permission of instructor. LEC.

**AUD 824. Central Auditory Processing. 2 Hours.**
The study of the anatomy and physiology of the central auditory system. Analysis and review of the diagnostic procedures and the therapeutic strategies for central auditory processing disorders. LEC.

**AUD 826. Genetics and Hearing Loss. 2 Hours.**
The fundamentals of human genetics as related to hearing loss, including patterns of inheritance, genotypic and phenotypic characteristics of the major forms of syndromic and nonsyndromic hearing loss; genetic counseling, genetic testing, possible genetic treatment, and issues related to them; resources for keeping up with this rapidly changing field. Prerequisite: Permission of instructor. LEC.

**AUD 829. Anatomy and Physiology of the Hearing and Vestibular Mechanisms. 3 Hours.**
Advanced study of the anatomical and physiological properties of the human hearing and vestibular mechanisms. LEC.

**AUD 843. Clinical Practice in Audiology. 1-6 Hours.**
Supervised clinical work at the University and/or University Medical Center audiology clinics, or affiliated, off-campus practicum sites. Prerequisite: Permission of instructor. FLD.

**AUD 846. Independent Study in Problems in Audiology. 1-10 Hours.**

**AUD 851. Auditory Evoked Potentials. 3 Hours.**
Theoretical bases, techniques, and clinical applications for auditory evoked potentials including electrocochleography, auditory brainstem response, middle and late latency and cognitive responses. Prerequisite: AUD 810, AUD 822, AUD 829, or permission of instructor. LEC.

**AUD 853. Pharmacology for Audiology. 2 Hours.**
Presentation and discussion topics including: basic pharmacology (pharmacokinetics and pharmacodynamics), mechanisms of ototoxicity, selected ototoxic agents, drugs used in otolaryngology, and a review of patient management strategies. Prerequisites: enrollment in the Au.D. or Ph.D. audiology program or permission of instructor. LEC.

**AUD 899. Thesis. 1-10 Hours.**

**AUD 940. Seminar in Audiology: ______. 1-4 Hours.**
Advanced study of selected topics in audiology such as (but not limited to): cochlear micromechanics and other physiological processes; psychoacoustics, speech perception, cochlear implants, etc. Prerequisite: Enrollment in the Audiology Ph.D. program or permission of instructor. LEC.

**AUD 941. Grand Rounds in Audiology. 1 Hour.**
Presentations/discussion of clinical case studies and professional issues in Audiology. Au. D. students and audiology faculty members will participate in these sessions. DIS.

**AUD 944. Clinical Rotation. 1-6 Hours.**
Supervised clinical work at the University and/or University Medical Center Audiology Clinics, or affiliated off-campus sites. The Clinical Rotation is intended to prepare students for entry into their Clinical Externship and foster increasing independence. Clinical skills required are defined in standards set forth by the American Speech-Language Association. FLD.

**AUD 945. Clinical Externship. 1-9 Hours.**
Supervised clinical work at the University of Kansas and/or KUMC audiology clinics, or affiliated, off-campus sites. The Clinical Externship is intended to refine clinical skills, increase clinical independence, and ensure that clinical skills meet the certification standards in audiology set forth by the American speech-Language Hearing Association. Open to 3rd and 4th year Au.D. students. Approval from Instructor needed for 3rd year students. PRA.

**AUD 999. Doctoral Dissertation. 1-12 Hours.**
THE.

**Clinical Lab Sciences Courses**

**CLS 210. Introduction to Clinical Laboratory Sciences. 1 Hour.**
An introductory overview of the professions of Clinical Laboratory Sciences and Cytotechnology including types of analyses performed, specialties, interrelationships in the health care system and a visit to a
clinical laboratory. This course will enable those considering a major in the Clinical Laboratory Sciences to have a clear definition of the professions. (Same as BIOL 210.) LEC.

CLS 520. Phlebotomy. 1 Hour.
Principles and practice of collecting blood specimens for clinical laboratory analyses. Includes specimen identification, equipment, anticoagulants, safety precautions, specimen transport, and processing. Hepatitis immunization required. Prerequisite: Admission to the Clinical Laboratory Science Program or consent of instructor. LAB.

CLS 523. Fundamentals of Analytical Techniques Laboratory. 3 Hours.
Student laboratory with recitation addressing techniques and methodologies used in the clinical laboratory. Laboratory skills include laboratory math, quality control, pipetting, and instrumentation used in analysis of body fluids. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of the instructor. LAB.

CLS 530. Clinical Chemistry I. 3 Hours.
Introduction to human physiology and pathophysiology I with emphasis on proteins, carbohydrates, lipids, enzymes, liver kidney function, blood gases and body fluids. The related clinical chemistry tests, their principles, analysis, interpretation, and significance are included. Prerequisite: CLS 523 or consent of instructor. LAB.

CLS 532. Clinical Microbiology I. 3 Hours.
Pathogenesis and disease processes of pathogenic, opportunistic, and saprophytic bacteria; composition and preparation of media; sterilization and disinfection; antimicrobial agents and susceptibility testing; topics related to theory and applications. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of the instructor. LEC.

CLS 533. Clinical Microbiology I Laboratory. 3 Hours.
A laboratory with recitation addressing diagnostic procedures used for isolation and identification of clinically significant bacteria. Prerequisite: CLS 532 or CLS 532 concurrently, or consent of the instructor. LAB.

CLS 536. Hematology I. 3 Hours.
Fundamentals of hematopoiesis; the physiology, function, and cytochemistry of normal and abnormal blood cells; the theory and performance of clinical laboratory methods related to these parameters. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of the instructor. LEC.

CLS 537. Hematology I Laboratory. 2 Hours.
A laboratory with recitation emphasizing basic hematologic techniques and identification of normal and abnormal cells in peripheral blood and bone marrow. Prerequisite: CLS 536 or CLS 536 concurrently, or consent of the instructor. LAB.

CLS 538. Immunology. 3 Hours.
Covers basic theory of molecular and cellular immunology of innate and adaptive immune systems. Lectures include: structure and function of antibodies, complement, major histocompatibility complexes, B- and T-cells and their receptors, cellular and molecular basis of the immune response and immune regulation, hypersensitivity, and immune tolerance. Clinical applications and methodologies will be incorporated into lectures. Prerequisites: Admission to the Department of Clinical Laboratory Sciences or consent of instructor. LEC.

CLS 540. Clinical Chemistry II. 2 Hours.
Introduction to human physiology and pathophysiology II with emphasis on hormones, therapeutic drugs, clinical toxicology, tumor markers, vitamins and trace elements. The related clinical chemistry tests, their principles, analysis, interpretation, and significance are included. Prerequisite: CLS 530 or consent of instructor. LEC.

CLS 541. Professional Development. 2 Hours.
This course combines lectures and projects to give students an introduction to and practice in the following: resume writing and interviewing skills; the components of and the production of a scholarly product; the basic principles involved in education with the identification and writing of educational objectives; the activities and responsibilities involved in laboratory management. Prerequisite: CLS 520 - CLS 549 or consent of instructor. LEC.

CLS 542. Clinical Microbiology II. 2 Hours.
Pathogenesis, disease processes, and diagnostic protocols for parasites, medically important fungi and mycobacteria. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of the instructor. LEC.

CLS 543. Clinical Microbiology II Laboratory. 2 Hours.
A laboratory with recitation addressing diagnostic procedures used for isolation and identification of parasites, medically important fungi, and mycobacteria. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of the instructor. LAB.

CLS 544. Immunohematology I. 3 Hours.
Principles of immunohematology as applied to transfusion services, donor services, component preparation and storage, and transfusion therapy. Includes problem solving for transfusion related situations and evaluation of problems related to hemolytic disease of the newborn, autoimmune hemolytic disorders, and transfusion reactions. Prerequisite: BIOL 503 or CLS 538, CLS 546, or consent of instructor. LEC.

CLS 545. Immunohematology I Laboratory. 2 Hours.
Principles of immunohematology as applied to transfusion services, donor services, component preparation and storage, and transfusion therapy. Includes problem solving for transfusion related situations and evaluation of problems related to hemolytic disease of the newborn, autoimmune hemolytic disorders, and transfusion reactions. Prerequisite: BIOL 503 or CLS 538, CLS 546, or consent of instructor. LAB.

CLS 546. Hematology II. 3 Hours.
Lectures on hematopoiesis, the physiology, function, and cytochemistry of normal and abnormal blood cells, normal and abnormal hemostasis, and the theory and performance of laboratory methods related to these parameters. Prerequisite: CLS 536 and CLS 537 or consent of instructor. LEC.

CLS 547. Hematology II Laboratory. 2 Hours.
A laboratory with recitation involving performance of hematology laboratory procedures with emphasis on basic hematologic and coagulation techniques and the identification of normal and abnormal cells in the peripheral blood and bone marrow. Prerequisite: CLS 536, CLS 537 and CLS 546 or CLS 546 concurrently, or consent of the instructor. LAB.

CLS 549. Clinical Immunology I Laboratory. 2 Hours.
A laboratory with recitation involving performance of immunoassays. Emphasis on theory, methodologies, and clinical correlations. Prerequisites: CLS 523, BIOL 503 or CLS 538, or consent of instructor. LEC.

CLS 600. Introductory Biochemistry. 4 Hours.
An introduction to the chemistry and metabolism of carbohydrates, lipids, proteins, nucleic acids, and other biologically important molecules. Topics include cellular processes, reactions and interactions occurring in living organisms. Prerequisite: Admission to the Department of Clinical Laboratory Sciences or consent of instructor. LEC.

CLS 605. Introduction to Molecular Diagnostics I. 1 Hour.
An introduction to molecular biology and molecular biological methodologies and technologies commonly used in basic, applied, and
diagnostic laboratories. An emphasis is placed on molecular biology principles and techniques used in the clinical laboratory for diagnosis, prognosis, and treatment of disease. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of the instructor. LEC.

**CLS 607. Introduction to Molecular Diagnostics I Laboratory. 1 Hour.**
An introduction to molecular diagnostic methodologies and technologies commonly used in clinical laboratories. Principles and performance of nucleic acid isolation, restriction enzyme digestion, electrophoresis, amplification, hybridization, and analysis. Applications in infectious and genetic disease. Prerequisite: Admission to the Clinical Laboratory Science program or Cytotechnology program or consent of the instructor. LAB.

**CLS 610. Advanced Biotechniques Lecture. 3 Hours.**
A lecture course covering the theory behind a variety of current molecular, biochemical and immunologic techniques utilized in today's research and diagnostic laboratories. Material presented will include proper specimen preparation and handling; technique set-up and quality control; trouble shooting and technique modification. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of instructor. LEC.

**CLS 611. Advanced Biotechniques Laboratory. 2 Hours.**
Student Laboratory course with practical application of selected molecular, biochemical, and immunologic techniques. Designed to provide limited experience with advanced chromatographic techniques (DEAE, cellulose, affinity columns, HPLC, and gas); multiple electrophoresis techniques (starch-gel, SDS-page, Southern blot); nucleic acid analysis and manipulation; ligand production and utilization; cell culture, including appropriate sterilization methods, aseptic handling, and steps to ensure attachment. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of instructor. LAB.

**CLS 615. Journal Club. 1 Hour.**
Introduction to analysis of journal articles. Initial sessions will place an emphasis upon reading the article with an eye to replicating a described method or specific technique; analyzing data presented for validity; acceptance or rejection of the researchers' conclusions. Follow-up sessions will involve analyzing and presenting selected articles. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of instructor. LEC.

**CLS 620. Radiation Safety. 1 Hour.**
A lecture course covering the structure of the atom, isotopes, and radioactivity. Emphasis will be on radiation protection and safe handling of isotopes. In addition, the student will be introduced to methods for detection and quantitation of radioactivity in biological materials. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of instructor. LEC.

**CLS 621. Biotechnology Methodologies Practicum. 4 Hours.**
Placement of the student in a biotechnology core facility supporting molecular biological research from multiple laboratories. Such a core facility would provide, but not to be restricted to, the following methodologies: amino acid analysis; protein/peptide sequencing; peptide synthesis; DNA/RNA sequencing; oligonucleotide synthesis. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of instructor. LAB.

**CLS 622. Problems in Molecular Diagnostics. 2 Hours.**
Provides a targeted review of current theory, techniques and application of molecular techniques in the diagnosis of infectious disease, and hereditary and acquired genetic disease. Prerequisite: Admission to the Clinical Laboratory Science or Cytotechnology program, or consent of instructor. LEC.

**CLS 623. Molecular Genetics Practicum. 4 Hours.**
Placement of the student in a molecular genetics research laboratory (utilizing either prokaryotic or eucaryotic organisms or both) working with laboratory staff on an on-going small project within the laboratory. Molecular genetics laboratories utilized could be involved in, but not restricted to, any of the following activities: gene sequencing, cloning or splicing; elucidation of the mechanisms that regulate gene expression; proto-oncogene activation. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of instructor. LAB.

**CLS 633. Special Topics Practicum. 4 Hours.**
Placement of the student in any of a variety of research laboratories actively participating in molecular biological projects utilizing advanced genetic, biochemical immunologic, or other molecular techniques. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of instructor. LAB.

**CLS 639. Urology. 1 Hour.**
Tutorial instruction and clinical laboratory experience in urology with the application of knowledge and skills to methodology, instrumentation, and quality control. Advanced content on renal disorders with emphasis on pathological mechanisms, interpretation, and clinical correlation of test results. Prerequisite: CLS 540, or consent of instructor. LEC.

**CLS 640. Clinical Chemistry III. 2 Hours.**
Tutorial instruction in advanced clinical chemistry focusing on correlation of laboratory analysis and pathophysiology. Addresses organ system disease, metabolic disease, nutrition, and other special topics. Prerequisite: CLS 540, or consent of instructor. LEC.

**CLS 641. Clinical Chemistry and Immunology Practicum. 3 Hours.**
Tutorial instruction and clinical laboratory experience in the chemistry of body fluids, with the application of knowledge and skills to methodology, instrumentation, and quality control. Involves correlation of chemical and immunological analyses to pathophysiology. Prerequisites: CLS 540 and CLS 549, or consent of instructor. LAB.

**CLS 642. Clinical Microbiology III. 2 Hours.**
Tutorial instruction addressing pathophysiology and diagnostic protocols of viruses, rickettsia, chlamydia, mycoplasma, and other unusual organisms. Prerequisites: CLS 532, CLS 533, CLS 542 and CLS 543, or consent of instructor. LEC.

**CLS 643. Clinical Microbiology Practicum. 3 Hours.**
Tutorial instruction and clinical laboratory experience in diagnostic microbiology, with the application of knowledge and skills to methodology, instrumentation, and quality control. Prerequisites: CLS 532, CLS 533, CLS 542 and CLS 543, or consent of instructor. LAB.

**CLS 644. Immunohematology II. 2 Hours.**
Tutorial instruction addressing advanced transfusion medicine theory and concepts. Focuses on hospital transfusion services, blood utilization, management, legal and regulatory issues, and special topics. Prerequisites: CLS 544 and CLS 545, or consent of instructor. LEC.

**CLS 645. Immunohematology Practicum. 2 Hours.**
Tutorial instruction and clinical laboratory experience in transfusion medicine, with the application of knowledge and skills to methodology, instrumentation, and quality control. Prerequisites: CLS 544, CLS 545, or consent of instructor. LAB.

**CLS 646. Hematology III. 2 Hours.**
Tutorial instruction on hematologic and hemorrhagic disorders with emphasis on pathological mechanisms, interpretation, and clinical correlation of test results. Prerequisites: CLS 546 and CLS 547, or consent of instructor. LEC.
CLS 647. Hematology Practicum. 3 Hours.
Tutorial instruction and clinical laboratory experience in hematology, with
the application of knowledge and skills to methodology, instrumentatoin,
and quality control. Prerequisites: CLS 546 and CLS 547, or consent of
instructor. LAB.

CLS 648. Clinical Immunology Ill. 1 Hour.
Tutorial instruction on immune system involvement in disease processes,
immun dysfunction and correlation of laboratory data with disease states.
Prerequisite: CLS 549, or consent of instructor. LEC.

CLS 650. Clinical Laboratory Science Review. 1 Hour.
This review will enable students to identify areas of weakness in their
understanding of clinical laboratory science in preparation for clinical
rotations and comprehensive examination. Students will participate in
classroom and laboratory sessions in order to evaluate their performance
in meeting required competencies. Prerequisite: CLS 520-CLS 549
inclusive, CLS 605, CLS 607, CLS 661, and CLS 639-CLS 648 inclusive,
or consent of instructor. LEC.

CLS 655. Molecular Biotechnology Review Course. 1 Hour.
Situation and problem solving oriented web based course that reviews
material taught. This course will enable students to identify areas of
weakness in their understanding of molecular biotechniques and their
applications. Interactive question-answer format and a comprehensive,
certification-type exam will aid students in evaluating their performance
in meeting required competencies. Prerequisite: Admission to the Clinical
Laboratory Sciences program or consent of the instructor. LEC.

CLS 661. Management Principles in Health Care. 3 Hours.
Introduction to basic principles of management, education, and research
and their application in the current health care environment. Course
content includes: management theory, scope of management, quality
issues, budgeting, personnel issues, evaluation and application of
management concepts; introductory research methods and evaluation of
journal articles. Cross listed with HEIM 661 and RESP 661. Prerequisite:
Admission to the Clinical Laboratory Sciences program or consent of the
instructor. LEC.

CLS 670. Principles of Education in Clinical Laboratory Science. 1
Hour.
Educational concepts including principles of learning, curriculum design,
evaluation, teaching methodologies, audiovisual and library resources,
accreditation, student services, and legal considerations. Prerequisite:
Admission to the Clinical Laboratory Science program or consent of
instructor. LEC.

CLS 690. Special Topics. 1-5 Hours.
A course of study offering the student the opportunity for acquisition of
additional knowledge and skills in one of the clinical laboratory routine
areas or a specialty area, e.g., cytogenetics, metabolic analysis, or
supervision; or at another clinical site. Course requirements designed
in cooperation with student. Prerequisite: Admission to the Clinical
Laboratory Science program or consent of instructor. LEC.

CLS 705. Fundamentals of Pathophysiology. 3 Hours.
Review of integrative human physiology with an emphasis upon
homeostatic mechanisms and etiologies of disease. The interrelationships
of function and dysfunction at the molecular, cellular and tissue level
(pathology), organ and systematic level (impairment), and to the total
human body (functional limitations) will be applied in each of the body
systems. Discussions and applied materials will be tailored to the
professional student population. Prerequisite: Admission to the Dietetics
and Nutrition program or permission of the instructor(s). LEC.

CLS 710. Molecular Techniques I. 2 Hours.
A lecture course covering the theory underlying molecular techniques
involving nucleic acids and mammalian cell culture. Topics include
purification and analysis of nucleic acids, recombinant DNA, construction
and screening of genetic libraries, genetic engineering, control of gene
expression, construction of gene fusions, amplification, hybridization,
and nucleic acid databases and bioinformatic analysis. Prerequisite:
Admission to the MS in Molecular Biotechnology program or consent of
instructor. LEC.

CLS 711. Molecular Techniques Laboratory I. 2 Hours.
A laboratory course emphasizing the application, practice, and trouble-
shooting of molecular techniques involving nucleic acids and mammalian
cell culture. Topics include purification and analysis of nucleic acids,
recombinant DNA, genetic engineering, control of gene expression,
construction of gene fusions, amplification, and hybridization. Topics are
covered through a project-based approach. Prerequisite: Admission to the
MS in Molecular Biotechnology program or consent of instructor. LAB.

CLS 720. Molecular Techniques II. 2 Hours.
Lecture and discussion course covering the theory and practice of
molecular techniques for protein analysis. General topics include: protein
detection, quantification, and characterization; protein separation and
identification; protein expression systems; protein extraction, fractionation,
solubilization and purification; analysis of protein-protein interactions;
proteomics; and mass spectroscopy. Prerequisite: Admission to the MS in
Molecular Biotechnology program or consent of instructor. LEC.

CLS 721. Molecular Techniques Laboratory II. 2 Hours.
Laboratory course for the practice and application of molecular techniques
for analyzing and manipulating proteins. Techniques will include:
bioinformatics analyses; expression, purification and solubilization of
epitope tagged fusion proteins, protein-protein interactions; protein
quantification; protein separation by electrophoresis and column
chromatography; protein detection by chemical and immunological
methods; and LC-MS. Prerequisite: Admission to the MS in Molecular
Biotechnology program or consent of instructor. LEC.

CLS 730. Current Issues in Biotechnology. 1 Hour.
A seminar course that address topics including scientific, business, legal,
social, and ethical issues in biotechnology. Students explore these topics
through literature discussions, student presentations, and discussions
with speakers from biotechnology-related academic and industry sectors.
This course is meant for graduate students in the Molecular Biotechnology
program. Prerequisite: Consent of instructor. SEM.

CLS 740. Journal Club. 1 Hour.
This course is an introduction to the critical reading of journal articles
from the current literature in molecular biotechnology. Discussions will
emphasize the analysis of experimental design and technique, as well as
the significance of the results and validity of the author's conclusions.
Students will learn how to search for articles and background information
pertaining to selected topics, an how to present a polished, professional
summary of that literature. Assigned papers for discussion and student
presentations will focus on new strategies and technologies in molecular
biotechnology of wide fundamental importance, or on hypothesis-based
research that uses molecular biotechnological approaches. Prerequisite:
Completion of (or concurrent enrollment in ) CLS 710 and CLS 720. LEC.

CLS 742. Scientific Writing. 1 Hour.
Formats, techniques, and styles of scientific writing. Emphasis will be
placed on clear, concise, and effective writing. The class will focus on the
process of writing scientific manuscripts and grant proposals. Students
will identify and define the sections of scientific manuscripts as well as
grant proposals. During the course, each student will write an R21-type
(NIH Exploratory/Developmental Research Grant) proposals as could be
submitted to the most appropriate NIH Institute. This course is intended for students enrolled in their final semester of the Master of Science in Molecular Biotechnology program. Prerequisite: Consent of Instructor LEC.

CLS 744. Topics in Molecular Biotechnology. 1-5 Hours.
Advanced course on special topics in molecular biotechnology, offered by arrangement. May include lectures, discussions, readings, laboratory techniques, and supervised research experience. This course is intended for graduate students in the Molecular Biotechnology program. Prerequisite: Consent of instructor. LEC.

CLS 750. Practicum I. 4 Hours.
Advanced practical experience in a selected laboratory pursuing applied, basic, or diagnostic research projects utilizing genetic, biochemical, or other molecular biology-related approaches. Students apply and extend their knowledge and skills by performing a research and/or development project under the supervision of a site mentor. This practicum is performed at a site other than those utilized for CLS 751 (Practicum II) and CLS 752 (Practicum III). Prerequisite: Completion of CLS 710, CLS 711, CLS 720, and CLS 721, and consent of the instructor. PRA.

CLS 751. Practicum II. 5 Hours.
Advanced practical experience in a selected laboratory pursuing applied, basic, or diagnostic research projects utilizing genetic, biochemical, or other molecular biology-related approaches. Students apply and extend their knowledge and skills by performing a research and/or development project under the supervision of a site mentor. This practicum is performed at a site other than those utilized for CLS 750 (Practicum I) and CLS 752 (Practicum III). Prerequisites: Completion of CLS 710, CLS 711, CLS 720, and CLS 721, and consent of the instructor. PRA.

CLS 752. Practicum III. 5 Hours.
Advanced practical experience in a selected laboratory pursuing applied, basic, or diagnostic research projects utilizing genetic, biochemical, or other molecular biology-related approaches. Students apply and extend their knowledge and skills by performing a research and/or development project under the supervision of a site mentor. This practicum is performed at a site other than those utilized for CLS 750 (Practicum I) and CLS 751 (Practicum II). Prerequisites: Completion of CLS 710, CLS 711, CLS 720, and CLS 721, and consent of the instructor. PRA.

Cytotechnology Courses

CYTO 300. Introduction to Cytology. 5 Hours.
Orientation to the profession of cytotechnology including basic cell biology, ethics, the microscope, history of the profession. Also basic concepts of pathology are introduced including normal, benign proliferative, inflammatory, and reparative processes. The cellular alterations caused by these processes are introduced using the female genital system. The histology, anatomy, and endocrine system of the female genital tract are also covered. Microscopy of this section includes proper use and care of the microscope, hormonal cytology, and the range of normal reparative reactions. The recognition of specific infectious agents and/or their cellular manifestations is also included using the female genital tract as the body system under investigations. Prerequisite: Admissions to the Cytotechnology Program or permission of instructor. LEC.

CYTO 321. Neoplasia in the Female Genital Tract I. 5 Hours.
The pathologic concepts of neoplasia, the morphogenesis of carcinoma, and the cellular changes associated with both premalignant and malignant changes of squamous cell lesions in the cervix are studied. Microscopy in this section includes pre-screening of clinical care load identifying normal and abnormal cellular criteria. Prerequisite: CYTO 300 or instructor’s permission. LEC.

CYTO 322. Neoplasia in the Female Genital Tract II. 6 Hours.
A continuation of CYTO 321 with the emphasis on lesions of the uterine corpus, metastatic lesions, and lesions of the vulva and vagina. Also treatment effect and pregnancy change are included in this section. Practical microscopy is also continued with the pre-screening of clinical cases. Prerequisite: CYTO 321 or instructor’s permission. LEC.

CYTO 355. Cytology Lab Management, Respiratory Cytology and Oral Cytology. 4 Hours.
Cytology lab regulations and QC requirements. Management requirements regarding safety, quality improvement, and personnel. Also, the normal, benign, and malignant changes of the upper and lower respiratory tract and the oral cavity. The anatomy, histology, and cytology of each of the body sites is studied as well as infectious agents common to these sites. Microscopy includes prescreening gynecologic material while further increasing speed and accuracy. Respiratory and oral specimens are also included in the practical microscopy. Students rotate through the processing laboratory. Prerequisite: CYTO 322 or permission of the instructor. LEC.

CYTO 370. Effusions, C.S.F., and Miscellaneous Cytology. 3 Hours.
This course includes the cytology of the reticulo-endothelial system, effusions, CSF, and other miscellaneous fluids. Normal, benign, and malignant cellular criteria are covered as well as the anatomy and histology of each body site. Microscopy includes further practice in gyn material and all non-gyn specimens studied to this point. Students continue to use the processing laboratory on a rotating basis. Prerequisite: CYTO 355 or instructor’s permission. LEC.

CYTO 380. Gastrointestinal, Breast, G.U. and F.N.A. Cytology. 6 Hours.
This course includes the cytology of the GI system, the breast, the urinary tract, and other miscellaneous body sites. The anatomy and histology of each of the body sites is studied; cellular criteria for benign, normal, and malignant changes are introduced. Advanced topics such as aspiration cytology will also be covered. Microscopy includes further practice in the pre-screening of gyn material as well as all non-gyn material studied to this point. Students continue to use the processing laboratory on a rotating basis. Prerequisite: CYTO 370 or instructor’s permission. LEC.

CYTO 415. Scientific Method and Literature in Cytology. 1 Hour.
This course will focus on the scientific method and research tools as used in recent journal articles. Discussion will specifically focus on critical evaluation of the conclusions presented and the evidence used to support those conclusions. Also, data retrieval will be practiced as the students research and write a paper on a cytology related topic. Prerequisite: CYTO 380 or instructor’s permission. LEC.

CYTO 420. Advanced Practicum in Cytology. 2 Hours.
Microscopy includes further practice in the screening of all gyn and non-gyn material at professional entry levels of speed and accuracy. Students continue to use the processing laboratory on a rotating basis and participate in case conference. Prerequisite: CYTO 380 or instructor’s permission. LEC.

CYTO 450. Advanced Topics in Cytology. 2 Hours.
This course will include lectures on advanced topics in cytology. A comprehensive final examination completes the course. Students continue to increase speed and accuracy in microscopy to at least professional entry levels. Prerequisite: CYTO 420 or instructor’s permission. LEC.

CYTO 523. Fundamental Analytical Techniques Laboratory. 1 Hour.
A laboratory classroom experience and recitation providing hands-on practice of basic laboratory skills. Laboratory exercises will provide practice with: introduction to pipetting and calibration of pipettes;
principles of spectrophotometry; standard curve preparation; basic quality control; laboratory safety. Prerequisite: Admission to the Cytotechnology program or consent of the instructor. LAB.

**Dietetics and Nutrition Courses**

**DIET 660. Management of Human Resources in Dietetics. 6 Hours.** Focus on human resource development and utilization as the student works with food service personnel. Learning encompasses recruiting, training, supervision, and evaluation of employees in a food service system. Open only to seniors majoring in dietetics. Prerequisite: Management concepts or personnel administration. LEC.

**DIET 661. Management of Food Processing and Service. 6 Hours.** Application of theories and concepts pertaining to management functions and interdepartmental relationships in a variety of clinical food service settings. Consideration is given to the newer technological developments in the administration of food services. Open only to seniors majoring in dietetics. Prerequisite: Food service systems and management in dietetics. FLD.

**DIET 662. Special Problems in Food Service Management. 3 Hours.** Advanced experience in the practice of dietetics in an assigned setting. Problems and procedures will vary with interest and needs of the students. Open only to seniors majoring in dietetics. Prerequisite: Food service systems. FLD.

**DIET 672. Nutrition Care of Patients. 6 Hours.** Directed observation and supervised experience in nutritional care of patients. Nutrition principles studied in DIET 670, Applied Normal Nutrition, and DIET 671, Nutrition in Medical Science, are applied in clinical situations. Open only to seniors majoring in dietetics. Prerequisite: Principles of nutrition; and nutrition throughout the life cycle. LEC.

**DIET 675. Seminar in Dietetics and Nutrition. 1 Hour.** Involves study and discussion of text and general materials pertaining to philosophy and methodology in the field of dietetics and nutrition. Guest lecturers will participate. May be repeated for credit providing no course duplication takes place. Open only to seniors majoring in dietetics. Prerequisite: Introduction to dietetics. FLD.

**DIET 800. Selected Topics in Dietetics. 1-3 Hours.** An elective course to allow student credit hours in special issues or problems in dietetics offered by individual faculty. Course content can provide students with investigation of problems and/or issues relevant to theory, research investigation and/or practice related to the field of nutrition and dietetics. LEC.

**DIET 801. Current Issues or Trends. 3 Hours.** Review of current issues in the economic, social, ethical, political, legal, technological, and ecological environments and the effects of these changes on dietetics practice. LEC.

**DIET 802. Foods Writing for Professionals. 3 Hours.** A course focusing on the writing skills needed by the food professional in order to communicate effectively in writing about food and food-related topics. Student experiences include hands-on projects in research and writing for various audiences and types of publications. LEC.

**DIET 803. Accounting Concepts & Analysis. 3 Hours.** An emphasis on financial statement analysis is the main objective of the course. A review of all major accounts in the income statement, balance sheet and statement of cash flow is made in determining a firm’s performance and financial condition in relation to what matters most to shareholders and investors. Prerequisites: General Calculus and Linear Algebra LEC.

**DIET 805. Entrepreneurship Theory and Practice. 3 Hours.** Development and management of small businesses or private practice within the dietetics industry. Business plan development, marketing, cost considerations. Overview of consulting to health care and hospitality operations and examination of skills required for success. LEC.

**DIET 819. Grant and Scientific Writing for the Professional. 3 Hours.** Grant writing, identifying external funding, managing grants, preparing manuscripts for peer-reviewed publication, and preparing papers and poster for presentation at professional meetings. Prerequisite: Enrolled GPIDEA. LEC.

**DIET 822. Healthcare Administration. 3 Hours.** A comprehensive review of today’s health care institutions and their response to the economic, social/ethical, political/legal, technological, and ecological environments. LEC.

**DIET 824. Financial Management and Cost Controls in Dietetics. 3 Hours.** This course overviews the fundamental knowledge of financial management, managerial accounting, and operational cost controls for dietetics professionals. Topics include a review of managerial accounting concepts for not-for-profit organizations and for-profit organizations based on the Uniform System of Accounts, value and risk analyses, budgeting, asset management, franchising and management contracts, cost-volume-profit analyses, and operational applications for financial performance. LEC.

**DIET 829. Nutrition and Aging. 3 Hours.** An overview of nutrition and the aging process. Physiological, psychological, and sociological aspects of aging, theories of aging, internal and external factors related to nutrient intake, and nutrient needs will be considered. Physical activity and practical application to community settings is addressed. LEC.

**DIET 830. Nutrition: a Focus on Life Stages. 3 Hours.** The influence of normal physiological stresses on nutritional needs throughout the life span will be explored. Evaluating nutritional status at different stages of life and identifying appropriate needs and services will be included while, at the same time, consideration given for specific characteristics such as physiological condition and cultural heritage. LEC.

**DIET 832. Functional Foods for Chronic Disease Prevention. 3 Hours.** Integrate and evaluate the regulatory principles, food science, nutrient science and nutritional metabolism for the development of functional foods, nutraceuticals, and dietary supplements for chronic disease prevention. Prerequisites: Biochemistry, Human Nutrition, Basic Food Science or consent of instructor. LEC.

**DIET 833. Principles of Statistics. 3 Hours.** A basic course in statistics: Statistical methods applied to experimental and survey data from social or natural sciences; test of hypotheses concerning treatment means; linear regression; product-moment, rank, and bi-serial correlations; contingency tables and chi-square tests. LEC.

**DIET 834. Methods of Research in Nutrition. 3 Hours.** A study of basic research terminology and designs commonly used in nutrition research. Topics include: research on animals, tissue culture and human subjects; qualitative, quantitative and outcomes research; ethical issues in research; dissemination of research findings; and appropriate use of research findings. Prerequisite: Consent of instructor. LEC.

**DIET 836. Biochemical, Physiological, and Genetic Aspects of Human Nutrition. 3 Hours.** The topics covered will examine the integration of biochemistry, physiology, genetics, and nutrition. Emphasis will be placed on developing an understanding of how the combination cellular structure and function
is related to the metabolic needs of the cell and its response to the environment. The integrated approach will form a basis for evaluating nutritional needs in humans. Prerequisite: courses in nutrition, physiology, and biochemistry, or consent of instructor. LEC.

**DIET 838. Advanced Medical Nutrition Therapy. 3 Hours.**

This course will discuss the role of diet in disease including diet as a factor related to prevention of diseases or illness, diet as an etiologic agent in illness and diet as a treatment for disease. Medical nutrition therapy is the use of specific nutrition services to treat an illness, injury or condition and involves two phases: 1) assessment and 2) treatment, which includes diet therapy, counseling and/or the use of specialized nutrition supplements. LEC.

**DIET 839. Clinical Aspects of Nutrition Support. 3 Hours.**

The course content provides in depth study of specialized visceral and somatic nutrition assessment of the critically ill patient. Content includes extensive review of methods for determining energy expenditure and substrate utilization during specific disease states. Discussion of the aspects of feeding the critically ill patient including timing, enteral and parenteral feeding methodology, specialized medical foods, equipment requirements, feeding complications and prevention, and pharmacological issues. Students will be expected to calculate formulas for both types feeding modalities and provide discussion of the evidence based guidelines for administration of these nutrition therapies. Prerequisite: minimum of 3 cr hours in Medical Nutrition Therapy. LEC.

**DIET 841. International Nutrition and World Hunger. 3 Hours.**

Advanced study of the magnitude, cause, and nature of hunger and undernutrition in low income countries; emphasis on programs, policies and planning directed toward alleviating hunger. LEC.

**DIET 842. Nutrition and Wellness. 3 Hours.**

Course will address wellness promotion through nutrition. Nutritional risk and protective factors will be examined as they relate to public health and individual nutrition. LEC.

**DIET 843. Nutrition Education in the Community. 3 Hours.**

Principles and practices of teaching individuals and groups to translate nutrition knowledge into action. Emphasis on research in and evaluation of nutrition education. LEC.

**DIET 844. Behavior Management Theory. 3 Hours.**

An in-depth analysis of the development of the behavioral basis of individual and group behavior in business, governmental, educational, and other organizations with emphasis on current research literature and applications. LEC.

**DIET 845. Nutritional Aspects of Oncology. 3 Hours.**

A course focusing on current research examining the role of nutrition in specific cancers. Topics include basic cancer biology, pathology and nutritional research methodology. Sources of information for cancer prevention programs and the application of translational research to clinical patient populations will be discussed. LEC.

**DIET 850. Operations Management and Analysis. 3 Hours.**

The study of the role of operations systems in the provision of value for the customer. Operations systems design; capacity determination, resource requirements planning and control, theory of constraints, supply chain management, quality management and control and project management are discussed and analyzed. Prerequisite: Basic graduate statistics course LEC.

**DIET 854. Non-Thesis Research. 1-3 Hours.**

Directed study of special problems in nutrition or nutrition care. This course provides for the individual or group study of special problems. Through directed readings, investigations and projects, the student acquires information with reference to questions in dietetics and nutrition not covered in organized courses. This course fulfills the research requirements for the Non-Thesis Option. RSC.

**DIET 862. Maternal and Child Nutrition. 3 Hours.**

Critical examination of behavioral, physiological, and public health issues impacting dietary and nutritional factors that support normal growth and development. Course content focuses on the early stages of the life cycle: gestation, lactation, infancy, preschool, school age, and adolescence. Topics include the fetal programming hypothesis, growth and nutritional requirements, breast and formula feeding of infants, infant weaning, and eating behaviors that lead to normal growth, growth faltering, and pediatric obesity. Cross-listed with DN 862. Prerequisite: Registered Dietitian, or registry eligible dietitian. LEC.

**DIET 865. Nutrition and Human Performance. 3 Hours.**

This course is designed to develop an understanding of nutrition, based upon knowledge of the biochemical and physiological process and functions of specific nutrients in meeting nutritional requirements. Emphasis will be placed upon the relationship of optimal nutrition and physical efficiency and performance. LEC.

**DIET 870. Nutrition Counseling and Education Methods. 3 Hours.**

Nutrition education for groups and individuals in clinical and community settings. Includes discussion and experience in applying learning theory, assessing educational needs, stating goals and objectives, selecting learning activities, implementing and evaluating instruction, and documenting care provided. LEC.

**DIET 875. Pediatric Clinical Nutrition. 3 Hours.**

Examines physiological, biochemical and nutritional aspects of disease processes relevant to infants and children up to 18 years of age. Medical nutrition therapy for a variety of medicine conditions found in this population will be discussed including inborn errors of metabolism, food hypersensitivity, obesity, and diseases of the major organ systems. Cross-listed with DN 875. Prerequisite: Registered Dietitian or registry eligible dietitian. LEC.

**DIET 876. Intervention for the Prevention & Management of Obesity. 3 Hours.**

This course emphasizes obesity in a population group ranging from childhood to the adult. Course materials will examine the impact of obese conditions on disease development throughout the life cycle. The course will critically analyze current evidence focused on interventions used in the behavioral and clinical management of overweight and obese individuals in community and clinical settings. Prerequisites: Consent of instructor. LEC.

**DIET 880. Dietary and Herbal Supplements. 3 Hours.**

Explore the safety and efficacy of botanical/herbal and dietary supplements in health applications including dietary supplementation in the prevention and treatment of chronic disease. Prerequisite: Human physiology is advisable. LEC.

**DIET 881. Phytochemicals. 3 Hours.**

The course is an overview on phytochemicals (non-nutritive biologically active compounds which may have health benefits) from fruits, vegetables, cereals and oilseeds. The course will include discussions of functional foods which are designer foods providing these compounds to the public. It will cover recent findings on chemistry, physiological functions, potential health implications of phytochemicals. LEC.

**DIET 886. Advanced Nutrition: Nutrigenomics, Nutrigenetics and Advanced Lipid Metabolism in Human Nutrition. 3 Hours.**

This course integrates topics related to current biochemical issues in nutritional science. The course will examine topics ranging from the cellular, molecular, and biochemical aspects of nutritional science to.
translational and applied research at the clinical and educational level. The goal is to emphasize the integrative and complex nature of human nutrition research ranging from basic science to clinical studies to translational and applied studies. LEC.

**DIET 887. Nutrition and Immunology. 3 Hours.** This course examines the mechanisms underlying the modulation of immune responses by nutritional, naturally occurring and orally active food compounds. The role of nutritional status and changes in the life stages which impact immune response impacting disease initiation and progression. Contributions of the GI system and changes in life stages impacting immunity and their relationship to immune response will be discussed. LEC.

**DIET 896. Micronutrients in Human Nutrition. 3 Hours.** Interrelationships of micronutrients in terms of biochemistry, physiology, genetics, and nutrition. Emphasis will be placed on developing an understanding of how the coordination of structure and function is related to the metabolic needs of the cell and its response to the environment. This integrated approach will form the basis for evaluating the micronutrient needs of humans in both normal and altered metabolic states. LEC.

**DIET 899. Thesis. 1-6 Hours.** Scholarly essay based research, written under the guidance of the student’s adviser. Credit given upon meeting thesis requirements for the master’s program. THE.

**Dietetics and Nutrition Courses**

**DN 601. Current Concepts in Clinical Nutrition. 2 Hours.** An overview of the nutritional therapies used for various disease disorders. The course emphasizes the nutritional care and treatment related to state of the art practice. LEC.

**DN 670. Applied Normal Nutrition. 3 Hours.** Applied study of the relationship of normal food and nutrition principles to health promotion in select stages of the lifecycle. LEC.

**DN 671. Nutrition in Medical Science. 6 Hours.** Study of the science of medical nutrition therapy and evidence based practice in the nutritional management of disease during specific stages of the life cycle. Prerequisite: Consent of Instructor LEC.

**DN 796. Social and Cultural Aspects of Dietetics and Nutrition. 2-4 Hours.** A study of the aspects of society, culture and personality related diet, food habits, and nutrition. The role of the community and its agencies will be considered. Includes field work. Prerequisite: Consent of instructor LEC.

**DN 800. Selected Topics in Clinical Dietetics:_____. 1-6 Hours.** A learner-centered, self paced study of topics in applied clinical dietetics. Independent modules are offered to address the science and art of nutritional care relating to specific issues to clinical dietetics. Topics will be grouped in various combinations to provide flexibility of choice. Students may enroll in one or more topics for a total of six credit hours. Prerequisite: By permission of instructor only. LEC.

**DN 810. Nutrition Assessment. 3 Hours.** Methods and tools used in screening and assessment of nutritional status of individuals and population groups are studied. Assessment methodology includes dietary surveys, computerized dietary intake analysis, anthropometric measures, biochemical measures and clinical evaluations. Laboratory experiences are provided to allow students practice time for learning and applying assessment techniques. Prerequisite: Permission of instructor. LEC.

**DN 817. Seminar in Dietetics & Nutrition I. 1 Hour.** Seminar designed to promote effectiveness of professional written and oral communication, increase knowledge of research, and review content information in selected topics in dietetics. LEC.

**DN 818. Seminar in Dietetics & Nutrition II. 1 Hour.** To promote effectiveness of professional written and oral communication, to increase knowledge of research, and to review content information in selected areas in dietetics. SEM.

**DN 819. Scientific Writing for the Nutritional Sciences. 1 Hour.** Research proposal preparation and / or scientific manuscript writing experience. This course will provide the student with an overview of the steps used in proposal writing and / or the steps in preparation of a scientific manuscript for publication. LEC.

**DN 820. Nutrition Education Skills for School Teachers. 3 Hours.** This graduate level course will expand understanding of nutrition and healthy eating for classroom teachers and other professionals who work with children. The course has a special emphasis on child and adolescent nutrition and how to translate nutrition facts into classroom applications and school-based interventions. Course topics will include healthy food choices, nutrition guidelines, nutrients, energy balance and weight, child and adolescent nutrition, and nutrition education in the classroom, school-based nutrition interventions, and measuring outcomes of nutrition interventions. Prerequisite: Student must be classroom teacher or consent of instructor. LEC.

**DN 822. Management Dietetics & Nutrition I. 2 Hours.** Managerial skills in health care quality improvement and food service are practiced. Students are typically enrolled in DN 827 Practicum supervised practice experiences associated with the dietetic internship. Prerequisite: food service systems or commensurate practical experience. LEC.

**DN 823. Management Dietetics & Nutrition II. 2 Hours.** Managerial style is related to food policy, financial benchmarking and applied nutrition practice. Students are typically enrolled in DN 827 Practicum supervised practice experiences associated with the dietetic internship. Prerequisite: food service systems or commensurate practical experience. LEC.

**DN 825. Medical Nutrition Therapy I. 3 Hours.** Course content introduces the student into the concepts of an intermediate study of nutritional therapy of disease. Course content includes evidence-based practice in prevention and nutritional management of diseases. Patient assessment and medical chart documentation are covered. Elements of pathology and biochemistry of the nutrition-related problems are integrated into course topics. This course is designed for students enrolled in the dietetic internship, but students from other departments may enroll with consent of instructor. Prerequisite: Undergraduate coursework in nutrition, diet therapy, biochemistry and physiology or consent of instructor. LEC.

**DN 826. Medical Nutrition Therapy II. 3 Hours.** Course content includes current nutrition theory and evidence-based practice in prevention and treatment of disease. Advanced therapies and patient management in nutrition support will be discussed. Course topics include pediatric nutrition, obesity, cardiovascular disease, diabetes, cancer, renal disease, and gastrointestinal diseases. Elements of pathology and biochemistry of the nutrition-related problems are integrated into course topics. This course is designed for students enrolled in the dietetic internship, but students from other departments may enroll with consent of instructor. Prerequisite: Undergraduate coursework in nutrition, diet therapy, biochemistry and physiology; DN 825; or consent of instructor. LEC.
DN 827. Practicum: Process in Clinical Dietetics. 1-7 Hours.
Supervised practice experience for graduate level students to fulfill the requirements for the Dietetic Internship. Experiences take place in hospitals, clinics, community health care agencies, and other practice settings in which dietetics and nutrition services are provided. Prerequisite: Admission to the graduate program, permission of dietetic internship director or course instructor. LEC.

DN 828. Clinical Education in Dietetics. 2-3 Hours.
A study of teaching methods appropriate for use in a clinical setting. Emphasis on development of instructional objectives, learning situations, and methods of evaluations to be used in clinical teaching in dietetics. Prerequisite: Consent of instructor. LEC.

DN 829. Nutrition and Aging. 3 Hours.
An overview of nutrition and the aging process. Physiological, psychological, and sociological aspects of aging, theories of aging, internal and external factors related to nutrient intake, and nutrient needs will be considered. LEC.

DN 830. Food Technology. 2-3 Hours.
Consideration of current food processing methods and the factors affecting the palatability and nutritive values of human foods. Course includes pertinent information regarding the protection of the food supply. LEC.

DN 834. Methods of Research in Nutrition. 3 Hours.
A study of basic research terminology and designs commonly used in nutrition research. Topics include: research on animals, tissue culture and human subjects; qualitative, quantitative and outcomes research; ethical issues in research; dissemination of research findings; and appropriate use of research findings. Prerequisite: Consent of instructor. Same as DIET 834. LEC.

DN 836. Biochemical, Physiological, and Genetic Aspects of Human Nutrition. 3 Hours.
The topics covered will examine the integration of biochemistry, physiology, genetics, and nutrition. Emphasis will be placed on developing an understanding of how the combination cellular structure and function is related to the metabolic needs of the cell and its response to the environment. The integrated approach will form a basis for evaluating nutritional needs in humans. Prerequisite: courses in nutrition, physiology, and biochemistry, or consent of instructor. Same as DIET 836. LEC.

DN 838. Advanced Medical Nutrition Therapy. 3 Hours.
This course evaluates current issues in medical nutrition therapy. Course content includes evidence based analysis, the role of diet in disease management including factors related to disease pathophysiology, nutritional assessment and medical nutrition management of specific disease states. Prerequisite: undergraduate medical nutrition therapy, biochemistry, physiology, or consent of the instructor. Same as DIET 838. LEC.

DN 839. Clinical Aspects of Nutrition Support. 3 Hours.
Specialized nutrition assessment and support. Review of energy expenditure and substrate utilization in specific disease states. Current methods for the initiation and management of enteral and parenteral nutrition therapy including access, metabolic and mechanical complications. Evaluation nutrition support methodology in selected disease states. LEC.

DN 840. Advanced Topics in Nutrition. 1-2 Hours.
Reading and preparation of a paper and/or oral presentation on a selected subject in nutrition. Prerequisite: Consent of instructor. LEC.

DN 841. International Nutrition. 1-3 Hours.
A study of global public health and nutrition concerns in various nations, assessment of nutritional status of diverse populations, international health and nutrition organizations, policies, and interventions. We explore the roles of dietitians, nutritionists, and others in creating and implementing international public health and nutrition policies and interventions. To enroll in the course, you must be a student in the Graduate Certificate Dietetic Internship Program, the Dietetics and Nutrition Master of Science Program, or the Great Plains IDEA, or have the consent of the instructor. Cross-listed with DIET 841. LEC.

DN 842. United States Public Health Nutrition. 1-3 Hours.
A study of US public health and nutrition concerns in diverse US populations, assessment of nutritional status in commonalities, health communication, nutrition policies and community based nutrition interventions. Exploration of the roles of dietitians, nutritionists, and others in developing and delivering nutrition policies and interventions in US communities. Prerequisite: Must be a student in the Graduate Certificate Dietetic Internship Program, the Dietetics and Nutrition Master of Science Program, or the Great Plains IDEA, or have the consent of the instructor. LEC.

DN 854. Special Problems in Dietetics and Nutrition. 1-4 Hours.
Directed study of special problems in nutrition or nutrition care. This course provides for the individual or group study of special problems. Through directed readings, investigations, and projects, the student acquires information with reference to questions in dietetics and nutrition not covered in organized courses. LEC.

DN 857. Motivational Interviewing in Public Health Settings. 1 Hour.
The course is designed to introduce participants to Motivational Interviewing, its concepts, and to the subsequent skills required for helping people to change. This course will be cross-listed with PRVM 857. LEC.

DN 860. Collaboration Strategies in Health Care. 1 Hour.
Persuasion and negotiation techniques: skills to evaluate and promote collaboration and goal achievement in a multidisciplinary health care team; analysis of communication styles and strategies to achieve mutual beneficial outcomes. LEC.

DN 862. Maternal and Child Nutrition. 3 Hours.
Critical examination of behavioral, physiological, and public health issues impacting dietary and nutritional factors that support normal growth and development. Course content focuses on the early stages of the life cycle: gestation, lactation, infancy, preschool, school age and adolescence. Topics include the fetal programming hypothesis, growth and nutritional requirements, breast and formula feeding of infants, infant weaning, and eating behaviors that lead to normal growth, growth faltering, and pediatric obesity. Prerequisite: Consent of the instructor. LEC.

DN 865. Nutrition in Sports and Exercise. 3 Hours.
Exercise physiology and nutrient requirements in sports and exercise: macronutrient, micronutrient and fluid needs of athletes engaged in specific sports, pre/post exercise meals, gender specific requirements, role of ergogenic aids, eating disorders, and role of exercise in weight management and chronic disease. Prerequisite: Biochemistry and/or exercise physiology class or permission of the instructor. LEC.

DN 870. Health Behavior Counseling. 3 Hours.
Theoretical and applied issues in health behavior counseling. Students will learn the theories of behavior change and how to apply these to health care issues. Specific health behaviors (i.e., dietary changes, smoking cessation, exercise adherence) will be discussed in the context of chronic disease for children, adults, and the elderly. Effective methods
of counseling patients and promoting changes on an individual and small
group basis will be presented. LEC.

DN 875. Pediatric Clinical Nutrition. 3 Hours.
Examines physiological, biochemical and nutritional aspects of disease
processes relevant to infants and children up to 18 years of age. Medical
nutrition therapy for a variety of medicine conditions found in this
population will be discussed including inborn errors of metabolism, food
hypersensitivity, obesity, and diseases of the major organ systems.
Prerequisites: DN 826: Applied Clinical Nutrition or equivalent or consent
of instructor. LEC.

DN 876. Intervention for the Prevention & Management of Obesity. 3 Hours.
This course emphasizes obesity in a population group ranging from
childhood to the adult. Course materials will examine the impact of obese
conditions on disease development throughout the life cycle. The course
will critically analyze current evidence focused on interventions used
in the behavioral and clinical management of overweight and obese
individuals in community and clinical settings. Prerequisites: Consent
of instructor. Same as DIET 876. LEC.

DN 880. Dietary and Herbal Supplements. 2-3 Hours.
Explores the safety and efficacy of botanical/herbal and dietary
supplements in health applications including dietary supplementation in
the prevention and treatment of chronic disease. Prerequisite: Human
physiology is advisable. LEC.

DN 881. Introduction to Dietetics and Integrative Medicine. 3 Hours.
Introduction to principles guiding integrative and functional Medical
Nutrition Therapy; assessing, diagnosing, intervening, monitoring, and
evaluating an individual client to restore function; focusing on the unique
nutritional imbalances characteristic of chronic disease pathophysiology;
supporting individuals with persistent symptoms; preventing chronic
disease. Prerequisites: Introductory genetics, medical nutrition therapy, or
consent of instructor. LEC.

DN 882. A Nutrition Approach to Inflammation and Immune
Regulation. 3 Hours.
Inflammation and immune system dysregulation is common in chronic
disease. The course presents the integrative nutrition approach to
identify the underlying causes of inflammatory and immune-related
conditions and associated nutritional influences; applies individualized
nutritional interventions, as powerful modulators of the pathophysiology
of inflammatory and immune responses. Prerequisites: Medical nutrition
therapy, genetics or consent of instructor. LEC.

DN 884. Diet, Physical Activity & Cancer. 3 Hours.
Multi-disciplinary approach, introductory cancer biology, Cancer
epidemiology and risk factors. Dietary and environmental causation
and prevention. Cancer in various organ systems. Nutrition therapy in
Oncology. Nutrition implications in cancer treatments. Lifestyle factors
and cancer survivorship. Exercise programming adaptations. Analysis of
primary literature. Prerequisite: Permission of instructor. LEC.

DN 885. Nutritional Biochemistry. 3 Hours.
Course content facilitates the understanding of advanced biochemical
principles applied to human nutrition. Topics include protein structure,
bioenergetics, enzyme function, nutrient digestion, absorption and
metabolism, metabolic regulation and intermediary metabolism,
cellular signaling, and genomics encompassing nucleotide metabolism,
gene expression and gene regulation. Prerequisite: Undergraduate
biochemistry or consent of instructor LEC.

DN 890. Graduate Research. 1-4 Hours.
Individual investigation of special problems in dietetics and nutrition
or hospital dietary administration approved by the student’s advisor or
advisory committee. Investigation involves original research. RSH.

DN 895. Advanced Macronutrients and Integrated Metabolism. 3 Hours.
Energy containing macronutrients and fiber presented from the
perspective of their importance in human nutrition. Structural properties,
digestion, absorption and metabolism are emphasized. Fuel utilization in
response to food intake and exercise, cellular and whole-animal energetic
and energy balance integrate metabolism. Students take an active role
in presenting and discussing and exhibit advanced skills in analysis and
presentation. Prerequisites: BCHM 702 or Equivalent. LEC.

DN 896. Advanced Micronutrients and Integrated Metabolism. 3 Hours.
Vitamins and minerals presented from the perspective of their
requirements as nutrients for normal human physiological functions with
emphasis on their underlying roles in structure, function and metabolism.
Students take an active role in selecting, presenting and discussing
recent published research and to exhibit advanced skills in analysis and
presentation. Prerequisites BCHM 702 or equivalent. LEC.

DN 897. Micronutrient Research in Human Nutrition. 1 Hour.
This course requires students to design a research study on a vitamin
or mineral. Students submit a written proposal and present it orally and
defend the proposal in class. Students will be evaluated on the basis
of plausibility, feasibility and originality of the proposed research. Co-
prerequisite DN 896. Prerequisite: Consent of Instructor. LEC.

DN 899. Thesis. 1-6 Hours.
Scholarly essay based on research, written under the guidance of the
student’s advisor. Credit given upon meeting thesis requirements for the
master’s degree. Prerequisite: Consent of advisor. THE.

DN 900. Techniques in Nutrition Research. 3 Hours.
A series of seven laboratory modules emphasizing quantitative methods
and experimental analysis. The series of modules will be team taught
by departmental faculty. Each module requires data collection, data
analysis, and written interpretation or report. Instrumentation, dietary
assessment software utilization and cellular microtechniques will be
emphasized. Students will be responsible for learning one technique
practiced in an outside laboratory setting. Student will rotate between
the module sequence based on the number of students enrolled in the class.
Prerequisite: DN 895 and DN 896 or permission of instructor or record.
LEC.

DN 901. Graduate Seminar in Nutrition. 1 Hour.
Advanced course examining current research topics in nutrition. Extensive
student and faculty interaction is emphasized utilizing lectures, class
discussion of selected scientific readings and oral presentations.
Prerequisite: Admission to PhD program in Dietetics and Nutrition or
permission of instructor. LEC.

DN 980. Nutrigenomics and Nutrigenetics in Health and Disease. 3
Hours.
Nuclear receptors and their mechanisms of action, nutritional control of
gene expression and functional genomic studies with relationships to
nutrient intake and polymorphisms. Prerequisites: DN 836, DN 895, DN
896 or permission of instructor. LEC.

DN 990. Doctoral Research. 1-9 Hours.
Original and independent investigation approved by and conducted
under the supervision of the student’s advisor or advisory committee.
This course is in partial fulfillment of the requirements for the Ph.D.
degree. Prerequisite or corequisite: Restricted to Dietetics Nutrition Ph.D.
candidates, or consent of DN advisor. Students must have completed the qualifying exam. LEC.

DN 999. Dissertation. 1-6 Hours.
Preparation of the written dissertation based upon original research and in partial fulfillment of the requirements for the Ph.D. degree. Prerequisite: DN 990 or consent of advisor. LEC.

Health Information Mgmt Courses

HEIM 210. Introduction to Healthcare. 1 Hour.
An introductory overview of the healthcare system in the United States. Includes information on the organizational structure of healthcare, who comprises the healthcare team, reimbursement, managed care, the importance of data quality, legal aspects of healthcare including privacy and security, and the computer-based patient record. Open to all students. LEC.

HEIM 230. Basic Medical Terminology. 3 Hours.
A study of the language of medicine including word construction, definition and use of terms related to various areas of medical science, hospital service and the allied health specialties. Course requires students to be able to break down medical terms and understand their meanings. (This course is designed for persons wanting a better understanding of medical terms and their usage.) LEC.

HEIM 325. Pharmacology. 2 Hours.
This introduction to pharmacology course is intended to provide the student with the background information necessary to practice within the field of Health Information Management. The course covers the fundamentals of pharmacology, including pharmacokinetics and pharmacodynamics. The classification of drugs, the use of drug reference materials, and the mechanisms of therapeutic and adverse responses to drugs will be covered in the course. This course will also introduce the processes used for drug approval in the United States. Prerequisite: Permission of the instructor. LEC.

HEIM 330. Medical Terminology. 3 Hours.
A study of the language of medicine including word construction, definitions, medical abbreviations, and use of terms related to various areas of medical science, hospital service, and the allied health specialties. LEC.

HEIM 360. Record Documentation Systems. 3 Hours.
A course of study relating to the composition of the health record and the department responsible for its security, confidentiality, and availability. The student will compare and contrast the content and formats of the health record across the continuum of healthcare systems; understand the record management issues unique to the health record; record access, record retention guidelines, and record storage options currently available, and trends to the future. LEC.

HEIM 380. Principles of Health Care Management. 3 Hours.
This course will examine the unique characteristics of the healthcare industry in order to help the students identify (1) particular management skills needed as a business leader in the healthcare industry; (2) participate in the theory, skills, and applications of healthcare management through case studies and team projects. Additionally it will cover the study of management and leadership responsibilities including financial management, budgeting, organizational change, group design, strategic management, and team inter-relationships. Application of leadership and business concepts will be demonstrated through case studies and team projects. Prerequisite: College Algebra (or higher), Managerial or Financial Accounting. LEC.

HEIM 415. Healthcare Delivery Systems. 2 Hours.
This course provides an introduction to the wide spectrum of healthcare delivery systems in which health information management and other healthcare professionals use their organizational and management skills. Special emphasis is placed on acute care, ambulatory care, home health, hospice care, long-term care, and managed care. The student will focus on how each delivery system is structured, their function, what data sets are collected, the reimbursement schemes used, health policy that shapes the system, outcomes (cost, quality, access) and how each system is integrated into the current delivery of healthcare in the United States. LEC.

HEIM 420. Statistics. 3 Hours.
Emphasis is on the statistical analysis of healthcare data. Content includes hospital-based statistics, an introduction to basic epidemiological concepts, univariate and bivariate descriptive statistics, sampling distributions, statistical estimation, and hypothesis testing for one or two sample designs. Research design and methodology will be discussed. LEC.

HEIM 435. Pathophysiology for Health Professionals. 3 Hours.
An in-depth study of the fundamentals of medical science, medical essentials and the language of medicine, signs, symptoms, and test findings of disease processes and the current therapy employed in the treatment of diseases. Prerequisites: Courses in Anatomy lab, Physiology lab, and Medical Terminology or consent of the instructor. LEC.

HEIM 440. Management of Information Systems. 4 Hours.
This course provides an extensive introduction to real-world information technology, focusing on translating students' personal use of technology to the larger organizational design, strategy, and operations of systems such as networking, identity management, relational databases, information architecture, project management, and business analytics. In addition, the course will reinforce students' capabilities using common enterprise office productivity software such as PowerPoint, Excel, and Access. LEC.

HEIM 450. Introduction to Professional Practices Experiences. 1 Hour.
This course is designed to prepare students and develop the skills required for experiences outside of the classroom environment. The emphasis is on professional behavior for health information management professionals in the workplace. The course also introduces students to the application of electronic health record concepts. The content is intended to prepare students for site visits, professional practice experiences, the internship, as well as their future careers. LEC.

HEIM 480. Human Resource Management. 3 Hours.
This course provides student the opportunity to obtain the knowledge of human resources management skills. Course topics include the legal environment of HR, recruitment, selection, training, development, retention, motivation and the global HR issues within the rapidly changing business and healthcare sectors. Prerequisite: HEIM 380. LEC.

HEIM 485. Independent Study in Health Information Management. 1-10 Hours.
The content will vary depending on material appropriate to students. May be repeated for additional credit utilizing a variety of projects and special assignments. Prerequisite: Permission of the program director. FLD.

HEIM 501. Information Resources for Health Professions. 1 Hour.
This course is designed to prepare students to effectively utilize information resources and technology on an academic medical center campus. Students will learn to apply computer skills, information technologies and literacy skills in an academic health care setting. The course also teaches students the foundations of information literacy
HEIM 510. Professional Practice Experience I. 1 Hour.
Through supervised learning situations, students are given opportunities to visit different types of healthcare facilities in the area. These opportunities vary from year-to-year based upon availability. Opportunities might include (but not be limited to) working with actual HIM department members, exploring nontraditional HIM career roles, or visiting with and interviewing a long term care, behavioral health, rehabilitation, or managed care HIM department manager. Prerequisite: Successful completion of Junior-level HIM academic courses or permission from instructor. LEC.

HEIM 520. Legal Aspects of Health Care. 4 Hours.
This course is designed to introduce the student to fundamental concepts of the American legal system, the process of legal change, and to the healthcare practitioner’s potential legal interactions with patients, employees, law enforcement officers, and governmental agencies. This class will also focus on the HIM specific elements, informed consent, malpractice liability, corporate negligence, hospital employment, the legal health record, risk management, professional compliance and licensure. This course will also address the changes in privacy, security and confidentiality rules and statutes as addressed at the federal level and state level. LEC.

HEIM 525. Database Management for EHR. 3 Hours.
This course is designed to help students understand databases and database management systems. Students will learn to model and understand database design, in conjunction with learning methods to structure data as records, tables, or objects. Students will also learn how query languages are used for searching, sorting, reporting, and other “decision support” activities to best utilize the available data. Along with acquiring knowledge fundamental to management of the electronic health record (EHR), students will develop general technical knowledge to become capable health information professionals. LEC.

HEIM 565. Healthcare Coding Systems I. 4 Hours.
The introduction and study of classification systems and terminologies used in health care and the relationship of these systems to patient care, research, and reimbursement systems. Application of coding guidelines, conventions, and rules of coding systems. Prerequisite: HEIM 435 or permission of the instructor. LEC.

HEIM 566. Healthcare Coding Systems II. 3 Hours.
This course is designed to help students understand databases and database management systems. Students will learn to model and understand database design, in conjunction with learning methods to structure data as records, tables, or objects. Students will also learn how query languages are used for searching, sorting, reporting, and other “decision support” activities to best utilize the available data. Along with acquiring knowledge fundamental to management of the electronic health record (EHR), students will develop general technical knowledge to become capable health information professionals. LEC.

HEIM 567. Quality and Performance Improvement in Healthcare. 3 Hours.
A study of the requirement of the Joint Commission with a focus on health information standards, quality improvement methodologies, utilization review, and medical staff credentialing and privilege delineation. In addition, Utilization Management is approached from the theoretical and practical application of the Severity of Illness (SI) and Intensity of Service (IS) criteria for the hospital setting. Prerequisite: HEIM 415. LEC.

HEIM 575. Applied Statistics, Research Methods and Analysis in Healthcare. 3 Hours.
Emphasis is on the statistical analysis of healthcare data. Content includes hospital-based statistics, an introduction to epidemiological concepts, research design and methodology, research ethics and protocol, hypothesis testing, data management, analysis and presentation. Prerequisites: MATH 101 Algebra or 104 Pre-Calculus and MATH 365 Elementary Statistics. LEC.

HEIM 580. Reimbursement. 3 Hours.
This course will examine the complex financial systems within the healthcare industry. The student will gain a thorough knowledge of the diverse reimbursement methodologies utilized throughout the governmental and private insurance entities with application through: (1) case studies and (2) information systems integrated within the course work. Prerequisite: HEIM 565. LEC.

HEIM 590. Knowledge Management. 3 Hours.
This course will look at the study of Knowledge Management as a way for an entity to generate, communicate, and leverage its intellectual assets. Topics will focus not only information technology applications but also the human side of knowledge creation, diffusion of innovation, and the application of knowledge. Online discussions will be supplemented with labs that encourage the student to manipulate data sets to derive various perspectives from the same information. Prerequisite: HEIM 380 and HEIM 440. LEC.

HEIM 604. Professional Practice Experience II. 2 Hours.
Provides a laboratory/Professional Practice Experience setting for the application of coding practices learned in HEIM 565 and HEIM 635. This is a two credit hour lab to be taken concurrently with HEIM 665. Prerequisites: HEIM 565, HEIM 567, and concurrently in HEIM 635. FLD.

HEIM 635. Healthcare Coding Systems II. 3 Hours.
Continued study of classification systems and terminologies used in health care and the relationship of these systems to patient care, research, and reimbursement systems. This course will include an introduction to the role of mapping between the various classification systems, nomenclatures and clinical terminologies used in health care. Prerequisite: HEIM 565 or permission of the instructor. LEC.

HEIM 640. Health Information Systems. 3 Hours.
The focus of this course is to provide a hands-on progression from the theories developed by HEIM 440 Management of Information Systems. This course will require the student to apply this knowledge to real world problems with emphasis on Health Information Systems as well as Clinical Information Systems. Prerequisite: HEIM 440. LEC.

HEIM 661. Management Principles in Health Care. 3 Hours.
Introduction to basics of management and education and their application in the current healthcare environment. Course content includes: management, quality issues, budgeting, personnel issues, evaluation and application of management concepts, and educational methodologies. Cross listed with CLS 661 and RESP 661. Prerequisite: Admission to the Health Information Management Program or permission of the instructor. LEC.

HEIM 665. Topics in Health Information Management. 1-2 Hours.
The course utilizes case studies and guest lecturers to address the latest developments in the management of healthcare information. Knowledge and skills learned will be applied to real-world problems. Students will research selected topics culminating in written and oral presentations. Students will also focus on professional development and career preparation. Prerequisite: HEIM 380 LEC.

HEIM 670. Independent Study in Health Information Management. 1-10 Hours.
The content will vary depending on material appropriate to students. May be repeated for additional credit utilizing a variety of projects and special assignments. Prerequisite: Permission of the program director. LEC.

HEIM 675. Management Seminar. 2 Hours.
This course will provide application of the healthcare and business management skills obtained from previous management courses within the Health Information Management track. Student teams will be
introduced to key management issues within the business sector through a series of seminar topics and presentations. The student teams will also participate in field projects within the local business sector. Prerequisite: Senior status and permission of the instructor. LEC.

**HEIM 680. Management Internship. 3 Hours.**
This internship experience provides the student with a management capstone experience in the activities and responsibilities of the health information administrator. Students are responsible for all costs to include: room, board, and transportation. Management sites are selected based on the experience and credentials of the student. Prerequisite: Successful completion of all HIM professional coursework and/or permission of the instructor. LEC.

**Nurse Anesthesia Courses**

**NURA 800. Professional Aspects of Anesthesia. 3 Hours.**
This course includes orientation to the profession of nurse anesthesia. The student will gain an understanding of the anesthesia department management and organization. The history of anesthesia will be discussed. Ethical, psychological, professional adjustments and legal responsibilities of the nurse anesthetist will be presented. LEC.

**NURA 801. Introduction to Clinical Practicum. 1 Hour.**
Students will engage in clinical practice that involves introduction to basic anesthesia skills. Emphasis is given to patient assessment, anesthetic planning and management of the patient population of low risk categories. The course includes introduction to clinical problem solving and “call” experiences that address the trauma patient and emergency surgical/anesthetic interventions for pathological states. Prerequisite: Permission of Instructor. CLN.

**NURA 805. Clinical Anatomy. 4 Hours.**
An intensive study of the major anatomical systems and regions of the body which have clinical significance for anesthetists and others. Particular attention devoted to the respiratory, cardiovascular, and nervous systems. Regional topics include the anatomy of the head, neck, vertebral column, thorax, axilla, and femoral triangle. Involves both lectures and cadaver dissection, plus appropriate models, x-ray films, and audiovisual materials. Prerequisite: Admission to the Nurse Anesthesia Program or permission of instructor. LEC.

**NURA 806. Advanced Physiology. 4 Hours.**
A course designed to lead to an advanced comprehension of the physiology of organ systems in the human in both cellular and organ processes. Physiology subject matter relevant to clinical health sciences include membrane transport, muscle, cardiovascular, respiratory, renal, water and electrolyte balance, gastrointestinal, and endocrine physiology as well as neurophysiology. Cellular mechanisms include the structure and function of ion channels and pumps, mechanisms of calcium regulation, excitation-coupling processes and mechanisms of oxidative cell damage and apoptosis. Prerequisite: Permission of instructor. LEC.

**NURA 811. Advanced Theory in Anesthesia I. 2 Hours.**
This is the first of five successive courses relative to the didactic study of the art and science of nurse anesthesiology. Students will acquire the knowledge base pertinent to the perioperative anesthetic management of ophthalmology and otorhinolaryngology procedures and patients with alterations in the endocrine system. Students enhance their critical thinking, problem-solving skills and ability to synthesize didactic information to the clinical environment. In addition, students will be required to engage in analysis of currently published research to identify “best practices” based on research evidence. Prerequisite: Permission of Instructor. LEC.

**NURA 812. Advanced Theory in Anesthesia II. 3 Hours.**
This is the second of five successive courses relative to the didactic study of the art and science of nurse anesthesiology. Students will acquire the knowledge base pertinent to the perioperative anesthetic management of critical care and trauma patients, acid base and electrolytes, and hematologic needs of patients during surgical interventions. Students enhance their critical thinking, problem-solving skills and ability to synthesize didactic information to the clinical environment. In addition, students will be required to engage in analysis of currently published research to identify “best practices” based on research evidence. Prerequisite: Permission of Instructor. LEC.

**NURA 813. Advanced Theory in Anesthesia III. 2 Hours.**
This is the third of five successive courses relative to the didactic study of the art and science of nurse anesthesiology. Students will acquire the knowledge base pertinent to the perioperative anesthetic management of obstetrical, neonatal and pediatric patients. Students enhance their critical thinking, problem-solving skills and ability to synthesize didactic information to the clinical environment. In addition, students will be required to engage in analysis of currently published research to identify “best practices” based on research evidence. Prerequisite: Permission of Instructor. LEC.

**NURA 814. Advanced Theory in Anesthesia IV. 3 Hours.**
This is the fourth of five successive courses relative to the didactic study of the art and science of nurse anesthesiology. Students will acquire the knowledge base pertinent to the perioperative anesthetic management of neurosurgical, cardiovascular, thoracic, and transplantation patients. Students enhance their critical thinking, problem-solving skills and ability to synthesize didactic information to the clinical environment. In addition, students will be required to engage in analysis of currently published research to identify “best practices” based on research evidence. Prerequisite: Permission of Instructor. LEC.

**NURA 815. Advanced Theory in Anesthesia V. 3 Hours.**
This is the fifth of five successive courses relative to the didactic study of the art and science of nurse anesthesiology. Students will acquire the knowledge base pertinent to the perioperative anesthetic management of the orthopedic patient and disease processes of the myoneuroskelatal disease processes, the geriatric and urological patient during surgical interventions. Students enhance their critical thinking, problem-solving skills and ability to synthesize didactic information to the clinical environment. In addition, students will be required to engage in analysis of currently published research to identify “best practices” based on research evidence. Prerequisite: Permission of Instructor. LEC.

**NURA 820. Information Systems and Data Management in Anesthesia. 1 Hour.**
Information systems, data management concepts, and their applications will be explored. This will enable the doctoral prepared nurse anesthetists to utilize resources to facilitate quality improvement, increase patient safety through outcome measurements, and improve resource utilization in the perioperative period. Prerequisite: Permission of instructor. LEC.

**NURA 821. Advanced Practicum in Anesthesia I. 2 Hours.**
This is the first of six courses relative to the application of the art and science of nurse anesthesiology. Each section is designed to address specific surgical categories and the relevant patient care needs and risks. Completion of each course requires acquisition and refinement of clinical skills. Students will demonstrate progression in cognitive, psychomotor and affective skills appropriate to a professional nurse anesthetist. Prerequisite: Permission of Instructor. PRA.

**NURA 822. Advanced Practicum in Anesthesia II. 2 Hours.**
This is the second of six courses relative to the application of the art and science of nurse anesthesia. Each section is designed to address
specific surgical categories and the relevant patient care needs and risks. Completion of each course requires acquisition and refinement of clinical skills. Students will demonstrate progression in cognitive, psychomotor and affective skills appropriate to a professional nurse anesthetist. Prerequisite: Permission of Instructor. PRA.

NURA 823. Advanced Practicum in Anesthesia III. 2 Hours.
This is the third of six courses relative to the application of the art and science of nurse anesthesia. Each section is designed to address specific surgical categories and the relevant patient care needs and risks. Completion of each course requires acquisition and refinement of clinical skills. Students will demonstrate progression in cognitive, psychomotor, and affective skills appropriate to a professional nurse anesthetist. Prerequisite: Permission of Instructor. CLN.

NURA 831. Advanced Chemistry and Physics. 2 Hours.
Chemical and physical principles including states and properties of matter, laws governing the behavior of gases, flow and vaporization, oxidation and combustion; principles of electricity and electrical safety; and chemical properties and structure-activity relationships as a foundation for pharmacology. Course will also cover pertinent areas of organic chemistry. Prerequisite: Permission of instructor. LEC.

NURA 833. Basic Principles of Anesthesia Practice. 3 Hours.
This course introduces students to the introductory principles and theories regarding the art and science of anesthesia practice. Students will develop a conceptual basis for practice gained through a systems approach applied to development of anesthesia care based upon a strong foundation in physical assessment, physiological monitoring, applications of pharmacology, anesthesia systems, physical and chemical basic sciences. Prerequisite: Admission to the nurse anesthesia program or permission of instructor. LEC.

NURA 835. Advanced Physical Assessment and Patient Care Technology for Anesthesia. 3 Hours.
This course is designed to develop and refine the physical assessment skills of the practitioner as well as enhance their understanding, interpretation, and application of laboratory measurements and advanced diagnostic procedures in the perioperative setting. The course is arranged in a systems approach with emphasis placed on the cardiovascular, pulmonary, renal, neurological, and endocrine. Diagnostic procedures and laboratory values specific to each of these systems and their relevance to anesthesia principles and practice will be discussed. The selection of appropriate monitoring devices specific to each system related to individual patient needs will be discussed. Prerequisite: Permission of instructor. LEC.

NURA 839. Regional Anesthesia/Pain Management. 3 Hours.
Includes study of conductive anesthesia techniques, pharmacokinetics of local anesthetics, anatomical placement, and physiologic response. The course is inclusive of acute and chronic pain management techniques. LEC.

NURA 880. Advanced Topics: _____, 1-4 Hours.
Special study allowing a student to pursue a particular subject through readings, directed assignments, and conferences with a faculty member. Prerequisite: Consent of instructor. LEC.

NURA 889. Introduction to Theory, Research Methods and Evidence-Based Practice. 3 Hours.
Methods of theory development and analysis provide the foundation for the study of concepts and theories from nursing, anesthesiaology and related scientific disciplines. Historical, scientific and philosophical frameworks relevant to the theoretical basis of nurse anesthesia are explored. The fundamentals of research methodology are examined including elements of design, measurement, statistical analysis and dissemination. The relationships between research, theory and practice are developed to create an awareness of how "best practice" resources support professional growth, competence and quality. Prerequisite: Permission of instructor. LEC.

NURA 892. Applied Statistics and Analysis in Health Care. 3 Hours.
Concepts include graduate-level statistical reasoning, statistical principles, and the role as the scientific basis for clinical and public health research and practice. Content includes hospital-based statistics, introduction to epidemiology, relationship of research design to statistical methods, research ethics/protocol, hypothesis testing, and data management. Prerequisite: Permission of instructor. LEC.

NURA 901. Evaluation and Application of Evidence-Based Practice in Anesthesia I. 1 Hour.
First of four courses in which the student will use analytic methods to critically appraise existing literature from nurse anesthesiaology and other disciplines to determine and implement the best evidence for practice. An exploration of the design, implementation and evaluation of quality improvement methodologies will lead the student to an appreciation of the safe, effective, efficient and timely delivery of patient-centered anesthesia care. Previous student knowledge in the domain of research analysis will be applied to the design of evidence-based interventions in current anesthesia practice. Prerequisite: Permission of instructor. LEC.

NURA 902. Evaluation and Application of Evidence-Based Practice in Anesthesia II. 1 Hour.
Second of four courses in which the student will use analytic methods to critically appraise existing literature from nurse anesthesiaology and other disciplines to determine and implement the best evidence for practice. An exploration of the design, implementation and evaluation of quality improvement methodologies will lead the student to an appreciation of the safe, effective, efficient and timely delivery of patient-centered anesthesia care. Previous student knowledge in the domain of research analysis will be applied to the design of evidence-based interventions in current anesthesia practice. Prerequisite: Permission of instructor. LEC.

NURA 903. Evaluation and Application of Evidence-Based Practice in Anesthesia III. 1 Hour.
Third of four courses in which the student will use analytic methods to critically appraise existing literature from nurse anesthesiaology and other disciplines to determine and implement the best evidence for practice. An exploration of the design, implementation and evaluation of quality improvement methodologies will lead the student to an appreciation of the safe, effective, efficient and timely delivery of patient-centered anesthesia care. Previous student knowledge in the domain of research analysis will be applied to the design of evidence-based interventions in current anesthesia practice. Prerequisite: Permission of instructor. LEC.

NURA 904. Evaluation and Application of Evidence-Based Practice in Anesthesia IV. 1 Hour.
Fourth of four courses in which the student will use analytic methods to critically appraise existing literature from nurse anesthesiaology and other disciplines to determine and implement the best evidence for practice. An exploration of the design, implementation and evaluation of quality improvement methodologies will lead the student to an appreciation of the safe, effective, efficient and timely delivery of patient-centered anesthesia care. Previous student knowledge in the domain of research analysis will be applied to the design of evidence-based interventions in current anesthesia practice. Prerequisite: Permission of instructor. LEC.

NURA 912. Leadership in Nurse Anesthesia I. 1 Hour.
First of two courses which focus the students on leadership projects which were designed in NURA 800, Professional Aspects of Anesthesia. Students will apply a variety of leadership theories as they conduct the projects with nurse anesthesia faculty supervision. At the conclusion of
NURA 913, students will evaluate the projects and determine if goals were met, recognize which principles of leadership theory(ies) were utilized in the projects, and prepare an action plan for revisions. Presentations and self-analysis of the projects will be posted as VOPPTs on the ANGEL course site. Prerequisite: Permission of instructor. FLD.

NURA 913. Leadership in Nurse Anesthesia II. 1 Hour.
Second of two courses which focus the students on leadership projects which were designed in NURA 800, Professional Aspects of Anesthesia. Students will apply a variety of leadership theories as they conduct the projects with nurse anesthesia faculty supervision. At the conclusion of NURA 913, students will evaluate the projects and determine if goals were met, recognize which principles of leadership theory(ies) were utilized in the projects, and prepare an action plan for revisions. Presentations and self-analysis of the projects will be posted as VOPPTs on the ANGEL course site. Prerequisite: Permission of instructor. FLD.

NURA 924. Advanced Practicum IV. 2 Hours.
Fourth of six clinically-based courses related to the art and science of advanced nurse anesthesia practice and care of patients with specialized anesthesia care. The courses are divided into sequential clinical practicum related to diverse patient types in both normal and abnormal states and for those requiring anesthesia care in specialized areas (cardiothoracic, obstetrics, neurosurgical, etc.) Participation in case presentations may be required as warranted by clinical events. An opportunity is provided to apply advanced clinical decision making skills and evidence-based research to the assessment, management, and evaluation of complex health care problems of a diverse patient population in the perianesthesia care setting. Prerequisite: Permission of instructor. PRA.

NURA 925. Advanced Practicum V. 2 Hours.
Fifth of six clinically-based courses related to the art and science of advanced nurse anesthesia practice and care of patients with specialized anesthesia care. The courses are divided into sequential clinical practicum related to diverse patient types in both normal and abnormal states and for those requiring anesthesia care in specialized areas (cardiothoracic, obstetrics, neurosurgical, etc.) Participation in case presentations may be required as warranted by clinical events. An opportunity is provided to apply advanced clinical decision making skills and evidence-based research to the assessment, management, and evaluation of complex health care problems of a diverse patient population in the perianesthesia care setting. Prerequisite: Permission of instructor. PRA.

NURA 926. Advanced Practicum VI. 2 Hours.
Sixth of six clinically-based courses related to the art and science of advanced nurse anesthesia practice and care of patients with specialized anesthesia care. The courses are divided into sequential clinical practicum related to diverse patient types in both normal and abnormal states and for those requiring anesthesia care in specialized areas (cardiothoracic, obstetrics, neurosurgical, etc.) Participation in case presentations may be required as warranted by clinical events. An opportunity is provided to apply advanced clinical decision making skills and evidence-based research to the assessment, management, and evaluation of complex health care problems of a diverse patient population in the perianesthesia care setting. Prerequisite: Permission of instructor. PRA.

OCTH 388. Human Anatomy. 6 Hours.
This course will explore the human body to develop an understanding of how anatomy influences the occupational therapy process. This course will use a biomechanical approach to guide assessment and intervention in examining occupations. LEC.

OCTH 395. Orientation to the Occupational Therapy Profession. 3 Hours.
This course will describe occupation and discuss the philosophy/history, current and future directions of the occupational therapy profession. We will explore professionalism including ethics and professional behaviors, professional communication/relationships, and involvement with professional/regulatory associations within context of occupational therapy. LEC.

OCTH 401. Theory and Practice in Occupational Therapy. 2 Hours.
This course will explore conceptual theoretical models in occupational therapy and the relationship with professional reasoning. This course will use small case-based groups to apply theoretical models. LEC.

OCTH 422. Analysis and Adaptation of Occupations I. 4 Hours.
This course will analyze the role of occupations and the factors influencing occupational performance in everyday contexts. This course will use service learning as the context for understanding occupation, the occupational therapy process, and person-centered practice. LEC.

OCTH 439. Practicum I. 2 Hours.
This course will use a person-centered approach to engage with individuals across the life span in their natural contexts. This course will incorporate observation and interview skills with individuals across the life span emphasizing participation in everyday life. LEC.

OCTH 435. Lifespan Development from an Occupational Perspective. 4 Hours.
This course will discuss developmental theories and study how occupations change across the lifespan. We will emphasize the need to examine participation in meaningful activities within authentic contexts with considerations for the impact of a disability on occupational performance. LEC.

OCTH 445. Contexts of Occupation. 2 Hours.
This course will explore the importance of context in order to facilitate understanding how the person, the context, the environment, and the task all interact to guide occupational performance in everyday life. LEC.

OCTH 455. Neuroscience Analysis of Occupational Performance. 3 Hours.
This course will examine human behavior and occupational performance in relation to function and dysfunction of the nervous system, both in formulating potential behavioral signs when a specific neurological site is presented, and in hypothesizing about neurological involvement when given a client description. LEC.

OCTH 462. Physical Considerations in Facilitating Occupational Performance. 4 Hours.
This course will use scientific reasoning to explore the impact of selected medical conditions on person factors and occupational performance in everyday life. An understanding of injury and disease processes is paired with appropriate occupational therapy assessment and intervention strategies to facilitate optimal occupational outcomes. LEC.

OCTH 470. Practicum I. 2 Hours.
This course will engage in the occupational therapy process and participate in service provision to individuals/families through level I fieldwork experiences. We will apply the components of documentation to the occupational therapy process with emphasis on note writing and goal development. Students will demonstrate command of occupational
therapy knowledge through successful completion of professional growth assessment. LEC.

**OCTH 472. Psychiatric Considerations in Facilitating Occupational Performance. 3 Hours.**
This course will apply theory and evidence to occupational therapy practice in mental health settings. This course will consider selected psychiatric disorders and their impact on occupational performance in everyday life. LEC.

**OCTH 482. Analysis and Adaptation of Occupations II. 2 Hours.**
This course will apply the occupational therapy framework to understand occupation as a therapeutic means and end to occupational therapy practice. This course will use service learning as the context for understanding occupation, the occupational therapy process, and person-centered practice. LEC.

**OCTH 490. Evaluation and Assessment of Occupational Performance. 2 Hours.**
This course will apply the fundamentals of the evaluation process to understand occupational performance across the lifespan. We will examine how to select, interpret and document formal and informal measures within a person-centered, contextually relevant approach. LEC.

**OCTH 680. Independent Study. 1-6 Hours.**
An elective course to allow students to pursue areas of special interest under direction of faculty of his or her choice. Investigation of special issues relevant to an aspect of occupational therapy practice will include study of pertinent practice factors. Student will complete special projects relevant to the practice areas, such as oral presentation, written paper or case analyses. May be repeated for credit. Prerequisite: Permission of department and instructor (offered Spring, Summer and Fall). IND.

**OCTH 704. Planning and Intervention in Occupational Therapy. 2 Hours.**
This course will use professional reasoning to analyze cases across the lifespan. We will work in small groups using a problem-based format with faculty mentors as we develop an occupational profile, occupational analysis and evidence-based intervention plans for each case. LEC.

**OCTH 710. Service Management: Delivery Systems. 1 Hour.**
This course will explore how service delivery systems influence pragmatic reasoning and occupational therapy practice. We will examine American and global health care systems along with occupational therapy health care delivery settings with a focus on quality, cost, and access related to service delivery. Teaching and learning experiences occur through lecture, on-line materials, class discussion and small group activities. LEC.

**OCTH 715. Supervision, Team Relations, and Management Communication. 1 Hour.**
This course emphasizes entry level skills related to supervision, teamwork, and communication within practice environments. LEC.

**OCTH 720. Occupational Therapy Practice Models. 7 Hours.**
This course will use practice models to guide evaluation and intervention in occupational therapy practice. Students will gain an understanding of historical and contemporary models, learn the evidence underlying each model and conduct assessments with a consumer from each of the contemporary models. LEC.

**OCTH 725. The Research Process. 1 Hour.**
This course will transition from understanding and appraising research (OCTH 783) to generating research (OCTH 790). The purpose of this course is to guide students through planning research by introducing the components of research and describing ways in which research may be conducted. The course reviews research ethics, writing research questions and hypotheses, sampling, measurement and data collection, components of quantitative and qualitative research, and information about disseminating research. LEC.

**OCTH 730. Practicum III. 2 Hours.**
This course will build upon practicum and level I fieldwork experiences to continue developing necessary skills for level II fieldwork experiences. We will determine the relevant variables for intervention, work collaboratively with others within each setting, analyze, and reflect upon the experience. We will analyze principles of evidence-based practice and occupation-based intervention. LEC.

**OCTH 738. Special Topics in Practice. 1-2 Hours.**
Focused study of theory application, professional topics and skills, and emerging practice questions. Learning experiences may be in the form of guided readings and discussion, directed projects, seminars, or community/clinical experience with focus on advanced supplemental or exploratory learning. Specific topics and formats will vary as they are generated by student interest and faculty expertise. LEC.

**OCTH 750. Case-Based Clinical Reasoning. 2 Hours.**
This course will apply the professional reasoning process to understand individuals’ occupational performance and analyze services provided based on cases from level II fieldwork experiences. We will participate in small group discussion using a problem-based format to conduct case analysis and develop evidence-based intervention plans. LEC.

**OCTH 755. Issues and Trends Seminar. 1 Hour.**
This course will analyze key professional, political, and cultural issues and trends that impact service provision and the populations served by occupational therapists. This seminar format incorporates student-driven service experiences, discussion forums, and small group work to examine issues/trends and recognize opportunities to shape the future of the occupational therapy profession. LEC.

**OCTH 760. Professional Development and Leadership in Service Management. 3 Hours.**
This course will discuss professional responsibilities and career development opportunities as they relate to leadership, administration, and management of occupational therapy services. We will use reflective assessments to identify professional leadership strengths and career paths. Students working in small work groups will apply management principles to develop and propose community-based health promotion programs. LEC.

**OCTH 765. Family and Community Service Systems. 2 Hours.**
This course will use professional reasoning to examine occupational practice within various delivery systems. We will use lecture and small group seminars to analyze systems from level II fieldwork experiences and develop a program evaluation plan based on collaborations between students and fieldwork supervisors. LEC.

**OCTH 770. Level II Fieldwork, Part 1. 6 Hours.**
A required full-time, three-month supervised experience in a facility meeting specified criteria. Qualified occupational therapists supervise the experience. Students will be exposed to a variety of age ranges and disabilities within different service delivery systems. Prerequisite: Satisfactory completion of required academic coursework. LEC.

**OCTH 775. Level II Fieldwork, Part 2. 6 Hours.**
A required full-time, three-month supervised experience in a facility meeting specified criteria. Qualified occupational therapists will supervise this experience. Students will be exposed to a variety of age ranges and disabilities within different service delivery systems. Ages, disabilities, and service provision systems for this course will differ from the student’s prior fieldwork experience. Prerequisite: Satisfactory completion of required academic coursework. LEC.
OCTH 776. Population-Based Clinical Reasoning. 3 Hours.
This course will consider population-based concepts and theories to identify, prioritize, and meet the health and life participation needs of populations. Within an interprofessional online learning context, students collaborate to develop community-based assessment and intervention emphasizing promotion, maintenance and restoration of health and wellness and disease prevention for specific populations. Within an interprofessional online learning context, students collaborate to develop community-based assessment and intervention emphasizing promotion, maintenance and restoration of health and wellness and disease prevention for specific populations. OTD 770. Practicum in Specialty Practice Area. 3 Hours.
This course is designed to support and correspond with OTD 770. Students will complete this course as they work in a clinical environment. They will meet with a faculty mentor to support the analysis and dissemination of their empirical information gathered during OTD 770. They will present their empirical literature findings to their professional colleagues via a clinical research forum. Students will be expected to create three forms of information dissemination and critically review the professional feedback they receive. PREREQUISITE: Permission of department. LEC.

OCTH 780. Elective Level II Fieldwork. 3-6 Hours.
An elective (optional) supervised experience in a facility meeting specific criteria. Qualified occupational therapist will supervise this experience. This fieldwork would allow students to pursue areas of special interest. Length and time commitment of experience will be commensurate with credit hours (e.g. each credit requires 80 hours of fieldwork contact at specified site). Prerequisite: Satisfactory completion of required academic coursework and OCTH 770.. LEC.

OCTH 783. Evidence-Based Practice. 2 Hours.
This course will review, appraise, and integrate various levels of evidence to inform occupational therapy practice. Students will learn where and how to find relevant evidence as well as what factors should be considered in the assessment of evidence. We will review statistics and their use in interpreting outcome data. Students will also learn to synthesize and translate evidence into useful information for practice. LEC.

OCTH 790. Research Practicum and Professional Writing. 3 Hours.
This course will explore how the process of conducting a faculty-mentored research project becomes a platform for developing occupational therapy principles and for guiding practice, and how conveying meaning through professional writing is essential for communicating outcomes, interpretations, and instructions. Prerequisite: OCTH 727. Students from programs outside the MS in Occupational Therapy or PhD in Therapeutic Science need to contact the Occupational Therapy Department for permission to enroll. LEC.

OCTH 776. Population Based Health Care. 3 Hours.
This course will coordinate with OCTH 776. The purpose of this course is to introduce concepts and theories related to providing health care to complex systems and aggregates in the community, state and nation. Emphasis is placed on the promotion, maintenance and restoration of health and wellness and the prevention of disease. Internal and external environmental components which include historical, political, social, cultural and economic factors are presented. The role of the health care provider in identifying, prioritizing and meeting the health and life participation needs of aggregates is discussed. PREREQUISITE: Permission of department. LEC.

OTD 780. Practicum in Specialty Practice Area. 3 Hours.
This course is designed to support and correspond with OTD 770. Students will complete this course as they work in a clinical environment. They will meet with a faculty mentor to support the analysis and dissemination of their empirical information gathered during OTD 770. They will present their empirical literature findings to their professional colleagues via a clinical research forum. Students will be expected to create three forms of information dissemination and critically review the professional feedback they receive. PREREQUISITE: Permission of department. LEC.

OTD 783. Evidence Based Practice. 3 Hours.
This course will coordinate with OCTH 783. Students will address the parameters and criteria for evidence-based practice. They will build a library of information that facilitates their evaluation of the status, beliefs, and practice of Occupational Therapy. They will develop skill in the synthesis of empirical evidence and explore dissemination options to service recipients. Students' work will culminate in the formulation of a decision-making paradigm for their future practice decisions. PREREQUISITE: Permission of Department. LAB.

OTD 789. Practice and Research. 3 Hours.
This is an elective course that allows students to pursue areas of special interest under the direction of a faculty member of his or her choice. This course is designed to support students' learning as they complete their pre-doctoral studies. Investigation of special issues relevant to an aspect of occupational therapy practice will include study of pertinent practice factors. Students will complete special projects relevant to the practice areas of interest, such as an oral presentation, written paper, or case analysis. May be repeated for credit. PREREQUISITE: Permission of Department. LEC.

OTD 825. Qualitative Research Methods. 3 Hours.
This course is an introduction to qualitative research techniques. Students will have several opportunities to gain hands-on experience using fundamental qualitative research techniques to sharpen their data collection, analysis and write-up skills. The goals of this course are to better understand the role qualitative techniques play in research, identify various ethical issues, sharpen interview and observation skills, and develop foundation skills for collecting, analyzing and interpreting qualitative data. Prerequisite: Permission of Department. Lecture course. LEC.

OTD 835. Quantitative Research for Applied Science. 3 Hours.
Research relevant to therapeutic intervention comes from a variety of disciplines involving varied research designs and analysis strategies. Students in this course will examine selected research studies and gain skill in analyzing methods and results as well as in applying research findings to practical problems. Students will conduct a systematic review on a specific area of occupational therapy practice. LEC.

OTD 850. Teaching Practicum. 1-3 Hours.
The purpose of this course is to provide practical learning whereby students receive individual mentorship for the development, implementation and evaluation of a teaching experience. Students will be responsible for developing the material, instructing students, grading assignments and evaluating the teaching experience. The teaching experience is expected to include at least 12 hours of face to face instruction (or the equivalent in on-line teaching or written materials). Teaching experiences can include MOT program lectures or labs, continuing education workshops, patient education programs, or staff inservices or another experience that meets the time and competency requirements.
OTD 860. Theory and Practice in Occupational Therapy. 3 Hours.
This course will cover major theoretical frameworks and practice models in occupational therapy. The history of occupational therapy will be included to provide a basis for understanding the evolution of the profession as well as past and current issues and trends. Students will learn how to critically analyze theories, evaluate research evidence related to specific theories and practice models, and assess pragmatic issues in applying practice models to specific settings and populations. LEC.

OTD 865. Theory Based Practice. 3 Hours.
This course is designed to critically review Occupational Therapy theories, research, practice models and frameworks using the tenets of occupation based practice. Students will analyze seminal literature from occupational science and relate theory to evidence to practice. Students will review their specified area of practice to develop a proposed method of practice that incorporates empirical evidence and practice methods. Finally, students will select a mentor from their practice area to review their proposal. Critical feedback will be incorporated into a final presentation and paper. PREREQUISITE: Permission of Department. LEC.

OTD 875. Professional Development. 3 Hours.
This course will explore professional development from an advanced practice perspective. Students will examine aspects of advanced practice such as leadership (both work and professional), management, group and system communication and change agency. They will explore these topics within their current practice settings and select an area of advanced skills to explore in more depth. Students will develop an understanding of how they can impact systems and contribute to the development of the occupational therapy profession. LEC.

OTD 880. Program Evaluation. 3 Hours.
Leadership in areas of specialty practice will require our graduates to critically evaluate their practice programs. In this course, students will explore the traditional and innovative ways to evaluate professional services and systems, and they will develop skills to conduct program evaluations. Students will examine the purpose and process of program evaluations in a variety of clinical settings. Through lecture, discussion and a project they will develop and execute a program evaluation in their area of practice. PREREQUISITE: Permission of Department. LEC.

OTD 885. Advanced Practicum. 1-3 Hours.
This practicum is designed to span 400 hours. Students will identify an area of practice through which they want to develop clinical initiatives and leadership. Selected field experiences will provide opportunities for program development, leadership, and information dissemination. Upon completion, the students will provide his or her clinical team with a program, or research based initiative, along with specified program evaluation methods. PREREQUISITE: Permission of Department and continuous enrollment until completion of competencies. LAB.

OTD 890. Capstone Project. 1-3 Hours.
The capstone project will comprise a written report that involves both literature and field research activity. A capstone project report represents the application of knowledge as well as the search for it, and differs from a thesis such that student opinion and experience is involved. The student must negotiate capstone objectives, evaluation standards and any potential approvals prior to his or her practicum. PREREQUISITE: Permission of Department and continuous enrollment until competencies totaling 6 credit hours are completed. IND.

OTD 899. Special Projects. 3 Hours.
This is an elective course that allows students to pursue areas of special interest under the direction of a doctoral faculty member of his or her choice. This course is designed to support doctoral training. Academic options range from research based studies and/or activities to critical analysis of clinical practice methods. Students will complete special projects relevant to their designated practice area of interest. Students must negotiate learning objectives, academic projects and evaluation standards with their mentor. May be repeated for credit. PREREQUISITE: Permission of department. LEC.

Occupational Therapy (MS) Courses

OTMS 699. Special Projects. 1-6 Hours.
(1-6) An elective course to allow student investigation of special issues or problems relevant to applied research and/or practice, under the direction of a faculty member chosen by the student. Systematic coverage of current issues may include a research investigation or study related to pertinent sociocultural trends, practice factors, or emerging issues in service provision. Students will complete special projects such as oral presentations, written papers, or case analysis as negotiate with the faculty mentor. May be repeated for credit. Prerequisite: Enrollment as a non-degree seeking student and permission of the instructor. IND.

OTMS 701. Professional Development. 3 Hours.
With an emphasis on leadership skills and professionalism, this course will include mentoring, supervising, managing, organizing presentations, and teaching, writing, and contributing through professional organizations (interdisciplinary and occupational therapy). Students professionalism on issues of concern to administrators, staff therapists, educators, or those in private practice. Prerequisite: Permission of Instructor. LEC.

OTMS 705. Multidisciplinary Theoretical Perspectives. 3 Hours.
Students will identify and explore the key theories in occupational therapy and those more specific to their emphasis area with an emphasis on those currently influencing clinical reasoning. Students will demonstrate an understanding of contemporary theories and be able to compare and contrast key theories. Students will develop rationales for theory guided interventions. Furthermore, they will develop an impact summary in their identified area of emphasis. Prerequisite: Permission of Instructor. LEC.

OTMS 735. Practice Models for Applied Science. 3 Hours.
Issues and trends relative to advanced application of theory, assessment and intervention with emphasis on pediatrics will be presented in lecture and discussion. Special projects will emphasize the student’s special interests. Although faculty directed, student presentation will be emphasized. LEC.

OTMS 799. Special Topics in Occupational Therapy. 1-6 Hours.
An elective course to allow student investigation of special issues or problems relevant to applied research and/or practice, under the direction of a faculty member chosen by the student. Systematic coverage of current issues may include a research investigation or study related to pertinent sociocultural trends, practice factors, or emerging issues in service provision. Students will complete special projects such as oral presentations, written papers, or case analyses as negotiate with the faculty mentor. May be repeated for credit. Prerequisite: Permission of instructor. IND.

OTMS 800. Research Proseminar. 1 Hour.
A proseminar conducted by the core graduate faculty in Occupational Therapy and Therapeutic Science. Twice-monthly meeting will involve student and faculty presentations of their current research, as well as provide more opportunities to obtain feedback on research proposals. May be taken more than once for a total of four credits. (Same as TS 800.) RSH.
OTMS 801. Applied Neuroscience. 3 Hours.
The course will address the major functions of the systems within the central nervous system and how they interact to produce responses to environmental demands. Sensory input, central processing, and output mechanisms will be analyzed. The student will then appraise human behavior in relation to function and dysfunction of the nervous system, both in formulating potential behavioral signs when a specific neurological site is presented, and in hypothesizing about neurological involvement when analyzing a particular individuals problems. Prerequisite: Undergraduate neuroscience course or permission of instructor. LEC.

OTMS 835. Interpreting Research for Applied Science. 3 Hours.
This on-line course examines selected research studies, analysis methods and results employed, and applies research findings to practical problems. Students will design their own research project reflecting their area of interest. RSH.

OTMS 890. Graduate Research. 1-6 Hours.
Students investigate an empirical question relevant to occupational therapy and write a literature review and a research proposal under the guidance of a faculty advisor. Pending approval of the proposal, the student will carry out initial phases of the project, including materials preparation and data collection. RSH.

OTMS 899. Thesis. 1-6 Hours.
Course requires data analyses, interpretation, and scholarly writing based on individual original research carried out under the guidance of the student's adviser. These activities, along with an oral presentation of research, must meet with approval of the student's advisory committee to complete thesis requirements. Prerequisite: OTMS 890. THE.

Physical Therapy Rehab Sci Courses

PTRS 701. Professional Interactions. 1 Hour.
Introduces the student to the physical therapy profession and professional role expectations. The history of physical therapy as it relates to the professionalization process, including ethical and legal obligations, as well as student responsibilities. It also addresses the development of effective communication and interpersonal skills and appreciation for individual and cultural differences within clinical settings. Professional responsibilities in physical therapy are introduced, including codes of ethical conduct and awareness of appropriate professional behaviors directed by organizational and legislative regulations. The development of medical terminology recall and recognition skills is also covered in the course. Prerequisite: Admission into the DPT program or permission of instructor. LEC.

PTRS 702. Physical Therapy Documentation and Health Informatics. 1 Hour.
Emphasizes the development of effective documentation skills, including exposure to a variety of documentation formats across various practice setting and implications for proper reimbursement. Concepts of healthcare informatics are introduced including use of an electronic documentation systems and the capability of information systems to support quality care. Disablement classification models, behavioral objectives, and functional outcome concepts are applied to organize patient data and identify treatment goals. Prerequisite: Successful completion of semester 1 of the DPT curriculum or permission of instructor. LEC.

PTRS 703. Applied Anatomy. 1 Hour.
This course introduces the learner to how physical therapists use anatomical knowledge to gather basic examination information about the patient. Learning opportunities include lecture and laboratory. Prerequisite: Admission into the DPT program or permission of instructor. LEC.

PTRS 704. Physical Therapy Interventions I. 3 Hours.
Skills required by the physical therapist in the generalist acute care environment. A series of patient care related lectures, demonstrations, videotapes and laboratories are integrated to teach proper body mechanics, infection control and sterile technique, basic assessment, transfers, positioning, tubes, ostomies, clinic safety procedures, tilt table usage, prescribing a proper wheelchair, applying proper therapeutic range of motion exercises, and using appropriate assistive devices for gait and transfers. Prerequisite: Successful completion of semester 1 of the DPT curriculum or permission of instructor. LEC.

PTRS 705. Physical Therapy Interventions II. 4 Hours.
Students will apply the skills obtained in clinical coursework and begin clinical problem-solving using common physical therapy treatment interventions. Topics include integumentary management for wound healing interventions, therapeutic modalities with an emphasis on the healing process and electrical modalities. Learning opportunities include lecture and laboratory. Prerequisite: Successful completion of the first 2 semesters of the DPT curriculum or permission of the instructor. LEC.

PTRS 710. Advanced Topics in Human Anatomy. 6 Hours.
The student will obtain a basic understanding of human gross anatomy with specific knowledge of upper and lower extremities, head and neck, back and neural structures. At the end of this course the student will be able to apply this knowledge of anatomy to functional and clinical situations. Prerequisite: Admission into the DPT program or permission of instructor. LEC.

PTRS 711. Applied Kinesiology and Biomechanics. 4 Hours.
This course involves a study of joint structure and function, and biomechanical principles underlying human motion. Emphasis is placed on the application of kinesiological principles to clinical physical therapy situations. Learning opportunities include lecture and laboratory. Prerequisite: Successful completion of semester 1 of DPT curriculum or permission of instructor. LEC.

PTRS 712. Pathophysiology and the Physical Therapy Diagnosis. 4 Hours.
Review of integrative human physiology and pathophysiology with an emphasis upon homeostatic mechanisms and etiologies of disease. The interrelationships of function and dysfunction at the molecular, cellular and tissue level (pathology), organ and systemic level (impairment) and to the total human body (functional limitations) will be applied in each of the body systems. Discussions and applied materials will be tailored to the physical therapist with an emphasis on PT-specific diagnoses. Prerequisite: Admission into the post-professional DPT program, or consent of instructor. LEC.

PTRS 715. Applied Musculoskeletal Anatomy. 3 Hours.
The course involves a study of joint structure, joint function, and the biomechanical principles underlying human motion. All major peripheral joints and the spine will be studied. Application of functional anatomy to clinical physical therapy situations will be emphasized. Prerequisite: admission into post-professional DPT program, or consent of instructor. LEC.

PTRS 720. Integrated Clinical Experience I. 1 Hour.
This course consists of supervised experiences in a clinical setting and seminar sessions that provide preliminary opportunities for application of didactic course work. Emphasis will be placed on the development of communication and interpersonal skills in the clinical setting, as well as documentation and physical therapy skills and procedures that have been introduced in courses. Prerequisite: Successful completion of semester 1 of the DPT curriculum or permission of instructor. CLN.
PTRS 730. Integrated Clinical Experience II. 1 Hour.
This course consists of supervised experiences in a clinical setting and seminar sessions that provide preliminary opportunities for application of didactic course work. Emphasis will be placed on the development of communication and interpersonal skills in the clinical setting, as well as documentation and physical therapy skills and procedures that have been introduced in courses. Prerequisite: Successful completion of the first 2 semesters of the DPT curriculum or permission of instructor. CLN.

PTRS 740. Evidence-Based Orthopedic Rehab. 3 Hours.
Students will apply the concepts taught in PTRS 715 (Applied Musculoskeletal Anatomy) and skills obtained in their individual clinical practice. This course will include discussion related to current treatment approaches effecting peripheral and spinal joints. The course activities include review of the current evidence based scientific literature related to orthopedic conditions and interventions, web-based discussion related to individual patient case scenarios and lab activities associated with treatment techniques including mobilization/manipulation, self-mobilization and therapeutic exercise. Prerequisite: Entry into post-professional DPT program or permission of instructor. LEC.

PTRS 745. Orthopedic Physical Therapy I. 6 Hours.
Builds on the foundation from anatomy, kinesiology and biomechanics. Examination skills and treatment interventions that apply specifically to the musculoskeletal system are provided. Basic examination skills for all peripheral joints, gait analysis, and therapeutic exercise are discussed and reviewed for common orthopedic conditions. The course will integrate instruction with case-based clinical problem solving. Learning opportunities include lecture and laboratory. Prerequisite: Successful completion of the first 2 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 746. Musculoskeletal Conditions and Management. 3 Hours.
Mastery of physical therapy subjective and objective examination and treatment intervention for patients of all ages who present with a musculoskeletal problem with emphasis on amputation, prosthetics, upper and lower extremity orthoses, fracture management and connective tissue disorders. Emphasis will be placed on the most common clinical problems and physical therapy diagnoses. Learning opportunities include lecture and laboratory. Prerequisite: Successful completion of the first 2 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 750. Research in Evidence-Based Physical Therapy Practice. 3 Hours.
An introduction to research in the evidence-based physical therapy practice including the Scientific Method, library and multimedia resources, research process, measurement theory (reliability and validity), research designs, experimental design principles, research ethics, critical review and analysis of research publications, statistical concepts, and writing of a research report and/or research proposal. Throughout, emphasis is placed on clinical research pertinent to physical therapy. Prerequisite: Successful completion of the first 2 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 810. Case Studies in PT Diagnosis. 2 Hours.
This course will provide students with the applied knowledge to medically screen patients for symptoms and signs that require the expertise of other health care professionals. Patient cases currently treated by the practicing physical therapist will be used to compare diagnostic tests and values. The course will focus on comorbidities and their implications in diagnosis and treatment. The course will be delivered via the web. Prerequisite: Admission into the post-professional DPT program, or approval by the instructor. LEC.

PTRS 815. Case Studies in Pathophysiology. 2 Hours.
Physical therapists need skills to relate human pathophysiology to its clinical presentation. The interrelationships of function and dysfunction at the molecular, cellular and tissue level (pathology), organ and systemic level (impairment) and to the total human body (functional limitations) will be applied in each of the body systems. Discussions and applied materials will be tailored to the patient population served by the therapist. Prerequisite: Admission into post-professional DPT program, or consent of instructor. LEC.

PTRS 817. Ethics in Health Care. 2 Hours.
Basic ethical concepts, principles, relevant theories and ethical decision making models applied to major contemporary health care issues and dilemmas facing health professionals. Development of skills for ethical clinical decision making is the focus. Prerequisite: Successful completion of the first 3 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 820. Integrated Clinical Experience III. 2 Hours.
This course consists of supervised experiences in a clinical setting and seminar sessions that provide intermediate opportunities for application of didactic course work. Emphasis will be placed on the development of communication and interpersonal skills in the clinical setting, as well as documentation and physical therapy skills and procedures that have been introduced in courses. Prerequisite: Successful completion of the first 3 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 825. Exercise Physiology. 3 Hours.
This course will provide entry-level DPT students with the knowledge of the physiological functions and adaptations of the human body with exercise. Emphasis will be placed on familiarizing students with sound medical rationale and the basis for treatment considering the immediate and long-term effects of exercise. Prerequisite: Successful completion of the first 3 semesters of the DPT curriculum, or consent of the instructor. LEC.

PTRS 826. Cardiopulmonary Physical Therapy. 4 Hours.
Anatomy, physiology and pathophysiology of the cardiovascular and pulmonary systems are studied and related to clinical signs and symptoms. Students are introduced to common evaluation and treatment techniques, as well as the rationale for including physical therapy in the management of cardiopulmonary conditions. These topics are discussed in conjunction with case studies and current research. Learning opportunities include lecture and laboratory. Prerequisite: Successful completion of the first 5 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 828. Medical Imaging. 1-3 Hours.
An introduction to medical imaging and an overview of its role in the health care delivery system. Topics include an introduction to basic imaging equipment with an emphasis on digital acquisition and processing. Factors affecting the quality of images and limitations to the techniques are reviewed. Imaging techniques covered include: X-rays, CT scans, Nuclear medicine, ultrasound, MRI and PET. This course will also include a component covering the microscopic anatomy of cells. Prerequisite: Admission into the post-professional DPT program or DPT program or permission of instructor. LEC.

PTRS 830. Integrated Clinical Experience IV. 3 Hours.
This course consists of supervised experiences in a clinical setting and seminar sessions that provide intermediate opportunities for application of didactic course work. Emphasis will be placed on the development of communication and interpersonal skills in the clinical setting, as well as documentation and physical therapy skills and procedures that have been introduced in courses. Prerequisite: Successful completion of the first 4 semesters of the DPT curriculum or permission of instructor. CLN.
PTRS 832. Health Promotion Through the Lifespan. 2 Hours.
This course focuses on the role of the physical therapist in health promotion across the lifespan and in specific populations. Prerequisite: Successful completion of the first 5 semesters of the DPT curriculum, or permission of instructor. LEC.

PTRS 833. Pediatric Physical Therapy. 3 Hours.
This course introduces fundamental concepts necessary for the entry-level physical therapist to examine, evaluate, and treat the pediatric client. Lecture and lab experiences emphasize a problem-oriented approach to physical therapy management of children with musculoskeletal, neurological, and/or cardiopulmonary impairments. Students will learn to recognize components of normal and abnormal development, particularly during the first year of life. Prerequisite: Successful completion of the first 5 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 834. Management in Patient Care. 1 Hour.
Designed to familiarize the entry-level therapist with contemporary issues in healthcare which impact the delivery of physical therapy. Professionalism, management and administrative principles are focused on management of direct patient care. Financial management specifically reimbursement for patient services, personal risk management, information management, personnel management, compliance and ethics related to patient care will be discussed. Discussion of professional development is intertwined throughout the course. Prerequisite: Successful completion of the first three semesters of the DPT curriculum or permission of the instructor. LEC.

PTRS 835. Rehabilitation Administration I. 3 Hours.
The first course of two three-credit hour management classes designed to review the American health care system as a whole, and to examine the specific areas that rehabilitation health care managers must understand in order to succeed in an increasingly competitive and financially driven system. Some of these areas include the system of health care delivery, legal issues, human resource principles, accounting, reimbursement, payors, Medicare/Medicaid, regulations, outcomes information management, etc. This course will apply all of the above items to real world examples in numerous health care settings so the student understands the complexities of many settings which physical therapy personnel may work. Each unit will build on the last so that at the end of the second management course the student will be capable of proposing, building, opening, and successfully running rehabilitation services in a multitude of settings. Prerequisite: Admission into the post-professional DPT program, or consent of instructor. LEC.

PTRS 836. Rehabilitation Administration II. 3 Hours.
The second course of two three-credit hour management classes designed to review the American health care system as a whole and to examine the specific areas that rehabilitation health care managers must understand in order to succeed in an increasingly competitive and financially driven system. Some of these areas include the system of health care delivery, legal issues, human resource principles accounting, reimbursement, payors, Medicare/Medicaid, regulations, outcomes information management, etc. This course focuses on reimbursement, legal and regulation issues and will apply presented principles to real world examples in numerous health care settings so the student understands the complexities of many settings in which physical therapy personnel may work. Each unit will build on the last so that at the end of the second management course the student will have the tools to propose, build, open and successfully run rehabilitation services in a multitude of settings. Prerequisite: Admission into the post-professional DPT program, or consent of instructor. LEC.

PTRS 837. Research Concepts in Evidence-Based Physical Therapy Practice. 3 Hours.
An applied research course with emphasis on evidence-based physical therapy practice including library and multimedia resources, research process, measurement theory (reliability and validity), research designs, experimental design principles, research ethics, critical review and analysis of research publications, writing of a research report and/or research proposal, and statistical concepts and data analysis. Throughout, emphasis is placed on clinical research pertinent to physical therapy. Prerequisite: Admission into the post-professional DPT program, or consent of instructor. LEC.

PTRS 838. Advanced Topics in Pediatric Practice. 2 Hours.
This web-based course will involve study of current clinical decision-making frameworks, service delivery models, and treatment approaches for children age birth through 21 with or at risk for developmental delay and/or disability. Course activities will include review of current scientific literature and online discussion of individual patient case scenarios. Prerequisite: For the DPT program: successful completion of PTRS 833 or consent of instructor. For the post-professional DPT program: admission into the program or consent of instructor. LEC.

PTRS 840. Integrated Clinical Experience V. 3 Hours.
This course consists of supervised experiences in a clinical setting and seminar sessions that provide intermediate opportunities for application of didactic course work. Emphasis will be placed on the development of communication and interpersonal skills in the clinical setting, as well as documentation and physical therapy skills and procedures that have been introduced in courses. Prerequisite: Successful completion of the first 5 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 845. Orthopedic Physical Therapy II. 6 Hours.
Incorporates concepts from anatomy, kinesiology, basic biomechanics and knowledge of peripheral joint examination and treatment. Terminology, examination, evaluation, development of a treatment plan and treatment techniques and basic differential diagnosis skills for the spine and the temporomandibular joint (TMJ) are taught. Learning opportunities include lecture and laboratory. Prerequisite: Successful completion of the first 4 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 846. Orthopedic Physical Therapy III. 3 Hours.
Incorporates concepts from anatomy, kinesiology, biomechanics, and Orthopedic Physical Therapy I and Orthopedic Physical Therapy II courses. Terminology, examination, evaluation, development of a treatment plan and treatment techniques and advanced differential diagnosis skills for complex peripheral and/or spinal disorders are taught. Learning opportunities include lecture and laboratory. Prerequisite: Successful completion of the first 6 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 850. Neuroscience. 4 Hours.
This course will introduce the principles of neuroscience and describe their application as relevant to physical therapists. The course will begin with the terminology of the nervous system, then cover the major functions of the peripheral, autonomic and central nervous systems. The manner with which these systems interact to produce appropriate responses to external demands will be discussed. The behavioral consequences of damage to each systems will be integrated throughout. Particular emphasis will be placed on the sensorimotor role in perception and the control of movement. Lecture and Lab. Prerequisite: Successful completion of the first 3 semesters of the DPT curriculum, or consent of the instructor. LEC.
PTRS 851. Lifespan Development. 4 Hours.
Examines physiological, neurological, and psychological factors that contribute to development across the lifespan. This course will explore developmental theories and changes in development of cognition, communication, physical, social/emotional, and adaptive skills. Emphasis will be on understanding healthy growth and development and learning how to help children, adolescents, and adults manage developmental challenges. This course will emphasize the need to examine participation in meaningful activities within authentic contexts with considerations for the impact of a disability on functional performance. Prerequisite: Successful completion of the first 4 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 852. Neurologic Physical Therapy and Rehabilitation I. 6 Hours.
This course will introduce the principles of neuroscience and describe their application as relevant to physical therapists. The course will introduce the terminology of the nervous system and cover the major functions of the nervous systems. This course will also integrate neurophysiology and neuroanatomy into the clinical presentation of adults with neuromuscular pathology. The etiology, epidemiology signs, and symptoms of selected neurological conditions will be presented. The medical management of patients with nervous system disorders will be presented in relationship to the practice of physical therapy. The course will introduce examination of impairments for persons with neuromuscular pathologies. Students will be presented with simple case studies and progress to more complex patient problems. Learning opportunities include lecture and laboratory. Prerequisite: Successful completion of the first 4 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 853. Neurologic Physical Therapy and Rehabilitation II. 6 Hours.
This course will focus on rehabilitation approaches for people with neuromuscular pathology. Students will examine factors that contribute to the control of voluntary movement and the learning of motor skills, and develop an understanding of the relationship between the brain and the purposeful movements that make us human. Students will acquire the skills to hypothesize about the relationship of health conditions and body function/structure to limitations in activities and participation in adults with neuromuscular pathology. A clinical decision making approach will combine contemporary rehabilitation approaches, consideration of psychosocial and cognitive factors, and research evidence in the discussion of complex patient cases. After completing this course, students will demonstrate novice-level knowledge and skills necessary to complete a physical therapy examination and develop a comprehensive treatment plan for adults with neuromuscular pathology. Learning opportunities include lecture and laboratory. Prerequisite: Successful completion of the first 5 semesters of the DPT curriculum or permission of the instructor. LEC.

PTRS 855. Pharmacology for Physical Therapists. 1 Hour.
Pharmacological background for the clinical treatment of patients referred to physical therapy. Fundamentals of the actions of drugs including mechanisms of therapeutic and adverse effects. Prerequisite: Admission to the DPT program or permission of instructor. LEC.

PTRS 858. Evidence-Based Rehabilitation of Patients Post-CVA. 3 Hours.
This course will provide students with the applied knowledge to medically screen patients for symptoms and signs that require the expertise of other health care professionals. Patient cases currently treated by the practicing physical therapist will be used to compare diagnostic tests and values. The course will focus on comorbidities and their implications in diagnosis and treatment. The course will be delivered through the web. Prerequisite: Admission into the post-professional DPT program, or approval of the instructor. LEC.

PTRS 860. Evidence-Based Research Practicum I. 1 Hour.
Supervised and directed experiences in conducting evidence-based research activities. The research activities involved in this course are broadly defined with emphasis on the enhancement of evidence-based physical therapy practice. The student will be supervised by a member of the faculty. This is a two-semester course. Prerequisite: Successful completion of the first 5 semesters of the DPT curriculum or permission of instructor. RSH.

PTRS 861. Evidence-Based Research Practicum II. 1 Hour.
Supervised and directed experiences in conducting evidence-based research activities. The research activities involved in this course are broadly defined with emphasis on the presentation and communication of an evidence-based research project. The student will be supervised by a member of the faculty. Prerequisite: Successful completion of the first 6 semesters of the DPT curriculum, or consent of instructor. RSH.

PTRS 865. Independent Study. 1-3 Hours.
Individually negotiated learning experiences appropriate to the interests and background of the student. Prerequisite: Admission to the DPT program, post-professional DPT program, or permission of instructor. IND.

PTRS 877. Administration in Physical Therapy. 2 Hours.
Designed to familiarize the entry-level therapist with contemporary issues in health care which impact the practice of physical therapy in the health care system. Changes in the US health care system will be discussed, including managed care, plus essential elements and principles of management in health care organizations, and an overview of human resources and operational management. Financial management specifically reimbursement for patient services, risk management, information management, and compliance will be discussed. Discussion of professional development is intertwined throughout the course. Students will be exposed to business development and entrepreneurial skills needed to expand or start up a physical therapy practice. Prerequisite: Successful completion of the first 6 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 880. Differential Diagnosis of General Medical Conditions. 3 Hours.
Designed to provide students with the knowledge and clinical tools to medically screen patients for the presence of symptoms and signs that require the expertise of other health care professionals. It will focus on diagnoses that are not covered by common PT practice including diseases of the endocrine system, the immune system, GI system, and neoplasias. Prerequisite: Admission into the post-professional DPT program, or consent of instructor. LEC.

PTRS 882. Pathophysiology and Physical Therapist Screens. 5 Hours.
Review of integrative human pathophysiology with an emphasis upon homeostatic mechanisms and etiologies of disease. The interrelationships of function and dysfunction at the molecular, cellular and tissue level (pathology), organ and systemic level (impairment) and to the total human body (functional limitations) will be applied in each of the body systems. Discussions and applied materials will be tailored to the physical therapist with an emphasis on clinical tools to medically screen patients for the presence of symptoms and signs. Prerequisite: Successful completion of semester 1 of the DPT curriculum or permission of instructor. LEC.

PTRS 888. Interprofessional Physical Therapy Practice. 1 Hour.
This course is designed to develop collaborative practice competent physical therapy learners through interprofessional classroom and clinical
experiences. Prerequisite: Successful completion of the first 4 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 890. Specialties in Physical Therapy Practice. 2 Hours.
Requires students to apply the five elements of patient/client management for addressing multi-system impairments across diverse and complex patient populations. Exposure to physical therapy advanced practice specialty areas included, but not limited to, sport medicine, women’s health, neurology, pediatrics, geriatrics, and oncology. Seminar format instruction incorporating case-based instruction, group discussion, and speakers with advanced clinical credentials. Prerequisite: Successful completion of the first 6 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 920. Clinical Internship I. 6-8 Hours.
Nine to twelve weeks of clinical internship. During the clinical internship, the student will have the opportunity to develop the patient care skills needed for successful practice as a physical therapist. The student will work under the supervision of an experienced physical therapist in clinical settings affiliated with the program. Prerequisite: Successful completion of the first 7 semesters of the DPT curriculum or permission of instructor. CLN.

PTRS 921. Clinical Internship II. 6-8 Hours.
Nine to twelve weeks of clinical internship. During the clinical internship, the student will have the opportunity to develop the patient care skills needed for successful practice as a physical therapist. The student will work under the supervision of an experienced physical therapist in clinical settings affiliated with the program. Prerequisite: Successful completion of the first 7 semesters of the DPT curriculum or permission of instructor. CLN.

PTRS 922. Clinical Internship III. 6-8 Hours.
Nine to twelve weeks of clinical internship. During the clinical internship, the student will have the opportunity to develop the patient care skills needed for successful practice as a physical therapist. The student will work under the supervision of an experienced physical therapist in clinical settings affiliated with the program. Prerequisite: Successful completion of the first 7 semesters of the DPT curriculum or permission of instructor. CLN.

PTRS 923. Clinical Internship IV. 2-6 Hours.
Three to nine weeks of clinical internship. During the clinical internship the student will have the opportunity to develop the patient care skills needed for successful practice as a physical therapist. The student will work under the supervision of an experienced physical therapist in clinical settings affiliated with the program. Prerequisite: Successful completion of the first 7 semesters of the DPT curriculum or permission of instructor. CLN.

PTRS 924. Specialized Internship. 2-6 Hours.
Three to nine weeks of clinical internship. During the clinical internship the student will have the opportunity to have exposure to a different health care system such as an international clinical experience, or a specialized area of physical therapy practice. The student will be under the supervision of an experienced physical therapist in clinical settings affiliated with the program. Prerequisite: Successful completion of the first 7 semesters of the DPT curriculum or permission of instructor. CLN.

REHS 760. Introduction to Matlab Programming. 1 Hour.
Introduction: matlab windows, input-output, file types, general commands; interactive computation; matrices and vectors, matrix and array operations, scripts and functions applications, graphics. Prerequisite: None LEC.

REHS 805. Seminar in Rehabilitation Research. 0.5-3 Hours.
Students will be instructed in the planning and presentation of a 45 minute scientific seminar on topics outside their thesis area and on their thesis work. Students will learn how to design and produce effective poster presentations. Prerequisite: Entry in the PhD program in Rehabilitation Science or consent of instructor. SEM.

REHS 850. Neuroscience. 4 Hours.
This course will introduce the principles of neuroscience and describe their application as relevant to rehabilitation scientists. The course will begin with the terminology of the nervous system, then cover the major functions of the peripheral, autonomic and central nervous systems. The manner with which these systems interact to produce appropriate responses to external demands will be discussed. The behavioral consequences of damage to each systems will be integrated throughout. Particular emphasis will be placed on the sensorimotor role in perception and the control of movement. Lecture and Lab. Prerequisite: Entry in the PhD in Rehabilitation Science Program. LEC.

REHS 862. Pathobiology of Human Function I. 4 Hours.
A study of the biology of pathological processes that impair human function will highlight the mechanisms by which cell/tissues repair and/or adapt as a result of injury and aging. Emphasis will be placed on the functional impairments resulting from the pathological condition, and on the body’s endogenous ability to adapt or reverse the effects of disease or injury. Prerequisite: Entry into the PhD in Rehabilitation Science program, or permission of instructor. LEC.

REHS 863. Pathobiology of Human Function II. 4 Hours.
A study of biology and pathological processes that impair human function with emphasis on neuromuscular diseases, injury and diseases of the central and peripheral nervous systems, and neurological disorders associated with development and aging. Prerequisite: Entry in the PhD in Rehabilitation Science program, or consent of instructor. LEC.

REHS 865. Independent Study. 1-3 Hours.
Individually negotiated learning experiences appropriate to the interests and background of the student. Prerequisite: Entry in the PhD in Rehabilitation Science program, or permission of instructor. IND IND.

REHS 870. Teaching Practicum. 1-3 Hours.
Directed experiences in a planned instructional activity. Student will write course objectives, plan and deliver lectures, produce practical and written exams and assign grades. Prerequisite: Entry in the PhD in Rehabilitation Science program or consent of instructor. LEC.

REHS 873. Research Practicum. 1-3 Hours.
This course is designed to provide supervised research experience in various laboratories in the department. Prerequisite: Entry in the PhD in Rehabilitation Science program, or consent of instructor. RSH.

REHS 875. Clinical Practicum. 1-3 Hours.
Specialized clinical training in a highly specific area of specialization. The primary purpose of this course is for the student to develop advanced clinical skills in his/her area of specialization. Prerequisite: Admission to the PhD in Rehabilitation Science program, and permission of instructor. CLN.

REHS 862. Advanced Studies in Rehabilitation Science. 3 Hours.
This course will explore the state of art of clinical and basic scientific research in rehabilitation. Students will learn how to critically analyze the research literature in the neuromotor, musculoskeletal, cardiopulmonary, and other rehabilitation fields. The course will cover the topics including but not limited to rehabilitation to improve balance and gait, rehabilitation in stroke survivors and patients with neurodegenerative diseases, rehabilitation in patients with injury/pathological conditions to ligament, tendon, and bone/cartilage, rehabilitation in patients with cardiopulmonary disease, rehabilitation in cancer patients/survivors, etc. Current literature in each topic area will be investigated to determine the features of the pathological condition and targeted subjects, factors that contribute to
the outcomes of the rehabilitation, research tools and measurements, potential optimal rehabilitation techniques, and directions of future research. Prerequisite: Entry into the PhD in Rehabilitation Science program or permission of instructor. Basic knowledge in pathobiology and neuroscience is required. LEC.

**REHS 970. Instrumentational Analysis of Human Function. 3 Hours.**
An in-depth study that provides critical analysis of equipment and other resources used in analyzing human motion, balance, strength, electrophysiological responses, and cardiorespiratory function. Students will be required to conduct a preliminary study, including design, methodology and data collection using one or more of these instruments. Prerequisite: Entry in the PhD in Rehabilitation Science program, or consent of instructor. LEC.

**REHS 980. Graduate Research. 1-10 Hours.**
Original laboratory investigation conducted under the supervision of a senior staff member. Prerequisite: Entry in the PhD in Rehabilitation Science program, or consent of instructor. RSH.

**REHS 990. Dissertation in Rehabilitation Science. 1-10 Hours.**
For students in advanced standing enrolled in the PhD in Rehabilitation Science program. THE.

### Respiratory Care Courses

**RESP 303. Introduction to Respiratory Care Procedures. 5 Hours.**
An introductory course designed to acquaint the student with the fundamental theory, procedures, and equipment used in respiratory therapy. Emphasis is placed on understanding application of equipment and procedures to the patient, and the respiratory therapy treatment of patients requiring non-continuous ventilatory assistance. This course introduces such topics as cardiopulmonary resuscitation, bronchopulmonary hygiene, airway care, oxygen therapy, and cleaning and sterilization of equipment. Prerequisite: Concurrent enrollment in RESP 318 and RESP 325. LEC.

**RESP 310. Clinical Pharmacology I. 1 Hour.**
The student will learn about adrenergic and parasympatholytic bronchodilators, corticosteroids, mucus-controlling drugs, surfactant agents, antilussives, and the anti-infective drugs used for the treatment of respiratory disorder. LEC.

**RESP 311. Clinical Pharmacology II. 1 Hour.**
Content of this course includes neuromuscular blocking agents, cardiac agents, diuretics, anti-hypertensives, and central nervous system drugs. LEC.

**RESP 318. Pulmonary Pathology. 3 Hours.**
A course consisting of lecture and group discussion designed to introduce the student to pulmonary pathology. Special emphasis is placed on the etiology, pathophysiology, and treatment of pulmonary diseases. This course includes such topics as signs and symptoms of lung disease, chronic obstructive pulmonary diseases, pleural and mycotic diseases. Prerequisite/Corequisite: RESP 303, RESP 325, RESP 330, or permission of instructor. LEC.

**RESP 325. Clinical Process. 2 Hours.**
This course serves to introduce the beginning respiratory therapy student to the clinical environment. The student spends eight hours per week participating in either a clinically-oriented workshop or observing the application of respiratory therapy theory in the clinical setting. Prerequisite/Corequisite: RESP 303 and RESP 319. FLD.

**RESP 330. Cardiopulmonary Physiology. 4 Hours.**
Designed to introduce the student to the basics of physiology of the cardiovascular and pulmonary systems. This course contains such topics as regulation of respiration and pH homeostasis, ventilation and perfusion relationships, and hemodynamics of the cardiovascular system. LEC.

**RESP 340. Mechanical Ventilators. 5 Hours.**
This course contains such topics as arterial puncture, classification of mechanical ventilators and adjunct devices, and their application to the patient. Four hours of lecture/discussion and a 3 hour weekly laboratory acquainting the student with the rationale for continuous mechanical ventilation and the basic operation of adult, pediatric and neonatal mechanical ventilators. Emphasis is placed on the selection of appropriate equipment and assessment of its effect on the patient. Prerequisite: RESP 303, RESP 318, RESP 325 and RESP 330. LEC.

**RESP 345. Adult Critical Care. 3 Hours.**
This course introduces the student to the different types of traumatic injuries in the critically ill adult patient. Topics such as the shock syndrome, multi-organ traumas including chest, head, spinal cord and thermal injuries will be discussed. Discussion of cardiac life support, fluid resuscitation, monitoring and ventilatory management are integrated into each topic. Prerequisite: Completion of RESP 303, RESP 310, RESP 318 and RESP 330 or their equivalent. LEC.

**RESP 350. Clinical Application I. 1 Hour.**
This course provides the intermediate respiratory therapy student with opportunities to practice basic respiratory therapy procedures. Emphasis placed on performance of respiratory therapy procedures and application of equipment. This course emphasizes such topics as oxygen therapy, aerosol therapy, incentive spirometry, patient assessment, and IPPB therapy. The student will assume limited patient care responsibilities. Prerequisite: RESP 303, RESP 310, RESP 318, RESP 325, and RESP 330 or their equivalent. FLD.

**RESP 355. Clinical Application II. 1 Hour.**
This course provides the respiratory therapy student with an introduction to the critical care setting. The student will begin to apply the procedures and equipment most often utilized in the intensive care areas. Emphasis is placed on continuous mechanical ventilation, artificial airways, airway care, and bedside pulmonary function testing. The student will assume limited patient care responsibility in the critical care areas. Prerequisite: RESP 303, RESP 310, RESP 318, RESP 325 and RESP 330 or their equivalent. FLD.

**RESP 375. Clinical Application III. 2 Hours.**
This course provides the advanced respiratory therapy student with opportunities to refine procedural and evaluative skills in the critical care areas. The student will spend a minimum of twenty-four hours per week in the clinical setting. Emphasis is placed upon the students ability to evaluate the patients' clinical situation and recommend appropriate therapy modalities to the clinical supervisor. During this course the student will assume wider-ranging patient care responsibilities. Prerequisite: RESP 340, RESP 345, RESP 350, RESP 355, RESP 395 or their equivalent. FLD.

**RESP 390. Pulmonary Function. 2 Hours.**
Lecture and laboratory introducing the student to basic pulmonary function procedures. This course allows the student to practice pulmonary function tests and interpret the results. Lecture and laboratory topics include such topics as the measurement of lung volumes and capacities, body plethysmography, blood gas analysis, and flow volume loops. Prerequisite: RESP 318, RESP 325, and RESP 330. LEC.

**RESP 395. Pediatric Critical Care. 1 Hour.**
Study of common neonatal and pediatric disorders/diseases for the beginning respiratory care student. Lectures on basic fetal lung development, assessment of both the pediatric and neonatal patient and disorders/diseases such as respiratory distress syndrome,
bronchopulmonary dysplasia, bronchiolitis, epiglottis and croup, and other commonly seen problems. Prerequisite: RESP 303, RESP 310, RESP 318 and RESP 330 or their equivalent. LEC.

RESP 399. Generalist Practice. 3 Hours.
This course is designed to allow students the opportunity to improve and perfect skills acquired in the junior year clinical courses. Emphasis will be given to refining the students’ abilities to assess patient status and administer appropriate therapy modalities. This course may also be used to assess respiratory therapy knowledge and skills of students transferring from other programs. Prerequisite: Permission of instructor. FLD.

RESP 400. Advanced Critical Care. 4 Hours.
Concepts of the diseases and disorders that effect the critically ill adult are explored. Emphasis is placed on understanding common illnesses such as cardiac dysrhythmias, acute coronary syndrome, trauma of the chest and head, organ failure and toxin exposure as well as the other medical challenges of the critically ill patient. LEC.

RESP 401. Neonatal Respiratory Care. 4 Hours.
This course is designed to provide the student with an introductory knowledge of fetal and newborn cardiorespiratory anatomy, physiology, development, pathophysiology, and care. Prerequisite: Senior year standing or permission of instructor. LEC.

RESP 402. Pulmonary Rehabilitation. 3 Hours.
This course focuses on the interdisciplinary approach to the rehabilitation of the adult pulmonary patient. Emphasis will be placed upon the multidisciplinary assessments, treatments, and therapeutic techniques that the pulmonary rehabilitation team provides. The course, in conjunction with a specialty practicum, is designed to prepare the respiratory therapist for practice in a rehabilitation specialty. Prerequisite: Senior year standing or permission of instructor. LEC.

RESP 405. Ethics, Law and Health Care. 2 Hours.
This course will provide a forum for discussion of current ethical, legal and professional issues. We will refer to historical and emerging controversies in health care and society that influence the patient-patient care giver relationship. The method of instruction will primarily be student presentation and classroom discussion of current issues. Prerequisite: Senior year standing. LEC.

RESP 425. Advanced Critical Care Procedures. 2 Hours.
This course is the capstone of the critical care experience and concentrates on advanced practice and assessment skills in the critical care setting. Emphasis is placed on quantitative assessment and monitoring procedures, advanced ventilator management and interpretation of data. This course requires access to the medical information of an intensive care patient. Prerequisite: RESP 375 or equivalent. LEC.

RESP 490. Special Studies or Projects. 1-9 Hours.
This course involves individual study, research or projects in the field of respiratory care under instructor guidance. Written reports and periodic conferences are required. Content and unit credit will be determined by student-instructor conferences and/or departmental conferences. This course may be repeated for a maximum of nine credits. Prerequisite: Admission to the respiratory care program and consent of instructor. LEC.

RESP 600. Introduction to Pharmacology. 1 Hour.
The Introduction to Pharmacology course is intended to provide the student with the background information necessary to practice within the field of Allied Health. The course covers the fundamentals of pharmacology including pharmacokinetics and pharmacodynamics. The classification of drugs, the use of drug reference materials, and the mechanisms of therapeutic and adverse responses to drugs will be covered in the course. LEC.

RESP 660. Statistics for Health Professions. 3 Hours.
Help students understand the relationship between statistics and research. This course will highlight the usefulness of proper statistical design for health care research. Specifically, the objectives of this course will emphasize the importance of applied, practical statistics and the critical thinking required to generate appropriate statistical modeling needed to support the research questions. This course will prepare students for Research in Health Care by helping students understand how to use statistical analyses for clinical research projects. LEC.

RESP 661. Management Principles in Health Care. 3 Hours.
An introduction to basic principles of management and their application in the current health care environment. Course content includes management theory, scope of management, quality issues, budgeting, personnel issues, evaluation and application of management concepts. Cross listed with HEIM 661 and CLS 661. Prerequisite: Senior year standing or permission of the instructor. LEC.

RESP 662. Education Principles in Health Care. 2 Hours.
An introduction to basic principles of education and their application in the current health care environment. Information on course content includes: Course design, inservice education and patient education. The focus is on educational needs, instructional media and course quality improvement. LEC.

RESP 663. Scientific Investigation Part I. 1 Hour.
This course is designed to provide the participant with an introduction to research skills culminating in a group Proposal of a bench study or chart review. The Proposal will consist of three sections: Introduction, Review of the Literature and Methods. The three sections will be developed through a series of progress reports with the aid of a faculty advisor. Students will work in groups to develop a research question about their daily practice that can only be answered by conducting research. This course will include discussions of the types of research data and the structure of a research manuscript. Students will have opportunities to read, interpret and analyze research reports and practice in writing critical evaluations of the literature as it applies to their research question. Prequisite: Statistics LEC.

RESP 664. Scientific Investigation Part II. 1 Hour.
This course is designed to teach the student how to read, interpret and analyze research reports. Prerequisite: Senior year standing and a course in statistics. LEC.

RESP 665. Scientific Investigation Part III. 1 Hour.
Each study group will write the Discussion and Conclusion sections of their paper and share their findings in a poster presentation. The final version of each group’s study manuscript must be submitted to course instructor prior to graduation. The quality of the manuscript will be appropriate for submission to the journal of Respiratory Care. Prerequisites: RESP 663, 664. LEC.

RESP 667. Registry Review. 2 Hours.
This course involves individual student under instructor guidance. A series of practice exams are taken and discussed including a secured practice registry exam and clinical simulation exam. Prerequisite: Admission to the respiratory care program and consent of instructor. LEC.

RESP 668. Research in Health Care. 3 Hours.
Online version combines the on-campus series of courses: RESP 663, RESP 664 and RESP 665, for the individual student. The first half of the semester will produce a study proposal for a chart review that will require a faculty-assisted search of our database of de-identified patient information. The second half of semester will be analyzing results of search and with the aid of a faculty advisor, writing a quality manuscript.
suitable for submission to Respiratory Care that will be submitted to course instructor, at the very least. Prerequisites: statistics. LEC.

RESP 670. Clinical Specialty Practicum. 10 Hours.
Provides the student with a capstone experience in the activities and responsibilities related to clinical processes in one of the specific advanced practice specialties: critical care, neonatal, pediatrics, pulmonary rehabilitation, pulmonary function, sleep, hyperbaric oxygen, management or education. Prerequisite: Permission of the instructor. FLD.

RESP 671. Clinical Specialty Projects I. 5 Hours.
Designed to give the student the opportunity to develop clinically-related projects in the areas of quality improvement, health care organizational structures and current processes in patient management. Prerequisite: Permission of the instructor. FLD.

RESP 672. Clinical Specialty Projects II. 5 Hours.
Designed to have the student demonstrate competency related to clinical processes in one of the specific advanced practice specialties: critical care, neonatal, pediatrics, pulmonary rehabilitation, pulmonary function, sleep, hyperbaric oxygen, management or education. Prerequisite: Permission of the instructor. FLD.

Therapeutic Science Courses

TS 800. Research Proseminar. 1 Hour.
A proseminar conducted by the core graduate faculty in Occupational Therapy and Therapeutic Science. Twice-monthly meetings will involve student and faculty presentations of their current research, as well as provide more opportunities to obtain feedback on research proposals. May be taken more than once for a total of four credits. (Same as OTMS 800.) LEC.

TS 805. Multidisciplinary Theoretical Perspectives. 3 Hours.
Students will identify and explore key theories in behavioral and social science with an emphasis on those currently influencing clinical reasoning. Students will demonstrate an understanding of contemporary theories and be able to compare and contrast key theories, while also developing knowledge about theory guided research and interventions. LEC.

TS 850. From Beliefs to Evidence. 1 Hour.
Analysis of the role of beliefs about practice in professional culture and how beliefs are affected by the accumulation of research evidence. Topics include the nature of science and beliefs, the nature of evidence, and the debate over evidence-based practice. Students will use topics from their own professional interests for class presentations and written assignments. May be taken more than once for a total of two credits. LEC.

TS 880. Special Projects. 1-6 Hours.
An elective course to allow student investigation of special issues or problems relevant to applied research and/or practice, under the direction of a faculty member chosen by the student. Systematic coverage of current issues may include a research investigation or study related to pertinent sociocultural trends, practice factors, or emerging issues in service provision. Students will complete special projects such as oral presentations, written papers, or case analysis as negotiated with the faculty member. May be repeated for credit. Prerequisite: Permission of instructor. IND.

TS 900. Evolving Interdisciplinary Views of Disability. 1 Hour.
Assessment of how our social and cultural context defines notions of disability and disablement in our society. Topics include historical constructs of disability, public policy related to disability, and social paradigms of disability. Students will evaluate views of disablement from the perspective of their own discipline. May be taken more than once for a total of two credits. LEC.

TS 950. Designing Effective Knowledge Transfer. 1 Hour.
Examination of the principles of knowledge transfer and diffusion of innovation as they relate to practices in therapeutic professions. Topics include the diffusion process, change agents, innovation adoption, and current diffusion methods. Students will evaluate diffusion processes that have occurred within their own professions. May be taken more than once for a total of two credits. LEC.

TS 980. Advanced Study in Therapeutic Science. 1-6 Hours.
Students engage in advanced study of a topic of their interest, guided by an appropriate mentor. Methods include directed readings, interpretation of evidence, discussions, and written syntheses of existing literature. Course culminates in a written proposal for original research and an oral defense of that proposal. Credit is given only after the dissertation proposal is accepted by the student's advisory committee. Prerequisite: Permission of instructor. SEM.

Research experience leading to dissertation for doctoral students in Therapeutic Science. THE.

Intercampus Program in Communicative Disorders

KU offers a doctorate in audiology, a master's degree in speech-language pathology and Ph.D. degrees in audiology and speech-language pathology through its Intercampus Program in Communicative Disorders.

About the Intercampus Program in Communicative Disorders

The Intercampus Program in Communicative Disorders consists of the Department of Speech-Language-Hearing: Sciences and Disorders (http://splh.ku.edu) on the Lawrence campus and the Department of Hearing and Speech (http://splh.ku.edu/ipcd) on the KU Medical Center campus. The Department of Speech-Language-Hearing is part of the College of Liberal Arts and Sciences, while the Department of Hearing and Speech is part of the KU School of Health Professions.

Students pursuing these graduate degrees take course work on the Medical Center campus in Kansas City and on the main campus in Lawrence. A student may live in either community. Block scheduling of courses reduces the frequency of commuting. A committee of faculty from both departments is responsible for instruction, curriculum planning, student selection and advising, clinical practicum policies, and course scheduling.

The College of Liberal Arts and Sciences also offers undergraduate programs in Speech-Language-Hearing: Sciences and Disorders (http://catalog.ku.edu/201314/schools/clas/departments/splh/overview). The Lawrence department collaborates with the departments of Applied Behavioral Science, Linguistics, and Psychology to offer a Ph.D. in child language (p. 1229).

Hearing and Speech Courses

AUD 805. Introduction to Clinical Research. 1 Hour.
The course will provide a comprehensive overview to clinical research. The student will gain an understanding of how to develop clinical research questions including protocol design and the factors that should be considered in initiating a clinical research study. This will include
biostatistical considerations, the recruitment of study participants, regulatory issues, and data management, and defining measures and instruments. Students will gain knowledge of how to define clinical research among the various institutional entities involved with clinical research at the University of Kansas Medical Center such as the Research Institute (RI), General Clinical Research Center (GCRC) and the Human Subjects Committee (HSC). Additionally, one component of the course will focus on how to apply for funding (grantsmanship), critical appraisal of research studies, and how to present research data. Prerequisite: Consent of instructor. LEC.

AUD 810. Diagnostic Audiology. 4 Hours.
Audiometric calibration, pure tone and speech testing, analysis of audiograms, middle ear testing. Prerequisite: AUD 697. LAB.

AUD 811. Hearing Disorders. 3 Hours.
A study of disorders of the auditory system including anatomical, physiological, perceptual, and audiological manifestations of pathologies affecting hearing. Prerequisite: AUD 810 and AUD 829. LAB.

AUD 813. Psychoacoustics and Theories of Hearing. 3 Hours.
A study of relations between common acoustic stimuli and the responses they elicit; consideration of sensory scales, noise phenomena, and speech intelligibility. Prerequisite: AUD 697 and AUD 829. LEC.

AUD 814. Hearing Conservation. 2 Hours.
A study of the major components of hearing conservation programs in industrial, educational, and military settings. Forensic audiology issues related to occupational hearing loss are included. Prerequisite: AUD 697 and AUD 829. LAB.

AUD 816. Speech Perception. 2 Hours.
Acoustic and perceptual characteristics of phonemes, words, and connected speech for normal-hearing adults and infants; how speech perception is assessed clinically and is affected by hearing loss, aging, use of amplification, talker differences, and linguistic factors. LEC.

AUD 817. Pediatric Audiology. 3 Hours.
Normal and pathological development of the auditory system; pediatric audiometric testing; auditory and communication aspects in the habilitation of hearing-impaired children. Prerequisite: AUD 697 and AUD 810. LAB.

AUD 818. Vestibular Systems and Disorders. 3 Hours.
Study of the anatomy and physiology of the normal peripheral and central vestibular system; clinical assessment of vestibular disorders; vestibular rehabilitation. LEC.

AUD 819. Hearing Aids I. 3 Hours.
Study of the components, function, fitting, and performance characteristics of hearing aids, applications of amplification in rehabilitative audiology. Prerequisite: AUD 697 and AUD 810. LEC.

AUD 820. Rehabilitative Audiology and Counseling. 3 Hours.
Principles and methods of auditory, communication, and social assessment and intervention with hard of hearing and deaf adults, children, and their families. Prerequisite: AUD 810 and AUD 819 or equivalent. LEC.

AUD 821. Hearing Aids II. 3 Hours.
The advanced study of the theoretical bases, techniques, and clinical application of hearing aids and their assessment. Participants will review, present, and discuss contemporary issues in hearing aid literature and research. Prerequisite: AUD 819. LEC.

AUD 822. Electro-Acoustics and Instrumentation. 3 Hours.
A study of the generation, control and measurement of the simple and complex sounds essential to clinical audiology and hearing research. LAB.

AUD 823. Cochlear Implants and Hearing Assistance Technologies. 2 Hours.
Through lecture and discussion format, this course will cover the principles and methods of assessment, candidacy, surgery, programming and rehabilitation of patients receiving cochlear implants. In addition, hearing assistance technologies such as large area systems and alerting devices will be covered with emphasis on classroom amplification. Prerequisites: AUD 819 and AUD 821 or permission of instructor. LEC.

AUD 824. Central Auditory Processing. 2 Hours.
The study of the anatomy and physiology of the central auditory system. Analysis and review of the diagnostic procedures and the therapeutic strategies for central auditory processing disorders. LEC.

AUD 828. Genetics and Hearing Loss. 2 Hours.
The fundamentals of human genetics as related to hearing loss, including patterns of inheritance, genotypic and phenotypic characteristics of the major forms of syndromic and nonsyndromic hearing loss; genetic counseling, genetic testing, possible genetic treatment, and issues related to them; resources for keeping up with this rapidly changing field. Prerequisite: Permission of instructor. LEC.

AUD 829. Anatomy and Physiology of the Hearing and Vestibular Mechanisms. 3 Hours.
Advanced study of the anatomical and physiological properties of the human hearing and vestibular mechanisms. LEC.

AUD 843. Clinical Practice in Audiology. 1-6 Hours.
Supervised clinical work at the University and/or University Medical Center audiology clinics, or affiliated, off-campus practicum sites. Prerequisite: Permission of instructor. FLD.

AUD 846. Independent Study in Problems in Audiology. 1-10 Hours.
IND.

AUD 851. Auditory Evoked Potentials. 3 Hours.
Theoretical bases, techniques, and clinical applications for auditory evoked potentials including electrocochleography, auditory brainstem response, middle and late latency and cognitive responses. Prerequisite: AUD 810, AUD 822, AUD 829, or permission of instructor. LEC.

AUD 853. Pharmacology for Audiology. 2 Hours.
Presentation and discussion topics including: basic pharmacology (pharmacokinetics and pharmacodynamics), mechanisms of ototoxicity, selected ototoxic agents, drugs used in otolaryngology, and a review of patient management strategies. Prerequisites: Enrollment in the Au.D. or Ph.D. audiology program or permission of instructor. LEC.

AUD 858. Business Audiology. 2 Hours.
An introduction to audiology business practice principles. Operational functions of the audiology clinic will be reviewed, including human resources, marketing, legal and ethical practice concerns, billing, coding and reimbursement. Prerequisites: enrollment in the Au.D. or Ph.D. audiology program or permission of instructor. LEC.

AUD 899. Thesis. 1-10 Hours.
THE.

AUD 940. Seminar in Audiology; . 1-4 Hours.
Advanced study of selected topics in audiology such as (but not limited to): cochlear micromechanics and other physiological processes; psychoacoustics, speech perception, cochlear implants, etc. Prerequisite: Enrollment in the Audiology Ph.D. program or permission of instructor. LEC.

AUD 941. Grand Rounds in Audiology. 1 Hour.
Presentations/discussion of clinical case studies and professional issues in Audiology. Au. D. students and audiology faculty members will participate in these sessions. DIS.
AUD 944. Clinical Rotation. 1-6 Hours.
Supervised clinical work at the University and/or University Medical Center Audiology Clinics, or affiliated off-campus sites. The Clinic Rotation is intended to prepare students for entry into their Clinical Externship and foster increasing independence. Clinical skills required are defined in standards set forth by the American Speech-Language Association. FLD.

AUD 945. Clinical Externship. 1-9 Hours.
Supervised clinical work at the University of Kansas and/or KUMC audiology clinics, or affiliated, off-campus sites. The Clinical Externship is intended to refine clinical skills, increase clinical independence, and ensure that clinical skills meet the certification standards in audiology set forth by the American speech-Language-Hearing Association. Open to 3rd and 4th year Au.D. students. Approval from Instructor needed for 3rd year students. PRA.

AUD 999. Doctoral Dissertation. 1-12 Hours.
THE.

Speech-Language-Hearing Courses

SPLH 120. The Physics of Speech. 4 Hours. N.
An introduction to the acoustic structure of speech intended for nonscience majors. Emphasis will be placed on the methods and standards by which scientists measure and analyze such physical properties of speech as sound waves, resonance, and speech synthesis. Three class hours and one laboratory per week. (Same as LING 120.) Prerequisite: MATH 101 or 104 or equivalent. LEC.

SPLH 177. First Year Seminar: ___. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Speech-Language and Hearing. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

SPLH 250. Study Abroad Topics in: ___. 1-5 Hours. S.
A course designed to enhance international experience in topic areas related to speech-language-hearing at the junior/senior level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if the content differs. Prerequisite: Department permission. LEC.

SPLH 261. Survey of Communication Disorders. 3 Hours. SI GE3S / S.
Provides a general understanding of normal and deviant speech, language, and hearing in adults and children. This course considers the normal development of communication behavior, the nature of communication disorders, and the interaction of speech pathology and audiology with allied fields (e.g., education, medicine, psychology, special education). LEC.

SPLH 320. The Communicating Brain: The Ultimate Personal Computer. 3 Hours. U.
This course introduces the study of human neuroscience with a particular focus on human communication. The course provides an overview of the relevant anatomical structures and function along with an introduction to the basic methods used to investigate central nervous system function. Students are introduced to the study of perceptual, motor, and language function in the nervous system through a series of examples drawn from normal function and clinical cases. The examples are selected to highlight how these systems develop and are influenced by experience, implantable devices developed to interface with the nervous system, and how computers and animals are used as models to learn about nervous system function. LEC.

SPLH 418. Introduction to Cognitive Science. 3 Hours. S.
Examines the data and methodologies of the disciplines that comprise Cognitive Science, an inter-disciplinary approach to studying the mind and brain. Topics may include: consciousness, artificial intelligence, linguistics, education and instruction, neural networks, philosophy, psychology, anthropology, evolutionary theory, cognitive neuroscience, human-computer interaction, and robotics. (Same as LING 418, PHIL 418, and PSYC 418.) Prerequisite: Consent of instructor. LEC.

SPLH 432. Human Behavioral Genetics. 3 Hours. S.
A survey of human behavioral genetics for upper division undergraduates. Emphasis is on how the methods and theories of quantitative, population, medical, and molecular genetics can be applied to individuals and group differences in humans. Both normal and abnormal behaviors are covered, including intelligence, mental retardation, language and language disorders, communication, learning, personality, and psychopathology. (Same as ANTH 447, BIOL 432, PSYC 432.) Prerequisite: Introductory courses in biology/genetics or biological anthropology and psychology are recommended. LEC.

SPLH 449. Laboratory/Field Work in Human Biology. 1-3 Hours. AE61 / N.
Faculty supervised laboratory or field research for Human Biology majors. Students design and complete a research project in collaboration with a Human Biology faculty member. (Same as ANTH 449, BIOL 449, and PSYC 449.) Prerequisite: Consent of instructor and Human Biology major. FLD.

SPLH 450. Study Abroad Topics in: ___. 1-5 Hours. S.
A course designed to enhance international experience in topic areas related to speech-language-hearing at the junior/senior level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if the content differs. Prerequisite: Department permission. LEC.

SPLH 451. Directed Study Abroad in Speech-Language-Hearing. 1-3 Hours. S.
An independent study designed to enhance international experience in topic areas related to speech-language hearing. Investigation of special topic or project selected by the student with advice, approval, and supervision by a KU SPLH instructor and an authorized agent of the study abroad site. Experience must be arranged through the Office of KU Study Abroad. Such study may take the form of directed reading and/or directed research/clinical observation. A daily journal and final report is required. A maximum of six hours of credit may be counted, with no more than three in a single area of study. Prerequisite: Consent of instructor IND.

SPLH 464. Undergraduate Seminar in: ___. 1-3 Hours. S.
Course organized any given semester to study particular subject matter or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. (Distribution credit given for two-three hours only.) LEC.

SPLH 465. Fundamentals of Clinical Phonetics. 1 Hour. S.
Introduction to classification of American English speech sounds based on articulatory phonetics. Practice in phonetic transcription and analysis of normal and abnormal speech. Laboratory exercises to give students hands-on experience with selected topics from lecture. Prerequisite or Corequisite: SPLH 120. LEC.

SPLH 466. Language Science. 3 Hours. S.
Introduction to structure/function of human languages as it relates to language development and disorders; processes involved in the
expression and reception of language and the methodologies employed to study these processes. LEC.

SPLH 497. Mentored Research Experience. 2-8 Hours. AE61 / S. Study may be directed toward either reading for integration of knowledge and insight in Speech-Language-Hearing, or original research in the field. Student creates a plan of activities at the beginning of each semester under the mentor’s guidance. Student and mentor review this plan at the end of each semester to evaluate progress. In the final semester of enrollment, student must complete a written report or a public oral presentation detailing the purpose, methods, results, and impact of the research. This final product partially meets the requirements for Research Experience Certification. (Eight hours maximum credit, which may be distributed through 4 semesters. No student may enroll for less than two hours credit or more than 4 hours of credit in a given semester). Prerequisite: Consent of Departmental Research Experience Coordinator. IND.

SPLH 498. Departmental Honors Research. 2-8 Hours. AE61 / S. Study may be directed toward either reading for integration of knowledge and insight in Speech-Language-Hearing, or original research in the field. Student creates a plan of activities at the beginning of each semester under the mentor’s guidance. Student and mentor review this plan at the end of each semester to evaluate progress. In the final semester of enrollment, student must complete a written report or a public oral presentation detailing the purpose, methods, results, and impact of the research. This final product partially fulfills the requirements for Departmental Honors. (Eight hours maximum credit, which may be distributed through 4 semesters. No student may enroll for less than two hours credit or more than 4 hours of credit in a given semester). Prerequisite: Consent of Departmental Honors Coordinator. IND.

SPLH 499. Directed Study in Speech-Language-Hearing. 1-3 Hours. AE61 / S. Investigation of special topic or project selected by the student with advice, approval, and supervision of an instructor. Such study may take the form of directed reading and/or directed research/clinical observation. Individual reports and conferences. (Distribution credit given for two-three hours only.) A maximum of six hours of credit may be counted, with not more than four in a single area of study.) Prerequisite: Consent of instructor. IND.

SPLH 565. Language Sample Analysis Lab. 1 Hour. S. The study of the analysis of language produced by children with respect to its phonological, lexical, morphological, syntactic, and pragmatic characteristics. Prerequisite or corequisite: SPLH 566. LAB.

SPLH 566. Language Development. 3 Hours. SI GE3S / S. Study of language acquisition in children, including phonologic, morphologic, syntactic, and semantic components. Methods of language measurement, the role of comprehension, and pragmatic aspects of language use are included. May be taught in lecture or online format. LEC.

SPLH 660. Research Methods in Speech-Language-Hearing. 3 Hours. AE61. Research Methods is about the methods used to conduct, describe and evaluate science in communication disorders. Goals for learner outcomes include: 1) evaluation of research including adequacy of research to address scientific and clinical problems, 2) reading, summarizing and describing research through a literature review, 3) describing a hypothetical research study that addresses a specific question or hypothesis identified by the student, and 4) providing constructive peer reviews of research paper drafts. Prerequisite: 9 credits of SPLH course work; English 101 and ENGL 102 (or course meeting core skill in written communication); or consent of instructor. LEC.
SPLH 816. Language Development. 3 Hours.
Study of language acquisition in children, including the morphologic, syntactic, and semantic components. Methods of language measurement, the role of comprehension, and pragmatic aspects of language use will be included. Not open to students who have credit for SPLH 566. Laboratory by appointment. LEC.

SPLH 820. Developmental Phonological Disorders. 2 Hours.
Focuses on speech and non-speech characteristics of children with developmental phonological disorders. Emphasis placed on collection and phonetic transcription of speech samples, phonological analysis of transcribed data, and decision-making processes in assessment and intervention. LEC.

SPLH 822. Dysarthria/Apraxia. 2 Hours.
This course describes the neuroanatomic bases of motor-speech processes, the diagnosis, classification, assessment, prognosis, and treatment of dysarthria(s) and apraxia(s). LEC.

SPLH 824. Fluency Disorders. 2 Hours.
The nature of stuttering in children and adults is discussed. Theories regarding etiology, development, and maintenance of the disorder are presented. Emphasis is placed on various clinical approaches to assessment, measurement, and treatment. LEC.

SPLH 826. Phonatory Disorders. 2 Hours.
This course reviews the function of the laryngeal and respiratory mechanisms including the parameters and processes of phonation. Primary content addresses diagnosis, description, and treatment of organic and non-organic disorders of phonation. LEC.

SPLH 828. Speech Disorders in Special Populations. 2 Hours.
This course reviews anatomy and physiology of the velopharyngeal mechanism. Diagnosis and management of velopharyngeal dysfunction and associated problems considered. Anatomy, physiology, and rehabilitation associated with certain oral, pharyngeal, and laryngeal abnormalities discussed. Emphasis is on the speech problems of adults following medical management. Populations include individuals with laryngectomies, glosectomies, and tracheotomies. LEC.

SPLH 832. Dysphagia. 2 Hours.
This course covers normal and disordered swallowing. Evaluation and treatment of swallowing disorders, the dysphagia team, and dysphagia in special populations are considered. LEC.

SPLH 836. Genetics of Communication and Learning Disorders. 2 Hours.
This course focuses on the description, assessment, and treatment of communication problems associated with particular genetic syndromes (e.g., Down’s, Turner’s syndromes). Also covered are current data about the genetic factors involved in nonsyndromic communication and learning problems, such as those commonly seen in the schools. Ethical and practical issues in these areas are discussed. LEC.

SPLH 840. Language Disorders of Children: Infants and Toddlers. 2 Hours.
This course examines factors relating to language disorders in the birth to three population. At-risk populations, as well as those with known etiologies, are considered. Information on assessment, intervention, and service delivery models is addressed. Issues relating to Public Law 99-457 are also examined. LEC.

SPLH 842. Language Disorders of Children: Preschool. 2 Hours.
This course examines language disorders of preschool-age children in the late preschool years. The course includes information on incidence, characteristics, assessment, and intervention. Theoretical issues and their implication for language intervention are also examined. LEC.

SPLH 844. Language Disorders of Children: School Age. 2 Hours.
This course examines language development during the school years and how problems in this development interact with school performance. Emphasis is placed on the role of the speech-language pathologist in the early identification, assessment, and remediation of language-learning problems. LEC.

SPLH 846. Language Disorders of Adults. 2 Hours.
Neurological aspects of language processes, classification of aphasia, and assessment of language deficits are discussed. Management approaches including intervention strategies and rehabilitation are also considered. LEC.

SPLH 848. Language Disorders of Special Populations. 2 Hours.
This course focuses on the unique language impairments of individuals with mental retardation, autism, cerebral palsy, hearing impairments, dual sensory impairments, and other communication disorders (e.g., ADD). Language characteristics as well as assessment and intervention strategies are studied. LEC.

SPLH 850. Language Disorders Secondary to Closed Head Injury and Dementia. 2 Hours.
Neuroanatomy and physiology relevant to diffuse brain injury are discussed. Characteristics and intervention strategies relating to traumatic brain injury and dementia are studied. LEC.

SPLH 852. Augmentative and Alternative Communication. 2 Hours.
This course describes augmentative and alternative communication (AAC) assessment and intervention issues as they apply to children and adults with both congenital and acquired speech and/or language disabilities. Areas of study include AAC systems, assessment strategies and procedures, intervention strategies, and AAC information resources. LEC.

SPLH 854. Reading Disorders. 2 Hours.
This course addresses the perceptual, linguistic, and cognitive processes utilized in written communication. Acquired and developmental disorders of written language are examined in relation to issues concerning characteristics, etiology, early identification, assessment, and remediation. LEC.

SPLH 860. Evaluation of Speech and Language. 2 Hours.
Provides a general framework for speech and language evaluations. Issues related to initiation and termination of treatment are discussed. Practice is provided in evaluating norm- and criterion-referenced information used in diagnostic, referral, and treatment decisions. LEC.

SPLH 861. Seminar in Research Methodology in Speech Pathology and Audiology: _____. 3 Hours.
This seminar is concerned with the design, instrumentation, execution, and reporting of research in audiology and speech pathology. SPLH 760 or its equivalent and some statistics are recommended before entering this seminar. LEC.

SPLH 862. Clinical Processes. 1 Hour.
Orients student to clinical procedures, policies, requirements, and expectations of program. Therapy models, planning, and philosophies are discussed along with implementation and evaluation of therapy procedures. Professional issues are also considered. May be repeated for credit. LEC.

SPLH 864. Advanced Clinical Practice in Speech-Language Pathology. 1-6 Hours.
Students conduct supervised clinical work in a variety of settings. May be repeated for credit. Prerequisite: Department approval. Group and individual conferences with staff required. FLD.
SPLH 874. Research Practicum. 1-3 Hours.
Application of research methodology in a laboratory situation. Emphasis is on direct participation in designing and conducting an experimental investigation in speech, language, or hearing. May be repeated for up to a maximum of 3 credits. Prerequisite: SPLH 660 or equivalent research methods course. RSH.

Investigation of special topics by individual master’s level students. Paper required. Prerequisite: Consent of instructor. RSH.

SPLH 880. Seminar in Speech-Language Pathology: _______. 1-3 Hours.
May be repeated for credit. LEC.

SPLH 889. Seminar and Conference (For Master’s Candidates). 1-8 Hours.
Limited to eight hours credit toward the M.A. degree. Directed research and experimentation for M.A. students in some phase of speech science. RSH.

SPLH 899. Master’s Thesis. 1-6 Hours.
The student takes this course near the end of the degree program. Assignments include supervised work in a variety of approved settings. May be repeated for credit. Prerequisite: Advisor’s consent. FLD.

SPLH 900. Proseminar in Communicative Disorders. 1 Hour.
A weekly forum for students and faculty to discuss professional issues and interdisciplinary research in communicative disorders and related fields. May be repeated for credit. Limited to two hours credit counted toward an MA or AuD degree. Limited to four hours credit counted toward the PhD degree. Graded on satisfactory/unsatisfactory basis. SEM.

SPLH 961. Experimental Phonetics I. 3 Hours.
This course will provide a description of the acoustic properties of the major classes of speech sounds and will describe how these properties are utilized perceptually. It will also provide an understanding of the acoustic theory of speech production and will discuss the implications of that theory relative to the modification of impaired speech. LEC.

SPLH 962. Experimental Phonetics II. 3 Hours.
This course will examine the current methodologies utilized in speech physiology research and will review the findings of recent research into the movement patterns of individual speech articulators. The course will emphasize the interpretation of cumulative research results in terms of an overall theory of speech motor timing and control. LEC.

SPLH 963. Seminar in Hearing Science. 3 Hours.
Considers more advanced research problems in hearing science including psychoacoustics, speech perception, physiology. Prerequisite: Consent of instructor. LEC.

SPLH 964. Seminar in: _______. 1-3 Hours.
The subject matter of this seminar will be special topics from speech pathology and audiology, including those related to research methodology and research or academic careers. Special prerequisites may be established for a given topic. LEC.

SPLH 966. Seminar in Language Development. 3 Hours.
The course pertains to relevant research regarding infant speech development, vocabulary development, linguistic development, articulation development, and language retardation. (Same as ABSC 920, formerly HDFL 920.) LEC.

SPLH 967. Seminar in Articulation. 3 Hours.
Research and important clinical procedures pertaining to discrimination, structural, and physiological considerations, causal factors in defective articulation, and principal therapeutic approaches are carefully examined. LEC.

SPLH 968. Seminar in Communication Disorders. 3 Hours.
Study in depth of the communication behavior associated with brain injury and/or oral anomalies. LEC.

SPLH 969. Laboratory Instrumentation for Speech and Hearing Research. 3 Hours.
Instruments for speech and hearing research, their design and application. Experimental projects using laboratory equipment. Designing equipment for special purposes. Prerequisite: SPLH 662. FLD.

SPLH 970. Independent Study in Problems of Speech and Hearing. 1-6 Hours.
Investigation of special topics by individual students. Paper required. RSH.

SPLH 972. Extensions of Clinical Management. 3 Hours.
This course is designed to provide didactic and practical experience in methods of obtaining diagnostic information and generalization of speech and language responses away from the clinical setting. Models for effecting behavioral change and data collection will be discussed and utilized. FLD.

SPLH 974. Research Practicum. 1-6 Hours.
Application of research methodology in a laboratory situation. Emphasis is on direct participation in designing and conducting an experimental investigation in speech or hearing. FLD.

SPLH 975. Directed Teaching: Speech Pathology and Audiology. 1-3 Hours.
Provides experiences in classroom and laboratory instruction under supervision of graduate faculty. Variable credit to reflect amount of instructional responsibility assumed. May be repeated up to a maximum of six semester hours. FLD.

SPLH 976. Independent Study in Grant Writing. 1-3 Hours.
Investigation of special topics from speech pathology and audiology, including those related to research methodology and research or academic careers. Special prerequisites may be established for a given topic. LEC.

SPLH 977. Directed Teaching: Speech Pathology and Audiology. 1-3 Hours.
Provides experiences in classroom and laboratory instruction under supervision of graduate faculty. Variable credit to reflect amount of instructional responsibility assumed. May be repeated up to a maximum of six semester hours. FLD.

SPLH 978. Issues in Scientific Conduct. 3 Hours.
Lectures and discussion on issues in the conduct of a scientific career, with emphasis on practical topics of special importance in behavioral science. Topics will include the academic and scientific roles of behavioral scientists, establishing a research lab, communicating research findings, tenure processes, gender equity, ethical conduct, and good scientific citizenship. Discussions will highlight important case studies. (Same as PSYC 982.) LEC.

SPLH 980. Seminar and Conference (For Doctoral Candidates). 1-8 Hours.
Limited to eight hours credit towards the Ph.D. degree. Directed research and experimentation for Ph.D. students in some phase of speech science. RSH.
SPLH 999. Doctoral Dissertation. 1-12 Hours.
THE.

Doctor of Audiology

The Au.D. (Doctor of Audiology) degree is intended to produce audiologists for clinical practice and is designed to be completed in four years (including summers). This program has been planned to meet the academic and clinical requirements of the American Speech-Language-Hearing Association (ASHA). The ASHA Council on Academic Accreditation in Audiology and Speech-Language Pathology accredits this program.

A combined Au.D./Ph.D. track also is available. This track facilitates the completion of both degrees in a 6-year post-baccalaureate period. Students who wish to earn both Au.D. (http://splh.ku.edu/ipcd/AuD/AuD_Requirements_from_Handbook-2012.pdf) and Ph.D. (http://splh.ku.edu/ipcd/PhD/requirements.shtml) degrees should contact their advisor.

A baccalaureate degree with a cumulative 3.0 GPA on all courses taken is required. It is expected that students will have obtained a broad general education to serve as a background prior to their graduate study. Undergraduate course work in mathematics and in basic and applied sciences is strongly encouraged. Official scores from the Graduate Record Examination must be submitted prior to admission.

If the baccalaureate degree is not in the area of communication sciences and disorders, the completion of courses in the following content areas, or their equivalents, may be required for admission. Specific course requirements are determined by the audiology admissions committee.

- Survey/Overview of Communication Disorders
- Language Science/Development
- Introductory Acoustics
- Research Methods
- Speech and Hearing Science
- Phonetics/Phonological Development
- Audiology (introductory level)
- Speech-Language Pathology (introductory level)

A "background check (http://www.kumc.edu/student-services/vice-chancellor-of-student-services/criminal-background-checks-for-students.html)" is required during the admission process; it may affect the student’s eligibility to enter the program. A drug screening is required of all students participating in clinical settings.

International students or those for whom English is a second language must meet minimum English proficiency (http://www.kumc.edu/international/esi_req.html) requirements, as indicated by TOEFL or equivalent exam scores. International students may have additional requirements for visa, residency, and citizenship status. Students should contact the KUMC Office of International Programs (http://www.kumc.edu/international) for guidance regarding these issues during the application process.

For complete admission requirements please visit the IPCD website (http://hearing.kumc.edu) or contact the program at hearingspeech@kumc.edu .

Graduate Admission

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the program:

The University of Kansas Medical Center Department of Hearing and Speech
Attn: Angela Carrasco
3031 H.C. Miller Bldg.,
Mail Stop 3039, 3901 Rainbow Blvd.
Kansas City, KS 66160
acarrasco@kumc.edu

The Au.D. program prepares students to meet the academic and clinical requirements for the ASHA Certificate of Clinical Competence. The degree is designed to be completed in 4 years (including summers, with a common entry point in fall semester). A minimum of 102 credit hours including academic course work, independent research, and clinical practicum is required.

To obtain the Certificate of Clinical Competence in Audiology, a minimum of 1820 clock hours of supervised clinical experience must be completed while enrolled in an accredited educational program. KU’s Au.D. program is designed to provide the required clinical experience. Specific guidelines for certification are contained in the ASHA Certification and Membership Handbook, available on the ASHA website www.asha.org.

Degree Requirements

Audiology Didactic Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUD 810</td>
<td>Diagnostic Audiology</td>
<td>4</td>
</tr>
<tr>
<td>AUD 811</td>
<td>Hearing Disorders</td>
<td>3</td>
</tr>
<tr>
<td>AUD 813</td>
<td>Psychoacoustics and Theories of Hearing</td>
<td>3</td>
</tr>
<tr>
<td>AUD 814</td>
<td>Hearing Conservation</td>
<td>2</td>
</tr>
<tr>
<td>AUD 816</td>
<td>Speech Perception</td>
<td>2</td>
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<tr>
<td>AUD 817</td>
<td>Pediatric Audiology</td>
<td>3</td>
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<tr>
<td>AUD 818</td>
<td>Vestibular Systems and Disorders</td>
<td>3</td>
</tr>
<tr>
<td>AUD 819</td>
<td>Hearing Aids I</td>
<td>3</td>
</tr>
<tr>
<td>AUD 820</td>
<td>Rehabilitative Audiology and Counseling</td>
<td>3</td>
</tr>
<tr>
<td>AUD 821</td>
<td>Hearing Aids II</td>
<td>3</td>
</tr>
<tr>
<td>AUD 822</td>
<td>Electro-Acoustics and Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>AUD 823</td>
<td>Cochlear Implants and Hearing Assistance Technologies</td>
<td>2</td>
</tr>
<tr>
<td>AUD 824</td>
<td>Central Auditory Processing</td>
<td>2</td>
</tr>
<tr>
<td>AUD 825</td>
<td>Genetics and Hearing Loss</td>
<td>2</td>
</tr>
<tr>
<td>AUD 829</td>
<td>Anatomy and Physiology of the Hearing and Vestibular Mechanisms</td>
<td>3</td>
</tr>
<tr>
<td>AUD 851</td>
<td>Auditory Evoked Potentials</td>
<td>3</td>
</tr>
<tr>
<td>AUD 858</td>
<td>Business Audiology</td>
<td>2</td>
</tr>
<tr>
<td>AUD 940</td>
<td>Seminar in Audiology: _______</td>
<td>4</td>
</tr>
<tr>
<td>&amp; AUD 853</td>
<td>and Pharmacology for Audiology</td>
<td></td>
</tr>
<tr>
<td>AUD 941</td>
<td>Grand Rounds in Audiology (taken fall and spring of Years 1-3 for a total of 6 credits)</td>
<td>6</td>
</tr>
</tbody>
</table>

Audiology Clinical Courses

A minimum of 29 credit hours is required:
• During Years 1 and 2: AUD 843 Clinic Practice in Audiology (minimum of 9 credit hours; 1 credit hour equals 1-half day a week in clinic during fall and spring, 1 day a week in summer)
• During Year 3: AUD 944 Clinical Rotation (minimum of 5 credit hours; 1 credit hour equals 1 day a week in clinic during fall and spring, 2 days a week in summer).
• During Year 4: AUD 945 Clinical Externship (40 hours per week in clinic: 6 credit hours in fall and spring, 3 credit hours in summer).

Elective Courses
The Au.D. curriculum requires a total of 4-5 elective courses (12 credits); a minimum of two of these (6 credits) must be statistics courses.

Choice of statistics and elective courses will be determined in consultation with the academic advisor.

PRAXIS Examination and Research Project
In addition to didactic, clinical, and elective courses, students must successfully complete the PRAXIS examination at the end of 3 full years of graduate study and a research project completed through enrollment in a minimum of 4 hours of AUD 846 Independent Study in Problems in Audiology. Projects are to be completed and presented to a faculty-student forum in the spring of Year 3.

Other Degree Requirements
Students must successfully complete an oral, comprehensive examination during Year 3.

Note: Contact your department or program for more information about the Research Skills and Responsible Scholarship requirement for doctoral students. Also, please see this policy listed in the Graduate Studies section of the online catalog and in the KU Policy Library.

Doctor of Philosophy in Speech-Language Pathology or Audiology
The Intercampus Program in Communicative Disorders offers Ph.D. programs in both speech-language pathology and in audiology for post-baccalaureate study of normal and disordered aspects of communication. These programs are designed to prepare suitably qualified individuals for leadership positions in research and academia. A major focus of these programs is to advance the science of these fields, and to elucidate the scientific basis for the procedures and processes used in clinical practice.

A combined Au.D./Ph.D. track also is available. This track facilitates the completion of both degrees in a 6-year post-baccalaureate period. Students who wish to earn both Au.D. and Ph.D. degrees should contact their advisor.

A baccalaureate degree with a cumulative 3.0 GPA on all courses taken is required. Official scores from the Graduate Record Examination must be submitted prior to admission.

A background check (http://www.kumc.edu/student-services/vice-chancellor-of-student-services/criminal-background-checks-for-students.html) is required during the admission process; it may affect the student’s eligibility to enter the program.

International students or those for whom English is a second language must meet minimum English proficiency (http://www.kumc.edu/international/esl_req.html) requirements, as indicated by TOEFL or equivalent exam scores. International students may have additional requirements for visa, residency, and citizenship status. Students should contact the KUMC Office of International Programs (http://www.kumc.edu/international) for guidance regarding these issues during the application process.

For complete admission requirements please visit the IPCD website (http://hearing.kumc.edu) or contact the program at hearingspeech@kumc.edu.

Upon admission, the student and his or her advisor choose a doctoral advisory committee. The committee is responsible for guiding the student’s progress through the selected program of study.

Incoming students who have not completed a substantive graduate research project (e.g., a master’s thesis, Au.D. research project, etc.) must initiate a thesis-equivalent research project, under the direction of a three-member committee, during the first year of enrollment. This project must be completed before the comprehensive oral examination.

Minimum requirements for both the Ph.D. program in Speech-Language Pathology and Audiology are:

• A minimum of 24 graduate hours in a major area of interest
• Completion of a preliminary research experience
• A minimum of 15 graduate hours in research skills/responsible scholarship
• A minimum of 12 graduate hours in a correlative area
• Satisfactory performance on annual reviews
• Satisfactory performance on written and oral comprehensive examination
• Satisfactory completion of a dissertation including written and oral prospectus, and written dissertation and oral defense

Note that the above are the MINIMUM requirements. Each student’s plan of study will vary depending on entry skills (i.e., relevant knowledge and skills acquired through prior training, work or research experience), chosen specialization, and career aspirations.

The essential steps toward a Ph.D. are the following:

1. Completion of academic coursework (major area, correlative area, research skills/responsible scholarship)
2. Preliminary research participation
3. Written comprehensive examinations
4. Comprehensive oral examinations
5. Dissertation prospectus
6. Written dissertation
7. Oral defense of the dissertation
8. Submission of the dissertation to the Office of Graduate Studies

Students in this program must meet the general requirements of the university including the research skills and responsible scholarship requirement (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsibility_Scholarship.htm) and fulfill the basic program requirements to receive the Ph.D. degree.
Clinical Laboratory Sciences

General Information

The department offers a bachelor's degree in clinical laboratory science with a concentration in clinical laboratory science or molecular biotechnology as preparation for entry-level positions as medical laboratory scientists or molecular biotechnologists. The undergraduate program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (http://www.naacls.org), 5600 N. River Road, Suite 720, Rosemont, IL 60018, 773-714-8880.

The department also offers a master's degree in molecular biotechnology. This program prepares students for advanced careers in molecular biotechnology-oriented clinical, industrial, and research laboratories. The application of these skills to research and development is emphasized.

Located at the region's premier academic health center, the Department of Clinical Laboratory Sciences is a part of the School of Health Professions (http://healthprofessions.kumc.edu) on the Medical Center campus of the University of Kansas. KU Medical Center (http://www.kumc.edu) is located in the heart of the Kansas City metropolitan area at 39th and Rainbow Boulevard—about 40 minutes away from the main KU campus (http://www.ku.edu) in Lawrence, Kansas.

Advising and FAQ

For information about undergraduate clinical laboratory science at KU, please visit the department's website (http://www.cls.kumc.edu). Students interested in entering this field should contact an advisor as early in their collegiate careers as possible to ensure prerequisite course work will be completed on schedule. Contact an advisor (http://www.alliedhealth.kumc.edu/school/information_request.html) today.

View some commonly asked questions (http://www.kumc.edu/school-of-health-professions/clinical-laboratory-science/frequently-asked-questions.html) we've received from prospective students.

Learn about the profession of clinical laboratory science. (http://www.kumc.edu/school-of-health-professions/clinical-laboratory-science/what-is-a-medical-laboratory-scientist.html)

Courses

CLS 210. Introduction to Clinical Laboratory Sciences. 1 Hour.
An introductory overview of the professions of Clinical Laboratory Sciences and Cytotechnology including types of analyses performed, specialties, interrelationships in the health care system and a visit to a clinical laboratory. This course will enable those considering a major in the Clinical Laboratory Sciences program to have a clear definition of the professions. (Same as BIOL 210.) LEC.

CLS 520. Phlebotomy. 1 Hour.
Principles and practice of collecting blood specimens for clinical laboratory analyses. Includes specimen identification, equipment, anticoagulants, safety precautions, specimen transport, and processing. Hepatitis immunization required. Prerequisite: Admission to the Clinical Laboratory Science Program or consent of instructor. LAB.

CLS 523. Fundamentals of Analytical Techniques Laboratory. 3 Hours.
Student laboratory with recitation addressing techniques and methodologies used in the clinical laboratory. Laboratory skills include laboratory math, quality control, pipetting, and instrumentation used in analysis of body fluids. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of the instructor. LAB.

CLS 530. Clinical Chemistry I. 3 Hours.
Introduction to human physiology and pathophysiology I with emphasis on proteins, carbohydrates, lipids, enzymes, liver kidney function, blood gases and body fluids. The related clinical chemistry tests, their principles, analysis, interpretation, and significance are included. Prerequisite: CLS 523 or consent of instructor. LEC.

CLS 532. Clinical Microbiology I Laboratory. 3 Hours.
Pathogenesis and disease processes of pathogenic, opportunistic, and saprophytic bacteria; composition and preparation of media; sterilization and disinfection; antimicrobial agents and susceptibility testing; topics related to theory and applications. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of the instructor. LEC.

CLS 533. Clinical Microbiology I Laboratory. 3 Hours.
A laboratory with recitation addressing diagnostic procedures used for isolation and identification of clinically significant bacteria. Prerequisite: CLS 532 or CLS 532 concurrently, or consent of the instructor. LAB.

CLS 536. Hematology I. 3 Hours.
Fundamentals of hemopoiesis; the physiology, function, and cytochemistry of normal and abnormal blood cells; the theory and performance of clinical laboratory methods related to these parameters. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of the instructor. LEC.

CLS 537. Hematology I Laboratory. 2 Hours.
A laboratory with recitation emphasizing basic hematologic techniques and identification of normal and abnormal cells in peripheral blood and bone marrow. Prerequisite: CLS 536, or CLS 536 concurrently, or consent of the instructor. LAB.

CLS 538. Immunology. 3 Hours.
Covers basic theory of molecular and cellular immunity of innate and adaptive immune systems. Lectures include: structure and function of antibodies, complement, major histocompatibility complexes, B- and T-cells and their receptors, cellular and molecular basis of the immune response and immune regulation, hypersensitivity, and immune tolerance. Clinical applications and methodologies will be incorporated into lectures. Prerequisites: Admission to the Department of Clinical Laboratory Sciences or consent of instructor. LEC.

CLS 540. Clinical Chemistry II. 2 Hours.
Introduction to human physiology and pathophysiology II with emphasis on hormones, therapeutic drugs, clinical toxicology, tumor markers, vitamins and trace elements. The related clinical chemistry tests, their principles, analysis, interpretation, and significance are included. Prerequisite: CLS 530 or consent of instructor. LEC.

CLS 541. Professional Development. 2 Hours.
This course combines lectures and projects to give students an introduction to and practice in the following: resume writing and interviewing skills; the components of and the production of a scholarly product; the basic principles involved in education with the identification and writing of educational objectives; the activities and responsibilities involved in laboratory management. Prerequisite: CLS 520 - CLS 549 or consent of instructor. LEC.

CLS 542. Clinical Microbiology II. 2 Hours.
Pathogenesis, disease processes, and diagnostic protocols for parasites, medically important fungi and mycobacteria. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of the instructor. LEC.
**CLS 543. Clinical Microbiology II Laboratory. 2 Hours.**
A laboratory with recitation addressing diagnostic procedures used for isolation and identification of parasites, medically important fungi, and mycobacteria. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of the instructor. LAB.

**CLS 544. Immunohematology I. 3 Hours.**
Principles of immunohematology as applied to transfusion services, donor services, component preparation and storage, and transfusion therapy. Includes problem solving for transfusion related situations and evaluation of problems related to hemolytic disease of the newborn, autoimmune hemolytic disorders, and transfusion reactions. Prerequisite: BIOL 503 or CLS 538, CLS 546, or consent of instructor. LEC.

**CLS 545. Immunohematology I Laboratory. 2 Hours.**
Principles of immunohematology as applied to transfusion services, donor services, component preparation and storage, and transfusion therapy. Includes problem solving for transfusion related situations and evaluation of problems related to hemolytic disease of the newborn, autoimmune hemolytic disorders, and transfusion reactions. Prerequisite: BIOL 503 or CLS 538, CLS 546, or consent of instructor. LAB.

**CLS 546. Hematology II. 3 Hours.**
Lectures on hematopoiesis, the physiology, function, and cytochemistry of normal and abnormal blood cells, normal and abnormal hemostasis, and the theory and performance of laboratory methods related to these parameters. Prerequisite: CLS 536 and CLS 537 or consent of instructor. LEC.

**CLS 547. Hematology II Laboratory. 2 Hours.**
A laboratory with recitation involving performance of hematology laboratory procedures with emphasis on basic hematologic and coagulation techniques and the identification of normal and abnormal cells in the peripheral blood and bone marrow. Prerequisite: CLS 536, CLS 537 and CLS 546 or CLS 546 concurrently, or consent of the instructor. LAB.

**CLS 549. Clinical Immunology I Laboratory. 2 Hours.**
A laboratory with recitation involving performance of immunoassays. Emphasis on theory, methodologies, and clinical correlations. Prerequisites: CLS 523, BIOL 503 or CLS 538, or consent of instructor. LEC.

**CLS 600. Introductory Biochemistry. 4 Hours.**
An introduction to the chemistry and metabolism of carbohydrates, lipids, proteins, nucleic acids, and other biologically important molecules. Topics include cellular processes, reactions and interactions occurring in living organisms. Prequisite: Admission to the Department of Clinical Laboratory Sciences or consent of instructor. LEC.

**CLS 605. Introduction to Molecular Diagnostics I. 1 Hour.**
An introduction to molecular biology and molecular biological methodologies and technologies commonly used in basic, applied, and diagnostic laboratories. An emphasis is placed on molecular biology principles and techniques used in the clinical laboratory for diagnosis, prognosis, and treatment of disease. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of the instructor. LEC.

**CLS 607. Introduction to Molecular Diagnostics I Laboratory. 1 Hour.**
An introduction to molecular diagnostic methodologies and technologies commonly used in clinical laboratories. Principles and performance of nucleic acid isolation, restriction enzyme digestion, electrophoresis, amplification, hybridization, and analysis. Applications in infectious and genetic disease. Prerequisite: Admission to the Clinical Laboratory Science program or Cytotechnology program or consent of the instructor. LEC.

**CLS 610. Advanced Biotechniques Lecture. 3 Hours.**
A lecture course covering the theory behind a variety of current molecular, biochemical and immunologic techniques utilized in today's research and diagnostic laboratories. Material presented will include proper specimen preparation and handling; technique set-up and quality control; troubleshoot and technique modification. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of instructor. LEC.

**CLS 611. Advanced Biotechniques Laboratory. 2 Hours.**
Student Laboratory course with practical application of selected molecular, biochemical, and immunologic techniques. Designed to provide limited experience with advanced chromatographic techniques (DEAE-cellulose, affinity columns, HPLC, and gas); multiple electrophoresis techniques (starch-gel, SDS-page, Southern blot); nucleic acid analysis and manipulation; ligand production and utilization; cell culture, including appropriate sterilization methods, aseptic handling, and steps to ensure attachment. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of instructor. LAB.

**CLS 615. Journal Club. 1 Hour.**
Introduction to analysis of journal articles. Initial sessions will place an emphasis upon reading the article with an eye to replicating a described method or specific technique; analyzing data presented for validity; acceptance or rejection of the researchers' conclusions. Follow-up sessions will involve analyzing and presenting selected articles. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of instructor. LEC.

**CLS 620. Radiation Safety. 1 Hour.**
A lecture course covering the structure of the atom, isotopes, and radioactivity. Emphasis will be on radiation protection and safe handling of isotopes. In addition, the student will be introduced to methods for detection and quantitation of radioactivity in biological materials. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of instructor. LEC.

**CLS 621. Biotechnology Methodologies Practicum. 4 Hours.**
Placement of the student in a biotechnology core facility supporting molecular biological research from multiple laboratories. Such a core facility would provide, but not to be restricted to, the following methodologies: amino acid analysis; protein/peptide sequencing; peptide synthesis; DNA/RNA sequencing; oligonucleotide synthesis. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of instructor. LAB.

**CLS 622. Problems in Molecular Diagnostics. 2 Hours.**
Provides a targeted review of current theory, techniques and application of molecular techniques in the diagnosis of infectious disease, and hereditary and acquired genetic disease. Prerequisite: Admission to the Clinical Laboratory Science or Cytotechnology program, or consent of instructor. LEC.

**CLS 623. Molecular Genetics Practicum. 4 Hours.**
Placement of the student in a molecular genetics research laboratory (utilizing either prokaryotic or eucaryotic organisms or both) working with laboratory staff on an on-going small project within the laboratory. Molecular genetics laboratories utilized could be involved in, but not restricted to, any of the following activities: gene sequencing, cloning or splicing; elucidation of the mechanisms that regulate gene expression; proto-oncogene activation. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of instructor. LAB.

**CLS 633. Special Topics Practicum. 4 Hours.**
Placement of the student in any of a variety of research laboratories actively participating in molecular biological projects utilizing advanced genetic, biochemical immunologic, or other molecular techniques.
Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of instructor. LAB.

CLS 639. Urinanalysis. 1 Hour.
Tutorial instruction and clinical laboratory experience in urinanalysis with the application of knowledge and skills to methodology, instrumentation, and quality control. Advanced content on renal disorders with emphasis on pathological mechanisms, interpretation, and clinical correlation of test results. Prerequisite: CLS 540, or consent of instructor. LEC.

CLS 640. Clinical Chemistry III. 2 Hours.
Tutorial instruction in advanced clinical chemistry focusing on correlation of laboratory analysis and pathophysiology. Addresses organ system disease, metabolic disease, nutrition, and other special topics. Prerequisite: CLS 540, or consent of instructor. LEC.

CLS 641. Clinical Chemistry and Immunology Practicum. 3 Hours.
Tutorial instruction and clinical laboratory experience in the chemistry of body fluids, with the application of knowledge and skills to methodology, instrumentation, and quality control. Involves correlation of chemical and immunological analyses to pathophysiology. Prerequisites: CLS 540 and CLS 549, or consent of instructor. LAB.

CLS 642. Clinical Microbiology III. 2 Hours.
Tutorial instruction addressing pathophysiology and diagnostic protocols of viruses, rickettsia, chlamydia, mycoplasma, and other unusual organisms. Prerequisites: CLS 532, CLS 533, CLS 542 and CLS 543, or consent of instructor. LEC.

CLS 643. Clinical Microbiology Practicum. 3 Hours.
Tutorial instruction and clinical laboratory experience in diagnostic microbiology, with the application of knowledge and skills to methodology, instrumentation, and quality control. Prerequisites: CLS 532, CLS 533, CLS 542 and CLS 543, or consent of instructor. LAB.

CLS 644. Immunohematology II. 2 Hours.
Tutorial instruction addressing advanced transfusion medicine theory and concepts. Focuses on hospital transfusion services, blood utilization, management, legal and regulatory issues, and special topics. Prerequisites: CLS 544 and CLS 545, or consent of instructor. LEC.

CLS 645. Immunohematology Practicum. 2 Hours.
Tutorial instruction and clinical laboratory experience in transfusion medicine, with the application of knowledge and skills to methodology, instrumentation, and quality control. Prerequisites: CLS 544, CLS 545, or consent of instructor. LAB.

CLS 646. Hematology III. 2 Hours.
Tutorial instruction on hematologic and hemorrhagic disorders with emphasis on pathological mechanisms, interpretation, and clinical correlation of test results. Prerequisites: CLS 546 and CLS 547, or consent of instructor. LEC.

CLS 647. Hematology Practicum. 3 Hours.
Tutorial instruction and clinical laboratory experience in hematology, with the application of knowledge and skills to methodology, instrumentation, and quality control. Prerequisites: CLS 546 and CLS 547, or consent of instructor. LAB.

CLS 648. Clinical Immunology II. 1 Hour.
Tutorial instruction on immune system involvement in disease processes, immune dysfunction and correlation of laboratory data with disease states. Prerequisite: CLS 549, or consent of instructor. LEC.

CLS 650. Clinical Laboratory Science Review. 1 Hour.
This review will enable students to identify areas of weakness in their understanding of clinical laboratory science in preparation for clinical rotations and comprehensive examination. Students will participate in classroom and laboratory sessions in order to evaluate their performance in meeting required competencies. Prerequisite: CLS 520-CLS 549 inclusive, CLS 605, CLS 607, CLS 661, and CLS 639-CLS 648 inclusive, or consent of instructor. LEC.

CLS 655. Molecular Biotechnology Review Course. 1 Hour.
Situation and problem solving oriented web based course that reviews material taught. This course will enable students to identify areas of weakness in their understanding of molecular biotechniques and their applications. Interactive question-answer format and a comprehensive, certification-type exam will aid students in evaluating their performance in meeting required competencies. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of instructor. LEC.

CLS 661. Management Principles in Health Care. 3 Hours.
Introduction to basic principles of management, education, and research and their application in the current health care environment. Course content includes: management theory, scope of management, quality issues, budgeting, personnel issues, evaluation and application of management concepts; introductory research methods and evaluation of journal articles. Cross listed with HEIM 661 and RESP 661. Prerequisite: Admission to the Clinical Laboratory Sciences program or consent of the instructor. LEC.

CLS 670. Principles of Education in Clinical Laboratory Science. 1 Hour.
Educational concepts including principles of learning, curriculum design, evaluation, teaching methodologies, audiovisual and library resources, accreditation, student services, and legal considerations. Prerequisite: Admission to the Clinical Laboratory Science program or consent of instructor. LEC.

CLS 690. Special Topics. 1-5 Hours.
A course of study offering the student the opportunity for acquisition of additional knowledge and skills in one of the clinical laboratory routine areas or a specialty area, e.g., cytogenetics, metabolic analysis, or supervision; or at another clinical site. Course requirements designed in cooperation with student. Prerequisite: Admission to the Clinical Laboratory Science program or consent of instructor. LEC.

CLS 705. Fundamentals of Pathophysiology. 3 Hours.
Review of integrative human physiology with an emphasis upon homeostatic mechanisms and etiologies of disease. The interrelationships of function and dysfunction at the molecular, cellular and tissue level (pathology), organ and systematic level (impairment), and to the total human body (functional limitations) will be applied in each of the body systems. Discussions and applied materials will be tailored to the professional student population. Prerequisite: Admission to the Dietetics and Nutrition program or permission of the instructor(s). LEC.

CLS 710. Molecular Techniques I. 2 Hours.
A lecture course covering the theory underlying molecular techniques involving nucleic acids and mammalian cell culture. Topics include purification and analysis of nucleic acids, recombinant DNA, construction and screening of genetic libraries, genetic engineering, control of gene expression, construction of gene fusions, amplification, hybridization, and nucleic acid databases and bioinformatic analysis. Prerequisite: Admission to the MS in Molecular Biotechnology program or consent of instructor. LEC.

CLS 711. Molecular Techniques Laboratory I. 2 Hours.
A laboratory course emphasizing the application, practice, and trouble-shooting of molecular techniques involving nucleic acids and mammalian cell culture. Topics include purification and analysis of nucleic acids, recombinant DNA, genetic engineering, control of gene expression, construction of gene fusions, amplification, and hybridization. Topics are
covered through a project-based approach. Prerequisite: Admission to the MS in Molecular Biotechnology program or consent of instructor. LAB.

**CLS 720. Molecular Techniques II. 2 Hours.**
Lecture and discussion course covering the theory and practice of molecular techniques for protein analysis. General topics include: protein detection, quantification, and characterization; protein separation and identification; protein expression systems; protein extraction, fractionation, solubilization and purification; analysis of protein-protein interactions; proteomics; and mass spectroscopy. Prerequisite: Admission to the MS in Molecular Biotechnology program or consent of instructor. LEC.

**CLS 721. Molecular Techniques Laboratory II. 2 Hours.**
Laboratory course for the practice and application of molecular techniques for analyzing and manipulating proteins. Techniques will include: bioinformatics analyses; expression, purification and solubilization of epitope tagged fusion proteins, protein-protein interactions; protein quantification; protein separation by electrophoresis and column chromatography; protein detection by chemical and immunological methods; and LC-MS. Prerequisite: Admission to the MS in Molecular Biotechnology program or consent of instructor. LAB.

**CLS 730. Current Issues in Biotechnology. 1 Hour.**
A seminar course that address topics including scientific, business, legal, social, and ethical issues in biotechnology. Students explore these topics through literature discussions, student presentations, and discussions with speakers from biotechnology-related academic and industry sectors. This course is meant for graduate students in the Molecular Biotechnology program. Prerequisite: Consent of instructor. SEM.

**CLS 740. Journal Club. 1 Hour.**
This course is an introduction to the critical reading of journal articles from the current literature in molecular biotechnology. Discussions will emphasize the analysis of experimental design and technique, as well as the significance of the results and validity of the author’s conclusions. Students will learn how to search for articles and background information pertaining to selected topics, an how to present a polished, professional summary of that literature. Assigned papers for discussion and student presentations will focus on new strategies and technologies in molecular biotechnology of wide fundamental importance, or on hypothesis-based research that uses molecular biotechnological approaches. Prerequisite: Completion of (or concurrent enrollment in ) CLS 710 and CLS 720. LEC.

**CLS 742. Scientific Writing. 1 Hour.**
Formats, techniques, and styles of scientific writing. Emphasis will be placed on clear, concise, and effective writing. The class will focus on the process of writing scientific manuscripts and grant proposals. Students will identify and define the sections of scientific manuscripts as well as grant proposals. During the course, each student will write an R21-type (NIH Exploratory/Developmental Research Grant) proposal as could be submitted to the most appropriate NIH Institute. This course is intended for students enrolled in their final semester of the Master of Science in Molecular Biotechnology program. Prerequisite: Consent of Instructor LEC.

**CLS 744. Topics in Molecular Biotechnology. 1-5 Hours.**
Advanced course on special topics in molecular biotechnology, offered by arrangement. May include lectures, discussions, readings, laboratory techniques, and supervised research experience. This course is intended for graduate students in the Molecular Biotechnology program. Prerequisite: Consent of instructor. LEC.

**CLS 750. Practicum I. 4 Hours.**
Advanced practical experience in a selected laboratory pursuing applied, basic, or diagnostic research projects utilizing genetic, biochemical, or other molecular biology-related approaches. Students apply and extend their knowledge and skills by performing a research and/or development project under the supervision of a site mentor. This practicum is performed at a site other than those utilized for CLS 751 (Practicum II) and CLS 752 (Practicum III). Prerequisites: Completion of CLS 710, CLS 711, CLS 720, and CLS 721, and consent of the instructor. PRA.

**CLS 751. Practicum II. 5 Hours.**
Advanced practical experience in a selected laboratory pursuing applied, basic, or diagnostic research projects utilizing genetic, biochemical, or other molecular biology-related approaches. Students apply and extend their knowledge and skills by performing a research and/or development project under the supervision of a site mentor. This practicum is performed at a site other than those utilized for CLS 750 (Practicum I) and CLS 752 (Practicum III). Prerequisites: Completion of CLS 710, CLS 711, CLS 720, and CLS 721, and consent of the instructor. PRA.

**CLS 752. Practicum III. 5 Hours.**
Advanced practical experience in a selected laboratory pursuing applied, basic, or diagnostic research projects utilizing genetic, biochemical, or other molecular biology-related approaches. Students apply and extend their knowledge and skills by performing a research and/or development project under the supervision of a site mentor. This practicum is performed at a site other than those utilized for CLS 750 (Practicum I) and CLS 751 (Practicum II). Prerequisites: Completion of CLS 710, CLS 711, CLS 720, and CLS 721, and consent of the instructor. PRA.

**Bachelor of Science in Clinical Laboratory Science**

The University of Kansas’ one-of-a-kind program offers cutting-edge training and technology combined with real-world experience for students interested in clinical laboratory science. In KU’s 75-year accredited CLS program (http://www.kumc.edu/school-of-health-professions/clinical-laboratory-science/about-us/history.html), students learn in a innovative dual-track program featuring molecular biotechnology and the traditional clinical concentrations. Because of the continued growth of the profession, students of KU’s CLS program have a nearly 100 percent placement rate following graduation.

Students interested in clinical laboratory science should contact the an advisor early in their college work. The KU CLS program requires two years of preparatory college coursework and two years of professional coursework in the CLS program at KU Medical Center in Kansas City, Kan. The program is open to students with BA, BS or BGS degrees who have completed the prerequisites (http://www.kumc.edu/school-of-health-professions/clinical-laboratory-science/how-to-apply/prerequisites.html).

This program requires 2 years of preparatory college study (57 hours minimum) and 2 years of professional course work in clinical laboratory science. Interested students should contact the department (http://www.cls.kumc.edu) at KU Medical Center for advising as early as possible in their college careers (advising is available on the Lawrence campus). The program is open to students who have bachelor's degrees, if they have completed the prerequisites.

Applications for the professional program are available online (http://www.cls.kumc.edu/school-of-health-professions/clinical-laboratory-science/how-to-apply/apply-online.html). The program begins each fall semester. Applications should be submitted by December 15 of the year before the anticipated start date. Also required: complete college
transcript(s) and 3 letters of recommendation, 2 of which should be from college basic science instructors.

**Admission Requirements**

An applicant to the program must have completed the required college preparatory course work, with a minimum grade of C in each prerequisite course, before entering the program in the fall. The student must have earned a 2.7 GPA overall and in the following courses: chemistry, biology, and math.

International students, or those for whom English is a second language, may have additional requirements relative to language proficiency, residency, and citizenship status. Information for international students (http://www.kumc.edu/school-of-health-professions/information-for-international-applicants.html)

Good physical and mental health is essential. Minor physical handicaps are not considered deterrents to admission. Physical examinations are required before registration in CLS course work. The admissions committee requires a personal interview with the applicant.

A background check and documentation of shadow experience is also required. Prospective students should review the program requirements, including prerequisite course work, and complete list of eligibility requirements (http://www.kumc.edu/school-of-health-professions/clinical-laboratory-science/how-to-apply.html).

**Prerequisites**

**English (6)**

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<td>SOC 310</td>
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**Biology (11-12)**

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**Communication Studies (0)**

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<td>or COMS 131</td>
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**Liberal Arts and Sciences Courses (12)**

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<tr>
<td>Social sciences elective (1 course that meets KU Core Goal 3S)</td>
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<tr>
<td>Elective that meets KU Core Goal 4.1</td>
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<tr>
<td>Elective that meets KU Core Goal 4.2</td>
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**Clinical Laboratory Science (1)**

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The following courses are included during the first year (junior year) of the professional program. Students with previous credit for these courses or equivalents do not need to enroll in them if they earned a C or better in the course:

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<tr>
<td>or CLS 600</td>
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Following 2 years of preparatory undergraduate study, students enter the program as juniors. A clinical concentration and molecular biotechnology concentration are available. Until the second semester of the senior year, students in both concentrations take the same course work. Also during the senior year, students rotate through 14 to 16 weeks of practicum experience at several of the school’s many collaborating affiliates.

A new course of study, categorical concentration, has been developed for science majors who already hold a baccalaureate degree from an accredited institution and are currently working in a clinical laboratory in hematology, chemistry, or microbiology.

**Clinical Concentration Curriculum**

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<td>or BIOL 503</td>
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<td>BIOL 600</td>
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<td>or CLS 600</td>
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Curriculum

Molecular Biotechnology Concentration

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<tr>
<td>CLS 640</td>
<td>Clinical Chemistry III</td>
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<td>CLS 641</td>
<td>Clinical Chemistry and Immunology Practicum</td>
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<td>CLS 642</td>
<td>Clinical Microbiology III</td>
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<td>CLS 643</td>
<td>Clinical Microbiology Practicum</td>
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<td>CLS 646</td>
<td>Hematology III</td>
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<td>CLS 644</td>
<td>Immunohematology II</td>
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<td>CLS 645</td>
<td>Immunohematology Practicum</td>
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<td>CLS 648</td>
<td>Clinical Immunology II</td>
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<td>CLS 650</td>
<td>Clinical Laboratory Science Review</td>
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<td>CLS 661</td>
<td>Management Principles in Health Care</td>
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<tr>
<td>CLS 690</td>
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<td>CLS 538</td>
<td>Immunology</td>
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<td>CLS 520</td>
<td>Phlebotomy</td>
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<tr>
<td>CLS 523</td>
<td>Fundamentals of Analytical Techniques Laboratory</td>
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<td>CLS 530</td>
<td>Clinical Chemistry I</td>
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<td>CLS 532</td>
<td>Clinical Microbiology I</td>
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<td>CLS 536</td>
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<td>CLS 537</td>
<td>Hematology I Laboratory</td>
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<td>CLS 540</td>
<td>Clinical Chemistry II</td>
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<td>CLS 541</td>
<td>Professional Development</td>
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<td>CLS 542</td>
<td>Clinical Microbiology II</td>
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<td>CLS 605</td>
<td>Introduction to Molecular Diagnostics I</td>
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<td>CLS 610</td>
<td>Advanced Biotechniques Lecture</td>
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<td>CLS 620</td>
<td>Radiation Safety</td>
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<td>CLS 621</td>
<td>Biotechnology Methodologies Practicum</td>
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<td>CLS 622</td>
<td>Problems in Molecular Diagnostics</td>
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<td>CLS 623</td>
<td>Molecular Genetics Practicum</td>
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<td>CLS 655</td>
<td>Molecular Biotechnology Review Course</td>
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<td>CLS 661</td>
<td>Management Principles in Health Care</td>
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<tr>
<td>CLS 633</td>
<td>Special Topics Practicum</td>
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Cytotechnology

General Information

Cytotechnologists play a key role in the delivery of high-quality medical care. Cytotechnologists perform the initial work in detecting and diagnosing cancer by identifying malignant cells in patient specimens. Other benign and premalignant conditions also can be detected. When abnormalities are found, a pathologist reviews the slides and makes the final interpretation.

The cytotechnologist also supervises the preparation and staining of microscopic slides using a variety of laboratory techniques and equipment. Fine-needle aspiration is becoming an increasingly important diagnostic tool, and the cytotechnologist must be trained to assist in this technique as well as to interpret the material derived from various body sites.

The cytotechnology undergraduate degree program operates in cooperation with the Cytology Department of the University of Kansas Hospital. Also, several required classes are taken in the Department of Clinical Laboratory Sciences. It is one of many academic programs in the KU School of Health Professions on the KU Medical Center campus in Kansas City, Kan. Graduates receive a Bachelor of Science in Cytotechnology and are prepared to take licensing examinations required for employment in this field.

The KU cytotechnology program is accredited by the Commission on Accreditation of Allied Health Education Programs (http://www.caahep.org), 1361 Park Street, Clearwater, FL 33756. The sponsoring organization is the American Society of Cytopathology, 400 W. 9th St., Suite 201, Wilmington, DE 19801.

Advising and FAQ

For information about cytotechnology at KU, please visit the program’s website. Students interested in entering this field should contact an advisor as early as possible in their collegiate careers to ensure prerequisite course work will be completed on schedule. Contact an advisor today.

View some commonly asked questions we’ve received from prospective students.

Courses

CYTO 300. Introduction to Cytology. 5 Hours.
Orientation to the profession of cytotechnology including basic cell biology, ethics, the microscope, history of the profession. Also basic concepts of pathology are introduced including normal, benign proliferative, inflammatory, and reparative processes. The cellular alterations caused by these processes are introduced using the female genital system. The histology, anatomy, and endocrine system of the female genital tract are also covered. Microscopy of this section includes proper use and care of the microscope, hormonal cytology, and the range of normal reparative reactions. The recognition of specific infectious agents and/or their cellular manifestations is also included using the female genital tract as the body system under investigations. Prerequisite: Admissions to the Cytotechnology Program or permission of instructor. LEC.

CYTO 321. Neoplasia in the Female Genital Tract I. 5 Hours.
The pathologic concepts of neoplasia, the morphogenesis of carcinoma, and the cellular changes associated with both premalignant and malignant
changes of squamous cell lesions in the cervix are studied. Microscopy in this section includes pre-screening of clinical care load identifying normal and abnormal cellular criteria. Prerequisite: CYTO 300 or instructor’s permission. LEC.

CYTO 322. Neoplasia in the Female Genital Tract II. 6 Hours.
A continuation of CYTO 321 with the emphasis on lesions of the uterine corpus, metastatic lesions, and lesions of the vulva and vagina. Also treatment effect and pregnancy change are included in this section. Practical microscopy is also continued with the pre-screening of clinical cases. Prerequisite: CYTO 321 or instructor’s permission. LEC.

CYTO 355. Cytology Lab Management, Respiratory Cytology and Oral Cytology. 4 Hours.
Cytology lab regulations and QC requirements. Management requirements regarding safety, quality improvement, and personnel. Also, the normal, benign, and malignant changes of the upper and lower respiratory tract and the oral cavity. The anatomy, histology, and cytology of each of the body sites is studied as well as infectious agents common to these sites. Microscopy includes prescreening gynecologic material while further increasing speed and accuracy. Respiratory and oral specimens are also included in the practical microscopy. Students rotate through the processing laboratory. Prerequisite: CYTO 322 or permission of the instructor. LEC.

CYTO 370. Effusions, C.S.F., and Miscellaneous Cytology. 3 Hours.
This course includes the cytology of the reticulo-endothelial system, effusions, CSF, and other miscellaneous fluids. Normal, benign, and malignant cellular criteria are covered as well as the anatomy and histology of each body site. Microscopy includes further practice in gyn material and all non-gyn specimens studied to this point. Students continue to use the processing laboratory on a rotating basis. Prerequisite: CYTO 355 or instructor’s permission. LEC.

CYTO 380. Gastrointestinal, Breast, G.U. and F.N.A. Cytology. 6 Hours.
This course includes the cytology of the GI system, the breast, the urinary tract, and other miscellaneous body sites. The anatomy and histology of each of the body sites is studied; cellular criteria for benign, normal, and malignant changes are introduced. Advanced topics such as aspiration cytology will also be covered. Microscopy includes further practice in the pre-screening of gyn material as well as all non-gyn material studied to this point. Students continue to use the processing laboratory on a rotating basis. Prerequisite: CYTO 370 or instructor’s permission. LEC.

CYTO 415. Scientific Method and Literature in Cytology. 1 Hour.
This course will focus on the scientific method and research tools as used in recent journal articles. Discussion will specifically focus on critical evaluation of the conclusions presented and the evidence used to support those conclusions. Also, data retrieval will be practiced as the students research and write a paper on a cytology related topic. Prerequisite: CYTO 380 or instructor’s permission. LEC.

CYTO 420. Advanced Practicum in Cytology. 2 Hours.
Microscopy includes further practice in the screening of all gyn and non-gyn material at professional entry levels of speed and accuracy. Students continue to use the processing laboratory on a rotating basis and participate in case conference. Prerequisite: CYTO 380 or instructor’s permission. LEC.

CYTO 450. Advanced Topics in Cytology. 2 Hours.
This course will include lectures on advanced topics in cytology. A comprehensive final examination completes the course. Students continue to increase speed and accuracy in microscopy to at least professional entry levels. Prerequisite: CYTO 420 or instructor’s permission. LEC.

CYTO 523. Fundamental Analytical Techniques Laboratory. 1 Hour.
A laboratory classroom experience and recitation providing hands-on practice of basic laboratory skills. Laboratory exercises will provide practice with: introduction to pipetting and calibration of pipettes; principles of spectrophotometry; standard curve preparation; basic quality control; laboratory safety. Prerequisite: Admission to the Cytotechnology program or consent of the instructor. LAB.

Bachelor of Science in Cytotechnology

Fees
Visit the Cytotechnology website for detailed tuition and fee information.

Career Opportunities
Graduates are eligible to sit for national certification examinations for cytotechnologists. Successful completion of the examination provides a nationally recognized credential as a cytotechnologist.

Employment opportunities are available in hospitals, reference laboratories, governmental agencies, and educational institutions.

Undergraduate Admission
This program requires 3 years of preparatory college course work and one year of cytotechnology course work. The program is also open to students who have bachelor’s degrees, if they have completed the science and math prerequisites. Applications for the 1-year cytotechnology program are available on the school’s website (http://healthprofessions.kumc.edu). Applications for the fall semester should be submitted by February 1 of the year for which admission is requested. The application must be accompanied by a complete college transcript and 2 letters of recommendation. A personal applicant interview is required.

Admission Requirements
Applicants to this program must have completed the required college preparatory course work before entering the program in the fall. Minimum entry requirements are 3 years of college work (90 semester credit hours), an overall grade-point average of 2.5, and a grade-point average of 2.7 in prerequisite biology, chemistry, and mathematics before enrolling in the cytotechnology program. The student must have earned a minimum grade of C in each prerequisite course. Admission to the program is a competitive process.

International students, or those for whom English is a second language, may have additional requirements relative to language proficiency, residency, and citizenship status. International students should review current requirements (http://www.kumc.edu/school-of-health-professions/information-for-international-applicants.html).

Good physical and mental health is essential. Minor physical handicaps are not considered deterrents. Physical examinations and a color-blindness test are required before registration in the professional course work. Prospective students should review the program requirements, including prerequisite course work, and complete list of application requirements at the program’s website.
Prerequisites

English (6)
ENGL 101 Composition 3
ENGL 102 Critical Reading and Writing 3

Mathematics (3)
MATH 101 College Algebra (or higher) 3

Biological Sciences (20)
Required courses:
BIOL 150 Principles of Molecular and Cellular Biology 4
BIOL 240 Fundamentals of Human Anatomy 3
or BIOL 246 Principles of Human Physiology
BIOL 350 Principles of Genetics 3

In addition to the required courses above, the student may choose 10 credit hours of biology course work. The following courses have been suggested by the program director as helpful to future study in cytotechnology but they are not required.

BIOL 240 Fundamentals of Human Anatomy
or BIOL 246 Principles of Human Physiology
BIOL 405 Laboratory in Genetics
BIOL 416 Cell Structure and Function
BIOL 417 Biology of Development
BIOL 570 Introduction to Biostatistics
BIOL 595 Human Genetics

Chemistry (10)
(8 hours minimum, KU students 10 hours)
CHEM 130 General Chemistry I 5
CHEM 135 General Chemistry II 5

Western Civilization (6)
HWC 204 Western Civilization I 3
HWC 205 Western Civilization II 3

Communication Studies (3)
Select one of the following: 3
COMS 130 Speaker-Audience Communication
COMS 150 Personal Communication
COMS 230 Fundamentals of Debate
PHIL 148 Reason and Argument

Humanities and Non-Western Culture (6 hours). View the list of principal courses. View the list of non-Western culture courses.

Social Sciences (6 hours). View the list of principal courses.

Optional Additional Courses

These courses are not required for the cytotechnology degree; however, they will be very useful as you enter the program. Art history, for example, is extremely helpful for developing visual skills required by successful cytotechnologists. Additional mathematics and statistics preparation is beneficial to students as well.

Select one of the following: 3
MATH 111 Matrix Algebra, Probability, and Statistics
MATH 365 Elementary Statistics
BIOL 570 Introduction to Biostatistics

Select one of the following: 3
HA 100 Introduction to Western Art History
HA 150 Western Art History I: Ancient Through Medieval Art
HA 151 Western Art History II: Renaissance to Contemporary Art

B.S. Degree Requirements

This program requires 3 years of undergraduate college course work including a minimum of 90 semester credit hours at KU Lawrence campus, or at another university or community college and 1 year of professional courses at KU Medical Center. Students are allowed no more than 64 hours of lower-division classes.

To graduate from KU and be eligible to sit for the CT (ASCP) registry examination, students must have completed a minimum of 129 credit hours, including 39 hours in the cytotechnology program. To obtain a bachelor’s degree from KU, a student must earn the least 30 hours of credit for the degree by resident study. Transfer students should be aware that all transfer courses for which they have requested credit must be equivalent to courses required at KU, or additional course work will be required. All other degree requirements must be fulfilled. All required science prerequisites must be passed with a grade of C or better. Detailed curriculum information is found on the program’s website.

Students must earn grades of B or above to continue in the program. Program requirements and course offerings are subject to change. Prospective students should contact the program for the latest information.

Clinical Program in Cytotechnology

The cytotechnology professional program requires enrollment during the fall, spring, and summer terms of the senior year. The following courses are required:

CYTO 300 Introduction to Cytology 5
CYTO 321 Neoplasia in the Female Genital Tract I 5
CYTO 322 Neoplasia in the Female Genital Tract II 6
CYTO 523 Fundamental Analytical Techniques Laboratory 1
CYTO 355 Cytology Lab Management, Respiratory Cytology and Oral Cytology 4
CYTO 370 Effusions, C.S.F., and Miscellaneous Cytology 3
CYTO 380 Gastrointestinal, Breast, G.U. and F.N.A. Cytology 6
CYTO 415 Scientific Method and Literature in Cytology 1
CYTO 420 Advanced Practicum in Cytology 2
CYTO 450 Advanced Topics in Cytology 2
CLS 605 Introduction to Molecular Diagnostics I 1
CLS 607 Introduction to Molecular Diagnostics I Laboratory 1
CLS 622 Problems in Molecular Diagnostics 2

4-Year Graduation Plan

B.S. in Cytotechnology

Course Sequence

This suggested sequence of course work may be helpful in planning enrollment during the first 3 years.
Diagnostic Cardiac Sonography

This is a 21-month certificate program designed to produce competent diagnostic cardiac sonographers through educational and clinical experiences at the region’s premier academic health center. This program is provided in collaboration with Mid-America Cardiology at the University of Kansas Hospital in Kansas City, Kan. and includes clinical opportunities in hospitals in the Kansas City metro area. It is one of many programs in health care available from the KU School of Health Professions.

A certificate from the University of Kansas is awarded to the student upon successful completion of the program. Graduates are eligible to take the national registry examinations given by Cardiovascular International Credentialing (CCI) and the American Registry of Diagnostic Medical Sonographers (ARDMS) in adult cardiac sonography.

More about this profession can be found on the program’s website (http://www.cardiacsonography.kumc.edu).

Prerequisite course work and minimum grade-point average requirements also apply. All college course work must be from accredited institutions. Credentials or transcripts not from an accredited U.S. academic institution require evaluation by the KU International Student Services Office before they can be accepted for eligibility.

Certificate Program Requirements

This is a 21-month certificate program. During the program, students spend 30 to 40 hours a week at clinical affiliates dividing time between didactic course work and hands-on clinical applications. The curriculum includes ultrasound physics and instrumentation and cardiac anatomy and physiology. It incorporates detailed, structured, and comprehensive course work and teaches the student to use independent judgment in the acquisition of diagnostic information.

At the University of Kansas Hospital and other clinical sites, the cardiac ultrasound department conducts a variety of diagnostic ultrasound examinations. During training, students receive experience in patient care and performance of the following procedures: routine echocardiograms, stress testing, and use of contrast imaging and transesophageal echocardiography.

The student receives extensive interactive experience with registered cardiac sonographers or cardiologists in a laboratory accredited by the Intersocietal Commission for Accreditation of Echocardiography Laboratories (http://www.intersocietal.org).
Curriculum

Year 1

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Total Hours: 13

Diagnostic Ultrasound Technology (General and Vascular)

Overview

KU’s Diagnostic Ultrasound and Vascular Technology certificate is an 18-month accredited certificate program that prepares the student sonographer to use complex ultrasound equipment in a clinical setting. The sonographer, after advanced training, uses high-frequency sound waves for diagnostic purposes, under the direction of a radiologist. A certificate from the University of Kansas is awarded to the student upon successful completion of the program at its KU Medical Center campus in Kansas City, Kan.

Didactic studies are taught by qualified instructors employed by The University of Kansas Hospital and courses include medical law and ethics, intro to sonography, sonography principles and instrumentation, abdomen, ob/gyn, small parts, neurosonology, and vascular technology. Clinical instruction is guided by highly motivated and skilled sonographers employed by The University of Kansas Hospital and KU Medical Center.

Graduates are candidates to take the national registry examinations given by the American Registry of Diagnostic Medical Sonographers in the areas of abdomen, OB/GYN, vascular technology, and sonography principles and instrumentation. Those who pass the exams become Registered Diagnostic Medical Sonographers and Registered Vascular Technologists.

More about this program and the profession can be found on the program’s website (http://www.healthprofessions.kumc.edu/programs/ultrasound).

Admission

The prerequisites to apply are as follows:

1. Applicant must have completed, or be currently enrolled in, at the minimum a 24-month radiologic technology program (60 semester credit hours or 84 quarter credit hours).

   **Please note:** The required RT program is not available at the University of Kansas – please visit the program website (http://www.kumc.edu/school-of-health-professions/ultrasound/eligibility-and-requirements.html) for schools offering accredited AART programs.

2. Applicants must be a registered radiologic technologist (ARRT) or must be registry-certified before program start date in September.

3. Post-secondary credits, with a cumulative grade-point average of 2.5 on a 4.0 scale, are required in the following courses:

   - Communication skills (English, speech, or composition)
   - General college-level physics and/or radiographic physics
   - Human anatomy and physiology
   - Algebra, statistics (or higher) mathematics course

4. The student will be required to pass the ARRT registry exam before entrance into the ultrasound program.
Certificate Program Requirements

The student spends 40 hours a week in the 18-month program, with time divided between classroom courses and clinical application. Didactic studies include courses in medical law and ethics, introduction to sonography, sonography principles and instrumentation, abdomen, OB/GYN, small parts, neurosonology, and vascular technology.

Curriculum

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Dietetics and Nutrition

KU offers the following programs in the fields of dietetics and nutrition:

**Dietetic Internship Graduate Certificate**
This program prepares graduates for a career as a registered dietitian. A baccalaureate degree from an accredited university or college and completed coursework approved by the Accreditation Council for Education in Nutrition and Dietetics is required. Graduates are eligible for the registration examination to acquire the RD credential.

**Dietetics and Integrative Medicine Graduate Certificate**
An opportunity for working professionals or graduate students, students in this program acquire knowledge to function as a skilled advisor to the patient and a collaborative member of multidisciplinary health care teams. Students may enter with bachelor’s or master’s degrees in dietetics, nutrition, biological sciences or other healthcare professions.

**Master of Science in Dietetics and Nutrition**
Designed for professionals in nutrition and other careers with a science background, this degree offers many benefits, including expanded job opportunities and increased knowledge in the science of nutrition. An online master’s degree through the Great Plains Interactive Distance Education Alliance is available to registered dietitians.

**Ph.D. in Medical Nutrition Science**
Students with degrees in nutrition or biological sciences have the opportunity for clinical and translational research at a world-class academic health center renowned for its research facilities. This program emphasizes training in the core sciences of nutrition, biochemistry, biostatistics and the most advanced research methodology.

Courses

**DIET 660. Management of Human Resources in Dietetics. 6 Hours.**
Focus on human resource development and utilization as the student works with food service personnel. Learning encompasses recruiting, training, supervision, and evaluation of employees in a food service system. Open only to seniors majoring in dietetics. Prerequisite: Management concepts or personnel administration. LEC.

**DIET 661. Management of Food Processing and Service. 6 Hours.**
Application of theories and concepts pertaining to management functions and interdepartmental relationships in a variety of clinical food service settings. Consideration is given to the newer technological developments in the administration of food services. Open only to seniors majoring in dietetics. Prerequisite: Food service systems and management in dietetics. FLD.

**DIET 662. Special Problems in Food Service Management. 3 Hours.**
Advanced experience in the practice of dietetics in an assigned setting. Problems and procedures will vary with interest and needs of the students. Open only to seniors majoring in dietetics. Prerequisite: Food service systems. FLD.

**DIET 672. Nutrition Care of Patients. 6 Hours.**
Directed observation and supervised experience in nutritional care of patients. Nutrition principles studied in DIET 670, Applied Normal Nutrition, and DIET 671, Nutrition in Medical Science, are applied in clinical situations. Open only to seniors majoring in dietetics. Prerequisite: Principles of nutrition; and nutrition throughout the life cycle. LEC.

**DIET 675. Seminar in Dietetics and Nutrition. 1 Hour.**
Involves study and discussion of text and general materials pertaining to philosophy and methodology in the field of dietetics and nutrition. Guest lecturers will participate. May be repeated for credit providing no course duplication takes place. Open only to seniors majoring in dietetics. Prerequisite: Introduction to dietetics. FLD.

**DIET 800. Selected Topics in Dietetics. 1-3 Hours.**
An elective course to allow student credit hours in special issues or problems in dietetics offered by individual faculty. Course content can provide students with investigation of problems and/or issues relevant to theory, research investigation and/or practice related to the field of nutrition and dietetics. LEC.

**DIET 801. Current Issues or Trends. 3 Hours.**
Review of current issues in the economic, social, ethical, political, legal, technological, and ecological environments and the effects of these changes on dietetics practice. LEC.

**DIET 802. Foods Writing for Professionals. 3 Hours.**
A course focusing on the writing skills needed by the food professional in order to communicate effectively in writing about food and food-related topics. Student experiences include hands-on projects in research and writing for various audiences and types of publications. LEC.

**DIET 803. Accounting Concepts & Analysis. 3 Hours.**
An emphasis on financial statement analysis is the main objective of the course. A review of all major accounts in the income statement, balance sheet and statement of cash flow is made in determining a firm’s performance and financial condition in relation to what matters most to shareholders and investors. Prerequisites: General Calculus and Linear Algebra LEC.
DIET 805. Entrepreneurship Theory and Practice. 3 Hours.
Development and management of small businesses or private practice within the dietetics industry. Business plan development, marketing, cost considerations. Overview of consulting to health care and hospitality operations and examination of skills required for success. LEC.

DIET 819. Grant and Scientific Writing for the Professional. 3 Hours.
Grant writing, identifying external funding, managing grants, preparing manuscripts for peer-reviewed publication, and preparing papers and poster for presentation at professional meetings. Prerequisite: Enrolled GPIDEA. LEC.

DIET 822. Healthcare Administration. 3 Hours.
A comprehensive review of today’s health care institutions and their response to the economic, social/ethical, political/legal, technological, and ecological environments. LEC.

DIET 824. Financial Management and Cost Controls in Dietetics. 3 Hours.
This course covers the fundamental knowledge of financial management, managerial accounting, and operational cost controls for dietetics professionals. Topics include a review of managerial accounting concepts for not-for-profit organizations and for-profit organizations based on the Uniform System of Accounts, value and risk analyses, budgeting, asset management, franchising and management contracts, cost-volume-profit analyses, and operational applications for financial performance. LEC.

DIET 829. Nutrition and Aging. 3 Hours.
An overview of nutrition and the aging process. Physiological, psychological, and sociological aspects of aging, theories of aging, internal and external factors related to nutrient intake, and nutrient needs will be considered. Physical activity and practical application to community settings is addressed. LEC.

DIET 830. Nutrition: a Focus on Life Stages. 3 Hours.
The influence of normal physiological stresses on nutritional needs throughout the life span will be explored. Evaluating nutritional status at different stages of life and identifying appropriate needs and services will be included while, at the same time, consideration given for specific characteristics such as physiological condition and cultural heritage. LEC.

DIET 832. Functional Foods for Chronic Disease Prevention. 3 Hours.
Integrate and evaluate the regulatory principles, food science, nutrient science and nutritional metabolism for the development of functional foods, nutraceuticals, and dietary supplements for chronic disease prevention. Prerequisites: Biochemistry, Human Nutrition, Basic Food Science or consent of instructor. LEC.

DIET 833. Principles of Statistics. 3 Hours.
A basic course in statistics: Statistical methods applied to experimental and survey data from social or natural sciences; test of hypotheses concerning treatment means; linear regression; product-moment, rank, and bi-serial correlations; contingency tables and chi-square tests. LEC.

DIET 834. Methods of Research in Nutrition. 3 Hours.
A study of basic research terminology and designs commonly used in nutrition research. Topics include: research on animals, tissue culture and human subjects; qualitative, quantitative and outcomes research; ethical issues in research; dissemination of research findings; and appropriate use of research findings. Prerequisite: Consent of instructor. LEC.

DIET 836. Biochemical, Physiological, and Genetic Aspects of Human Nutrition. 3 Hours.
The topics covered will examine the integration of biochemistry, physiology, genetics, and nutrition. Emphasis will be placed on developing an understanding of how the combination cellular structure and function is related to the metabolic needs of the cell and its response to the environment. The integrated approach will form a basis for evaluating nutritional needs in humans. Prerequisite: courses in nutrition, physiology, and biochemistry, or consent of instructor. LEC.

DIET 838. Advanced Medical Nutrition Therapy. 3 Hours.
This course will discuss the role of diet in disease including diet as a factor related to prevention of diseases or illness, diet as an etiologic agent in illness and diet as a treatment for disease. Medical nutrition therapy is the use of specific nutrition services to treat an illness, injury or condition and involves two phases: 1) assessment and 2) treatment, which includes diet therapy, counseling and/or the use of specialized nutrition supplements. LEC.

DIET 839. Clinical Aspects of Nutrition Support. 3 Hours.
The course content provides in depth study of specialized visceral and somatic nutrition assessment of the critically ill patient. Content includes extensive review of methods for determining energy expenditure and substrate utilization during specific disease states. Discussion of the aspects of feeding the critically ill patient including timing, enteral and parenteral feeding methodology, specialized medical foods, equipment requirements, feeding complications and prevention, and pharmacological issues. Students will be expected to calculate formulas for both types feeding modalities and provide discussion of the evidence based guidelines for administration of these nutrition therapies. Prerequisite: minimum of 3 cr hours in Medical Nutrition Therapy. LEC.

DIET 841. International Nutrition and World Hunger. 3 Hours.
Advanced study of the magnitude, cause, and nature of hunger and undernutrition in low income countries; emphasis on programs, policies and planning directed toward alleviating hunger. LEC.

DIET 842. Nutrition and Wellness. 3 Hours.
Course will address wellness promotion through nutrition. Nutritional risk and protective factors will be examined as they relate to public health and individual nutrition. LEC.

DIET 843. Nutrition Education in the Community. 3 Hours.
Principles and practices of teaching individuals and groups to translate nutrition knowledge into action. Emphasis on research in and evaluation of nutrition education. LEC.

DIET 844. Behavior Management Theory. 3 Hours.
An in-depth analysis of the development of the behavioral basis of individual and group behavior in business, governmental, educational, and other organizations with emphasis on current research literature and applications. LEC.

DIET 845. Nutritional Aspects of Oncology. 3 Hours.
A course focusing on current research examining the role of nutrition in specific cancers. Topics include basic cancer biology, pathology and nutritional research methodology. Sources of information for cancer prevention programs and the application of translational research to clinical patient populations will be discussed. LEC.

DIET 850. Operations Management and Analysis. 3 Hours.
The study of the role of operations systems in the provision of value for the customer. Operations systems design; capacity determination, resource requirements planning and control, theory of constraints, supply chain management, quality management and control and project management are discussed and analyzed. Prerequisite: Basic graduate statistics course LEC.

DIET 854. Non-Thesis Research. 1-3 Hours.
Directed study of special problems in nutrition or nutrition care. This course provides for the individual or group study of special problems. Through directed readings, investigations and projects, the student
acquires information with reference to questions in dietetics and nutrition not covered in organized courses. This course fulfills the research requirements for the Non-Thesis Option. RSC.

**DIET 862. Maternal and Child Nutrition. 3 Hours.** Critical examination of behavioral, physiological, and public health issues impacting dietary and nutritional factors that support normal growth and development. Course content focuses on the early stages of the life cycle: gestation, lactation, infancy, preschool, school age, and adolescence. Topics include the fetal programming hypothesis, growth and nutritional requirements, breast and formula feeding of infants, infant weaning, and eating behaviors that lead to normal growth, growth faltering, and pediatric obesity. Cross-listed with DN 862. Prerequisite: Registered Dietitian, or registry eligible dietitian. LEC.

**DIET 886. Advanced Nutrition: Nutrigenomics, Nutrigenetics and Advanced Lipid Metabolism in Human Nutrition. 3 Hours.** This course integrates topics related to current biochemical issues in physiology is advisable. LEC.

**DIET 887. Nutrition and Immunology. 3 Hours.** This course examines the mechanisms underlying the modulation of immune responses by nutritional, naturally occurring and orally active food compounds. The role of nutritional status and changes in the life stages which impact immune response impacting disease initiation and progression. Contributions of the GI system and changes in life stages impacting immunity and their relationship to immune response will be discussed. LEC.

**DIET 889. Thesis. 1-6 Hours.** Scholarly essay based research, written under the guidance of the student’s adviser. Credit given upon meeting thesis requirements for the master’s program. THE.

**Courses**

- **DN 601. Current Concepts in Clinical Nutrition. 2 Hours.** An overview of the nutritional therapies used for various disease disorders. The course emphasizes the nutritional care and treatment related to state of the art practice. LEC.
- **DN 670. Applied Normal Nutrition. 3 Hours.** Applied study of the relationship of normal food and nutrition principles to health promotion in select stages of the lifecycle. LEC.
- **DN 671. Nutrition in Medical Science. 6 Hours.** Study of the science of medical nutrition therapy and evidence based practice in the nutritional management of disease during specific stages of the life cycle. Prerequisite: Consent of Instructor LEC.
- **DN 796. Social and Cultural Aspects of Dietetics and Nutrition. 2-4 Hours.** A study of the aspects of society, culture and personality related diet, food habits, and nutrition. The role of the community and its agencies will be considered. Includes field work. Prerequisite: Consent of instructor. LEC.
- **DN 800. Selected Topics in Clinical Dietetics:____. 1-6 Hours.** A learner-centered, self paced study of topics in applied clinical dietetics. Independent modules are offered to address the science and art of nutritional care relating to specific issues to clinical dietetics. Topics will be grouped in various combinations to provide flexibility of choice. Students may enroll in one or more topics for a total of six credit hours. Prerequisite: By permission of instructor only. LEC.
- **DN 810. Nutrition Assessment. 3 Hours.** Methods and tools used in screening and assessment of nutritional status of individuals and population groups are studied. Assessment methodology includes dietary surveys, computerized dietary intake analysis, anthropometric measures, biochemical measures and clinical evaluations. Laboratory experiences are provided to allow students practice time for learning and applying assessment techniques. Prerequisite: Permission of instructor. LEC.
DN 817. Seminar in Dietetics & Nutrition I. 1 Hour.
Seminar designed to promote effectiveness of professional written and oral communication, increase knowledge of research, and review content information in selected topics in dietetics. LEC.

DN 818. Seminar in Dietetics & Nutrition II. 1 Hour.
To promote effectiveness of professional written and oral communication, to increase knowledge of research, and to review content information in selected areas in dietetics. SEM.

DN 819. Scientific Writing for the Nutritional Sciences. 1 Hour.
Research proposal preparation and / or scientific manuscript writing experience. This course will provide the student with an overview of the steps used in proposal writing and / or the steps in preparation of a scientific manuscript for publication. LEC.

DN 820. Nutrition Education Skills for School Teachers. 3 Hours.
This graduate level course will expand understanding of nutrition and healthy eating for classroom teachers and other professionals who work with children. The course has a special emphasis on child and adolescent nutrition and how to translate nutrition facts into classroom applications and school-based interventions. Course topics will include healthy food choices, nutrition guidelines, nutrients, energy balance and weight, child and adolescent nutrition, and nutrition education in the classroom, school-based nutrition interventions, and measuring outcomes of nutrition interventions. Prerequisite: Student must be classroom teacher or consent of instructor. LEC.

DN 822. Management Dietetics & Nutrition I. 2 Hours.
Managerial skills in health care quality improvement and food service are practiced. Students are typically enrolled in DN 827 Practicum supervised practice experiences associated with the dietetic internship. Prerequisite: food service systems or commensurate practical experience. LEC.

DN 823. Management Dietetics & Nutrition II. 2 Hours.
Managerial style is related to food policy, financial benchmarking and applied nutrition practice. Students are typically enrolled in DN 827 Practicum supervised practice experiences associated with the dietetic internship. Prerequisite: food service systems or commensurate practical experience. LEC.

DN 825. Medical Nutrition Therapy I. 3 Hours.
Course content introduces the student into the concepts of an intermediate study of nutritional therapy of disease. Course content includes evidence-based practice in prevention and nutritional management of diseases. Patient assessment and medical chart documentation are covered. Elements of pathology and biochemistry of the nutrition-related problems are integrated into course topics. This course is designed for students enrolled in the dietetic internship, but students from other departments may enroll with consent of instructor. Prerequisite: Undergraduate coursework in nutrition, diet therapy, biochemistry and physiology or consent of instructor. LEC.

DN 826. Medical Nutrition Therapy II. 3 Hours.
Course content includes current nutrition therapy and evidence-based practice in prevention and treatment of disease. Advanced therapies and patient management in nutrition support will be discussed. Course topics include pediatric nutrition, obesity, cardiovascular disease, diabetes, cancer, renal disease, and gastrointestinal diseases. Elements of pathology and biochemistry of the nutrition-related problems are integrated into course topics. This course is designed for students enrolled in the dietetic internship, but students from other departments may enroll with consent of instructor. Prerequisite: Undergraduate coursework in nutrition, diet therapy, biochemistry and physiology; DN 825; or consent of instructor. LEC.

DN 827. Practicum: Process in Clinical Dietetics. 1-7 Hours.
Supervised practice experience for graduate level students to fulfill the requirements for the Dietetic Internship. Experiences take place in hospitals, clinics, community health care agencies, and other practice settings in which dietetics and nutrition services are provided. Prerequisite: Admission to the graduate program, permission of dietetic internship director or course instructor. LEC.

DN 828. Clinical Education in Dietetics. 2-3 Hours.
A study of teaching methods appropriate for use in a clinical setting. Emphasis on development of instructional objectives, learning situations, and methods of evaluations to be used in clinical teaching in dietetics. Prerequisite: Consent of instructor. LEC.

DN 829. Nutrition and Aging. 3 Hours.
An overview of nutrition and the aging process. Physiological, psychological, and sociological aspects of aging, theories of aging, internal and external factors related to nutrient intake, and nutrient needs will be considered. LEC.

DN 830. Food Technology. 2-3 Hours.
Consideration of current food processing methods and the factors affecting the palatability and nutritive values of human foods. Course includes pertinent information regarding the protection of the food supply. LEC.

DN 834. Methods of Research in Nutrition. 3 Hours.
A study of basic research terminology and designs commonly used in nutrition research. Topics include: research on animals, tissue culture and human subjects; qualitative, quantitative and outcomes research; ethical issues in research; dissemination of research findings; and appropriate use of research findings. Prerequisite: Consent of instructor. Same as DIET 834. LEC.

DN 836. Biochemical, Physiological, and Genetic Aspects of Human Nutrition. 3 Hours.
The topics covered will examine the integration of biochemistry, physiology, genetics, and nutrition. Emphasis will be placed on developing an understanding of how the combination cellular structure and function is related to the metabolic needs of the cell and its response to the environment. The integrated approach will form a basis for evaluating nutritional needs in humans. Prerequisite: courses in nutrition, physiology, and biochemistry, or consent of instructor. Same as DIET 836. LEC.

DN 838. Advanced Medical Nutrition Therapy. 3 Hours.
This course evaluates current issues in medical nutrition therapy. Course content includes evidence based analysis, the role of diet in disease management including factors related to disease pathophysiology, nutritional assessment and medical nutrition management of specific disease states. Prerequisite: undergraduate medical nutrition therapy, biochemistry, physiology, or consent of the instructor. Same as DIET 838. LEC.

DN 839. Clinical Aspects of Nutrition Support. 3 Hours.
Specialized nutrition assessment and support. Review of energy expenditure and substrate utilization in specific disease states. Current methods for the initiation and management of enteral and parenteral nutrition therapy including access, metabolic and mechanical complications. Evaluation nutrition support methodology in selected disease states. LEC.

DN 840. Advanced Topics in Nutrition. 1-2 Hours.
Reading and preparation of a paper and/or oral presentation on a selected subject in nutrition. Prerequisite: Consent of instructor. LEC.
DN 841. International Nutrition. 1-3 Hours.
A study of global public health and nutrition concerns in various nations, assessment of nutritional status of diverse populations, international health and nutrition organizations, policies, and interventions. We explore the roles of dietitians, nutritionists, and others in creating and implementing international public health and nutrition policies and interventions. To enroll in the course, you must be a student in the Graduate Certificate Dietetic Internship Program, the Dietsetics and Nutrition Master of Science Program, or the Great Plains IDEA, or have the consent of the instructor. Cross-listed with DIET 841. LEC.

DN 842. United States Public Health Nutrition. 1-3 Hours.
A study of US public health and nutrition concerns in diverse US populations, assessment of nutritional status in commonalities, health communication, nutrition policies and community based nutrition interventions. Exploration of the roles of dietitians, nutritionists, and others in developing and delivering nutrition policies and interventions in US communities. Prerequisite: Must be a student in the Graduate Certificate Dietetic Internship Program, the Dietsetics and Nutrition Master of Science Program, or the Great Plains IDEA, or have the consent of the instructor. Cross-listed with DIET 842. LEC.

DN 854. Special Problems in Dietetics and Nutrition. 1-4 Hours.
Directed study of special problems in nutrition or nutrition care. This course provides for the individual or group study of special problems. Through directed readings, investigations, and projects, the student acquires information with reference to questions in dietetics and nutrition not covered in organized courses. LEC.

DN 857. Motivational Interviewing in Public Health Settings. 1 Hour.
The course is designed to introduce participants to Motivational Interviewing, its concepts, and to the subsequent skills required for helping people to change. This course will be cross-listed with PRVM 857. LEC.

DN 860. Collaboration Strategies in Health Care. 1 Hour.
Persuasion and negotiation techniques: skills to evaluate and promote collaboration and goal achievement in a multidisciplinary health care team; analysis of communication styles and strategies to achieve mutual beneficial outcomes. LEC.

DN 862. Maternal and Child Nutrition. 3 Hours.
Critical examination of behavioral, physiological, and public health issues impacting dietary and nutritional factors that support normal growth and development. Course content focuses on the early stages of the life cycle: gestation, lactation, infancy, preschool, school age and adolescence. Topics include the fetal programming hypothesis, growth and nutritional requirements, breast and formula feeding of infants, infant weaning, and eating behaviors that lead to normal growth, growth faltering, and pediatric obesity. Prerequisite: Consent of the instructor. LEC.

DN 865. Nutrition in Sports and Exercise. 3 Hours.
Exercise physiology and nutrient requirements in sports and exercise: macronutrient, micronutrient and fluid needs of athletes engaged in specific sports, pre/post exercise meals, gender specific requirements, role of ergogenic aids, eating disorders, and role of exercise in weight management and chronic disease. Prerequisite: Consent of the instructor. LEC.

DN 870. Health Behavior Counseling. 3 Hours.
Theoretical and applied issues in health behavior counseling. Students will learn the theories of behavior change and how to apply these to health care issues. Specific health behaviors (i.e., dietary changes, smoking cessation, exercise adherence) will be discussed in the context of chronic disease for children, adults, and the elderly. Effective methods of counseling patients and promoting changes on an individual and small group basis will be presented. LEC.

DN 875. Pediatric Clinical Nutrition. 3 Hours.
Examines physiological, biochemical and nutritional aspects of disease processes relevant to infants and children up to 18 years of age. Medical nutrition therapy for a variety of medicine conditions found in this population will be discussed including inborn errors of metabolism, food hypersensitivity, obesity, and diseases of the major organ systems. Prerequisites: DN 826: Applied Clinical Nutrition or equivalent or consent of instructor. LEC.

DN 876. Intervention for the Prevention & Management of Obesity. 3 Hours.
This course emphasizes obesity in a population group ranging from childhood to the adult. Course materials will examine the impact of obese conditions on disease development throughout the life cycle. The course will critically analyze current evidence focused on interventions used in the behavioral and clinical management of overweight and obese individuals in community and clinical settings. Prerequisites: Consent of instructor. Same as DIET 876. LEC.

DN 880. Dietary and Herbal Supplements. 2-3 Hours.
Explores the safety and efficacy of botanical/herbal and dietary supplements in health applications including dietary supplementation in the prevention and treatment of chronic disease. Prerequisite: Human physiology is advisable. LEC.

DN 882. A Nutrition Approach to Inflammation and Immune Regulation. 3 Hours.
Inflammation and immune system dysregulation is common in chronic disease. The course presents the integrative nutrition approach to identify the underlying causes of inflammatory and immune-related conditions and associated nutritional influences; applies individualized nutritional interventions, as powerful modulators of the pathophysiology of inflammatory and immune responses. Prerequisites: Medical nutrition therapy, genetics or consent of instructor. LEC.

DN 884. Diet, Physical Activity & Cancer. 3 Hours.

DN 885. Nutritional Biochemistry. 3 Hours.
Course content facilitates the understanding of advanced biochemical principles applied to human nutrition. Topics include protein structure, bioenergetics, enzyme function, nutrient digestion, absorption and metabolism, metabolic regulation and intermediary metabolism, cellular signaling, and genomics encompassing nucleotide metabolism, gene expression and gene regulation. Prerequisite: Undergraduate biochemistry or consent of instructor LEC.
DN 890. Graduate Research. 1-4 Hours.  
Individual investigation of special problems in dietetics and nutrition or hospital dietary administration approved by the student's advisor or advisory committee. Investigation involves original research. RSH.

DN 895. Advanced Macronutrients and Integrated Metabolism. 3 Hours.  
Energy containing macronutrients and fiber presented from the perspective of their importance in human nutrition. Structural properties, digestion, absorption and metabolism are emphasized. Fuel utilization in response to food intake and exercise, cellular and whole-animal energetic and energy balance integrate metabolism. Students take an active role in presenting and discussing and exhibit advanced skills in analysis and presentation. Prerequisites: BCHM 702 or Equivalent. LEC.

DN 896. Advanced Micronutrients and Integrated Metabolism. 3 Hours.  
Vitamins and minerals presented from the perspective of their requirements as nutrients for normal human physiological functions with emphasis on their underlying roles in structure, function and metabolism. Students take an active role in selecting, presenting and discussing recent published research and to exhibit advanced skills in analysis and presentation. Prerequisites BCHM 702 or equivalent. LEC.

DN 897. Micronutrient Research in Human Nutrition. 1 Hour.  
This course requires students to design a research study on a vitamin or mineral. Students submit a written proposal and present it orally and defend the proposal in class. Students will be evaluated on the basis of plausibility, feasibility and originality of the proposed research. Co-requisite DN 896. Prerequisite: Consent of Instructor. LEC.

DN 899. Thesis. 1-6 Hours.  
Scholarly essay based on research, written under the guidance of the student's advisor. Credit given upon meeting thesis requirements for the master's degree. Prerequisite: Consent of advisor. THE.

DN 900. Techniques in Nutrition Research. 3 Hours.  
A series of seven laboratory modules emphasizing quantitative methods and experimental analysis. The series of modules will be taught by departmental faculty. Each module requires data collection, data analysis, and written interpretation or report. Instrumentation, dietary assessment software utilization and cellular microtechniques will be emphasized. Students will be responsible for learning one technique practiced in an outside laboratory setting. Student will rotate between the module sequence based on the number of students enrolled in the class. Prerequisite: DN 895 and DN 896 or permission of instructor of record. LEC.

DN 901. Graduate Seminar in Nutrition. 1 Hour.  
Advanced course examining current research topics in nutrition. Extensive student and faculty interaction is emphasized utilizing lectures, class discussion of selected scientific readings and oral presentations. Prerequisite: Admission to PhD program in Dietetics and Nutrition or permission of instructor. LEC.

DN 980. Nutrigenomics and Nutrigenetics in Health and Disease. 3 Hours.  
Nuclear receptors and their mechanisms of action, nutritional control of gene expression and functional genomic studies with relationships to nutrient intake and polymorphisms. Prerequisites: DN 836, DN 895, DN 896 or permission of instructor. LEC.

DN 990. Doctoral Research. 1-9 Hours.  
Original and independent investigation approved by and conducted under the supervision of the student's advisor or advisory committee. This course is in partial fulfillment of the requirements for the Ph.D. degree. Prerequisite or corequisite: Restricted to Dietetics Nutrition Ph.D. candidates, or consent of DN advisor. Students must have completed the qualifying exam. LEC.

DN 999. Dissertation. 1-6 Hours.  
Preparation of the written dissertation based upon original research and in partial fulfillment of the requirements for the Ph.D. degree. Prerequisite: DN 990 or consent of advisor. LEC.

Dietetic Internship Graduate Certificate  

KU offers an exceptional dietetic internship program with a medical nutrition therapy emphasis. This program prepares graduates for a career as a registered dietician.

The practice experiences include clinical and community nutrition, food and nutrition management and a culminating practice area of interest experience designed by the intern to meet personal professional and educational goals. Interns are able to choose from a variety of practice sites for each experience and are encouraged to submit ideas for new practice sites to the program director.

Students completing the dietetic internship program receive a graduate certificate from the University of Kansas. They are eligible to apply for approval by the Commission on Dietetic Registration to take the national Registration Examination for Dietitians.

An applicant to the dietetic internship must have a bachelor's degree and course work from a didactic program in dietetics approved by the Academy of Nutrition and Dietetics (http://www.eatright.org). Please note that KU does not offer such an undergraduate program; all students entering the program must have completed course work from an accredited institution other than KU.

Applicants follow the national computer-matching procedure mandated by the Academy of Nutrition and Dietetics for application to internships.

To be considered for admission into KU's Dietetic Internship Graduate Certificate program, the following are required:

1. Degree  
A bachelor's degree from a didactic program in dietetics (DPD) accredited by the Accreditation Council for Education in Nutrition and Dietetics is required for admission. The degree must be from a regionally accredited U.S. university or college. Please note: the University of Kansas does not offer an accredited DPD. To view accredited programs see www.eatright.org (http://www.eatright.org).

Degrees earned outside the United States must be evaluated for equivalency. For guidelines, see the International Fact Sheet (http://www.eatright.org) provided by ACEND.

2. Graduate Record Examination Score  
A valid score on the Graduate Record Examination (GRE) General Test is required for the verbal reasoning, quantitative reasoning and analytical writing portions of the exam. Applicants are awarded points based on percentile rank; there is not a minimum score recommended.

3. Grade Point Average  
A cumulative undergraduate grade-point average of 3.0 on a 4.0 scale for college course work is required for admission.
4. Background Check
The Joint Commission requires all incoming students to pay for a background check (http://www.kumc.edu/school-of-health-professions/background-checks.html). This one-time fee must be paid directly to the company performing the background investigation. You will be asked to provide information and make the payment once you have been officially accepted into the program. For more information, please see the School of Health Professions Background Check Instructions. (http://www.kumc.edu/school-of-health-professions/background-checks.html)

International students or those for whom English is a second language must meet minimum English proficiency (http://www.kumc.edu/international-programs/academic-english-requirements.html) requirements. International students may have additional requirements for visa, residency, and citizenship status. Students should contact the KUMC Office of International Programs (http://www.kumc.edu/international) for guidance regarding these issues during the application process.

The dietetic internship program prepares graduates for entry into careers as registered dietitians. Successful completion of the internship allows the student to take the registration examination to acquire the RD credential and enter the profession as a registered dietitian.

The program requires the completion of 24 graduate credit hours and 1,240 hours of supervised practice in a variety of practice settings.

The practice experiences include clinical and community nutrition, food and nutrition management and a culminating practice area of interest experience designed by the intern to meet personal professional and educational goals. Interns are able to choose from a variety of practice sites for each experience and are encouraged to submit ideas for new practice sites to the program director.

The following courses are taken during fall, spring, and summer terms.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>DN 817</td>
<td>Seminar in Dietetics &amp; Nutrition I</td>
<td>1</td>
</tr>
<tr>
<td>DN 818</td>
<td>Seminar in Dietetics &amp; Nutrition II</td>
<td>1</td>
</tr>
<tr>
<td>DN 822</td>
<td>Management Dietetics &amp; Nutrition I</td>
<td>2</td>
</tr>
<tr>
<td>DN 823</td>
<td>Management Dietetics &amp; Nutrition II</td>
<td>2</td>
</tr>
<tr>
<td>DN 825</td>
<td>Medical Nutrition Therapy I</td>
<td>3</td>
</tr>
<tr>
<td>DN 826</td>
<td>Medical Nutrition Therapy II</td>
<td>3</td>
</tr>
<tr>
<td>DN 827</td>
<td>Practicum: Process in Clinical Dietetics</td>
<td>1</td>
</tr>
<tr>
<td>DN 841</td>
<td>International Nutrition</td>
<td>1</td>
</tr>
<tr>
<td>DN 842</td>
<td>United States Public Health Nutrition</td>
<td>1</td>
</tr>
<tr>
<td>Total Hours</td>
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**Dietetics and Integrative Medicine Graduate Certificate**

An opportunity for working professionals or graduate students, students in this program acquire knowledge to function as a skilled advisor to the patient and a collaborative member of multidisciplinary health care teams. Students may enter with bachelor’s or master’s degrees in dietetics, nutrition, biological sciences or other healthcare professions.

Qualified applicants must currently be a registered dietitian (or other healthcare professional) and/or enrolled in a health professions major at the graduate level.

In addition, to be considered for admission, all students must meet the following requirements:

1. **Undergraduate Degree**
   A bachelor’s degree is required for admission. The degree may be in any field but must have included specific prerequisite courses in medical nutrition therapy and genetics. Degrees earned outside the United States must be evaluated for equivalency.

2. **Graduate Record Examination Score**
   An official score on the Graduate Record Examination General Test is required and official results must be sent directly to our office. For GRE information, visit www.gre.org (http://www.gre.org).

3. **Grade Point Average**
   A cumulative undergraduate grade-point average of 3.0 on a 4.0 scale for college course work is required for admission.

4. **Background Check**
   This one-time fee must be paid directly to the company performing the background investigation. You will be asked to provide information and make the payment once you have been officially accepted into the program. For more information, please see the School of Health Professions Background Check Instructions. (http://www.kumc.edu/school-of-health-professions/background-checks.html)

International students or those for whom English is a second language must meet minimum English proficiency (http://www.kumc.edu/international-programs/academic-english-requirements.html) requirements. International students may have additional requirements for visa, residency, and citizenship status. Students should contact the KUMC Office of International Programs (http://www.kumc.edu/international) for guidance regarding these issues during the application process.

This is an online program only, with no campus visits required. The 12 credit hours are delivered as web-based courses, affording great flexibility to students. The curriculum includes the following four courses, with one course offered per semester:

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>DN 880</td>
<td>Dietary and Herbal Supplements</td>
<td>3</td>
</tr>
<tr>
<td>DN 881</td>
<td>Introduction to Dietetics and Integrative Medicine</td>
<td>3</td>
</tr>
<tr>
<td>DN 882</td>
<td>A Nutrition Approach to Inflammation and Immune Regulation</td>
<td>3</td>
</tr>
<tr>
<td>DN 980</td>
<td>Nutrigenomics and Nutrigenetics in Health and Disease</td>
<td>3</td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

The program is offered fall, spring and summer semesters. However, courses must be completed in a designated order, so please ask an adviser for details.
Master of Science in Dietetics and Nutrition

Designed for professionals in nutrition and other careers with a science background, this degree offers many benefits, including expanded job opportunities and increased knowledge in the science of nutrition. An online master’s degree through the Great Plains Interactive Distance Education Alliance is also available to registered dietitians.

To be considered for admission, all students must meet the following requirements:

1. **Undergraduate Degree.** A bachelor’s degree is required for admission. The degree may be in any field but must have included prerequisite courses in biochemistry, physiology, and nutrition. Degrees earned outside the United States must be evaluated for equivalency. Students may be admitted on a provisional basis if some requirements have not yet been met at the time of application.

2. **Graduate Record Examination Score.** An official score on the GRE General Test is required. Applicants are evaluated according to percentile rank guidelines for program admission.

3. **Grade-Point Average.** A cumulative undergraduate grade-point average of 3.0 on a 4.0 scale for college course work is required for admission.

4. **Letters of Recommendation.** Three letters of recommendation are required for admission. These letters may be written by faculty, advisers, employers, or others who are familiar with your work and character.

A background check (http://www.kumc.edu/student-services/vice-chancellor-of-student-services/criminal-background-checks-for-students.html) is required during the admission process; it may affect the student’s eligibility to enter the program.

International students or those for whom English is a second language must meet minimum English proficiency (http://www.kumc.edu/international/esi_req.html) requirements, as indicated by TOEFL or equivalent exam scores. International students may have additional requirements for visa, residency, and citizenship status. Students should contact the KUMC Office of International Programs (http://www.kumc.edu/international) for guidance regarding these issues during the application process.

**Great Plains Interactive Distance Education Alliance (IDEA)**

This program provides an online 36-credit hour master’s in dietetics and nutrition degree. Admission is limited to persons holding the registered dietitian (RD) or registry-eligible credential for the Commission on Dietetic Registration and the Academy of Nutrition and Dietetics and applicants must submit a copy of current CDR registration card as documentation. Without an RD credential, students must be registration-eligible, having completed both an accredited Didactic Program in Dietetics and an accredited dietetic internship or a Coordinated Program in Dietetics (which encompasses both the academic degree and the supervised practice).

The application procedures and required documentation are identical to the on-campus master’s degree program (http://www.dietetics.kumc.edu/masters-apply.html), plus the additional documentation to verify RD credential or eligibility. International students are eligible only if they have completed a program recognized by the Academy of Nutrition and Dietetics.

The program offers flexibility; students may enroll full- or part-time, and some classes are delivered online. Approximately 12 to 15 credit hours of the program are elective courses that may be tailored to individual career goals, and students may choose a thesis or nonthesis option.

This program offers course work in the biochemical, clinical, and behavioral aspects of nutrition. The thesis option requires 30 credit hours, and the nonthesis option requires 33 credit hours for completion. For more information, please visit the program’s website (http://www.kumc.edu/school-of-health-professions/dietetics-and-nutrition/master-of-science-in-dietetics-and-nutrition.html).

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>DN 817</td>
<td>Seminar in Dietetics &amp; Nutrition I</td>
</tr>
<tr>
<td>DN 818</td>
<td>Seminar in Dietetics &amp; Nutrition II</td>
</tr>
<tr>
<td>DN 819</td>
<td>Scientific Writing for the Nutritional Sciences</td>
</tr>
<tr>
<td>DN 834</td>
<td>Methods of Research in Nutrition</td>
</tr>
<tr>
<td>DN 895</td>
<td>Advanced Macronutrients and Integrated Metabolism</td>
</tr>
<tr>
<td>DN 896</td>
<td>Advanced Micronutrients and Integrated Metabolism</td>
</tr>
<tr>
<td>BIOS 704</td>
<td>Principles of Statistics in Public Health or Biostatistics (700-800 level)</td>
</tr>
</tbody>
</table>

**Thesis Option: DN 899**

Thesis research is usually conducted over 3 semesters and involves all aspects of research including a preparing a proposal, collection and analysis of data, and a thesis. The thesis is presented in written form and orally in a presentation to the thesis committee followed by questions (or defense) and an oral examination before the thesis committee. The student must be enrolled in DN 899 Thesis the semester they defend the thesis.

**Nonthesis Option: DN 854**

The project is generally completed in 1 to 2 semesters. It may include 1 or more of the following:

- Writing an intensive review of the literature on a given topic, based on Evidence Based Analysis procedures of the Academic of Nutrition and Dietetics.
- Participation with a faculty member in the development of a research proposal or grant.
- Participation with a faculty member in conducting a pilot project.
- Participation with a faculty member in the design, implementation, or evaluation of a program in a specialized area of dietetics practice.
- Collection and/or analysis of data in conjunction with a faculty member engaged in research.

A written proposal with presentation and final written report is followed with an oral exam and project defense before the research committee.

**Note about electives:** For students in the KU dietetic internship program, 14 hours of electives competed during the internship count as the elective hours. For master’s students who are not former KU interns, up to 6
graduate credit hours of electives may be taken outside the department if the courses are relevant to the career goals of the student.

Great Plains Interactive Distance Education Alliance (IDEA)

This program provides an online 36-credit hour master’s in dietetics and nutrition degree. Admission is limited to persons holding the registered dietitian (RD) credential -- or are registry-eligible -- by the Commission on Dietetic Registration and the Academy of Nutrition and Dietetics.

Students may enter the program in fall, spring, or summer semesters.

The Great Plains IDEA is a partnership of many academic institutions collaboratively developing and delivering high-quality, online academic programs. Great Plains IDEA is an academic alliance that offers fully-online graduate and undergraduate coursework and program options in high demand professional fields. Students enroll for all courses through KU, but the actual courses are taught online from any of the participating universities. The final degree in dietetics and nutrition is awarded from KU. For more details visit www.gpidea.org (http://www.gpidea.org).

Doctor of Philosophy in Medical Nutrition Science

Students with a degree in nutrition have the opportunity for clinical and translational research at a world-class academic health center renowned for its research facilities. This program emphasizes training in the core sciences of nutrition and biostatistics and the most advanced research methodology.

Courses in nutrition are also available to students who are not seeking a degree or working professionals interested in continuing education.

Applicants to this program must meet the following requirements:

1. **College Course Work Requirements**
   The course work required depends upon whether the student is accepted to the program from a bachelor’s or master’s degree program, as well as on the area of study of these degrees (nutrition, biological sciences or other areas of study). Hours for completion are the ultimate decision of the student’s research advisor and research committee.

   **Prerequisite Courses.** Students entering the program with bachelor’s degrees should have completed 3 credit hours in biochemistry, 3 credit hours in physiology, and 3 credit hours in nutrition before admission. They must also take all courses required for the master’s degree. Consult the academic advisor for specific requirements.

   Degrees earned outside the United States must be evaluated for equivalency. Students may be accepted on a provisional admission basis if some requirements have not yet been met at the time of application.

2. **Graduate Record Examination Score**
   An official score on the GRE General Test is required. Applicants are evaluated according to percentile rank guidelines for program admission.

3. **Grade Point Average**
   The applicant must meet the general KU requirements for admission as a graduate student. The minimum GPA requirements for admission include an undergraduate cumulative GPA of 3.0 or better and evidence of successful completion (equivalent grade of B or higher) of undergraduate or graduate course work in nutrition, biochemistry, genetics, or other biological science.

**International Students:**

An applicant is considered an international student if he or she requires a visa, or currently resides in the U.S. with non-immigrant status, or currently resides in the U.S. while applying for permanent residency. Additional requirements and documentation, such as proof of English language proficiency, are required for international students to become eligible for KU programs. Please review the information for international students (http://www.kumc.edu/school-of-health-professions/information-for-international-applicants.html) before applying.

The doctoral program in medical nutrition science typically requires approximately 60 semester credit hours of graduate course work beyond the bachelor’s degree. For those enrolling with a master’s degree in nutrition, approximately 30 graduate hours (700 to 900 level) generally are required.

Prior course work and the student’s research interests are considered in designing the plan of study. Students in the program must meet the research skills and responsible scholarship requirement (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm) of the university, fulfill program course work requirements, and successfully complete a written comprehensive examination to achieve Ph.D. candidacy. The Ph.D. candidate must submit a written dissertation proposal describing an original research project in some aspect of nutrition research, and defend the proposal in a comprehensive oral exam before beginning the dissertation research. The written dissertation and successful oral defense of the dissertation are required to receive the degree.

To view the full curriculum and degree requirements, please visit the program’s website (http://www.dietetics.kumc.edu/phd-courses.html).

**Degree Plan.** Required courses for all Ph.D. students are listed below. Additional courses may be required as determined by the research committee.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DN 895</td>
<td>Advanced Macronutrients and Integrated Metabolism</td>
<td>3</td>
</tr>
<tr>
<td>DN 896</td>
<td>Advanced Micronutrients and Integrated Metabolism</td>
<td>3</td>
</tr>
<tr>
<td>DN 900</td>
<td>Techniques in Nutrition Research</td>
<td>3</td>
</tr>
<tr>
<td>DN 901</td>
<td>Graduate Seminar in Nutrition</td>
<td>1</td>
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<tr>
<td>DN 980</td>
<td>Nutrigenomics and Nutrigenetics in Health and Disease</td>
<td>3</td>
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<td>DN 990</td>
<td>Doctoral Research</td>
<td>12-14</td>
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<tr>
<td>DN 999</td>
<td>Dissertation</td>
<td>1-6</td>
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<tr>
<td>GSMC 856</td>
<td>Introduction to Research Ethics</td>
<td>1</td>
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<td>BIOS 720</td>
<td>Analysis of Variance</td>
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<td>BIOS 730</td>
<td>Applied Linear Regression</td>
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<td>BIOS 735</td>
<td>Categorical Data and Survival Analysis</td>
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</tr>
<tr>
<td>BIOS 740</td>
<td>Applied Multivariate Methods</td>
<td>3</td>
</tr>
<tr>
<td>CLS 742</td>
<td>Scientific Writing</td>
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</tr>
</tbody>
</table>

Electives
Elective courses required by the student’s research committee are dependent upon the student’s area of research concentration. The total elective hours can vary according to needs.

Health Information Management

In this two-year bachelor’s degree program, students work with the latest technology at a top academic institution on the KU Medical Center campus in Kansas City, Kan. To be eligible for admission to this program, students must complete their first two years of undergraduate prerequisites from KU’s Lawrence campus or another qualified accredited institution. To learn more about this program and the profession of health information management, please visit the program website.

KU also offers an online bachelor’s degree-completion program for working professionals. This innovative program is designed specifically for individuals with the Registered Health Information Technician (RHIT) credential who want to advance to a bachelor’s degree in health information administration. As an online program, it offers convenience and flexibility for students. For more information about the RHIT progression program, please refer to the program website.

Upon successful competition of these programs, the students are eligible to sit for the American Health Information Management Association’s national registry exam. Graduates that pass this exam become credentialed and nationally recognized as a Registered Health Information Administrator with the RHIA credential.

The bachelor’s degree in health information management is accredited by the Commission on Accreditation for Health Informatics and Information Management Education.

Students interested in entering this field should contact an advisor as early as possible in their collegiate careers to ensure prerequisite course work will be completed on schedule. For more information, view the frequently asked questions (http://www.kumc.edu/school-of-health-professions/health-information-management/frequently-asked-questions.html) for prospective students.

Courses

HEIM 210. Introduction to Healthcare. 1 Hour.
An introductory overview of the healthcare system in the United States. Includes information on the organizational structure of healthcare, who comprises the healthcare team, reimbursement, managed care, the importance of data quality, legal aspects of healthcare including privacy and security, and the computer-based patient record. Open to all students. LEC.

HEIM 230. Basic Medical Terminology. 3 Hours.
A study of the language of medicine including word construction, definition and use of terms related to various areas of medical science, hospital service and the allied health specialties. Course requires students to be able to break down medical terms and understand their meanings. (This course is designed for persons wanting a better understanding of medical terms and their usage.) LEC.

HEIM 325. Pharmacology. 2 Hours.
This introduction to pharmacology course is intended to provide the student with the background information necessary to practice within the field of Health Information Management. The course covers the fundamentals of pharmacology, including pharmakokinetics and pharmacodynamics. The classification of drugs, the use of drug reference materials, and the mechanisms of therapeutic and adverse responses to drugs will be covered in the course. This course will also introduce the processes used for drug approval in the United States. Prerequisite: Permission of the instructor. LEC.

HEIM 330. Medical Terminology. 3 Hours.
A study of the language of medicine including word construction, definitions, medical abbreviations, and use of terms related to various areas of medical science, hospital service, and the allied health specialties. LEC.

HEIM 360. Record Documentation Systems. 3 Hours.
A course of study relating to the composition of the health record and the department responsible for its security, confidentiality, and availability. The student will compare and contrast the content and formats of the health record across the continuum of healthcare systems; understand the record management issues unique to the health record; record access, record retention guidelines, and record storage options currently available, and trends to the future. LEC.

HEIM 380. Principles of Health Care Management. 3 Hours.
This course will examine the unique characteristics of the healthcare industry in order to help the students identify (1) particular management skills needed as a business leader in the healthcare industry; (2) participate in the theory, skills, and applications of healthcare management through case studies and team projects. Additionally it will cover the study of management and leadership responsibilities including financial management, budgeting, organizational change, group design, strategic management, and team inter-relationships. Application of leadership and business concepts will be demonstrated through case studies and team projects. Prerequisite: College Algebra (or higher), Managerial or Financial Accounting. LEC.

HEIM 415. Healthcare Delivery Systems. 2 Hours.
This course provides an introduction to the wide spectrum of healthcare delivery systems in which health information management and other healthcare professionals use their organizational and management skills. Special emphasis is placed on acute care, ambulatory care, home health, hospice care, long-term care, and managed care. The student will focus on how each delivery system is structured, their function, what data sets are collected, the reimbursement schemes used, health policy that shapes the system, outcomes (cost, quality, access) and how each system is integrated into the current delivery of healthcare in the United States. LEC.

HEIM 420. Statistics. 3 Hours.
Emphasis is on the statistical analysis of healthcare data. Content includes hospital-based statistics, an introduction to basic epidemiological concepts, univariate and bivariate descriptive statistics, sampling distributions, statistical estimation, and hypothesis testing for one or two sample designs. Research design and methodology will be discussed. LEC.

HEIM 435. Pathophysiology for Health Professionals. 3 Hours.
An in-depth study of the fundamentals of medical science, medical essentials and the language of medicine, signs, symptoms, and test findings of disease processes and the current therapy employed in the treatment of diseases. Prerequisites: Courses in Anatomy lab, Physiology lab, and Medical Terminology or consent of the instructor. LEC.

HEIM 440. Management of Information Systems. 4 Hours.
This course provides an extensive introduction to real-world information technology, focusing on translating students’ personal use of technology to the larger organizational design, strategy, and operations of systems such as networking, identity management, relational databases, information architecture, project management, and business analytics. In addition, the course will reinforce students’ capabilities using common
HEIM 450. Introduction to Professional Practices Experiences. 1 Hour.
This course is designed to prepare students and develop the skills required for experiences outside of the classroom environment. The emphasis is on professional behavior for health information management professionals in the workplace. The course also introduces students to the application of electronic health record concepts. The content is intended to prepare students for site visits, professional practice experiences, the internship, as well as their future careers. LEC.

HEIM 480. Human Resource Management. 3 Hours.
This course provides student the opportunity to obtain the knowledge of human resources management skills. Course topics include the legal environment of HR, recruitment, selection, training, development, retention, motivation and the global HR issues within the rapidly changing business and healthcare sectors. Prerequisite: HEIM 380. LEC.

HEIM 485. Independent Study in Health Information Management. 1-10 Hours.
The content will vary depending on material appropriate to students. May be repeated for additional credit utilizing a variety of projects and special assignments. Prerequisite: Permission of the program director. FLD.

HEIM 501. Information Resources for Health Professions. 1 Hour.
This course is designed to prepare students to effectively utilize information resources and technology on an academic medical center campus. Students will learn to apply computer skills, information technologies and literacy skills in an academic health care setting. The course also teaches students the foundations of information literacy - to recognize when information is needed, and to effectively locate, evaluate and use health information resources. Students will learn best practices to find the most relevant information using search strategies, databases (public and private), evaluative skills, and technology to apply and synthesize responses. Finally, this course will equip students with successful presentation skills and guidance on communicating with social technology. LEC.

HEIM 510. Professional Practice Experience I. 1 Hour.
Through supervised learning situations, students are given opportunities to visit different types of healthcare facilities in the area. These opportunities vary from year-to-year based upon availability. Opportunities might include (but not be limited to) developing competence while practicing a specific HIM function in an actual HIM department, exploring nontraditional HIM career roles, or visiting with and interviewing a long term care, behavioral health, rehabilitation, or managed care HIM department manager. Prerequisite: Successful completion of Junior-level HIM academic courses or permission from instructor. LEC.

HEIM 520. Legal Aspects of Health Care. 4 Hours.
This course is designed to introduce the student to fundamental concepts of the American legal system, to the process of legal change, and to the healthcare practitioner’s potential legal interactions with patients, employees, law enforcement officers, and governmental agencies. This class will also focus on the HIM specific elements, informed consent, malpractice liability, corporate negligence, hospital employment, the legal health record, risk management, professional compliance and licensure. This course will also address the changes in privacy, security and confidentiality rules and statutes as addressed at the federal level and state level. LEC.

HEIM 525. Database Management for EHR. 3 Hours.
This course is designed to help students understand databases and database management systems. Students will learn to model and understand database design, in conjunction with learning methods to structure data as records, tables, or objects. Students will also learn how query languages are used for searching, sorting, reporting, and other “decision support” activities to best utilize the available data. Along with acquiring knowledge fundamental to management of the electronic health record (EHR), students will develop general technical knowledge to become capable health information professionals. LEC.

HEIM 565. Healthcare Coding Systems I. 4 Hours.
The introduction and study of classification systems and terminologies used in health care and the relationship of these systems to patient care, research, and reimbursement systems. Application of coding guidelines, conventions, and rules of coding systems. Prerequisite: HEIM 435 or permission of the instructor. LEC.

HEIM 567. Quality and Performance Improvement in Healthcare. 3 Hours.
A study of the requirement of the Joint Commission with a focus on health information standards, quality improvement methodologies, utilization review, and medical staff credentialing and privilege delineation. In addition, Utilization Management is approached from the theoretical and practical application of the Severity of Illness (SI) and Intensity of Service (IS) criteria for the hospital setting. Prerequisite: HEIM 415. LEC.

HEIM 575. Applied Statistics, Research Methods and Analysis in Healthcare. 3 Hours.
Emphasis is on the statistical analysis of healthcare data. Content includes hospital-based statistics, an introduction to epidemiological concepts, research design and methodology, research ethics and protocol, hypothesis testing, data management, analysis and presentation. Prerequisites: MATH 101 Algebra or 104 Pre-Calculus and MATH 365 Elementary Statistics. LEC.

HEIM 580. Reimbursement. 3 Hours.
This course will examine the complex financial systems within the healthcare industry. The student will gain a thorough knowledge of the diverse reimbursement methodologies utilized throughout the governmental and private insurance entities with application through: (1) case studies and (2) information systems integrated within the course work. Prerequisite: HEIM 565. LEC.

HEIM 590. Knowledge Management. 3 Hours.
This course will look at the study of Knowledge Management as a way for an entity to generate, communicate, and leverage its intellectual assets. Topics will focus not only information technology applications but also the human side of knowledge creation, diffusion of innovation, and the application of knowledge. Online discussions will be supplemented with labs that encourage the student to manipulate data sets to derive various perspectives from the same information. Prerequisite: HEIM 380 and HEIM 440. LEC.

HEIM 604. Professional Practice Experience II. 2 Hours.
Provides a laboratory/Professional Practice Experience setting for the application of coding practices learned in HEIM 565 and HEIM 635. This is a two credit hour lab to be taken concurrently with HEIM 665. Prerequisites: HEIM 565, HEIM 567, and concurrently in HEIM 635. FLD.

HEIM 635. Healthcare Coding Systems II. 3 Hours.
Continued study of classification systems and terminologies used in health care and the relationship of these systems to patient care, research, and reimbursement systems. This course will include an introduction to the role of mapping between the various classification systems, nomenclatures and clinical terminologies used in health care. Prerequisite: HEIM 565 or permission of the instructor. LEC.
HEIM 640. Health Information Systems. 3 Hours.
The focus of this course is to provide a hands-on progression from the theories developed by HEIM 440 Management of Information Systems. This course will require the student to apply this knowledge to real world problems with emphasis on Health Information Systems as well as Clinical Information Systems. Prerequisite: HEIM 440. LEC.

HEIM 661. Management Principles in Health Care. 3 Hours.
Introduction to basic principles of management and education and their application in the current healthcare environment. Course content includes: management, quality issues, budgeting, personnel issues, evaluation and application of management concepts, and educational methodologies. Cross listed with CLS 661 and RESP 661. Prerequisite: Admission to the Health Information Management Program or permission of the instructor. LEC.

HEIM 665. Topics in Health Information Management. 1-2 Hours.
The course utilizes case studies and guest lecturers to address the latest developments in the management of healthcare information. Knowledge and skills learned will be applied to real-world problems. Students will research selected topics culminating in written and oral presentations. Students will also focus on professional development and career preparation. Prerequisite: HEIM 380 LEC.

HEIM 670. Independent Study in Health Information Management. 1-10 Hours.
The content will vary depending on material appropriate to students. May be repeated for additional credit utilizing a variety of projects and special assignments. Prerequisite: Permission of the program director. LEC.

HEIM 675. Management Seminar. 2 Hours.
This course will provide application of the healthcare and business management skills obtained from previous management courses within the Health Information Management track. Student teams will be introduced to key management issues within the business sector through a series of seminar topics and presentations. The student teams will also participate in field projects within the local business sector. Prerequisite: Senior status and permission of the instructor. LEC.

HEIM 680. Management Internship. 3 Hours.
This internship experience provides the student with a management capstone experience in the activities and responsibilities of the health information administrator. Students are responsible for all costs to include: room, board, and transportation. Management sites are selected based on the experience and credentials of the student. Prerequisite: Successful completion of all HIM professional coursework and/or permission of the instructor. LEC.

Bachelor of Science in Health Information Management

In this two-year bachelor’s degree program, students work with the latest technology at a top academic institution on the KU Medical Center campus in Kansas City, Kan. To be eligible for admission to this program, students must complete their first two years of undergraduate prerequisites from KU’s Lawrence campus or another qualified accredited institution. To learn more about this program and the profession of health information management, please visit the program website.

KU also offers an online bachelor’s degree-completion program for working professionals. This innovative program is designed specifically for individuals with the Registered Health Information Technician (RHIT) credential who want to advance to a bachelor’s degree in health information administration. As an online program, it offers convenience and flexibility for students. For more information about the RHIT progression program, please refer to the program website.

Upon successful completion of these programs, the students are eligible to sit for the American Health Information Management Association’s national registry exam. Graduates that pass this exam become credentialed and nationally recognized as a Registered Health Information Administrator with the RHIA credential.

The bachelor’s degree in health information management is accredited by the Commission on Accreditation for Health Informatics and Information Management Education.

Students interested in entering this field should contact an advisor as early as possible in their collegiate careers to ensure prerequisite course work will be completed on schedule. For more information, view the frequently asked questions (http://www.kumc.edu/school-of-health-professions/health-information-management/frequently-asked-questions.html) for prospective students.

Costs and tuition: These programs have additional fees associated with specific courses. Please refer to the program website (http://www.kumc.edu/school-of-health-professions/health-information-management/tuition-and-fees.html) for details.

Prior to entering the program, students must complete two (2) years of undergraduate college course work – either from the KU Lawrence campus or another regionally accredited university or community college – with a total of 60 semester credit hours.

No grade lower than a "C" is accepted in any prerequisite course. An overall grade point average of 2.5 (on a 4.0 scale) for college course work is required to be eligible to apply. In addition, student transcripts must document an individual course grade of no less than "C" on each biology, chemistry, and math prerequisite course.

Changes in health care require frequent curriculum content changes and course revisions. All prospective students should obtain ongoing advising from the department (http://www.kumc.edu/school-of-health-professions/health-information-management.html) to ensure the candidate’s transcript meets current prerequisites. Additional advising is available at the Undergraduate Advising Center (http://advising.ku.edu) in Lawrence.

KU Students: Students on the Lawrence campus should declare prehealth information management as their major. Please contact Robin Merritt, academic advisor for the School of Health Professions for advising.

Transfer Students: Students from other institutions need to verify that prerequisites are completed. Verify equivalent course work is transferable and will meet the program requirements using the CredTran system. Program sheets are available for community colleges in Kansas which provide a list of transferable courses.

International students, or those for whom English is a second language, may have additional requirements relative to language proficiency, residency, and citizenship status. Information for international students (http://www.kumc.edu/school-of-health-professions/information-for-international-applicants.html)

Good physical health and mental health is essential. Minor physical handicaps are not considered deterrents. The faculty reserves the option of restricting admission of candidates with handicaps that may affect ability to deliver safe and effective patient care. The admissions
committees may request a personal interview with the applicant. All students must be current with required immunizations.

A background check is also required. Prospective students should review the program requirements and complete list of application requirements on the department’s website (http://www.kumc.edu/school-of-health-professions/health-information-management/how-to-apply/apply-online.html).

Prerequisites

NOTE: Students may still apply if currently enrolled or working towards prerequisite course work. However, all prerequisites must be completed before the start of the program.

English (9)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
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</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
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</tr>
<tr>
<td>ENGL 362</td>
<td>Foundations of Technical Writing</td>
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</tbody>
</table>

Mathematics (9-10)

KU requires students to take MATH 101 before taking ACCT 200; transfer students may not need to complete a MATH 101 equivalent if it is not required by their college for the accounting course below.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>MATH 101</td>
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<tr>
<td>MATH 365</td>
<td>Elementary Statistics</td>
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<tr>
<td>ACCT 200</td>
<td>Fundamentals of Financial Accounting</td>
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<tr>
<td>or ACCT 205</td>
<td>Survey of Accounting</td>
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Biological Sciences (11)

Required courses:

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BIOL 100 &amp; BIOL 102</td>
<td>Principles of Biology and Principles of Biology Laboratory</td>
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<tr>
<td>BIOL 102</td>
<td>Principles of Biology Laboratory</td>
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<tr>
<td>BIOL 240</td>
<td>Fundamentals of Human Anatomy (BIOL 241 or BIOL 242 are lab courses for BIOL 240 and are recommended but not required.)</td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BIOL 246</td>
<td>Principles of Human Physiology (BIOL 247 is the lab course for BIOL 246 and is recommended but not required.)</td>
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Oral Communication (3)

<table>
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<tr>
<td>COMS 130</td>
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Humanities (3)

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<tr>
<td>Arts &amp; Humanities: one course to fulfill KU Core goal 3</td>
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</tr>
<tr>
<td>Culture &amp; Diversity: one course to fulfill KU Core goal 4</td>
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Social Sciences (6)

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<td>PSYC 104</td>
<td>General Psychology</td>
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<td>SOC 104</td>
<td>Elements of Sociology</td>
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Ethics (3)

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<tbody>
<tr>
<td>PHIL 160</td>
<td>Introduction to Ethics</td>
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</table>

Total Hours: 44-45

1 A combined anatomy and physiology course may substitute for the BIOL 240 and BIOL 246 course requirements if a minimum 5 credit hours have been earned.

KU's health information management program is an ever-changing and evolving program in order to support a rapidly changing profession. The student learns theory and practice to attain entry-level competencies related to health records in management, personnel administration, legal aspects, health information systems, information retention and retrieval systems, health statistics, research, quality improvement systems, and classification and indexing systems.

The program begins each fall on the KU Medical Center campus in Kansas City, Kan. and culminates in a 4-week capstone professional experience at the end of the spring semester of the second year.

Program requirements and course offerings are subject to change. Prospective students should visit the program website (http://www.kumc.edu/school-of-health-professions/health-information-management.html) for the latest information.

Curriculum

Junior

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<tr>
<th>Course</th>
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<tr>
<td>HEIM 330</td>
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<td>HEIM 360</td>
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<td>HEIM 415</td>
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<td>HEIM 440</td>
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<td>HEIM 501</td>
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<td>HEIM 380</td>
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Senior

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<td>HEIM 565</td>
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<td>HEIM 567</td>
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<td>HEIM 575</td>
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<td>HEIM 590</td>
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<td>HEIM 640</td>
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</table>

Total Hours: 63

Molecular Biotechnology

Overview

KU’s Master of Science in Molecular Biotechnology degree program prepares students for advanced careers in molecular biotechnology-oriented clinical, industrial and research laboratories. During the 2-year (40 credit hour) non-thesis program, students obtain training in the use and application of cutting edge methodologies and instrumentation as well as critical thinking, trouble shooting, and communication skills.

The application of these skills to research and development is emphasized. The innovative curriculum is structured to provide broad-based knowledge and hands-on experience through coursework and practica performed in biotechnology settings. Together with state-of-the-art research facilities and excellent faculty, the University of Kansas Medical Center is a premier location to study molecular biotechnology.
Master of Science in Molecular Biotechnology

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Applications are considered in accordance with KU admission requirements. Applicants must have earned a baccalaureate degree in a life science (e.g., biochemistry, biology, cell biology, clinical laboratory sciences, microbiology, molecular biosciences) or chemistry before enrolling in the program. An applicant with a degree in another area can be considered if all prerequisite course work is completed before enrolling in the program. Minimum grade-point average requirements apply to prerequisite course work.

A background check (http://www.kumc.edu/school-of-health-professions/background-checks.html) is required during the admission process; it may affect the student’s eligibility to enter the program.

International students or those for whom English is a second language must meet minimum English proficiency (http://www.kumc.edu/school-of-health-professions/information-for-international-applicants.html) requirements. International students may have additional requirements for visa, residency, and citizenship status. Students should contact the KUMC Office of International Programs (http://www.kumc.edu/international) for guidance regarding these issues during the application process.

Prospective students should review the program requirements, including prerequisite course work, and complete list of application requirements on the program’s website (http://www.kumc.edu/school-of-health-professions/molecular-biotechnology.html).

The Master of Science in molecular biotechnology is a 2-year nonthesis program that provides broad-based knowledge and skills to prepare students for advanced careers in molecular biotechnology-oriented clinical, industrial, and research laboratories. Students receive training in the use and application of advanced methodologies and instrumentation as well as critical thinking, troubleshooting, and communication skills. The application of these skills to research and development is emphasized. A comprehensive examination, consisting of written and oral components, is required during the final semester of the program.

A minimum 40 credit hours in the program are designed to be completed in 2 years if pursued full-time. The curriculum provides broad-based training and experience through course work and practica in biotechnology settings. This program is not well suited to part-time study, particularly the practicum component. However, it is possible to extend the course of study over more than 2 years by delaying the recommended schedule of courses.

For details of the curriculum please visit the program’s website (http://www.mb.kumc.edu).

Year 1

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<thead>
<tr>
<th></th>
<th>Fall</th>
<th>Hours</th>
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Total Hours: 40

Year 2

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Total Hours: 40

Nuclear Medicine Technology

KU’s Nuclear Medicine Technology certificate is a 12-month accredited program which prepares technologists to inject radiopharmaceuticals and use highly technical cameras and computers in a clinical setting. The program is a collaboration with the Department of Radiology and the The University of Kansas Hospital for clinical instruction while applications and student services are handled by the University of Kansas.

A certificate from the University of Kansas is awarded to the student upon successful completion of the program. Graduates are eligible to take the national registry examinations given by the American Registry of Radiologic Technologists and/or the Nuclear Medicine Technology Certification Board.

More about this profession can be found on the program’s website (http://nuclearmedicine.kumc.edu).

Certificate in Nuclear Medicine Technology

KU’s nuclear medicine technology certificate is a 12-month accredited program which prepares technologists to inject radiopharmaceuticals and use highly technical cameras and computers in a clinical setting. The program is a collaboration with the Department of Radiology and the The University of Kansas Hospital for clinical instruction while aspects of the academic program, including applications and student services, are handled by the University of Kansas.

A certificate from the University of Kansas Medical Center is awarded to the student upon successful completion of the program. Graduates are eligible to take the national registry examinations given by the American Registry of Radiologic Technologists and/or the Nuclear Medicine Technology Certification Board.

More about this profession can be found on the program’s website (http://www.nuclearmedicine.kumc.edu).
Applicants must currently be one of the following registered professionals. Credentials or transcripts not from an accredited U.S. academic institution require evaluation by the KU International Student Services Office before they can be accepted for eligibility.

- Registered Radiology Technologist (ARRT)
- Diagnostic Medical Sonographer (ARDMS)
- Diagnostic Cardiac Sonographer (ARDMS)
- Certified Medical Technologist
- Registered Nurse
- Associate’s degree in a medical imaging profession with current registry or licensure
- Bachelor’s degree in a health science field (i.e., biology or chemistry)

1 The applicant may be a registry candidate but must pass the registry before entrance into the program.

Prerequisites

The following college courses must be completed to be eligible for the nuclear medicine program.

- College algebra
- College English
- Computer science
- Chemistry with lab
- General physics
- Medical terminology
- Humanities course
- Social sciences course
- Human anatomy and human physiology
- Human anatomy or human physiology lab
- Speech/Oral communication

Grade-point average, background check and other requirements also apply. Prospective students should review the complete program eligibility requirements and application instructions on the program’s website (http://www.nuclearmedicine.kumc.edu).

The student spends 40 hours a week in the 12-month program, with time divided between classroom courses and clinical instruction. The Nuclear Medicine Division of the Department of Radiology at KU Medical Center performs a wide variety of diagnostic and therapeutic exams. The student will receive experience in nuclear pharmacy, patient care, imaging of bone, kidney, brain, lung, GI tract and cardiac function, Positron Emission Tomography and an overview of computed tomography. More details about the program curriculum can be found on the program’s website (http://www.nuclearmedicine.kumc.edu).

A certificate from the University of Kansas is awarded to the student upon successful completion of the program. Graduates are eligible to take the national registry examinations given by the American Registry of Radiologic Technologists and/or the Nuclear Medicine Technology Certification Board.

Curriculum

Year 1

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Total Hours: 47.6

Nurse Anesthesia

The doctor of nursing practice program in nurse anesthesia is a comprehensive 36-month program in which registered nurses receive extensive education in both the academic and clinical components of nurse anesthesia. Students learn to administer anesthesia to all patient populations in a variety of clinical settings using all current anesthesia techniques, and graduates are prepared to take the national certification examination required to become Certified Registered Nurse Anesthetists.

The program is fully accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs, and the Kansas State Board of Nursing (http://www.ksonline.org). KU is accredited by the North Central Association (http://www.northcentralassociation.org) through its Higher Learning Commission.

The Department of Nurse Anesthesia Education (http://na.kumc.edu) is on the second floor of Delp Pavilion on the KU Medical Center campus in Kansas City, Kansas. It is part of the KU School of Health Professions.

Courses

NURA 800. Professional Aspects of Anesthesia. 3 Hours.
This course includes orientation to the profession of nurse anesthesia. The student will gain an understanding of the anesthesia department management and organization. The history of anesthesia will be discussed. Ethical, psychological, professional adjustments and legal responsibilities of the nurse anesthetist will be presented. LEC.

NURA 801. Introduction to Clinical Practicum. 1 Hour.
Students will engage in clinical practice that involves introduction to basic anesthesia skills. Emphasis is given to patient assessment, anesthetic planning and management of the patient population of low risk categories. The course includes introduction to clinical problem solving and "call" experiences that address the trauma patient and emergency surgical/anesthetic interventions for pathological states. Prerequisite: Permission of Instructor. CLN.

NURA 805. Clinical Anatomy. 4 Hours.
An intensive study of the major anatomical systems and regions of the body which have clinical significance for anesthetists and others. Particular attention devoted to the respiratory, cardiovascular, and nervous systems. Regional topics include the anatomy of the head, neck, vertebral column, thorax, axilla, and femoral triangle. Involves both lectures and cadaver dissection, plus appropriate models, x-ray films, and audiovisual materials. Prerequisite: Admission to the Nurse Anesthesia Program or permission of instructor. LEC.
NURA 806. Advanced Physiology. 4 Hours.
A course designed to lead to an advanced comprehension of the physiology of organ systems in the human in both cellular and organ processes. Physiology subject matter relevant to clinical health sciences include membrane transport, muscle, cardiovascular, respiratory, renal, water and electrolyte balance, gastrointestinal, and endocrine physiology as well as neurophysiology. Cellular mechanisms include the structure and function of ion channels and pumps, mechanisms of calcium regulation, excitation-coupling processes and mechanisms of oxidative cell damage and apoptosis. Prerequisite: Permission of instructor. LEC.

NURA 811. Advanced Theory in Anesthesia I. 2 Hours.
This is the first of six successive courses relative to the didactic study of the art and science of nurse anesthesiology. Students will acquire the knowledge base pertinent to the perioperative anesthetic management of ophthalmology and otorhinolaryngology procedures and patients with alterations in the endocrine system. Students enhance their critical thinking, problem-solving skills and ability to synthesize didactic information to the clinical environment. In addition, students will be required to engage in analysis of currently published research to identify “best practices” based on research evidence. Prerequisite: Permission of Instructor. LEC.

NURA 812. Advanced Theory in Anesthesia II. 3 Hours.
This is the second of five successive courses relative to the didactic study of the art and science of nurse anesthesiology. Students will acquire the knowledge base pertinent to the perioperative anesthetic management of critical care and trauma patients, acid base and electrolytes, and hematology needs of patients during surgical interventions. Students enhance their critical thinking, problem-solving skills and ability to synthesize didactic information to the clinical environment. In addition, students will be required to engage in analysis of currently published research to identify “best practices” based on research evidence. Prerequisite: Permission of Instructor. LEC.

NURA 813. Advanced Theory in Anesthesia III. 2 Hours.
This is the third of five successive courses relative to the didactic study of the art and science of nurse anesthesiology. Students will acquire the knowledge base pertinent to the perioperative anesthetic management of obstetrical, neonatal and pediatric patients. Students enhance their critical thinking, problem-solving skills and ability to synthesize didactic information to the clinical environment. In addition, students will be required to engage in analysis of currently published research to identify “best practices” based on research evidence. Prerequisite: Permission of Instructor. LEC.

NURA 814. Advanced Theory in Anesthesia IV. 3 Hours.
This is the fourth of five successive courses relative to the didactic study of the art and science of nurse anesthesiology. Students will acquire the knowledge base pertinent to the perioperative anesthetic management of neurosurgical, cardiovascular, thoracic, and transplantation patients. Students enhance their critical thinking, problem-solving skills and ability to synthesize didactic information to the clinical environment. In addition, students will be required to engage in analysis of currently published research to identify “best practices” based on research evidence. Prerequisite: Permission of Instructor. LEC.

NURA 815. Advanced Theory in Anesthesia V. 3 Hours.
This is the fifth of five successive courses relative to the didactic study of the art and science of nurse anesthesiology. Students will acquire the knowledge base pertinent to the perioperative anesthetic management of the orthopedic patient and disease processes of the myoneuroskelatal disease processes, the geriatric and urological patient during surgical interventions. Students enhance their critical thinking, problem-solving skills and ability to synthesize didactic information to the clinical environment. In addition, students will be required to engage in analysis of currently published research to identify “best practices” based on research evidence. Prerequisite: Permission of Instructor. LEC.
to anesthesia principles and practice will be discussed. The selection of appropriate monitoring devices specific to each system related to individual patient needs will be discussed. Prerequisite: Permission of instructor. LEC.

NURA 893. Regional Anesthesia/Pain Management. 3 Hours.
Includes study of conductive anesthesia techniques, pharmacokinetics of local anesthetics, anatomical placement, and physiologic response. The course is inclusive of acute and chronic pain management techniques. LEC.

NURA 880. Advanced Topics: ______. 1-4 Hours.
Special study allowing a student to pursue a particular subject through readings, directed assignments, and conferences with a faculty member. Prerequisite: Consent of instructor. LEC.

NURA 889. Introduction to Theory, Research Methods and Evidence-Based Practice. 3 Hours.
Methods of theory development and analysis provide the foundation for the study of concepts and theories from nursing, anesthesia and related scientific disciplines. Historical, scientific and philosophical frameworks relevant to the theoretical basis of nurse anesthesia are explored. The fundamentals of research methodology are examined including elements of design, measurement, statistical analysis and dissemination. The relationships between research, theory and practice are developed to create an awareness of how “best practice” resources support professional growth, competence and quality. Prerequisite: Permission of instructor. LEC.

NURA 892. Applied Statistics and Analysis in Health Care. 3 Hours.
Concepts include graduate-level statistical reasoning, statistical principles, and the role as the scientific basis for clinical and public health research and practice. Content includes hospital-based statistics, introduction to epidemiology, relationship of research design to statistical methods, research ethics/protocol, hypothesis testing, and data management. Prerequisite: Permission of instructor. LEC.

NURA 901. Evaluation and Application of Evidence-Based Practice in Anesthesia I. 1 Hour.
First of four courses in which the student will use analytic methods to critically appraise existing literature from nurse anesthesiology and other disciplines to determine and implement the best evidence for practice. An exploration of the design, implementation and evaluation of quality improvement methodologies will lead the student to an appreciation of the safe, effective, efficient and timely delivery of patient-centered anesthesia care. Previous student knowledge in the domain of research analysis will be applied to the design of evidence-based interventions in current anesthesia practice. Prerequisite: Permission of instructor. LEC.

NURA 902. Evaluation and Application of Evidence-Based Practice in Anesthesia II. 1 Hour.
Second of four courses in which the student will use analytic methods to critically appraise existing literature from nurse anesthesiology and other disciplines to determine and implement the best evidence for practice. An exploration of the design, implementation and evaluation of quality improvement methodologies will lead the student to an appreciation of the safe, effective, efficient and timely delivery of patient-centered anesthesia care. Previous student knowledge in the domain of research analysis will be applied to the design of evidence-based interventions in current anesthesia practice. Prerequisite: Permission of instructor. LEC.

NURA 903. Evaluation and Application of Evidence-Based Practice in Anesthesia III. 1 Hour.
Third of four courses in which the student will use analytic methods to critically appraise existing literature from nurse anesthesiology and other disciplines to determine and implement the best evidence for practice. An exploration of the design, implementation and evaluation of quality improvement methodologies will lead the student to an appreciation of the safe, effective, efficient and timely delivery of patient-centered anesthesia care. Previous student knowledge in the domain of research analysis will be applied to the design of evidence-based interventions in current anesthesia practice. Prerequisite: Permission of instructor. LEC.

NURA 904. Evaluation and Application of Evidence-Based Practice in Anesthesia IV. 1 Hour.
Fourth of four courses in which the student will use analytic methods to critically appraise existing literature from nurse anesthesiology and other disciplines to determine and implement the best evidence for practice. An exploration of the design, implementation and evaluation of quality improvement methodologies will lead the student to an appreciation of the safe, effective, efficient and timely delivery of patient-centered anesthesia care. Previous student knowledge in the domain of research analysis will be applied to the design of evidence-based interventions in current anesthesia practice. Prerequisite: Permission of instructor. LEC.

NURA 912. Leadership in Nurse Anesthesia I. 1 Hour.
First of two courses which focus the students on leadership projects which were designed in NURA 800, Professional Aspects of Anesthesia. Students will apply a variety of leadership theories as they conduct the projects with nurse anesthesia faculty supervision. At the conclusion of NURA 913, students will evaluate the projects and determine if goals were met, recognize which principles of leadership theory(ies) were utilized in the projects, and prepare an action plan for revisions. Presentations and self-analysis of the projects will be posted as VOPPTs on the ANGEL course site. Prerequisite: Permission of instructor. LEC.

NURA 913. Leadership in Nurse Anesthesia II. 1 Hour.
Second of two courses which focus the students on leadership projects which were designed in NURA 800, Professional Aspects of Anesthesia. Students will apply a variety of leadership theories as they conduct the projects with nurse anesthesia faculty supervision. At the conclusion of NURA 913, students will evaluate the projects and determine if goals were met, recognize which principles of leadership theory(ies) were utilized in the projects, and prepare an action plan for revisions. Presentations and self-analysis of the projects will be posted as VOPPTs on the ANGEL course site. Prerequisite: Permission of instructor. LEC.

NURA 924. Advanced Practicum IV. 2 Hours.
Fourth of six clinically-based courses related to the art and science of advanced nurse anesthesia practice and care of patients with specialized anesthesia care. The courses are divided into sequential clinical practicum related to diverse patient types in both normal and abnormal states and for those requiring anesthesia care in specialized areas (cardiothoracic, obstetrics, neurosurgical, etc.) Participation in case presentations may be required as warranted by clinical events. An opportunity is provided to apply advanced clinical decision making skills and evidence-based research to the assessment, management, and evaluation of complex health care problems of a diverse patient population in the perianesthesia care setting. Prerequisite: Permission of instructor. PRA.

NURA 925. Advanced Practicum V. 2 Hours.
Fifth of six clinically-based courses related to the art and science of advanced nurse anesthesia practice and care of patients with specialized anesthesia care. The courses are divided into sequential clinical practicum related to diverse patient types in both normal and abnormal states and for those requiring anesthesia care in specialized areas (cardiothoracic, obstetrics, neurosurgical, etc.) Participation in case presentations may be required as warranted by clinical events. An opportunity is provided to apply advanced clinical decision making skills and evidence-based research to the assessment, management,
and evaluation of complex health care problems of a diverse patient population in the perianesthesia care setting. Prerequisite: Permission of instructor. PRA.

**NURA 926. Advanced Practicum VI. 2 Hours.**
Sixth of six clinically-based courses related to the art and science of advanced nurse anesthesia practice and care of patients with specialized anesthesia care. The courses are divided into sequential clinical practicum related to diverse patient types in both normal and abnormal states and for those requiring anesthesia care in specialized areas (cardiothoracic, obstetrics, neurosurgical, etc.) Participation in case presentations may be required as warranted by clinical events. An opportunity is provided to apply advanced clinical decision making skills and evidence-based research to the assessment, management, and evaluation of complex health care problems of a diverse patient population in the perianesthesia care setting. Prerequisite: Permission of instructor. PRA.

**Doctor of Nursing Practice**

The doctor of nursing practice program in nurse anesthesia is a comprehensive 36-month program in which registered nurses receive extensive education in both the academic and clinical components of nurse anesthesia. Students learn to administer anesthesia to all patient populations in a variety of clinical settings using all current anesthesia techniques, and graduates are prepared to take the national certification examination required to become Certified Registered Nurse Anesthetists.

The program is fully accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs, and the Kansas State Board of Nursing (http://www.kszbn.org). KU is accredited by the North Central Association (http://www.northcentralassociation.org) n through its Higher Learning Commission.

The Department of Nurse Anesthesia Education (http://na.kumc.edu) is on the second floor of Delp Pavilion on the KU Medical Center campus in Kansas City, KS. It is part of the KU School of Health Professions.

Prospective students must meet all program eligibility requirements. When ready to apply, please review the complete list of application requirements on the department’s website (http://www.kumc.edu/school-of-health-professions/nurse-anesthesia-education/prospective-students/eligibility-and-requirements.html).

To be eligible to enter the program, an applicant must be a registered nurse with 2 years’ work experience as a licensed registered nurse, including a minimum 1 year of recent, full-time experience in an intensive care setting. Experience as an LPN does not count.

License, or eligibility for licensure, as a professional registered nurse in the state of Kansas is required. A current RN license must be obtained by the spring of the year in which the student enters the program.

A bachelor’s degree in any appropriate discipline, such as nursing, respiratory care, biological sciences, health care administration, pharmacology, psychology, sociology, is required. A bachelor’s degree in nursing is not required.

An overall grade-point average of 3.0 on a 4.0 scale in five science prerequisite courses is required: two chemistry courses, human anatomy, human physiology, and microbiology. A grade of B or above is required in human physiology, which must have been taken within ten years of the starting date of the program. Two semesters of combined human anatomy and physiology will also fulfill the human anatomy and human physiology requirements. If combined courses are used for this prerequisite, both must have a grade of B or above and be taken within ten years of the starting date of the program. Additionally, one statistics course with a grade of C or above is required. All prerequisite courses must be taken at an accredited college or university and be eligible for transfer to the University of Kansas. Courses may be taken at an accredited 2-year college. Please see the program website for detailed information on prerequisite courses (http://www.kumc.edu/school-of-health-professions/nurse-anesthesia-education/prospective-students/eligibility-and-requirements.html).

An overall cumulative grade-point average of 3.0 on a 4.0 scale is required for all prior course work.

This program does not accept transfer students.

The doctor of nursing practice with a specialization in nurse anesthesia is a 3-year degree program. With clinical experiences, class time, and study time, the program is very demanding. During the first 2 semesters, courses are mostly classroom-based during regular weekday hours. For the remainder of the program, students are assigned in the clinic with variable schedules, including 12-hour shifts outside of regular business hours. Students continue to take theory, research, and other courses during this time.

Much of the program’s course work after the first year is web-based. This design permits more learning methods to be incorporated into the program and allows students to continue to gain knowledge through academic course work while developing their skills in the clinic. Successful completion of a leadership project, a capstone project, an oral comprehensive exam, and supervised clinical practicum are also required for graduation. Please visit the department’s website (http://www.na.kumc.edu/curriculum.html) for full curriculum details and degree requirements.

Please note that this is not a distance learning program.

**Curriculum**

**Summer, Year 1 (6)**

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<td>Basic Principles of Anesthesia Practice</td>
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Doctor of Occupational Therapy (OTD)

This clinical-based doctorate program is designed for practicing occupational therapists who want to pursue the highest level of advanced practice. An OT degree and current license are required for admission. >> OTD program details (http://www.kumc.edu/x12196.xml)

Occupational Therapy Courses

OCTH 101. Introduction to Occupational Therapy. 1 Hour.
Survey of the profession of occupational therapy. Includes information on academic and professional requirements, career opportunities, general description, and history of the profession. Open to all students. LEC.

OCTH 388. Human Anatomy. 6 Hours.
This course will explore the human body to develop an understanding of how anatomy influences the occupational therapy process. This course will use a biomechanical approach to guide assessment and intervention in examining occupations. LEC.

OCTH 395. Orientation to the Occupational Therapy Profession. 3 Hours.
This course will describe occupation and discuss the philosophy/history, current and future directions of the occupational therapy profession. We will explore professionalism including ethics and professional behaviors, professional communication/relationships, and involvement with professional/regulatory associations within context of occupational therapy. LEC.

OCTH 401. Theory and Practice in Occupational Therapy. 2 Hours.
This course will explore conceptual theoretical models in occupational therapy and the relationship with professional reasoning. This course will use small case-based groups to apply theoretical models. LEC.

OCTH 422. Analysis and Adaptation of Occupations I. 4 Hours.
This course will analyze the role of occupations and the factors influencing occupational performance in everyday contexts. This course will use service learning as the context for understanding occupation, the occupational therapy process, and person-centered practice. LEC.

OCTH 430. Practicum I. 2 Hours.
This course will use a person-centered approach to engage with individuals across the life span in their natural contexts. This course will incorporate observation and interview skills with individuals across the life span emphasizing participation in everyday life. LEC.

OCTH 435. Lifespan Development from an Occupational Perspective. 4 Hours.
This course will discuss developmental theories and study how occupations change across the lifespan. We will emphasize the need to examine participation in meaningful activities within authentic contexts with considerations for the impact of a disability on occupational performance. LEC.

OCTH 445. Contexts of Occupation. 2 Hours.
This course will explore the importance of context in order to facilitate understanding how the person, the context, the environment, and the task all interact to guide occupational performance in everyday life. LEC.

OCTH 455. Neuroscience Analysis of Occupational Performance. 3 Hours.
This course will examine human behavior and occupational performance in relation to function and dysfunction of the nervous system, both in formulating potential behavioral signs when a specific neurological site is presented, and in hypothesizing about neurological involvement when given a client description. LEC.

Occupational Therapy

The Department of Occupational Therapy Education resides in the KU School of Health Professions (http://healthprofessions.kumc.edu) and is located on the KU Medical Center campus in Kansas City, Kan. The department offers the following degree programs:

Master of Occupational Therapy (MOT)

For students wanting to enter the profession of occupational therapy, this graduate degree begins with one year of undergraduate study. Graduates are eligible to take the national certification examination to obtain OT licensure. >> MOT program details (http://www.kumc.edu/school-of-health-professions/occupational-therapy-education/master-of-occupational-therapy.html)
OCTH 462. Physical Considerations in Facilitating Occupational Performance. 4 Hours.
This course will use scientific reasoning to explore the impact of selected medical conditions on person factors and occupational performance in everyday life. An understanding of injury and disease processes is paired with appropriate occupational therapy assessment and intervention strategies to facilitate optimal occupational outcomes. LEC.

OCTH 470. Practicum I. 2 Hours.
This course will engage in the occupational therapy process and participate in service provision to individuals/families through level I fieldwork experiences. We will apply the components of documentation to the occupational therapy process with emphasis on note writing and goal development. Students will demonstrate command of occupational therapy knowledge through successful completion of professional growth assessment. LEC.

OCTH 472. Psychiatric Considerations in Facilitating Occupational Performance. 3 Hours.
This course will apply theory and evidence to occupational therapy practice in mental health settings. This course will consider selected psychiatric disorders and their impact on occupational performance in everyday life. LEC.

OCTH 482. Analysis and Adaptation of Occupations II. 2 Hours.
This course will apply the occupational therapy framework to understand occupation as a therapeutic means and end to occupational therapy practice. This course will use service learning as the context for understanding occupation, the occupational therapy process, and person-centered practice. LEC.

OCTH 490. Evaluation and Assessment of Occupational Performance. 2 Hours.
This course will apply the fundamentals of the evaluation process to understand occupational performance across the lifespan. We will examine how to select, interpret and document formal and informal measures within a person-centered, contextually relevant approach. LEC.

OCTH 680. Independent Study. 1-6 Hours.
An elective course to allow students to pursue areas of special interest under direction of faculty of his or her choice. Investigation of special issues relevant to an aspect of occupational therapy practice will include study of pertinent practice factors. Student will complete special projects relevant to the practice areas, such as oral presentation, written paper or case analyses. May be repeated for credit. Prerequisite: Permission of department and instructor (offered Spring, Summer and Fall). IND.

OCTH 704. Planning and Intervention in Occupational Therapy. 2 Hours.
This course will use professional reasoning to analyze cases across the lifespan. We will work in small groups using a problem-based format with faculty mentors as we develop an occupational profile, occupational analysis and evidence-based intervention plans for each case. LEC.

OCTH 710. Service Management: Delivery Systems. 1 Hour.
This course will explore how service delivery systems influence pragmatic reasoning and occupational therapy practice. We will examine American and global health care systems along with occupational therapy health care delivery settings with a focus on quality, cost, and access related to service delivery. Teaching and learning experiences occur through lecture, on-line materials, class discussion and small group activities. LEC.

OCTH 715. Supervision, Team Relations, and Management Communication. 1 Hour.
This course emphasizes entry level skills related to supervision, teamwork, and communication within practice environments. LEC.

OCTH 720. Occupational Therapy Practice Models. 7 Hours.
This course will use practice models to guide evaluation and intervention in occupational therapy practice. Students will gain an understanding of historical and contemporary models, learn the evidence underlying each model and conduct assessments with a consumer from each of the contemporary models. LEC.

OCTH 725. The Research Process. 1 Hour.
This course will transition from understanding and appraising research (OCTH 783) to generating research (OCTH 790). The purpose of this course is to guide students through planning research by introducing the components of research and describing ways in which research may be conducted. The course reviews research ethics, writing research questions and hypotheses, sampling, measurement and data collection, components of quantitative and qualitative research, and information about disseminating research. LEC.

OCTH 730. Practicum III. 2 Hours.
This course will build upon practicum and level I fieldwork experiences to continue developing necessary skills for level II fieldwork experiences. We will determine the relevant variables for intervention, work collaboratively with others within each setting, analyze, and reflect upon the experience. We will analyze principles of evidence-based practice and occupation-based intervention. LEC.

OCTH 738. Special Topics in Practice. 1-2 Hours.
Focused study of theory application, professional topics and skills, and emerging practice questions. Learning experiences may be in the form of guided readings and discussion, directed projects, seminars, or community/clinical experience with focus on advanced supplemental or exploratory learning. Specific topics and formats will vary as they are generated by student interest and faculty expertise. LEC.

OCTH 750. Case-Based Clinical Reasoning. 2 Hours.
This course will apply the professional reasoning process to understand individuals’ occupational performance and analyze services provided based on cases from level II fieldwork experiences. We will participate in small group discussion using a problem-based format to conduct case analysis and develop evidence-based intervention plans. LEC.

OCTH 755. Issues and Trends Seminar. 1 Hour.
This course will analyze key professional, political, and cultural issues and trends that impact service provision and the populations served by occupational therapists. This seminar format incorporates student-driven service experiences, discussion forums, and small group work to examine issues/trends and recognize opportunities to shape the future of the occupational therapy profession. LEC.

OCTH 760. Professional Development and Leadership in Service Management. 3 Hours.
This course will discuss professional responsibilities and career development opportunities as they relate to leadership, administration, and management of occupational therapy services. We will use reflective assessments to identify professional leadership strengths and career paths. Students working in small work groups will apply management principles to develop and propose community-based health promotion programs. LEC.

OCTH 765. Family and Community Service Systems. 2 Hours.
This course will use professional reasoning to examine occupational practice within various delivery systems. We will use lecture and small group seminars to analyze systems from level II fieldwork experiences and develop a program evaluation plan based on collaborations between students and fieldwork supervisors. LEC.
OCTH 770. Level II Fieldwork, Part 1. 6 Hours.
A required full-time, three-month supervised experience in a facility meeting specified criteria. Qualified occupational therapists supervise the experience. Students will be exposed to a variety of age ranges and disabilities within different service delivery systems. Prerequisite: Satisfactory completion of required academic coursework. LEC.

OCTH 775. Level II Fieldwork, Part 2. 6 Hours.
A required full-time, three-month supervised experience in a facility meeting specified criteria. Qualified occupational therapists will supervise this experience. Students will be exposed to a variety of age ranges and disabilities within different service delivery systems. Ages, disabilities, and service provision systems for this course will differ from the student’s prior fieldwork experience. Prerequisite: Satisfactory completion of required academic coursework. LEC.

OCTH 776. Population-Based Clinical Reasoning. 3 Hours.
This course will consider population-based concepts and theories to identify, prioritize and meet the health and life participation needs of populations. Within an interprofessional online learning context, students collaborate to develop community-based assessment and intervention emphasizing promotion, maintenance and restoration of health and wellness and disease prevention for specific populations. LEC.

OCTH 780. Elective Level II Fieldwork. 3-6 Hours.
An elective (optional) supervised experience in a facility meeting specific criteria. Qualified occupational therapist will supervise this experience. This fieldwork would allow students to pursue areas of special interest. Length and time commitment of experience will be commensurate with credit hours (e.g., each credit requires 80 hours of fieldwork contact at specified site). Prerequisite: Satisfactory completion of required academic coursework and OCTH 770. LEC.

OCTH 783. Evidence-Based Practice. 2 Hours.
This course will review, appraise, and integrate various levels of evidence to inform occupational therapy practice. Students will learn where and how to find relevant evidence as well as what factors should be considered in the assessment of evidence. We will review statistics and their use in interpreting outcome data. Students will also learn to synthesize and translate evidence into useful information for practice. LEC.

OCTH 790. Research Practicum and Professional Writing. 3 Hours.
This course will explore how the process of conducting a faculty-mentored research project becomes a platform for developing occupational therapy principles and for guiding practice, and how conveying meaning through professional writing is essential for communicating outcomes, interpretations, and instructions. Prerequisite: OCTH 727. Students from programs outside the MS in Occupational Therapy or PhD in Therapeutic Science need to contact the Occupational Therapy Department for permission to enroll. LEC.

OccupationalTherapy(Doctorate) Courses

OTD 750. Clinical Reasoning and Problem Based Learning. 3 Hours.
Students will apply a clinical reasoning process to individuals with occupational performance needs. Cases will be presented from students' clinical experiences. In a problem solving format, students will evaluate models of service delivery, evaluation and intervention delivery and dissemination of information received by the individual. Students will identify and discuss alternatives given a variety of situations and environments. PREREQUISITE: Permission of Department. LEC.

OTD 770. Knowledge For Specialty Practice Area. 3 Hours.
This course is designed to support and correspond with OTD 780. Students will be matched with a faculty mentor as they develop a literature review in an area of clinical interest. This experience is designed to supplement students' ongoing clinical practice as they develop a library of pertinent empirical readings. Students will be mentored as they develop skills in analytical reading and identification of information that informs best practice. PREREQUISITE: Admission to OTD Program or Permission of Instructor. LEC.

OTD 776. Population Based Health Care. 3 Hours.
This course will coordinate with OCTH 776. The purpose of this course is to introduce concepts and theories related to providing health care to complex systems and aggregates in the community, state and nation. Emphasis is placed on the promotion, maintenance and restoration of health and wellness and the prevention of disease. Internal and external environmental components which include historical, political, social, cultural and economic factors are presented. The role of the health care provider in identifying, prioritizing and meeting the health and life participation needs of aggregates is discussed. PREREQUISITE: Permission of department. LEC.

OTD 780. Practicum in Specialty Practice Area. 3 Hours.
This course is designed to support and correspond with OTD 770. Students will complete this course as they work in a clinical environment. They will meet with a faculty mentor to support the analysis and dissemination of their empirical information gathered during OTD 770. They will present their empirical literature findings to their professional colleagues via a clinical research forum. Students will be expected to create three forms of information dissemination and critically review the professional feedback they receive. PREREQUISITE: Permission of department. LAB.

OTD 783. Evidence Based Practice. 3 Hours.
This course will coordinate with OTCH 783. Students will address the parameters and criteria for evidence-based practice. They will build a library of information that facilitates their evaluation of the status, beliefs, and practice of Occupational Therapy. They will develop skill in the synthesis of empirical evidence and explore dissemination options to service recipients. Students' work will culminate in the formulation of a decision-making paradigm for their future practice decisions. PREREQUISITE: Permission of Department. LEC.

OTD 799. Practice and Research. 3 Hours.
This is an elective course that allows students to pursue areas of special interest under the direction of a faculty member of his or her choice. This course is designed to support students' learning as they complete their pre-doctoral studies. Investigation of special issues relevant to an aspect of occupational therapy practice will include study of pertinent practice factors. Students will complete special projects relevant to the practice areas of interest, such as an oral presentation, written paper, or case analysis. May be repeated for credit. PREREQUISITE: Permission of Department. LEC.

OTD 825. Qualitative Research Methods. 3 Hours.
This course is an introduction to qualitative research techniques. Students will have several opportunities to gain hands-on experience using fundamental qualitative research techniques to sharpen their data collection, analysis and write-up skills. The goals of this course are to better understand the role qualitative techniques play in research, identify various ethical issues, sharpen interview and observation skills, and develop foundation skills for collecting, analyzing and interpreting qualitative data. Prerequisite: Permission of Department. Lecture course. LEC.

OTD 835. Quantitative Research for Applied Science. 3 Hours.
Research relevant to therapeutic intervention comes from a variety of disciplines involving varied research designs and analysis strategies. Students in this course will examine selected research studies and gain
skill in analyzing methods and results as well as in applying research findings to practical problems. Students will conduct a systematic review on a specific area of occupational therapy practice. LEC.

OTD 850. Teaching Practicum. 1-3 Hours.
The purpose of this course is to provide practical learning whereby students receive individual mentorship for the development, implementation and evaluation of a teaching experience. Students will be responsible for developing the material, instructing students, grading assignments and evaluating the teaching experience. The teaching experience is expected to include at least 12 hours of face to face instruction (or the equivalent in on-line teaching or written materials). Teaching experiences can include MOT program lectures or labs, continuing education workshops, patient education programs, or staff inservices or another experience that meets the time and competency requirements. Prerequisite: A graduate level teaching methods course such as NSG 873, NSG 874, C T 740, C T 840 PRA.

OTD 860. Theory and Practice in Occupational Therapy. 3 Hours.
This course will cover major theoretical frameworks and practice models in occupational therapy. The history of occupational therapy will be included to provide a basis for understanding the evolution of the profession as well as past and current issues and trends. Students will learn how to critically analyze theories, evaluate research evidence related to specific theories and practice models, and assess pragmatic issues in applying practice models to specific settings and populations. LEC.

OTD 865. Theory Based Practice. 3 Hours.
This course is designed to critically review Occupational Therapy theories, research, practice models and frameworks using the tenets of occupation based practice. Students will analyze seminal literature from occupational science and relate theory and evidence to practice. Students will review their specified area of practice to develop a proposed method of practice that incorporates empirical evidence and practice methods. Finally, students will select a mentor from their practice area to review their proposal. Critical feedback will be incorporated into a final presentation and paper. PREREQUISITE: Permission of Department. LEC.

OTD 875. Professional Development. 3 Hours.
This course will explore professional development from an advanced practice perspective. Students will examine aspects of advanced practice such as leadership (both work and professional), management, group and system communication and change agency. They will explore these topics within their current practice settings and select an area of advanced skills to explore in more depth. Students will develop an understanding of how they can impact systems and contribute to the development of the occupational therapy profession. LEC.

OTD 880. Program Evaluation. 3 Hours.
Leadership in areas of specialty practice will require our graduates to critically evaluate their practice programs. In this course, students will explore the traditional and innovative ways to evaluate professional services and systems, and they will develop skills to conduct program evaluations. Students will examine the purpose and process of program evaluations in a variety of clinical settings. Through lecture, discussion and a project they will develop and execute a program evaluation in their area of practice. PREREQUISITE: Permission of Department. LEC.

OTD 885. Advanced Practicum. 1-3 Hours.
This practicum is designed to span 400 hours. Students will identify an area of practice through which they want to develop clinical initiatives and leadership. Selected field experiences will provide opportunities for program development, leadership, and information dissemination. Upon completion, the students will provide his or her clinical team with a program, or research based initiative, along with specified program evaluation methods. PREREQUISITE: Permission of Department and continuous enrollment until completion of competencies. LAB.

OTD 890. Capstone Project. 1-3 Hours.
The capstone project will comprise a written report that involves both literature and field research activity. A capstone project report represents the application of knowledge as well as the search for it, and differs from a thesis such that student opinion and experience is involved. The student must negotiate capstone objectives, evaluation standards and any potential approvals prior to his or her practicum. PREREQUISITE: Permission of Department and continuous enrollment until competencies totaling 6 credit hours are completed. IND.

OTD 899. Special Projects. 3 Hours.
This is an elective course that allows students to pursue areas of special interest under the direction of a doctoral faculty member of his or her choice. This course is designed to support doctoral training. Academic options range from research based studies and/or activities to critical analysis of clinical practice methods. Students will complete special projects relevant to their designated practice area of interest. Students must negotiate learning objectives, academic projects and evaluation standards with their mentor. May be repeated for credit. PREREQUISITE: Permission of department. LEC RSH.

Occupational Therapy (MS) Courses

OTMS 699. Special Projects. 1-6 Hours.
(1-6) An elective course to allow student investigation of special issues or problems relevant to applied research and/or practice, under the direction of a faculty member chosen by the student. Systematic coverage of current issues may include a research investigation or study related to pertinent sociocultural trends, practice factors, or emerging issues in service provision. Students will complete special projects such as oral presentations, written papers, or case analysis as negotiate with the faculty mentor. May be repeated for credit. Prerequisite: Enrollment as a non-degree seeking student and permission of the instructor. IND.

OTMS 701. Professional Development. 3 Hours.
With an emphasis on leadership skills and professionalism, this course will include mentoring, supervising, managing, organizing presentations, and teaching, writing, and contributing through professional organizations (interdisciplinary and occupational therapy). Students professionalism on issues of concern to administrators, staff therapists, educators, or those in private practice. Prerequisite: Permission of Instructor. LEC.

OTMS 705. Multidisciplinary Theoretical Perspectives. 3 Hours.
Students will identify and explore the key theories in occupational therapy and those more specific to their emphasis area with an emphasis on those currently influencing clinical reasoning. Students will demonstrate an understanding of contemporary theories and be able to compare and contrast key theories. Students will develop rationales for theory guided interventions. Furthermore, they will develop an impact summary in their identified area of emphasis. Prerequisite: Permission of Instructor. LEC.

OTMS 735. Practice Models for Applied Science. 3 Hours.
Issues and trends relative to advanced application of theory, assessment and intervention with emphasis on pediatrics will be presented in lecture and discussion. Special projects will emphasize the student's special interests. Although faculty directed, student presentation will be emphasized. LEC.

OTMS 799. Special Topics in Occupational Therapy. 1-6 Hours.
An elective course to allow student investigation of special issues or problems relevant to applied research and/or practice, under the direction of a faculty member chosen by the student. Systematic coverage of current issues may include a research investigation or study related to
pertinent sociocultural trends, practice factors, or emerging issues in service provision. Students will complete special projects such as oral presentations, written papers, or case analyses as negotiate with the faculty mentor. May be repeated for credit. Prerequisite: Permission of instructor. IND.

**OTMS 800. Research Proseminar. 1 Hour.**
A proseminar conducted by the core graduate faculty in Occupational Therapy and Therapeutic Science. Twice-monthly meeting will involve student and faculty presentations of their current research, as well as provide more opportunities to obtain feedback on research proposals. May be taken more than once for a total of four credits. (Same as TS 800.) RSH.

**OTMS 801. Applied Neuroscience. 3 Hours.**
The course will address the major functions of the systems within the central nervous system and how they interact to produce responses to environmental demands. Sensory input, central processing, and output mechanisms will be analyzed. The student will then appraise human behavior in relation to function and dysfunction of the nervous system, both in formulating potential behavioral signs when a specific neurological site is presented, and in hypothesizing about neurological involvement when analyzing a particular individual's problems. Prerequisite: Undergraduate neuroscience course or permission of instructor. LEC.

**OTMS 835. Interpreting Research for Applied Science. 3 Hours.**
This on-line course examines selected research studies, analysis methods and results employed, and applies research findings to practical problems. Students will design their own research project reflecting their area of interest. RSH.

**OTMS 890. Graduate Research. 1-6 Hours.**
Students investigate an empirical question relevant to occupational therapy and write a literature review and a research proposal under the guidance of a faculty advisor. Pending approval of the proposal, the student will carry out initial phases of the project, including materials preparation and data collection. RSH.

**OTMS 899. Thesis. 1-6 Hours.**
Course requires data analyses, interpretation, and scholarly writing based on individual original research carried out under the guidance of the student's advisor. These activities, along with an oral presentation of research, must meet with approval of the student's advisory committee to complete thesis requirements. Prerequisite: OTMS 890. THE.

**Therapeutic Science Courses**

**TS 800. Research Proseminar. 1 Hour.**
A proseminar conducted by the core graduate faculty in Occupational Therapy and Therapeutic Science. Twice-monthly meetings will involve student and faculty presentations of their current research, as well as provide more opportunities to obtain feedback on research proposals. May be taken more than once for a total of four credits. (Same as OTMS 800.) LEC.

**TS 805. Multidisciplinary Theoretical Perspectives. 3 Hours.**
Students will identify and explore key theories in behavioral and social science with an emphasis on those currently influencing clinical reasoning. Students will demonstrate an understanding of contemporary theories and be able to compare and contrast key theories, while also developing knowledge about theory guided research and interventions. LEC.

**TS 850. From Beliefs to Evidence. 1 Hour.**
Analysis of the role of beliefs about practice in professional culture and how beliefs are affected by the accumulation of research evidence. Topics include the nature of science and beliefs, the nature of evidence, and the debate over evidence-based practice. Students will use topics from their own professional interests for class presentations and written assignments. May be taken more than once for a total of two credits. LEC.

**TS 880. Special Projects. 1-6 Hours.**
An elective course to allow student investigation of special issues or problems relevant to applied research and/or practice, under the direction of a faculty member chosen by the student. Systematic coverage of current issues may include a research investigation or study related to pertinent sociocultural trends, practice factors, or emerging issues in service provision. Students will complete special projects such as oral presentations, written papers, or case analysis as negotiate with the faculty member. May be repeated for credit. Prerequisite: Permission of instructor. IND.

**TS 900. Evolving Interdisciplinary Views of Disability. 1 Hour.**
Assessment of how our social and cultural context defines notions of disability and disablement in our society. Topics include historical constructs of disability, public policy related to disability, and social paradigms of disability. Students will evaluate views of disablement from the perspective of their own discipline. May be taken more than once for a total of two credits. LEC.

**TS 950. Designing Effective Knowledge Transfer. 1 Hour.**
Examination of the principles of knowledge transfer and diffusion of innovation as they relate to practices in therapeutic professions. Topics include the diffusion process, change agents, innovation adoption, and current diffusion methods. Students will evaluate diffusion processes that have occurred within their own professions. May be taken more than once for a total of two credits. LEC.

**TS 980. Advanced Study in Therapeutic Science. 1-6 Hours.**
Students engage in advanced study of a topic of their interest, guided by an appropriate mentor. Methods include directed readings, interpretation of evidence, discussions, and written syntheses of existing literature. Course culminates in a written proposal for original research and an oral defense of that proposal. Credit is given only after the dissertation proposal is accepted by the student's advisory committee. Prerequisite: Permission of instructor. SEM.

**TS 990. Dissertation in Therapeutic Science. 1-9 Hours.**
Research experience leading to dissertation for doctoral students in Therapeutic Science. THE.
Prerequisite Courses

KU courses to meet the program requirements are listed below. Note: Incoming students are required to complete class work that meets the Goals 1-4 of the KU Core (http://kucore.ku.edu) Curriculum. All prospective students are encouraged to obtain advising from the department (http://www.kumc.edu/school-of-health-professions/occupational-therapy-education/master-of-occupational-therapy.html) or to schedule an appointment through the Undergraduate Advising Center (http://advising.ku.edu) on the Lawrence campus as soon as possible. Transfer students need to acquire equivalent course work and credit transfer eligibility can be tentatively evaluated through KU's Office of Admissions and Scholarships Transfer and Earned Credit. (http://admissions.ku.edu/credit/transfer)

Mathematics (6)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MATH 101</td>
<td>College Algebra</td>
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<tr>
<td>MATH 365</td>
<td>Elementary Statistics</td>
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<tr>
<td>or PSYC 210</td>
<td>Statistics in Psychological Research</td>
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Physics (3)

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<th>Course</th>
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<tr>
<td>PHIL 160</td>
<td>Introduction to Ethics</td>
<td>3</td>
</tr>
<tr>
<td>or PHIL 677</td>
<td>Medical Ethics: Professional Responsibilities</td>
<td>3</td>
</tr>
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</table>

General Electives (45)

Select any combination of college-level course to bring the total hours to at least 90 when combined with the prerequisites listed above.

1. Physiology and anatomy (with lab) can be taken as a combined course, for a minimum of 5 credit hours. Anatomy or anatomy and physiology (combined) must have been taken within 5 years of applying to the program.

2. College Algebra or higher level math courses will fulfill this requirement. Statistics remains as a unique prerequisite.

3. Additional courses may be used to fulfill this requirement.

4. Child, adult, or lifespan development course work may be used to fulfill this requirement.

Please be advised that the University of Kansas transfers a maximum of 64 credit hours from accredited community colleges. Credit/No Credit and Pass/Fail courses do NOT fulfill required prerequisite course requirements. In order to be considered for admission, the student must have completed at least 24 semester hours of required coursework, including at least 3 semester hours of prerequisite science coursework, by the end of the fall semester in which they apply.

International students or those for whom English is a second language may have additional requirements relative to language proficiency, residency, and citizenship status. International students should review current requirements (http://www.kumc.edu/school-of-health-professions/information-for-international-applicants.html).

Prospective students should review the program requirements, including prerequisite course work, and complete list of application requirements on the department's website (http://www.kumc.edu/school-of-health-professions/occupational-therapy-education.html).

Students accepted into the program may enter as early as their senior year of college. All students spend the first year of the OT program (summer, fall and spring semesters) in undergraduate study. Students spend the following two years (two fall and two spring semesters) completing the graduate portion of the program. Students receive a Bachelor of Science in Occupational Studies degree upon satisfactory completion of the undergraduate first year of the program. This degree, however, does not prepare a student for professional practice nor allow for licensing as an occupational therapist. Students must complete the final two years of graduate study to obtain the master’s degree required for a career in occupational therapy.

Bachelor of Science in Occupational Studies Curriculum

The program begins with the summer semester.
An occupational therapy degree, a master’s degree, and current OT license are required for admission.

Master of Occupational Therapy Curriculum

After a summer semester without classes, the two graduate years of study begin with fall semester of year two.

Year 2

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
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<tbody>
<tr>
<td>OCTH 704</td>
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<td>OCTH 725</td>
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<tr>
<td>OCTH 710</td>
<td>1</td>
<td>OCTH 750</td>
<td>2</td>
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<tr>
<td>OCTH 720</td>
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<td>OCTH 770</td>
<td>6</td>
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<tr>
<td>OCTH 730</td>
<td>2</td>
<td>Elective course (required)</td>
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<tr>
<td>OCTH 783</td>
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Year 3

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<tr>
<th>Summer</th>
<th>Hours</th>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
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<tr>
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<td>OCTH 775</td>
<td>6</td>
<td>OCTH 755</td>
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<td>OCTH 776</td>
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<td>OCTH 760</td>
<td>3</td>
<td>OCTH 765</td>
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<td>OCTH 790</td>
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Total Hours: 50

Additionally, the student will engage in a faculty-supported, community-based service learning project and complete a research project carried out with a group of students in collaboration with a faculty mentor.

If an interruption in the program occurs for any reason, all requirements must be completed within 4½ years of the start date.

Fieldwork Level II

Fieldwork Level II is a degree requirement and a vital part of an occupational therapy education. Courses are full-time practicum experiences carried out in service delivery settings. Students take FWII during the Spring 2a and Fall 3b semesters. An optional FWII experience may be scheduled during the Fall 3a semester. Students are responsible for transportation to and from fieldwork sites, living arrangements and expenses, tuition and fees for 12 to 18 credit hours, and any other expenses.

Doctor of Occupational Therapy

This program of study is directed at therapists already in practice who wish to upgrade their knowledge and skills to the doctoral level to meet the increasing demands of complex practice issues. This program focuses on specialization and professional leadership in practice. Offered entirely online, therapists can obtain this education while continuing to work in the profession.

An occupational therapy degree, a master’s degree, and current OT license are required for admission.

For complete details about the program, please visit the OT website (http://www.kumc.edu/school-of-health-professions/occupational-therapy-education/doctor-of-occupational-therapy.html).

To be considered for admission to this program, an applicant must have a degree from an accredited entry-level occupational therapy program. Students with an entry-level bachelor’s degree in occupational therapy must contact the department for information about prerequisite course work before applying to this program.

In addition, all applicants also must provide documentation of current state license to practice occupational therapy or NBCOT registration as an occupational therapist.

A background check (http://www.kumc.edu/school-of-health-professions/background-checks.html) is required during the admission process; it may affect the student’s eligibility to enter the program.

An applicant is considered an international student if he or she requires a visa, or currently resides in the U.S. with non-immigrant status, or currently resides in the U.S. while applying for permanent residency. Additional requirements and documentation, such as proof of English language proficiency, are required for international students to become eligible for KU programs. Please review the information for international students (http://www.kumc.edu/school-of-health-professions/information-for-international-applicants.html) before applying.

Prospective students should review the program requirements, including prerequisite course work, and complete list of application requirements on the department’s website (http://www.kumc.edu/school-of-health-professions/occupational-therapy-education.html).

This program focuses on specialization and professional leadership in practice. Offered entirely online, therapists can obtain this education while continuing to work in the profession.

This innovative curriculum is designed to be responsive to professional demands and to meet the highest academic standards. Core work and specialization opportunities have been integrated across the curriculum to create a base of both advanced knowledge and specialty knowledge that will prepare graduates for leadership in their chosen areas of concentration.

The student must complete 36 credit hours of core and elective course work with an overall grade-point average of 3.0 or higher on a 4.0 scale. Students also complete a focused capstone project – an individually designed, mentored project that demonstrates a synthesis of the knowledge and skills developed in the program.

The curriculum is established from 4 key components:

- Evidence-based practice,
- Professional leadership,
- Specialty practice, and
- Teaching.

Curriculum

<table>
<thead>
<tr>
<th>OTD Core Courses (15)</th>
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<tbody>
<tr>
<td>OTD 835 Quantitative Research for Applied Science</td>
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<tr>
<td>OTD 860 Theory and Practice in Occupational Therapy</td>
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</table>
OTD 865 Theory Based Practice 3
OTD 875 Professional Development 3
OTD 880 Program Evaluation 3

Practicums (9)
OTD 850 Teaching Practicum 3
OTD 885 Advanced Practicum 3
OTD 890 Capstone Project 3

Electives (12)
Qualitative 3
Leadership 3
Teaching 3
General 3
Total Hours 36

Elective Options. Each student selects graduate-level elective courses to complement his or her program. These selections must be approved by the student’s advisor.

Physical Therapy and Rehabilitation Science

The department offers 4 programs:

1. The Doctor of Physical Therapy (D.P.T.) (p. 722) is the required entry-level degree for students planning to become physical therapists.
2. The Doctor of Philosophy (p. 723) (Ph.D.) in rehabilitation science program prepares individuals for leadership positions in research and academia and serves to advance the science of medical rehabilitation.
3. The combined D.P.T./Ph.D. program is available to outstanding applicants with backgrounds in health-related sciences who wish to become physical therapists and engage in research related to rehabilitation science.
4. The post-professional D.P.T. program is designed for physical therapists who wish to update their education and work toward the D.P.T. degree using web-based course instruction. Note: The post-professional D.P.T. program is not admitting students at this time.

The Department of Physical Therapy and Rehabilitation Science is on the third floor of Robinson Hall on the KU Medical Center campus in Kansas City, Kan. It is part of the KU School of Health Professions.

Physical Therapy Rehab Sci Courses

PTRS 701. Professional Interactions. 1 Hour. Introduces the student to the physical therapy profession and professional role expectations. The history of physical therapy as it relates to the professionalization process, including ethical and legal obligations, as well as student responsibilities. It also addresses the development of effective communication and interpersonal skills and appreciation for individual and cultural differences within clinical settings. Professional responsibilities in physical therapy are introduced, including codes of ethical conduct and awareness of appropriate professional behaviors directed by organizational and legislative regulations. The development of medical terminology recall and recognition skills is also covered in the course. Prerequisite: Admission into the DPT program or permission of instructor. LEC.

PTRS 702. Physical Therapy Documentation and Health Informatics. 1 Hour. Emphasize the development of effective documentation skills, including exposure to a variety of documentation formats across various practice setting and implications for proper reimbursement. Concepts of healthcare informatics are introduced including use of an electronic documentation systems and the capability of information systems to support quality care. Disablement classification models, behavioral objectives, and functional outcomes concepts are applied to organize patient data and identify treatment goals. Prerequisite: Successful completion of semester 1 of the DPT curriculum or permission of instructor. LEC.

PTRS 703. Applied Anatomy. 1 Hour. This course introduces the learner to how physical therapists use anatomical knowledge to gather basic examination information about the patient. Learning opportunities include lecture and laboratory. Prerequisite: Admission into the DPT program or permission of instructor. LEC.

PTRS 704. Physical Therapy Interventions I. 3 Hours. Skills required by the physical therapist in the generalist acute care environment. A series of patient care related lectures, demonstrations, videotapes and laboratories are integrated to teach proper body mechanics, infection control and sterile technique, basic assessment, transfers, positioning, tubes, ostomies, clinic safety procedures, tilt table usage, prescribing a proper wheelchair, applying proper therapeutic range of motion exercises, and using appropriate assistive devices for gait and transfers. Prerequisite: Successful completion of semester 1 of the DPT curriculum or permission of instructor. LEC.

PTRS 705. Physical Therapy Interventions II. 4 Hours. Students will apply the skills obtained in clinical coursework and begin clinical problem-solving using common physical therapy treatment interventions. Topics include integumentary management for wound healing interventions, therapeutic modalities with an emphasis on the healing process and electrical modalities. Learning opportunities include lecture and laboratory. Prerequisite: Successful completion of the first 2 semesters of the DPT curriculum or permission of the instructor. LEC.

PTRS 710. Advanced Topics in Human Anatomy. 6 Hours. The student will obtain a basic understanding of human gross anatomy with specific knowledge of upper and lower extremities, head and neck, back and neural structures. At the end of this course the student will be able to apply this knowledge of anatomy to functional and clinical situations. Prerequisite: Admission into the DPT program or permission of instructor. LEC.

PTRS 711. Applied Kinesiology and Biomechanics. 4 Hours. This course involves a study of joint structure and function, and biomechanical principles underlying human motion. Emphasis is placed on the application of kinesiological principles to clinical physical therapy situations. Learning opportunities include lecture and laboratory. Prerequisite: Successful completion of semester 1 of DPT curriculum or permission of instructor. LEC.

PTRS 712. Pathophysiology and the Physical Therapy Diagnosis. 4 Hours. Review of integrative human physiology and pathophysiology with an emphasis upon homeostatic mechanisms and etiologies of disease. The interrelationships of function and dysfunction at the molecular, cellular and tissue level (pathology), organ and systemic level (impairment) and to the total human body (functional limitations) will be applied in each of the body systems. Discussions and applied materials will be tailored to the physical therapist with an emphasis on PT-specific diagnoses. Prerequisite: Admission into the post-professional DPT program, or consent of instructor. LEC.
PTRS 715. Applied Musculoskeletal Anatomy. 3 Hours.
The course involves a study of joint structure, joint function, and the biomechanical principles underlying human motion. All major peripheral joints and the spine will be studied. Application of functional anatomy to clinical physical therapy situations will be emphasized. Prerequisite: admission into post-professional DPT program, or consent of instructor. LEC.

PTRS 720. Integrated Clinical Experience I. 1 Hour.
This course consists of supervised experiences in a clinical setting and seminar sessions that provide preliminary opportunities for application of didactic course work. Emphasis will be placed on the development of communication and interpersonal skills in the clinical setting, as well as documentation and physical therapy skills and procedures that have been introduced in courses. Prerequisite: Successful completion of semester 1 of the DPT curriculum or permission of instructor. CLN.

PTRS 730. Integrated Clinical Experience II. 1 Hour.
This course consists of supervised experiences in a clinical setting and seminar sessions that provide preliminary opportunities for application of didactic course work. Emphasis will be placed on the development of communication and interpersonal skills in the clinical setting, as well as documentation and physical therapy skills and procedures that have been introduced in courses. Prerequisite: Successful completion of the first 2 semesters of the DPT curriculum or permission of instructor. CLN.

PTRS 740. Evidence-Based Orthopedic Rehab. 3 Hours.
Students will apply the concepts taught in PTRS 715 (Applied Musculoskeletal Anatomy) and skills obtained in their individual clinical practice. This course will include discussion related to current treatment approaches affecting peripheral and spinal joints. The course activities include review of the current evidence based scientific literature related to orthopedic conditions and interventions, web-based discussion related to individual patient case scenarios and lab activities associated with treatment techniques including mobilization/manipulation, self-mobilization and therapeutic exercise. Prerequisite: Entry into post-professional DPT program or permission of instructor. LEC.

PTRS 745. Orthopedic Physical Therapy I. 6 Hours.
Builds on the foundation from anatomy, kinesiology and biomechanics. Examination skills and treatment interventions that apply specifically to the musculoskeletal system are provided. Basic examination skills for all peripheral joints, gait analysis, and therapeutic exercise are discussed in conjunction with case studies and current research. Learning opportunities include lecture and laboratory. Prerequisite: Successful completion of the first 2 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 746. Musculoskeletal Conditions and Management. 3 Hours.
Mastery of physical therapy subjective and objective examination and treatment intervention for patients of all ages who present with a musculoskeletal problem with emphasis on amputation, prosthetics, upper and lower extremity orthoses, fracture management and connective tissue disorders. Emphasis will be placed on the most common clinical problems and physical therapy diagnoses. Learning opportunities include lecture and laboratory. Prerequisite: Successful completion of the first 2 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 750. Research in Evidence-Based Physical Therapy Practice. 3 Hours.
An introduction to research in the evidence-based physical therapy practice including the Scientific Method, library and multimedia resources, research process, measurement theory (reliability and validity), research designs, experimental design principles, research ethics, critical review and analysis of research publications, statistical concepts, and writing of a research report and/or research proposal. Throughout, emphasis is placed on clinical research pertinent to physical therapy. Prerequisite: Successful completion of the first 2 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 810. Case Studies in PT Diagnosis. 2 Hours.
This course will provide students with the applied knowledge to medically screen patients for symptoms and signs that require the expertise of other health care professionals. Patient cases currently treated by the practicing physical therapist will be used to compare diagnostic tests and values. The course will focus on comorbidities and their implications in diagnosis and treatment. The course will be delivered via the web. Prerequisite: Admission into the post-professional DPT program, or approval by the instructor. LEC.

PTRS 815. Case Studies in Pathophysiology. 2 Hours.
Physical therapists need skills to relate human pathophysiology to its clinical presentation. The interrelationships of function and dysfunction at the molecular, cellular and tissue level (pathology), organ and systemic level (impairment) and to the total human body (functional limitations) will be applied in each of the body systems. Discussions and applied materials will be tailored to the patient population served by the therapist. Prerequisite: Admission into post-professional DPT program, or consent of instructor. LEC.

PTRS 817. Ethics in Health Care. 2 Hours.
Basic ethical concepts, principles, relevant theories and ethical decision making models applied to major contemporary health care issues and dilemmas facing health professionals. Development of skills for ethical clinical decision making is the focus. Prerequisite: Successful completion of the first 3 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 820. Integrated Clinical Experience III. 2 Hours.
This course consists of supervised experiences in a clinical setting and seminar sessions that provide intermediate opportunities for application of didactic course work. Emphasis will be placed on the development of communication and interpersonal skills in the clinical setting, as well as documentation and physical therapy skills and procedures that have been introduced in courses. Prerequisite: Successful completion of the first 3 semesters of the DPT curriculum or permission of instructor. CLN.

PTRS 825. Exercise Physiology. 3 Hours.
This course will provide entry-level DPT students with the knowledge of the physiological functions and adaptations of the human body with exercise. Emphasis will be placed on familiarizing students with sound medical rationale and the basis for treatment considering the immediate and long-term effects of exercise. Prerequisite: Successful completion of the first 3 semesters of the DPT curriculum, or consent of the instructor. LEC.

PTRS 826. Cardiopulmonary Physical Therapy. 4 Hours.
Anatomy, physiology and pathophysiology of the cardiovascular and pulmonary systems are studied and related to clinical signs and symptoms. Students are introduced to common evaluation and treatment techniques, as well as the rationale for including physical therapy in the management of cardiopulmonary conditions. These topics are discussed in conjunction with case studies and current research. Learning opportunities include lecture and laboratory. Prerequisite: Successful completion of the first 5 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 828. Medical Imaging. 1-3 Hours.
An introduction to medical imaging and an overview of its role in the health care delivery system. Topics include an introduction to
basic imaging equipment with an emphasis on digital acquisition and processing. Factors affecting the quality of images and limitations to the techniques are reviewed. Imaging techniques covered include: X-rays, CT scans, Nuclear medicine, ultrasound, MRI and PET. This course will also include a component covering the microscopic anatomy of cells. Prerequisite: Admission into the post-professional DPT program or DPT program or permission of instructor. LEC.

**PTRS 830. Integrated Clinical Experience IV. 3 Hours.**
This course consists of supervised experiences in a clinical setting and seminar sessions that provide intermediate opportunities for application of didactic course work. Emphasis will be placed on the development of communication and interpersonal skills in the clinical setting, as well as documentation and physical therapy skills and procedures that have been introduced in courses. Prerequisite: Successful completion of the first 4 semesters of the DPT curriculum or permission of instructor. LEC.

**PTRS 832. Health Promotion Through the Lifespan. 2 Hours.**
This course focuses on the role of the physical therapist in health promotion across the lifespan and in specific populations. Prerequisite: Successful completion of the first 5 semesters of the DPT curriculum, or permission of instructor. LEC.

**PTRS 833. Pediatric Physical Therapy. 3 Hours.**
This course introduces fundamental concepts necessary for the entry-level physical therapist to examine, evaluate, and treat the pediatric client. Lecture and lab experiences emphasize a problem oriented approach to physical therapy management of children with musculoskeletal, neurological, and/or cardiopulmonary impairments. Students will learn to recognize components of normal and abnormal development, particularly during the first year of life. Prerequisite: Successful completion of the first 5 semesters of the DPT curriculum or permission of instructor. LEC.

**PTRS 834. Management in Patient Care. 1 Hour.**
Designed to familiarize the entry-level therapist with contemporary issues in healthcare which impact the delivery of physical therapy. Professionalism, management and administrative principles are focused on management of direct patient care. Financial management specifically reimbursed for patient services, personal risk management, information management, personnel management, compliance, and ethics related to patient care will be discussed. Discussion of professional development is intertwined throughout the course. Prerequisite: Successful completion of the first three semesters of the DPT curriculum or permission of the instructor. LEC.

**PTRS 835. Rehabilitation Administration I. 3 Hours.**
The first course of two three-credit hour management classes designed to review the American health care system as a whole and to examine the specific areas that rehabilitation health care managers must understand in order to succeed in an increasingly competitive and financially driven system. Some of these areas include the system of health care delivery, legal issues, human resource principles, accounting, reimbursement, payors, Medicare/Medicaid, regulations, outcomes information management, etc. This course focuses on reimbursement, legal and regulation issues and will apply presented principles to real world examples in numerous health care settings so the student understands the complexities of many settings in which physical therapy personnel may work. Each unit will build on the last so that at the end of the second management course the student will be capable of proposing, building, opening, and successfully running rehabilitation services in a multitude of settings. Prerequisite: Admission into the post-professional DPT program, or consent of instructor. LEC.

**PTRS 836. Rehabilitation Administration II. 3 Hours.**
The second course of two three-credit hour management classes designed to review the American health care system as a whole and to examine the specific areas that rehabilitation health care managers
PTRS 850. Neuroscience. 4 Hours.
This course will introduce the principles of neuroscience and describe their application as relevant to physical therapists. The course will begin with the terminology of the nervous system, then cover the major functions of the peripheral, autonomic and central nervous systems. The manner with which these systems interact to produce appropriate responses to external demands will be discussed. The behavioral consequences of damage to each systems will be integrated throughout. Particular emphasis will be placed on the sensorimotor role in perception and the control of movement. Lecture and Lab. Prerequisite: Successful completion of the first 4 semesters of the DPT curriculum, or consent of the instructor. LEC.

PTRS 851. Lifespan Development. 4 Hours.
Examines physiological, neurological, and psychological factors that contribute to development across the lifespan. This course will explore developmental theories and changes in development of cognition, communication, physical, social/emotional, and adaptive skills. Emphasis will be on understanding healthy growth and development and learning how to help children, adolescents, and adults manage developmental challenges. This course will emphasize the need to examine participation in meaningful activities within authentic contexts with considerations for the impact of a disability on functional performance. Prerequisite: Successful completion of the first 4 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 852. Neurologic Physical Therapy and Rehabilitation I. 6 Hours.
This course will introduce the principles of neuroscience and describe their application as relevant to physical therapists. The course will introduce the terminology of the nervous system and cover the major functions of the nervous systems. This course will also integrate neurophysiology and neuroanatomy into the clinical presentation of adults with neurologic pathology. The etiology, epidemiology signs, and symptoms of selected neurological conditions will be presented. The medical management of patients with nervous system disorders will be presented in relationship to the practice of physical therapy. The course will introduce examination of impairments for persons with neuromuscular pathologies. Students will be presented with simple case studies and progress to more complex patient problems. Learning opportunities include lecture and laboratory. Prerequisite: Successful completion of the first 4 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 853. Neurologic Physical Therapy and Rehabilitation II. 6 Hours.
This course will focus on rehabilitation approaches for people with neurologic pathology. Students will examine factors that contribute to the control of voluntary movement and the learning of motor skills, and develop an understanding of the relationship between the brain and the purposeful movements that make us human. Students will acquire the skills to hypothesize about the relationship of health conditions and body function/structure to limitations in activities and participation in adults with neurologic pathology. A clinical decision making approach will combine contemporary rehabilitation approaches, consideration of psychosocial and cognitive factors, and research evidence in the discussion of complex patient cases. After completing this course, students will demonstrate novice-level knowledge and skills necessary to complete a physical therapy examination and develop a comprehensive treatment plan for adults with neurologic pathology. Learning opportunities include lecture and laboratory. Prerequisite: Successful completion of the first 5 semesters of the DPT curriculum or permission of the instructor. LEC.

PTRS 855. Pharmacology for Physical Therapists. 1 Hour.
Pharmacological background for the clinical treatment of patients referred to physical therapy. Fundamentals of the actions of drugs including mechanisms of therapeutic and adverse effects. Prerequisite: Admission to the DPT program or permission of instructor. LEC.

PTRS 858. Evidence-Based Rehabilitation of Patients Post-CVA. 3 Hours.
This course will provide students with the applied knowledge to medically screen patients for symptoms and signs that require the expertise of other health care professionals. Patient cases currently treated by the practicing physical therapist will be used to compare diagnostic tests and values. The course will focus on comorbidities and their implications in diagnosis and treatment. The course will be delivered through the web. Prerequisite: Admission into the post-professional DPT program, or approval of the instructor. LEC.

PTRS 860. Evidence-Based Research Practicum I. 1 Hour.
Supervised and directed experiences in conducting evidence-based research activities. The research activities involved in this course are broadly defined with emphasis on the enhancement of evidence-based physical therapy practice. The student will be supervised by a member of the faculty. This is a two-semester course. Prerequisite: Successful completion of the first 5 semesters of the DPT curriculum or permission of instructor. RSH.

PTRS 861. Evidence-Based Research Practicum II. 1 Hour.
Supervised and directed experiences in conducting evidence-based research activities. The research activities involved in this course are broadly defined with emphasis on the presentation and communication of an evidence-based research project. The student will be supervised by a member of the faculty. Prerequisite: Successful completion of the first 6 semesters of the DPT curriculum, or consent of instructor. RSH.

PTRS 865. Independent Study. 1-3 Hours.
Individually negotiated learning experiences appropriate to the interests and background of the student. Prerequisite: Admission to the DPT program, post-professional DPT program, or permission of instructor. IND.

PTRS 877. Administration in Physical Therapy. 2 Hours.
Designed to familiarize the entry-level therapist with contemporary issues in health care which impact the practice of physical therapy in the health care system. Changes in the US health care system will be discussed, including managed care, plus essential elements and principles of management in health care organizations, and an overview of human resources and operational management. Financial management specifically reimbursement for patient services, risk management, information management, and compliance will be discussed. Discussion of professional development is intertwined throughout the course. Students will be exposed to business development and entrepreneurial skills needed to expand or start up a physical therapy practice. Prerequisite: Successful completion of the first 6 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 880. Differential Diagnosis of General Medical Conditions. 3 Hours.
Designed to provide students with the knowledge and clinical tools to medically screen patients for the presence of symptoms and signs that require the expertise of other health care professionals. It will focus on diagnoses that are not covered by common PT practice including diseases of the endocrine system, the immune system, GI system, and neoplasias. Prerequisite: Admission into the post-professional DPT program, or consent of instructor. LEC.
PTRS 882. Pathophysiology and Physical Therapist Screens. 5 Hours.
Review of integrative human pathophysiology with an emphasis upon homeostatic mechanisms and etiologies of disease. The interrelationships of function and dysfunction at the molecular, cellular and tissue level (pathology), organ and systemic level (impairment) and to the total human body (functional limitations) will be applied in each of the body systems. Discussions and applied materials will be tailored to the physical therapist with an emphasis on clinical tools to medically screen patients for the presence of symptoms and signs. Prerequisite: Successful completion of the first 7 semesters of the DPT curriculum or permission of instructor. CLN.

PTRS 888. Interprofessional Physical Therapy Practice. 1 Hour.
This course is designed to develop collaborative practice competent physical therapy learners through interprofessional classroom and clinical experiences. Prerequisite: Successful completion of the first 4 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 890. Specialties in Physical Therapy Practice. 2 Hours.
Requires students to apply the five elements of patient/client management for addressing multi-system impairments across diverse and complex patient populations. Exposure to physical therapy advanced practice specialty areas included, but not limited to, sport medicine, women’s health, neurology, pediatrics, geriatrics, and oncology. Seminar format instruction incorporating case-based instruction, group discussion, and speakers with advanced clinical credentials. Prerequisite: Successful completion of the first 6 semesters of the DPT curriculum or permission of instructor. LEC.

PTRS 920. Clinical Internship I. 6-8 Hours.
Nine to twelve weeks of clinical internship. During the clinical internship, the student will have the opportunity to develop the patient care skills needed for successful practice as a physical therapist. The student will work under the supervision of an experienced physical therapist in clinical settings affiliated with the program. Prerequisite: Successful completion of the first 7 semesters of the DPT curriculum or permission of instructor. CLN.

PTRS 921. Clinical Internship II. 6-8 Hours.
Nine to twelve weeks of clinical internship. During the clinical internship, the student will have the opportunity to develop the patient care skills needed for successful practice as a physical therapist. The student will work under the supervision of an experienced physical therapist in clinical settings affiliated with the program. Prerequisite: Successful completion of the first 7 semesters of the DPT curriculum or permission of instructor. CLN.

PTRS 922. Clinical Internship III. 6-8 Hours.
Nine to twelve weeks of clinical internship. During the clinical internship, the student will have the opportunity to develop the patient care skills needed for successful practice as a physical therapist. The student will work under the supervision of an experienced physical therapist in clinical settings affiliated with the program. Prerequisite: Successful completion of the first 7 semesters of the DPT curriculum or permission of instructor. CLN.

PTRS 923. Clinical Internship IV. 2-6 Hours.
Three to nine weeks of clinical internship. During the clinical internship the student will have the opportunity to develop the patient care skills needed for successful practice as a physical therapist. The student will work under the supervision of an experienced physical therapist in clinical settings affiliated with the program. Prerequisite: Successful completion of the first 7 semesters of the DPT curriculum or permission of instructor. CLN.

PTRS 924. Specialized Internship. 2-6 Hours.
Three to nine weeks of clinical internship. During the clinical internship the student will have the opportunity to have exposure to a different health care system such as an international clinical experience, or a specialized area of physical therapy practice. The student will be under the supervision of an experienced physical therapist in clinical settings affiliated with the program. Prerequisite: Successful completion of the first 7 semesters of the DPT curriculum or permission of instructor. CLN.

REHS 760. Introduction to Matlab Programming. 1 Hour.
Introduction: matlab windows, input-output, file types, general commands; interactive computation; matrices and vectors, matrix and array operations, scripts and functions applications, graphics. Prerequisite: None LEC.

REHS 805. Seminar in Rehabilitation Research. 0.5-3 Hours.
Students will be instructed in the planning and presentation of a 45 minute scientific seminar on topics outside their thesis area and on their thesis work. Students will learn how to design and produce effective poster presentations. Prerequisite: Entry in the PhD program in Rehabilitation Science or consent of instructor. SEM.

REHS 850. Neuroscience. 4 Hours.
This course will introduce the principles of neuroscience and describe their application as relevant to rehabilitation scientists. The course will begin with the terminology of the nervous system, then cover the major functions of the peripheral, autonomic and central nervous systems. The manner with which these systems interact to produce appropriate responses to external demands will be discussed. The behavioral consequences of damage to each systems will be integrated throughout. Particular emphasis will be placed on the sensorimotor role in perception and the control of movement. Lecture and Lab. Prerequisite: Entry in the PhD in Rehabilitation Science Program. LEC.

REHS 862. Pathobiology of Human Function I. 4 Hours.
A study of the biology of pathological processes that impair human function will highlight the mechanisms by which cell/tissues repair and/or adapt as a result of injury and aging. Emphasis will be placed on the functional impairments resulting from the pathological condition, and on the body’s endogenous ability to adapt or reverse the effects of disease or injury. Prerequisite: Entry into the PhD in Rehabilitation Science program, or permission of instructor. LEC.

REHS 863. Pathobiology of Human Function II. 4 Hours.
A study of biology and pathological processes that impair human function with emphasis on neuromuscular diseases, injury and diseases of the central and peripheral nervous systems, and neurological disorders associated with development and aging. Prerequisite: Entry into the PhD in Rehabilitation Science program, or consent of instructor. LEC.

REHS 865. Independent Study. 1-3 Hours.
Individually negotiated learning experiences appropriate to the interests and background of the student. Prerequisite: Entry in the PhD in Rehabilitation Science program, or permission of instructor. IND IND.

REHS 870. Teaching Practicum. 1-3 Hours.
Directed experiences in a planned instructional activity. Student will write course objectives, plan and deliver lectures, produce practical and written exams and assign grades. Prerequisite: Entry in the PhD in Rehabilitation Science program or consent of instructor. LEC.

REHS 873. Research Practicum. 1-3 Hours.
This course is designed to provide supervised research experience in various laboratories in the department. Prerequisite: Entry in the PhD in Rehabilitation Science program, or consent of instructor. RSH.
REHS 875. Clinical Practicum. 1-3 Hours.
Specialized clinical training in a highly specific area of specialization. The primary purpose of this course is for the student to develop advanced clinical skills in his/her area of specialization. Prerequisite: Admission to the PhD in Rehabilitation Science program, and permission of instructor. CLN.

REHS 962. Advanced Studies in Rehabilitation Science. 3 Hours.
This course will explore the state of art of clinical and basic scientific research in rehabilitation. Students will learn how to critically analyze the research literature in the neuromotor, musculoskeletal, cardiopulmonary, and other rehabilitation fields. The course will cover the topics including but not limited to rehabilitation to improve balance and gait, rehabilitation in stroke survivors and patients with neurodegenerative diseases, rehabilitation in patients with injury/pathological conditions to ligament, tendon, and bone/cartilage, rehabilitation in patients with cardiopulmonary disease, rehabilitation in cancer patients/survivors, etc. Current literature in each topic area will be investigated to determine the features of the pathological condition and targeted subjects, factors that contribute to the outcomes of the rehabilitation, research tools and measurements, potential optimal rehabilitation techniques, and directions of future research. Prerequisite: Entry into the PhD in Rehabilitation Science program or permission of instructor. Basic knowledge in pathobiology and neuroscience is required. LEC.

REHS 970. Instrumentational Analysis of Human Function. 3 Hours.
An in-depth study that provides critical analysis of equipment and other resources used in analyzing human motion, balance, strength, electrophysiological responses, and cardiorespiratory function. Students will be required to conduct a preliminary study, including design, methodology and data collection using one or more of these instruments. Prerequisite: Entry in the PhD in Rehabilitation Science program, or consent of instructor. LEC.

REHS 980. Graduate Research. 1-10 Hours.
Original laboratory investigation conducted under the supervision of a senior staff member. Prerequisite: Entry in the PhD in Rehabilitation Science program, or consent of instructor. RSH.

REHS 990. Dissertation in Rehabilitation Science. 1-10 Hours.
For students in advanced standing enrolled in the PhD in Rehabilitation Science program. THE.

Doctor of Physical Therapy

The KU DPT program is an accredited 3-year full-time graduate program designed to prepare a generalist physical therapy practitioner and to foster lifelong professional development. The program begins in early June and includes classroom, laboratory, research and clinical learning experiences. Students participate in 36 weeks of clinical work at clinical affiliate sites. As an academic health science center, the KU Medical Center provides ample opportunity for physical therapy students to interact with a large number of health care professionals, as well as students from other disciplines.

Admission to the program is a competitive process. The faculty values a well-rounded applicant, one having demonstrated his or her academic and cognitive abilities as well as her or his personal and professional potential. Class size is restricted; generally no more than 60 students are admitted in any single year.

Prospective students must first meet program eligibility requirements (http://www.kumc.edu/school-of-health-professions/physical-therapy-and-rehabilitation-science/doctor-of-physical-therapy/eligibility-and-requirements.html). When ready to apply, please review the complete list of application requirements (http://www.kumc.edu/school-of-health-professions/physical-therapy-and-rehabilitation-science/doctor-of-physical-therapy/how-to-apply.html).

1. **Undergraduate Degree.** A bachelor’s degree from a regionally accredited institution must be completed before the start of program classes. The degree can be in any field, but course work must have included the DPT prerequisite courses (http://www.kumc.edu/school-of-health-professions/physical-therapy-and-rehabilitation-science/doctor-of-physical-therapy/prerequisite-course-work.html). Students with degrees from universities outside the U.S. may be considered if they meet requirements (http://www.kumc.edu/school-of-health-professions/information-for-international-applicants.html) equivalent to a bachelor’s degree from a program in the U.S.

2. **Grade-Point Average.** An overall 3.0 cumulative grade-point average on a 4.0-scale is required. In addition, student transcripts must document a minimum 3.0 GPA on a 4.0 scale in all prerequisite courses including math and science course work.

3. **C Grades or Higher.** A passing grade is required in all prerequisite courses. A grade of D is not considered a passing grade. All prerequisite science courses must be completed within the last 10 years.

4. **Satisfactory Graduate Record Examination Score.** We recommend minimum scores at the 50th percentile in the verbal, quantitative, and analytical sections on the Graduate Record Examination General Test. The GRE must have been taken within the past 5 years to be valid on an application.

5. **International Students.** International students or those for whom English is a second language must meet minimum English proficiency (http://www.kumc.edu/school-of-health-professions/information-for-international-applicants.html) requirements. International students may have additional requirements for visa, residency, and citizenship status. Students should contact the KU Medical Center Office of International Programs (http://www.kumc.edu/international) for guidance regarding these issues during the application process.

A background check (http://www.kumc.edu/student-services/vice-chancellor-of-student-services/criminal-background-checks-for-students.html) is required during the admission process; it may affect the student’s eligibility to enter the program.

**Prerequisites**

**BASIC SCIENCES**

CHEMISTRY: 2 semesters (or equivalent) with laboratory.

PHYSICS: 2 semesters (or equivalent) with laboratory.

ANATOMY: 1 semester (or equivalent) with laboratory.

HUMAN PHYSIOLOGY: 1 semester (or equivalent) with laboratory.

BIOLOGY: 2 semesters (or equivalent) with laboratory.

**MATHEMATICS**

ALGEBRA/TRIGONOMETRY: 1 course in each, or a single course in algebra/trigonometry, or a single course in pre-calculus, or a single course in calculus, can be used to fulfill the requirement.
The Doctor of Physical Therapy program provides opportunities for students to learn the application of basic science principles to physical therapy practice. The practice of physical therapy includes delivery of clinical physical therapy services, consumer education on wellness, research, and management.

The graduate may apply for licensure or registration to the state in which he or she will be working. The program is accredited by the Commission on Accreditation in Physical Therapy Education (http://www.capteonline.org/home.aspx).

This is an accredited 3-year full-time program beginning each summer session. Successful completion of 116 credit hours of studies is required. Courses in this program are advanced and include exercise physiology, orthopedic medicine, clinical science, and clinical procedures. In addition, the student must complete 36 weeks of participation in clinical internships, a comprehensive examination, and a research practicum. To view the full curriculum and degree requirements, please visit the program’s website (http://www.kumc.edu/school-of-health-professions/physical-therapy-and-rehabilitation-science/doctor-of-physical-therapy.html).

### Curriculum

#### Year 1

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### Year 3

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Total Hours: 110-116

1. Lab-based course
2. Course offered additional semesters

### Doctor of Philosophy in Rehabilitation Science

The doctorate in rehabilitation science program is designed to prepare suitably qualified individuals for leadership positions in research and academia. A major focus of the program is to advance the science of rehabilitation, and to elucidate the scientific basis for the procedures and processes used in clinical practice.

Areas of research emphasis include human and animal studies designed to (1) promote an understanding of the pathophysiology of injury, disease, functional impairment, and associated disabilities, and (2) espouse the rationale for therapies designed to alleviate impaired human function and related physical and mental disabilities.

The program is open to students with a bachelor’s degree. Applicants are not required to be physical therapists or to have degrees in physical therapy but are encouraged to have broad backgrounds in a health-related science (e.g., anatomy, physiology, biology, neuroscience, exercise science, biochemistry, genetics, molecular and cell biology) and statistics.

To be eligible for admission, the following are required:

1. **Degree.** A bachelor’s degree must be completed before the start of the program. Students with degrees from universities outside the U.S. may be considered if they meet requirements (http://www.kumc.edu/school-of-health-professions/information-for-international-applicants.html) equivalent to a bachelor’s degree from a program in the U.S.

2. **Graduate Record Examination Score.** A valid score on the GRE General Test is required. Scores must have been earned within the previous 5 years.

3. **Grade-Point Average.** An overall minimum 3.0 GPA on a 4.0-scale is required.

A background check (http://www.kumc.edu/school-of-health-professions/background-checks.html) is required during the admission process; the result may affect the student’s eligibility for admission to the program.

International students or those for whom English is a second language must meet minimum English proficiency (http://www.kumc.edu/school-of-health-professions/information-for-international-applicants.html) requirements. International students may have additional requirements for visa, residency, and citizenship status. Students should contact the KU Medical Center Office of International Programs (http://www.kumc.edu/...
Prospective students must first meet the program's eligibility requirements (http://www.kumc.edu/school-of-health-professions/physical-therapy-and-rehabilitation-science/phd-in-rehabilitation-science/eligibility-and-requirements.html). When ready to apply, please review the complete list of application requirements (http://www.kumc.edu/school-of-health-professions/physical-therapy-and-rehabilitation-science/phd-in-rehabilitation-science/how-to-apply.html).

Students in this program must meet the general requirements of the university including the research skills and responsible scholarship requirement (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm) and fulfill the basic program requirements to receive the Ph.D. degree. The student must be enrolled in REHS 990 Dissertation in Rehabilitation Science the semester they defend the dissertation.

The basic program requirements include the following:

- Successful completion of a minimum of 51 credit hours of course work, including 21 credit hours of core courses, 8 credit hours of research tools courses, 12 credit hours of doctoral dissertation research, and 6 credit hours of cognate elective courses.
- Demonstration of skills necessary for conducting original research investigation by passing the qualifying examination, which usually takes place after a majority of the core and research tools course work has been completed.
- Demonstration of competence in the core areas of study by successfully completing the comprehensive examination.
- Satisfactory completion of a dissertation based on an original research work.
- Successful oral defense of the dissertation.

Research includes human and animal studies that promote an understanding of the pathophysiology of injury, disease, functional impairment, and associated disabilities and espouse the rationale for therapies that alleviate impaired human function.

At least 4 years of full-time study is usually needed to fulfill these requirements. To view more specific curriculum requirements, please visit the program’s website (http://www.pt.kumc.edu/phd-curriculum.html).

**Courses**

**RESP 303. Introduction to Respiratory Care Procedures. 5 Hours.**
An introductory course designed to acquaint the student with the fundamental theory, procedures, and equipment used in respiratory therapy. Emphasis is placed on understanding application of equipment and procedures to the patient, and the respiratory therapy treatment of patients requiring non-continuous ventilatory assistance. This course introduces such topics as cardiopulmonary resuscitation, bronchopulmonary hygiene, airway care, oxygen therapy, and cleaning and sterilization of equipment. Prerequisite: Concurrent enrollment in RESP 318 and RESP 325. LEC.

**RESP 310. Clinical Pharmacology I. 1 Hour.**
The student will learn about adrenergic and parasympatholytic bronchodilators, corticosteroids, mucus-controlling drugs, surfactant agents, antitussives, and the anti-infective drugs used for the treatment of respiratory disorders. LEC.

**RESP 311. Clinical Pharmacology II. 1 Hour.**
Content of this course includes neuromuscular blocking agents, cardiac agents, diuretics, anti-hypertensives, and central nervous system drugs. LEC.

**RESP 318. Pulmonary Pathology. 3 Hours.**
A course consisting of lecture and group discussion designed to introduce the student to pulmonary pathology. Special emphasis is placed on the etiology, pathophysiology, and treatment of pulmonary diseases. This course includes such topics as signs and symptoms of lung disease, chronic obstructive pulmonary diseases, pleural and mycotic diseases. Prerequisite/Corequisite: RESP 303, RESP 325, RESP 330, or permission of instructor. LEC.

**RESP 325. Clinical Process. 2 Hours.**
This course serves to introduce the beginning respiratory therapy student to the clinical environment. The student spends eight hours per week participating in either a clinically-oriented workshop or observing the application of respiratory therapy theory in the clinical setting. Prerequisite/Corequisite: RESP 303 and RESP 319. FLD.

**RESP 330. Cardiopulmonary Physiology. 4 Hours.**
Designed to introduce the student to the basics of physiology of the cardiovascular and pulmonary systems. This course contains such topics as regulation of respiration and pH homeostasis, ventilation and perfusion relationships, and hemodynamics of the cardiovascular system. LEC.
RESP 340. Mechanical Ventilators. 5 Hours.
This course contains such topics as arterial puncture, classification of mechanical ventilators and adjunct devices, and their application to the patient. Four hours of lecture/discussion and a 3 hour weekly laboratory acquainting the student with the rationale for continuous mechanical ventilation and the basic operation of adult, pediatric and neonatal mechanical ventilators. Emphasis is placed on the selection of appropriate equipment and assessment of its effect on the patient. Prerequisite: RESP 303, RESP 318, RESP 325 and RESP 330. LEC.

RESP 345. Adult Critical Care. 3 Hours.
This course introduces the student to the different types of traumatic injuries in the critically ill adult patient. Topics such as the shock syndrome, multi-organ traumas including chest, head, spinal cord and thermal injuries will be discussed. Discussion of cardiac life support, fluid resuscitation, monitoring and ventilatory management are integrated into each topic. Prerequisite: Completion of RESP 303, RESP 310, RESP 318 and RESP 330 or their equivalent. LEC.

RESP 350. Clinical Application I. 1 Hour.
This course provides the intermediate respiratory therapy student with opportunities to practice basic respiratory therapy procedures. Emphasis is placed on performance of respiratory therapy procedures and application of equipment. This course emphasizes such topics as oxygen therapy, aerosol therapy, incentive spirometry, patient assessment, and IPPB therapy. The student will assume limited patient care responsibilities. Prerequisite: RESP 303, RESP 310, RESP 318, RESP 325, and RESP 330 or their equivalent. FLD.

RESP 355. Clinical Application II. 1 Hour.
This course provides the respiratory therapy student with an introduction to the critical care setting. The student will begin to apply the procedures and equipment most often utilized in the intensive care areas. Emphasis is placed on continuous mechanical ventilation, artificial airways, airway care, and bedside pulmonary function testing. The student will assume limited patient care responsibility in the critical care areas. Prerequisite: RESP 303, RESP 310, RESP 318, RESP 325 and RESP 330 or their equivalent. FLD.

RESP 375. Clinical Application III. 2 Hours.
This course provides the advanced respiratory therapy student with opportunities to refine procedural and evaluative skills in the critical care areas. The student will spend a minimum of twenty-four hours per week in the clinical setting. Emphasis is placed upon the student's ability to evaluate the patients' clinical situation and recommend appropriate therapy modalities to the clinical supervisor. During this course the student will assume wider-ranging patient care responsibilities. Prerequisite: RESP 340, RESP 345, RESP 350, RESP 355, RESP 395 or their equivalent. FLD.

RESP 390. Pulmonary Function. 2 Hours.
Lecture and laboratory introducing the student to basic pulmonary function procedures. This course allows the student to practice pulmonary function tests and interpret the results. Lecture and laboratory topics include such topics as the measurement of lung volumes and capacities, body plethysmography, blood gas analysis, and flow volume loops. Prerequisite: RESP 318, RESP 325, and RESP 330. LEC.

RESP 395. Pediatric Critical Care. 1 Hour.
Study of common neonatal and pediatric disorders/diseases for the beginning respiratory care student. Lectures on basic fetal lung development, assessment of both the pediatric and neonatal patient and disorders/diseases such as respiratory distress syndrome, bronchopulmonary dysplasia, bronchiolitis, epiglottis and croup, and other commonly seen problems. Prerequisite: RESP 303, RESP 310, RESP 318 and RESP 330 or their equivalent. LEC.

RESP 399. Generalist Practice. 3 Hours.
This course is designed to allow students the opportunity to improve and perfect skills acquired in the junior year clinical courses. Emphasis will be given to refining the students' abilities to assess patient status and administer appropriate therapy modalities. This course may also be used to assess respiratory therapy knowledge and skills of students transferring from other programs. Prerequisite: Permission of instructor. FLD.

RESP 400. Advanced Critical Care. 4 Hours.
Concepts of the diseases and disorders that effect the critically ill adult are explored. Emphasis is placed on understanding common illnesses such as cardiac dysrhythmias, acute coronary syndrome, trauma of the chest and head, organ failure and toxin exposure as well as the other medical challenges of the critically ill patient. LEC.

RESP 401. Neonatal Respiratory Care. 4 Hours.
This course is designed to provide the student with an introductory knowledge of fetal and newborn cardiopulmonary anatomy, physiology, development, pathophysiology, and care. Prerequisite: Senior year standing or permission of instructor. LEC.

RESP 402. Pulmonary Rehabilitation. 3 Hours.
This course focuses on the interdisciplinary approach to the rehabilitation of the adult pulmonary patient. Emphasis will be placed upon the multidisciplinary assessments, treatments, and therapeutic techniques that the pulmonary rehabilitation team provides. The course, in conjunction with a specialty practicum, is designed to prepare the respiratory therapist for practice in a rehabilitation specialty. Prerequisite: Senior year standing or permission of instructor. LEC.

RESP 405. Ethics, Law and Health Care. 2 Hours.
This course will provide a forum for discussion of current ethical, legal and professional issues. We will refer to historical and emerging controversies in health care and society that influence the patient-patient care giver relationship. The method of instruction will primarily be student presentation and classroom discussion of current issues. Prerequisite: Senior year standing. LEC.

RESP 425. Advanced Critical Care Procedures. 2 Hours.
This course is the capstone of the critical care experience and concentrates on advanced practice and assessment skills in the critical care setting. Emphasis is placed on quantitative assessment and monitoring procedures, advanced ventilator management and interpretation of data. This course requires access to the medical information of an intensive care patient. Prerequisite: RESP 375 or equivalent. LEC.

RESP 490. Special Studies or Projects. 1-9 Hours.
This course involves individual study, research or projects in the field of respiratory care under instructor guidance. Written reports and periodic conferences are required. Content and unit credit will be determined by student-instructor conferences and/or departmental conferences. This course may be repeated for a maximum of nine credits. Prerequisite: Admission to the respiratory care program and consent of instructor. LEC.

RESP 600. Introduction to Pharmacology. 1 Hour.
The Introduction to Pharmacology course is intended to provide the student with the background information necessary to practice within the field of Allied Health. The course covers the fundamentals of pharmacology including pharmacokinetics and pharmacodynamics. The classification of drugs, the use of drug reference materials, and the mechanisms of therapeutic and adverse responses to drugs will be covered in the course. LEC.
RESP 660. Statistics for Health Professions. 3 Hours.
Help students understand the relationship between statistics and research. This course will highlight the usefulness of proper statistical design for health care research. Specifically, the objectives of this course will emphasize the importance of applied, practical statistics and the critical thinking required to generate appropriate statistical modeling needed to support the research questions. This course will prepare students for Research in Health Care by helping students understand how to use statistical analyses for clinical research projects. LEC.

RESP 661. Management Principles in Health Care. 3 Hours.
An introduction to the basic principles of management and their application in the current health care environment. Course content includes management theory, scope of management, quality issues, budgeting, personnel issues, evaluation and application of management concepts. Cross listed with HEIM 661 and CLS 661. Prerequisite: Senior year standing or permission of the instructor. LEC.

RESP 662. Education Principles in Health Care. 2 Hours.
An introduction to basic principles of education and their application in the current health care environment. Information on course content includes: Course design, inservice education and patient education. The focus is on educational needs, instructional media and course quality improvement. LEC.

RESP 663. Scientific Investigation Part I. 1 Hour.
This course is designed to provide the participant with an introduction to research skills culminating in a group Proposal of a bench study or chart review. The Proposal will consist of three sections: Introduction, Review of the Literature and Methods. The three sections will be developed through a series of progress reports with the aid of a faculty advisor. Students will work in groups to develop a research question about their daily practice that can only be answered by conducting research. This course will include discussions of the types of research data and the structure of a research manuscript. Students will have opportunities to read, interpret and analyze research reports and practice in writing critical evaluations of the literature as it applies to their research question. Prerequisite: Statistics LEC.

RESP 664. Scientific Investigation Part II. 1 Hour.
This course is designed to teach the student how to read, interpret and analyze research reports. Prerequisite: Senior year standing and a course in statistics. LEC.

RESP 665. Scientific Investigation Part III. 1 Hour.
Each study group will write the Discussion and Conclusion sections of their paper and share their findings in a poster presentation. The final version of each group’s study manuscript must be submitted to course instructor prior to graduation. The quality of the manuscript will be appropriate for submission to the Journal of Respiratory Care. Prerequisites: RESP 663, 664. LEC.

RESP 667. Clinical Specialty Practicum. 10 Hours.
Provides the student with a capstone experience in the activities and responsibilities related to clinical processes in one of the specific advanced practice specialties: critical care, neonatal, pediatrics, pulmonary rehabilitation, pulmonary function, sleep, hyperbaric oxygen, management or education. Prerequisite: Permission of the instructor. FLD.

RESP 671. Clinical Specialty Projects I. 5 Hours.
Designed to give the student the opportunity to develop clinically-related projects in the areas of quality improvement, health care organizational structures and current processes in patient management. Prerequisite: Permission of the instructor. FLD.

RESP 672. Clinical Specialty Projects II. 5 Hours.
Designed to have the student demonstrate competency related to clinical processes in one of the specific advanced practice specialties: critical care, neonatal, pediatrics, pulmonary rehabilitation, pulmonary function, sleep, hyperbaric oxygen, management or education. Prerequisite: Permission of the instructor. FLD.

Bachelor of Science in Respiratory Care

On-campus Bachelor’s Degree Program
KU offers a bachelor of science in respiratory care degree program with the option to specialize in pulmonary rehabilitation, neonatology, adult critical care, management, education, sleep disorders, cardiopulmonary diagnostics, and hyperbaric oxygen therapy. Most students enter this program after completion of their sophomore year of undergraduate study or after finishing two years of community college course work. With an advanced curriculum and located at an academic medical center, students receive extensive experience in advanced respiratory therapy techniques. The program includes a semester-long clinical assignment during the senior year in the student’s area of specialization.

RRT-to-Bachelor’s Degree Bridge Program
The University of Kansas respiratory care program offers a program for the respiratory therapist with RRT credential to obtain a bachelor’s degree. This program is perfect for students unable to be physically present on campus or those with schedule constraints which make traditional college class schedules impossible. Courses (http://www.kumc.edu/school-of-health-professions/respiratory-care-education/degree-completion-bs-program-for-rrts/curriculum.html) are Web-based in this program and never require students to leave their home or office and offer added flexibility: if you’re traveling or not feeling well, the courses (http://www.kumc.edu/school-of-health-professions/respiratory-care-education/degree-completion-bs-program-for-rrts/curriculum.html) are always available, anytime.

On-campus Bachelor’s Degree Program
To be eligible for this program, 2 years of prerequisite course work are needed – either from the KU Lawrence campus or another regionally accredited university or community college. In order to complete prerequisites and recommended electives on-time and in the appropriate sequence, interested students should contact an academic advisor for assistance in course selection.
Transfer students should be aware that all transfer courses for which they have requested credit must be equivalent to courses required at KU; otherwise, additional course work will be required. Graduates of an associate’s degree respiratory care program are eligible to apply for advanced standing as seniors upon completion of all prerequisites.

International students should review current requirements (http://www.kumc.edu/school-of-health-professions/information-for-international-applicants.html). International students, or those for whom English is a second language, may have additional requirements relative to language proficiency, residency, and citizenship status. Information for international students (http://www.kumc.edu/school-of-health-professions/respiratory-care-education/how-to-apply.html).

Good physical health and mental health is essential. Minor physical handicaps are not considered deterrents. The faculty reserves the option of restricting admission of candidates with handicaps that may affect ability to deliver safe and effective patient care. The admissions committee may request a personal interview with the applicant. All students must be current with required immunizations.

A background check and documentation of shadow experience are required. Prospective students should review the program requirements, including prerequisite course work, and complete list of eligibility requirements (http://www.kumc.edu/school-of-health-professions/respiratory-care-education/how-to-apply.html).

### Prerequisites

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<td>Human Anatomy Observation Laboratory</td>
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<td>BIOL 246</td>
<td>Principles of Human Physiology</td>
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<td>BIOL 247</td>
<td>Principles of Human Physiology Laboratory</td>
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<td>BIOL 200</td>
<td>Basic Microbiology</td>
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<td>BIOL 203</td>
<td>Introductory Microbiology Laboratory</td>
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| Course to fulfill KU Core Goal 4.2 (Western Civilization I preferred) | 3 |

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| Course to fulfill KU Core Goal 4.1 (Elements of Sociology preferred) | 3 |

| Total Hours | 50 |

### RRT-to-Bachelor’s Degree Bridge Program

An overall grade point average (GPA) of 2.5 (on a 4.0 scale) for college course work is required to enter the degree-completion program for RRTs. In addition, student transcripts must document an individual course grade of no less than “C” on each prerequisite course in math, chemistry, physics and biological sciences.

A minimum 120 hours of college credit are required to earn a bachelor’s degree from KU. Students will earn at least 30 credit hours during the respiratory care program.

**Note:** To be transferable, all prerequisite and respiratory care course work must be from an educational institution that is regionally accredited. This is not the same as national accreditation. Not sure about your course work? Please read about the differences in accreditation. (http://www.k12.wa.us/certification/colleges/reg_accred.html)

### Prerequisite Courses

- Human Anatomy (lab recommended)
- Human Physiology (lab recommended)
- Microbiology (lab recommended)
- Chemistry
- Physics
- Algebra
- English Composition I and II
- Oral Communication
- Humanities (2 courses)
- Psychology
- Sociology
- Statistics

Students having completed a single combined anatomy and physiology course will need to complete either a second, higher-level A&P course, or otherwise take a course in physiology only.

### Requirements for On-campus Bachelor’s Degree Program

Upon completion of the prerequisites for the program, students will have acquired 50 credit hours. This program requires 2 years of course work in respiratory care at KU Medical Center and will provide 62 hours plus an additional 5 hours of respiratory care electives. To earn a degree from KU, 120 total credit hours must be acquired, and the remaining hours can be fulfilled with any electives.

The program provides an organized learning experience in which each student acquires an in-depth understanding of and proficiency in advanced concepts of clinical respiratory care and the fundamentals of health professions education and management. During the senior year, the student specializes in one area of concentration: adult critical care, neonatal critical care, pulmonary rehabilitation, management, education, cardiopulmonary diagnostics, sleep medicine, or hyperbaric medicine.

**Clinical experience** is an integral part of the curriculum and students begin clinical rotations at one of the clinical affiliate sites (http://www.kumc.edu/school-of-health-professions/respiratory-care-education/about-the-program/clinical-affiliates.html) starting in their sixth week of the program. Clinical rotations give the student exposure to patient care and experience in performing respiratory care procedures.

**Fall, Year 1 (16)**

<table>
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<th>Course</th>
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<tr>
<td>RESP 310 Clinical Pharmacology I</td>
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To qualify for graduation, all students must achieve a C or better on all course work in this program. A minimum 120 hours college credit are required to earn a bachelor’s degree.

The course schedule follows a typical semester and is designed to be delivered at an organized and manageable pace. Tests are scheduled during selected weeks in the course and may be taken at the convenience of the student during that week.

**Core Courses (17)**
- RESP 405 Ethics, Law and Health Care 2
- RESP 668 Research in Health Care 3

Students take both of the following courses in his or her chosen specialty area. These are capstone courses that, when successfully completed, conclude the bachelor’s degree program. They must be taken in the sequence below and students must have at least one year of RRT experience prior to enrolling.
- RESP 671 Clinical Specialty Projects I 6
- RESP 672 Clinical Specialty Projects II 6

**Program Electives (minimum of 13 hours required) (18)**

Note: Some of the following courses are required for certain clinical specialty areas. Enrollment options vary by semester; these courses are not available every semester.
- RESP 400 Advanced Critical Care 4
- RESP 401 Neonatal Respiratory Care 4
- RESP 425 Advanced Critical Care Procedures 2
- RESP 661 Management Principles in Health Care 3
- RESP 662 Education Principles in Health Care 2
- RESP 664 Scientific Investigation Part II 1
- RESP 667 Registry Review 2

**Intercampus Program in Communicative Disorders**

KU offers a doctorate in audiology, a master’s degree in speech-language pathology and Ph.D. degrees in audiology and speech-language pathology through its Intercampus Program in Communicative Disorders.

**About the Intercampus Program in Communicative Disorders**

The Intercampus Program in Communicative Disorders consists of the Department of Speech-Language-Hearing: Sciences and Disorders (http://splh.ku.edu) on the Lawrence campus and the Department of Hearing and Speech (http://spht.ku.edu/ipcd) on the KU Medical Center campus. The Department of Speech-Language-Hearing is part of the College of Liberal Arts and Sciences, while the Department of Hearing and Speech is part of the KU School of Health Professions.

Students pursuing these graduate degrees take course work on the Medical Center campus in Kansas City and on the main campus in Lawrence. A student may live in either community. Block scheduling of courses reduces the frequency of commuting. A committee of faculty from both departments is responsible for instruction, curriculum planning, student selection and advising, clinical practicum policies, and course scheduling.

The College of Liberal Arts and Sciences also offers undergraduate programs in Speech-Language-Hearing: Sciences and Disorders (http://catalog.ku.edu/201314/schools/clas/departments/splh/overview). The Lawrence department collaborates with the departments of Applied
Behavioral Science, Linguistics, and Psychology to offer a Ph.D. in child language (p. 1229).

**Hearing and Speech Courses**

**AUD 805. Introduction to Clinical Research. 1 Hour.**
The course will provide a comprehensive overview to clinical research. The student will gain an understanding of how to develop clinical research questions including protocol design and the factors that should be considered in initiating a clinical research study. This will include biostatistical considerations, the recruitment of study participants, regulatory issues, and data management, and defining measures and instruments. Students will gain knowledge of how to define clinical research among the various institutional entities involved with clinical research at the University of Kansas Medical Center such as the Research Institute (RI), General Clinical Research Center (GCRC) and the Human Subjects Committee (HSC). Additionally, one component of the course will focus on how to apply for funding (grantsmanship), critical appraisal of research studies, and how to present research data. Prerequisite: Consent of instructor. LEC.

**AUD 810. Diagnostic Audiology. 4 Hours.**
Audiometric calibration, pure tone and speech testing, analysis of audiograms, middle ear testing. Prerequisite: AUD 697. LAB.

**AUD 811. Hearing Disorders. 3 Hours.**
A study of disorders of the auditory system including anatomical, physiological, perceptual, and audiological manifestations of pathologies affecting hearing. Prerequisite: AUD 810 and AUD 829. LAB.

**AUD 813. Psychoacoustics and Theories of Hearing. 3 Hours.**
A study of relations between common acoustic stimuli and the responses they elicit; consideration of sensory scales, noise phenomena, and speech intelligibility. Prerequisite: AUD 697 and AUD 829. LEC.

**AUD 814. Hearing Conservation. 2 Hours.**
A study of the major components of hearing conservation programs in industrial, educational, and military settings. Forensic audiology issues related to occupational hearing loss are included. Prerequisite: AUD 697 and AUD 829. LAB.

**AUD 816. Speech Perception. 2 Hours.**
Acoustic and perceptual characteristics of phonemes, words, and connected speech for normal-hearing adults and infants; how speech perception is assessed clinically and is affected by hearing loss, aging, use of amplification, talker differences, and linguistic factors. LEC.

**AUD 817. Pediatric Audiology. 3 Hours.**
Normal and pathological development of the auditory system; pediatric audiometric testing; auditory and communication aspects in the habilitation of hearing-impaired children. Prerequisite: AUD 697 and AUD 810. LAB.

**AUD 818. Vestibular Systems and Disorders. 3 Hours.**
Study of the anatomy and physiology of the normal peripheral and central vestibular system; clinical assessment of vestibular disorders; vestibular rehabilitation. LEC.

**AUD 819. Hearing Aids I. 3 Hours.**
Study of the components, function, fitting, and performance characteristics of hearing aids, applications of amplification in rehabilitative audiology. Prerequisite: AUD 697 and AUD 810. LEC.

**AUD 820. Rehabilitative Audiology and Counseling. 3 Hours.**
Principles and methods of auditory, communication, and social assessment and intervention with hard of hearing and deaf adults, children, and their families. Prerequisite: AUD 810 and AUD 819 or equivalent. LEC.

**AUD 821. Hearing Aids II. 3 Hours.**
The advanced study of the theoretical bases, techniques, and clinical application of hearing aids and their assessment. Participants will review, present, and discuss contemporary issues in hearing aid literature and research. Prerequisite: AUD 819. LEC.

**AUD 822. Electro-Acoustics and Instrumentation. 3 Hours.**
A study of the generation, control and measurement of the simple and complex sounds essential to clinical audiology and hearing research. LAB.

**AUD 823. Cochlear Implants and Hearing Assistance Technologies. 2 Hours.**
Through lecture and discussion format, this course will cover the principles and methods of assessment, candidacy, surgery, programming and rehabilitation of patients receiving cochlear implants. In addition, hearing assistance technologies such as large area systems and alerting devices will be covered with emphasis on classroom amplification. Prerequisites: AUD 819 and AUD 821 or permission of instructor. LEC.

**AUD 824. Central Auditory Processing. 2 Hours.**
The study of the anatomy and physiology of the central auditory system. Analysis and review of the diagnostic procedures and the therapeutic strategies for central auditory processing disorders. LEC.

**AUD 828. Genetics and Hearing Loss. 2 Hours.**
The fundamentals of human genetics as related to hearing loss, including patterns of inheritance, genotypic and phenotypic characteristics of the major forms of syndromic and nonsyndromic hearing loss; genetic counseling, genetic testing, possible genetic treatment, and issues related to them; resources for keeping up with this rapidly changing field. Prerequisite: Permission of instructor. LEC.

**AUD 829. Anatomy and Physiology of the Hearing and Vestibular Mechanisms. 3 Hours.**
Advanced study of the anatomical and physiological properties of the human hearing and vestibular mechanisms. LEC.

**AUD 843. Clinical Practice in Audiology. 1-6 Hours.**
Supervised clinical work at the University and/or University Medical Center audiology clinics, or affiliated, off-campus practicum sites. Prerequisite: Permission of instructor. FLD.

**AUD 846. Independent Study in Problems in Audiology. 1-10 Hours.**
IND.

**AUD 851. Auditory Evoked Potentials. 3 Hours.**
Theoretical bases, techniques, and clinical applications for auditory evoked potentials including electrocochleography, auditory brainstem response, middle and late latency and cognitive responses. Prerequisite: AUD 810, AUD 822, AUD 829, or permission of instructor. LEC.

**AUD 853. Pharmacology for Audiology. 2 Hours.**
Presentation and discussion topics including: basic pharmacology (pharmacokinetics and pharmacodynamics), mechanisms of ototoxicity, selected ototoxic agents, drugs used in otolaryngology, and a review of patient management strategies. Prerequisites: Enrollment in the Au.D. or Ph.D. audiology program or permission of instructor. LEC.

**AUD 858. Business Audiology. 2 Hours.**
An introduction to audiology business practice principles. Operational functions of the audiology clinic will be reviewed, including human resources, marketing, legal and ethical practice concerns, billing, coding and reimbursement. Prerequisites: enrollment in the Au.D. or Ph.D. audiology program or permission of instructor. LEC.

**AUD 899. Thesis. 1-10 Hours.**
THE.
AUD 940. Seminar in Audiology. 1-4 Hours.
Advanced study of selected topics in audiology such as (but not limited to): cochlear micromechanics and other physiological processes; psychoacoustics, speech perception, cochlear implants, etc. Prerequisite: Enrollment in the Audiology Ph.D. program or permission of instructor. LEC.

AUD 941. Grand Rounds in Audiology. 1 Hour.
Presentations/discussion of clinical case studies and professional issues in Audiology. Au. D. students and audiology faculty members will participate in these sessions. DIS.

AUD 944. Clinical Rotation. 1-6 Hours.
Supervised clinical work at the University and/or University Medical Center Audiology Clinics, or affiliated off-campus sites. The Clinical Rotation is intended to prepare students for entry into their Clinical Externship and foster increasing independence. Clinical skills required are defined in standards set forth by the American Speech-Language Association. FLD.

AUD 945. Clinical Externship. 1-9 Hours.
Supervised clinical work at the University of Kansas and/or KUMC audiology clinics, or affiliated, off-campus sites. The Clinical Externship is intended to refine clinical skills, increase clinical independence, and ensure that clinical skills meet the certification standards in audiology set forth by the American speech-Language-Hearing Association. Open to 3rd and 4th year Au.D. students. Approval from Instructor needed for 3rd year students. PRA.

AUD 999. Doctoral Dissertation. 1-12 Hours.
THE.

Speech-Language-Hearing Courses

SPLH 120. The Physics of Speech. 4 Hours. N.
An introduction to the acoustic structure of speech intended for nonscience majors. Emphasis will be placed on the methods and standards by which scientists measure and evaluate the physical characteristics of speech. Topics will include: simple harmonic motion, the propagation of sound waves, aerodynamic aspects of vocal fold vibration, resonance, digital speech processing, frequency analysis, and speech synthesis. Three class hours and one laboratory per week. (Same as LING 120.) Prerequisite: MATH 101 or 104 or equivalent. LEC.

SPLH 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Speech-Language and Hearing. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

SPLH 250. Study Abroad Topics in: ______. 1-5 Hours. S.
A course designed to enhance international experience in topic areas related to speech-language-hearing at the freshman/sophomore level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if the content differs. Prerequisite: Department permission. LEC.

SPLH 261. Survey of Communication Disorders. 3 Hours. SI GE3S / S.
Provides a general understanding of normal and deviant speech, language, and hearing in adults and children. This course considers the normal development of communication behavior, the nature of communication disorders, and the interaction of speech pathology and audiology with allied fields (e.g., education, medicine, psychology, special education). LEC.

SPLH 320. The Communicating Brain: The Ultimate Personal Computer. 3 Hours. U.
This course introduces the study of human neuroscience with a particular focus on human communication. The course provides an overview of the relevant anatomical structures and function along with an introduction to the basic methods used to investigate central nervous system function. Students are introduced to the study of perceptual, motor, and language function in the nervous system through a series of examples drawn from normal function and clinical cases. The examples are selected to highlight how these systems develop and are influenced by experience, implantable devices developed to interface with the nervous system, and how computers and animals are used as models to learn about nervous system function. LEC.

SPLH 418. Introduction to Cognitive Science. 3 Hours. S.
Examines the data and methodologies of the disciplines that comprise Cognitive Science, an inter-disciplinary approach to studying the mind and brain. Topics may include: consciousness, artificial intelligence, linguistics, education and instruction, neural networks, philosophy, psychology, anthropology, evolutionary theory, cognitive neuroscience, human-computer interaction, and robotics. (Same as LING 418, PHIL 418, and PSYC 418.) Prerequisite: Consent of instructor. LEC.

SPLH 432. Human Behavioral Genetics. 3 Hours. S.
A survey of human behavioral genetics for upper division undergraduates. Emphasis is on how the methods and theories of quantitative, population, medical, and molecular genetics can be applied to individual and group differences in humans. Both normal and abnormal behaviors are covered, including intelligence, mental retardation, language and language disorders, communication, learning, personality, and psychopathology. (Same as ANTH 447, BIOL 432, PSYC 432.) Prerequisite: Introductory courses in biology/genetics or biological anthropology and psychology are recommended. LEC.

SPLH 449. Laboratory/Field Work in Human Biology. 1-3 Hours. AE61 / N.
Faculty supervised laboratory or field research for Human Biology majors. Students design and complete a research project in collaboration with a Human Biology faculty member. (Same as ANTH 449, BIOL 449, and PSYC 449.) Prerequisite: Consent of instructor and Human Biology major. FLD.

SPLH 450. Study Abroad Topics: ______. 1-5 Hours. S.
A course designed to enhance international experience in topic areas related to speech-language-hearing at the junior/senior level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if the content differs. Prerequisite: Department permission. LEC.

SPLH 451. Directed Study Abroad in Speech-Language-Hearing. 1-3 Hours. S.
An independent study designed to enhance international experience in topic areas related to speech-language-hearing. Investigation of special topic or project selected by the student with advice, approval, and supervision by a KU SPLH instructor and an authorized agent of the study abroad site. Experience must be arranged through the Office of KU Study Abroad. Such study may take the form of directed reading and/or directed research/clinical observation. A daily journal and final report is required. A maximum of six hours of credit may be counted, with no more than three in a single area of study. Prerequisite: Consent of instructor IND.

SPLH 464. Undergraduate Seminar in: ______. 1-3 Hours. S.
Course organized any given semester to study particular subject matter or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion,
readings, and individual projects. (Distribution credit given for two-three hours only.) LEC.

SPLH 465. Fundamentals of Clinical Phonetics. 1 Hour. S.
Introduction to classification of American English speech sounds based on articulatory phonetics. Practice in phonetic transcription and analysis of normal and abnormal speech. Laboratory exercises to give students hands-on experience with selected topics from lecture. Prerequisite or Corequisite: SPLH 120. LEC.

SPLH 466. Language Science. 3 Hours. S.
Introduction to structure/function of human languages as it relates to language development and disorders; processes involved in the expression and reception of language and the methodologies employed to study these processes. LEC.

SPLH 497. Mentored Research Experience. 2-8 Hours. AE61 / S.
Study may be directed toward either reading for integration of knowledge and insight in Speech-Language-Hearing, or original research in the field. Student creates a plan of activities at the beginning of each semester under the mentor’s guidance. Student and mentor review this plan at the end of each semester to evaluate progress. In the final semester of enrollment, student must complete a written report or a public oral presentation detailing the purpose, methods, results, and impact of the research. This final product partially meets the requirements for Research Experience Certification. (Eight hours maximum credit, which may be distributed through 4 semesters. No student may enroll for less than two hours credit or more than 4 hours of credit in a given semester). Prerequisite: Consent of Departmental Research Experience Coordinator. IND.

SPLH 498. Departmental Honors Research. 2-8 Hours. AE61 / S.
Study may be directed toward either reading for integration of knowledge and insight in Speech-Language-Hearing, or original research in the field. Student creates a plan of activities at the beginning of each semester under the mentor’s guidance. Student and mentor review this plan at the end of each semester to evaluate progress. In the final semester of enrollment, student must complete a written report or a public oral presentation detailing the purpose, methods, results, and impact of the research. This final product partially fulfills the requirements for Departmental Honors. (Eight hours maximum credit, which may be distributed through 4 semesters. No student may enroll for less than two hours credit or more than 4 hours of credit in a given semester). Prerequisite: Consent of Departmental Honors Coordinator. IND.

SPLH 499. Directed Study in Speech-Language-Hearing. 1-3 Hours. AE61 / S.
Investigation of special topic or project selected by the student with advice, approval, and supervision of an instructor. Such study may take the form of directed reading and/or directed research/clinical observation. Individual reports and conferences. (Distribution credit given for two-three hours only.) A maximum of six hours of credit may be counted, with not more than four in a single area of study.) Prerequisite: Consent of instructor. IND.

SPLH 565. Language Sample Analysis Lab. 1 Hour. S.
The study of the analysis of language produced by children with respect to its phonological, lexical, morphological, syntactic, and pragmatic characteristics. Prerequisite or corequisite: SPLH 566. LAB.

SPLH 566. Language Development. 3 Hours. SI GE3S / S.
Study of language acquisition in children, including phonologic, morphologic, syntactic, and semantic components. Methods of language measurement, the role of comprehension, and pragmatic aspects of language use are included. May be taught in lecture or online format. LEC.

Research Methods is about the methods used to conduct, describe and evaluate science in communication disorders. Goals for learner outcomes include: 1) evaluation of research including adequacy of research to address scientific and clinical problems, 2) reading, summarizing and describing research through a literature review, 3) describing a hypothetical research study that addresses a specific question or hypothesis identified by the student, and 4) providing constructive peer reviews of research paper drafts. Prerequisite: 9 credits of SPLH course work; English 101 and ENGL 102 (or course meeting core skill in written communication); or consent of instructor. LEC.

SPLH 662. Principles of Speech Science. 3 Hours. N.
Survey of the physiology of speech production, and the physics of sound. Emphasis upon methodologies in the laboratory study of normal speech. Prerequisite: SPLH 120 and SPLH 320, or concurrent enrollment in SPLH 120 and SPLH 320, or consent of instructor. LEC.

SPLH 663. Principles of Hearing Science. 3 Hours. N.
Concepts and principles relevant to the normal hearing processes: gross anatomy, psychophysical methods, and basic subjective correlates of the auditory system. Prerequisite: SPLH 120 and SPLH 320, or concurrent enrollment in SPLH 120 and SPLH 320, or consent of instructor. LEC.

SPLH 668. Introduction to Audiological Assessment and Rehabilitation. 4 Hours. U.
Introduction to methods for assessing and treating hearing disorders in adults and children, as well as conditions that result in hearing loss. Course includes clinical observation and extensive hands-on experience with clinical techniques. Prerequisite: SPLH 663. LEC.

SPLH 670. Beginning Clinical Practice in Audiology. 1-3 Hours. N.
Testing of hearing using pure tone air and bone conduction tests with both normal and hearing-impaired individuals. Prerequisite: Completion of or concurrent enrollment in SPLH 668. FLD.

SPLH 671. Introduction to Speech-Language Pathology. 4 Hours. U.
This course provides training in clinical management of communicative disorders in children and adults. Principles of evaluation, application of diagnostic information, intervention planning, intervention process, data collection and application, report writing, and interactions with parents and other professionals are examined. Participation in observation and laboratory activities is required. LEC.

SPLH 672. Clinical Practice in Speech-Language Pathology. 3 Hours. S.
Clinical practice with children and adults. Group and individual conferences with staff required. Repeatable once for credit. Prerequisite: SPLH 671 and consent of instructor. FLD.

SPLH 699. Speech-Language Pathology. 3 Hours. S.
Concepts and principles relevant to the perception of speech with emphasis on the auditory system; acoustics, psychophysical methods, and basic subjective correlates of speech perception. Prerequisite: SPLH 662 and SPLH 663, or consent of instructor. LEC.

SPLH 761. Aural Rehabilitation. 3 Hours.
Study of the communication problems associated with hearing loss. Introduction to aural habilitative intervention related to speech, language, and academic achievement in children with early hearing loss, as well as communication strategies training for adults with acquired hearing loss. Prerequisite: SPLH 669 or equivalent. LEC.
SPLH 764. Seminar in: _____. 1-3 Hours.
The subject matter of this seminar will be special topics from speech pathology and audiology. Special prerequisite may be established for a given topic. LEC.

SPLH 784. Proseminar in Communication and Aging. 1 Hour.
A weekly forum for students and faculty to discuss professional issues and interdisciplinary research in communication and aging. May be repeated for credit. (Same as COMS 784.) (Same as PSYC 784.) Prerequisite: Consent of instructor. LEC.

SPLH 799. Proseminar in Child Language. 2 Hours.
A review and discussion of current issues in children's language acquisition. May be repeated for credit. Students are graded S/F. (Same as ABSC 797, LING 799 and PSYC 799.) (Formerly HDFL 797.) LEC.

SPLH 816. Language Development. 3 Hours.
Study of language acquisition in children, including the morphologic, syntactic, and semantic components. Methods of language measurement, the role of comprehension, and pragmatic aspects of language use will be included. Not open to students who have credit for SPLH 566. Laboratory by appointment. LEC.

SPLH 820. Developmental Phonological Disorders. 2 Hours.
Focuses on speech and non-speech characteristics of children with developmental phonological disorders. Emphasis placed on collection and phonetic transcription of speech samples, phonological analysis of transcribed data, and decision-making processes in assessment and intervention. LEC.

SPLH 822. Dysarthria/Apraxia. 2 Hours.
This course describes the neuroanatomic bases of motor-speech processes, the diagnosis, classification, assessment, prognosis, and treatment of dysarthria(s) and apraxia(s). LEC.

SPLH 824. Fluency Disorders. 2 Hours.
The nature of stuttering in children and adults is discussed. Theories regarding etiology, development, and maintenance of the disorder are presented. Emphasis is placed on various clinical approaches to assessment, measurement, and treatment. LEC.

SPLH 826. Phonatory Disorders. 2 Hours.
This course reviews the function of the laryngeal and respiratory mechanisms including the parameters and processes of phonation. Primary content addresses diagnosis, description, and treatment of organic and non-organic disorders of phonation. LEC.

SPLH 828. Speech Disorders in Special Populations. 2 Hours.
This course reviews anatomy and physiology of the velopharyngeal mechanism. Diagnosis and management of velopharyngeal dysfunction and associated problems considered. Anatomy, physiology, and rehabilitation associated with certain oral, pharyngeal, and laryngeal abnormalities discussed. Emphasis is on the speech problems of adults following medical management. Populations include individuals with laryngectomies, glasectomies, and tracheotomies. LEC.

SPLH 832. Dysphagia. 2 Hours.
This course covers normal and disordered swallowing. Evaluation and treatment of swallowing disorders, the dysphagia team, and dysphagia in special populations are considered. LEC.

SPLH 836. Genetics of Communication and Learning Disorders. 2 Hours.
This course focuses on the description, assessment, and treatment of communication problems associated with particular genetic syndromes (e.g., Down's, Turner's syndromes). Also covered are current data about the genetic factors involved in nonsyndromic communication and learning problems, such as those commonly seen in the schools. Ethical and practical issues in these areas are discussed. LEC.

SPLH 840. Language Disorders of Children: Infants and Toddlers. 2 Hours.
This course examines factors relating to language disorders in the birth to three population. At-risk populations, as well as those with known etiologies, are considered. Information on assessment, intervention, and service delivery models is addressed. Issues relating to Public Law 99-457 are also examined. LEC.

SPLH 842. Language Disorders of Children: Preschool. 2 Hours.
This course examines language disorders of preschool-age children in the late preschool years. The course includes information on incidence, characteristics, assessment, and intervention. Theoretical issues and their implication for language intervention are also examined. LEC.

SPLH 844. Language Disorders of Children: School Age. 2 Hours.
This course examines language development during the school years and how problems in this development interact with school performance. Emphasis is placed on the role of the speech-language pathologist in the early identification, assessment, and remediation of language-learning problems. LEC.

SPLH 846. Language Disorders of Adults. 2 Hours.
Neurological aspects of language processes, classification of aphasia, and assessment of language deficits are discussed. Management approaches including intervention strategies and rehabilitation are also considered. LEC.

SPLH 848. Language Disorders of Special Populations. 2 Hours.
This course focuses on the unique language impairments of individuals with mental retardation, autism, cerebral palsy, hearing impairments, dual sensory impairments, and other communication disorders (e.g., ADD). Language characteristics as well as assessment and intervention strategies are studied. LEC.

SPLH 850. Language Disorders Secondary to Closed Head Injury and Dementia. 2 Hours.
Neuroanatomy and physiology relevant to diffuse brain injury are discussed. Characteristics and intervention strategies relating to traumatic brain injury and dementia are studied. LEC.

SPLH 852. Augmentative and Alternative Communication. 2 Hours.
This course describes augmentative and alternative communication (AAC) assessment and intervention issues as they apply to children and adults with both congenital and acquired speech and/or language disabilities. Areas of study include AAC systems, assessment strategies and procedures, intervention strategies, and AAC information resources. LEC.

SPLH 854. Reading Disorders. 2 Hours.
This course addresses the perceptual, linguistic, and cognitive processes utilized in written communication. Acquired and developmental disorders of written language are examined in relation to issues concerning characteristics, etiology, early identification, assessment, and remediation. LEC.

SPLH 860. Evaluation of Speech and Language. 2 Hours.
Provides a general framework for speech and language evaluations. Issues related to initiation and termination of treatment are discussed. Practice is provided in evaluating norm- and criterion-referenced information used in diagnostic, referral, and treatment decisions. LEC.

SPLH 861. Seminar in Research Methodology in Speech Pathology and Audiology: _____. 3 Hours.
This seminar is concerned with the design, instrumentation, execution, and reporting of research in audiology and speech pathology. SPLH 760
SPLH 862. Clinical Processes. 1 Hour.
Orients student to clinical procedures, policies, requirements, and expectations of program. Therapy models, planning, and philosophies are discussed along with implementation and evaluation of therapy procedures. Professional issues are also considered. May be repeated for credit. LEC.

SPLH 864. Advanced Clinical Practice in Speech-Language Pathology. 1-6 Hours.
Students conduct supervised clinical work in a variety of settings. May be repeated for credit. Prerequisite: Department approval. Group and individual conferences with staff required. FLD.

SPLH 866. Field Study in Speech-Language Pathology. 5-12 Hours.
The field study provides work experiences in clinical and/or research activities. The student takes this course near the end of the degree program. Assignments include supervised work in a variety of approved settings. May be repeated for credit. Prerequisite: SPLH 660 or equivalent research methods course. RSH.

SPLH 874. Research Practicum. 1-3 Hours.
Application of research methodology in a laboratory situation. Emphasis is on direct participation in designing and conducting an experimental investigation in speech, language, or hearing. May be repeated for up to a maximum of 3 credits. Prerequisite: SPLH 660 or equivalent research methods course. RSH.

Investigation of special topics by individual master's level students. Paper required. Prerequisite: Consent of instructor. FLD.

SPLH 880. Seminar in Speech-Language Pathology: ____. 1-3 Hours.
May be repeated for credit. LEC.

SPLH 898. Investigation and Conference (For Master's Candidates). 1-8 Hours.
(Limited to eight hours credit toward the M.A. degree.) Directed research and experimentation for M.A. students in some phase of speech science. RSH.

SPLH 899. Master's Thesis. 1-6 Hours.
THE.

SPLH 900. Proseminar in Communicative Disorders. 1 Hour.
A weekly forum for students and faculty to discuss professional issues and interdisciplinary research in communicative disorders and related fields. May be repeated for credit. Limited to two hours credit counted toward an MA or AuD degree. Limited to four hours credit counted toward the PhD degree. Graded on satisfactory/unsatisfactory basis. SEM.

SPLH 961. Experimental Phonetics I. 3 Hours.
This course will provide a description of the acoustic properties of the major classes of speech sounds, and will describe how these properties are utilized perceptually. It will also provide an understanding of the acoustic theory of speech production, and will discuss the implications of that theory relative to the modification of impaired speech. LEC.

SPLH 962. Experimental Phonetics II. 3 Hours.
This course will examine the current methodologies utilized in speech physiology research, and will review the findings of recent research into the movement patterns of individual speech articulators. The course will emphasize the interpretation of individual research results in terms of an overall theory of speech motor timing and control. LEC.

SPLH 963. Seminar in Hearing Science. 3 Hours.
Considers more advanced research problems in hearing science including psychoacoustics, speech perception, physiology. Prerequisite: Consent of instructor. LEC.

SPLH 964. Seminar in: ____. 1-3 Hours.
The subject matter of this seminar will be special topics from speech pathology and audiology, including those related to research methodology and research or academic careers. Special prerequisites may be established for a given topic. LEC.

SPLH 966. Seminar in Language Development. 3 Hours.
The course pertains to relevant research regarding infant speech development, vocabulary development, linguistic development, articulation development, and language retardation. (Same as ABSC 920, formerly HDFS 920.) LEC.

SPLH 967. Seminar in Articulation. 3 Hours.
Research and important clinical procedures pertaining to discrimination, structural, and physiological considerations, causal factors in defective articulation, and principal therapeutic approaches are carefully examined. LEC.

SPLH 968. Seminar in Communication Disorders. 3 Hours.
Study in depth of the communication behavior associated with brain injury and/or oral anomalies. LEC.

SPLH 969. Laboratory Instrumentation for Speech and Hearing Research. 3 Hours.
Instruments for speech and hearing research, their design and application. Experimental projects using laboratory equipment. Designing equipment for special purposes. Prerequisite: SPLH 962. FLD.

SPLH 970. Independent Study in Problems of Speech and Hearing. 1-6 Hours.
Investigation of special topics by individual students. Paper required. RSH.

SPLH 972. Extensions of Clinical Management. 3 Hours.
This course is designed to provide didactic and practical experience in methods of obtaining diagnostic information and generalization of speech and language responses away from the clinical setting. Models for effecting behavioral change and data collection will be discussed and utilized. FLD.

SPLH 974. Research Practicum. 1-6 Hours.
Application of research methodology in a laboratory situation. Emphasis is on direct participation in designing and conducting an experimental investigation in speech or hearing. FLD.

SPLH 975. Directed Teaching: Speech Pathology and Audiology. 1-3 Hours.
Provides experiences in classroom and laboratory instruction under supervision of graduate faculty. Variable credit to reflect amount of instructional responsibility assumed. May be repeated up to a maximum of six semester hours. FLD.

SPLH 976. Independent Study in Grant Writing. 1-3 Hours.
Students will identify a funding agency appropriate for their research, learn the application procedures for that agency, and draft a grant application following the identified agency’s format. The faculty mentor will arrange for a review of the grant application following the agency’s review criteria and format. May be repeated up to a maximum of three credits. IND.
SPLH 982. Issues in Scientific Conduct. 3 Hours.
Lectures and discussion on issues in the conduct of a scientific career, with emphasis on practical topics of special importance in behavioral science. Topics will include the academic and scientific roles of behavioral scientists, establishing a research lab, communicating research findings, tenure processes, gender equity, ethical conduct, and good scientific citizenship. Discussions will highlight important case studies. (Same as PSYC 982.) LEC.

SPLH 998. Investigation and Conference (For Doctoral Candidates). 1-8 Hours.
(Limited to eight hours credit towards the Ph.D. degree.) Directed research and experimentation for Ph.D. students in some phase of speech science. RSH.

SPLH 999. Doctoral Dissertation. 1-12 Hours.
THE.

Master of Arts in Speech-Language Pathology

Program Overview

The master's degree in speech-language pathology is typically completed in five full-time semesters, including a summer semester. Exceptions may occur for the student who has a number of prerequisites to complete or one who extends his/her program for additional thesis or coursework. A master's degree from KU will, in most circumstances, satisfy the American Speech-Language Hearing Association's certification standards for continuing on to the clinical fellowship year. A certificate of clinical competence in speech-language pathology is awarded upon completion of a successful clinical fellowship.

Please consult the program website (http://hearing.kumc.edu) for additional information.

Graduate Admission

Academic Prerequisites

An acceptable bachelor's degree.

34 credits in speech pathology, including the following courses or their equivalents:

- The Physics of Speech
- Survey of Communication Disorders
- Neuroscience of Human Communication
- Fundamentals of Clinical Phonetics
- Language Science
- Language Sample Analysis
- Language Development
- Research Methods in Speech-Language-Hearing
- Principles of Speech Science
- Principles of Hearing Science
- Introduction to Audiological Assessment and Rehabilitation
- Introduction to Speech-Language Pathology

At least 1 course in the following areas:

- Biological sciences, (i.e., biology, anatomy, physiology, genetics)
- Physical sciences, (i.e., physics, chemistry)
- Mathematics (statistics is recommended to fulfill this requirement)
- Social/behavioral sciences, (i.e., psychology, sociology, cultural anthropology)

Students with a bachelor's degree from a liberal arts college or university should meet this requirement. Students with a bachelor's degree from a non-liberal arts college or university should consult with an adviser from the Department of Speech-Language-Hearing: Sciences and Disorders to determine if this requirement has been met.

Clinical Prerequisites

Students are required to have completed 25 clock hours of directed clinical observation before beginning graduate clinical practicum. If observation hours are needed, those will be provided during the first semester of enrollment in the master's program.

Additional requirements for admission:

- 3.0 cumulative GPA or better
- Undergraduate degree
- Online graduate application (https://www.applyweb.com/apply/kugrad) (with required materials)
- GRE (http://www.ets.org/gre) scores
- TOEFL (http://www.toeflgoanywhere.org) scores for international applicants

Please consult the IPCD website (http://hearing.kumc.edu) for more information regarding M.A. admissions.

For additional questions, please contact: hearingspeech@kumc.edu.

Requirements for the M.A. in speech-language pathology

Program with thesis

Minimum of 46 graduate credits
At least 33 credits of academic coursework including:

- SPLH 764 Seminar in: _____ 2
- SPLH 860 Evaluation of Speech and Language 2
- SPLH 862 Clinical Processes 2
- SPLH 868 Professional Seminar 2
- SPLH 899 Master's Thesis 4-6

At least 16 basic elective credits in SPLH 16
At least 5-6 advanced elective credits in SPLH or another department 5-6
At least 13 credits of clinical practice including:

- SPLH 864 Advanced Clinical Practice in Speech-Language Pathology 7
- SPLH 866 Field Study in Speech-Language Pathology 5

1-5 additional credits in either SPLH 864 or SPLH 866 to attain a minimum of 400 total clock hours of clinical practice with at least 325 of these clock hours accumulated at the graduate level.

Pass both formative and summative exams.

Completion of an acceptable thesis and oral defense.

Program without thesis
The non-thesis program has the same degree requirements as those described above for the M.A., except that the thesis is replaced with a minimum of 3 credits of additional research-related coursework, a research practicum experience, or an independent study course. The latter 2 options may include independent research projects or on-going laboratory activities.

Graduate coursework

The following graduate courses are offered. Required courses are noted with an asterisk (*).

- Communication and Social Skills/Relationships
- Advocacy and Leadership
- Communication and Autism
- Neural Bases of Speech and Voice
- Infant Development
- *Multicultural Issues: Diagnostics
- *Multicultural Issues: Treatment
- Children Who Are Deaf/Hard of Hearing
- Aerodynamics of Speech
- Circuit Theory and Instrumentation
- Communication Neuroscience
- AAC in Schools
- AAC in Literacy
- Autism and Asperger’s Syndrome
- ASL
- AAC Technology Lab
- AAC: Issues and Research
- Language Development
- Developmental Phonological Disorders
- Dysarthria and Apraxia
- Fluency Disorders
- Phonatory Disorders
- Speech Disorders in Special Populations
- Dysphagia
- Language Disorders of Children: Infants/Toddlers
- Language Disorders of Children: Preschool Children
- Language Disorders of Children: School-Aged Children
- Language Disorders of Adults
- Language Disorders of Special Populations
- Language Disorders Secondary to CHI/Dementia
- Alternative/Augmentative Communication
- Reading Disorders
- *Evaluation of Speech and Language
- *Clinical Processes
- *Advanced Clinical Practice
- *Field Study in Speech-Language Pathology
- *Professional Seminar
- Research Practicum
- Independent Study
- Seminar in Speech-Language Pathology
- Clinical Treatment of Phonological Disorders
- Master’s Thesis

Students must also pass the speech-language pathology PRAXIS examination with a score of at least 600.

Please consult the M.A. handbook (https://hearing.kumc.edu) for additional information.

Doctor of Philosophy in Speech-Language Pathology or Audiology

The Intercampus Program in Communicative Disorders offers Ph.D. programs in both speech-language pathology and in audiology for post-baccalaureate study of normal and disordered aspects of communication. These programs are designed to prepare suitably qualified individuals for leadership positions in research and academia. A major focus of these programs is to advance the science of these fields, and to elucidate the scientific basis for the procedures and processes used in clinical practice.

A combined Au.D./Ph.D. track also is available. This track facilitates the completion of both degrees in a 6-year post-baccalaureate period. Students who wish to earn both Au.D. and Ph.D. degrees should contact their advisor.

A baccalaureate degree with a cumulative 3.0 GPA on all courses taken is required. Official scores from the Graduate Record Examination must be submitted prior to admission.

A background check (http://www.kumc.edu/student-services/vice-chancellor-of-student-services/criminal-background-checks-for-students.html) is required during the admission process; it may affect the student’s eligibility to enter the program.

International students or those for whom English is a second language must meet minimum English proficiency (http://www.kumc.edu/international/esl_req.html) requirements, as indicated by TOEFL or equivalent exam scores. International students may have additional requirements for visa, residency, and citizenship status. Students should contact the KUMC Office of International Programs (http://www.kumc.edu/international) for guidance regarding these issues during the application process.

For complete admission requirements please visit the IPCD website (http://hearing.kumc.edu) or contact the program at hearingspeech@kumc.edu.

Upon admission, the student and his or her adviser choose a doctoral advisory committee. The committee is responsible for guiding the student’s progress through the selected program of study.

Incoming students who have not completed a substantive graduate research project (e.g., a master’s thesis, Au.D. research project, etc.) must initiate a thesis-equivalent research project, under the direction of a three-member committee, during the first year of enrollment. This project must be completed before the comprehensive oral examination.

Minimum requirements for both the Ph.D. program in Speech-Language Pathology and Audiology are:

- A minimum of 24 graduate hours in a major area of interest
- Completion of a preliminary research experience
- A minimum of 15 graduate hours in research skills/responsible scholarship
• A minimum of 12 graduate hours in a correlative area
• Satisfactory performance on annual reviews
• Satisfactory performance on written and oral comprehensive examination
• Satisfactory completion of a dissertation including written and oral prospectus, and written dissertation and oral defense

Note that the above are the MINIMUM requirements. Each student’s plan of study will vary depending on entry skills (i.e., relevant knowledge and skills acquired through prior training, work or research experience), chosen specialization, and career aspirations.

The essential steps toward a Ph.D. are the following:

1. Completion of academic coursework (major area, correlative area, research skills/responsible scholarship)
2. Preliminary research participation
3. Written comprehensive examinations
4. Comprehensive oral examinations
5. Dissertation prospectus
6. Written dissertation
7. Oral defense of the dissertation
8. Submission of the dissertation to the Office of Graduate Studies

Students in this program must meet the general requirements of the university including the research skills and responsible scholarship requirement (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_ Responsible_Scholarship.htm) and fulfill the basic program requirements to receive the Ph.D. degree.

Therapeutic Science

Therapeutic science is an interdisciplinary program that involves faculty across a variety of departments and schools at KU. This program is part of a growing trend to provide interdisciplinary doctoral-level training to address issues related to disability. The KU Therapeutic Science degree program is administered through the Department of Occupational Therapy Education (http://ot.kumc.edu) in the KU School of Health Professions.

This program is designed for students whose interests in disability and quality of life require an integrated, interdisciplinary course of study that can not be provided by existing programs. Typically, applicants will already have obtained a graduate degree and have a professional credential or identity (e.g., occupational therapist, speech-language pathologist, licensed clinical social worker, clinical psychologist, special educator). Many are likely to be currently working in their chosen field related to issues of disability, but now seek to generate knowledge for understanding disability and improving quality of life for individuals with disabilities.

Occupational Therapy Courses

OCTH 101. Introduction to Occupational Therapy. 1 Hour.
Survey of the profession of occupational therapy. Includes information on academic and professional requirements, career opportunities, general description, and history of the profession. Open to all students. LEC.

OCTH 388. Human Anatomy. 6 Hours.
This course will explore the human body to develop an understanding of how anatomy influences the occupational therapy process. This course will use a biomechanical approach to guide assessment and intervention in examining occupations. LEC.

OCTH 395. Orientation to the Occupational Therapy Profession. 3 Hours.
This course will describe occupation and discuss the philosophy/history, current and future directions of the occupational therapy profession. We will explore professionalism including ethics and professional behaviors, professional communication/relationships, and involvement with professional/regulatory associations within context of occupational therapy. LEC.

OCTH 401. Theory and Practice in Occupational Therapy. 2 Hours.
This course will explore conceptual theoretical models in occupational therapy and the relationship with professional reasoning. This course will use small case-based groups to apply theoretical models. LEC.

OCTH 422. Analysis and Adaptation of Occupations I. 4 Hours.
This course will analyze the role of occupations and the factors influencing occupational performance in everyday contexts. This course will use service learning as the context for understanding occupation, the occupational therapy process, and person-centered practice. LEC.

OCTH 430. Practicum I. 2 Hours.
This course will use a person-centered approach to engage with individuals across the life span in their natural contexts. This course will incorporate observation and interview skills with individuals across the life span emphasizing participation in everyday life. LEC.

OCTH 435. Lifespan Development from an Occupational Perspective. 4 Hours.
This course will discuss developmental theories and study how occupations change across the lifespan. We will emphasize the need to examine participation in meaningful activities within authentic contexts with considerations for the impact of a disability on occupational performance. LEC.

OCTH 445. Contexts of Occupation. 2 Hours.
This course will explore the importance of context in order to facilitate understanding how the person, the context, the environment, and the task all interact to guide occupational performance in everyday life. LEC.

OCTH 455. Neuroscience Analysis of Occupational Performance. 3 Hours.
This course will examine human behavior and occupational performance in relation to function and dysfunction of the nervous system, both in formulating potential behavioral signs when a specific neurological site is presented, and in hypothesizing about neurological involvement when given a client description. LEC.

OCTH 462. Physical Considerations in Facilitating Occupational Performance. 4 Hours.
This course will use scientific reasoning to explore the impact of selected medical conditions on person factors and occupational performance in everyday life. An understanding of injury and disease processes is paired with appropriate occupational therapy assessment and intervention strategies to facilitate optimal occupational outcomes. LEC.

OCTH 470. Practicum I. 2 Hours.
This course will engage in the occupational therapy process and participate in service provision to individuals/families through level I fieldwork experiences. We will apply the components of documentation to the occupational therapy process with emphasis on note writing and goal development. Students will demonstrate command of occupational therapy knowledge through successful completion of professional growth assessment. LEC.
OCTH 472. Psychiatric Considerations in Facilitating Occupational Performance. 3 Hours.
This course will apply theory and evidence to occupational therapy practice in mental health settings. This course will consider selected psychiatric disorders and their impact on occupational performance in everyday life. LEC.

OCTH 482. Analysis and Adaptation of Occupations II. 2 Hours.
This course will apply the occupational therapy framework to understand occupation as a therapeutic means and end to occupational therapy practice. This course will use service learning as the context for understanding occupation, the occupational therapy process, and person-centered practice. LEC.

OCTH 490. Evaluation and Assessment of Occupational Performance. 2 Hours.
This course will apply the fundamentals of the evaluation process to understand occupational performance across the lifespan. We will examine how to select, interpret and document formal and informal measures within a person-centered, contextually relevant approach. LEC.

OCTH 680. Independent Study. 1-6 Hours.
An elective course to allow students to pursue areas of special interest under direction of faculty of his or her choice. Investigation of special issues relevant to an aspect of occupational therapy practice will include study of pertinent practice factors. Student will complete special projects relevant to the practice areas, such as oral presentation, written paper or case analyses. May be repeated for credit. Prerequisite: Permission of department and instructor (offered Spring, Summer and Fall). IND.

OCTH 704. Planning and Intervention in Occupational Therapy. 2 Hours.
This course will use professional reasoning to analyze cases across the lifespan. We will work in small groups using a problem-based format with faculty mentors as we develop an occupational profile, occupational analysis and evidence-based intervention plans for each case. LEC.

OCTH 710. Service Management: Delivery Systems. 1 Hour.
This course will explore how service delivery systems influence pragmatic reasoning and occupational therapy practice. We will examine American and global health care systems along with occupational therapy health care delivery settings with a focus on quality, cost, and access related to service delivery. Teaching and learning experiences occur through lecture, on-line materials, class discussion and small group activities. LEC.

OCTH 715. Supervision, Team Relations, and Management Communication. 1 Hour.
This course emphasizes entry level skills related to supervision, teamwork, and communication within practice environments. LEC.

OCTH 720. Occupational Therapy Practice Models. 7 Hours.
This course will use practice models to guide evaluation and intervention in occupational therapy practice. Students will gain an understanding of historical and contemporary models, learn the evidence underlying each model and conduct assessments with a consumer from each of the contemporary models. LEC.

OCTH 725. The Research Process. 1 Hour.
This course will transition from understanding and appraising research (OCTH 783) to generating research (OCTH 790). The purpose of this course is to guide students through planning research by introducing the components of research and describing ways in which research may be conducted. The course reviews research ethics, writing research questions and hypotheses, sampling, measurement and data collection, components of quantitative and qualitative research, and information about disseminating research. LEC.

OCTH 730. Practicum III. 2 Hours.
This course will build upon practicum and level I fieldwork experiences to continue developing necessary skills for level II fieldwork experiences. We will determine the relevant variables for intervention, work collaboratively with others within each setting, analyze, and reflect upon the experience. We will analyze principles of evidence-based practice and occupation-based intervention. LEC.

OCTH 738. Special Topics in Practice. 1-2 Hours.
Focused study of theory application, professional topics and skills, and emerging practice questions. Learning experiences may be in the form of guided readings and discussion, directed projects, seminars, or community/clinical experience with focus on advanced supplemental or exploratory learning. Specific topics and formats will vary as they are generated by student interest and faculty expertise. LEC.

OCTH 750. Case-Based Clinical Reasoning. 2 Hours.
This course will apply the professional reasoning process to understand individuals’ occupational performance and analyze services provided based on cases from level II fieldwork experiences. We will participate in small group discussion using a problem-based format to conduct case analysis and develop evidence-based intervention plans. LEC.

OCTH 755. Issues and Trends Seminar. 1 Hour.
This course will analyze key professional, political, and cultural issues and trends that impact service provision and the populations served by occupational therapists. This seminar format incorporates student-driven service experiences, discussion forums, and small group work to examine issues/trends and recognize opportunities to shape the future of the occupational therapy profession. LEC.

OCTH 760. Professional Development and Leadership in Service Management. 3 Hours.
This course will discuss professional responsibilities and career development opportunities as they relate to leadership, administration, and management of occupational therapy services. We will use reflective assessments to identify professional leadership strengths and career paths. Students working in small work groups will apply management principles to develop and propose community-based health promotion programs. LEC.

OCTH 765. Family and Community Service Systems. 2 Hours.
This course will use professional reasoning to examine occupational practice within various delivery systems. We will use lecture and small group seminars to analyze systems from level II fieldwork experiences and develop a program evaluation plan based on collaborations between students and fieldwork supervisors. LEC.

OCTH 770. Level II Fieldwork, Part 1. 6 Hours.
A required full-time, three-month supervised experience in a facility meeting specified criteria. Qualified occupational therapists supervise the experience. Students will be exposed to a variety of age ranges and disabilities within different service delivery systems. Prerequisite: Satisfactory completion of required academic coursework. LEC.

OCTH 775. Level II Fieldwork, Part 2. 6 Hours.
A required full-time, three-month supervised experience in a facility meeting specified criteria. Qualified occupational therapists will supervise this experience. Students will be exposed to a variety of age ranges and disabilities within different service delivery systems. Ages, disabilities, and service provision systems for this course will differ from the student’s prior fieldwork experience. Prerequisite: Satisfactory completion of required academic coursework. LEC.
OCTH 776. Population-Based Clinical Reasoning. 3 Hours. 
This course will consider population-based concepts and theories to identify, prioritize and meet the health and life participation needs of populations. Within an interprofessional online learning context, students collaborate to develop community-based assessment and intervention emphasizing promotion, maintenance and restoration of health and wellness and disease prevention for specific populations. LEC.

OCTH 780. Elective Level II Fieldwork. 3-6 Hours. 
An elective (optional) supervised experience in a facility meeting specific criteria. Qualified occupational therapist will supervise this experience. This fieldwork would allow students to pursue areas of special interest. Length and time commitment of experience will be commensurate with credit hours (e.g., each credit requires 80 hours of fieldwork contact at specified site). Prerequisite: Satisfactory completion of required academic coursework and OCTH 770.. LEC.

OCTH 783. Evidence-Based Practice. 2 Hours. 
This course will review, appraise, and integrate various levels of evidence to inform occupational therapy practice. Students will learn where and how to find relevant evidence as well as what factors should be considered in the assessment of evidence. We will review statistics and their use in interpreting outcome data. Students will also learn to synthesize and translate evidence into useful information for practice. LEC.

OCTH 790. Research Practicum and Professional Writing. 3 Hours. 
This course will explore how the process of conducting a faculty-mentored research project becomes a platform for developing occupational therapy principles and for guiding practice, and how conveying meaning through professional writing is essential for communicating outcomes, interpretations, and instructions. Prerequisite: OCTH 727. Students from programs outside the MS in Occupational Therapy or PHD in Therapeutic Science need to contact the Occupational Therapy Department for permission to enroll. LEC.

Occupational Therapy (Doctorate) Courses

OTD 750. Clinical Reasoning and Problem Based Learning. 3 Hours. 
Students will apply a clinical reasoning process to individuals with occupational performance needs. Cases will be presented from students' clinical experiences. In a problem solving format, students will evaluate models of service delivery, evaluation and intervention delivery and dissemination of information received by the individual. Students will identify and discuss alternatives given a variety of situations and environments. PREREQUISITE: Permission of Department. LEC.

OTD 770. Knowledge For Specialty Practice Area. 3 Hours. 
This course is designed to support and correspond with OTD 780. Students will be matched with a faculty mentor as they develop a literature review in an area of clinical interest. This experience is designed to supplement students' ongoing clinical practice as they develop a library of pertinent empirical readings. Students will be mentored as they develop skills in analytical reading and identification of information that informs best practice. PREREQUISITE: Admission to OTD Program or Permission of Instructor. LEC.

OTD 776. Population Based Health Care. 3 Hours. 
This course will coordinate with OCTH 776. The purpose of this course is to introduce concepts and theories related to providing health care to complex systems and aggregates in the community, state and nation. Emphasis is placed on the promotion, maintenance and restoration of health and wellness and the prevention of disease. Internal and external environmental components which include historical, political, social, cultural and economic factors are presented. The role of the health care provider in identifying, prioritizing and meeting the health and life participation needs of aggregates is discussed. PREREQUISITE: Permission of department. LEC.

OTD 780. Practicum in Specialty Practice Area. 3 Hours. 
This course is designed to support and correspond with OTD 770. Students will complete this course as they work in a clinical environment. They will meet with a faculty mentor to support the analysis and dissemination of their empirical information gathered during OTD 770. They will present their empirical literature findings to their professional colleagues via a clinical research forum. Students will be expected to create three forms of information dissemination and critically review the professional feedback they receive. PREREQUISITE: Permission of Department. LAB.

OTD 783. Evidence Based Practice. 3 Hours. 
This course will coordinate with OCTH 783. Students will address the parameters and criteria for evidence-based practice. They will build a library of information that facilitates their evaluation of the status, beliefs, and practice of Occupational Therapy. They will develop skill in the synthesis of empirical evidence and explore dissemination options to service recipients. Students' work will culminate in the formulation of a decision-making paradigm for their future practice decisions. PREREQUISITE: Permission of Department. LEC.

OTD 799. Practice and Research. 3 Hours. 
This is an elective course that allows students to pursue areas of special interest under the direction of a faculty member of his or her choice. This course is designed to support students' learning as they complete their pre-doctoral studies. Investigation of special issues relevant to an aspect of occupational therapy practice will include study of pertinent practice factors. Students will complete special projects relevant to the practice areas of interest, such as an oral presentation, written paper, or case analysis. May be repeated for credit. PREREQUISITE: Permission of Department. LEC.

OTD 825. Qualitative Research Methods. 3 Hours. 
This course is an introduction to qualitative research techniques. Students will have several opportunities to gain hands-on experience using fundamental qualitative research techniques to sharpen their data collection, analysis and write-up skills. The goals of this course are to better understand the role qualitative techniques play in research, identify various ethical issues, sharpen interview and observation skills, and develop foundation skills for collecting, analyzing and interpreting qualitative data. Prerequisite: Permission of Department. Lecture course. LEC.

OTD 835. Quantitative Research for Applied Science. 3 Hours. 
Research relevant to therapeutic intervention comes from a variety of disciplines involving varied research designs and analysis strategies. Students in this course will examine selected research studies and gain skill in analyzing methods and results as well as in applying research findings to practical problems. Students will conduct a systematic review on a specific area of occupational therapy practice. LEC.

OTD 850. Teaching Practicum. 1-3 Hours. 
The purpose of this course is to provide practical learning whereby students receive individual mentorship for the development, implementation and evaluation of a teaching experience. Students will be responsible for developing the material, instructing students, grading assignments and evaluating the teaching experience. The teaching experience is expected to include at least 12 hours of face to face instruction (or the equivalent in on-line teaching or written materials). Teaching experiences can include MOT program lectures or labs, continuing education workshops, patient education programs, or staff inservices or another experience that meets the time and competency
requirements. Prerequisite: A graduate level teaching methods course such as NSG 873, NSG 874, C T 740, C T 840 PRA.

OTD 860. Theory and Practice in Occupational Therapy. 3 Hours.
This course will cover major theoretical frameworks and practice models in occupational therapy. The history of occupational therapy will be included to provide a basis for understanding the evolution of the profession as well as past and current issues and trends. Students will learn how to critically analyze theories, evaluate research evidence related to specific theories and practice models, and assess pragmatic issues in applying practice models to specific settings and populations.

LEC.

OTD 865. Theory Based Practice. 3 Hours.
This course is designed to critically review Occupational Therapy theories, research, practice models and frameworks using the tenets of occupation based practice. Students will analyze seminal literature from occupational science and relate theory and evidence to practice. Students will review their specified area of practice to develop a proposed method of practice that incorporates empirical evidence and practice methods. Finally, students will select a mentor from their practice area to review their proposal. Critical feedback will be incorporated into a final presentation and paper. PREREQUISITE: Permission of Department. LEC.

OTD 875. Professional Development. 3 Hours.
This course will explore professional development from an advanced practice perspective. Students will examine aspects of advanced practice such as leadership (both work and professional), management, group and system communication and change agency. They will explore these topics within their current practice settings and select an area of advanced skills to explore in more depth. Students will develop an understanding of how they can impact systems and contribute to the development of the occupational therapy profession. LEC.

OTD 880. Program Evaluation. 3 Hours.
Leadership in areas of specialty practice will require our graduates to critically evaluate their practice programs. In this course, students will explore the traditional and innovative ways to evaluate professional services and systems, and they will develop skills to conduct program evaluations. Students will examine the purpose and process of program evaluations in a variety of clinical settings. Through lecture, discussion and a project they will develop and execute a program evaluation in their area of practice. PREREQUISITE: Permission of Department. LEC.

OTD 885. Advanced Practicum. 1-3 Hours.
This practicum is designed to span 400 hours. Students will identify an area of practice through which they want to develop clinical initiatives and leadership. Selected field experiences will provide opportunities for program development, leadership, and information dissemination. Upon completion, the students will provide his or her clinical team with a program, or research based initiative, along with specified program evaluation methods. PREREQUISITE: Permission of Department and continuous enrollment until completion of competencies. LAB.

OTD 890. Capstone Project. 1-3 Hours.
The capstone project will comprise a written report that involves both literature and field research activity. A capstone project report represents the application of knowledge as well as the search for it, and differs from a thesis such that student opinion and experience is involved. The student must negotiate capstone objectives, evaluation standards and any potential approvals prior to his or her practicum. PREREQUISITE: Permission of Department and continuous enrollment until competencies totaling 6 credit hours are completed. IND.

OTD 899. Special Projects. 3 Hours.
This is an elective course that allows students to pursue areas of special interest under the direction of a doctoral faculty member of his or her choice. This course is designed to support doctoral training. Academic options range from research based studies and/or activities to critical analysis of clinical practice methods. Students will complete special projects relevant to their designated practice area of interest. Students must negotiate learning objectives, academic projects and evaluation standards with their mentor. May be repeated for credit. PREREQUISITE: Permission of department. LEC RSH.

Occupational Therapy (MS) Courses

OTMS 699. Special Projects. 1-6 Hours.
(1-6) An elective course to allow student investigation of special issues or problems relevant to applied research and/or practice, under the direction of a faculty member chosen by the student. Systematic coverage of current issues may include a research investigation or study related to pertinent sociocultural trends, practice factors, or emerging issues in service provision. Students will complete special projects such as oral presentations, written papers, or case analysis as negotiate with the faculty mentor. May be repeated for credit. Prerequisite: Enrollment as a non-degree seeking student and permission of the instructor. IND.

OTMS 701. Professional Development. 3 Hours.
With an emphasis on leadership skills and professionalism, this course will include mentoring, supervising, managing, organizing presentations, and teaching, writing, and contributing through professional organizations (interdisciplinary and occupational therapy). Students professionalism on issues of concern to administrators, staff therapists, educators, or those in private practice. Prerequisite: Permission of Instructor. LEC.

OTMS 705. Multidisciplinary Theoretical Perspectives. 3 Hours.
Students will identify and explore the key theories in occupational therapy and those more specific to their emphasis area with an emphasis on those currently influencing clinical reasoning. Students will demonstrate an understanding of contemporary theories and be able to compare and contrast key theories. Students will develop rationales for theory guided interventions. Furthermore, they will develop an impact summary in their identified area of emphasis. Prerequisite: Permission of Instructor. LEC.

OTMS 735. Practice Models for Applied Science. 3 Hours.
Issues and trends relative to advanced application of theory, assessment and intervention with emphasis on pediatrics will be presented in lecture and discussion. Special projects will emphasize the student’s special interests. Although faculty directed, student presentation will be emphasized. LEC.

OTMS 799. Special Topics in Occupational Therapy. 1-6 Hours.
An elective course to allow student investigation of special issues or problems relevant to applied research and/or practice, under the direction of a faculty member chosen by the student. Systematic coverage of current issues may include a research investigation or study related to pertinent sociocultural trends, practice factors, or emerging issues in service provision. Students will complete special projects such as oral presentations, written papers, or case analyses as negotiate with the faculty mentor. May be repeated for credit. Prerequisite: Permission of instructor. IND.

OTMS 800. Research Proseminar. 1 Hour.
A proseminar conducted by the core graduate faculty in Occupational Therapy and Therapeutic Science. Twice-monthly meeting will involve student and faculty presentations of their current research, as well as provide more opportunities to obtain feedback on research proposals. May be taken more than once for a total of fours credits. (Same as TS 800.) RSH.
OTMS 801. Applied Neuroscience. 3 Hours.
The course will address the major functions of the systems within the central nervous system and how they interact to produce responses to environmental demands. Sensory input, central processing, and output mechanisms will be analyzed. The student will then appraise human behavior in relation to function and dysfunction of the nervous system, both in formulating potential behavioral signs when a specific neurological site is presented, and in hypothesizing about neurological involvement when analyzing a particular individuals problems. Prerequisite: Undergraduate neuroscience course or permission of instructor. LEC.

OTMS 835. Interpreting Research for Applied Science. 3 Hours.
This on-line course examines selected research studies, analysis methods and results employed, and applies research findings to practical problems. Students will design their own research project reflecting their area of interest. RSH.

OTMS 890. Graduate Research. 1-6 Hours.
Students investigate an empirical question relevant to occupational therapy and write a literature review and a research proposal under the guidance of a faculty advisor. Pending approval of the proposal, the student will carry out initial phases of the project, including materials preparation and data collection. RSH.

OTMS 899. Thesis. 1-6 Hours.
Course requires data analyses, interpretation, and scholarly writing based on individual original research carried out under the guidance of the student’s adviser. These activities, along with an oral presentation of research, must meet with approval of the student’s advisory committee to complete thesis requirements. Prerequisite: OTMS 890. THE.

Therapeutic Science Courses

TS 800. Research Proseminar. 1 Hour.
A proseminar conducted by the core graduate faculty in Occupational Therapy and Therapeutic Science. Twice-monthly meetings will involve student and faculty presentations of their current research, as well as provide more opportunities to obtain feedback on research proposals. May be taken more than once for a total of four credits. (Same as OTMS 800.) LEC.

TS 805. Multidisciplinary Theoretical Perspectives. 3 Hours.
Students will identify and explore key theories in behavioral and social science with an emphasis on those currently influencing clinical reasoning. Students will demonstrate an understanding of contemporary theories and be able to compare and contrast key theories, while also developing knowledge about theory guided research and interventions. LEC.

TS 850. From Beliefs to Evidence. 1 Hour.
Analysis of the role of beliefs about practice in professional culture and how beliefs are affected by the accumulation of research evidence. Topics include the nature of science and beliefs, the nature of evidence, and the debate over evidence-based practice. Students will use topics from their own professional interests for class presentations and written assignments. May be taken more than once for a total of two credits. LEC.

TS 880. Special Projects. 1-6 Hours.
An elective course to allow student investigation of special issues or problems relevant to applied research and/or practice, under the direction of a faculty member chosen by the student. Systematic coverage of current issues may include a research investigation or study related to pertinent sociocultural trends, practice factors, or emerging issues in service provision. Students will complete special projects such as oral presentations, written papers, or case analysis as negotiate with the faculty member. May be repeated for credit. Prerequisite: Permission of instructor. IND.

TS 900. Evolving Interdisciplinary Views of Disablement. 1 Hour.
Assessment of how our social and cultural context defines notions of disability and disablement in our society. Topics include historical constructs of disability, public policy related to disability, and social paradigms of disability. Students will evaluate views of disablement from the perspective of their own discipline. May be taken more than once for a total of two credits. LEC.

TS 950. Designing Effective Knowledge Transfer. 1 Hour.
Examination of the principles of knowledge transfer and diffusion of innovation as they relate to practices in therapeutic professions. Topics include the diffusion process, change agents, innovation adoption, and current diffusion methods. Students will evaluate diffusion processes that have occurred within their own professions. May be taken more than once for a total of two credits. LEC.

TS 980. Advanced Study in Therapeutic Science. 1-6 Hours.
Students engage in advanced study of a topic of their interest, guided by an appropriate mentor. Methods include directed readings, interpretation of evidence, discussions, and written syntheses of existing literature. Course culminates in a written proposal for original research and an oral defense of that proposal. Credit is given only after the dissertation proposal is accepted by the student’s advisory committee. Prerequisite: Permission of instructor. SEM.

Research experience leading to dissertation for doctoral students in Therapeutic Science. THE.

Doctor of Philosophy in Therapeutic Science

Therapeutic science is an interdisciplinary program that involves faculty across a variety of departments and schools at KU. This program is part of a growing trend to provide interdisciplinary doctoral-level training to address issues related to disability. The KU Therapeutic Science degree program is administered through the Department of Occupational Therapy Education (http://ot.kumc.edu) in the KU School of Health Professions.

This program is designed for students whose interests in disability and quality of life require an integrated, interdisciplinary course of study that can not be provided by existing programs. Typically, applicants will already have obtained a graduate degree and have a professional credential or identity (e.g., occupational therapist, speech-language pathologist, licensed clinical social worker, clinical psychologist, special educator). Many are likely to be currently working in their chosen field related to issues of disability, but now seek to generate knowledge for understanding disability and improving quality of life for individuals with disabilities.

To be considered for admission, the following are required:

1. **Degree**
   A bachelor's degree and a research-based master's degree are required. Students with degrees from a university outside the U.S. may be considered provided they meet the requirements equivalent to those from a program in the U.S.

2. **Grade Point Average**
   An overall minimum 3.0 Grade Point Average (on a 4.0-scale) is required.
Please note: Reflecting the interdisciplinary nature of the therapeutic science program, the Graduate Record Examination (GRE) is not required.

**International Students:**
An applicant is considered an international student if he or she requires a visa, or currently resides in the U.S. with non-immigrant status, or currently resides in the U.S. while applying for permanent residency. Additional requirements and documentation, such as proof of English language proficiency, are required for international students to become eligible for KU programs. Please review the information for international students (http://www.kumc.edu/school-of-health-professions/information-for-international-applicants.html) before applying.

The program is composed of the following components:

1. A core curriculum that includes foundation theory knowledge and a series of core courses
2. Interdisciplinary content coursework and advanced study courses
3. Design and methods and analysis coursework
4. Competency attainment
5. Dissertation work

Please note that the course requirements listed below assume that the student already has at least 24 graduate credit hours in content courses and 6 hours in research methods and analysis courses that have been accumulated toward a master’s degree. The curriculum outlined below comprises a minimum of 60 credit hours in addition to any existing credits the student has earned prior to beginning the program. Note that most therapeutic science students accumulate more than the 60 credit minimum by the end of the program.

Students in the program must meet the research skills and responsible scholarship requirement (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm) of the university, fulfill program course work requirements, and successfully complete an oral comprehensive examination to achieve Ph.D. candidacy. The Ph.D. candidate must then write a dissertation based on original research, followed by a successful oral defense of the dissertation, to receive the Ph.D. degree. It is typical for students to require the equivalent of at least 3 years of full-time study to fulfill these requirements.

### Core Courses Offered in the Therapeutic Science Ph.D. Program

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TS 850</td>
<td>From Beliefs to Evidence</td>
<td>1</td>
</tr>
<tr>
<td>TS 900</td>
<td>Evolving Interdisciplinary Views of Disablement</td>
<td>1</td>
</tr>
<tr>
<td>TS 950</td>
<td>Designing Effective Knowledge Transfer</td>
<td>1</td>
</tr>
<tr>
<td>TS 980</td>
<td>Advanced Study in Therapeutic Science</td>
<td>1-6</td>
</tr>
<tr>
<td>TS 990</td>
<td>Dissertation in Therapeutic Science</td>
<td>1-9</td>
</tr>
</tbody>
</table>

**Interdisciplinary content courses** (at least 2, 3-credit courses)

**Advanced Study Coursework** (at least 3 credits)

1 Course is taken for 2 terms for total of 2 credit hours

For full details of the curriculum, please visit the program’s website (http://www.kumc.edu/school-of-health-professions/therapeutic-science/curriculum.html).
Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU (see your advisor (http://www.advising.ku.edu) for details). Other years’ catalogs (http://catalog.ku.edu/archive)

Bachelor of Science in Journalism (p. 752)
Minor in Journalism (p. 755)
Master of Science in Journalism (p. 756)
Doctor of Philosophy in Journalism (p. 758)

The School of Journalism and Mass Communications

Values
The William Allen White School of Journalism and Mass Communications (http://www.journalism.ku.edu) is guided by a set of core values. We value

• A diverse, collaborative, and dynamic student-centered environment.
• Excellence in learning, teaching, and mentoring.
• Free expression and conscientious, ethical journalism as cornerstones of a democratic society.
• Critical and creative thinking.
• Meaningful research and creative activity.
• Imaginative outreach and collaboration on this campus, in Kansas, and in the profession of journalism.

Mission
The mission of the school is to teach students to think critically and creatively while preparing them for careers in journalism, mass communications, and related fields and for graduate study. Graduates will

• Appreciate the value of freedom of expression and its importance in society.
• Be able to analyze mass media critically.
• Have an ethical framework for the practice of journalism and mass communication.
• Demonstrate understanding of the value of a diverse society, a diverse workplace, and the importance of reflecting that diversity in mass media.
• Demonstrate an understanding of the impact of changing media technologies on society.
• Demonstrate effective production and presentation skills for the media.
• Demonstrate an understanding of the importance of research for adding new knowledge and an ability to employ research techniques for analysis and interpretation.
• Demonstrate understanding of how communications organizations function and the important management issues they face.

The school is accredited by the Accrediting Council on Education in Journalism and Mass Communications.

School of Journalism Edwards Campus

Mission
To educate marketers for personal development and professional success.

Vision
To become the degree of choice for marketing communications professionals in the Kansas City area, growing marketers personally and professionally, growing the program enrollment and market awareness, and growing the marketing industry financially and creatively.

Values
• Academically sound … with a high-quality curriculum taught by expert faculty.
• Relationship-oriented … in our interactions with our constituents.
• Attentive … to the unique needs of working adult students.
• Servant-hearted … in our willingness to go “above and beyond” to assist students and prospects.

Our Promise
To bring KU’s and the William Allen White School of Journalism and Mass Communications’ reputations for academic excellence to greater Kansas City through high-level service and convenience for the working adult marketing professional seeking to further his/her career with a Marketing Communications Graduate degree.

Facilities
Stauffer-Flint Hall and Dole Human Development Center
The school’s classrooms, laboratories, student media, and faculty offices are in Stauffer-Flint Hall and Dole Human Development Center. The school’s main office, Advising and Records Office, and Journalism Resource Center are in Stauffer-Flint, as are the offices of the Accrediting Council on Education in Journalism and Mass Communications and the Kansas Scholastic Press Association. The Dole Center houses multimedia labs, The University Daily Kansan, the television studio, and KUJH-TV.

Journalism Student Services Center
The Student Services Center, 117 Stauffer-Flint Hall, houses the Recruitment and Retention Coordinator as well as Undergraduate Advising and Records. For prospective student questions about admissions to KU from a high school or transfer institution, please contact (785) 864-4768. For current KU students seeking admission to the School of Journalism, contact (785) 864-4080. Students who need advising, enrollment and graduation planning and assistance should also call (785) 864-4080.

Journalism Resource Center
Professional publications, copies of major national and state newspapers, and reference and research materials are available in the Journalism Resource Center, 210 Stauffer-Flint Hall. Students may check out computers for use in the Resource Center.
Undergraduate Programs

The school offers the Bachelor of Science (p. 752) degree in journalism. The program prepares students for careers in advertising, corporate communications, integrated marketing communications, news, writing and editing, management, and sales in traditional media and emerging and converged media.

The school also offers a minor in journalism (p. 755).

Courses for Nonmajors

All KU students may take:

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<th>Course</th>
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<tr>
<td>JOUR 101</td>
<td>Media and Society</td>
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<td>JOUR 150</td>
<td>Stand and Deliver</td>
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<td>JOUR 201</td>
<td>Current Issues in Journalism</td>
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<td>JOUR 300</td>
<td>Visual Storytelling</td>
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<td>JOUR 320</td>
<td>Stratcom I: Introduction to Strategic Communication</td>
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<td>JOUR 503</td>
<td>History of Journalism and Mass Communication</td>
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<td>JOUR 512</td>
<td>The Business of Media</td>
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<td>JOUR 534</td>
<td>Diversity in Media</td>
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<td>JOUR 540</td>
<td>Sports, Media and Society</td>
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<td>JOUR 590</td>
<td>International Journalism</td>
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<td>JOUR 608</td>
<td>Ethics and Professional Practice</td>
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<td>JOUR 613</td>
<td>International Strategic Communications</td>
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<td>JOUR 618</td>
<td>First Amendment and Society</td>
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Junior standing is required for:

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Students in professional schools who wish to take any other journalism course should consult their schools and the Journalism Advising and Records Office (http://www.journalism.ku.edu/advising), 117 Stauffer-Flint Hall.

Internships

Through the Career Center (http://www.journalism.ku.edu/career-center-students), the school enables students to gain professional experience working as interns. Internships vary in time of year, duration, location, compensation, and required course work or other experience. Many students complete internships during the summer, but they also are available during the school year. Staff members provide further guidance on opportunities and requirements.

Study Abroad

The school has an academic exchange with the University of Costa Rica. For information, visit the Office of Study Abroad (http://www.studyabroad.ku.edu).

University Honors Program

The school encourages qualified students to participate in the University Honors Program (http://www.honors.ku.edu).

Graduate Programs

The William Allen White School of Journalism and Mass Communications offers 2 tracks leading to the Master of Science (p. 756) in journalism – a scholarly thesis-based Mass Communications track in Lawrence, including a joint M.S.J.-J.D. option, and a professional Marketing Communications track at KU’s suburban Kansas City Edwards Campus – and a Ph.D. in Journalism and Mass Communications in Lawrence.

The Lawrence-based Mass Communications program focuses on deeper, theoretical understanding of the professions of the media. The student must complete 37 graduate credit hours with at least a B (3.0) average. A student completes a thesis and passes a general examination of his/her thesis.

The Marketing Communications course of study trains professional communicators to find solutions for business problems and to explore strategic marketing from a managerial perspective. It emphasizes the integration of research, ethics, writing, creativity, innovation, technology, branding, sales and leadership. The curriculum is an advanced series of courses offered to students who show an aptitude for strategic thinking and have a minimum of 2 years of professional experience in marketing communications or other media-related fields. It is offered on the KU Edwards Campus (http://edwardscampus.ku.edu) in Overland Park and is designed for part-time, evening study to accommodate working professionals, while maintaining the same standards of academic excellence found in full-time graduate programs on the Lawrence campus.

The Ph.D. program in Journalism and Mass Communications is small and, therefore, selective. We admit 4 to 6 students per year to ensure close work with the faculty. We expect our students’ scholarly and research interests to intersect with those of our faculty. Students who hold a master’s in journalism complete at least 38 hours for the degree. The student completes study of appropriate research skills, designed in consultation with the faculty advisor. The student also must meet KU’s requirements for dissertation hours.

Undergraduate Scholarships and Financial Aid

All students with financial need should apply to Financial Aid and Scholarships (http://affordability.ku.edu/steps/index.shtml). This office awards scholarships to incoming first-year students based on academic merit.

The School of Journalism and Mass Communications has a limited number of scholarships provided by donors who often specify the majors or the geographic areas from which recipients may be selected. Most scholarships from the school are reserved for students already enrolled in journalism courses. To receive a need-based scholarship from journalism, the student must have submitted the FAFSA form (http://www.fafsa.ed.gov) and been determined to be eligible. Merit-based scholarships also are offered.

Scholarship applications are available beginning October 1 on the school’s website. The application deadline is December 1. Notices of
scholarships awarded by national journalism organizations are posted in Stauffer-Flint Hall and the Dole Center when they are received.

Graduate Fellowships and Assistantships
For information about graduate assistantships, contact the School of Journalism and Mass Communications (http://www.journalism.ku.edu).

Visit the Graduate Studies website for information about funding opportunities (http://www.graduate.ku.edu/funding-opportunities) for graduate students at KU.

Financial Aid and Scholarships (http://affordability.ku.edu/steps/index.shtml) administers grants, loans, and need-based financial aid.

Undergraduate University Regulations
For information about university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://www.policy.ku.edu).

Absences
The school reserves the right to cancel the enrollment of any student who fails to attend the first class or laboratory meeting. Instructors may require a certain level of attendance for passing a course and may drop a student for lack of attendance without the student’s consent.

Change of School
To change from one school to another, you must submit a Change of School form in the dean’s office or the student services office of the school you plan to enter. Follow the deadlines on the form.

Admission is competitive and occurs twice a year. Applications are due February 1 for fall and summer and September 1 for spring admission. 90 percent of available openings are filled by applicants with the highest cumulative grade-point averages. The remaining 10 percent are selected from among applicants who petition by the deadline, provided they have overall grade-point averages of at least 2.5.

Credit/No Credit
A Credit/No Credit option is available to all degree-seeking undergraduates. You may enroll in one course a semester under the option, if the course is not in your major or minor. For more information, visit the KU Policy Library (https://documents.ku.edu/policies/governance/USRR.htm#art2sect2).

Warning: Certain undesirable consequences may result from exercising the option. Some schools, scholarship committees, and honorary societies do not accept this grading system and convert grades of No Credit to F when computing grade-point averages.

Journalism courses or courses in another school’s major or minor may not be taken for Credit/No Credit.

Graduation with Distinction and Highest Distinction
Students who rank in the upper 10 percent of their graduating class graduate with distinction. The upper third of those awarded distinction graduate with highest distinction. In addition to a student’s academic record, other factors may be considered.

Honor Roll
Students with grade-point averages of 3.75 who have completed at least 12 hours with letter grades are recognized on the honor roll or dean’s list in fall and spring. Credit/No Credit grades are not accepted. S grades are accepted. An Honor Roll notation appears on the transcript.

Maximum and Minimum Semester Enrollment
The normal enrollment is 15 to 16 hours a semester. A 12-hour enrollment is considered a minimum full-time enrollment. Enrollment in more than 18 hours a semester, or more than 9 hours during the summer session, requires special permission from the assistant dean for student services.

Nonresidence Study Before the Last 30 Hours
Before the last 30 hours required for the degree, students may, under certain conditions, take courses at other institutions and transfer the credit to KU. Before enrolling in a nonresidence course, check on how your courses will transfer to KU (http://admissions.ku.edu/apply/credits) or complete KU’s standard form, Request for Tentative Evaluation of Transfer Credit, in your dean’s office or student services office or in College Student Academic Services for students in the College. After completing the course work, you must request that an official transcript be sent to the Office of Admissions (http://admissions.ku.edu/whyku/index.shtml), KU Visitor Center, 1502 Iowa St., Lawrence, KS 66044-7576, 785-864-3911. For transcripts to be official, they must be mailed from the college or university directly to KU. Faxed transcripts are not accepted for posting of transfer credit.

Nonresidence credit includes all credits from another college or university taken after initial enrollment at KU, military service courses, and other undergraduate course work not formally offered in the Schedule of Classes (p. 10).

Prerequisites and Corequisites
Course prerequisites are strictly enforced. Students are administratively dropped from courses for which they do not meet prerequisites. Waiver is not granted if the prerequisite course was taken and failed or taken and not completed.

Probation
Students admitted to the school must do the following in order to remain in the school in good standing:

- Maintain a 2.5 cumulative KU grade-point average and a 2.5 journalism grade-point average.

Students failing to meet the condition above are placed on probation for 1 semester. If a student does not raise his or her cumulative KU and journalism grade-point averages to 2.5, he or she is dropped from the school.

Students who fail to complete JOUR 101 with a 2.0 or better have their admission rescinded.
Repetition of Courses

The School of Journalism follows the university’s course repeat and grade replacement policy.

Required Work in Residence

No baccalaureate degree is granted to a student who has not completed at least 30 semester credit hours of residence courses at KU. No exceptions are granted.

To earn a bachelor's degree from KU, you must complete the last 30 hours of credit for the degree by resident study. You may petition the dean for a waiver.

Students must have the permission of the assistant dean for student services. Up to 6 hours of work done at another institution may be accepted as part of the last 30 hours, if the hours are not in required courses in the major. If a student completes more than 6 of the last 30 hours at another college, he or she must complete additional KU course work to graduate. Transfer courses must be completed with a C or higher.

Transfer of Credit

CredTran (http://admissions.ku.edu/apply/credits) is a transfer course equivalency system that lists more than 2,200 colleges and universities from which KU has accepted transfer courses in the past. If your school or course is not listed, your evaluation will be completed when you are admitted to KU.

A maximum of 12 hours of journalism course work taken at other institutions may count toward a degree. Other journalism courses do appear on the transcript, but the hours are treated as excess, and an equal number of hours is added to the 120 required for graduation. Courses with grades of D are not accepted for transfer credit.

Graduate University Regulations

For information about university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://www.policy.ku.edu).

Journalism Career Center

The Career Center (http://www.journalism.ku.edu/career-center-students), 120 Stauffer-Flint Hall, helps students find internships and jobs. Each year, leading media outlets, advertising agencies, and corporations in the state and the nation visit campus to interview students. The Career Center also maintains an online database of internships and jobs that is updated frequently.

Courses

JOUR 101. Media and Society. 3 Hours. GE3S.
Introductory course open to all KU students. The course emphasizes the use of critical and creative thinking as tools to better consider the reliability of information received through newspapers, magazines, radio and television, online media, trade publications, advertising, and business communications. The class also surveys media ethics, economics, technology, and the function and impact of media on a free society. The course is designed for pre-journalism students, students considering journalism as a major, and students from other disciplines who take it as an elective. For students who enter college in Fall 2000 and thereafter, this is a prerequisite for all other journalism courses except JOUR 600. Not open to seniors. Must be completed with a grade of 2.0 or better. May be retaken once. LEC.

JOUR 150. Stand and Deliver. 3 Hours. GE22.
The ability to inform or persuade confidently through presentation is an incalculable skill no matter where students choose to direct their careers. This course introduces students to presentation approaches, effective oral communication fundamentals, audience analysis, support technologies and structural development. Students will assess their own communication styles and strengths, understand presentation purposes and types, research, edit and organize material, use graphics concepts and techniques to design formats for value-added content, and practice coherent, relevant and well-articulated stories. Students will apply what they learn in a variety of situations, from individual expository speeches to group business proposals. Open to all undergraduate students. LEC.

JOUR 177. First Year Seminar: ____. 3 Hours. SC GE11.
A limited-enrollment, seminar course for first-time freshman, organized around current issues in journalism or media. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

JOUR 201. Current Issues in Journalism. 3 Hours.
An in-depth investigation of a current event or issue confronting the various professions of journalism. The class will examine the implications of the event/issue for professional values, ethics, diversity and free expression. Prerequisite: JOUR 101 with a grade of 2.0 or better. LEC.

JOUR 210. Basic Video Production. 2 Hours.
This course instructs and prepares students to work with multiple media-studio and live production. This is a lab-intensive course designed with live newsroom and live-in-the-field productions. Students will have the opportunity to learn behind the scene skills; studio and live camera, floor directing, lighting, audio, basic PhotoShop and field producing skills in production of newscasts and other reports. May be taken twice. LAB.

JOUR 300. Visual Storytelling. 3 Hours.
This course is about understanding how an idea becomes something you can see and how the media use visuals in the most efficient and effective ways possible. Students will develop a visual vocabulary and personal aesthetic as they expand their skills in the use of the digital toolbox-including presentation design, and the use of graphics, typography, color, photography (still and video) and audio. They will put their learning into practice through production of visual projects for diverse audiences served by print, online and broadcast media. Must be completed with a grade of 2.0 or better. Prerequisite: JOUR 101 with a grade of 2.0 or better. LEC.

JOUR 302. Infomania: Information Management. 3 Hours. GE11.
This course will help students understand the crucial role that information plays in news and strategic communication. Students will learn not only how to gather information but how to evaluate, analyze and synthesize it. In doing so, they will experiment with a wide range of research tools, sources and techniques, and improve their writing and critical-thinking skills. Must obtain a grade of C (2.0) or higher to advance in the
and explores career opportunities in professions such as advertising, effective, research-based communication plans to accomplish their goals. Students develop an understanding of how organizations develop strategies for making ethical decisions related to personal and professional use of media. Students will examine and strive to resolve ethical challenges posed by participation in media such as Facebook, Twitter, LinkedIn, Blackboard, news media websites, dating websites, and more. Passage of the School’s grammar and usage test or concurrent enrollment in JOUR 002 is required before enrolling in this course. Prerequisite: JOUR 101 with a grade of C (2.0) or higher and ENGL 101 and ENGL 102 or ENGL 105 and one course numbered ENGL 203 - ENGL 211 or equivalent for students who started at KU prior to Fall 2012. For students who started at KU in Fall 2012 or after, prerequisites are: JOUR 101, JOUR 300 and JOUR 302 each completed with a grade of C (2.0) or higher and ENGL 101 and ENGL 102 or ENGL 105 and one course numbered ENGL 203 - ENGL 211 or equivalent. A 2.5 English GPA when all are completed at KU; when any English courses are transferred, a 3.0 English GPA or 2.5 plus an English ACT score of 25. Not open to seniors. Must be completed with a grade of 2.0 or above to enroll in courses for which it is a prerequisite and may be retaken once. Students must be admitted to the School of Journalism or in an approved concentration in order to enroll in JOUR 304. LAB.

JOUR 305. Writing for Media, Honors. 3 Hours. GE21.

This course will emphasize journalistic writing and the role it plays in coherent and engaging stories. It will build on JOUR 300 and JOUR 302, helping students sharpen their writing and interviewing skills for the Web, for print and for broadcast; and sharpen their judgment in choosing information, sources and story forms. Passage of the School’s grammar and usage test or concurrent enrollment in JOUR 002 is required before enrolling in this course. Prerequisite: JOUR 101 with a grade of C (2.0) or higher and ENGL 101 and ENGL 102 or ENGL 105 and one course numbered ENGL 203 - ENGL 211 or equivalent for students who started at KU prior to Fall 2012. For students who started at KU in Fall 2012 or after, prerequisites are: JOUR 101, JOUR 300 and JOUR 302 each completed with a grade of C (2.0) or higher and ENGL 101 and ENGL 102 or ENGL 105 and one course numbered ENGL 203 - ENGL 211 or equivalent. A 2.5 English GPA when all are completed at KU; when any English courses are transferred, a 3.0 English GPA or 2.5 plus an English ACT score of 25. Not open to seniors. Must be completed with a grade of 2.0 or above to enroll in courses for which it is a prerequisite and may be retaken once. Students must be admitted to the School of Journalism or in an approved concentration in order to enroll in JOUR 304. LAB.

JOUR 419. Multimedia Editing. 3 Hours.

This course emphasizes principles of editing for written and verbal expression, logic, visual presentation, organization, and news judgment for all forms of media: newspaper, magazine, broadcast, and online. Requirement: Must obtain a grade of C (2.0) or higher to advance in the curriculum. Prerequisite: JOUR 302 (Infomania), JOUR 304 (Writing for Media) or JOUR 305 Media Writing (or JOUR 305 Media Writing, Honors), and passage of the grammar test or JOUR 002 with a C (2.0) or higher and a satisfactory score on the grammar and usage test taken before JOUR 304 or completion of JOUR 002 with a grade of C (2.0) or above. LEC.

JOUR 420. Stratcom II: Principles of Advertising and Public Relations. 3 Hours.

This course deepens students’ exposure to and understanding of two major disciplines within the broader area of strategic communication: advertising and public relations. Approximately half the course will be devoted to coverage of the principles of advertising; the other half will be devoted to coverage of the principles of public relations. Content will include defining the two professions, exploring their status within the broader area of strategic communication and analyzing current and projected professional activities. Students will gain an understanding of the principles of these evolving, separate but related major professions within strategic communication. Prerequisite: Admission to the School of Journalism and JOUR 433 for students who started at KU prior to Fall 2012. For those who started Fall 2012 or after, prerequisites are: Admission to the School of Journalism and JOUR 320. LEC.
the School of Journalism and JOUR 433 for students who started at KU prior to Fall 2012. For students starting Fall 2012 and after, prerequisite is admission to the School of Journalism and JOUR 320. LEC.

**JOUR 488. Laboratory in Media Production. 2 Hours.**
This course offers students an opportunity to work with multiple media-studio and live production. This is a lab-intensive course designed with live newsroom and/or live-in-the-field productions. Students will serve as producers/anchors and directors for programming at KUJH, Media Crossroads and other media. No student may earn more than four hours total in JOUR 506, JOUR 507, and/or JOUR 508, and no student may earn more than eight hours combined for course work in JOUR 210, JOUR 488, JOUR 507, and JOUR 508. Excess hours of practicum will add hours to the total number of hours needed to meet graduation requirements. Limit of two hours enrollment in JOUR 488 in a student’s total course work. Prerequisite: Completion of JOUR 101 with a grade of 2.0 or above or instructor permission. LAB.

**JOUR 499. Honors Research Essay. 3 Hours.**
Independent study ending in an essay developed from substantial original research and prepared under the direction of a School of Journalism faculty member who is a specialist in the area of the student’s interest. Open only to those seniors already in the honors program and in their last semester in residence. Prerequisite: 3.7 minimum GPA in Journalism; 3.5 minimum overall GPA (all courses -in residence and other); and consent from supervising faculty member. RSH.

**JOUR 500. Topics in Journalism: ______. 2-3 Hours.**
Prerequisite: Eight hours of journalism. If a section is designated Advanced Media, the prerequisite is JOUR 415 and JOUR 419, each with a grade of 2.0 or above. LEC.

**JOUR 503. History of Journalism and Mass Communication. 3 Hours.**
A survey of the history of the American media emphasizing appreciation and understanding of the technological, social, and cultural trends affecting newspapers, magazines, radio, and television broadcasters, and online media. The class may focus on one segment of journalism history, which will be listed in that semester’s timetable. The course may be repeated when the focus varies. Prerequisite: Junior standing. LEC.

**JOUR 504. Professional Presentation Skills. 1 Hour.**
This course helps students in News/Information and Strategic Communications articulate ideas to individuals and large groups. The curriculum will include preparing, organizing and delivering presentations in formal and informal settings. It also will cover presentation technology, as well as message organization and body language. Prerequisite: JOUR 415 or JOUR 435 (or JOUR 560) with a grade of 2.0 or better. LEC.

**JOUR 505. Professional Development. 1 Hour.**
Preparation in skills needed in seeking internships and permanent employment, including resume and application letter writing, interviewing and professional presentations. Prerequisite: JOUR 415 or JOUR 435 (or JOUR 560) with a grade of 2.0 or higher. LEC.

**JOUR 506. Directed Studies in Journalism. 1-3 Hours.**
Undergraduate research project. Students must submit a written proposal to be approved by the instructor before enrollment. Proposal form can be found on Journalism School website or advising office and must be received by Journalism advising office by the 16th day of the semester. Limit of three hours enrollment in a student’s total course work. Prerequisite: 2.5 grade point average overall and in Journalism. IND.

**JOUR 507. Practicum in Journalism (Professional). 1-3 Hours.**
Practical experience in a supervised professional setting for which the student does not receive pay. Students enrolled receive credit for professional experience in advertising, public relations, news-editorial, radio, television, photojournalism, and related fields. Supervision is provided by the employer offering the professional experience. Credit hours will be graded on a satisfactory/unsatisfactory basis. Enrollment requires consent of instructor. Students also must be registered with the Journalism Career Center. Limit of three hours enrollment in JOUR 507 in a student’s total course work. No student may have more than four hours total in JOUR 506, JOUR 507, and JOUR 508. A student may not turn a paid internship into a credit internship. Prerequisite: Having completed either JOUR 415 or JOUR 435 (or Jour 560) with a grade of 2.0 or above, having completed at least eleven hours of journalism, having a grade point average of 2.5 or above, both overall and in journalism, reporting to a journalism or communications professional, working at least forty hours for one credit, at least eighty hours for two hours of credit, receiving no pay for these hours, and completing a 4-5 page report accompanied by work samples. FLD.

**JOUR 508. Practicum in Journalism (Academic). 1-2 Hours.**
Practical experience in journalism in a supervised academic setting for which the student does not receive pay. Students enrolled in the course receive credit for practical experience in advertising, public relations, magazine, news-editorial, radio, television, and photojournalism. Supervision is provided by the instructor offering the practicum. Letter grades are earned. Enrollment requires consent of instructor. Limit of two hours enrollment in JOUR 508 in a student’s total course work. No student may have more than four hours total in JOUR 506, JOUR 507, and JOUR 508. Prerequisite: 2.5 grade point average, both overall and in journalism. FLD.

**JOUR 512. The Business of Media. 3 Hours.**
The course primarily covers how media organizations make and spend their money, the role and responsibility of the government in regulating media and an examination of the economic and social implications of the changing media environment. The course is strongly based on current events but also covers the historical perspective. Prerequisite: Junior standing. Open to anyone in the university with junior standing. LEC.

**JOUR 534. Diversity in Media. 3 Hours. AE41.**
A study of mass media images and portrayals of race, class, and gender in society. The course examines media representations of African-Americans, Latinos, Native Americans, and Asian Americans, as well as media images of masculinity and femininity. The course also explores media images of groups traditionally under-represented in the media, including gays and lesbians, the elderly, the poor, and the disabled. Students study media portrayals in journalism, entertainment, public relations and advertising. The course encourages students to think critically about media images and analyze the role mass media play in reinforcing cultural stereotypes. Prerequisite: 8 hours of Journalism. LEC.

**JOUR 540. Sports, Media and Society. 3 Hours.**
The role of mass media in shaping and influencing sports and popular culture. Students will think critically about currently accepted media and sports practices, particularly at the Division I college level. Guest speakers represent media and athletics. Discussion, presentation, paper and essay exam. Prerequisite: Junior standing. LEC.

**JOUR 550. Digital Media. 4 Hours.**
This course will allow students to be immersed in a newsroom environment, build their portfolios and prepare for internships. Students will produce content for an online news magazine distributed through Kansan.com. Each student will select an area of emphasis: visuals, reporting, or editing and production. The Visuals lab will advance the student’s understanding and use of visual communication skills and techniques across multiple platforms. Students in this course will be given the opportunity to emphasize a specific tool set (photography, graphics, presentation design) while expanding their knowledge and use of all forms of visuals. In the Editing/Production lab students will
work for the University Daily Kansan website and for the newspaper, editing stories, writing headlines and cutlines, creating packages, working on search engine optimization, and creating graphics. The course will build on the skills of JOUR 419: Multimedia Editing, giving students hands-on experience with editing stories and creating packages for a live publication. In the Reporting lab the course will provide an immersive reporting opportunity for students in the News and Information track. It will allow students to report stories in print or video fashion, suited for the JOUR 550 website. Students will work in collaboration with the editing and production students, and the visual students also enrolled in JOUR 550. Reporting students will produce depth stories and cover breaking news as it happens. Requirement: Must obtain a grade of C (2.0) or higher to advance in the curriculum. Prerequisite: JOUR 415, and JOUR 419 each with a grade of C (2.0) or higher. LEC.

JOUR 560. Message Development. 3 Hours.
Students exercise both critical and creative thinking to develop the multi-media writing skills expected of strategic communicators. Students begin addressing clients’ needs by applying research on product or service benefits, brand identity, competition and audience motivations. The research informs the writing of a strategic message planner or creative brief, which students employ to write and produce messages in many forms. Examples of messages created in JOUR 560 include print, video and radio advertising; social media messages; sales letters and other business writing; and such public relations writing as news releases. Combining strategy, design, and writing and production skills, students begin to build a professional portfolio throughout this class. JOUR 560 prepares students for internships and lays the groundwork for the campaigns class. Prerequisite: For students starting at KU prior to Fall 2012: JOUR 101 and JOUR 301, each with a grade of 2.0 or above, and a satisfactory score on the grammar and usage test taken before JOUR 301 or completion of JOUR 002 with a grade of 2.0 or above. For students starting at KU Fall 2012 and after: JOUR 300 (or JOUR 310) with a C (2.0) or higher, JOUR 302 (Infomania), JOUR 304 (Writing for Media) (or JOUR 301 Research and Writing, JOUR 302 Research and Writing, Honors or JOUR 305 Research and Writing, Honors), JOUR 320, JOUR 420, JOUR 460 and passage of the grammar test or JOUR 002 with a C (2.0) or higher. May be taken concurrent with JOUR 420 and JOUR 460. Only open to Journalism majors. LEC.

JOUR 580. Environmental Journalism. 3 Hours.
Environmental communications have expanded from discussions about land conservation to explorations of the ways in which the natural world encompasses and touches every aspect of our lives, from national security to economy prosperity, conservation to civil rights, public health to personal well-being. Using food and agriculture as the primary lenses and radio advertising; social media messages; sales letters and other business writing; and such public relations writing as news releases. Combining strategy, design, and writing and production skills, students begin to build a professional portfolio throughout this class. JOUR 560 prepares students for internships and lays the groundwork for the campaigns class. Prerequisite: For students starting at KU prior to Fall 2012: JOUR 101 and JOUR 301, each with a grade of 2.0 or above, and a satisfactory score on the grammar and usage test taken before JOUR 301 or completion of JOUR 002 with a grade of 2.0 or above. For students starting at KU Fall 2012 and after: JOUR 300 (or JOUR 310) with a C (2.0) or higher, JOUR 302 (Infomania), JOUR 304 (Writing for Media) (or JOUR 301 Research and Writing, JOUR 302 Research and Writing, Honors or JOUR 305 Research and Writing, Honors), JOUR 320, JOUR 420, JOUR 460 and passage of the grammar test or JOUR 002 with a C (2.0) or higher. May be taken concurrent with JOUR 420 and JOUR 460. Only open to Journalism majors. LEC.

JOUR 585. Multimedia Sports Journalism. 3 Hours.
The course would be a hands-on, in-your-face, portfolio-building opportunity for students who want to venture into sport journalism. It would allow students to write sports stories, do live play-by-play, develop video stories and cover live events. It will also introduce them to sports journalism beyond the playing field. Must obtain a grade of C or higher to advance in the curriculum. It is suggested JOUR 550 is completed prior to JOUR 585 but a student can enroll in JOUR 585 with instructor permission. Prerequisite: JOUR 101, JOUR 300 (OR JOUR 310), JOUR 302 (Infomania), JOUR 304 (Writing for Media) (or JOUR 301 Research and Writing, JOUR 302 Research and Writing, Honors or JOUR 305 Research and Writing, Honors), JOUR 415, JOUR 419, all of which must be passed with a C (2.0) or higher. Students must be admitted to the School of Journalism in order to enroll in JOUR 585. LEC.

JOUR 590. International Journalism. 3 Hours. NW AE42.
This course explores print, broadcast and online media in industrialized and developing nations. It examines how government rules and restrictions affect press freedoms, examines the effects of technology on access to information, explores how the U.S. media cover news in foreign countries, explores how foreign media cover news events in the United States, and examines coverage of critical current events. The goal of the course is to make students aware of the effects of mass media in a global economy. Prerequisite: Eight hours of Journalism. LEC.

JOUR 600. School Journalism and Publications. 3 Hours.
(Open only to education majors and journalism teachers in elementary and secondary schools.) A study of the use of publications in the teaching of secondary school journalism, and an analysis of problems in supervising school newspapers, magazines, and yearbooks. The course covers staff organization, writing and editing, make-up, typography, advertising, and illustration. Students learn through lectures, projects, practice assignments, and directed study of newspapers, yearbooks, and current teaching materials. LEC.

JOUR 608. Ethics and Professional Practice. 3 Hours. AE51.
This course surveys techniques of moral analysis, argument, and decision-making for use by practitioners in both news and persuasive journalism. It employs classical ethical theory, moral reasoning models, and critical-thinking skills to resolve ethical choices through case studies involving reporters, editors, broadcasters, and practitioners in advertising, marketing, and public relations. Prerequisite: Eight hours of Journalism. LEC.

JOUR 610. Photojournalism: Still and Video. 3 Hours.
Students will produce publishable work on a daily basis, with expectations for frequent publication. Each student will learn to differentiate between appropriate uses of still versus video imaging and produce work accordingly. They will also gain deeper understanding of the practice of image editing through in-class production exercises and on-deadline work. Must obtain a grade of C (2.0). Prerequisite: For students who began at KU prior to Fall 2012, JOUR 410, JOUR 415, and JOUR 419 all with a grade of C (2.0) or higher. For students who began at KU Fall 2012 and after: JOUR 410, JOUR 415, JOUR 419, JOUR 550 all with a grade of C (2.0) or higher. Students must be admitted to the School of Journalism, and be in good academic standing in order to enroll in JOUR 610. LEC.

JOUR 611. Sales Strategies. 3 Hours.
Students learn how to identify consumer, client, news source or employer needs and how to use their product, service or other skills to solve that need in today’s evolving media world. This requires delivering the solution in a way the audience understands best, which is a fundamental to every strategic message or interaction with a news source. Even though students work in a media sales context, the purpose of the course is not to turn out professional media sales people, but to enhance strategic communication abilities. Prerequisite: Junior standing. LEC.

JOUR 612. Visual Design and Production. 3 Hours.
This course approaches design as a visual problem-solving process. Students create a digital portfolio that uses advanced storytelling techniques and showcases digital media competency. The process explores a number of possible solutions, encouraging students to expand their perspectives and to explore innovative and creative approaches. The resulting portfolio builds a bridge from student work to professional practice. Prerequisite: For students starting prior to Fall 2012, students must be admitted to the School of Journalism and have at least junior standing to enroll in this course. For students starting Fall 2012 and after,
completion of JOUR 300 (or 310) with a grade of C (2.0) or higher. Must be admitted to the School of Journalism to take Jour 612. LEC.

JOUR 613. International Strategic Communications. 3 Hours.
This course examines the process by which professional promotional communicators operate in a global multicultural environment. It aims to instill an appreciation for the challenges in crossing cultures, beginning with research and continuing through examining or creating culturally appropriate messages to be delivered in country-specific ways. The course covers differences among cultures and their communication styles, economic systems, demographics, politics, regulatory environment, research practices and media systems. Through case studies and projects, this course gives students a framework from which to sort through the challenges of global marketing communications. Prerequisite: Junior standing. LEC.

JOUR 614. Case Studies in Strategic Communications. 3 Hours.
This course examines how organizations have developed opportunities, strengthened relationships and solved problems through the process of research, planning, communication and evaluation. By studying cases, students will learn how professionals past and present have responded to changing needs. Cases will highlight both the diversity and the integration of professions and professional practices within strategic communication. Prerequisite: JOUR 420 (or JOUR 513 or JOUR 523.) Open to non majors with permission of the instructor. LEC.

JOUR 615. Social Media in Strategic Communication. 3 Hours.
This course examines significant changes in strategic communication approaches brought about by the networked information society. Students will study effective ways for organizations to identify social technographics of key audiences, create social media content, disseminate messages and evaluate social media-based strategic communication initiatives. This course combines theoretical and hands-on approaches to issues. Students will work in groups to analyze, evaluate and develop social media strategies for organizations chosen for their case study research. Prerequisite: JOUR 460 (or JOUR 568) or consent of the instructor. Open to non majors with permission of the instructor. LEC.

JOUR 616. Financial Basics for Communicators. 3 Hours.
An overview of how business and markets operate; balance sheets, income statements and statements of cash flows; how to create and interpret budgets, particularly for non-profit organizations; key documents and regulations of business; how to use various tools of analysis, and how to make personal finance decisions. Each student follows one public company for the semester and explores various aspects of its operations. Prerequisite: Junior standing and completion of JOUR 415 Multimedia Reporting or JOUR 560 (or JOUR 435) with a grade of C (2.0) or better. Open to non majors. LEC.

JOUR 617. Multimedia Management and Leadership. 3 Hours.
The course addresses challenges faced by managers and leaders in traditional and non-traditional environments. The course explores a range of management and leadership concepts, including organizational culture, organizational change, functions of managers, leadership theory, motivation and reinforcement. Also explores in some detail the new work of world and what it means to be a "contingent employee" or "free agent." Prerequisite: At least one course designated as Advanced Media or JOUR 460 (or JOUR 568). Open to non majors with permission of the instructor. LEC.

JOUR 618. First Amendment and Society. 3 Hours.
An examination of the history and philosophy of freedom of speech and press and the limitations imposed upon those rights by statute, common law, and court decisions resolving conflicts with other constitutional rights. Critical-thinking skills and case analysis focus on the roles, rights, and responsibilities of the news and persuasive media in a free society. This course is open to all students at the University of Kansas. It emphasizes the importance of freedom of expression in a free society. Students study key media law court decisions and explore free speech issues more broadly to embrace the philosophical thinking that led to the development of the First Amendment. Prerequisite: Junior standing. LEC.

JOUR 619. Thriving Through Workplace Change. 1 Hour.
This course gives students insights into the rapidly changing world of work where freelance, contract, consulting and other forms of "contingent" or "free agent" activities are becoming more common. The course provides an overview of the field of entrepreneurship, freelancing, networking, brand building and other components of contingent work. It also provides an overview of basics of personal finance such as taxes, insurance, budgets, investing, etc. Prerequisite: Senior standing. Open to non-journalism majors. LEC.

JOUR 620. TV News-Advanced Media. 3 Hours.
This course instructs and prepares students to work with multiple media-writing, reporting, web, graphics and live elements-to tell stories on the appropriate media platform. This is a lab-intensive course designed with live newsmroom and live in-the-field reporting. Students will also have the opportunity to use producer and directing skills in production of newscasts and other reports. Classroom discussions will concentrate on refining and developing the skills you've learned in previous broadcast news courses, and on discussion and critical evaluation of professional standards and ethics. We will hold critique sessions of your lab work. We try to maintain flexibility in the class discussion topics in order to make them relevant to your lab work and to current issues in broadcast journalism. Requirement: Must obtain a grade of C or higher to advance in the curriculum. Prerequisite: JOUR 550 with a grade of C (2.0) or higher. Students who started at KU prior to Fall 2012 only need to complete JOUR 415 and JOUR 419 with a grade of C (2.0) or higher as a prerequisite. Only open to Journalism majors. Students must be in good academic standing to take this course. LEC.

JOUR 621. Data Reporting and Visualization-Advanced Media. 3 Hours.
This class will advance the student's understanding and use of data driven journalism and its effective presentation. It will expand their knowledge of the skills necessary to be a data driven journalist and guide them in the creation of a stories and complementary visuals based on database analysis. Everyone in the class will learn the basic coding skills that the field requires, use those skills to acquire data, and create multiple data driven journalism stories, some of which will be used in media. Requirement: Must obtain a grade of C or higher (2.0). Prerequisite: JOUR 550 with a grade of C (2.0) or better. Students who started at KU prior to Fall 2012 only need to complete JOUR 415 and JOUR 419 with a grade of C (2.0) or higher as a prerequisite. Only open to Journalism majors. Students must be in good academic standing to take JOUR 621. LEC.

JOUR 630. Public Affairs Reporting-Advanced Media. 3 Hours.
This is an enterprise reporting class designed to give students hands-on experience covering important issues that impact individuals and communities in Kansas and perhaps beyond. Students will be assigned specific issues and/or beats involving government, business and non-profit agencies. Requirement: Must obtain a grade of C (2.0) or higher. Prerequisite: JOUR 550 with a grade of C (2.0) or higher. Students who started at KU prior to Fall 2012 only need to complete JOUR 415 and JOUR 419 with a grade of C (2.0) or higher as a prerequisite. Only open to Journalism majors. Students must be in good academic standing to take this course. LEC.

JOUR 635. Statehouse Reporting-Advanced Media. 3 Hours.
The purpose of this class is to provide students with an immersive public affairs reporting experience at the State Capital in Topeka while covering
the important statewide issues of the day. Students will be assigned to cover the statehouse for specific media outlets and assist those media in fulfilling their public-service missions to their communities. Requirement: Must obtain a grade of C (2.0) or higher. Prerequisite: JOUR 550 with a grade of C (2.0) or higher. Students who started at KU prior to Fall 2012 only need to complete JOUR 415 and JOUR 419 with a grade of C (2.0) or higher as a prerequisite. Only open to Journalism majors. Students must be in good academic standing to take this course. LEC.

JOUR 636. Documentary-Advanced Media. 3 Hours.
The study of the field and functions of non-broadcast television: the use of video by business, educational, medical, governmental, and non-profit organizations. Students plan and produce typical video materials, such as training tapes, employee orientations, community relations, new product demonstrations and self-paced instructional programs, designed for both internal and external audiences. Must earn a C (2.0) or higher. Prerequisite: For students who began at KU prior to fall 2012: JOUR 415 or JOUR 560 (or JOUR 435) with a grade of C (2.0) or above. For students who begin at KU Fall 2012 and after: JOUR 550 with a grade of C (2.0) or above. Only open to Journalism majors. Students must be in good academic standing in order to enroll in JOUR 636. LEC.

JOUR 640. Strategic Campaigns. 3 Hours. AE61.
Students produce a campaign to solve a strategic communications problem for an established organization. Students work with an actual client to develop a campaign from the initial research to the final recommendation. By applying the knowledge, experience and skills gained in previous courses, students confirm their readiness to enter the profession. Prerequisite: Senior standing, good standing in the School of Journalism and JOUR 435, JOUR 513 or JOUR 523 and JOUR 568 for students who started at KU prior to Fall 2012. For those who started at KU Fall 2012 or after, prerequisites are senior standing, good standing in the School of Journalism and JOUR 560. LEC.

JOUR 645. Multimedia Writing and Production. 3 Hours.
This graduate-credit course will cover the information gathering, writing, graphic, audio and video production techniques needed to succeed in the upper-level skills classes. Students will produce both news and strategic messages in print, radio, TV and Web formats. LEC.

JOUR 650. Magazine Journalism-Advanced Media. 3 Hours.
Students in the course will produce different kinds of articles (departments and longer stories that fit key categories in magazines, including service articles, profiles and informational articles) for a real magazine. The magazine could be in print, online or take some other form. Students will gain an understanding of different parts of a magazine, the difference between departments and articles, and how to report and write short articles and longer substantive stories. Must obtain a grade of C (2.0) or higher. Students must be in good academic standing in order to enroll in JOUR 650. Only open to Journalism students. Prerequisite: JOUR 550 with a grade of C (2.0) or higher. Students who started at KU prior to Fall 2012 only need to complete JOUR 415 and JOUR 419 with a grade of C (2.0) or higher as a prerequisite. Only open to Journalism majors. Students must be in good academic standing to take this course. LEC.

JOUR 690. Media Innovation-Advanced Media. 3 Hours. AE61.
The primary goal of this course is to challenge students to identify the critical aspects of journalism that should be carried forward into a future media environment. By studying the concepts of innovation, entrepreneurial planning and the information needs of multiple audiences, students will be able to work together to develop strategies for new media enterprises suitable for implementation in the immediate future. The course will require students to integrate principles, theories and methods learned in other journalism courses through an immersive learning experience. The course will also introduce students to entrepreneurial practices and critical thinking in a collaborative and multi-format, small-group news laboratory. Requirement: Must obtain a grade of C (2.0) or higher. Suggestion: Senior standing required. Only open to Journalism majors. Prerequisite: JOUR 550 with a grade of C (2.0) or higher. Students who started at KU prior to Fall 2012 only need to complete JOUR 415 and JOUR 419 with a grade of C (2.0) or higher as a prerequisite. Only open to Journalism majors. Students must be in good academic standing to take this course. LEC.

JOUR 691. Community Journalism-Advanced Media. 3 Hours.
Students work at a community newspaper, television station or online operation; and either cover the news, produce or edit the news. Instruction includes newsroom coaching and evaluation by professional journalists. Classroom instruction covers such issues as analyzing media content, diversifying story sources, and practical ethical decisions faced by the students. Instructors also meet with students for individual conferences. Students must complete a written project and present it to the class and to the news professionals. Must obtain a grade of C (2.0) or higher. Prerequisite: JOUR 550 with a grade of C (2.0) or higher. Students who started at KU prior to Fall 2012 only need to complete JOUR 419 with a grade of C(2.0) or higher as a prerequisite. Only open to Journalism majors. Students must be in good academic standing to take this course. FLD.

JOUR 699. Reporting and Editing for Print and Online-Advanced Media. 3 Hours.
An intense eight-week reporting and editing experience on The University Daily Kansan and its web site kansan.com. A three-hour class session each week will focus on the proper concepts and techniques of reporting and editing. Students will be required to research and make presentations on various aspects of reporting and editing. Students also will meet one-on-one on an ongoing basis with the instructor to review work. Prerequisite: JOUR 415 and JOUR 419, each with a grade of 2.0 or above. LEC.

JOUR 700. Advanced Topics in Journalism: ______. 2-3 Hours.
Prerequisite: Graduate standing in Journalism or related field or permission of instructor. Other prerequisites may be listed with the specific course. LEC.

JOUR 720. Military and the Media. 3 Hours.
This uniquely structured class enrolls up to 16 advanced Kansas University students and 16 U.S. Army majors from Fort Leavenworth’s Command and General Staff College (CGSC). Class goals are to increase the understanding by the military and the media of each other’s functions and roles in a democracy. Kansas University and CGSC students work collaboratively on assignments leading to a multimedia project. The course is taught at Lawrence and at Fort Leavenworth and requires some extended class periods. Contact the instructor for more information. Prerequisite: Graduate standing in Journalism or related field or permission of instructor. LEC.

JOUR 801. Research I: Theory. 3 Hours.
A comprehensive review of the theoretical and philosophical underpinnings of media research and practices. This seminar offers a range of perspectives and covers various interpretative, cultural, and critical approaches to understanding mass communication in various contexts. Each student drafts a literature review about a topic of the student’s choice. LEC.

JOUR 802. Research II: Methods. 3 Hours.
An introduction to methodological approaches to the study of media. Qualitative and quantitative methodologies are reviewed. The class emphasis is on learning appropriate research tools to scientifically learn about messages, media, and audiences. Each student devises a research project during the course. Prerequisite: JOUR 801. LEC.
JOUR 803. Survey of Mass Media and Popular Culture. 3 Hours.
Covers the activities, functions, and operations of both traditional mass media and new media. The course provides a combination of historical context, current events, and a future perspective. Topics include the business and economics of the media, the role of the media, and rights and responsibilities. Prerequisite: JOUR 802. LEC.

JOUR 804. Mass Communication Methodology I-Qualitative. 3 Hours.
Advanced study of qualitative methodological approaches to the study of media. The class emphasis is using interpretative research tools and techniques from narrative analysis, to ethnography, historical analysis, to critical cultural approaches to learn about messages, media, and audiences. Each student devises a research project during the course. Prerequisite: JOUR 900, JOUR 801 and JOUR 802 or permission of instructor. LEC.

JOUR 805. Mass Communication Methodology II-Quantitative. 3 Hours.
Advanced study of quantitative methodological approaches to the study of media. The class emphasis is using social scientific research tools and techniques ranging from content analysis to conducting surveys to experimental designs to learn about messages, media, and audiences. Special focus will be on learning to use SPSS and statistical techniques. Each student devises a research project during the course. Prerequisite: JOUR 900, JOUR 801 and JOUR 802 or permission of instructor. LEC.

JOUR 815. Investigation and Conference. 1-3 Hours.
Specialized work by qualified students under direction of the graduate faculty. Investigation and research studies. Prerequisite: Ten hours of graduate work in journalism. RSH.

JOUR 818. Advanced Studies in First Amendment. 3 Hours.
Case studies and explorations in First Amendment theory and practice. Course will have one of two main foci: First Amendment practice such as censorship, libel, privacy; or Administrative Law such as FCC, FTC, FEC practice. Students will produce an original research paper. Course may be repeated once. LEC.

JOUR 819. Writing for Marketing Communications. 3 Hours.
A writing-intensive course focusing on articles and other works about marketing communication, management, general business and related subjects. Students read and discuss a core of designated work as well as works they select on their own. Students write reports, executive summaries and analytical briefings in which they synthesize these readings and apply marketing and management concepts to their own written work. LEC.

JOUR 820. Marketing Fundamentals for Communicators. 3 Hours.
The course is designed to provide a fundamental understanding of marketing theory and process and how these theories relate to integrated Marketing Communications. Specific focus will be spent on the marketing environment, the marketing mix, market segmentation, planning, execution and measurement. As part of the class, students will learn the components of a marketing plan and how to develop a plan based on specific quantifiable corporate objectives. LEC.

JOUR 821. Integrated Marketing Communications and Sales Strategies. 3 Hours.
The concept of integrated selling strategies and how these strategies logically lead to execution in various forms of message delivery systems. Through case studies of specific business cases, students develop insights into potential buyer segments and develop rationales for the most effective way to reach buyers. Students not only offer solutions to cases but also explore ways to measure the impact of each technique and medium used. LEC.

JOUR 822. Database Development and Management. 3 Hours.
A course in creating, updating, and effectively using databases in marketing communications. Students learn the process of designing a database, what information to include and how to acquire information, and how to organize and execute marketing communications programs using a database. LEC.

JOUR 823. Branding in Marketing Communications. 3 Hours.
Cases and topics in the development and execution of branding in marketing communications plans. The course emphasizes how organizations define actual brand problems and attempt to solve them. LEC.

JOUR 824. Creative Process. 3 Hours.
An examination of the creative process and techniques of creative problem solving. The course gives students numerous opportunities to solve a variety of marketing communications problems. Students have an opportunity to visit with individuals who practice creativity in their professional lives and individuals who study creativity as scholars. LEC.

JOUR 825. Relationship Marketing. 3 Hours.
An exploration of the principles of relationship marketing and their application to marketing communications. Special emphasis is on the development of relationship messages, the use of databases for constituent management, and a review of appropriate marketing communications media. LEC.

JOUR 826. Innovation in Management of Communications. 3 Hours.
Students shall demonstrate their knowledge of Innovation Theory through papers, presentations and an essay exam. The class will emphasize Management Innovation but will also cover marketing, process and product innovation. The course is very current events oriented. LEC.

JOUR 827. Marketing Ethics. 3 Hours.
An examination of the ethical issues, philosophies, and decision-making systems that affect marketing communications. Through studies of specific business cases, students gain insight into the cultural, legal, and social decisions that affect an organization's future. LEC.

JOUR 828. Financial Fundamentals for Communicators. 3 Hours.
This course covers a wide range of financially-related concepts from the perspective of the communications function. Topics include: financial markets; finding and using key Securities and Exchange Commission filings; understanding the balance sheet, income statement and cash flows; financial analysis; investor relations; impact of Sarbanes-Oxley; corporate governance issues; building and using budgets; and impact of these concepts for not-for-profits. LEC.

JOUR 829. Marketing Communications Research. 3 Hours.
Students learn how marketing and media research help determine the success of an organization’s marketing planning and strategic communications processes. Students study and conduct primary and secondary research - both qualitative and quantitative - including focus groups, ethnography and surveys. Prerequisite: JOUR 820 or permission of instructor. LEC.

JOUR 831. Technologies in Marketing Communications. 3 Hours.
Explores new and emerging technologies and their impact on the delivery of marketing messages. Students will work with the instructor on identifying areas of relevance to them, and on identifying ways to keep up with changes in technology, innovation and audiences. LEC.

JOUR 832. Leadership and Management in Marketing Communications. 3 Hours.
This course examines cases and topics of leadership as a process in a marketing communication organization. As a manager's duties evolve from performing tasks to managing relationships and strategic
organizational outcomes, the capacity to lead becomes critical to personal and organizational success. Topics will focus on the role of leadership and vision, strategy, communication, ethics, social responsibility, group dynamics, and change. LEC.

JOUR 833. Social Media and Integrated Marketing Communications. 3 Hours.
Developments in information technology and online social networking have posed opportunities and challenges for those who practice and research marketing, advertising or public relations. This course combines theoretical and hands-on approaches to developing and implementing effective ways for organizations to analyze, create and share social media content, engage key audiences via relevant digital channels, and integrate social media initiatives into overall communication strategies. Students will use various platforms and tools to conduct social media analytics, evaluate social media campaigns, and develop social media planning for the organization chose for their case study. LEC.

JOUR 834. International and Multicultural Marketing Communications. 3 Hours.
The speed and scope of modern marketing communication have made the world a much smaller place. This course explores how international companies use advertising, public relations, promotion, personal selling and other methods to communicate in a global multicultural environment. Students gain a broader understanding of the characteristics of people in different countries and cultures, especially how they rely on media for information about products and services to meet their needs. LEC.

JOUR 840. Seminar in: _____. 3 Hours.
Research in the issues and development of media. Seminars focus on topics of current and historical interest. Students develop projects and presentations in special areas of interest and expertise. Course may be repeated under different topics. LEC.

JOUR 848. Advanced Mass Communication Ethics and Legal Issues. 3 Hours.
This course examines at the doctoral level the ethical and legal issues for mass communication research and practice. A special focus would be on human subjects protocols in research and the role of the scholar and the professional in maintaining ethical standards in the academy and in applied work in mass communications industries. Prerequisite: JOUR 900, JOUR 801 and JOUR 818 or permission of instructor. LEC.

JOUR 850. Capstone in Marketing Communications. 3 Hours.
In this capstone course, students use the skills they have developed in the marketing communications program to create a strategic integrated marketing communication plan for a client. The process involves the use of techniques such as research, branding, advertising, public relations, promotion, as well as other activities. Through the project, students demonstrate their knowledge of marketing communications and work with team members to meet an organization’s strategic marketing communication needs. Prerequisite: JOUR 820, JOUR 828, JOUR 829 and 30 hours or permission of instructor. LEC.

JOUR 851. Professional Skills I. 3 Hours.
This course offers the opportunity for a student group of students to develop an individualized project to enhance professional communications skills. The student or group works in conjunction with a graduate faculty advisor to develop a suitable project, presenting a proposal for approval to the School’s Graduate Director. The proposal must specify the nature of the project, the products to be delivered, a timeline for completion, and expected impact. Prerequisite: Admission to a KU graduate program. LEC.

JOUR 852. Professional Skills II. 3 Hours.
This course offers the opportunity for a student or group of students to develop an individualized project to enhance professional communications skills. The student or group works in conjunction with a graduate faculty advisor to develop a suitable project, presenting a proposal for approval to the School’s Graduate Director. The proposal must specify the nature of the project, the products to be delivered, a timeline for completion, and expected impact. Prerequisite: Admission to a KU graduate program; satisfactory completion of JOUR 851. LEC.

JOUR 855. Financial Management and Media. 3 Hours.
This course covers a wide range of financially-related concepts from the managerial perspective. Topics include: risk and return, financial markets; understanding the balance sheet, income statement and cash flows; financial analysis; the Securities and Exchange Commission; investor relations; corporate governance; building and using budgets. Limited to graduate students or instructor permission. Lecture, discussion, case studies. LEC.

JOUR 898. Master’s Professional Project. 3 Hours.
Suggested course description: The student completes an appropriate, Master’s-level professionally based project. The student must present a proposal outlining the project and signed by both the student and advisor prior to enrolling. Prerequisite: PRE 710 or PRE 711, JOUR 801, JOUR 802, JOUR 803, JOUR 818 and JOUR 855. LEC.

JOUR 899. Master’s Project/Thesis. 3 Hours.
The student, with the guidance of a master’s project/thesis committee completes execution of the project or thesis. In addition, the student completes the final, general examination and the presentation/defense of the project or thesis. Prerequisite: Satisfactory completion of JOUR 898, Master’s Research. THE.

JOUR 900. Proseminar in Mass Communication. 1 Hour.
"Portal" course introducing doctoral students to the history of mass communication ideas and issues, the mission of the program and ethical guidelines for graduate studies. The course also introduces the School faculty and their interests. Students take Proseminar in the first semester of matriculation specifically to prepare for the coursework to come. Proseminar also will introduce students to the culture of tenure-track faculty to launch them on the path to becoming ethical and productive citizen-scholars. Limited to Journalism PhD students. LEC.

JOUR 901. Introduction to Doctoral Studies. 3 Hours.
This course is a portal to doctoral education. Students learn about the structure, function and culture of higher education and the role of doctoral studies in academe. The course examines issues such as tenure, promotion, finances, expectations of the professoriate and the role of professors in academe. The course presents human subjects protocols in research and the role of the scholar and the professional in maintaining ethical standards in the academy and in applied work in mass communications industries. Prerequisite: Admission to Journalism PhD program or permission of instructor. LEC.

Bachelor of Science in Journalism

Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU (see your advisor (http://www.advising.ku.edu) for details).

Other years’ catalogs»
Undergraduate Admission to the School of Journalism and Mass Communications

There are 2 paths for admission to the William Allen White School of Journalism and Mass Communications (the J-School):

Path 1: Direct admission from high school
Students will be considered for admission to the School of Journalism directly out of high school if they

1. Have composite ACT scores of 24 or higher (1090 SAT-I scores) and
2. Graduate from high school with grade-point averages of 3.0 or higher

The conditions above are minimum requirements. Admission is competitive. If the school must set an admissions quota, students with the highest ACT (or SAT-I) scores and grade-point averages will be accepted.

Path 2: Change of school admission
Transfer students and current KU students who do not declare journalism as their major during the first semester of the first year may apply for admission if they

1. Complete or are enrolled in 24 or more credit hours (either at KU or another institution) with grade-point averages of 2.5 or higher and
2. Complete or are enrolled in JOUR 101 Media and Society the semester of application and
3. Earn a C or higher in JOUR 101 (if applying while enrolled in JOUR 101, admission is rescinded if a C or higher is not earned) and
4. Current KU students must apply to the J-School by the following deadlines:
   - For fall or summer admission: February 1
   - For spring admission: September 1

Students applying with more than 60 hours of college credit (at KU, another institution, or a combination of both) must meet with a journalism advisor to determine their admission eligibility.

Admission is competitive. The number of students admitted each semester depends on the number graduating in the preceding semester and the school’s overall capacity. Candidate selection is based on grade-point average. 90 percent of available spaces are filled by the candidates with the highest KU cumulative grade-point averages. The remaining 10 percent are selected from among those who petition before the deadline, provided that the student has a minimum cumulative grade-point average of 2.5. In reviewing petitions, the J-School considers elements such as ACT scores, socioeconomic factors, academic progress, and commitment to the profession. The school uses a student’s transfer cumulative grade-point average if he or she does not have a KU cumulative grade-point average. The school does not combine transfer and KU cumulative grade-point averages.

Requirements for Good Standing

Students admitted to the school must do the following in order to remain in the school and in good standing:

1. Complete JOUR 101 Media and Society with a grade of 2.0 or higher.
2. Maintain a 2.5 KU cumulative grade-point average and a 2.5 journalism grade-point average. If either GPA drops below 2.5, students will be placed on probation for 1 semester. At the end of the probation semester, the advising office will re-evaluate the student’s cumulative GPA. If the student has not raised his or her GPA to 2.5 or higher, the student’s admission will be rescinded. The student may reapply once his or her GPA is above 2.5. In extreme circumstances, the probation period may be extended to a second semester, if the student provides documentation of circumstances beyond the student’s control. This decision is made at the discretion of the associate dean, in consultation with the advising office.
3. Students must also pass JOUR 304 with a grade of C (2.0) or better. If the student does not pass JOUR 304 the second time, admission will be rescinded.

General Degree Requirements

Students may use up to 18 hours of journalism coursework to satisfy requirements for the KU Core.

Included or in addition to the KU Core requirements are the following general degree requirements:

1. A course in oral communication or an exemption.
2. An approved business and leadership course (approved courses are available in the Journalism Student Services Office or on the school’s website.)
3. Completion of a foreign language through 4th level proficiency. Or, a student may complete 3rd level proficiency and complete one course in another foreign language to fulfill the requirement.
4. An approved course in quantitative literacy (approved courses are available in the Journalism Student Services Office or on the school’s website.)
5. An approved course in history (approved courses are available in the Journalism Student Services Office or on the school’s website.)
6. A required grammar course within the School of Journalism. Students who earn a qualifying score on the School of Journalism’s grammar test may be exempt.
7. A course in arts or humanities.
8. A course in the social sciences.
9. A natural science with a lab.

The journalism diversity requirement may be satisfied by completing an approved journalism course (approved courses are available in the Journalism Student Services Office or on the school’s website.)

Admission requirements are subject to change. A student’s first semester of college is the first semester in which he or she enrolls after high school graduation.

Graduation Requirements

In addition to admission requirements, the following graduation requirements must be met:

1. The candidate must have earned at least 120 hours of college credit. Courses below the 100-level (like MATH 2, JOUR 2), more than 48 hours of journalism, more than 4 hours of physical education activities, or more than 4 hours of military science are not included in the 120 hours required to graduate. Only 12 transfer hours in journalism may be counted toward the 120 hours needed for
graduation. A maximum of 64 hours may be transferred from a community college.

2. The candidate must have completed a minimum of 40 hours in journalism and at least 72 hours outside journalism within the 120-hour total. Students admitted to KU before fall 2012 must complete a minimum of 33 hours in journalism courses.

3. The candidate must have at least a 2.5 KU grade-point average overall and in all journalism courses.

4. The candidate must have earned at least 45 hours in upper-division courses, numbered 300 and above.

5. The candidate must complete area distribution requirements in one of 2 ways:
   a. an 18-hour minor outside journalism or
   b. a second degree outside journalism.

6. The candidate must have met all requirements of the school. Transfer students must have met the equivalent of those requirements, as outlined above.

7. The candidate must apply to graduate early in his or her final semester.

8. The candidate must complete a minimum of 30 hours in residence after being admitted to the school.

The primary responsibility for meeting graduation requirements rests with the student. Some graduation requirements are subject to change.

Consult the Journalism Advising and Records Office for current information.

Two Undergraduate Degrees

A student who has earned a B.A. or B.S. degree and wishes to earn a second undergraduate degree in journalism is expected to meet the school’s requirements for area distribution, diversity, foreign language, and journalism and to complete a minimum of 72 hours outside journalism. A candidate for a second undergraduate degree must have earned a minimum grade-point average of 2.5 in previous college work to be considered for admission to the school. A student must complete a minimum of 30 credit hours in residence after admission to the school. Admission is competitive.

Course Requirements for Journalism Majors

To earn the Bachelor of Science in Journalism degree, students must complete a minimum required total of 40 hours in journalism courses. 6 journalism courses form the core and are taken by all students. 4 of these courses are taken at the foundation level, and 2 are taken at the upper level.

Foundation Core (12)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOUR 101</td>
<td>Media and Society</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 300</td>
<td>Visual Storytelling</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 302</td>
<td>Infomania: Information Management</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 304</td>
<td>Media Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

Upper-Level Core (6)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOUR 608</td>
<td>Ethics and Professional Practice</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 618</td>
<td>First Amendment and Society</td>
<td>3</td>
</tr>
</tbody>
</table>

1 Completion of JOUR 101 with a grade of 2.0 or higher is a prerequisite for JOUR 300, JOUR 302, and JOUR 304. Admission to the School of Journalism is a prerequisite for JOUR 302 and JOUR 304.

After completing the foundation core, the student selects a track, News and Information or Strategic Communication. Each includes courses to develop critical- and creative-thinking ability and skills required by specific fields in journalism and mass communications.

Tracks

News and Information

The News and Information track prepares students for careers in reporting, writing, and editing for the media, including newspapers, magazines, radio, television, and digital media. Students in News and Information gain skills and apply their learning by working on campus or professional media.

Required courses are

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOUR 101</td>
<td>Media and Society</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 300</td>
<td>Visual Storytelling</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 302</td>
<td>Infomania: Information Management</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 304</td>
<td>Media Writing</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 341</td>
<td>Multimedia Reporting</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 419</td>
<td>Multimedia Editing</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 550</td>
<td>Digital Media</td>
<td>4</td>
</tr>
<tr>
<td>JOUR 608</td>
<td>Ethics and Professional Practice</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 618</td>
<td>First Amendment and Society</td>
<td>3</td>
</tr>
</tbody>
</table>

2 advanced media courses in newspaper, magazine, digital media, or broadcast.

A student may take 1 advanced media course a semester. To enroll in more than 1 advanced media course in a semester, a student must have permission from instructors of both courses and from the news track chair. At least 6 hours of journalism electives in the student’s interest area must be taken. Three of these hours should fulfill the journalism diversity requirement.

Strategic Communication

The Strategic Communication track prepares students to work in marketing communications fields including advertising and public relations. All students complete a capstone course in which they apply classroom learning to professional practice by developing a strategic campaign for a client.

Required courses are

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOUR 101</td>
<td>Media and Society</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 300</td>
<td>Visual Storytelling</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 302</td>
<td>Infomania: Information Management</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 304</td>
<td>Media Writing</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 320</td>
<td>Stratcom I: Introduction to Strategic Communication</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 420</td>
<td>Stratcom II: Principles of Advertising and Public Relations</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 460</td>
<td>Research Methods in Strategic Communication</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 560</td>
<td>Message Development</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 608</td>
<td>Ethics and Professional Practice</td>
<td>3</td>
</tr>
</tbody>
</table>
To enroll in JOUR 640, a student must be in good academic standing and must have successfully completed JOUR 320, 420, 460 and 560.

Electives in the student's interest area must be taken to meet the 40-hour minimum total of journalism hours. Three of these hours should fulfill the journalism diversity requirement.

B.S.J. Sample 4-Year Graduation Plan
Bachelor of Science in Journalism

120 hours are required to graduate.

Year 1

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOUR 101</td>
<td>3</td>
<td>JOUR 300</td>
<td>3</td>
</tr>
<tr>
<td>KU Core GE 1.2</td>
<td>3</td>
<td>JOUR 302</td>
<td>3</td>
</tr>
<tr>
<td>KU Core GE 2.1</td>
<td>3</td>
<td>Business and leadership course</td>
<td>3-4</td>
</tr>
<tr>
<td>Historical context course</td>
<td>3</td>
<td>KU Core GE3H</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td>KU Core GE22</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td></td>
<td>15-16</td>
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</table>

Year 2

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOUR 304</td>
<td>3</td>
<td>JOUR requirement</td>
<td>3</td>
</tr>
<tr>
<td>Foreign language</td>
<td>5</td>
<td>JOUR requirement</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative literacy course</td>
<td>3</td>
<td>Foreign language</td>
<td>5</td>
</tr>
<tr>
<td>Minor course</td>
<td>3</td>
<td>KU Core GE3N with lab</td>
<td>4-5</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
<td>15-16</td>
</tr>
</tbody>
</table>

Year 3

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOUR requirement</td>
<td>3</td>
<td>JOUR 608</td>
<td>3</td>
</tr>
<tr>
<td>Foreign language</td>
<td>3</td>
<td>Foreign language</td>
<td>3</td>
</tr>
<tr>
<td>Minor course</td>
<td>3</td>
<td>KU Core AE42</td>
<td>3</td>
</tr>
<tr>
<td>KU Core AE41</td>
<td>3</td>
<td>JOUR requirement</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td>Minor course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

Year 4

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOUR 618</td>
<td>3</td>
<td>JOUR elective</td>
<td>3</td>
</tr>
<tr>
<td>JOUR requirement</td>
<td>3</td>
<td>Journalism diversity</td>
<td>3</td>
</tr>
<tr>
<td>Minor course</td>
<td>3</td>
<td>Minor course</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td>Minor course</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td>KU Core AE6</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

Total Hours: 119-121

Minor in Journalism

Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU (see your advisor (http://www.advising.ku.edu) for details). Other years' catalogs:

Minor in Journalism

The William Allen White School of Journalism and Mass Communications prides itself on providing quality education and job-building skills in a student-focused environment. This 18-credit hour program helps students learn to be effective communicators. Students can choose to focus in News and Information or Strategic Communications through the selection of their elective minor course.

Admission to the Minor

Admission Deadline

Regular admission deadlines are September 1 and February 1.

Download an application from the minor’s website (http://www.journalism.ku.edu/overview-8).

Admission Requirements

Admission is limited and competitive. Completion of 24 credit hours with a 2.5 cumulative grade-point average is required. Transfer students must earn a minimum KU cumulative GPA of 2.5 during their first semester.

Requirements for the Minor

Curriculum Requirements

A total of 18 hours is required for the minor. Students are allowed a choice of additional elective hours, not to exceed a total of 24 JOUR credit hours. The journalism minor requires a 2.5 GPA in journalism and a 2.5 cumulative GPA at KU.

JOUR 101 Media and Society 3
JOUR 300 Visual Storytelling 3
JOUR 302 Infomania: Information Management 3
JOUR 304 Media Writing 3
JOUR 618 First Amendment and Society 3

Students choose one additional course from the following Journalism course offerings for which the prerequisites have been met:

News & Information Focus
JOUR 410 Photojournalism I
JOUR 415 Multimedia Reporting
JOUR 419 Multimedia Editing
JOUR 503 History of Journalism and Mass Communication
JOUR 534 Diversity in Media
JOUR 540 Sports, Media and Society
JOUR 608 Ethics and Professional Practice

Strategic Communication Focus
JOUR 320 Stratcom I: Introduction to Strategic Communication
JOUR 460 Research Methods in Strategic Communication
JOUR 534 Diversity in Media
JOUR 608 Ethics and Professional Practice
JOUR 611 Sales Strategies
Graduate Admission

Admission is based primarily on the student's undergraduate record, references, and results of the Graduate Record Examination. Applicants who have baccalaureate degrees in journalism, as well as those with no academic or professional background in journalism, are eligible to apply for the Mass Communication Program on the Lawrence Campus or the Integrated Marketing Communications (IMC) course of study on the KU Edwards Campus.

Applicants for the Integrated Marketing Communications (IMC) course of study are also evaluated on their professional experience and must have a minimum of 2 years of full-time professional employment in marketing communications or media-related fields.

Applications

Application Deadlines

Students may enter the Mass Communication and Integrated Marketing Communications programs in fall or spring semesters. The Mass Communication program is geared for a fall start, so Mass Com students entering in the spring semester will probably need 5 semesters to complete the degree. The School has a "rolling admission process." The priority application deadline for the fall, which begins in August, is the preceding February 1. (Applicants to the Integrated Marketing Communications program may apply for fall admission by the deadline of June 1.) The priority application deadline for the spring, which begins in January, is the preceding November 1.

Application Materials

Applications can be considered only after these items have been submitted:

1. A completed online graduate application (http://www.graduate.ku.edu).
2. An official transcript of all college-level courses from each college or university attended.
3. Scores on the Graduate Record Examination (GRE). For more information, go to www.GRE.com (http://www.gre.com). Applicants for the Marketing Communications course of study may submit the Graduate Management Admission Test (GMAT). Tests must have been taken within the last 5 years. GRE Score targets are 158 on the Verbal section, 136 on the Quantitative section and 4.5 on the Analytical Writing section. The school code is 6871 and the major code is 4503.
4. Three letters of reference from persons familiar with the applicant's abilities. At least one academic reference is preferred and required for those who graduated within the past five years.
5. A written, 500-word statement of the applicant's academic and professional objectives.
6. A current résumé.
7. Applicants for the Integrated Marketing Communications course of study also must include three samples of professional work that reflect the applicant's years of experience.
8. Nonrefundable application fee payable online to the University of Kansas.
9. International students whose native language is not English also must submit Test of English as a Foreign Language examination scores or International English Language Testing System examination scores.
10. International students must submit proof that they have the financial resources to cover annual expenses.

Submit your graduate application online (http://www.graduate.ku.edu). Applicants to Mass Communication and the M.S. in Journalism/J.D. program should send all test scores and official transcripts of all college and university course work to the school:

The University of Kansas School of Journalism and Mass Communications
Graduate Advisor
Stauffer-Flint Hall
1435 Jayhawk Blvd., Room 115
Lawrence, KS 66045-7515

Applicants to the Integrated Marketing Communications course of study may send their test scores and official transcripts of all college and university course work to the KU Edwards Campus program:

The University of Kansas Edwards Campus
Marketing Communications Graduate Program Coordinator
12600 Quivira Road
Overland Park, KS 66213-2402

M.S. in Journalism

The Journalism School offers three M.S. options: Mass Communications (Lawrence campus), Integrated Marketing Communications (KU Edwards Campus in Overland Park), and the Joint M.S.-J.D. degree.

Mass Communications

This track is focused on deeper, theoretical understanding of the professions of the media. Students with an interest in professional performance may take 2 courses in which they design 1 or more professional projects. To earn the degree, a student must complete 37 graduate credit hours with at least a B (3.0) average. Each student must complete and pass a general examination of the thesis. The thesis defense constitutes the final general examination.

Major Components of 37-Hour Requirement

The student entering the program takes

• 19 hours in core courses in First Amendment, Finance and Leadership, Mass Media, and Mass Communications and Methodology, including statistics.
• 6 hours in JOUR 840 seminars.
• 6 hours in a concentration (such as Sports Management, Health Communications, or Communication Studies) either inside or outside the school. The student may elect to design and produce 1 or 2 professional projects (such as a series of in-depth news stories or media business cases) as a concentration.
• 1 additional 3-hour elective.

The student also completes an acceptable project/thesis (JOUR 899) for 3 hours.

Core Course Requirements
The core graduate courses help students develop strong research and critical-thinking skills. 6 courses and 1 lab are required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRE 710</td>
<td>Introduction to Statistical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>PRE 711</td>
<td>Lab for Introduction to Statistical Analysis</td>
<td>1</td>
</tr>
<tr>
<td>JOUR 801</td>
<td>Research I: Theory</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 802</td>
<td>Research II: Methods</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 803</td>
<td>Survey of Mass Media and Popular Culture</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 818</td>
<td>Advanced Studies in First Amendment</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 828</td>
<td>Financial Fundamentals for Communicators</td>
<td>3</td>
</tr>
</tbody>
</table>

Concentration/Professional Skills Requirements
The student develops an area of concentration of 6 hours either inside the Journalism School or in another school or department with the consent of the student’s advisor and the Associate Dean for Graduate Studies (ADGS), for example, 2 courses in sports management, or communication studies and psychology.

Alternatively, the student may enroll in JOUR 851 and JOUR 852 (Professional Skills). The student develops and produces a master’s-level professionally based project or projects with the approval of the advisor and ADGS. The projects help the student expand and advance professional skills.

For example, one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSES 828 &amp; HSES 840</td>
<td>Sport Finance and Organizational Behavior in Sport</td>
<td>6</td>
</tr>
<tr>
<td>JOUR 720 &amp; JOUR 503</td>
<td>Military and the Media and History of Journalism and Mass Communication</td>
<td>6</td>
</tr>
<tr>
<td>JOUR 851 &amp; JOUR 852</td>
<td>Professional Skills I and Professional Skills II</td>
<td>6</td>
</tr>
</tbody>
</table>

Advanced Course Requirements
The student completes 2 JOUR 840 seminars, 1 graduate-level elective, and an acceptable project/thesis:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOUR 840</td>
<td>Seminar in: _____</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 840</td>
<td>Seminar in: _____</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 899</td>
<td>Master’s Project/Thesis</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

General Examination
Each student must pass an oral examination of the thesis, which constitutes the final general examination. That examination must cover the totality of the student’s master’s experience. The examination will be given and evaluated by a committee of 3 graduate faculty members who serve on the student’s thesis committee.

Enrollment Requirements after Completing Course Requirements
There is no requirement for continuous enrollment after courses are completed and prior to completing the thesis. Students must be enrolled in at least 1 hour of credit in the semester in which they graduate.

A student must complete the M.S.J. degree within 7 years of admission.

Integrated Marketing Communications (IMC)
The Integrated Marketing Communications (http://edwards.ku.edu/graduate/programs/marketing.shtml) course of study is offered on the KU Edwards Campus (http://edwards.ku.edu), 12600 Quivira Rd., Overland Park, KS 66213, 913-897-8416.

Course Requirements
A student must complete 36 hours of credit with at least a B (3.0) average. A student takes 12 hours of core courses and 24 hours of professional courses. A student must complete the master’s degree program within 7 years of admission.

Core Course Requirements (12)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOUR 820</td>
<td>Marketing Fundamentals for Communicators</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 828</td>
<td>Financial Fundamentals for Communicators</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 829</td>
<td>Marketing Communications Research (prerequisite JOUR 820 or permission of instructor)</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 850</td>
<td>Capstone in Marketing Communications (Prerequisites: JOUR 820, JOUR 828, JOUR 829 and 30 hours toward the degree, or with permission of instructor)</td>
<td>3</td>
</tr>
</tbody>
</table>

Professional Course Requirements
Those who hold the master’s degree from KU are expected to be able to perform professional tasks. Students therefore must complete a minimum of 24 credit hours of professionally oriented courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOUR 819</td>
<td>Writing for Marketing Communications</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 821</td>
<td>Integrated Marketing Communications and Sales Strategies</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 822</td>
<td>Database Development and Management</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 823</td>
<td>Branding in Marketing Communications</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 824</td>
<td>Creative Process</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 825</td>
<td>Relationship Marketing</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 826</td>
<td>Innovation in Management of Communications</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 827</td>
<td>Marketing Ethics</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 831</td>
<td>Technologies in Marketing Communications</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 832</td>
<td>Leadership and Management in Marketing Communications</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 833</td>
<td>Social Media and Integrated Marketing Communications</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 834</td>
<td>International and Multicultural Marketing Communications</td>
<td>3</td>
</tr>
</tbody>
</table>
Outside Courses
A student may take up to 6 credit hours outside the school. Any student who wants to take an elective course outside the school must have permission from the instructor of the course, the school offering the course, and the graduate director of the journalism school prior to enrolling in the course. The student should be prepared to indicate how the course contributes to the master’s program. Submission of a course description or syllabus from the course may be required for approval.

Final General Examination
Each student must pass a final general examination before graduating. This examination is part of the capstone course. The examination occurs during the oral presentation before the client and faculty.

Joint M.S.-J.D.
The joint M.S. in journalism and J.D. degree program combines into approximately 3½ years of full-time study the Master of Science in journalism and the Juris Doctor (p. 760) programs offered by the School of Journalism and Mass Communications and the KU School of Law. The joint degree program offers students academic grounding in both disciplines to prepare them for the professional practice of journalism, law, or media law.

For more information, please contact:
University of Kansas
Associate Dean of Graduate Studies and Faculty Development
William Allen White School of Journalism and Mass Communications
(http://www.journalism.ku.edu)
Stauffer-Flint Hall
1435 Jayhawk Blvd.
Lawrence, KS 66045-7515
twolek@ku.edu

You may also contact:
University of Kansas School of Law (http://www.law.ku.edu)
Green Hall
1535 W. 15th St.
Lawrence, KS 66045-7540
785-864-4550
admitlaw@ku.edu

Doctor of Philosophy in Journalism
Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU (see your advisor for details). Other years’ catalogs» (http://catalog.ku.edu/archive)

Admission
KU Graduate Admission Standards. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements. The bachelor’s degree is not acceptable if it contains credit awarded for work experience that was not directly supervised by faculty members of an accredited university or not evaluated in units that identify the academic content.

Journalism School Requirements
- Master’s degree or equivalent with at least a 3.5 GPA on a 4.0 scale.
- Graduate application: Apply online at http://www.graduate.ku.edu/.
- Application fee (nonrefundable).
- Resume or CV.
- An official transcript from the undergraduate degree-granting institution AND all previous graduate credit, including the master’s degree, sent electronically to the Graduate Application Processing Center. A hard copy is acceptable if the institution cannot send electronic transcripts.
- Graduate Record Examination scores less than five years old. The journalism school looks for a verbal score at or above the 75th percentile, an analytical writing score at or above the 75th percentile, and a quantitative score at or above the 50th percentile.
- Examples of research and scholarship. Links to online articles are acceptable.
- Statement of research goals that coincide with the journalism school’s faculty scholarship.
- 3 references, including one from the master’s advisor.
- International students are required to submit TOEFL scores.
- International students are required to submit evidence of financial support.

In exceptional cases, students with a bachelor’s degree may be admitted for the full 56-hour program.

Contact Assoc. Dean Tom Volek (twvolek@ku.edu) and graduate advisor Jammie Johnson (jamjohn@ku.edu) for more information or to express interest in the Ph.D. program.

Admission Deadline. For fall admission, the deadline for materials is Feb. 1.

The William Allen White School of Journalism and Mass Communications offers the Ph.D. degree, beginning fall 2012. The school has a solid reputation based in the profession and our faculty study issues and uses of real-world media communications. We seek junior colleagues who share those interests.

Our Ph.D. program is small and, therefore, selective. We admit 4 to 6 students per year to ensure close work with the faculty. We expect our students’ scholarly and research interests to intersect with those of our faculty.

The school’s Ph.D. is a rigorous scholarly research degree requiring mastery of theory and methodology. We expect our Ph.D. program graduates to possess advanced knowledge in the following areas necessary for all scholarship in the discipline:
- Scholarly inquiry and methods of discovery;
- Current theory and research methods of the discipline;
- Statistics appropriate to the discipline;
- Media use by society, historical and current;
- Media roles in society, including issues of diversity;
• The First Amendment, legal and ethical issues of the discipline.

Additionally, we expect our Ph.D. program graduates to possess advanced knowledge in one or more of the following areas as necessary for scholarship in their chosen area of expertise and with the advice and guidance of their respective faculty advisors:

• Advanced practice of theory, methods and concepts in the student’s area of journalism expertise;
• Advanced practice of theory, methods and concepts suitable to the student’s area of concentration;
• Advanced statistics;
• Specific uses and impacts of media, such as in healthcare delivery, in education, in politics, in the military, or in traditional mass media roles;
• The business of the media, historical and current;
• Innovation and entrepreneurship.

The Ph.D. program requires a total of 56 course credit hours (19 3-hour courses, plus a 1-hour statistics lab) plus dissertation hours, which are variable. 38 course hours are prescribed, 18 are elective. The student takes a 12-hour concentration in one academic unit outside of Journalism.

Students who hold a master’s in journalism may have this 56-hour requirement adjusted (a maximum of 18 credits) due to prior course work, leaving 38 hours for completion of the degree. The student completes study of appropriate research skills, designed in consultation with the faculty advisor. The student also must meet KU’s requirements for dissertation hours.
Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU (see your advisor for details). Other years’ catalogs are available online or from the Office of the University Registrar.

Tuition and fees entitle the student to course instruction; dispensary care for ordinary illnesses and special medical care at nominal rates; the use of the Kansas and Burge Unions, libraries, buses, Legal Services for Students, and the Ambler Student Recreation Fitness Center; a copy of The University Daily Kansan and other local and national newspapers; and admission at reduced prices to most campus events, such as concerts, plays, films, lectures, and athletic events.

Residency Classification

Students are classified as resident or nonresident based on information provided on the application for admission. The determination of residency status is made by the Office of the University Registrar in accordance with Kansas regulations. This classification makes a difference in the cost of attending the School of Law. If you have questions about your residency status, contact the Office of the University Registrar.

Scholarships and Financial Aid

For information about scholarships and financial aid, visit the law school’s website.

Attendance

Regular class attendance is a fundamental part of legal education. Instructors may adopt individual policies to monitor attendance. No attendance policy may impose any sanction unless a student’s unexcused absences from class exceed the number of hours of credit given for the course plus one, and no sanction may be more stringent than imposition of a failing grade for the course.

Adding Classes

A student may add classes only in the first 2 weeks of the semester (fifth day in a summer session). Students contemplating adding a course after the course has begun should understand that they may be at a significant disadvantage.

Dropping Classes

A student may drop a class no later than the last day of classes in the semester or summer session. Enrollment in that class will be canceled and will not appear on the student’s record.

Special Drop Rule

Where the nature of the course requires a continuous commitment by the student, the instructor may establish special rules about dropping the course. Notice of these special rules will be provided before enrollment.

Maximum and Minimum Load

Students are expected to complete all required first-year courses during their first year of enrollment in law school. Summer starters must take all required first-year courses in the first year plus sufficient electives in both the fall and spring semesters to carry a course load of no fewer than 12 credit hours and no fewer than 4 courses in each semester. After the first year, the maximum course load is 18 credit hours per semester, and the minimum load is 12 hours. The associate dean for academic affairs
may approve a schedule of fewer than 12 credit hours under exceptional circumstances.

Incomplete Classes

A student must finish an incomplete course by the end of the next semester (excluding summer sessions), whether or not the student is enrolled in the law school during the next semester. If a student does not make up an incomplete grade by the end of the next semester, the incomplete will be changed to a grade of F at the end of that semester. The last day of the final examination period is the end of the semester. Waivers of this rule or extensions of the time allowed for making up incomplete grades may be granted by the academic affairs committee only in cases of extreme hardship.

Withdrawal and Readmission Following Withdrawal

Students considering withdrawing are strongly encouraged to confer with the associate dean for academic affairs. Any student who has completed at least 29 credit hours and is in good standing may withdraw from all law school courses in which he or she is enrolled if the student completes all required administrative steps for withdrawal no later than the last day of classes for the semester. Students who wish to withdraw after the last day of classes for the semester must obtain permission from the academic affairs committee.

Any student who withdraws before completing 29 credit hours must reapply for admission. There are no exceptions to this rule. Any student who has completed at least 29 credit hours and who is not in good standing must have the permission of the associate dean for academic affairs to withdraw if the student wishes to return to school in a subsequent semester. A student who fails to secure permission to return must petition the academic affairs committee for reinstatement.

Students must complete all requirements for the degree within 5 years of initial enrollment. See J.D. Degree Requirements (p. 778).

Examinations

Thorough examinations are given under the honor system at the close of every term. Some faculty members also give midterm examinations. These examinations test students’ reasoning abilities and their knowledge of a particular subject area.

Special examinations are given only in cases of absence from the regular examination because of sickness of the student or in the student’s immediate family or similar exceptional circumstances. Students should contact the faculty member whose examination they must miss as soon as possible, certainly before the date the examination is to be given.

Grading System

The School of Law uses a 4.0 (A-F) grading scale:

- 4.0 (A)
- 3.7 (A−)
- 3.3 (B+)
- 3.0 (B)
- 2.7 (B−)
- 2.3 (C+)
- 2.0 (C)
- 1.7 (C−)
- 1.3 (D+)
- 1.0 (D)
- 0.7 (D−)
- 0 (F)

The average of grades in first-year courses must be 2.8-3.0; the average of grades in upper-level required courses must be 2.9-3.1; and the average of grades in all other courses must be 2.8-3.4. The recommended range in upper-level courses is 3.0-3.2.

Courses in which the faculty member finds it difficult or impossible to evaluate student performance with the precision necessary to assign letter grades may be graded Credit/No Credit when approved by the academic affairs committee before the beginning of the semester in which the course is taught.

Clinic and Externship Rules

No student may accumulate more than 16 credit hours from the Criminal Prosecution Clinic, the Project for Innocence and Post-Conviction Remedies, the Elder Law Externship, the Externship Clinic, the Kansas Supreme Court Research Clinic, the Judicial Clinic, the Legal Aid Clinic, the Legislative Clinic, the Media Law Clinic, the Medical-Legal Partnership Clinic, the Public Policy Clinic, or the Tribal Judicial Support Clinic as part of the 90 hours of law school credit required for graduation. Concurrent enrollment in more than 1 of these clinics and externships is permitted only with the consent of the directors of the programs in which enrollment is sought.

Students must be in good standing to enroll in a clinic or externship. This requirement may be waived by the associate dean for academic affairs in exceptional circumstances.

For some clinics and externships, the student must qualify as a supervised legal intern under Kansas Rule 719. To qualify, the student must have completed 60 credit hours. The credit-hour requirements are necessary to ensure that heavy course loads in the final 2 semesters will not interfere unduly with clinic work.

The Honor Code

Matters of law student honesty and integrity in academic performance are governed by an honor code (http://www.law.ku.edu/academics/honorcode.shtml) written and administered by law students. This system of peer review has been in effect for more than half a century and addresses issues such as plagiarism, cheating, and unauthorized collaboration in work assignments. Honor code violations, found to have occurred by the student committee after notice and hearing, are referred to the dean of the law school with recommended sanctions. Final disposition rests within the discretion of the dean. The honor code governs law students in the same way that the Code of Professional Responsibility governs members of the bar. The complete honor code may be found in the Academics (http://www.law.ku.edu/academics) section of the law school’s website. Copies also may be obtained from the Student Bar Association.

Exclusion and Probation

A student whose cumulative grade-point average is below 2.0 at the end of any regular semester, whether fall or spring, or at the end of the two 5-week summer sessions is on probation. A student who is on probation is not in good standing for purposes of the rules on withdrawal and
readmission following withdrawal and any other rules that require good standing.

All students must achieve a minimum cumulative grade-point average of 2.0 during the semester in which they complete 90 hours, or they will not be permitted to graduate or continue in school. There is no appeal within the law school from this requirement.

A student whose cumulative grade-point average is below 1.8 after the completion of two semesters of full-time enrollment or two, five-week summer sessions and two semesters of full-time enrollment will be excluded from the school. A student whose cumulative grade-point average is below 2.0 after the completion of 59 credit hours or at the end of four semesters of full-time enrollment, regardless of the number of credit hours completed, will be excluded from the school. In either case, exclusion from the school is final. There is no appeal within the law school.

Students in the Two-Year J.D. Program are subject to the same grading system that applies to other J.D. candidates, and these policies of exclusion and probation apply equally to two-year students. Therefore, a two-year J.D. student whose cumulative grade-point average is below 1.8 after the completion of two semesters of full-time enrollment at the University of Kansas School of Law will be excluded from the school. A two-year J.D. student whose cumulative grade-point average is below 2.0 after the completion of four semesters of full-time enrollment at the law school will be excluded from the school. There is no appeal within the law school.

Career Services
A major component of the law school’s mission is helping students maximize employment opportunities at graduation. Working with students to design and implement a strategy begins during the first semester of law school and continues through graduation and beyond. The staff of the Office of Career Services (http://www.law.ku.edu/careerservices) meets with all first-year students to discuss their backgrounds, identify interests and discuss the numerous programs, clinics and opportunities available to them. First-year students may also participate in a mentoring program, matching them with practicing alumni in the area who offer advice on the practice of law and how students can best prepare themselves for success in school and after graduation.

The Office of Career Services is also committed to the same open-door policy as the school’s professors. Students are actively encouraged to meet with the members of the office on a walk-in basis or by appointment, as they prefer. Workshops and individual advising sessions help students explore career options and develop job-seeking skills. Excellent resource materials for career planning and placement are available, and staff members are knowledgeable about online resources.

KU law students are highly sought after by employers throughout the state, region, and nation. Law firms, government agencies, public interest groups, and other employers seeking summer and school-year interns and graduating students send representatives to interview at the law school or contact the school with information about openings.

The range of positions open to students and graduates is broad. Many join private law firms. Some firms specialize in corporate and transactional work, trial work, or criminal defense, but most are general practice firms. Many graduates enter government service, working at the federal, state, or local level. They become prosecutors or public defenders or work in agencies such as the Environmental Protection Agency, the Kansas Attorney General’s office, or the U.S. Securities and Exchange Commission. Still other graduates accept judicial clerkships, usually for a year or two after graduation, working for state or federal appellate or trial courts. The military branches also actively recruit at the school for their JAG programs.

Public interest work in legal services organizations or in organizations working for social change is attractive to many graduates. Law school graduates have joined organizations ranging from Kansas Legal Services to Public Citizen.

The law school also works closely with those students seeking a non-legal career after graduation. Our graduates have entered a wide array of industries, including energy, insurance and not-for-profit management. Our staff is actively working to grow these opportunities by building relationships with market leaders across the region and the country.

KU graduates have been successful in passing Kansas and Missouri bar examinations and have performed extremely well on examinations in other states, including Colorado and Texas. The Office of Career Services provides up-to-date information on bar requirements for all states. Law school applicants should secure information about character, fitness, and other qualifications for admission to the bar in states in which they intend to practice.

For more information, explore the Career Services (http://www.law.ku.edu/careerservices) section of the law school’s website.

Shook, Hardy & Bacon Center for Excellence in Advocacy
The Shook, Hardy & Bacon Center for Excellence in Advocacy capitalizes on its namesake’s distinguished history in litigation to cultivate a new generation of trial lawyers. The center has three broad goals: 1) offer unique skills-based training to KU law students; 2) present valuable programming for KU law alumni and the regional bar; and 3) open new scholarly opportunities for KU law faculty and nonfaculty studying related issues through a fellowship program.

For more information about the center, see the Centers (http://www.law.ku.edu/centers) section of the law school’s website.

Tribal Law and Government Center
The Tribal Law and Government Center prepares a new generation of advocates for careers representing the legal interests of indigenous nations and tribes. It provides a forum for research and scholarship on indigenous legal and governance issues.

The center operates 4 programs. The Tribal Lawyer Certificate Program ensures that law students who plan careers representing indigenous nations have the skills necessary to appreciate and strengthen the unique nature of their legal systems. The Tribal Law and Government Conference promotes research and scholarship regarding the unique legal and governance issues of indigenous nations. The Tribal Judicial Support Clinic gives second- and third-year students the opportunity to assist tribal court systems through a variety of projects. The joint degree program in law and indigenous studies aspires to facilitate the protection and strengthening of indigenous sovereignty, self-determination, and self-sufficiency in indigenous nations throughout the Americas.
Law Faculty

The law faculty is composed of honor graduates from law schools throughout the country. Virtually all have substantial experience in private or public interest practice. Many served as judicial clerks — 2 as clerks to Supreme Court justices.

Law faculty members are committed to excellence in the classroom and to mentoring law students. Students are encouraged to consult their professors regularly about their progress in the study of law as well as about career plans, job opportunities, and the professional responsibilities of lawyers. Law faculty offices are located throughout Green Hall, and doors are open to students.

Faculty members enrich their teaching by researching and writing about the areas of law they teach. They regularly participate in conferences and symposia, publish widely in legal journals, and enjoy national and international recognition for the quality of their work. Many have written important treatises and casebooks used at law schools around the country.


- Katie Cronin. Clinical Associate Professor of Law. B.S.W., Missouri, 2002; J.D., Vanderbilt, 2005. Medical-Legal Partnership Clinic.


• **Suzanne Valdez.** Clinical Professor of Law. B.S., Nevada (Las Vegas), 1991; J.D., Kansas, 1996. Criminal Prosecution Clinic, Deposition Skills Workshop, Practice in Kansas, Pretrial Advocacy, Professional Responsibility.

• **Stephen J. Ware.** Professor of Law. B.A., Pennsylvania, 1987; J.D., Chicago, 1990. Alternative Dispute Resolution, Bankruptcy, Commercial Law, Contracts.

• **Elizabeth A. Kronk Warner.** Associate Professor of Law. B.S., Cornell, 2000; J.D., Michigan, 2003. Federal Indian Law, Native American Natural Resources, Property.


For more information about law faculty members, go to the Faculty section of the law school’s website (http://www.law.ku.edu/faculty).

**Emeritus Faculty Members**


**Library Faculty Members**


• **W. Blake Wilson.** Head of Instructional and Research Services, B.A., Missouri (Kansas City), 2000; M.A., J.D., Missouri, 2004.

### Course Prerequisites

A substantial number of second- and third-year courses have 1 or more upper-level courses as prerequisites.

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisite</th>
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</thead>
<tbody>
<tr>
<td>LAW 864 Advanced International Trade Law</td>
<td>A basic course in international trade regulation or equivalent or permission of instructor</td>
</tr>
<tr>
<td>LAW 857 Advanced Litigation</td>
<td>LAW 908 Evidence</td>
</tr>
<tr>
<td>LAW 858 Agriculture Law</td>
<td>LAW 992 Trial Advocacy and permission of instructor if Advanced Litigation has been taken</td>
</tr>
<tr>
<td>LAW 877 Animal Rights Seminar</td>
<td>LAW 873 Commercial Law: Secured Transactions</td>
</tr>
<tr>
<td>LAW 889 Bankruptcy</td>
<td>Permission of instructor</td>
</tr>
<tr>
<td>LAW 883 Biodiversity Law</td>
<td>LAW 905 Environmental Law Survey</td>
</tr>
<tr>
<td>LAW 866 Business Associations II</td>
<td>LAW 865 Business Associations I</td>
</tr>
<tr>
<td>LAW 851 Contracts III</td>
<td>LAW 809 Contracts</td>
</tr>
<tr>
<td>LAW 930 Corporate Finance</td>
<td>LAW 865 Business Associations I</td>
</tr>
<tr>
<td>LAW 890 Criminal Prosecution Clinic</td>
<td>LAW 908 Evidence</td>
</tr>
<tr>
<td>LAW 859 Deposition Skills Workshop</td>
<td>LAW 992 Trial Advocacy qualification under Kansas Rule 719</td>
</tr>
<tr>
<td>LAW 907 Estate Planning: Practice</td>
<td>(See Clinic and Externship Rules)</td>
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<tr>
<td>LAW 906 Estate Planning: Principles</td>
<td>(p. 776)</td>
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<tr>
<td>LAW 910 Federal Courts and the Federal System</td>
<td>LAW 908 Evidence</td>
</tr>
<tr>
<td>LAW 915 Federal Tax Procedure</td>
<td>LAW 913 Federal Income Taxation</td>
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<tr>
<td>LAW 924 Independent Research</td>
<td>LAW 845 Jurisdiction</td>
</tr>
<tr>
<td>LAW 847 International Civil Litigation</td>
<td>40 hours of law school credit, 2.0 overall grade-point average</td>
</tr>
<tr>
<td>LAW 932 International Human Rights Law</td>
<td>LAW 845 Jurisdiction</td>
</tr>
<tr>
<td>LAW 845 Jurisdiction</td>
<td>LAW 974 Public International Law</td>
</tr>
</tbody>
</table>
First-Year Courses

LAW 804. Civil Procedure. 4 Hours.
This course will examine all phases of the litigation process in civil actions. Specific subjects covered may include: pleadings; discovery; disposition of cases without trial; the right to jury trial; post-trial motions; appeals; the bases for jurisdiction over persons and property; notice; venue; subject matter jurisdiction; choice of federal or state law in diversity cases; joinder of claims and parties; and preclusive effects of judgments. Required course. LEC.

LAW 809. Contracts. 4 Hours.
An introduction to contract law, including topics such as offer and acceptance, consideration, contracts enforceable without consideration, defenses to enforcement of contracts, terms of contracts and their interpretation, performance and breach of contracts, remedies for breach, third-party beneficiaries, and assignments. Required course. LEC.

LAW 814. Criminal Law. 2-4 Hours.
An introduction to substantive criminal law, including theories of punishment, basic stages of the criminal process, culpability, defenses, parties to crime, conspiracy, attempts, sentencing, homicide, and other selected offenses. Required course. LEC.

LAW 806. Introduction to Constitutional Law. 4 Hours.
An introduction to the law of the United States Constitution, including the historical context and evolution of constitutional principles, methods of constitutional interpretation and analysis, and basic doctrine concerning the structure of government and the protection of individual rights.

Doctrinal coverage includes separation of powers, federalism, equal protection, due process, and freedom of religion. Required course. LEC.

LAW 820. Lawyering Skills I. 2 Hours.
This course introduces students to legal systems and the skills of lawyers. It includes instruction and discussion on legal traditions, legal institutions and legal methods. It focuses on developing students' skills in legal reasoning, writing and research. Students will complete numerous research and writing assignments, culminating in an open memorandum. Required course. LEC.

LAW 821. Lawyering Skills II. 3 Hours.
In this course, students build on the research and writing skills they developed in the first semester and practice additional skills such as client interview, negotiation and mediation. Students learn about the expectations and demands of lawyers and the legal profession through instruction on bar admission, professionalism, and ethical advocacy, and by working on assignments in a simulated lawsuit. Student work culminates in an advocacy brief and subsequent oral argument. Required course. LEC.

LAW 826. Property. 2-4 Hours.
An introduction to personal property law and to real property law, which includes adverse possession, estates in land, covenants, landlord-tenant law, easements, and real covenants, and which may include other private and public land use controls, eminent domain, and conveyancing. Required course. LEC.

LAW 831. Torts I. 2-4 Hours.
Fall semester. Development of liability based upon fault. Intentional torts, including battery, assault, false imprisonment, intentional infliction of mental distress, trespass to land and chattels, conversion, and privileges. Negligence, including standard of care, causation, limitation of duty, defenses, and comparative negligence. Survival and wrongful death. Strict liability. Damages. Required course. LEC.

Upper-Level Courses

LAW 911. Accounting for Lawyers. 2 Hours.
An introduction to Accounting and Auditing for Lawyers. Coverage includes components of Generally accepted Accounting Principles related to assets, liabilities, equity, revenue and expenses; financial statements analysis; auditing standards; corporate governance; audit failure and forensic accounting. Not open to students who have completed 9 hours of accounting courses while an undergraduate or graduate student. LEC.

LAW 850. Administrative Law. 2.5-3 Hours.
The separation and delegation of powers. The development of administrative function. Administrative discretion, notice, hearing, jurisdiction, conclusiveness of determination, and judicial control. Examination of current problems in various administrative processes. LEC.

LAW 852. Advanced Criminal Procedure. 2.5-3 Hours.
Detailed analysis of the formal criminal process from initial appearance through appeal. Emphasis on pretrial and trial proceedings. LEC.

LAW 864. Advanced International Trade Law. 3 Hours.
Examines contemporary issues in international trade practice and policy. Among the practical topics covered in detail are: (1) antidumping and countervailing duties against dumping and unfair subsidies, respectively; (2) safeguard actions against fair foreign competition; (3) protection of intellectual property rights against infringement; (4) trade in agriculture (including sanitary and phytosanitary issues); and (5) trade in services. Among the policy topics emphasized, from both "our" and "their" perspective, are: (1) trade relations with Third World and Muslim Nations or 967
countries; (2) the critical link between trade and national security; (3) the complex interaction among trade, human rights, labor rights, and the environment; and (4) efforts to protect local culture in an era of globalization. The course is designed not only for students intending to work in international trade law, but also for students interested in careers anywhere in the world in other fields of, or relating to, international law who seek an appreciation of the increasingly sophisticated connections among these fields and trade. Prerequisite/Corequisite: A basic course in International Trade Regulation (e.g., suitable summer study program or work experience), concurrent registration in such a course, or permission of the instructor. LEC.

LAW 856. Advanced Legal Research. 2 Hours.
Spring semester. Evaluates important legal research tools and techniques not covered in the required first year Lawyering course. Provides an in-depth look at Kansas materials, legal reference books, form books, and computer-assisted research. Research aids in selected subject areas will also be examined. LEC.

LAW 857. Advanced Litigation. 2.5-3 Hours.
Advanced skills in the litigation process selected by the instructor, which may include negotiation, counseling, discovery techniques, advanced witness examination, expert witnesses, advanced jury selection techniques, alternative dispute resolution, arbitration, practice before administrative agencies, mediation, or other related topics. Course content will be promulgated by the instructor prior to the registration period for the semester in which the course is offered. This course may be taken more than once, provided the instructor determines there is no inappropriate duplication of other courses taken by the student. Prerequisite: Evidence, Trial Advocacy, and permission of instructor if an Advanced Litigation course has been taken. FLD.

LAW 858. Agriculture Law. 1-3 Hours.
Considers the role of government in agriculture as well as traditional transaction issues such as leasing, the marketing and storing of commodities, special secured financing rules relating to agriculture credit, the impact of the bankruptcy of a warehouse (elevator) containing producers’ stored commodities, and problems confronting the livestock industry. Other unique issues to be considered include genetically modified crops (GMOs) and the use of antibiotics by producers of livestock and poultry. Prerequisite/co-requisite: Commercial Law: Secured Transactions. LEC.

LAW 860. Alternative Dispute Resolution. 2-3 Hours.
This course introduces the student to arbitration, mediation, negotiation, and other methods for resolving disputes. In addition to serving as alternatives to the court system, these processes also play an increasingly important role in litigation and settlement. This is a survey course, which may include exercises to develop skills such as interviewing, counseling, and negotiation. FLD.

LAW 862. American Legal History. 2-3 Hours.
An introductory survey of the history of American Law and American legal institutions. LEC.

LAW 877. Animal Rights Seminar. 1 Hour.
This seminar addresses a fundamental legal question, i.e. what rights are to be accorded to animals both in nature and in human society? The participants will read and discuss a number of theories of animal rights based upon philosophical, religious, pragmatic, and biological bases and will explore the legal and jurisprudential ramifications of these theories. Students will be required to write a substantial research paper of publishable quality. Students must enroll for both semesters of the academic year for one credit hour per semester. Prerequisite: Permission of the instructor. LEC.

LAW 863. Antitrust Law. 2.5-3 Hours.
Covers the Sherman Antitrust Act and related federal legislation designed to control the competitive practices and structure of American industries. Examines the law of monopolization, price fixing, group boycotts, vertical restraints such as tie-ins and distribution restrictions, and mergers. Some elementary principles of economic analysis are employed but economics is not a prerequisite. LEC.

LAW 853. Banking Law. 2-3 Hours.
This course will focus on the regulation of financial institutions, including depository institutions (banks, thrifts and credit unions), securities broker-dealers, insurance companies and investment companies. Emphasis will be on the laws governing banks and their corporate families, including issues pertaining to corporate structure, capitalization, liquidity and business activities. LEC.

LAW 889. Bankruptcy. 2.5-3 Hours.
This survey of bankruptcy and debtor-creditor law covers topics such as: Chapters 7, 11, and 13 of the Bankruptcy Code and enforcement of money judgments outside of bankruptcy. Prerequisite: Commercial Law: Secured Transactions. LEC.

LAW 883. Biodiversity Law. 2-3 Hours.
This class considers the role of law in regulating, managing, utilizing, and conserving the earth’s rich biological diversity. Biodiversity law is explored from the perspectives of common law, statutes, agency regulations, and international law. Special consideration is made of the role science plays in informing biodiversity law and policy. Prerequisite: Environmental Law Survey. LEC.

LAW 870. Biolaw. 2-3 Hours.
This course examines the law of biology and the biology of law. Topics covered will include law and evolution, law and genetics, law and neuroscience, law and ecology, climate change law, biodiversity law, law and biotechnology, reproductive law, behavioral law and economics, and law and deextinction. LEC.

LAW 865. Business Associations I. 2.5-3 Hours.
Fall semester. Legal aspects of typical American enterprise structures, including partnerships and corporations. The elements of agency relations are included. Emphasis is upon the control, management, financing, and regulation of closely held corporations. LEC.

LAW 866. Business Associations II. 2.5-3 Hours.
Spring semester. A continuation of Business Associations I involving further study of corporate problems. Primary emphasis is on the legal responsibilities of directors and dominant shareholders of both publicly and closely held corporations, and the remedies for enforcement thereof. Also included are brief introductions to corporate capital structure and the Securities Act of 1933. Prerequisite: Business Associations I. LEC.

LAW 892. Business Organizations. 4 Hours.
This introductory business law course is a one-semester equivalent of the two-semester Business Associations I and Business Associations II sequence. Students may only enroll in and receive credit for this course or the Business Associations I and II sequence, but not both. Topics to be covered include the law of agency, the formation, ownership, and management of partnerships, limited liability entities, and corporations, and the roles of federal law, state law, and contract in regulating the relationships among the various participants in a business venture, including fiduciary duties and enforcement mechanisms. Special attention will be paid to closely held business associations. This course will satisfy prerequisite requirements for any course requiring either Business Associations I or Business Associations II. LEC.
LAW 866. Business Planning Seminar. 2.5-3 Hours.
A problem approach to planning important business transactions, such as organization of a close corporation; organization of a public company; dividend and other corporate distributions; corporate liquidations; and corporate combinations such as merger and consolidation. Each problem is analyzed from the perspectives of tax, securities regulation, and corporate law. Prerequisite: Business Associations I and II or Business Organizations, Federal Income Taxation, and Taxation of Business Enterprises. LEC.

LAW 871. Capital Punishment. 3 Hours.
This three hour course will examine capital punishment as a system of law and will address many of the intertwining questions raised by the existence of the death penalty in America: How, as a statutory and procedural matter, is the death penalty implemented in America? What procedures are unique to the imposition of death as a punishment? Why are those procedures used, and to what extent are they either adequate or inadequate? What are the arguments for and against the death penalty and how persuasive are they? Do we, as lawyers and as individuals, accept capital punishment as a working legal system. LEC.

LAW 869. Contract Drafting. 2.5-3 Hours.
An intensive skills course designed to teach the principles of contemporary commercial drafting, including how to translate a business deal into contract concepts; draft each of a contract's parts; draft with clarity and without ambiguity; add value to a deal; work through the drafting process; and review and comment on a contract. Weekly written homework is required. Prerequisite: Business Associations I or Business Organizations recommended but not required. LEC.

LAW 841. Chinese Law. 2-3 Hours.
This course will explore the role of law in contemporary Chinese society from a historical and comparative perspective. This course complements (but is independent of) Law 879. The focus of the course is on China's administrative and legal institutions and legal reform efforts since 1978, with some coverage of China's traditional legal order and the historical influences on China's legal institutions and attitudes toward law from the early twentieth century to the present. Specific topics in modern Chinese law will vary but may include contract, property, criminal, business, intellectual property, environmental, and labor law, and human rights. Due to the volume of material we will cover in a limited time, the legal systems of Greater China (Hong Kong, Macau, Taiwan) will not be covered in this course. No Chinese language skill is necessary for this course and not prior familiarity with China or East Asia is assumed. LEC.

LAW 886. Civil Rights Actions. 2-3 Hours.
A survey of the law governing civil suits against government entities and officials to remedy violations of federal constitutional rights. The focus of the class is litigation under 42 U.S.C. section 1983, which creates a civil cause of action for damages and injunctive relief to remedy violations of federal constitutional rights. This area of law is sometimes referred to as "constitutional torts, " because it involves civil litigation that is in many ways similar to traditional tort actions. The course covers the elements of a Section 1983 action, the constitutional immunity of states and state officers, defenses to Section 1983 liability, defendants' liability for attorneys fees under 42 U.S.C. section 1988, civil suits against federal defendants, and the relationship between Section 1983 and federal habeas corpus. LEC.

LAW 898. Collective Bargaining and Dispute Resolution. 2.5-3 Hours.
This course is designed to provide the student with: (1) a brief overview of US labor history in the private and public sectors, (2) a review of private sector labor law principles dealing with collective bargaining, (3) an examination of public sector labor law nationally and in Missouri, Kansas and selected other states, (4) an overview of the collective bargaining process, (5) a detailed and practical examination of issues arising during collective bargaining negotiations, (6) an overview of procedures used to resolve bargaining disputes, and (7) an exploration of the types of disputes arising under collective bargaining agreements and the use of grievance and arbitration procedures to resolve such disputes. LEC.

LAW 872. Commercial Arbitration. 2.5-3 Hours.
Addresses the law and practice of commercial arbitration, a rapidly growing form of alternative dispute resolution. Drafting arbitration agreements, the enforceability of arbitration agreements, selecting arbitrators, the arbitration hearing, and the enforceability of arbitration awards. Gives special emphasis to arbitration of international commercial disputes and the institutional rules under which such arbitrations proceed. LEC.

LAW 874. Commercial Law: Payment Systems. 2-3 Hours.
A study of the law governing modern payment systems, including checks and other negotiable instruments governed by Article 3 of the Uniform Commercial Code and bank transactions governed by 4 of the Uniform Commercial Code. Other payment systems that may be examined include credit cards, debit cards, automated clearinghouse payments, stored value cards, wire transfers, and letters of credit. LEC.

LAW 873. Commercial Law: Secured Transactions. 2.5-3 Hours.
Introduction to commercial transactions under the Uniform Commercial Code. Emphasis on secured transactions and the interplay between Article 9 of the Code and the trustee's powers under the Federal Bankruptcy Act. Analysis of basic problems in the area of consumer credit. Required course. LEC.

LAW 879. Comparative Law. 2.5-3 Hours.
A general introduction to and comparison of major legal systems of the world, with special emphasis given to how those systems reflect differing cultural values in addressing common legal questions. A major goal of the course is to deepen the students' understanding of law and practice in the United States and to broaden their perspective of law beyond the boundaries of the common law systems. (Same as ISP 876.) LEC.

LAW 880. Complex Litigation. 2.5-3 Hours.
Explores the many interesting facets of complex litigation in the context of mass torts. Bilateral and special proceedings, class actions, consolidation, multidistrict litigation, and complex joinder issues, as well as substantive issues which arise in mass tort litigation. LEC.

LAW 881. Conflict of Laws. 2-3 Hours.
An analysis and consideration of problems respecting the law applicable in transactions or to relationships with elements in more than one state or country. The law to be applied in such situations, the theoretical bases of choice-of-law, and the issues which these matters can present under the Constitution of the United States are discussed. Far-reaching changes are occurring in basic assumptions and methods of approach in the field of choice-of-law, and special attention is given to these developments. Finally, the class considers the recognition and enforcement of foreign state judgments in terms of both standards and requirements that flow from relevant provisions of the Constitution. LEC.

LAW 887. Constitutional Topics. 2.5-3 Hours.
Examines the application of constitutional law and principles to selected social issues. Specific topics will be announced; topics may include such subjects as constitutional history, constitutional interpretation, the constitutional law of schools, gender and constitutional issues, or national security law. A writing project typically is required in place of a final examination. LEC.

LAW 875. Construction Law and Litigation. 2-2.5 Hours.
This is an upper-level course that will provide a detailed examination of the law associated with the construction industry. The course will be
divided between contract formation issues and litigation issues. The contract formation portion will explore design and engineering services, professional responsibility, bidding, bidding government contracts, contract preparation, subcontracting, indemnity and insurance issues. The course will then focus on litigation issues, including liens, delay claims, construction defects, manufacturer's warranties, and design defects. There will be an in-depth examination of the AIA (American Institute of Architects) and AGC (Associated General Contractors) form documents and the use of ADR in the construction field. LEC.

LAW 882. Consumer Law. 2.5-3 Hours.
This course will examine federal and state law governing the formation, terms, and enforcement of consumer contracts. Topics covered will include deception and information in contract formation; regulation of consumer credit, goods, and services; creditors' collection tactics; and consumer remedies. LEC.

LAW 837. Contracts II/UCC Sales. 2-3 Hours.
The course will explore the domestic sale of goods as governed by Article 2 of the Uniform Commercial Code. The course will also address other significant statutory regimes governing the sale of goods such as the Magnuson-Moss Warranty Act and state consumer rights statutes. The course will also cover statutory regimes regulating e-commerce such as the ESIGN Act. The course may also address, although in less detail, the international sale of goods as governed by the United Nation Covenant on the International Sale of Goods. Students, in addition to exposure to substantive contract law doctrine, will develop significant statutory construction skills. Prerequisite: LAW 809 or an equivalent. LEC.

LAW 851. Contracts III. 2-3 Hours.
Considers in depth a number of topics not covered or only briefly covered in first year contracts, which may include contract interpretation, third party beneficiaries, assignment and delegation, the overlap of contract and tort, and the enforceability of particular provisions. Commercial Law: Secured Transactions or Commercial Law: Payment Systems will be an asset. Prerequisite: Contracts. LEC.

LAW 888. Copyright Law and Digital Works. 3 Hours.
Explores the major copyright issues posed by such categories of digital works as software, data bases containing factual and other public domain content, multi-media materials, computer generated or assisted works, and audio recordings containing digital sampling. LEC.

LAW 930. Corporate Finance. 2-3 Hours.
This advanced business law course examines the legal and financial aspects of corporate finance. Topics include the time value of money, valuation of stocks and bonds, the use of debt, equity, and derivative instruments in the firm's capital structure, dividends and distributions, and finance theories, including portfolio theory, the capital asset pricing model, and the efficient capital market hypothesis. Prerequisite or Corequisite: Business Associations II or Business Organizations. LEC.

LAW 893. Corporate Social Responsibility, Sustainability and the Law. 2.5-3 Hours.
Is sustainability the business of corporations? Can corporations help solve environmental crises and poverty? Should firms be "socially responsible" and what does law have to do with it anyway? In this seminar, we will consider these questions and other major debates surrounding the intersections of corporate social responsibility (CSR), sustainability, and the law. Topics to be covered include the relationship between law, ethics, and CSR, the "business case for CSR", alternatives to traditional profit-driven and shareholder-focused corporate models, and problems related to the accountability of multinational corporations for harms caused abroad. Each session will be framed by an area of law that intersects with CSR, such as labor and employment, the environment, human rights, finance, and sustainable development. This seminar satisfies the upper-level writing requirement, as a final paper based on independent research is required for this course. There are no prerequisites. Approved for Business and Environmental Law Certificate requirements. LEC.

LAW 838. Criminal Practice in Kansas. 2-3 Hours.
Designed for the student who plans to practice criminal law in Kansas. Examines the Kansas criminal code and case law, explores practical and ethical issues from the perspective of the prosecutor and defense counsel, and develops practical skills in pre- and post-trial proceedings. Includes filing of the complaint, bail, preliminary hearing, pretrial proceedings, motions practice, plea negotiations, client counseling, trial proceedings, jury instructions, post-trial motions, sentencing and appeals. LEC.

LAW 878. Criminal Procedure. 2.5-3 Hours.
An introduction to criminal procedure, including investigation and police practices, pre-trial proceedings, trials, sentencing, and review proceedings. Particular emphasis on the application of the exclusionary rule to arrest, search and seizure, interrogation procedures, and identification procedures. LEC.

LAW 890. Criminal Prosecution Clinic. 1-3 Hours.
Students are assigned to the office of the United States Attorney for Kansas or Kansas state district attorney offices as arranged by the instructor. Students assist prosecutors in virtually all phases of the criminal process, including criminal trials. A weekly seminar focusing on issues confronting criminal prosecutors accompanies the field work. Unless specifically authorized, students must be enrolled in both semesters of the academic year for three credit hours per semester. Prerequisite: Evidence and qualification under Kansas Rule 719. See Clinic and Externship Rules in the Academic Regulations section of this bulletin. Prerequisite or corequisite: Trial Advocacy. FLD.

LAW 876. Current Issues in Poverty Law. 1 Hour.
A survey of recent court decisions affecting both the working and nonworking poor, particularly in the areas of legal representation, housing, reproductive freedom, faith based initiatives and children's health care. Current legislative proposals and policy papers written by proponents and opponents of welfare reform will also be assigned and discussed. LEC.

LAW 859. Deposition Skills Workshop. 2 Hours.
This professional skills course will expose students to substantive and procedural law, as well as the ethical rules, pertaining to depositions. It provides students a realistic deposition setting in which they will learn to conduct and defend a series of depositions in a simulated environment under the direction of experienced attorneys who serve as the workshop faculty. Prerequisite: Evidence. LEC.

LAW 951. Digital Privacy Rights in an Open Society. 2-3 Hours.
This course focuses on the risks to personal privacy that arise from use of digital technologies to communicate and collect, store and share personal data. The course also focuses on laws that recognize and aim to protect digital privacy rights, as well as the tension between privacy protection and the value placed on freedom and openness in a democratic society. LEC.

LAW 900. Economic Development and Indigenous Nations. 2-3 Hours.
The course examines the laws governing the development and expansion of tribal economies including federal regulations governing the alienability of land, secured transactions, tribal commercial law and international trade. The course includes a detailed discussion of the taxation of activities occurring within Indigenous Nations. LEC.

LAW 901. Elder Law Externship. 2.5-3 Hours.
Involves students in representation of elderly individuals primarily in consumer, housing, and public benefits litigation. Students work under the
supervision of attorneys from Kansas Legal Services and faculty from the School of Law. A one-hour classroom component accompanies the fieldwork requirement. FLD.

LAW 849. Elder Law LL.M. Thesis. 1-6 Hours.
Completion of a substantial research project on an elder law topic, under supervision as determined by the Director of the Elder Law LL.M. program. Enrollment may extend over more than one semester. RSH.

LAW 899. Elder Law Seminar. 2 Hours.
Intensive study of one or more aspects of elder law as selected by the instructor. The course may be repeated for credit with permission of instructor if there is no duplication of topics. LEC.

LAW 891. Elections and Campaign Finance. 3 Hours.
This course will consider the process of elections, campaign finance, and voting at both the state and federal levels. Topics addressed will include the role of political parties, voter and candidate eligibility, design of electoral districts, the mechanics of voting and vote counting, federal and state campaign regulation, and challenges to election results. LEC.

LAW 903. Employment Discrimination Law. 2.5-3 Hours.
A study of the major federal statutes prohibiting discrimination in employment and of constitutional objections to employment discrimination. LEC.

LAW 925. Employment Law. 2-3 Hours.
A study of state and federal regulation of the employer-employee relationship, as distinguished from the regulation of collective bargaining between management and unions. Coverage will include the Occupational Safety and Health Act, the Fair Labor Standards Act, the Employee Retirement Income Security Act, Unemployment compensation, and employment-at-will. LEC.

LAW 963. Energy Law and Policy. 2.5-3 Hours.
Energy law sits at the intersection between environmental law, natural resources law, and regulated industries. It governs the production and consumption of energy, namely electricity and fuel, but increasingly must also keep pace with technological and policy innovation driven by concerns over climate change, energy security, and sustainable development. This course provides and introduction to the energy sector in its legal and regulatory context, with an emphasis on key policy themes shaping this rapidly evolving area of law. LEC.

LAW 904. Environmental Law Seminar. 2-3 Hours.
An intensive study of one or more aspects of environmental law, such as wildlife law, energy policy, marine pollution controls, and so forth. May be repeated for credit, provided there is not duplication of subject matter. LEC.

LAW 905. Environmental Law Survey. 2.5-3 Hours.
A general survey of the legal mechanisms for protecting the environment. It considers the justifications for and economic implications of regulating activities with potential adverse effects on the environment and the various sources of legal constraints (common law, constitutional, and statutory) on those activities. The course provides an introduction to environmental litigation, to environmental assessment under the National Environmental Policy Act, to endangered species protection, and to the various forms of legislative and administrative controls on and inducements to avoid polluting activities reflected in statutes such as the Clean Air Act, the Clean Water Act, and the statutes designed to control contamination of land by hazardous substances. LEC.

LAW 907. Estate Planning: Practice. 2.5-3 Hours.
The course replicates the estate planning process, providing experience in gathering facts, analyzing alternatives, and implementing a plan through preparation of wills, trusts, and other documents. Extensive drafting of documents is required. Prerequisite: Estate Planning: Principles. FLD.

LAW 906. Estate Planning: Principles. 2-3 Hours.
A study of legal principles relating to transmission of property by gift or at death and the vehicles available for these purposes. Primary emphasis is on estate and gift taxation and income taxation of estates and trusts. Prerequisite: Federal Income Taxation and Trusts and Estates. LEC.

LAW 908. Evidence. 2.5-3 Hours.
Functions of the court and jury; burden of proof; presumptions; judicial notice; competency of witnesses; examination of witnesses; hearsay rule, with exceptions; opinion evidence; direct examination and circumstantial evidence; “best evidence” rule; standards of relevancy. Required course. LEC.

The workshop will expose students to the substantive and procedural law as well as the ethical rules pertaining to expert witness testimony. Moreover, it will provide a realistic courtroom setting where students will learn to conduct and defend a series of expert witness examinations and cross-examinations in a simulated environment under the direction and guidance of experienced attorneys who will serve as the workshop faculty. Workshop faculty will evaluate each student and provide immediate critical and helpful feedback to the students after each testimonial performance. It is anticipated that each student will conduct and defend a total of at least five (5) mini expert witness examinations and/or cross-examinations during a one credit-hour workshop or ten (10) in a two credit-hour workshop. LEC.

LAW 894. Externship Clinic. 2-4 Hours.
Provides students with an opportunity to obtain academic credit for quality legal work performed at pre-approved governmental agencies, non-profit legal services organizations, and public international organizations. Students work a specified number of hours per week under the supervision of a practicing attorney; maintain weekly reflective journals of their experience; and file a final report. Students may enroll for more than one semester with permission of the Director, provided that no student may count more than 8 hours of Externship Clinic credit toward the credit required for graduation. No student may enroll in Externship Clinic in a field placement in which the student was formerly an employee, is currently an employee, or has an offer of employment. No student may enroll in Externship Clinic in a field placement for which there is an existing specialized Law School clinic or externship program without the prior permission of both the director of the affected specialized Law School clinic or externship program and the director of the Externship Clinic. Graded on a Credit/No Credit basis. FL.

LAW 909. Family Law. 2-3 Hours.
Introduction to marriage and the family as the basic social unit in Western society. Topics include marriage, divorce, annulment, separate maintenance, alimony, child custody and support, antenuptial and post-nuptial agreements, adoption, legitimacy, and minority. Practice points include financial planning, tax considerations, and the attorney’s responsibility. LEC.
LAW 910. Federal Courts and the Federal System. 2.5-3 Hours.
This course addresses the role of the federal courts in our constitutional federal system. Topics covered include justiceability, Congressional power over the jurisdiction of the courts, federal common law, abstention doctrines, Supreme Court review of state court decisions, and the role of the state courts in enforcing federal law. Prerequisite: Jurisdiction or permission of the instructor. LEC.

LAW 912. Federal Criminal Prosecution. 2.5-3 Hours.
A study of federal criminal prosecution, focusing on the crimes of fraud and political corruption, drug trafficking and money laundering, group/organizational crimes such as conspiracies and RICO violations, false statements to federal officers, and obstruction of justice. Will also consider the federal/state prosecution relationships and overlap of their respective jurisdictions, as well as the federal forfeiture statutes. The working and application of the Federal Sentencing Guidelines will also be studied. LEC.

LAW 913. Federal Income Taxation. 2.5-3 Hours.
A survey of the federal income tax system, with special emphasis on the tax laws generally applicable to all taxpayers. Topics include income determination, deductions, credits, planning, and procedure. Historical development and policy issues are addressed throughout the course. LEC.

LAW 914. Federal Indian Law. 2.5-3 Hours.
Addresses the law and policy of the United States regarding Indian nations and their members. Issues include the origins and contours of federal plenary power over Indian affairs, the scope of inherent tribal sovereignty, the limits of state power in Indian country, civil and criminal jurisdiction, and gaming. (Same as ISP 824.) LEC.

LAW 915. Federal Tax Procedure. 2.3 Hours.
A study of the chronology of tax disputes, from examination by the IRS to final disposition of the case by settlement or court decision. Includes the IRS' procedure for return administration, the administrative appeals process, statutes of limitation on assessment, choice of forum, Tax Court jurisdiction, overpayment, and refund procedures. Prerequisite: Federal Income Taxation. Taxation of Business Enterprises is recommended, but not required. LEC.

LAW 917. Governmental Control of Land Development. 2-3 Hours.
A broad review of land use controls on urban development, including zoning, master planning, subdivision regulation, impact fees, regional controls, and other techniques. Also examines constitutional aspects of controls, as well as the public issues and policies that sustain them. LEC.

LAW 919. Healthcare Financing and Regulation. 2-3 Hours.
Addresses prominent legal and policy issues associated with the delivery of health care. Among these issues: access to care; credentialing of health care personnel; insurance coverage; antitrust strictures; cost containment; and proposals for systemic reform. Covers at least one of the following bioethical issues: organ transplantation; abortion; euthanasia; and rationing of care. LEC.

LAW 920. Health Law and Policy. 2-3 Hours.
A survey of significant legal and policy issues, both historical and current, associated with the delivery of health care. Among these issues are the patient-provider relationship, medical malpractice, the right to die, hospital licensing and physician credentialing, medical staff structure, insurance coverage disputes, and current ideas for health care reform. LEC.

LAW 922. Higher Education and the Law Seminar. 2.5-3 Hours.
A seminar focused on the unique legal issues facing colleges, universities, and graduate schools. The over 4400 institutions of higher education in the United States require legal services, especially as the Supreme Court rules on landmark affirmative action cases such as Fisher v. University of Texas and Schuette v. Coalition to Defend Affirmative Action, and law schools fight suits alleging they misrepresented job prospects to students. Topics will include tenure, freedom of speech and academic freedom, Due Process, student rights and discipline, affirmative action, Title IX and athletics, collective bargaining, tort liability, and antitrust. The course will explore issues that distinguish institutions of higher education from other corporate entities and distinctions between public and private institutions. LEC.

LAW 923. Immigration Law. 2-3 Hours.
Topics such as standards for the admission of immigrants; nonimmigrant visas for students, workers, and tourists; the regulation and exclusion of undocumented aliens; legal procedures for admission, exclusion, and deportation; refugee law; and citizenship law. LEC.

LAW 927. In-House Elder Law Clinic. 2.5-3 Hours.
Enrollment in this clinic is open only to candidates enrolled in the LL.M. Program in Elder Law. Involves representation of elderly individuals primarily in consumer, housing, domestic relations, and public benefits litigation. Unless specifically authorized, LL.M. candidates must enroll for two consecutive semesters. A weekly seminar focused on practical legal issues facing the elderly accompanies the fieldwork requirement. LEC.

LAW 924. Independent Research. 1-2.5 Hours.
Students may undertake a project which involves investigation, research, and scholarship in a particular area of the law. The research must be done under the supervision of a faculty member and must culminate in the writing of a research paper in publishable form. A first draft of the paper must be submitted at a date set by the supervisor which is no later than the end of the eighth week of the semester. The faculty supervisor must return the first draft within two weeks of the submission. The final product of the independent research must be submitted at a date set by that supervisor which is no later than the last day of classes of the semester. A student may not earn either academic credit or credit toward the residence requirement for independent research unless (1) in the case of regular semester, that student is enrolled in at least 3 additional credit hours during the same semester, or (2) in the case of summer school, that student is enrolled in at least 2.5 additional credit hours in either five-week summer session. No student may enroll for more than 2 hours of independent research in one semester, and no student may count more than 6 hours of independent research credit toward the credit required for graduation. However, a student may receive a maximum of 2.5 hours credit for independent research in either the summer school sessions if that student is otherwise enrolled in 7.5 additional hours during the summer session. Prerequisite: Forty hours of law school credit and an overall average of at least 2.0 at the time of enrolling. RSH.

LAW 999. Indian Gaming. 2 Hours.
This course will examine the law, policy, politics, economics, and cultural effects of Indian gaming. It will focus primarily on the federal Indian Gaming Regulatory Act (IGRA), including its origins, structure, and real-world effects. In addition to mastering the pertinent legal issues, students will be asked to consider a series of questions about Indian gaming law, including (1) what are its real objectives? (2) does IGRA, as it is currently being applied, promote those objectives? and (3) given the expansion of non-Indian gaming in recent years, should IGRA be revised to better serve those objectives? Course materials will include IGRA and related case law, materials from the United States Department of Interior setting forth current federal policy, and various tribal-state compacts. LEC.

LAW 926. Insurance. 2.5-3 Hours.
The nature of insurance; regulation of insurance companies; insurable interest; interests of third persons in insurance policies and proceeds; the insured event; warranties; representations; concealment; the marketing of insurance. LEC.
LAW 968. Intellectual Property. 3-4 Hours.
An introduction to substantive patent law, copyright law, and trademark registration designed (1) to provide background knowledge for those interested primarily in the general law practice and (2) to provide a foundation for future specialization in patents, copyrights, and trademarks. LEC.

LAW 847. International Civil Litigation. 2-3 Hours.
This course provides an introduction to the complex procedures associated with civil litigation in an international context. Topics covered include personal and subject matter jurisdiction, venue considerations, transnational service of process, transnational discovery, choice of law, and recognition and enforcement of judgments. Litigation contexts discussed will include both commercial and human rights. Prerequisite: Jurisdiction or permission of the instructor. LEC.

LAW 945. International Commerce and Investment. 3 Hours.
Examines the transactional aspects of the sale of goods and direct investment across national borders. The focus is on private international business transactions. Among the subjects covered regarding international commerce (sale of goods) are contract drafting, documentary sales, commercial terms, electronic commerce, agency and distributorship, and contract performance. Among the subjects covered regarding international investment are joint ventures, corporate codes of conduct, corrupt practices, transfer pricing, expropriation, and dispute resolution. This course complements (but is independent of) International Trade Regulation. LEC.

LAW 936. International Economic Law and Development. 3 Hours.
Examines, in the context of recent developments, the law and institutions of international economic regulation and development. An organizing theme of the course is how the rise of public international economic organizations - World Bank, International Monetary Fund, World Trade Organization, and others - has contributed to the development of legal rules governing relations between states but has also triggered criticisms that these organizations give inadequate attention to environmental concerns, distributional equity, cultural diversity, and national sovereignty. LEC.

LAW 932. International Human Rights Law. 3 Hours.
A study of the objectives, provisions, and institutions of international human rights law. Among the areas covered will be international, regional, and domestic sources of human rights law, the various domestic and international fora for raising human rights questions, and theoretical questions on the scope and value of international human rights protection. Prerequisite or Corequisite: Public International Law or consent of instructor. LEC.

LAW 929. International Law Moot Court Competition. 2 Hours.
Spring semester. Open only to the team of students (usually five) selected by a competition held in the preceding fall semester. All students (including first-year students) are eligible to compete for a position on the team. Once selected, the team participates in the Jessup International Law Moot Court Competition, for which briefs are prepared over the winter recess and oral arguments are usually held in February. Graded Credit/No Credit. LEC.

LAW 944. International Trade Law. 3 Hours.
Examines the regulatory aspects of the sale of goods across national borders. Key topics include the history and institutions of the GATT-WTO system, accession to the WTO, dispute settlement under WTO rules, regulation of import duties, rules on customs classification and valuation, non-tariff barriers, statutory forms of relief from import competition, government regulation of export trade, regional trade regimes, and ideological and policy issues relating to trade liberalization and globalization. This course complements (but is independent of) International Commerce and Investment and is the basis for more advanced study on international trade law. LEC.

LAW 938. Introduction to Copyright in Literacy and Artistic Works. 1 Hour.
Provides students with a basic introduction to copyright issues related to literary and artistic works (excluding music). Among the subjects covered will be: subject matter of copyright, the meaning and significance of publication, formalities of copyright, the nature of rights under the common law and statutory copyright regimes, duration of copyright, transfers of copyright, infringement actions, remedies, and federal preemption. LEC.

LAW 931. Introduction to Elder Law. 2-2.5 Hours.
This course is an introduction to many of the legal issues that face a person who is elderly or has a disability, and focuses on the practical aspects of advising such a client. Topics covered are income (including Social Security and SSI), asset management (including Durable Powers of Attorney and living trusts), estate planning, special needs trusts, health care planning and decision making, Medicare, long-term care planning, long-term insurance, Medicaid, housing issues, guardianship, elder abuse, and end of life issues. LEC.

LAW 918. Islamic Law. 3 Hours.
Examines the history, doctrine, texts, and role of Islamic law (Shari’a) throughout the world. This course complements (but is independent of) LAW 879. The course focuses on the background and birth of the Arab-Islamic Empire, the life and times of the Prophet Muhammad (PBUH), the development of Islam, the Rashidun, Umayyad, and Abbasid Caliphates, Moghul and Ottoman Empires, the Koran and Sunnah and other sacred texts, the Sunni-Shi’a split, the principal schools of Islamic law, the status of women and religious minorities, and principles of the substantive areas of law, including criminal, family, inheritance, contract, property, business, banking, and international law. Also covered are issues of economic growth, marginalization, and terrorism. LEC.

LAW 933. Judicial Clinic. 3 Hours.
Students serve as law clerks for state and federal judges performing legal research for the judges and observing proceedings in the courtroom and chambers. There is a classroom component to the clinic. Students also submit weekly journals to the clinic director and prepare either a paper based on their experiences or make a class presentation. Students must enroll for the academic year, for three credits per semester. LEC.

LAW 845. Jurisdiction. 2-3 Hours.
This course deals with issues relating to a court’s power to adjudicate claims. Topics covered may include jurisdiction over persons or property, subject matter jurisdiction, venue, determining the applicable law, joinder of parties, and recognition and enforcement of judgments. Prerequisite: Civil Procedure. Not open to students who have had the School’s two-semester, six-hour course or its equivalent. LEC.

LAW 934. Jurisprudence. 2-3 Hours.
Considers issues in legal and political theory or philosophy. The focus is on theories of adjudication, theories of law, and application of these theories to particular cases and problems. Other topics may be added, such as the philosophy of criminal punishment, the theory of legal interpretation, feminist jurisprudence, law and literature, or law and sociology. A writing project is required in place of a final examination. LEC.

LAW 935. Juvenile Law. 2 Hours.
A study of the juvenile justice system, juvenile courts, and the children and youth who come under juvenile court jurisdiction. Among the subjects covered will be: the history and philosophical basis of the juvenile court, child abuse and neglect, termination of parental rights, status offenders, children who commit criminal offenses, taking children and juveniles into
custody, search and seizure, interrogation, intake, informal supervision, diversion, protective and temporary custody, pretrial detention, waiver of adult court, and adjudicatory and dispositional hearings. LEC.

**LAW 940. Kansas Journal of Law and Public Policy I. 1 Hour.**
The Kansas Journal of Law and Public Policy publishes articles by scholars, public officials, and others, including student staff members, on public policy topics. The staff of the Journal is chosen on the basis of a yearly writing competition. First year members of the Journal undertake editorial work and write comments for possible publication. Journal members may not enroll concurrently in the Kansas Law Review. FLD.

**LAW 937. Kansas Journal of Law and Public Policy II. 2 Hours.**
The Kansas Journal of Law and Public Policy publishes articles by scholars, public officials, and others, including student staff members, on public policy topics. The staff of the Journal is chosen on the basis of a yearly writing competition. Second year members of the Journal select articles for publication, edit the articles, and undertake the other responsibilities of publication. Journal members may not enroll concurrently in the Kansas Law Review. FLD.

**LAW 840. Kansas Supreme Court Research Clinic. 2 Hours.**
This clinic serves the dual goals of providing students with practical research experience and assisting the Kansas Supreme Court by providing needed research support. Students are assigned research projects from the Kansas Supreme Court and the Office of Judicial Administration as arranged by the instructors. Students employ a variety of methodologies to conduct thorough research and concisely convey their findings to the Kansas Supreme Court, culminating with a presentation to the court at the end of the semester. FLD.

**LAW 939. Labor Law. 2.5-5 Hours.**
A study of the federal regulation of union-employer-employee relationships in the private sector. Subjects include employee organizational rights, union collective action, injunctions, federal preemption, the duty of bargain, antitrust limitations, the enforcement of the collective bargaining agreement, grievance procedures and arbitration, the union’s duty of fair representation, and internal union affairs. LEC.

**LAW 941. Land Transactions. 2-3 Hours.**
This practice-oriented course treats basic transactions in land with primary emphasis on sales transactions involving residences and farms. A sales transaction is surveyed from the initial stage of marketing with real estate brokers through the making of the contract and the financing to final consummation and transfer of title. Topics are conveyancing, risks of title defects, and methods of title assurance, remedies on contract breach, American recording systems, condominiums, land descriptions, and financing methods. LEC.

**LAW 942. Law and Bioethics. 2-3 Hours.**
Explores a variety of topics at the intersection of bioethics and the law. Includes the definition of death, baby-selling, organ transplantation, surrogate parenting, human cloning, advance directives and end-of-life decision-making, physicians’ authority to withhold “futile” care, the treatment of patients in persistent vegetative states, and rationing of healthcare. Students will have the option of fulfilling the writing requirement with one additional hour of independent research. LEC.

**LAW 946. Law and Literature. 2.5-3 Hours.**
Explores the relationship between law and literature and changes that have occurred over time, the portrayal of lawyers in literature, literary narrative and legal narrative, and other related topics. LEC.

**LAW 867. Law and the Arts. 2-3 Hours.**
Provides students with an introduction to the areas of law which they must understand to represent visual artists, collectors, and museums. Covers, among other subjects, intellectual property rights in art, licensing of artworks, sales and purchase of artworks, importation and export of art, etc. LEC.

**LAW 953. Law Practice Management and Legal Entrepreneurship. 2.5-3 Hours.**
Increasingly, law graduates are leaving law school and establishing their own law firms. This course is designed to introduce law students to the various issues that they will face as “legal entrepreneurs” and help them make the transition from law student to practicing lawyer in a solo or small law firm. Among the topics covered are law firm space, staffing, document production, marketing, etc. Students in the class will draft multiple documents such as a retainer letter, a client bill, and advertising copy. There is no examination in the course. LEC.

**LAW 950. Law Review. 1-2 Hours.**
The Kansas Law Review publishes scholarly commentary on the law by professors, practicing lawyers, judges, and law students. Students are selected for membership by competition, and are responsible for publishing five issues of the Review each year. Students select articles for publication, edit the articles, write notes and comments for possible publication. Students must enroll for the academic year, for one-two credits per semester. Students enrolled in this course will not be permitted to enroll in the Kansas Journal of Law and Public Policy. Graded on a Credit/No Credit basis. FLD.

**LAW 952. Legal Aid Clinic. 2.5-4 Hours.**
Students render legal assistance to indigents in Douglas County under the auspices of the Douglas County Legal Aid Society. Students interview clients and prospective clients, conduct factual investigations and legal research, and appear in municipal, state, and federal courts. A weekly seminar accompanies the fieldwork. Students must be third-year and must enroll for two consecutive semesters. Prerequisite: Professional Responsibility and qualification under Kansas Rule 719. See Clinic and Externship Rules in the Academic Regulations section of this bulletin. Prerequisite or Corequisite: Trial Advocacy. FLD.

**LAW 949. Legal Profession. 2-3 Hours.**
Lectures and discussion on topics regarding the legal profession. Included will be the history of the profession, legal education, bar admissions, professional organizations, the everyday practice, the role of law and lawyers in society, and the future of the profession. LEC.

**LAW 955. Legislative Clinic. 2.5-3 Hours.**
Students are assigned to state legislators or other offices that participate in the legislative process during the legislative session. A 2-hour seminar accompanies the fieldwork. A paper with two drafts is a required part of this seminar. FLD.

**LAW 954. Legislation and Statutory Interpretation. 2-3 Hours.**
This course examines the legislative process, the relationship between the common law and statutes, and statutory interpretation. It focuses primarily on the theoretical and practical aspects of statutory interpretation, including overall theories of interpretation, the canons of statutory interpretation, and the use of legislative history. Because statutory interpretation is a skill needed by all attorneys, the course is designed to be of interest to any student. LEC.

**LAW 982. Lesbian, Gay, Bisexual, Transgender and Questioning (LGBTQ) Seminar. 2-3 Hours.**
This course will explore the emergence of the LGBTQ civil rights movement and will cover numerous legal topics at the intersection of law and practice involving issues significant to LGBTQ clients. Among others, topics will include: marriage, divorce, employment discrimination, family creation, healthcare and tax consequences. Students will be asked to prepare legal documents and will complete a major drafting project. The
course seeks to provide students with skills and knowledge to meet the needs of this unique client base. LEC.

LAW 956. Local Government Law. 2.5-3 Hours.
The structure, functions, and jurisdictions of local governmental units; intergovernmental arrangements and relationships, financing and staffing local government; tort liability of local governments. LEC.

LAW 958. Media and the First Amendment. 2.5-3 Hours.
The study of the First Amendment freedoms of speech and press. The focus is on both traditional media, such as newspapers and broadcast radio and television, and digital media, including blogs, that rely on the Internet to distribute news, opinion, entertainment, and advertising. LEC.

LAW 959. Media Law Clinic. 2.5-3 Hours.
Practical, in-depth studies of law, policy, regulation, and professional ethics that shape the relationship between the communications media and such institutions as the judiciary, legislature, agencies, business, education, and the professions. Individual students or teams of students, supervised by the clinic director, prepare research reports in response to requests from lawyers, policy-makers, publishers, and others who are concerned with the free flow of accurate, fair, and timely news and information in a democratic society. The clinic is designed to advance students’ skills and knowledge in analyzing the rights and responsibilities of the communications media and the individuals and organizations that depend on those media to inform the citizenry. FLD.

LAW 885. Medical-Legal Partnership Clinic. 1-4 Hours.
Students provide legal assistance to clients referred from the Family Health Care Clinic in Kansas City, Kansas. Students will engage, under faculty supervision, in interviewing, counseling, negotiation and other aspects of the legal process. The cases may include health law, family law, immigration and other civil law problems. Students will work directly with one of the Family Health Care Center medical teams. Students must enroll for full year. Prerequisite or corequisite: Professional Responsibility. FLD.

LAW 947. Mergers and Acquisitions. 2-3 Hours.
An examination of the substantive law of corporate mergers and acquisitions. Coverage includes structure of the transaction; the buyer’s due diligence process; hostile takeover defenses and the responsibilities of the target’s board; state takeover legislation and issues of federal preemption; friendly acquisitions and the seller board’s duties; conflicts between majority and minority shareholders; and federal regulation of tender offers via the Williams Act. Prerequisite: Business Associations I and II (Business Associations II may be taken as a corequisite) or Business Organizations. LEC.

LAW 960. Moot Court Competition. 1 Hour.
Spring semester. A traditional moot court competition based upon an appeal to the United States Supreme Court with written briefs and oral argument rounds. The competition is conducted as a tournament, with elimination rounds and seeding of teams of pairs after the preliminary rounds. Students compete as two-person teams with two teams advancing to the final round. The competition is limited to second-year students and is usually completed by Mid-April. Graded on a Credit/No Credit basis. Prerequisite: Second-year status. FLD.

LAW 961. Moot Court Council. 1 Hour.
Spring semester. The Moot Court Council consists of the third-year students who represent KU in various national moot court competitions. All students are selected through the KU spring moot court competition (Law 960) in their second year. The council administers the KU spring moot court competition under the supervision of the faculty member responsible for the course. The council also assists with tasks associated with participation in the various national competitions as assigned by the faculty member responsible for the course. Graded on a Credit/No Credit basis. FLD.

LAW 964. National/International Moot Court Competitions: _____. 1-2 Hours.
Students compete in various national and international moot court competitions (except the Jessup International Moot Court Competition, LAW 929). All students are selected through the KU spring Moot Court Competition (LAW 960) in their second year. Teams will write a brief and participate in practice oral arguments as required by the faculty member responsible for three particular competition, including at least three arguments judged by law faculty, practicing lawyers, or judges. Students travel to regional, national, and international competitions as applicable. Competitions include: Bankruptcy Law Moot Court, Criminal Law Moot Court, Criminal Procedure Moot Court, European Law Students Association International Trade Moot Court, Environmental Law Moot Court, First Amendment Moot Court, National Moot Court, and Stetson International Environmental Moot Court and Health Law Moot Court. Students also must enroll in the Moot Court Council, LAW 961. Graded on a Credit/No Credit basis. FLD.

LAW 965. Nonprofit and Tax-Exempt Organizations. 1-2 Hours.
Focuses on the legal issues affecting nonprofit and tax-exempt organizations, with primary emphasis on state nonprofit corporation codes and the Internal Revenue Code. Issues covered include allocation of governance responsibility between members and directors, the role of states attorneys general, charitable trust law, obtaining and maintaining tax exemption, private inurement and private benefit, intermediate sanctions, reporting and disclosure requirements, and consequences of unrelated business income. Prerequisite: Business Associations I or Business Organizations and Federal Income Taxation. LEC.

LAW 966. Oil and Gas. 2.5-3 Hours.
The oil and gas lease; expressed and implied duties under a lease; the effect of various conditions of ownership on oil and gas transactions; oil and gas conveyances; unitization and pooling; conservation of oil and gas. LEC.

LAW 977. Patent Law. 2.5-4 Hours.
This class explores the doctrine, policy and practice of patent law in the United States. It examines the challenges posed to patent law by new technologies, such as biotechnology, pharmaceuticals, the Internet and nanotechnology. Patent law systems in other countries and the role of international patent treaties are also considered. Prerequisite: Intellectual Property Law. LEC.

LAW 979. Patent Practice. 2.5-3 Hours.
This course focuses on the practical application of patent law principles to the practice of patent law, including: assessing patentability, preparing and prosecuting patent applications, and analyzing infringement concepts. Students will examine patent statutes and United States Patent and Trademark rules and guidelines governing patent prosecution, as well as court decisions impacting and interpreting patents. The course will involve in-class and take-home assignments and workshops designed to expose students to situations encountered in actual patent practice, including the preparation of an opinion of patentability, office action response, and drafting claims. Prerequisite: Intellectual Property and Patent Law. LEC.
LAW 897. Pension and Employee Benefits Law. 1-2.5 Hours.
Covers the practical aspects of representing employers and employees in regard to pension plans, profit sharing plans, and other forms of tax-sheltered deferred compensation. Participation, contribution, vesting, distribution, plan qualification, and operational rules will be examined. Prerequisite: Federal Income Taxation. LEC.

LAW 896. Practice in Kansas. 2.5-3 Hours.
Designed for the student who intends to enter a private general practice in Kansas. Topics include substantive law of Kansas in domestic relations, landlord-tenant relations, debt collection, probate, and selected areas of criminal law and general civil practice. Students will develop practical skills in pleading and discovery techniques. LEC.

LAW 970. Pretrial Advocacy. 2.5-3 Hours.
This skills course is designed to teach the fundamentals of pretrial practice from the client's first visit to the day before trial begins. Students will learn to interview and counsel clients, consider alternatives to litigation, draft pleadings, conduct and respond to discovery, and negotiate and draft settlement documents. FLD.

LAW 971. Product Liability. 2.5-3 Hours.
Intensive study of legal developments and problems relating to compensation for injuries resulting from defective products. LEC.

LAW 972. Professional Responsibility. 2-3 Hours.
Fall and spring semesters. Must be completed by the time the student finishes 60 hours of law school. Considers some of the history of the profession, training for the practice, the lawyer in the office, the lawyer and the public, the lawyer as lawmaker, limitations on personal conduct, the lawyer as judge, the canons of professional ethics, and many other incidents to the practice. Required course. LEC.

LAW 895. Project for Innocence and Post-Conviction Remedies. 2.5-3 Hours.
Provide assistance to the inmates incarcerated at the federal and state facilities in Kansas. Representation includes direct appeals, post-conviction and DNA litigation. Students interview clients, conduct fact investigation, determine the scope of representation and write court briefs. Students who satisfy Kansas Supreme Court Rule 719 may participate in court hearings. Students must enroll for the academic year, for 3 credits per semester. Concurrent enrollment in LAW 896 is required. Prerequisite or Corequisite: Criminal Procedure. FLD.

LAW 896. Project for Innocence and Post-Conviction Remedies Class. 1 Hour.
Designed to acquaint students with the issues surrounding the professional skills, substance, and ethics that are critical to student participation in LAW 895, Project for Innocence and Post-Conviction Remedies. A corequisite with LAW 895 and enrollment is limited to students concurrently enrolled in that course. LEC.

LAW 973. Public Benefit Law. 2-3 Hours.
A survey of major public benefit programs, such as Social Security, Unemployment Compensation, Medicare and Medicaid, Aid to Families with Dependent Children, and Veterans’ Benefits. Examines both the substantive requirements for receiving benefits and the procedural apparatus through which benefit decisions are made. In addition, public policy issues surrounding public benefits will be explored. LEC.

LAW 993. Public Health Law. 2-3 Hours.
A broad view of the problems of disease, treatment, and health care delivery from a population-based perspective. The focus is on collective responsibility for ensuring the conditions for a healthy society and the laws that relate to that objective. Topics may include international human rights and bioterrorism; infectious disease control, such as vaccination, quarantine, and surveillance; problems of urbanization, including sanitation, obesity, and public safety; constitutional rights, such as privacy, free speech, freedom of religion, and regulation of professions; formal and informal regulation through public health authorities and tort liability. LEC.

LAW 974. Public International Law. 2.5-3 Hours.
A general survey of the legal system governing the behavior of states and public international organizations. Includes the nature and sources of international law and the role of international law and procedures in the maintenance of world peace and security, the protection of human rights, the management of the environment, and the regulation of international economic relations. LEC.

LAW 975. Public Lands and Natural Resources. 2.5-3 Hours.
Devoted to the law and legal systems that govern the classification and use of one-third of America’s land mass. Includes a survey of the acquisition and disposition of the public domain; general federal statutes and doctrines that affect public land law; and different forms of federal lands classifications, including national parks, scenic rivers, and grazing lands. (Same as ISP 877.) LEC.

LAW 976. Public Policy Clinic. 3 Hours.
The Public Policy Clinic undertakes in-depth, balanced policy studies in response to requests from public officials. Individual students, or teams of students, supervised by the clinic director, prepare the research reports. Designed to give students practical experience in applying analytical policy methods to public policy issues. FLD.

LAW 985. Real Estate Finance. 1-2 Hours.
A basic course in the finance of the acquisition and development of real estate. Course involves the mortgage market, basic security transactions, and remedies of secured creditors including mortgage foreclosure. LEC.

LAW 978. Refugee and Asylum Law. 2-3 Hours.
This course will cover the fundamental doctrines of refugee and asylum law-drawing from concepts in humanitarian law, public international law and the law of human rights. We will also examine contemporary issues of governance through studying the work of international institutions such as the U.N.H.C.R. and non-governmental humanitarian/relief organizations that have made a transition from crisis management to longer-term community development and social empowerment. Prerequisite: Public International Law, International Human Rights Law, Immigration Law, or consent of the instructor. LEC.

LAW 928. Remedies. 2-3 Hours.
The law of remedies is an important part of understanding substantive law, shedding light on how our civil justice system attempts to “right” wrongs. This course will examine the way in which the law responds to the violations of rights, including an exploration of compensatory damages, punitive damages, and equitable remedies, such as restitution and injunctive relief. LEC.

LAW 984. Research Workshop: _____ 2-3 Hours.
Offers a limited number of students the opportunity to conduct related independent research projects under faculty supervision in some selected area of study. Each student will write an independent research paper for two credit hours as described under LAW 924 Independent Research; each student will also engage in one credit hour of related class discussion and assigned readings. Participation in any Research Workshop counts as, and is subject to the same rules as an independent research project. Participation in a Research Workshop constitutes 2 hours of independent research credit for the purpose of computing the maximum number of independent research hours. Each proposed workshop must be approved by the Student/Faculty Assembly. LEC.
LAW 988. S.J.D.. 1-4 Hours.
Supervised research leading to the Doctorate of Juridical Science. THE.

LAW 986. Securities Regulation. 2.5-5 Hours.
An analysis of federal and state securities law and state "Blue Sky" laws. Prerequisite: Business Associations I and Business Associations II or Business Organizations. LEC.

Examines legal, governmental, political, social, cultural, and economic issues associated with American Indian tribal sovereignty and self-determination. Includes the source and scope of tribal sovereignty; the threats to tribal sovereignty; and the methods by which tribal sovereignty can be strengthened and revitalized. (Same as GINS 883.) LEC.

LAW 994. Special Topics: _____. 1-3 Hours.
The content of this course varies, and will be announced prior to pre-enrollment. May be repeated if there is no duplication of subject matter. LEC.

LAW 957. Sports Law. 2-3 Hours.
Legal issues pertaining to professional and amateur sports: terms and enforcement of professional contracts, including the role of arbitration; labor law and collective bargaining issues; the representation of professional athletes and the regulation of agents; antitrust aspects; intellectual property rights; the National Collegiate Athletics Association and the regulation of intercollegiate sports; and issues of racial and gender equity. LEC.

LAW 842. State Constitutional Law. 2-3 Hours.
All 50 states have their own constitutions and cases interpreting those charters. State constitutions sometimes mirror or duplicate federal constitutional provisions, but state constitutions also contain provisions not found in the U.S. constitution. In our federal system, both federal and state constitutional law are important and vibrant. This course explores the similarities and the differences in federal and state constitutional law. Coverage includes structural aspects of state constitutional law (dual sovereignty, interpreting state constitutions independently of the federal constitution, the organization of state government, restrictions unique to the state constitutions, and the amendment process, as well as individual rights under state constitutions (equality, due process, criminal procedure, property, religion education, "right to a remedy"/"open courts", and privacy). Prerequisite: Introduction to Constitutional Law. LEC.

LAW 855. Taxation of Business Enterprises. 2-3 Hours.
A study of the effect of the federal income tax on corporations, partnerships, and limited liability companies, as well as their owners. Includes coverage of federal income tax provisions having especially important effects on business activities in general. Prerequisite: Federal Income Taxation and Business Associations I or Business Organizations. LEC.

LAW 990. Taxation of Mergers and Acquisitions. 1-3 Hours.
Examines the income tax treatment of corporations and their shareholders arising from taxable and tax-free acquisitions of corporate stock or assets. Includes statutory mergers, triangular reorganizations, recapitalizations, and corporate divisions. To ensure greater understanding of the technical rules, will also focus on the non-tax motives underlying these types of transactions, including strategic and economic considerations. Prerequisite: Taxation of Business Enterprises. LEC.

LAW 846. The Art of Advocacy. 2-3 Hours.
This course seeks to provide a bridge between the appellate-style advocacy that is taught in the first-year, and the pre-trial and trial advocacy offered in the upper-level curriculum. The course is skills-based, designed to enhance students’ advocacy skills by asking them to contemplate effective techniques in different contexts and with different audiences in mind. The course seeks to focus students on the methods and nuances of advocacy beyond the substance they are presenting. Because it is a skills-oriented course, it requires extensive student presentation. Specifically, students will be asked to play the role of advocate in various contexts that litigators and trial lawyers often confront and will be required to respond to than critique others who advocate in those contexts. Prerequisite: Evidence. LEC.

LAW 843. The Law of War: History, Principles, and Practice. 2.5-3 Hours.
This course will explore the development of legal ideas about the legal regulation of armed conflict, with special attention given to the role and treatment of civilians and other non-combatants. It will not cover American military justice under the Uniform Code of Military Justice nor will it cover internal discipline of military forces. Among the subjects covered will be the history of attempts to legally regulate armed conflict, the law of war at sea, in the air, and in space, treatment of civilians by combatants, treatment of property, particularly significant cultural property by combatants, and non-military combatants, including pirates and terrorists. LEC.

LAW 916. The State and Religion. 2-3 Hours.
An in-depth examination of court decisions and statutes concerning the first amendment religion clauses. Specific topics will include the definition of religion, school prayer, religious symbols, aid to sectarian institutions, and religious freedom. There will be some comparative material presented as well. The basic course is a 2 hour seminar but any student may also enroll for 3 hours on the condition that they submit a topical 10-12 page paper. LEC.

LAW 854. Topics in Advanced Legal Research: _____. 1 Hour.
Focuses on advanced legal research methodologies and sources related to a specific area of law. The area of law will be selected by the instructor and announced prior to enrollment, and could include environmental law, criminal law, tribal law, business law, intellectual property, or international law, among others. Depending on the area of law being covered, sources will include administrative materials, loose-leaf services, treatises, practice materials, association regulations, commercial databases, and the Internet. Students will prepare a research plan in a specific area of the law being covered. Each student will turn in research logs that document the steps taken to complete research problems. LEC.

LAW 962. Topics in Law and Philosophy. 2 Hours.
Explores various topics at the intersection of law and philosophy. Content varies but may include: What is freedom and what role should government play in a free society? What is equality and what is the best way to achieve it? What is the relationship between law and social justice? What is the source and value of human rights? Should social and economic rights be legally guaranteed? How should government redress historical injustices such as slavery, apartheid, and the Holocaust? Students must complete a substantial seminar paper in place of a final exam. (Same as PHIL 885.) LEC.

LAW 991. Torts II. 2-2.5 Hours.
Examines areas of tort law not considered in Torts I, such as misrepresentations, defamation, privacy, misuse of legal procedures, and interference with advantageous relationships. LEC.

LAW 992. Trial Advocacy. 2.5-3 Hours.
A skills course designed to teach the fundamentals of trial practice including opening and closing statements, direct and cross examination, use of demonstrative evidence, introducing exhibits, making evidentiary objections, and courtroom procedure and decorum. Combines skills
workshops, lecture/demonstrations, and a mock trial. Prerequisite: Evidence. FLDR.

LAW 998. Tribal Judicial Support Clinic. 3 Hours.
Students are assigned research projects from participating tribal courts as arranged by the instructor. Students provide research assistance to tribal court personnel in an array of projects that range from tribal code development, legal research and drafting of legal memoranda and judicial orders. Prerequisite: Federal Indian Law; Sovereignty, Self-Determination, and the Indigenous Nations; or Native American Natural Resources. LEC.

LAW 996. Trusts and Estates. 2.5-4 Hours.
Interstate succession; execution, construction, and revocation of wills; rights of the surviving spouse (including elective share); creation, construction, and termination of trusts; powers of appointment; future interests and the Rule Against Perpetuities; basic introduction to the federal taxation of estates and gifts; fiduciary administration of trusts and estates. LEC.

LAW 995. Water Law. 2-3 Hours.
A study of water rights including the riparian and prior appropriation doctrines for surface water, and the various doctrines for groundwater. Private and public water distribution organizations, and special water districts. Water pollution control. Interstate conflicts over water resources. Federal government involvement in water distribution including federal powers and programs. Indian and reserved rights. Kansas water law. (Same as ISP 879.) LEC.

LAW 997. Workers’ Compensation. 2.5-3 Hours.
Primary emphasis will be placed on workers’ compensation (industrial insurance), where some of the basic problems of work-connected injuries and diseases will be considered. Current proposals for compensating the traffic victim without reference to fault will also be treated by way of comparison to the workers’ compensation system. As time permits, other areas of social legislation may be surveyed. LEC.

Juris Doctor Program

Law Programs

The First-Year Curriculum

First-year students take courses that ensure they are well grounded in the subject matter that lies at the heart of the Anglo-American legal tradition and that provide a foundation for upper-level classes and for the practice of law. Two aspects of the first-year curriculum — the lawyering course and the small-section program — contribute immeasurably to the process of learning the law at KU.

The lawyering course focuses on the skills and values of the profession. Taught by faculty members with extensive practice experience who meet weekly with students in both a traditional classroom setting and small groups, the course introduces students to the tools all lawyers use and helps bring students to an understanding of the legal system and legal institutions, case law and statutes, legal research and writing, and advocacy.

All first-year students take one of their other required courses in a small section of approximately 20-25 students. These classes provide an informal learning atmosphere and encourage in-depth discussions and critical analysis.

Upper-Level Courses

More than 100 courses are available to upper-level students, covering a broad range of practice areas from environmental law to the law of Indian gaming. Many are seminars, simulation courses, or clinics. For curriculum guides to Business and Commercial Law; Civil Litigation; Constitutional Law; Criminal Law; Elder Law; Environmental and Natural Resources Law; General Practice; Intellectual Property Law; International and Comparative Law; Litigation; Media, Law, and Technology; Public Law; Tax Law; and Tribal Law, see the Academics (http://www.law.ku.edu/areas) section of the law school’s website.

Within the context of their particular interests and career goals, the law school strongly encourages students to consider certain principles when selecting upper-class courses.

• First, students should develop core knowledge and essential skills during the second year by taking menu-required courses to lay the foundations for taking advanced courses in the third year.

• Second, given the importance of statutory law and regulatory systems to the modern legal system, students should take courses that focus on complex codes (including statutes, treaties or regulations) and familiarize them with administrative and regulatory systems, also preferably during the second year.

• Third, to provide perspective on the legal system and to be prepared to practice in the modern global environment, before graduation students should take at least one class that concerns a legal system other than the federal or state system in the United States.

To implement these principles, the law school encourages students to talk individually with their faculty advisors about particular courses.

Clinical Programs and Externships

The KU law school was a pioneer in experiential education and today offers many faculty-supervised clinical opportunities (http://www.law.ku.edu/clinics) and externships. All law students have a chance to participate in at least one of the school’s 12 clinics and externships. These programs expose students to the tasks and challenges faced by lawyers in practice. Law students, acting under close faculty supervision, learn substantive law, develop legal skills, and learn professional values in actual practice settings.

• The Criminal Prosecution Clinic gives students an opportunity to work with prosecutors in Kansas state district attorneys’ offices as well as the office of the U.S. Attorney. They participate in nearly all phases of the criminal process, including trial work.

• In the Elder Law Externship, students work under the supervision of experienced attorneys representing clients in matters such as income maintenance, access to health care, housing, social security, Medicare/Medicaid, and consumer protection.

• The Externship Clinic provides students an opportunity to perform legal work under the supervision of a practicing attorney at pre-approved governmental agencies and public international organizations.

• Students in the Judicial Clerkship Clinic serve as law clerks for state and federal trial judges in Kansas City, Topeka, and Lawrence.

• The Kansas Supreme Court Research Clinic serves the dual goals of providing students with practical research experience and assisting the Kansas Supreme Court by providing needed research support. Students are assigned research projects from the Court and the Office of Judicial Administration.

• Students in the Legal Aid Clinic represent indigent citizens of Douglas County in areas including domestic relations, landlord-tenant disputes, and other civil actions. They also serve as public defenders in municipal and juvenile court.
The focus of both the Legislative Clinic and the Public Policy Clinic is law-making. Students in the Legislative Clinic are assigned as interns to state legislators during the spring legislative session. In the Public Policy Clinic, students undertake policy studies in response to requests from public officials.

Media Law Clinic students, under the supervision of the clinic director, respond to questions presented by lawyers, policymakers, publishers, and others concerned with the media.

In the Medical-Legal Partnership Clinic, students provide legal assistance through the Department of Family Medicine at the University of Kansas Medical Center in Kansas City, Kan., and the Health Care Access Clinic in Lawrence, Kan. Cases may include health law, family law, housing law, public benefits law, disability law, and immigration law.

In the Paul E. Wilson Project for Innocence and Post-Conviction Remedies, students counsel and represent state and federal prisoners in appellate and post-conviction litigation in state and federal courts.

In the Tribal Judicial Support Clinic, students provide research assistance in an array of projects ranging from tribal code development to drafting memoranda and orders.

International Study
The law school sponsors several study abroad (http://www.law.ku.edu/study-abroad) programs for its students. They include

1. A 1-semester program in London, through the London Law Consortium, of which the KU law school is a founding member;
2. A summer program in Limerick and Dublin, Ireland, in collaboration with the University of Limerick; and
3. A summer program in Istanbul, Turkey, in collaboration with Bahcesehir University.
4. A summer program in Peking, China, in collaboration with the UMKC China Consortium and Peking University School of Law.

All have been approved by the American Bar Association. In addition, KU history and law faculty members collaborate to sponsor a summer program in Cambridge, England, focusing on Anglo-American legal history. This program is open to undergraduates and to entering law students before they begin their studies in the fall term of their first year. KU law students also may choose from among numerous other ABA-approved summer study abroad programs.

Accelerated Program
The School of Law offers a summer program (http://www.law.ku.edu/summerstart) that is fully integrated with the curriculum of the fall and spring semesters. First-year students may begin their studies in either the summer session or the fall semester. Students beginning law studies in the summer session may, but are not required to, complete their law degrees in 27 months by being enrolled continuously in 2 academic years and 3 contiguous summer sessions. About one-third of the students in each year’s entering class begin their studies in the summer.

The summer program consists of 2 consecutive 5-week sessions that begin in mid-May and conclude at the end of July. Each course offered during the summer meets approximately 80 minutes a day, 5 days a week.

A first-year student takes 2 required first-year courses in each session. At the end of the second session, the student has accumulated 8 of the 90 hours required for graduation.

In addition to first-year courses, several upper-level courses usually are offered in the summer. There are opportunities to participate in Legal Aid Clinic, Project for Innocence and Post-Conviction Remedies, Externship Clinic, and Judicial Clinic during both summer sessions. Almost all summer session courses (including the clinics) carry 2 to 2.5 credit hours a session. Upper-level students may take 2 courses each session. Enrollment in more than 10 hours must be approved by the associate dean for academic affairs.

Certificates
Certificate Programs
The law school offers 8 certificate programs (http://www.law.ku.edu/certificates):

1. Advocacy
2. Business and Commercial Law
3. Elder Law
4. Environmental and Natural Resources Law
5. International Trade and Finance
6. Media, Law, and Technology
7. Tax Law
8. Tribal Lawyer

Each allows students to focus on an area of law and develop expertise in it. The requirements for each program are in the Academics (http://www.law.ku.edu/areas) section of the law school’s website. During their first year of law school, students should notify the associate dean for academic affairs of their intention to meet certificate requirements.

Advocacy Certificate Program
Effective advocacy requires a solid grounding in all aspects of litigation — planning the lawsuit, pretrial practices and procedures, trial advocacy, and post-trial matters — and in alternative forms of dispute resolution. This certificate program provides the means for students to develop basic knowledge and skills in effective advocacy.

Business and Commercial Law Certificate Program
The certificate program in business and commercial law is a response to the longstanding demand for attorneys with expertise in the field. Completion of the certificate requirements allows a student to develop the knowledge and skills needed to begin a successful career as a business lawyer. A student who obtains the certificate receives a solid grounding in the basic principles of business and commercial law and is familiar with many of the transactions that business and commercial lawyers commonly encounter in practice. Courses available to students include Business Associations, Commercial Law, Bankruptcy, Securities Regulation, Taxation of Business Enterprises, and Real Estate Finance.

Elder Law Certificate Program
The percentage of Americans over 60 has been growing steadily and significantly. The Elder Law Certificate program allows students to focus on the substantive law upon which an elder law practice is based, as well as on unique issues relevant to client counseling and professionalism when dealing with this expanding population. Participation in the Elder Law Externship is one of the requirements of the program.
Environmental and Natural Resources Law Certificate Program

Since the inception of modern environmental and natural resources law in the late 1960s and 1970s, the field has become increasingly important, both in its own right and as a result of the frequency with which environmental and natural resources law issues intrude into other, more traditional fields of practice such as real estate, insurance, and corporate law. The Environmental and Natural Resources Law Certificate introduces students to the basics of this constantly changing area of practice so that they become competent to address environmental and natural resources law issues in whatever contexts they arise.

International Trade and Finance Certificate Program

Legal practice is global in character. As part of its International and Comparative Law Program, the law school provides students an opportunity to undertake special preparation for such practice — and in particular to study the business nature of that practice — by earning a Certificate in International Trade and Finance.

Media, Law, and Technology Certificate Program

Private enterprise and governmental institutions increasingly depend on, and are affected by, communications media. As a result, legal representation in both the private and public sectors is enhanced by an understanding of media influence on the development and administration of law and public policy. The Media, Law, and Technology Certificate focuses on legislative challenges, judicial decision-making, and administrative policy in an era increasingly shaped by information technologies, global networks, and the media. The program’s requirements include participation in 2 of these 3 clinics: Public Policy Clinic, Legislative Clinic, Media Law Clinic.

Tax Law Certificate Program

Demand for attorneys with expertise in the tax field continues to grow. Completion of the tax law certificate requirements allows students to develop the practical and technical skills needed to build successful careers. Certification also assures employers that the student not only has a mastery of basic principles of individual and entity taxation but also is familiar with many of the intricacies of tax law and practice. One of the program’s requirements is a minimum of 20 hours of participation in an Internal Revenue Service-sponsored Voluntary Income Tax Assistance program or a similar nonprofit tax assistance program.

Tribal Lawyer Certificate Program

Effectively representing Indian nations and tribes requires an understanding of the extremely complicated body of federal, state, and tribal law that affects every aspect of indigenous societies. The Tribal Lawyer Certificate program ensures that law students who plan careers representing indigenous nations have the skills necessary to appreciate and strengthen the unique nature of tribal legal systems and governments. Among the program’s requirements is an internship with a tribal legal department or a private or public interest law firm specializing in Indian law or participation in the Tribal Judicial Support Clinic.

Joint Degree Programs

The law school offers 12 joint degree (http://www.law.ku.edu/jointdegrees) programs:

1. Business
2. East Asian Languages and Cultures
3. Economics
4. Health Services Administration
5. Indigenous Studies
6. Journalism
7. Philosophy
8. Political Science
9. Public Administration
10. Russian, East European and Eurasian Studies
11. Social Welfare
12. Urban Planning

These programs permit a student to receive a master’s degree and a Juris Doctor degree in less time than it would take if the programs were pursued separately. In all cases, a student must be admitted separately to the law school and the other school or department. In the case of the joint law and business program, an applicant must take the Graduate Management Admission Test as well as the Law School Admission Test. The Juris Doctor is awarded concurrently after completion of the joint degree program requirements for each of the joint degree programs. For more information on the joint degree programs and the requirements for each program, see the Academics (http://www.law.ku.edu/areas) section of the law school’s website.

J.D. Degree Requirements

The degree Juris Doctor (J.D.) is conferred on candidates who have

- Completed a minimum of 90 credit hours;
- Achieved a minimum cumulative grade-point average of 2.0 (C);
- Taken and completed all required courses;
- Satisfied the “in residence” requirement;
- Satisfied the writing and professional skills requirements; and
- Completed all requirements within 5 years of initial enrollment (see Withdrawal and Readmission Following Withdrawal (p. 779) in the Regulations section).

Credit-Hour Requirement

Each student must complete a minimum of 90 credit hours. Course work in areas other than law is subject to the limitation described under Course Work Outside the School of Law, below.

Grade-Point Average Requirement

During the semester in which the student attains 90 credit hours, he or she must have achieved a minimum cumulative grade-point average of 2.0 (C) in all law school work. Grades for courses taken in areas other than law are not computed in the School of Law cumulative grade-point average.
Required Courses
To qualify for the J.D. degree, a student must have completed satisfactorily the following:

- All first-year courses listed below
- Evidence
- Professional Responsibility

Professional Responsibility must be completed by the time the student finishes 60 hours of law school credit.

Upper-level required courses should be taken in the second year of law school. Waiting to take these courses until the third year may cause class conflicts between these required courses and courses traditionally taken by third-year law students.

First-Year Courses

Required First-Year Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 804</td>
<td>Civil Procedure</td>
<td>4</td>
</tr>
<tr>
<td>LAW 809</td>
<td>Contracts</td>
<td>4</td>
</tr>
<tr>
<td>LAW 814</td>
<td>Criminal Law</td>
<td>2-4</td>
</tr>
<tr>
<td>LAW 806</td>
<td>Introduction to Constitutional Law</td>
<td>4</td>
</tr>
<tr>
<td>LAW 820</td>
<td>Lawyering Skills I</td>
<td>2</td>
</tr>
<tr>
<td>LAW 821</td>
<td>Lawyering Skills II</td>
<td>3</td>
</tr>
<tr>
<td>LAW 826</td>
<td>Property</td>
<td>2-4</td>
</tr>
<tr>
<td>LAW 831</td>
<td>Torts I</td>
<td>2-4</td>
</tr>
</tbody>
</table>

“In Residence” Requirement

The 90 credit hours required for the J.D. degree must be earned during a course of study in residence at the School of Law extending over a period of not less than 24 months. For more details, see Maximum and Minimum Load in the Regulations section.

Writing Requirement

Each student must satisfy the upper-level writing requirement by

- The successful completion of 2 hours of independent research;
- The successful completion of a 2- or 3-hour course that involves close faculty supervision of writing, as certified by the faculty member; or
- Publication of a student note or comment in the Law Review or Journal, or completion of a paper publishable in the Law Review or Journal, as certified by the editor-in-chief and by the faculty advisor.

All written work must be of at least C quality to satisfy the upper-level writing requirement.

Professional Skills Requirement

Each student who begins his or her J.D. degree during or after the summer 2008 term must satisfy the professional skills requirement by successfully completing one of the following courses:

- Any law school-sponsored clinic or externship;
- National/International Moot Court Competitions;
- A course that, within the determination of the law school, includes substantial instruction in professional skills.*

To satisfy the professional skills requirement, the student must obtain a grade of C or better in graded courses and a grade of CR in courses graded Credit/No Credit.

*Enrollment materials each semester contain a list of courses that satisfy the professional skills requirement. Although this list may vary, courses that currently satisfy the requirement include the following:

- Advanced Legal Ethics
- Advanced Litigation
- Alternative Dispute Resolution
- Business Planning Seminar
- Corporate Transactions: Process and Issues
- Deposition Skills Workshop
- Estate Planning: Practice
- Expert Witness Skills Workshop (if 2 credits)
- Federal Tax Procedure
- Introduction to Copyright in Literary and Artistic Works
- Law and the Arts
- Practice in Kansas
- Pretrial Advocacy
- Trial Advocacy

Course Work Outside the School of Law

A student who is not enrolled in a joint degree program may take up to 6 hours of graduate-level courses outside the School of Law for credit toward a law degree, provided the associate dean for academic affairs approves the course work in advance as relevant to the student’s education as a lawyer. A student seeking credit toward a law degree for more than 6 hours of courses outside the School of Law must petition the academic affairs committee for approval. In such instances, the entire group of courses from outside the School of Law must be relevant to the student’s education as a lawyer. A student must receive a grade of B or better to receive J.D. credit for any such graduate-level nonlaw courses. However, grades for such courses are not computed in the School of Law cumulative grade-point average.

A student in good standing may, with the advance approval of the associate dean for academic affairs, take law courses at another law school accredited by the American Bar Association. If the student successfully completes such courses, not more than 30 credit hours will be transferred and counted toward the 90 credit hours required for the J.D. Time spent at another institution will count as study in residence for the purpose of the “in residence” requirement, but grades in courses taken at the other institution will not be computed in the KU law school cumulative grade-point average.

A student at another law school accredited by the American Bar Association may apply for admission with advanced standing. If admitted, such a student may transfer not more than 30 credit hours of law course work completed successfully at the other law school toward the 90 credit hours required for the J.D. degree. Grades for course work completed at the other law school are not computed in the KU law school cumulative grade-point average.
For purposes of the 2 preceding paragraphs, a grade of C (or equivalent) or better is necessary in each course for which transfer credit is sought. In no event may a student count more than 30 credit hours earned at other law schools toward the 90 hours required for the J.D. degree.

Two-Year J.D. Program for Foreign-Trained Lawyers

Students with foreign law degrees may pursue J.D. degrees through the Two-Year J.D. Program (http://www.law.ku.edu/overview-2-year-jd-foreign-trained-lawyers) for Foreign-Trained Lawyers. This program can be an attractive option for such students and makes them more marketable to employers who see the benefit of having some of their attorneys bear full credentials in 2 or more jurisdictions. The foreign students/lawyers also add a cosmopolitan flavor to classes and help create an excellent professional network for other students and graduates.

Program Structure

Your route to completing the Two-Year J.D. for international attorneys depends on whether you obtained a foreign law degree in a common law jurisdiction. Common law students do not need to follow the first-year curriculum, and will spend both of their years in the Two-Year J.D. Program taking upper-level courses.

Students who did not obtain a degree in a common law jurisdiction will begin the program with the standard first-year curriculum. During the second year of study, these students are eligible for any second- or third-year course available to all other J.D. students.

Students in the Two-Year J.D. Program are subject to the same grading system that applies to other J.D. candidates. All other law school and university rules apply, as appropriate, to students in the Two-Year J.D. Program. These include rules governing credits from outside the law school and cross-listing of courses.

The Two-Year J.D. Program is not limited to foreign citizens. American citizens who have foreign law degrees are also eligible, whether they were born or raised overseas, or elected to complete their education abroad after high school.

1 Australia, Bangladesh, Canada, England, India, New Zealand, Malaysia, Pakistan, Singapore and Sri Lanka will typically qualify as common law jurisdictions. Hong Kong and Macau also currently qualify. The dean or a designated faculty member makes the decision about whether or not certain other countries qualify.

Master of Laws in American Legal Studies

Requirements

The LL.M. in American Legal Studies (http://www.law.ku.edu/overview-llm-international) provides students who already hold a law degree with an introduction to the breadth of American law. Students who complete the one-year LL.M. program are ready for the further study of law in the United States, select bar examinations, and the practice of law internationally. Candidates must hold a basic law degree (LL.B. or equivalent) from an accredited foreign college or university, or a J.D. from an accredited American law school.

Curriculum

The KU Law LL.M. in American Legal Studies will prepare you to take the New York Bar Examination. The curriculum, tied to the requirements set by the New York Bar Examiners, consists of the following:

Course Requirements

<table>
<thead>
<tr>
<th>Course Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Responsibility (fall or spring semester)</td>
<td>2</td>
</tr>
<tr>
<td>Lawyering Skills I (fall semester)</td>
<td>2</td>
</tr>
<tr>
<td>Introduction to Constitutional Law</td>
<td>4</td>
</tr>
<tr>
<td>Select a minimum of 6 credits from the following:</td>
<td></td>
</tr>
<tr>
<td>Business Organizations or Business Associations I and/or II</td>
<td></td>
</tr>
<tr>
<td>Conflict of Laws</td>
<td></td>
</tr>
<tr>
<td>Contracts</td>
<td></td>
</tr>
<tr>
<td>Criminal Law</td>
<td></td>
</tr>
<tr>
<td>Criminal Procedure</td>
<td></td>
</tr>
<tr>
<td>Evidence</td>
<td></td>
</tr>
<tr>
<td>Family Law</td>
<td></td>
</tr>
<tr>
<td>Property</td>
<td></td>
</tr>
<tr>
<td>Torts</td>
<td></td>
</tr>
<tr>
<td>Trusts and Estates</td>
<td></td>
</tr>
<tr>
<td>Commercial Law: Payment Systems</td>
<td></td>
</tr>
<tr>
<td>Commercial Law: Secured Transactions</td>
<td></td>
</tr>
<tr>
<td>Electives: Students may take 10 credit hours in any course offered by 10 KU Law, subject to relevant prerequisites.</td>
<td></td>
</tr>
</tbody>
</table>

Students seeking a more specialized curriculum may request approval from the Associate Dean for International and Comparative Law to waive one or more course requirements.

Grading System

An LL.M. student whose cumulative GPA falls below a 2.0 at the end of any regular semester is on probation. A student on probation is not in good standing for purposes of the rules of withdrawal or any other rules that require good standing.

All LL.M. students must achieve a cumulative GPA of 2.0 during the semester in which they complete 24 credit hours, or they will not be awarded the degree nor will they be permitted to continue in school. There is no appeal within this law school from this requirement.

LL.M. students are not subject to the mandatory grading guidelines applicable to students seeking a J.D. degree.

Students must complete all requirements for the degree within three years of initial enrollment.

Master of Laws in Elder Law

Elder Law LL.M. Program

The University of Kansas School of Law has been a pioneer in the development of elder law as a legal specialty. Since 1995, KU law students have had an opportunity to serve senior citizens in the Elder Law Externship. If they complete requisite courses, they may obtain a

The Master of Laws (http://www.law.ku.edu/overview-llm-elder) program builds on these strengths by expanding course offerings and clinical opportunities and incorporating a faculty-supervised thesis focused on an elder law topic. The program produces graduates who are both knowledgeable and proficient in the law that affects elder citizens. The clinical component of the program ensures that graduates have practical experience in handling common legal problems faced by the elderly population.

Curriculum

The requirements of the program are as follows:

• a total of 24 post-J.D. credit hours
• 12-14 post-J.D. credit hours of course work pursuant to an individualized plan
• 6 post-J.D. credit hours in the Elder Law Externship
• 4-6 post-J.D. credit hours of work on a faculty-supervised thesis on an elder law topic

To earn the LL.M. in Elder Law, a candidate must successfully complete a minimum of 24 credit hours with a GPA of 2.5 for those hours. The required curriculum includes a two-semester elder law research project, a two-semester clinical component, and a thesis.

Required Courses

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elder Law Externship</td>
<td>6</td>
</tr>
<tr>
<td>(two semester sequence, 3 credits each)</td>
<td></td>
</tr>
<tr>
<td>Elder Law LL.M. Thesis</td>
<td>4 - 6</td>
</tr>
<tr>
<td>(may be spread over 2-3 semesters)</td>
<td></td>
</tr>
<tr>
<td>TOTAL REQUIRED CREDITS</td>
<td>10 - 12</td>
</tr>
</tbody>
</table>

In addition, the candidate will choose 12-14 credits of electives from the following courses. Other courses may be substituted with the approval of the Elder Law LL.M. Program Director or the Associate Dean for Academic Affairs.

Elective Courses

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law School Electives</td>
<td></td>
</tr>
<tr>
<td>Administrative Law</td>
<td>3</td>
</tr>
<tr>
<td>Business Associations I</td>
<td>1</td>
</tr>
<tr>
<td>Bankruptcy</td>
<td>3</td>
</tr>
<tr>
<td>Current Issues in Poverty Law</td>
<td>1</td>
</tr>
<tr>
<td>Trusts and Estates</td>
<td>4</td>
</tr>
<tr>
<td>Estate Planning: Principles</td>
<td>3</td>
</tr>
<tr>
<td>Estate Planning: Practice</td>
<td>3</td>
</tr>
<tr>
<td>Health Law and Policy</td>
<td>3</td>
</tr>
<tr>
<td>Law and Bioethics</td>
<td>2</td>
</tr>
<tr>
<td>Public Benefit Law</td>
<td>2 - 3</td>
</tr>
<tr>
<td>Public Policy Clinic (on approved Elder Law topic)</td>
<td>3</td>
</tr>
<tr>
<td>Pension and Employee Benefits</td>
<td>2</td>
</tr>
<tr>
<td>Non-Law Course Electives*</td>
<td></td>
</tr>
<tr>
<td>Social Work and Aging SW 833</td>
<td>3</td>
</tr>
</tbody>
</table>

Doctor of Juridical Science Program

S.J.D. Program

Future academic leaders, government leaders, judges, and others with a strong interest in the interplay of legal scholarship and practice may be interested in the Doctor of Juridical Science (http://law.ku.edu/overview-sjd) Program. Candidates for the S.J.D. conduct in-depth legal scholarship and must hold both a basic law degree (LL.B. or J.D.) and a master’s degree (LL.M.), possess a prestigious academic record, and show promise for reaching the highest ranks of legal service in their home countries.

Summary of S.J.D. Program Structure

<table>
<thead>
<tr>
<th>Year and Semester</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Year - Fall¹</td>
<td>Coursework related to dissertation research 8 total credits (7 course work credits plus 1 credit hour for dissertation work); Begin research/writing dissertation</td>
</tr>
<tr>
<td>1st Year - Spring¹</td>
<td>Coursework related to dissertation research 8 total credits (7 course work credits plus 1 hour credit hour for dissertation work); Continue research/writing dissertation</td>
</tr>
<tr>
<td>1st Summer</td>
<td>1 credit hour for research/writing dissertation</td>
</tr>
<tr>
<td>2nd Year - Fall</td>
<td>1 credit hour for research/writing dissertation</td>
</tr>
<tr>
<td>2nd Year - Spring</td>
<td>1 credit hour for research/writing dissertation</td>
</tr>
<tr>
<td>2nd Summer</td>
<td>1 credit hour for research/writing dissertation</td>
</tr>
<tr>
<td>3rd Year - Fall</td>
<td>1 credit hour for research/writing dissertation</td>
</tr>
<tr>
<td>3rd Year - Spring</td>
<td>1 credit hour for research/writing dissertation; Oral Examination at KU Law; Passage of Dissertation</td>
</tr>
</tbody>
</table>

¹ 1st Year must be in residence at the University of Kansas School of Law
Dissertation Passage Requirements

- Successful completion of all required courses with a grade of C or better.

- Production of a dissertation of no less than 200 single-spaced pages, including front material, footnotes, and bibliography. Paper type, font, margins, and other format and style matters must conform to KU’s Graduate School Instructions to Candidates for Doctoral Degrees in order for the dissertation to be deposited in the KU Libraries.

- Evidence that the candidate has identified a legal issue of relevance; constructed an original argument about that legal issue; defended that argument in a manner that is clear, organized, well-written and well-reasoned; and produced a work that would be publishable as a book, extended law review article, or linked series of law review articles.

- Successful, public defense of the dissertation to committee.
Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU (see your advisor (http://www.advising.ku.edu) for details). Other years' catalogs (http://catalog.ku.edu/archive) »

I'm looking for

**African and African-American Studies** (p. 1068)
- Bachelor of Arts and Bachelor of General Studies in African and African-American Studies (p. 1082)
- Minor in African and African-American Studies (p. 1086)
- Master of Arts in African and African-American Studies (p. 1089)
- Graduate Certificate in African Studies (p. 1090)

**American Studies** (p. 1091)
- Bachelor of Arts and Bachelor of General Studies in American Studies (p. 1096)
- Minor in Latino/a Studies (p. 1099)
- Minor in American Studies (p. 1101)
- Master of Arts in American Studies (p. 1101)
- Master of Urban Planning and Master of Arts in American Studies (p. 1102)
- Doctor of Philosophy in American Studies (p. 1102)

**Anthropology** (p. 1103)
- Bachelor of Arts and Bachelor of General Studies in Anthropology (p. 1116)
- Minor in Anthropology (p. 1119)
- Master of Arts in Anthropology (p. 1120)
- Doctor of Philosophy in Anthropology (p. 1120)

**Applied Behavioral Science** (p. 1122)
- Joint Degree: Ph.D. in Behavioral Psychology and Master of Public Health (p. 1145)
- Bachelor of Arts and Bachelor of General Studies in Applied Behavioral Science (p. 1135)
- Minor in Applied Behavioral Science (p. 1140)
- Master of Arts in Applied Behavioral Science (p. 1142)
- Doctor of Philosophy in Behavioral Psychology (p. 1143)
- Graduate Certificate in Community Health and Development (p. 1145)

**Astronomy** (p. 1145)
- Bachelor of Arts in Astronomy (p. 1151)
- Bachelor of Science in Astronomy (p. 1153)
- Minor in Astrobiology (p. 1155)
- Minor in Astronomy (p. 1155)

**Atmospheric Science** (p. 1156)
- Bachelor of Science in Atmospheric Science (p. 1166)
- Minor in Atmospheric Science (p. 1169)
- Master of Science in Atmospheric Science (p. 1170)

**Bioinformatics** (p. 1170)
- Doctor of Philosophy in Bioinformatics (p. 1171)

**Biology** (p. 1171)
- Bachelor of Arts in Biochemistry (p. 1188)
- Bachelor of Arts in Biology (p. 1190)
- Bachelor of Arts in Human Biology (p. 1193)
- Bachelor of Arts in Microbiology (p. 1199)
- Bachelor of Science in Biochemistry (p. 1201)
- Bachelor of Science in Biology (p. 1204)
- Bachelor of Science in Microbiology (p. 1210)
- Bachelor of Science in Molecular Biosciences (p. 1212)

**Chemistry** (p. 1215)
- Bachelor of Arts in Chemistry (p. 1219)
- Bachelor of Science in Chemistry (p. 1221)
- Minor in Chemistry (p. 1226)
- Master of Science in Chemistry (p. 1227)
- Doctor of Philosophy in Chemistry (p. 1228)

**Child Language** (p. 1229)
- Doctor of Philosophy in Child Language (p. 1229)

**Classics** (p. 1230)
- Bachelor of Arts and Bachelor of General Studies in Classical Antiquity (p. 1235)
- Bachelor of Arts and Bachelor of General Studies in Classical Languages (p. 1237)
- Minor in Classics (p. 1239)
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The College of Liberal Arts and Sciences

Aims

The College of Liberal Arts and Sciences (called the College or CLAS) is KU’s largest academic unit with more than 50 departments and programs. The liberal arts and sciences include disciplines in the humanities, social
and behavioral sciences, and natural and mathematical sciences. The humanities are the study of the constructions or creations of humans over time (literature, religion, philosophy, history, culture, language, etc.). The social sciences are the study of how and why humans behave as they do individually, in groups, or in society (psychology, sociology, anthropology, etc.). The natural sciences involve explanations and predictions of the natural world. Each department lends a unique perspective on the world. Look at each department’s overview page to begin to understand their unique contribution to your education.

Liberal education at the undergraduate level is typically broad rather than specialized. Its aim is to develop a citizenry that is broadly informed and capable of critical appraisal and to provide fundamental knowledge in many fields. The mission of the College, as reflected in KU’s bachelor’s degree requirements, is to provide such an education. The College takes full advantage of KU’s role as a research institution to ensure that the knowledge imparted to students is current and that they learn the skills of inquiry and critical evaluation.

Undergraduate Programs

It is the students’ responsibility to become thoroughly acquainted with all requirements for the degree programs in which they plan to participate. These include all university requirements, as well as the requirements of CLAS outlined in this section of the catalog. Students are also responsible for understanding the requirements that are unique to individual programs.

In general, the student is subject to the requirements in place at the time of admission as a degree-seeking student.

CLAS Baccalaureate Degrees

The College of Liberal Arts and Sciences offers 3 degrees at the baccalaureate level:

• Bachelor of Arts (B.A.),
• Bachelor of General Studies (B.G.S.), and
• Bachelor of Science (B.S.).

The majority of students in the College earn a B.A. degree. The B.A. degree may be earned with a major in all departments and programs in the College except atmospheric science. The B.A. is the traditional baccalaureate degree, structured to ensure both breadth and depth of knowledge through completion of the KU Core, degree specific requirements in writing, mathematics, foreign language, and laboratory science, as well as course work in the major.

The B.G.S. degree is an option allowing intentional breadth, consisting of the completion of the KU Core and one of two options for degree completion.

The B.S. degree is offered by all natural science areas except human biology, as well as economics and behavioral neuroscience. General education degree and major requirements are determined by each program offering the degree and may be different for each B.S. degree in the College. With fewer required non-science general education degree requirements, the B.S. permits more depth in the major. It requires additional work in supporting science areas.

View the list of College of Liberal Arts and Sciences Departments & Programs (p. 783).

Two Degrees

Double Degrees in the College of Liberal Arts and Sciences

The following combinations of degrees are allowable within CLAS as long as the student has completed at least 15 hours unique to each major:

• 2 (or more) B.S. degrees. These must be different B.S. degrees, not different concentrations within the same B.S. degree.
• B.A. and B.S. degrees as long as the degrees are in different majors. Students may not, for example, earn both a B.A. and a B.S. in mathematics.
• B.G.S. and B.S. degrees as long as the degrees are in different majors. Students may not, for example, earn both a B.G.S. and a B.S. in economics.
• Students may complete the requirements for more than one emphasis area or concentration in a major or degree program but should be aware that they are not completing a second degree or major. The following 2 examples illustrate this point:
  a. A student who completes all requirements for both the genetics option and the cell biology option is earning one degree, the B.S. degree in biology;
  b. A student who completes all requirements for both the traditional English option and the creative-writing option is earning one degree, either the B.A. in English or the B.G.S. in English.
• Students may earn a B.A. or a B.G.S. with more than one major but not more than one B.A. or B.G.S. degree from CLAS.
• Students normally may not earn a B.A. degree and a B.G.S. degree. Exceptions to this must be approved by the committee on undergraduate studies and advising (CUSA). Requests for exceptions should be discussed with the director of College Student Academic Services.

Double Degrees in CLAS and a Professional School

Students who wish to work simultaneously for a degree from CLAS and a degree from one of the professional schools may do so, with the expectation that all general education requirements are met for both degrees.

KU Edwards Campus Undergraduate Programs

Students who would like to complete a bachelor’s degree in the Kansas City area may choose from 4 CLAS undergraduate majors offered on the KU Edwards Campus (http://edwardscampus.ku.edu) in Overland Park. Contact the CLAS undergraduate advisor, 864-8659 (from Lawrence) or 913-897-8659 (outside of Lawrence), about each of these degrees.

• Literature, Language, and Writing
  B.A. and B.G.S. degrees are offered. See requirements for the major under English (p. 1334).
• Molecular Biosciences
  The B.S. degree is offered. See requirements for the major under Biology Undergraduate Program (p. 1212).
• Public Administration
  B.A. and B.G.S. degrees are offered. See requirements for the major under Public Administration (p. 2035).
Special Opportunities in the College

KU Language Across the Curriculum

KULAC is a pioneering program that seeks to equip students with real competency in a second language through a curriculum of courses and discussion sections taught in world languages in fields like business, history, politics, and the environment. KULAC classes allow you to study subjects that meet your interests (and graduation requirements) while sharpening your language skills, including the specialized vocabulary used in your career. Employers are looking for graduates who combine a disciplinary specialty with a second language proficiency and a knowledge of other cultures. KULAC makes it possible for you to develop these skills without slowing progress toward your degree. KULAC courses are open to any student who has completed at least two years of college-level classes in the relevant language. Courses are taught in Spanish, French, German, Italian, and Russian. There are new offerings each semester. For more information, consult the Center for Global and International Studies (http://global.ku.edu).

UKanTeach

UKanTeach (http://ukanteach.ku.edu) prepares future secondary (6th through 12th-grade) math and science teachers by encouraging students to learn to teach while pursuing a 4-year bachelor’s degree. UKanTeach invites all KU students to take LA&S 290 (1 hour), the first course in the UKanTeach sequence. This career-exploration course allows students to design lessons and teach them in local schools. First-year students through seniors may enroll. Through course work and classroom experiences, students quickly learn whether they are suited to teaching.

Students pursuing any related undergraduate degree at KU can add the UKanTeach requirements to their major and earn a teaching license along with their degree.

The teaching licenses available in the UKanTeach program and some majors and interests commonly paired with each licensure area:

| Total hours | 120 |
| Hours in CLAS and/or School of the Arts | 100 |
| Junior/senior hours (courses numbered 300 or above) | 45 |
| Hours in residence at KU (all must be taken at the junior/senior level) | 30 |
| KU cumulative grade-point average | 2.0 |
| Grade-point average in KU junior/senior hours in the major | 2.0 |
| Grade-point average in KU hours in the minor | 2.0 |

If you know that you want to teach secondary mathematics or science (or if you want to explore the idea), the UKanTeach program can help you accomplish this while you continue to pursue your bachelor’s degree at KU.

UKanTeach advisors would be happy to meet with you to discuss the program in more detail and show you how UKanTeach can fit into your plan to graduate.

Degree Requirements

Early and Continuous Enrollment in English and Math (All Undergraduate Degrees)

Undergraduate students enrolled in the College of Liberal Arts and Sciences Students are expected to make timely progress towards completing their degree requirements. In an effort to have students remain compliant with the requirements of the KU Core and the College, students are required to complete the Written Communication and Quantitative Literacy requirements of both the KU Core and their degrees within the first year of undergraduate study.

Written Communication

Students are expected to enroll in two courses that meet Goal 2, Learning Outcome 1 of the KU Core in their first year of study. Students should pay close attention to their degree specific requirements (such as for the Bachelor of Arts) given that certain degrees require specific Goal 2, Learning Outcome 1 courses despite advanced standing in writing courses due to examination scores. To ensure compliance with this policy, students may be administratively registered for courses if the College determines that they are not on track to complete this requirement in the first year of study. If a student is found to be in non-compliance with this policy, the College retains the right to place a hold on their records to prevent future registrations.

Quantitative Literacy

Students are expected to meet the requirement of Goal 1, Learning Outcome 2 of the KU Core in their first year of study. Students should pay close attention to their degree specific requirements (such as for the Bachelor of Arts) given that certain degrees require specific Goal 1, Learning Outcome 2 courses to meet both KU Core and degree specific requirements. To ensure compliance with this policy, students may be administratively registered for courses if the College determines that they are not on track to complete this requirement in the first year of study. If a student is found to be in non-compliance with this policy, the College retains the right to place a hold on their records to prevent future registrations.

Requirements for Graduation (All Undergraduate Degrees)

Grade-Point Average Required for Graduation

To be eligible to graduate from the College of Liberal Arts and Sciences with any of the 3 degrees (B.A., B.G.S., or B.S.), a student must earn at least a 2.0 grade-point average in courses taken at KU (including grades earned in Independent Study courses through KU Continuing Education) and at least a 2.0 in KU junior/senior courses (courses numbered 300 and above) in the major. All junior/senior level major-eligible courses attempted at KU will be included in the GPA calculation.

Hours Required for Graduation

To be eligible to graduate from CLAS with any of the 3 degrees (B.A., B.G.S., or B.S.), a student must successfully complete at least 120 credit hours, 45 of which must be junior/senior hours (courses numbered 300 and above), and 100 of which must be completed in Liberal Arts and Sciences/School of the Arts course work. The required 120 hours are divided into 4 categories: the KU Core, College specific degree requirements, major, and elective requirements. The total hours are increased by enrollment in MATH 2 or any developmental course numbered below 100. The total also is increased by enrollment in excess
of 64 hours of community college credit, 4 hours in physical education activity courses, 6 hours in music organization courses, and any repeated courses for which a student has already received credit.

**Minimum and Maximum Hour and Grade-Point Average Requirements for All CLAS Degrees (B.A., B.G.S., B.S.)**

**Minimums**

<table>
<thead>
<tr>
<th>Minimum</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total hours</td>
<td>120</td>
</tr>
<tr>
<td>Hours in CLAS and/or School of the Arts</td>
<td>100</td>
</tr>
<tr>
<td>Junior/senior hours (courses numbered 300 or above)</td>
<td>45</td>
</tr>
<tr>
<td>Hours in residence at KU (all must be taken at the junior/senior level)</td>
<td>30</td>
</tr>
<tr>
<td>KU cumulative grade-point average</td>
<td>2.0</td>
</tr>
<tr>
<td>Grade-point average in KU junior/senior hours in the major</td>
<td>2.0</td>
</tr>
<tr>
<td>Grade-point average in KU hours in the minor</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Maximums**

<table>
<thead>
<tr>
<th>Maximum</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours from community colleges</td>
<td>64</td>
</tr>
<tr>
<td>Hours in physical education activity courses</td>
<td>4</td>
</tr>
<tr>
<td>Hours in music organization courses</td>
<td>6</td>
</tr>
</tbody>
</table>

**Note:** Courses numbered below 100 do not count toward a degree but are included in the grade-point average.

**General Education Degree Requirements**

All 3 degrees require courses that reflect the breadth of the disciplines in the College.

All undergraduate degrees from the University of Kansas require completion of the KU Core Curriculum (http://kucore.ku.edu). In addition to the KU Core, students must satisfy the degree specific and major requirements of the degree they are pursuing. Below are the degree specific requirements of the various degrees of the College. Major requirements may be found on the specific departmental pages in this catalog.

**Electives Required for Graduation**

The Bachelor of Arts degree requires:

- **Quantitative Reasoning.** 3 credits. This course must have MATH 101 (College Algebra) or a higher mathematics course as a pre-requisite. Additionally, this course must also be either approved for Goal 1, Learning Outcome 2 of the KU Core or another course approved by CUSA.

- **Laboratory or Field Experience.** Variable credits. This course must be an academic-credit bearing laboratory or field experience. This course may be taken in conjunction with a lecture but the course combination must contain a laboratory.

- **Writing.** 6 credits. Students must complete six credit hours (two courses) of collegiate writing-level instruction. Students must complete ENGL 101, Composition and ENGL 102/ENGL 105, Critical Reading and Writing /Freshman Honors English. Students who place in ENGL 102/ENGL 105 by examination, must complete ENGL 102/ENGL 105 and another course meeting Goal 2, Learning Outcome 1 of the KU Core.

  - **Non-English Language Proficiency**
    Variable credits. Students must demonstrate fourth semester proficiency in a single non-English language, or third semester proficiency in a first non-English language and first semester proficiency in a second non-English language. This requirement may be met through coursework or examination by the appropriate language department.

The Bachelor of General Studies degree has two distinct options for completion and requires either:

- **Option A.** Completion of the requirements of a single BGS major AND a secondary field of academic study (a second major or minor) OR

- **Option B.** Completion of the B.G.S. in Liberal Arts and Sciences. This degree program requires:
  
  - **Liberal Arts and Sciences Breadth Requirement.** Satisfied by the completion of a course (with a minimum of 2 credit hours) in 15 unique departments/programs within the College or School of the Arts (as determined by course prefix). Courses fulfilling this requirement may also contribute to the KU Core and other requirements.
  
  - **World Language and Culture.**
    
    - 2 courses (each with 3 credit hours or more) in a single world language OR
    
    - 2 courses (each with 3 credit hours or more) in world, non-Western culture (W or NW designated courses), or language areas beyond the KU Core. This may include a variety of areas, languages, and cultures.

    - **Additional Natural Sciences and Mathematics.** Satisfied by the completion of two additional courses from the natural sciences (requirement code N) and/or mathematics (MATH prefix courses) beyond the KU Core.

The Bachelor of Science degree:

- **All Bachelor of Science degree requirements are listed on their respective academic department pages within this catalog.**

  Each degree allows a certain number of elective hours. In addition to general education degree and major requirements, students may choose elective courses to bring the total credit hours to 120. In choosing electives, students should be aware of limits in certain areas listed under Hours Required for Graduation.

**Junior/Senior Hours Required for Graduation**

KU requires all students pursuing bachelor’s degrees to complete a minimum of 45 credit hours at the junior/senior level (courses numbered 300 and above).

**Majors and Minors**

**Major Requirements**

Students must complete a major to graduate with a degree in CLAS. Students pursuing the B.G.S. in Liberal Arts and Sciences may not choose a secondary field of study.

A major requires the student to study at least one discipline in depth. The average number of required credit hours in the major for the B.A. degree is 30 hours. The Board of Regents requires a major to be at least 24 credit
hours. See the individual major listings for specific minimum requirements. View a current list of all CLAS majors and minors (p. 783).

Degree requirements and course descriptions are subject to change. Check with department offices or College Student Academic Services (http://clas.ku.edu/undergrad) for current information.

Declaration of Major
CLAS requires every student to declare a major or be admitted to a professional school no later than the semester after completion of 60 credit hours. A student is required to meet with an academic advisor to discuss course selection and choice of major each term until the major is declared. For a major to be officially declared, CLAS Student Academic Services must receive a copy of the Major Declaration form signed by the student and the major department representative. If a student is pursuing a double major, he or she should complete a Major Declaration form in each major department.

Departments may reserve enrollment in courses in the department for declared majors.

This policy does not preclude changing or adding majors. Changing majors late in the academic career can delay graduation. Consult a graduation advisor in 109 Strong Hall.

Students are encouraged to explore different disciplines before choosing their majors. Students who are not ready to declare a major can register interest in a major at CLAS Student Academic Services. Help with choosing a major can be obtained at the University Advising Center (http://advising.ku.edu) (126 Strong Hall), CLAS Student Academic Services (http://clas.ku.edu/undergrad) (109 Strong Hall), and the University Career Center (http://www.kucareerhawk.com/s/762/start.aspx) (110 Burge Union).

Admission to CLAS Majors
Admission requirements to a particular major offer potential students the critical foundation of knowledge and skills necessary to become successful in that major. View current admission requirements for each CLAS department in the department’s section of the current catalog.

CLAS department admission requirements include the following:

Designated Admission Course Requirements and Minimum Admission Grade-Point Average
Departments may designate up to 4 courses and require an admission grade-point average from 2.2 to 3.0. If a student may choose from a set of course requirement options, and he or she has taken more than the minimum number of course options in the application term, grades received in any designated admission course requirement up to and including that term may be computed in the grade-point average for admission consideration. Only course grades from repeated lower-level courses, meeting the standards of KU’s course repeat policy (https://documents.ku.edu/policies/governance/USRR.htm#art2sect2), are removed from the grade-point average calculation.

The Credit/No Credit option is not available for any course that is an admission requirement. If a student has mistakenly requested the CR/NC option for a course required for admission, 1.7 grade points for any CR grade recorded and 0.0 points for any NC grade recorded are calculated into the grade-point average for admission purposes. A department may determine that any designated admission course taken with the CR/NC option must be repeated.

Application Term
Students must complete all requirements for admission to a major by the first semester of the junior year or before. Application to the major should occur in the term in which admission requirements will be completed. If a student does not meet established admission grade-point average criteria or neglects to apply for admission in this term, she or he must petition the department for permission for late application. The department, as part of an approved petition, determines late admission requirements (including grade-point average and course requirements) and the final admission deadline.

Hours in the Major: Maximums and Minimums
There is no limit on hours taken in the major for the B.A., B.G.S., or B.S. degree. Departments are not allowed to require more than 40 hours in the major for the B.A. or more than 50 hours in the major for the B.S. Some skills courses and supporting science courses are not included in this maximum limit. A minimum of 12 hours in the major must be in courses numbered 300 or above. At least 15 of these hours in the major must be taken in residence at KU.

Major Grade-Point Average Graduation Requirement
A student must earn a grade-point average of at least 2.0 in KU junior/senior courses (numbered 300 and above) completed in the major. All junior/senior level major-eligible courses attempted at KU will be included in the GPA calculation.

If a student has mistakenly requested the Credit/No Credit option for a course in the major, 1.7 grade points for any CR grade recorded and 0.0 points for any NC grade recorded are calculated into the major grade-point average for certification purposes. A department may determine that any major course taken with the CR/NC option must be repeated.

Double Major
A student may earn a double major if he or she satisfies the requirements of both majors and completes 15 hours unique to each major in consultation with advisors in each department.

Special Major
Students who feel that their best interests cannot be served by the majors listed may petition for a special major (B.A. or B.G.S.), if they follow the guidelines below. Such majors are supervised by special committees of three faculty members recruited by the student. Interested students should consult College Student Academic Services (http://clas.ku.edu/undergrad), preferably before the end of the sophomore year.

The following guidelines apply to special majors:

1. An official endorsement by one or more of the CLAS departments or degree programs involved must accompany a petition for a special major. The petition must be submitted to the committee on undergraduate studies and advising (CUSA).
2. At least 12 credit hours numbered 300 or above counted toward the special major must be taken after approval of the special major.
3. At least 2 committee members must be from the CLAS faculty.
4. At least 2/3 of the credit hours to be counted toward the special major must be CLAS courses.
5. Special majors must not overlap significantly with existing KU major programs and should not have the same titles as existing majors.
6. A student seeking a special major must fulfill the general education degree requirements necessary for the B.A. or B.G.S degree. **Note:** Students considering classes to include in a special major should be guided by the fact that most CLAS majors require about 30 hours.

**Minors**

CLAS offers more than 40 approved minors. These are open to all students in the College regardless of the degree they are pursuing. The schools of Architecture, Design and Planning (http://www.sadp.ku.edu); Business (http://www.business.ku.edu); Education (http://www.soe.ku.edu); Engineering (http://www. engr.ku.edu); Journalism and Mass Communications (http://www.journalism.ku.edu); Music (http://music.ku.edu); Nursing (http://www2.kumc.edu/son); and Social Welfare (http://www.socwel.ku.edu) permit their students to earn minors.

Requirements for the minor vary, but all must be at least 18 hours including 12 hours at the junior/senior level (numbered 300 and above). 9 of the junior/senior-level courses must be taken in residence at KU. One course overlap (up to 3 hours of credit) may be used to fulfill requirements for both the major and the minor. Students may not earn a minor unless they have completed a major and have completed at least one course for the minor after the date the minor was approved by College Assembly. Successful completion of a minor requires a minimum KU grade-point average of 2.0 in all courses taken for the minor. For requirements for each minor, see the programs listed on the Departments & Programs (p. 783) page.

The Credit/No Credit option is not available for any course that may satisfy minor requirements. If a student has mistakenly requested the CR/NC option for a course in the minor, 1.7 grade points for any CR grade recorded and 0.0 points for any NC grade recorded are calculated into the major grade-point average for certification purposes. A department may determine that any minor course taken with the CR/NC option must be repeated.

View a current list of all CLAS majors and minors (p. 783).

**KU Core**

The KU Core curriculum, coupled with degree and major requirements in the College, ensure a balance of breadth and depth of knowledge critical in today's world.

See the General Education Degree Requirements section above for details regarding College-specific requirements.

**Bachelor of Science Degree Requirements**

All general education degree, major, and supporting requirements for each B.S. program are specified by department faculty, with approval of the College Assembly. They are listed under the department or program on the Departments & Programs (p. 783) page. B.S. candidates are held to a more prescribed program with fewer electives than B.A. candidates. Students pursuing the B.S. may complete an approved minor.

**Overlap Between Requirements**

A course may be used to fulfill a KU Core or College degree-specific requirement and a minor or major requirement.

A student may earn more than one major if he or she satisfies the requirements of all majors and completes 15 hours unique to each major in consultation with advisors in each department.

One course overlap (up to 3 credits) is allowed between major requirements and minor requirements.

**Graduate Programs**

The College of Liberal Arts and Sciences (called the College or CLAS) is KU's largest academic unit with more than 50 departments and programs. Graduate programs in the liberal arts and sciences include disciplines in the arts, humanities, social and behavioral sciences, and natural and mathematical sciences, as well as many interdisciplinary degree programs where often highly diverse disciplines come together to offer students a unique graduate experience. Each graduate program's page contains program-specific information about admission, course curriculum, and faculty mentors.

The College's participation in graduate education reflects a long and distinguished commitment to higher learning and research across the liberal arts and sciences. The College takes full advantage of KU's role as an international research institution to ensure that the knowledge imparted to students is current and that they learn the skills of inquiry and critical evaluation. Graduate students are central to the research and teaching missions of the College. They are also the next generation of scholars who will make contributions to our communities and the production of knowledge for many years to come.

It is the students' responsibility to become thoroughly acquainted with all requirements for the degree programs in which they plan to participate. These include the university requirements for graduate studies at KU outlined in the College and Graduate Studies sections of the KU Policy Library (http://www.policy.ku.edu), the University Senate Rules and Regulations (p. 12), the Graduate Studies (p. 2059) sections of the online catalog, as well as the requirements of the College outlined in this catalog section. Additionally, students are responsible for understanding the requirements that are unique to individual graduate programs outlined in the graduate handbooks of individual academic units and the Departments & Programs (p. 783) sections of the online catalog.

In general, the student is subject to the regulations in force at the time of admission as a degree-seeking student. If degree requirements change, the student may opt to follow the new requirements or to continue under the regulations in force at the time of admission. Any student readmitted 10 years or more after his or her initial term as a degree-seeking student must fulfill the requirements in effect on the date of readmission to the graduate program.

**Graduate Degrees in the College**

The College offers graduate degrees in more than 90 areas of study. **Master of Arts** (M.A.) or **Master of Science** (M.S.) degrees can be earned in more than 40 disciplines and the **Master of Fine Arts** (M.F.A.) degree is offered in creative writing, visual art, and theatre design with a concentration in scenography. Other professional degrees are offered at the master's level in the **Master of Public Administration** (M.P.A.) program and the **Professional Science Master's** (PSM) program.

The College offers **Doctor of Philosophy** (Ph.D.) degrees in 37 fields, including 2 fields within the School of the Arts.
For students whose academic and professional goals can best be achieved through investigations at the interface of 2 or more disciplines, the College offers master’s and doctoral degree programs in Interdisciplinary Studies. Please see the policy governing graduate degrees in Interdisciplinary Studies section of the online catalog.

The College currently offers Graduate Certificates in eight fields, with more certificate programs in development.

View the the College’s Departments & Programs (p. 783) section of the online catalog for more information on specific fields of study.

KU Edwards Campus Graduate Programs

Students who would like to complete a graduate degree in the Kansas City area may choose from 3 College graduate programs that are also offered on the KU Edwards Campus (http://edwardscampus.ku.edu) in Overland Park. Information about program requirements, facilities, tuition, and fees is available on the Edwards Campus website (http://edwardscampus.ku.edu). Residents of Kansas City metro area counties admitted as degree-seeking students to one of these programs may qualify for the MetroKC tuition rate for Edwards Campus courses. For more information, contact the College’s graduate advisor at the Edwards Campus by calling 864-8510 (from Lawrence) or 913-897-8510 (from other locations).

• Communication Studies
  The Master of Arts degree is offered on the Edwards Campus as well as in Lawrence. (The PhD is offered only in Lawrence.) See requirements under the Communications Studies (p. 1254) section of the online catalog.

• Global and International Studies
  The Master of Arts degree is based at the KU Edwards Campus. Students complete courses on the Edwards Campus and in Lawrence. See requirements under the Global and International Studies (p. 1459) section of the online catalog.

• Public Administration
  The Master of Public Administration is offered on the Edwards Campus as well as in Lawrence at the KU Public Management Center (http://www.kupmc.org) in Topeka. (The PhD is offered only in Lawrence.) See requirements under Public Administration (p. 2030) section of the online catalog.

• Professional Science Master’s
  The Professional Science Master’s in Environmental Assessment (PSM-EA) is offered on the Edwards Campus. See requirements under the Environmental Studies section of the online catalog.

Degree Requirements

Requirements for the completion of master’s and doctoral degrees in the College are governed by department- or program-specific policy, College policies and procedures, Graduate Studies policies, and the University Senate Rules and Regulations.

Information on degree requirements presented in this section are limited to the most frequently consulted policies and key milestones in the graduate career. Students will find additional information under the KU Policy Library (http://www.policy.ku.edu/office.shtml/#16), the Graduate Studies (p. 2059) and College’s graduate regulations sections of the online catalog, the academic unit’s handbook, and the University of Kansas Rules and Regulations (p. 12).

Master’s Degree Requirements

Coursework

Coursework requirements for the Master’s degree are established and tracked by the department or program, and their completion verified and approved by the College. Please consult with your advisor, the academic unit’s graduate handbook, and the relevant Departments & Programs section of the online catalog for further information on specific courses or course sequences required for the degree.

Thesis


Final Examination

A final general examination in the major subject is required. The examination is held during the semester of the student’s final enrollment in course work and, in the case of thesis students, when the thesis has been substantially completed. In thesis programs, an oral thesis defense may be one of the degree requirements. Such a defense may be offered in addition to, or in conjunction with, the required general examination in the major field. Students earning a master’s thesis degree must have completed at least 1 hour of thesis enrollment before the master’s degree can be awarded. See also Master’s Degree Requirements (p. 2059), M.A. and M.S. Degrees, in the Graduate Studies section of the online catalog.

Doctor of Philosophy Degree Requirements

Coursework

Coursework requirements for the doctoral degree are established and tracked by the department or program, and their completion verified and approved by the College. Please consult with your advisor, the academic unit’s graduate handbook, and the relevant Departments & Programs section of the online catalog for further information on specific courses or course sequences required for the degree.

Research Skills and Responsible Scholarship

Graduate Studies requires that all doctoral students meet the Research Skills and Responsible Scholarship requirement before proceeding to the Comprehensive Exam. Specific requirements are determined by each department or program in consultation with Graduate Studies. Information on these requirements is contained in the department or program’s approved research skills requirement plan. Consult with your advisor and the Departments & Programs section of the online catalog for further information.

Residency

Two semesters, which may include one summer session, must be spent in resident study at KU. The College requires that residency be fulfilled before the comprehensive oral examination is scheduled. For more information on residency requirements, please see the Graduate Studies section (p. 2062) of the online catalog.

Comprehensive Oral Examination

The comprehensive oral examination covers the major field and any outside work for which the academic unit wishes to hold the student responsible. The examination is expected to be broader than a mere defense of the dissertation proposal.
The student must be enrolled the semester or summer session in which he or she completes the comprehensive oral examination. This enrollment may count toward the post-comprehensive enrollment requirements as described in Graduate Studies’ Candidacy for Doctoral Degree policy. If more than 5 years elapses between the completion of the comprehensive exam and degree completion, the student may be required to retake the oral comprehensive.

More information about comprehensive exam requirements may be found in the Graduate Studies section (p. 2062) of the online catalog.

Dissertation and Final Exam

Completion of the dissertation is the culminating phase of a doctoral program, marked by the final oral examination and defense of the dissertation. In all but the rarest cases, tentative approval of the dissertation is followed promptly by the final oral examination. Refer to the Graduate Studies section (p. 2059) of the online catalog for further information on the regulations governing the final oral examination, including committee composition and attendance regulations.


Ceremonies

At the end of each spring semester, the College holds a master’s hooding ceremony and Graduate Studies organizes the annual doctoral hooding ceremony. The School of the Arts hosts a separate ceremony for SOTA graduates. University Commencement information is available in the KU Commencement section of the KU website.

Attendance at these ceremonies is optional. Please consult the COGA website for more information.

Undergraduate Advising

Academic advising helps undergraduate students develop educational plans, clarify career and life goals, and appreciate the values of a liberal arts education. College Student Academic Services, in partnership with our faculty and staff across the University, is dedicated to helping undergraduate students achieve their educational and personal goals, and to maintaining the academic integrity of our degree programs. We welcome students, encourage them to be active participants in their educational experience, and celebrate their milestones.

CLAS encourages students to consult frequently with advisors whenever they have questions or problems. Academic advisors serve as guides, helping students explore options and make decisions. Undeclared CLAS students with fewer than 90 hours are assigned advisors in the University Advising Center (http://advising.ku.edu/), 126 Strong Hall. UAC also provides prelaw, premedical and prehealth professions advising. When students declare majors, they are advised by faculty advisors and professional advisors in their major departments and in 109 Strong Hall.

College Student Academic Services (http://clas.ku.edu/undergrad), 109 Strong Hall, provides additional full-time advisors for students who entered KU before fall 1987 and students at all levels who have policy or petition questions or issues. In addition, SAS provides advising for prospective or new transfer seniors and refers them to faculty academic advisors in their majors as soon as possible. Finally, advisors in SAS work with graduating seniors to ensure timely completion of degree requirements through workshops, degree audits, and graduation advising appointments.

Degree Progress Report

The Degree Progress Report (DPR) is a computerized advising and degree-audit system, used to assist students and advisors in tracking progress toward completion of general education degree and major requirements for B.A., B.G.S., and B.S. degrees. Students should review their DPR each semester and be prepared to review and discuss information contained in the DPR at all advising appointments. The DPR can be accessed through the student’s account in the KYou Portal under the Advising tab. Although the DPR provides a list of courses taken and grades earned, it is not an official transcript and can be used only for internal advising. Students must obtain all official transcripts from the Student Records Center (http://www.registrar.ku.edu), 121 Strong Hall.

4-Year Graduation Plans

With careful planning and commitment to a full-time course load, students can graduate in 4 years. See the College Student Academic Services (http://clas.ku.edu/undergrad) website or your major department’s section of the catalog.

Graduate Advising

Advising of graduate students is primarily conducted within the graduate programs by program staff members and the individual faculty members who act as mentors and advisors. Students are encouraged to work with the director of graduate studies in their program regarding course selections and individual program requirements to ensure that all program milestones are reached as expected by the program faculty and the College. The graduate studies director or coordinator is also responsible for the regular assessment of students in the program and can address questions regarding a student’s progress toward the degree.

Students seeking information on specific policy or procedures should review the relevant content in the KU Policy Library (http://www.policy.ku.edu/office.shtml#16) as well as the College and Graduate Studies (p. 2059) sections and the relevant Department or Program section of the online catalog. The College Office of Graduate Affairs (http://clas.ku.edu/coga), 108 Strong Hall, coga@ku.edu, is also available for assistance.

Students who have completed all degree requirements and are preparing to graduate are encouraged to schedule a Graduation Appointment with the College Office of Graduate Affairs.

Undergraduate University Regulations

For information about university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://www.policy.ku.edu).

Academic Integrity

The College of Liberal Arts and Sciences strictly enforces KU and CLAS policies on academic misconduct. Academic integrity requires honest performance of academic responsibilities by students. These include preparation of assignments, reports and research papers, taking examinations, completing administrative requirements, and a sincere and conscientious effort by students to abide by the policies set forth by instructors. See Academic Integrity on the Regulations (p. 12) page.
Change of School
To change from one school to another, you must submit a Change of School form in the dean’s office of the school you plan to enter or in College Student Academic Services (http://clas.ku.edu/undergrad) if you plan to enter the College. Follow the deadlines on the form. See the school’s requirements for admission.

Students applying for admission to the College from other schools in the university must meet the same minimum grade-point average requirements in KU attempted course work as continuing College students. Consult College Student Academic Services, Strong Hall, 1450 Jayhawk Blvd., Room 109, Lawrence, KS 66045-7518, 785-864-3500.

Credit/No Credit
A Credit/No Credit option is available to all degree-seeking undergraduates. You may enroll in 1 course a semester under the option, if the course is not in your major or minor. To exercise the option, you must fill out a card at the dean’s office of the school in which you are enrolled during the fifth and sixth weeks of the semester (or the third week of summer session and 8-week courses). See the Schedule of Classes (p. 10) for current dates for electing this option. After the close of the option period, the choice cannot be changed. Under the option, a grade of Credit is recorded for grades of A, B, or C; No Credit is recorded for grades of D or F. Courses graded Credit or No Credit do not count in computing the grade-point average. Courses graded Credit are included in the total hours counted toward graduation. Courses graded No Credit do not count toward graduation. For more information, visit the KU Policy Library (https://documents.ku.edu/policies/governance/USRR.htm#art2sect2).

Warning: Certain undesirable consequences may result from exercising the option. Some schools, scholarship committees, and honorary societies do not accept this grading system and convert grades of No Credit to F when computing grade-point averages.

Students in the College must fill out a request in College Student Academic Services (http://clas.ku.edu/undergrad). The university-established timeline for exercising this option is strictly enforced.

Enrollment
See the Enrollment Guide (http://www.registrar.ku.edu/enrollment) for complete enrollment information.

New and Readmitted Student Enrollment
Immediately before the beginning of classes each term, an enrollment session is scheduled for new students. New students for summer or fall term have an additional option of enrolling in fall courses during one of several summer orientation sessions. Invitations to orientation are sent automatically to newly admitted and readmitted students who applied for the spring, summer, or fall terms (except nondegree-seeking students). Readmitted students may attend a special abbreviated orientation session, may enroll during continuing enrollment, or may attend the enrollment sessions immediately before the start of the semester. Readmitted students whose reenrollment applications are completed by a designated date also may enroll during continuing enrollment, after meeting with an advisor. All students must preregister for orientation and enrollment sessions.

International students must complete the required check-in processes before enrollment and are encouraged to attend International Student Orientation, which includes advising and enrollment sessions.

Continuing Enrollment
This enrollment allows students who are currently enrolled during one term to enroll for the next term. Spring-enrolled students enroll in April for the following summer session or fall semester or both. Fall-enrolled students enroll in October or November for the following spring semester.

Late Enrollment
Each semester, the Schedule of Classes (p. 10) announces dates for late enrollment and the last day to submit a Petition to Late Enroll. Petitions are evaluated based on past academic performance. A student may enroll in a course or change class sections after the semester has been in session for 4 weeks only if the course has met fewer than 25 percent of the class sessions. For most classes, the faculty have established earlier dates for beginning class attendance and participation. A fee is assessed for late enrollment.

Grading
The letters A, B, C, D, S (satisfactory), and Credit indicate passing work. The letters F and U (unsatisfactory) and No Credit indicate that the quality of work was such that, to obtain credit, the student must repeat regular course work. P represents satisfactory progress (an interim grade pending completion of a subsequent term’s course work). See the KU Policy Library (https://documents.ku.edu/policies/governance/USRR.htm#art2sect2) for more information.

Graduation with Honors
Undergraduates may earn honors upon graduation in 3 ways. The student may graduate with distinction or highest distinction, earn departmental honors in the major, or complete the University Honors Program (http://www.honors.ku.edu). It is possible to earn honors in 1 of these areas, any combination of them, or all 3. The award of honors is noted on the student’s transcript and in the Commencement program. Distinction and highest distinction are noted on the diploma.

Graduation with Distinction or Highest Distinction
The top 10 percent of each year’s graduating class is designated as graduating with distinction. Of these, the top one-third is designated as graduating with highest distinction. To be eligible, students must have completed at least 60 credit hours, graded A through F, in residence at KU. See Required Work in Residence below.

Graduation with Departmental Honors
Most departments and programs allow qualified majors to work toward graduation with departmental honors. Graduation with departmental honors is awarded in recognition of exceptional performance in the major, completion of a program of independent research or an alternative project, and a strong overall academic record.

In addition to the requirements of individual departments and programs (which must be approved by the College committee on undergraduate studies and advising), the College requires the following for graduation with departmental honors:

1. Candidates must declare the intention to work for departmental honors with the appropriate departmental honors coordinator(s) no later than the time of enrollment for the final undergraduate semester, but sooner if required by the department(s). Copies of
the electronic roster, the character and amount of work needed, as well as the rest has been satisfactorily completed. At the time an I is reported on work of a student in any course except to indicate that some part of the definite grade can be assigned for the work done. It is not given for the re-enrollment in the course. The letter I should not be used when a

The letter I indicates incomplete work, such as may be completed without re-enrollment in the course. The letter I should not be used when a definite grade can be assigned for the work done. It is not given for the work of a student in any course except to indicate that some part of the work has, for reasons beyond the student’s control, not been done, while the rest has been satisfactorily completed. At the time an I is reported on the electronic roster, the character and amount of work needed, as well as the date required for completion and lapse grade if further work is not completed by this date, should be indicated.

A student who has an I posted for a course must make up the work by the date determined by the instructor, in consultation with the student, which may not exceed 1 calendar year, or the last day of the term of graduation, whichever comes first. An I not removed according to this rule automatically converts to a grade of F or U, or the lapse grade assigned by the course instructor, and appears on the student’s record.

Extensions to the time limit may be granted by the dean’s representative upon submission of a petition from the student containing the endorsement of the course instructor who assigned the I grade, or the department chairperson if the instructor is unavailable, prior to the expiration of the Incomplete. After the I grade is converted to a grade of F or U, the grade may only be changed in accordance with USRR Article II, Section 3 (https://documents.ku.edu/policies/governance/USRR.html#art2sect3).

Maximum and Minimum Undergraduate Semester Enrollment

No undergraduate may enroll for more than 20 hours a semester except by permission of the director of Student Academic Services. Summer enrollment is limited to 10 hours. Permission is not considered unless the student has demonstrated high levels of academic ability in previous semesters.

Prerequisites and Corequisites

Students are advised to enroll according to prerequisites and corequisites noted in individual course descriptions. These prerequisites are enforced in a variety of ways including blocking enrollment, administrative drops without notice, etc.

Probation

The College reviews all students’ records at the end of fall and spring semesters and summer terms to determine their academic standing. Students must maintain a 2.0 cumulative KU grade-point average to be in good academic standing. Students below that average are placed on probation.

- **Freshmen and Sophomores on Probation** (between 0 and 59 completed hours): Each student in this category must earn a 2.0 KU term grade-point average until his or her cumulative KU grade-point average reaches 2.0, returning the student to good academic standing. Students who fail to meet these requirements are dismissed.

- **Juniors and Seniors on Probation** (60 or more completed hours): Each student in this category must earn a 2.5 KU term grade-point average until his or her cumulative KU grade-point average reaches 2.0, returning the student to good academic standing. Students who fail to meet these requirements are dismissed.

To return to the College of Liberal Arts and Sciences, the student must follow CLAS readmission guidelines.

Readmission after Dismissal

Students dismissed for the first time from the College of Liberal Arts and Sciences must wait at least 1 full fall or spring semester before returning to KU¹. Summer session does not count as a full semester. In addition, a dismissed student must demonstrate academic success by completing a minimum of 6 hours of transferable academic course work at another

References:

1. the intent form should be returned to College Student Academic Services.

2. At the end of the final undergraduate semester, the candidate must have achieved an overall grade-point average of at least 3.25 and a grade-point average of at least 3.5 in the major. Both overall and major grade-point averages include work completed at other institutions, as well as at KU. No minimum grade-point average is required to declare candidacy for graduation with departmental honors unless specified by the department.

3. Each candidate’s departmental honors work must include independent research or an acceptable alternative project. The results of research are presented in a form appropriate to the requirements of the major department. Equivalents to the independent research component are established by approved departmental honors programs. In courses meeting the independent research requirement, the candidate must earn a grade of B or higher. Successful completion of all departmental honors requirements must be certified to the departmental honors coordinator(s) by a panel composed of at least three members of the College faculty who have read the report of the independent research and heard the oral presentation, where required.

Petitions

A department or program may petition to award graduation with departmental honors to deserving students who, for good reason, do not meet every College and departmental requirement. Send petitions to the committee on undergraduate studies and advising, College Student Academic Services (http://clas.ku.edu/undergrad).

Late Completion of Honors Requirement

Requirements for graduation with honors may be completed after the date on which certifications are requested from departments, and in some cases, requirements, if not needed for graduation, may be completed after a student has graduated. However, the Incomplete policy does apply and grades would lapse at the time of graduation. When a candidate finishes all requirements, departments must notify College Student Academic Services (http://collegesas.ku.edu) in writing.

Honor Roll

Undergraduates with grade-point averages of 3.5 who have completed at least 12 hours with letter grades are recognized on the honor roll or dean’s list in fall and spring. An Honor Roll notation appears on the transcript.

Honors Program

The University Honors Program (http://www.honors.ku.edu) provides opportunities for outstanding and creative undergraduates in all schools at KU to develop their full potential during their undergraduate years. See Honors (p. ) in this section of the online catalog for further information.

Incompletes

The letter I indicates incomplete work, such as may be completed without re-enrollment in the course. The letter I should not be used when a definite grade can be assigned for the work done. It is not given for the work of a student in any course except to indicate that some part of the work has, for reasons beyond the student’s control, not been done, while the rest has been satisfactorily completed. At the time an I is reported on the electronic roster, the character and amount of work needed, as well as the date required for completion and lapse grade if further work is not completed by this date, should be indicated.

A student who has an I posted for a course must make up the work by the date determined by the instructor, in consultation with the student, which may not exceed 1 calendar year, or the last day of the term of graduation, whichever comes first. An I not removed according to this rule automatically converts to a grade of F or U, or the lapse grade assigned by the course instructor, and appears on the student’s record.

Extensions to the time limit may be granted by the dean’s representative upon submission of a petition from the student containing the endorsement of the course instructor who assigned the I grade, or the department chairperson if the instructor is unavailable, prior to the expiration of the Incomplete. After the I grade is converted to a grade of F or U, the grade may only be changed in accordance with USRR Article II, Section 3 (https://documents.ku.edu/policies/governance/USRR.html#art2sect3).

Maximum and Minimum Undergraduate Semester Enrollment

No undergraduate may enroll for more than 20 hours a semester except by permission of the director of Student Academic Services. Summer enrollment is limited to 10 hours. Permission is not considered unless the student has demonstrated high levels of academic ability in previous semesters.

Prerequisites and Corequisites

Students are advised to enroll according to prerequisites and corequisites noted in individual course descriptions. These prerequisites are enforced in a variety of ways including blocking enrollment, administrative drops without notice, etc.

Probation

The College reviews all students’ records at the end of fall and spring semesters and summer terms to determine their academic standing. Students must maintain a 2.0 cumulative KU grade-point average to be in good academic standing. Students below that average are placed on probation.

- **Freshmen and Sophomores on Probation** (between 0 and 59 completed hours): Each student in this category must earn a 2.0 KU term grade-point average until his or her cumulative KU grade-point average reaches 2.0, returning the student to good academic standing. Students who fail to meet these requirements are dismissed.

- **Juniors and Seniors on Probation** (60 or more completed hours): Each student in this category must earn a 2.5 KU term grade-point average until his or her cumulative KU grade-point average reaches 2.0, returning the student to good academic standing. Students who fail to meet these requirements are dismissed.

To return to the College of Liberal Arts and Sciences, the student must follow CLAS readmission guidelines.

Readmission after Dismissal

Students dismissed for the first time from the College of Liberal Arts and Sciences must wait at least 1 full fall or spring semester before returning to KU¹. Summer session does not count as a full semester. In addition, a dismissed student must demonstrate academic success by completing a minimum of 6 hours of transferable academic course work at another
higher education institution. To be readmitted, students must attain a grade-point average of 2.5 or higher in all hours taken after dismissal. All course work taken at every institution is calculated into the grade-point average since dismissal, even if the student opted for that institution’s retake policy. If students are lacking math or English courses to fulfill the Early and Continuous Enrollment requirements, they must complete all the courses necessary, through ENGL 101 (or equivalent) meeting or progressing on Written Communication requirements as established by KU Core and/or degree specific requirements and MATH 101¹ (or equivalent) meeting or progressing Quantitative Reasoning and Literacy requirements as established by KU Core and/or degree specific requirements during the dismissal period. The College reviews the status of students dismissed from another KU school, based on CLAS regulations, beginning with the initial KU term. If the student would have been dismissed under CLAS regulations, this is considered a first dismissal, even though the student was not a CLAS student. Upon readmission, the student must maintain at least a 2.5 semester grade-point average until reaching good academic status to be allowed to continue in the College.

¹ This may mean that some students must actually wait more than 1 semester to meet these conditions and apply for readmission.

Students dismissed for the second time from the College of Liberal Arts and Sciences must wait at least one academic year before applying for readmission. In addition, a dismissed student must demonstrate academic success by completing a minimum of 12 hours of transferable academic course work at another higher education institution. To be readmitted, students must attain a grade-point average of 2.5 or higher in all hours taken after dismissal. All course work taken at every institution is calculated into the grade-point average since dismissal, even if the student opted for that institution’s retake policy. If students are lacking ENGL 102 (or equivalent) and the second required math course (MATH 105, MATH 111, MATH 115, MATH 121, MATH 365 or BIOL 570 or an equivalent course), they must complete these courses during the dismissal period. Upon readmission, the student must maintain at least a 2.5 semester grade-point average until reaching good academic status to be allowed to continue in the College of Liberal Arts and Sciences.

Note: Students who are in their last 30 hours must meet the readmission advisor in College Student Academic Services to discuss their options.

A third dismissal is final.

Required Undergraduate Work in Residence

Junior/Senior Hours Required for Graduation

KU requires all students pursuing bachelor’s degrees to complete a minimum of 45 credit hours at the junior/senior level (courses numbered 300 and above). The College of Liberal Arts and Sciences requires that 30 of these 45 credit hours be completed in residence.

Hours in the Major: Maximums and Minimums

There is no limit on hours taken in the major for the B.A., B.G.S., or B.S. degree. Departments are not allowed to require more than 40 hours in the major for the B.A. or more than 50 hours in the major for the B.S. Some skills courses and supporting science courses are not included in this maximum limit. A minimum of 12 hours in the major must be in courses numbered 300 or above. At least 15 hours in each major(s) must be taken in residence at KU.

Time Limits

Undergraduates are strongly encouraged to complete the bachelor’s degree within 4 academic years. Students should complete a minimum of 30 credit hours each year. If a student is unable to complete 30 hours in the fall and spring terms, summer enrollment should be strongly considered.

Students have a maximum of ten years to complete their undergraduate work in the College of Liberal Arts and Sciences under degree requirements in effect at the initial term of matriculation. Students experiencing a break in enrollment during these ten years will follow their curricular requirements at the point of matriculation provided that the break in enrollment does not exceed two calendar years. Students readmitted after two years are held to the curricular requirements in place at the term of readmission. Students maintaining continuous enrollment but who do not complete their degree requirements within ten years, may petition the College to complete their degree requirements under the curricular requirements in effect during the term of admission.

Transfer of Credit

CredTran (http://admissions.ku.edu/~admiss/credit/transfer) is a transfer course equivalency system that lists more than 2,200 colleges and universities from which KU has accepted transfer courses in the past. If your school or course is not listed, your evaluation will be completed when you are admitted to KU.

Only transfer grades of C or higher contribute to total hours earned for students entering KU in spring 1990 or after, and for courses taken in spring 1990 or after by all students. For questions about transfer work fulfilling College requirements, contact College Student Academic Services (http://clas.ku.edu/undergrad), 109 Strong Hall.

Graduate University Regulations

The pursuit of graduate study in the College of Liberal Arts and Sciences at KU is governed by department- or program-specific policy, College policies and procedures, Graduate Studies policies, and University Senate Rules and Regulations. Information on the most frequently consulted policies is contained in this section. Students should also consult the academic unit’s handbook, Graduate Studies and College sections of the KU Policy Library, and the Graduate Studies and University of Kansas Regulations sections of the online catalog.

Academic and Research Integrity

The College of Liberal Arts and Sciences strictly enforces KU and College policies on academic and scholarly misconduct. Academic integrity requires honest performance of academic and research responsibilities by students. These include, but are not limited to, ethical preparation of assignments, reports, and research papers; completion of examinations; ethical treatment of human and animal subjects; execution of administrative requirements; and a sincere and conscientious effort by students to abide by the policies set forth by instructors and research advisors.

Enrollment

Full-time, Half-Time and Part-Time Enrollment
Graduate Studies defines full-time enrollment as 9 credit hours in Fall or Spring semester and 6 hours in the summer session. Maximum enrollment for graduate students, except in rare instances, is 16 hours in Fall or Spring semester and 9 hours in the summer session. Please see the Full-time Enrollment for Graduate Students policy in the Graduate Studies (p. 2059) section of the online catalog and the KU Policy Library (http://www.policy.ku.edu/office.shtml#16) for more information on what constitutes full-time, half-time, and part-time enrollment, including variations on this policy for GTA/GRA/GA appointments and active duty military.

Lapses in Enrollment

Generally, no student is allowed to enroll after the first 4 weeks of a semester or the first 2 weeks of a summer session. If a student does not intend to enroll, he or she must determine the appropriate course of action in consultation with the department or program.

The student may elect to Voluntarily Discontinue from the program, and must inform the department or program in writing of this decision, which will in turn file the necessary forms with the College. This option requires the student to seek re-admission to the program if they choose to return at a future date. They remain eligible to seek admission to another department or program in the College.

The student may also petition for a Leave of Absence of up to one calendar year. If granted, the Leave of Absence maintains the student’s place in the program. Leave of Absence petitions must be filed by the department or program and provide evidence of the department or program’s endorsement of the student’s petition. Students interested in this option should begin by consulting with their advisor.

In addition, the College requires a period of at least 5 months to elapse between the comprehensive oral exam and the final exam. Students that have completed all degree requirements before completing 18 hours are required to continue enrollment until this 5-month requirement has been met.

Upon completion of the 18-hour requirement, a student’s level of enrollment should reflect as accurately as possible the faculty time he or she utilizes. This may be as little as one hour per semester.

Special enrollment requirements apply to those with GTA/GRA/GA appointments. Please consult the Graduate Studies (p. 2059) section of the online catalog and the KU Policy Library (http://www.policy.ku.edu/office.shtml#16).

The time spent on Leave of Absence does not count toward the student’s time to degree, and therefore does not shorten the time available to complete their degree requirements. Similarly, if a student that has elected to Voluntarily Discontinue subsequently returns to the program, the time that has elapsed since his or her last enrollment does not count toward the time to degree.

Students who fail to enroll without completing the Voluntary Discontinuance process or without being granted a Leave of Absence are reviewed by the College Office of Graduate Affairs and the students’ academic units for possible dismissal. Any time that accrues during these lapses of enrollment in which the student does not occupy any approved enrollment category (e.g., Enrolled, Voluntarily Discontinued, On Leave) is counted toward the time to degree.

Students on an international student visa should consult with the International Programs office prior to any change in enrollment status.

Please see Graduate Studies policies governing Leave of Absence and Voluntary Discontinuance in the Graduate Studies (p. 2059) section of the online catalog and in the KU Policy Library (http://www.policy.ku.edu/office.shtml#16).

Post-Comprehensive Enrollment for Doctoral Students

After passing the Comprehensive Oral Exam, doctoral candidates must be continuously enrolled. During this time, until all requirements for the degree are completed (including the filing of the dissertation) or until 18 post-comprehensive hours have been completed (whichever comes first), the candidate must enroll for a minimum of 6 hours a semester and 3 hours a summer session. At least one of these hours must be in dissertation or approved dissertation equivalent coursework.

In addition, the College requires a period of at least 5 months to elapse between the comprehensive oral exam and the final exam. Students that have completed all degree requirements before completing 18 hours are still required to continue enrollment until this 5-month requirement has been met.

Upon completion of the 18-hour requirement, a student’s level of enrollment should reflect as accurately as possible the faculty time he or she utilizes. This may be as little as one hour per semester.

Special enrollment requirements apply to those with GTA/GRA/GA appointments. Please consult the Graduate Studies (p. 2059) section of the online catalog and the KU Policy Library (http://www.policy.ku.edu/office.shtml#16).

Lapses in Enrollment

Generally, no student is allowed to enroll after the first 4 weeks of a semester or the first 2 weeks of a summer session. If a student does not intend to enroll, he or she must determine the appropriate course of action in consultation with the department or program.

The student may elect to Voluntarily Discontinue from the program, and must inform the department or program in writing of this decision, which will in turn file the necessary forms with the College. This option requires the student to seek re-admission to the program if they choose to return at a future date. They remain eligible to seek admission to another department or program in the College.

The student may also petition for a Leave of Absence of up to one calendar year. If granted, the Leave of Absence maintains the student’s place in the program. Leave of Absence petitions must be filed by the department or program and provide evidence of the department or program’s endorsement of the student’s petition. Students interested in this option should begin by consulting with their advisor.

The time spent on Leave of Absence does not count toward the student’s time to degree, and therefore does not shorten the time available to complete their degree requirements. Similarly, if a student that has elected to Voluntarily Discontinue subsequently returns to the program, the time that has elapsed since his or her last enrollment does not count toward the time to degree.

Students who fail to enroll without completing the Voluntary Discontinuance process or without being granted a Leave of Absence are reviewed by the College Office of Graduate Affairs and the students’ academic units for possible dismissal. Any time that accrues during these lapses of enrollment in which the student does not occupy any approved enrollment category (e.g., Enrolled, Voluntarily Discontinued, On Leave) is counted toward the time to degree.

Students on an international student visa should consult with the International Programs office prior to any change in enrollment status.

Please see Graduate Studies policies governing Leave of Absence and Voluntary Discontinuance in the Graduate Studies (p. 2059) section of the online catalog and in the KU Policy Library (http://www.policy.ku.edu/office.shtml#16).

Dual Enrollments

Students enrolled in two schools or working on two degrees at the same time must complete the work for both degrees. Courses may not be counted toward both degrees, except in the joint degree programs that have been established (e.g., M.P.A./J.D., M.A. in Economics/J.D., M.B.A./M.A. in Area Studies, etc.). Please refer to the Combined Degrees information in the Graduate Studies (p. 2059) section of the online catalog for a complete list of approved joint degree programs.

University Regulations on Grading

Article II of the University Senate Rules and Regulations provides detailed information on regulations governing the grading of graduate coursework. Students should also consult the Graduate Studies (p. 2059) section of the online catalog and the KU Policy Library (http://www.policy.ku.edu/office.shtml#16) for more information on the Grading Policy.

The following are of particular relevance for graduate students in the College:

Passing Grades for Graduate Coursework

Only courses graded C or above are considered passing and may be counted for graduate credit. Courses graded C-, D or F may not be used to fulfill degree requirements.

Incomplete (I) and Waiting Grades (WG)

Incomplete (I) grades are used to note, temporarily, that students have been unable to complete a portion of the required coursework during that semester due to circumstances beyond their control. Incomplete work must be completed and assigned an A-F or S/U grade within the time period prescribed by the course instructor. After one calendar year from the original grade due date, an Incomplete (I) grade will automatically...
convert to a grade of F or U, or the lapsed grade assigned by the course instructor.

Waiting Grades (WG) are placeholders and should only be used in rare instances when, for reasons beyond his or her control, an instructor is not able to assign a course grade by the deadline.

Credit/No Credit (CR/NC)

Graduate students may select the Credit/No Credit option only for those courses that do not fulfill a degree requirement. This includes courses used to fulfill the Research Skills and Responsible Scholarship requirement. Students should consult with their advisor prior to electing the CR/NC option.

College-Specific Grading Policy

Plus/Minus (+/-) Grades

Plus/minus (+/-) grades may be used in the College. The plus or minus sign describes intermediate levels of performance between a maximum of A and a minimum of F. Intermediate grades are calculated as 0.3 units above or below the corresponding letter grade.

Participation (P) Grades

Use of the Participation (P) grade is restricted in the College. It is only approved for a limited number of courses for which special permission has been sought. When permission is granted, it is only used to indicate participation in thesis, dissertation, or research enrollments (related to thesis or dissertation), or in the first semester enrollment of a two-semester sequence course. In any semester, the instructor may elect to assign a letter grade of A, B, C, D, or F when evidence about performance is available. A letter grade (A, B, C, D, or F) must be assigned in the last semester of enrollment to characterize the quality of the final product.

A-F or S/U grades are used in all other courses, including those that are repeated across semesters. The latter include courses in which students are collecting, assembling, or analyzing data; reviewing a research or scholarly literature; creating portfolios; or writing theses or dissertations (e.g., research, thesis, and dissertation hours). Students in these courses are expected to develop plans of study with their instructors and to contact these instructors throughout the semester to discuss their progress or changes in their plans. Instructors assign grades each semester based on the quantity and quality of the work students complete that semester. The grades that students receive in the last semester of these courses (e.g., for completing data analyses and literature reviews, exhibiting portfolios, defending theses or dissertations) apply only to that semester.

If a department or program has a course for which the P grading system may be more appropriate than the A-F or S/U grading system, it must seek special approval from the College.

Incompletes (I) and Waiting Grades (WG)

The College does not allow graduate students to take oral comprehensive or final examinations or to go forward with a thesis or dissertation defense if a waiting grade (WG) or an incomplete (I) grade is listed on the student’s transcript.

Probation and Dismissal Guidelines

To be in good standing, a student must maintain a 3.0 cumulative grade-point average and be making satisfactory progress toward the degree, as determined by the department or program.

If the grade-point average falls below 3.0, the department or program notifies the student in writing that they are being recommended for probation and outlines the expectations of the graduate program and the College that the student must meet to return to good standing. This is followed by a letter from the College confirming their probationary status.

When the rationale for probation is based on grade-point average, a student is typically placed on probation for 1 academic semester. If the cumulative grade-point average has not risen to 3.0 at the end of that semester, the student can either be dismissed or be allowed to continue on probation, depending on the department or program’s assessment of the student’s progress.

Students may also be placed on probation for failing to make satisfactory progress toward the degree. This may include, but is not limited to, failed exams or failure to make adequate and timely progress on the dissertation or thesis.

A student is dismissed upon recommendation of the student’s department or program. This typically occurs when a student fails to raise the grade point average to 3.0 after one or more semesters of probation, or otherwise fails to meet the terms of the probationary period. Academic dismissal should occur before a semester begins. If a student is dismissed during the semester, the dismissal is effective only at the end of the semester in which the department or program gives notification of dismissal. The department or program will notify the student in writing of the reasons for their dismissal. This will be followed by a letter from the College confirming the dismissal from the program and from the College.

In cases when a student’s grade point average is so low that their ability to ever achieve the 3.0 grade-point average required for graduation is in serious doubt, the department or program should move to dismissal. If they wish to allow the student to continue, they must petition the College on the student’s behalf.

A student who has been dismissed from a graduate department or program in the College is not eligible for readmission to graduate study in any department or program in the College of Liberal Arts and Sciences.

Time Limits

The University and the College have established time limits governing various stages of the graduate student career.

Maximum Time to Count Required Course Work

Courses completed at the University of Kansas, or transfer credits from another university, are valid for a period of 10 years. Courses that were completed more than 10 years before the scheduling of the final defense may not be used to fulfill graduate degree requirements in the College of Liberal Arts and Sciences.

With the endorsement of their graduate programs, students may petition the College to accept out-of-date course work to fulfill the requirements for their graduate degrees, provided they are able to justify why this course work meets the current standards of scholarship in the discipline.

Maximum Time to Submit Thesis or Dissertation

Students must make all final revisions and file the final version of the thesis or dissertation manuscript to UMI/Proquest within six months of the
date of final presentation and/or defense of the thesis or dissertation work. Until the final manuscript of a thesis or dissertation is filed, the student must be enrolled in accordance with enrollment policy. Graduate students in the College who do not file the final manuscript within the six-month time limit must enroll in 3 hours a semester until the thesis or dissertation is completed and filed.

**Maximum Time to Complete the Degree**

Graduate Studies has established time limits on master’s and doctoral degree completion. Please see Graduate Studies policies on Doctoral Program Time Constraints and Master’s Program Time Constraints in the Graduate Studies (p. 2059) sections of the online catalog and in the KU Policy Library (http://www.policy.ku.edu/office.shtml/#16) for full details.

Master’s degree students have a total of seven calendar years, excluding any periods of absence due to an approved leave of absence or voluntary discontinuation from a program, in which to complete the work for a master’s degree.

Doctoral degree students have a total of eight calendar years, excluding any periods of absence due to an approved leave of absence or voluntary discontinuation from a program, to complete the Ph.D. This includes students who enter with a master’s degree from an institution other than KU and bachelor’s degree holders who bypass the master’s and are admitted directly to a Ph.D. program.

Students who complete the master’s degree at KU and subsequently begin doctoral studies have 10 years to complete both degrees.

A time limit extension may be granted by the College. All extension petitions require the department to prepare and file a Graduate Degree Completion Agreement, which must then be approved by a designated subcommittee of the Committee on Graduate Studies. Per Graduate Studies policy, extensions may be granted for up to one year. However, additional time may be requested in the Completion Agreement. If the Completion Agreement is approved, subsequent petitions will receive an expedited review.

**Academic units may set their own, more rigorous time limits.** Consult with your advisor and review your academic unit’s handbook and the relevant Departments and Programs section of the online catalog for program-specific information, requirements, and restrictions.

**Graduation**

All graduate students must be enrolled the semester they complete all degree requirements.

Graduate Studies establishes an early deadline for degree completion for each semester and summer session, usually occurring at the end of the first 2 weeks of a semester or the end of the first week of summer session. If the student meets all degree requirements including the submission of all required documentation by this date, they are not required to enroll for that semester.

The final Graduate Application for Graduation Deadline is set by the Registrar for each semester. Please consult the official Academic Calendar for specific dates. To be eligible for graduation, an application for degree must be submitted and all degree requirements met by this deadline. This includes the submission of all required documentation to the College Office of Graduate Affairs. See the Graduation section of the COGA (http://clas.ku.edu/coga/graduation) website for more information.

**Undergraduate Awards**

**Graduation with Honors**

Undergraduates may earn honors upon graduation in 3 ways, in addition to making the honor roll each semester. Students may graduate with distinction or highest distinction, earn departmental honors in the major, or complete the University Honors Program. It is possible to earn honors in 1 of these areas, any combination of them, or all 3. The award of honors is noted on the student’s transcript and in the Commencement program. Distinction and highest distinction are noted on the diploma.

**Graduation with Distinction or Highest Distinction**

The top 10 percent of each year’s graduating class is designated as graduating with distinction. Of these, the top one-third is designated as graduating with highest distinction. To be eligible, students must have completed at least 60 credit hours, graded A through F, in residence at KU. See Required Work in Residence below.

**Graduation with Departmental Honors**

Most departments and programs allow qualified majors to work toward graduation with departmental honors. Graduation with departmental honors is awarded in recognition of exceptional performance in the major, completion of a program of independent research or an alternative project, and a strong overall academic record.

In addition to the requirements of individual departments and programs (which must be approved by the College committee on undergraduate studies and advising), the College requires the following for graduation with departmental honors:

1. Candidates must declare the intention to work for departmental honors with the appropriate departmental honors coordinator(s) no later than the time of enrollment for the final undergraduate semester, but sooner if required by the department(s). Copies of the intent form should be returned to College Student Academic Services.

2. At the end of the final undergraduate semester, the candidate must have achieved an overall grade-point average of at least 3.25 and a grade-point average of at least 3.5 in the major. Both overall and major grade-point averages include work completed at other institutions, as well as at KU. No minimum grade-point average is required to declare candidacy for graduation with departmental honors unless specified by the department.

3. Each candidate’s departmental honors work must include independent research or an acceptable alternative project. The results of research are presented in a form appropriate to the requirements of the major department. Equivalents to the independent research component are established by approved departmental honors programs. In courses meeting the independent research requirement, the candidate must earn a grade of B or higher. Successful completion of all departmental honors requirements must be certified to the departmental honors coordinator(s) by a panel composed of at least three members of the College faculty who have read the report of the independent research and heard the oral presentation, where required.

**Late Completion of Honors Requirement**

Requirements for graduation with honors may be completed after the date on which certifications are requested from departments, and in some
cases, requirements, if not needed for graduation, may be completed after
a student has graduated. However, the Incomplete policy does apply and
grades would lapse at the time of graduation. When a candidate finishes
all requirements, departments must notify College Student Academic
Services in writing.

Honor Roll
Undergraduates with grade-point averages of 3.5 who have completed
at least 12 hours with letter grades are recognized on the honor roll
or dean’s list in fall and spring. An Honor Roll notation appears on the
transcript.

Honors Program
The University Honors Program provides opportunities for outstanding
and creative undergraduates in all schools at KU to develop their full
potential during their undergraduate years. See Honors in this section of
the online catalog for further information.

Graduate Awards
The College of Liberal Arts and Sciences offers several awards to
recognize outstanding graduate students, faculty service, teaching
excellence, and exemplary advising. Below, you will find a brief
description of each award. More specific information about eligibility and
the call for nominations each year can be found on the College’s website
under Faculty Awards (http://clas.ku.edu/resources/faculty-staff/awards) and Graduate Student Awards (http://clas.ku.edu/resources/faculty-staff/
awards).

Graduate Student Awards
Howard J. Baumgartel Peace and Justice Award
This is an annual award to support a graduate student in the College or
the School of Business for thesis or dissertation research whose interests,
achievements, and talents are in the peace and justice field.

Outstanding Thesis/Research Project Award
The Committee on Graduate Studies in the College has established 2
annual awards for students receiving a master’s degree. The awards carry
a $500 stipend. Students are nominated for the award by their advisors.
Each department may nominate one master’s student for each award.

Graduate Faculty Awards
Byron A. Alexander/John C. Wright Graduate Mentor Awards
Graduate students (current or those who have graduated since May of the
calendar year prior to the award deadline) may nominate any tenured or
tenure-track faculty member in the College of Liberal Arts and Sciences
who has served as an outstanding mentor.

Career Achievement Teaching Award
This annual award recognizes a retired faculty member in the College of
Liberal Arts and Sciences who has made a significant contribution to the
teaching of College students at either the undergraduate or graduate level
and who has distinguished him/herself through excellence in teaching.
The award amount is $1,000.

African African-American St Courses
AAAS 102. Arabic and Islamic Studies. 3 Hours. NW/SC AE42/GE3H/
GE3S / U.
An introduction to the study of Islam and the Arabic language in relation
to Islamic cultures in Africa, the Mediterranean region, and beyond.
Topics covered include the historical origins of Islam in relation to the
Arabic language and its cultures of origin. This course is interdisciplinary,
including attention to the topic from the perspectives of historical unfolding
of both the language and religion, geographic and cultural perspectives,
political and economic concerns, and aesthetic perspectives, including
literature and the arts. LEC.

AAAS 103. Introduction to Africa. 3 Hours. NW/SC GE3H/GE3S / S/W.
An introduction to the interdisciplinary study of African cultures and
societies focusing on contemporary life on the continent. Topics to be
covered include the geography, history, politics, and economics of the
continent, as well as the religion, languages and literatures, music, and
the arts. The interdisciplinary perspective will provide students with a
sound basis for understanding contemporary African societies. LEC.

AAAS 104. Introduction to African-American Studies. 3 Hours. SC
AE41 / U.
Interdisciplinary introduction to the basic concepts and literature in the
disciplines covered in African American Studies. Includes the social
sciences, and humanities (including history, religion, and literature) as well
as conceptual framework for investigation and analysis of Black history
and culture and society. LEC.

AAAS 105. Introduction to African History. 3 Hours. NW GE11/GE3H /
H/W.
An introduction to important historical developments in Africa, mainly
south of the Sahara. Topics will include pre-history, empires, kingdoms
and city-states, the slave trade, southern Africa, partition and colonialism,
the independence era, military and civilian governments, and liberation
movements. Approaches will include literature, the visual arts, politics,
economics, and geography. (Same as HIST 104.) LEC.

AAAS 106. The Black Experience in the Americas. 3 Hours. HT
AE41 / H/W.
An interdisciplinary study of the history of the African peoples of
the New World, relating their cultures and institutions to the African
background and to their peculiar New World experiences up to and
including the nineteenth century. While the main emphasis will be on the
U.S.A., attention will also be paid to the Caribbean and Latin America.
Approaches will include demography, economics, social and political
developments, literature, and music. LEC.

AAAS 115. Introduction to African History, Honors. 3 Hours. NW
GE3H / H.
An intensive version of AAAS 105/HIST 104. An introduction to important
historical developments in Africa, mainly south of the Sahara. Topics
include early history, empires, kingdoms and city-states, the slave trade,
southern Africa, partition and colonialism, the independence era, military
and civilian governments, and liberation movements. Approaches include
literature, the visual arts, politics, economics, and geography. Open only
to students in the University Honors Program or by consent of instructor.
(Same as HIST 111.) LEC.

AAAS 116. The Black Experience in the Americas, Honors. 3 Hours.
HT AE41 / H.
An intensive version of AAAS 106. Open only to students on Dean’s
Honors Roll or enrolled in Honors Program, or consent of instructor. LEC.
AAAS 160. Introduction to West African History. 3 Hours. NW AE42/GE3H / H.
This course treats West African history through the first part of the twentieth century. The student is provided with a perspective on the major historical patterns that gave rise to West Africa's development as an integral part of world history. Special attention is paid to anthropological, geographical, and technological developments that influenced West African political and socioeconomic changes. (Same as HIST 160.) LEC.

AAAS 177. First Year Seminar: ____, 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in African-American Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

AAAS 200. Directed Studies. 3 Hours. U.
This course is designed for the study of special topics related to Africana at the freshman/sophomore level. It prepares students for continued practice in cultural reading and writing and for the academic rigor that awaits them at the upper levels. Prerequisite: Consent of department. IND.

AAAS 300. African Traditional Religion and Thought. 3 Hours. NW / H/W.
A study of African traditional religious beliefs, systems and practices and how these have conditioned spiritual, moral and social values, attitudes, social relationships and institutions, art, literature and music. Topics covered include the African world-view, concepts of birth, life, marriage, death and reincarnation; the concurrent practice or monotheism, polytheism and the cult of the ancestors; and the extent of relevance to Black societies in the New World. Prerequisite: AAAS 103 or AAAS 105 or AAAS 106 or consent of instructor. LEC.

AAAS 301. Portrait of a Third-World Nation: Haiti. 3 Hours. NW / H/W.
Case study of Third-World problems and aspirations through the first Black nation to win independence from colonialism. Topics include: profile of the Third World; Caribbean diversity; the Columbian exchange; piracy; slavery and plantocracy; Revolution and the burden of freedom; U.S. occupation; Papa Doc, Baby Doc, and the Tontons Macoute; Liberation theology; peasant life; government and corruption; poverty and hunger; morality of foreign aid; Voodoo; folk medicine. No knowledge of Haitian or French required. Students may not receive credit for both HAIT 200 and AAAS 301. LEC.

AAAS 302. Contemporary Haiti. 3 Hours. NW.
Detailed analysis of recent Haitian history. The focus will include interactions between religion, social structure, politics, economics and international relations. (Same as HAIT 300.) Prerequisite: AAAS 301/HAIT 200, or consent of instructor. LEC.

AAAS 303. Peoples and Cultures of North Africa and the Middle East. 3 Hours. NW / S.
This course familiarizes students with the peoples and cultures of North Africa and the Middle East. It examines the cultural, demographic, and religious diversity of the region, as well as the development of the early Islamic community and the formation of Islamic institutions. Issues such as religion and politics, inter-religious relations, nation-building, Islamic response to colonialism, Palestinian-Israeli conflict, Islamic resurgence, secularism, democratization, and gender, are also explored. (Same as ANTH 303.) LEC.

AAAS 305. Modern African History. 3 Hours. NW AE42 / H/W.
A survey of social, political, and economic developments during the colonial era and independence struggles, followed by a closer examination of the contemporary experience in a selected country or region. (Same as HIST 300.) LEC.

AAAS 306. The Black Experience in the U.S. Since Emancipation. 3 Hours. H.
An interdisciplinary study of the history and culture of Black people in America from Reconstruction to the present. Topics covered include an analysis of Reconstruction, Black leaders, organizations and movements, the Harlem Renaissance, migration, and race relations. Demographic variables covered include socio-economic class, education, political persuasion, and influence by avant-garde cultural changes. LEC.

AAAS 307. Modern African History, Honors. 3 Hours. NW AE42 / H.
An intensive version of AAAS 305. A survey of social, political and economic developments during the colonial era and independence struggles, followed by a closer examination of the contemporary experience in a selected country or region. Open only to students admitted to the University Honors Program, or by consent of the instructor. (Same as HIST 307.) LEC.

AAAS 316. Ministers and Magicians: Black Religions from Slavery to the Present. 3 Hours. H.
This course examines the history and diversity of African American religious expression from slavery until the present, emphasizing both mainstream and alternative faiths. It covers the religious world views of enslaved Africans, and examines faiths inside and outside of Christianity. Topics may include: independent black churches, magical practices, the Holiness and Pentecostal movements, black Islam, religious freemasonry, and esoteric faiths. The class emphasizes the influence of gender, class, race, migration, and urbanization on black religion. (Same as AMS 316 and HIST 318.) LEC.

AAAS 317. African American Women: Colonial Era to the Present. 3 Hours. H.
This interdisciplinary course covers the history of African American women, beginning in West and Central Africa, extending across the Middle Passage into the Americas, and stretching through enslavement and freedom into the 21st century. The readings cover their experiences through secondary and tertiary source materials, as well as autobiographies and letters, plays and music, and poems, novels, and speeches. (Same as AMS 317, HIST 317, and WGSS 317.) LEC.

AAAS 320. African Studies In: ____, 3 Hours. NW AE42 / H/W.
Lecture and discussion course in African area of current interest. May be repeated for credit toward the major. Prerequisite: AAAS 103 or AAAS 105 or consent of instructor. LEC.

AAAS 321. African Studies In, Honors: ____, 3 Hours. H/W.
Lecture and discussion course in African area of current interest. May be repeated for credit toward the major. Only open to students admitted to the University Honors Program or with permission of the instructor. Prerequisite: AAAS 103 or AAAS 105 or consent of instructor. LEC.

AAAS 322. Legal Issues and the African American. 3 Hours. H.
This course examines civil issues in African-American communities and populations, and their legal ramifications. Topics such as the penal system, court sentencing, death penalty, cultural norms, law enforcement and civil liberties are critically examined within social and humanistic theories. LEC.

AAAS 323. African-American Studies In: ____, 3 Hours. H.
Lecture and discussion course in African-American area of current interest. May be repeated for credit toward the major. Prerequisite: AAAS 106 or consent of instructor. LEC.
AAAS 324. African-American Studies In, Honors: _____. 3 Hours. H.
Lecture and discussion course in African-American area of current interest. May be repeated for credit toward the major. Only open to students admitted to the University Honors Program or with permission of the instructor. Prerequisite: AAAS 106 or AAAS 116 or consent of instructor LEC.

AAAS 325. Popular Black Music. 3 Hours.
This is a comparative study of popular music produced in Africa, and the African Diaspora. The praxis, theories, histories, forms, artists and audiences are discussed. LEC.

AAAS 327. African American Culture. 3 Hours.
This course defines African American culture and seeks to identify ways in which it is distinct, both in terms of its roots and ongoing evolution. LEC.

AAAS 328. African American Urban Community and Class in the Midwest. 3 Hours. H.
This course provides historical perspective on African Americans and the politics of economic class within black urban spaces from the end of Reconstruction to the post-World War II era. It focuses on the development of an upwardly mobile urban black middle class, and impoverished black urban "underclass," since the 1960s. Students are encouraged to successfully completed one of three courses: AAAS 104, AAAS 106, or AAAS 306. (Same as HIST 338.) LEC.

AAAS 330. Black Leadership. 3 Hours. H.
The course focuses on the concept of leadership and on Black leadership in the United States. An in-depth analysis of selected case studies of Black leaders both historical and contemporary. Some attention will be given to the dispersion of Africans into the Americas and the leadership that emerged, conditioned both by environmental factors and the psychology engendered by the system of slavery. Selected successful Black leaders will be invited to visit the class from time to time. (Same as AMS 340.) LEC.

AAAS 332. Introduction to African Literature. 3 Hours. NW AE42 / H/W.
Reading, analysis, and discussion of contemporary fiction, poetry, and drama from sub-Saharan Africa. Brief attention is paid to historical development and to traditional literature. (Same as ENGL 326.) Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

AAAS 333. Introduction to Caribbean Literature. 3 Hours. AE42 / H/W.
Reading, analysis and discussion of fiction, poetry, and drama from the Caribbean, including a small selection of Spanish, French, and Dutch Antillean works in translation. (Same as ENGL 339.) Prerequisite: ENGL 102 and one 200-level English course or consent of instructor. LEC.

AAAS 334. Introduction to African Dance Theatre. 2 Hours. NW / U.
Introduction to the general techniques of non-verbal theatrical conventions in African cultures. Practical training in movement vocabulary supplemented by lectures on the "text" of performance. There will be an end of semester "studio performance." (Same as DANC 230 and THR 226.) LEC.

AAAS 335. Introduction to Southern African Literature. 3 Hours. NW / H/W.
This course deals with the literatures of the southern Africa region, including works by both women and men from South Africa, Botswana, Lesotho, Zaire, Zimbabwe, and Mauritius. Course includes close attention to the political and cultural bases of social conflict in the region. LEC.

AAAS 336. Introduction to African Literature, Honors. 3 Hours. NW / H/W.
Reading, analysis and discussion of contemporary fiction, poetry, and drama from Africa. Brief attention is paid to historical development and to traditional literature. Prerequisite: Open only to students admitted to the University Honors Program or with consent of instructor. Not open to students who have taken AAAS 332. LEC.

AAAS 340. Women in Contemporary African Literature. 3 Hours. NW AE42/GE3S / H.
A critical study of issues and questions raised about women in contemporary African literature and implications for the larger society through the analysis of theme, language, characterization, roles and functions of women in selected works. (Same as WGSS 330.) LEC.

AAAS 345. Popular Culture in Africa: Spiritual Thrills, Romance and Sexualities. 3 Hours. H.
This course examines how the different constituents of popular culture mobilize, construct and structure gender, and spiritual and sexual identities in select contemporary African countries. Discussions also focus on how popular culture mediates the contesting spaces of indigenous local constructs and the push and pull of global forces to create geographic and contemporary specificities. (Same as WGSS 345.) LEC.

AAAS 349. Islam. 3 Hours. NW AE42/GE3S / H/W.
Islam’s Origins, the prophet Muhammed, the Holy Koran, religious symbols and moral mandates, and historical developments. (Same as REL 350.) LEC.

AAAS 350. Physical Geography of Africa. 3 Hours. N.
This course is a survey of the basic physical features of the African continent including structure and relief, rivers and lakes, soils and mineral resources. It includes characteristics and processes of African climates, and the ecology of Africa’s four major biomes: tropical rain forest, savanna, steppe, and desert. Climatic and environmental variations of the past, emergence of humankind, and development of pastoral and farming systems are discussed. Contemporary environmental concerns also include deforestation and desertification, the impacts of drought, methods for monitoring African environments, and Africa’s prospects in a 21st century suffering from global warming. (Same as GEOG 350.) LEC.

AAAS 351. Africa’s Human Geographies. 3 Hours. NW AE42/GE3S / S/W.
An introduction to historical, cultural, social, political, and economic issues in Africa from a geographic perspective. The course begins with the historical geography of humanity in Africa, from ancient times through to the present. Other topics include cultural dynamics, demography, health, rural development, urbanization, gender issues, and political geography. Case studies from Eastern and Southern Africa will be used to illustrate major themes. (Same as GEOG 351.) LEC.

AAAS 353. Modern and Contemporary African Art. 3 Hours. H.
In this course, we examine the development of artistic modernisms in Africa in historical context. We also study the content, production, patronage, and display of modern and contemporary African art. In doing so, we consider African artists’ engagement with modernity, globalization, and contemporary issues, as well as interrogate influential myths and assumptions regarding African artists and the work they produce. Course themes include the workshop as a critical site, independence movements and the creation of national art forms, art as global commodity, and art in resistance, remembrance, and revolution. (Same as HA 353.) LEC.

AAAS 355. African Theatre and Drama. 3 Hours. NW / H/W.
A study of the origin and development of continental African theatre and its affinity to the Levant. Traditional, colonial and contemporary dramatic
theories and experiments will be examined in play selections. (Same as THR 326.) LEC.

AAAS 356. African-American Theatre and Drama. 3 Hours. H. A historical study of Black theatre in the U.S.A. from its African genesis to its contemporary Americanness. Epochs in African-American dramaturgy will be critically examined. (Same as THR 327) LEC.

AAAS 370. Introduction to the Languages of Africa. 3 Hours. NW AE42/GE3S / H/W. A survey of the indigenous languages of Africa from a linguistic perspective, covering the main language families and their geographic distribution, and focusing on the features and structure of the more widely spoken and representative languages in each family (e.g., Fula, Hausa, Maninka, Swahili, Yoruba). (Same as LING 370.) LEC.

AAAS 372. Religion, Power, and Sexuality in Arab Societies. 3 Hours. NW / S. This course examines theories of religion, discourse, power, gender and sexuality in their application to Arab societies. The course introduces different aspects of Arab cultures. Through canonical works, we study political domination, tribal social organization, honor, tribe, shame, social loyalty, ritual initiatives and discuss how these issues speak generally to anthropological inquiry. Regionally specific works are then framed by an additional set of readings drawn from anthropological, linguistics, and social theories. (Same as ANTH 372.) LEC.

AAAS 376. West African Art. 3 Hours. NW / H/W. Introduction to the rich visual art traditions of West Africa. Emphasis is given to the major art-producing cultures of the Western Sudan and the Guinea Coast, including the pre-historic cultures of Nigeria, Mali, and Ghana. The diverse forms of figure sculptures and masquerade performance and meanings of these arts in historical and cultural contexts are examined. (Same as HA 376.) LEC.

AAAS 388. The Black Woman. 3 Hours. S/W. An interdisciplinary study of the role of Black women in our society, from the African background through the plantation experience to the present. Prerequisite: One course in the social sciences and/or humanities or consent of instructor. LEC.

AAAS 400. Readings in: ____. 3 Hours. U. Investigation of a subject selected by a student in consultation with a departmental adviser and conducted under supervision. Individual reports and conferences. Open only to students who have completed at least six credit hours in African and African-American studies. Cannot be repeated for credit. Prerequisite: Consent of instructor. IND.

AAAS 415. Women and Islam. 3 Hours. H/W. Addresses the widely-held stereotype of Muslim women as pawns in a patriarchal socio-religious context. Investigating the Muslim cultures of certain regions, the course will examine the manner in which indigenous culture was influenced by the introduction of Islam and the historical impact of Islam on women’s social roles. Focusing principally on social change in the 20th century, the course will consider how socio-political change affects religious roles where religion is integrally involved in daily life. To what extent is individualism valued, and how are the pressures of late 20th century life mediated? The course will draw on texts from history, sociology, and literature. Prerequisite: REL 107 or AAAS 349/REL 350 or consent of instructor. LEC.

AAAS 420. Intercultural Communication: The Afro-American. 3 Hours. AE41 / H. An examination of the barriers to effective communication between Black Americans and non-Black Americans. (Same as COMS 447.) Prerequisite: Skills in basic composition essential. LEC.

AAAS 429. Postcolonial Theatre and Drama. 3 Hours. NW AE42/GE3S / H. The course develops an understanding of the postcolonial concept and its different manifestations in theatre and drama across nations and cultures. It approaches postcolonialism as a way of reading theatre, and as a genre within theatre by exploring how the “colonial project” has reconfigured the concept, content, and context of theatre in both colonized and colonizing cultures. In addition to the study of postcolonial playwrights and their works, the course is also an introduction to postcolonial theory and its critics. (Same as THR 429.) LEC.

AAAS 432. Francophone African Literature. 3 Hours. NW AE42/GE3S / H/W. This course is an introduction to 20th century African literature written in French, covering selected works by major authors from both sub-Saharan Africa and the Maghreb. Attention will be given primarily to the novel, although some poetry will also be read. Topics and themes include negritude, African identity in the wake of colonialism, Islam, and women’s writing. Classes will be conducted in English. Students may read the texts in French or in translation. (Same as FREN 432.) Prerequisite: ENGL 102 and a 200-level English course. LEC.

AAAS 433. Islamic Literature. 3 Hours. NW / H/W. This course focuses on literature that reflects Islamic culture from its inception to contemporary times. Beginning with attention to the importance of the spoken word in the establishment of Islam, course readings and lectures follow the place of literary works in confirming Islamic perspectives. Readings include selections from the Qur’an, classical works of poetry and narrative, and contemporary autobiography. Authors are from Africa and the region of the Golden Age of Islam, including the best known: al-Ghazali (d.1111 C.E.), Attar (d. circa 1193-1235), Ibn Arabi (d. 1240 C.E.), Rumi (d. 1273), Saadi (d.1291), Hafiz (d. 1389 C.E.), and Shah (contemporary), as well as readings by and about less well known Muslim women scholars and Sufis in all historical periods. Readings are all in English translations. LEC.

AAAS 434. African Women Writers. 3 Hours. NW / H/W. This course focuses on four decades of African women’s writing from all regions of the continent. Works included deal with a wide variety of issues relevant to African women, as well as universal issues of conceptions of gender roles, and the struggle to attain personal rights and freedom within traditional cultural frameworks. LEC.

AAAS 435. Muslim Women’s Autobiography. 3 Hours. NW / N/W. This course examines the realities of Muslim women’s experiences as conveyed in their own voices. Works are drawn from all over the world, from Africa and the Middle East to Europe and the U.S. and cover the eleventh and twentieth centuries. LEC.

AAAS 440. The Afro-American Family: A Psychological Approach. 3 Hours. S. The examination of the structure, values, and behavior patterns of the contemporary African-American family as influenced by African cultures and kinship systems and the institution of slavery in association with other factors. Social and psychological forces that have enhanced or blocked family survival, stability, and advancement will be explored. The orientation of Black family life will emphasize its strengths, weaknesses, adaptations, strong kinship bonds, and equalitarian family roles. LEC.

AAAS 445. Arab Thought and Identity. 3 Hours. NW / N/W. The intention of this course is to present a comprehensive portrait and a deeper understanding of the Arab society and its cultural background. We will focus on the debate that is still raging about traditionalism versus modernity, and authenticity (assala) and specificity (Khususiya) versus westernization. Moreover, we will discuss the question of Arab identity which manifests itself through a sense of belonging and diversity of
affiliations, and relies as well on shared culture and its variations, and shared place in history and common experiences. It is designed for any student interested in this ethnic group. LEC.

AAAS 450. Popular Culture in the Muslim World. 3 Hours. NW / H.
A study of pop songs, television, comics, and other idioms of popular culture from different parts of the Muslim world, with attention to Muslims’ sense of humor, tragedy, aesthetics, and pertinent issues of the day. (Same as REL 450.) LEC.

AAAS 460. Topics and Problems in African and African-American Studies. 1-3 Hours. H/W.
Individual investigation of special topics in African and African-American studies. May not be repeated for credit toward the major. Prerequisite: Six hours in African and African-American studies or consent of instructor. IND.

AAAS 470. Language and Society in Africa. 3 Hours. NW AE42/GE35 / H/W.
Examines issues and problems associated with language use in sub-Saharan Africa from a sociological perspective. Topics covered include an overview of the types of languages spoken on the continent: indigenous languages, colonial languages, pidgins and creoles, and Arabic as a religious language; problems associated with the politics of literacy and language planning, writing and standardization of indigenous languages; and the cultural and ideological dilemmas of language choice. (Same as LING 470.) Prerequisite: AAAS 103, AAAS 305, or LING 106; or consent of instructor. LEC.

AAAS 496. Field Experience. 3 Hours. AE61 / H/W.
A supervised placement in practical situations where students actively participate in organized work within the community, to be completed with an acceptable paper. The course may be taken in the United States, Caribbean, or Africa to meet the B.A. degree requirement in African and African-American Studies. Open only to junior and senior majors or by consent of the department. FLD.

AAAS 501. Regional History: ______. 3 Hours. H/W.
A survey of the major political, social, economic and intellectual trends in a region of Africa or the Americas. Prerequisite: Five hours of distribution courses in history. LEC.

AAAS 502. Directed Language Study: ______. 5 Hours. U.
Study of an African language at Elementary I and Elementary II levels under individual supervision and with the aid of self-instructional material. Open to juniors and seniors in good standing and graduate students only and with permission of the department. May be repeated for up to 10 credit hours. Cannot be used to fulfill BA foreign language requirement. IND.

AAAS 503. Directed Language Study: ______. 3 Hours. U.
Study of an African language at Intermediate I and Intermediate II levels under individual supervision and with the aid of self-instructional material. Open to juniors and seniors in good standing and graduate students only and with permission of the department. May be repeated for up to 6 credit hours. Cannot be used to fulfill BA foreign language requirement. IND.

AAAS 504. Directed Language Study I: ______. 3 Hours. U.
Study of an African language at Advanced I and Advanced II levels under individual supervision and with the aid of self-instructional material. Open only to juniors and seniors in good standing, graduate students and with permission of the department. May be repeated for up to 6 credit hours. Cannot be used to fulfill BA language requirement. IND.

AAAS 505. Directed Language Study II: ______. 3 Hours. U.
Designed for native and near native speakers, this course involves reading of materials published in an African language intended for conversation, oral presentation, and writing by native speakers. May be repeated for up to 6 credit hours. Prerequisite: Native or near native speaker proficiency or consent of instructor. IND.

AAAS 510. Comparative Racial and Ethnic Relations. 3 Hours. NW AE42 / S.
An examination of constructions of race and ethnicity around the world. Emphasis is on the social, political, historical, cultural and economic factors that lead to the creation of ethnic and racial identities, ethnic conflict and accommodation, ethnic movements, and ethnic political organization. Racial and ethnic relations in the U.S. are compared with other countries. Major focus is placed on ethnicity in Africa, Asia, Latin America, the Caribbean, and/or the Middle East. (Same as AMS 534 and SOC 534.) LEC.

AAAS 511. The Civil Rights Movement. 3 Hours. H.
An examination of the Civil Rights Movement in American History. Emphasis is placed on the activities of major Civil Rights organizations, Civil Rights legislation and its impact on American life, and conflicts between integrationist and separatist forces in politics, economics, education, culture and race relations in the United States. LEC.

AAAS 512. African and Western Cosmologies. 3 Hours. H/W.
Ancient and modern Western world views will be compared to African world views, with special attention paid to the way these are supported in the underpinnings of sociocultural institutions. Prerequisite: A course in African Studies and a course in the philosophy of science or consent of instructor. LEC.

AAAS 520. African Studies in: ______. 3 Hours. NW AE42 / H/W.
Upper level lecture and discussion courses in African area of current interest and/or taking advantage of faculty resources in topics relevant to the major. May be repeated for credit toward the major. Prerequisite: Junior/Senior in good standing. LEC.

AAAS 521. African Studies In, Honors: ______. 3 Hours. H/W.
Upper level lecture and discussion courses in African area of current interest and/or taking advantage of faculty resources in topics relevant to the major. May be repeated for credit toward the major. Only open to students admitted to the University Honors Program or with permission of the instructor. Prerequisite: Junior/senior in good standing LEC.

Historical development, systematic ideas and rites of selected periods, cultural settings, and movements. Prerequisite: Five hours of distribution courses in the humanities or AAAS 512 and consent of instructor. LEC.

AAAS 523. African-American Studies In: ______. 3 Hours. H/W.
Upper level lecture and discussion courses in African-American area of current interest and/or taking advantage of faculty resources in topics relevant to the major. Prerequisite: Junior/Senior in good standing. LEC.

AAAS 524. African-American Studies In, Honors: ______. 3 Hours. H/W.
Upper level lecture and discussion courses in African-American area of current interest and/or taking advantage of faculty resources in topics relevant to the major. May be repeated for credit toward the major. Only open to students admitted to the University Honors Program or with permission of the instructor. Prerequisite: Junior/senior in good standing LEC.

AAAS 525. Social History of Black Aging in America. 3 Hours. H.
The purpose of this course is to provide a comprehensive historical examination of American society’s changing attitudes and responses to aging and older adults, with emphasis on the Black aged. Beginning with the African background where older adults were highly valued, the course
explores the impact of slavery, the industrial Revolution, urbanization and the development of the youth-oriented culture prevalent in the United States today. Subsequently, the course focuses on the emergence of twentieth century social gerontological problems and the role of the modern Black movements, public agencies, and private organizations in addressing the issues. Film, essays, drama, and/or fiction are utilized to illustrate the cultural attitudes of each historical period. Prerequisite: AAAS 103 or AAAS 105 or AAAS 106 or a course in American history, or consent of instructor. LEC.

AAAS 527. Popular Culture in Africa. 3 Hours. S/W.
This course examines multiple expressions of popular culture in contemporary Africa, focusing on the aesthetics of forms such as music, theater, dress, street art, and popular literary genres, as well as the social themes they deal with and the societies that produce them. The approach will be based on a critical reconsideration of notions such as traditional versus modern culture, elite versus folk art, westernization, and cultural hybridity, in order to find better ways of discussing the cultural vibrancy of everyday life in contemporary Africa. LEC.

AAAS 532. Studies in Islam. 3 Hours. H.
Study of religious thought, practice, and institutions of Islam with an emphasis on the examination of primary documents. (Same as REL 532.) LEC.

AAAS 534. The Rhetoric of Black Americans. 3 Hours. H.
A study of the rhetoric of Black Americans, from their earliest protest efforts to the contemporary scene, with the focus on the methods and themes employed to alter their status in American society. (Same as COMS 551.) Prerequisite: COMS 130. Skills in basic composition essential. LEC.

AAAS 536. Islamic Art and Architecture in Africa. 3 Hours. N.
Study of Islamic art and architecture in various cultural and geographical settings, from the first mosques of North African and the Swahili coast to contemporary Islamized masquerades in West Africa. We consider art objects and architectural sites in terms of religious practice, trade and commerce, ritual and political power, and contemporary expression. (Same as HA 536.) Prerequisite: AAAS 102, AAAS 103, HA 100, or HA 150; or permission of instructor. LEC.

AAAS 542. The History of Islam in Africa. 3 Hours. NW / H/W.
A study of the history and institutions of Islam in Africa. Emphasis will be placed on the impact of Islam on African traditional religions and African civilizations in general; the historiographical traditions of Islam in Africa. (Same as REL 535.) Prerequisite: Five hours of distribution courses in the humanities. LEC.

AAAS 543. Language and Culture in Arabic-Speaking Communities. 3 Hours. NW AE42/GES3 / H.
The course examines the links between language structure, patterns of use, language choice, and language attitudes in the diglossic and bilingual Arabic-speaking communities. It also explores language as a reflector and creator of Arab culture (e.g., linguistic encoding of politeness, the Quranic text as the spoken and written word, the role of tropes in Arabic rhetoric). The topics for discussion range from the micro-level language choice to the macro-level issues of national language policies and planning within the domain of government and education across the Arab world. (Same as LING 543.) LEC.

AAAS 545. Unveiling the Veil. 3 Hours. NW / H.
This course seeks to unveil a complex cultural practice that has been misconstrued by many scholars. It explores the versatility of the meaning of the veil. It examines the ways in which the veil has become a symbol of privacy, cultural identity, religious assertion, resistance and liberation, besides being a symbol of constraint, oppression, backwardness, and sexual mystery. LEC.

AAAS 550. Senior Seminar in: ____. 3 Hours. AE61 / H/W.
Small discussion groups, each designed to consider a specific, clearly defined topic, using an interdisciplinary approach and requiring the demonstration of a comprehensive knowledge of the fundamentals in the field as appropriate to the topic. Class discussion based on student presentations. Prerequisite: Senior majors; special departmental permission for other seniors. LEC.

AAAS 551. Environmental Issues in Africa. 3 Hours. S.
Acquaints students with the complexities of debates on environmental problems in Sub-Saharan Africa. Topics addressed may include deforestation, desert expansion, wildlife conservation, soil erosion, climate change, coral reef destruction, water resources development, mangrove preservation, and the environmental effects of war, industrialization, and urbanization. Class presentations and projects synthesize the perspectives of both human and physical geography. (Same as GEOG 550.) Prerequisite: GEOG 104 or permission of instructor. LEC.

AAAS 552. Classical Islamic Literature. 3 Hours. NW / H.
An examination of major developments in classical Islamic literature in the Middle East and beyond, with attention to the poetic and prose works (in translation) that emerged from them. (Same as REL 552.) LEC.

AAAS 553. Geography of African Development. 3 Hours. NW AE42/GE35 / S.
Acquaints students with the values and social parameters of African agricultural and pastoral practice. Topics include customary land rights, African perspectives on the natural world, gender issues in African agriculture, and the urbanization of African cultures. The course also contrasts African views with those of Western development practitioners and donor agencies. Case studies from different countries are used to highlight the continent’s regional differences. (Same as GEOG 553.) LEC.

AAAS 554. Contemporary Health Issues in Africa. 3 Hours. S.
The course examines health and nutrition in African communities, using the methods of biological and medical anthropology. Fundamental to the approach taken in the course is the understanding that the health of human groups depends on interactions between biological and cultural phenomena in a particular ecological context. One topic will be selected per semester to examine in detail the full array of epidemiological factors contributing to patterns of specific diseases. AIDS, childhood diseases, and reproductive health of African women are among possible topics. Course material will be selected from scholarly and medical publications, as well as course materials and popular media. The use of a variety of sources will enhance understanding of the biological and cultural issues involved, and will help students identify possible bias and misinformation in popular coverage of events such as famine or epidemic in African settings. (Same as ANTH 545.) Prerequisite: An introductory course in either Anthropology or African Studies. LEC.

AAAS 555. African Film. 3 Hours. NW / H.
A critical study of Africa and its peoples as depicted in films. The aesthetic, cultural, economic, political, historical, and ideological aspects of African films are examined. (Same as FMS 544.) LEC.

AAAS 557. Cities and Development. 3 Hours. S.
An intermediate level course in urban geography, with an emphasis on cities in the developing world. Example cities in Latin America and the Caribbean, Sub-Saharan Africa, the Middle East, South Asia, and/or Southeast Asia may be examined. The main focus is on the intersection between urbanization and economic development, but social, political, and cultural aspects of development in cities are considered. Other topics include the geographic impacts of European colonialism, urbanization
and industrialization, rural-to-urban migration, urban structure and spatial
dynamics, urban planning, and environmental sustainability. (Same as
GEOG 557.) LEC.

AAAS 550. Race, Gender, and Post-Colonial Discourses. 3 Hours. H.
An examination of the ways in which the concept of race, gender,
and post-colonialism frame African literatures from the Caribbean,
North America, and the continent itself. The course will focus on these
discourses grounding them in critical frameworks within which they can
be contextually analyzed and evaluated, at the same time examining their
impact in literacy praxis and theory. (Same as WGSS 560.) LEC.

AAAS 551. Liberation in Southern Africa. 3 Hours. NW AE42 / U.
This course examines struggles for freedom in southern Africa and the
consequences of political, economic, and social changes in the region.
The end of colonial rule, the demise of white-settler domination, and
the fall of the apartheid regime is discussed. As a major political event
of the twentieth century, the liberation of southern Africa had both local
and global consequences. The course analyzes transnational issues of
liberation and resistance to consider broader regional and international
perspectives. Course themes pay particular attention to gender and
ethnicity and include a focus on democratization and contemporary
meanings of liberation. Prior coursework in African Studies is strongly
recommended, but not required. (Same as HIST 561 and POLS 561.)
LEC.

AAAS 555. Gender, Culture, and Migration. 3 Hours. H.
This course brings a human face to the 21st century manifestation of
globalization by focusing on the issues of culture, gender and migration.
How do these three aspects create the “global village” amongst both
the host and donor peoples? When people move from one place to
another, what do they leave behind, what do they take with them?
What is gained, or lost by the host community? What is the impact of
migration on a specific group’s and individual’s sense of identity? How
has migration affected the people’s construction, understanding, and
practice of gender? Given their primary roles in the home and within the
culture, these questions and more are posed with particular attention
to women. Migration theories, interviews and personal testimonies as well as
literary and dramatic works are critical to our analyses of the issues raised
and enable us to hold conversations with, and listen to the stories of the
ordinary people who make globalization happen and sustain it. (Same as
AMS 565 and WGSS 565.) LEC.

AAAS 556. Kongo Trans-Atlantic. 3 Hours. S.
This seminar explores Kongo culture and history through a cross-section
of the African-Atlantic World: Western Equatorial Africa and related New
World societies in Jamaica, Brazil, Haiti, Cuba, and the Georgia and
Carolina coasts, and New Orleans (thus in former British, Portuguese,
French, Spanish, and U.S. colonial territories). The seminar will assess
recent scholarship on patterns of slavery and resistance, cultural and
linguistic change, creolization and hybridization. (Same as ANTH 568).
LEC.

AAAS 574. Slavery in the New World. 3 Hours. H/W.
Slavery, slave culture, and the slave trade in the U.S., Latin America, and
the Caribbean will be examined comparatively. Attention will also be given
to African cultures, the effects of the slave trade on Africa, and the effects
of African cultures on institutions in the New World. (Same as HIST 574.)
LEC.

AAAS 578. Central African Art. 3 Hours. NW / H/W.
Introduction to the arts and cultures of Central Africa. Emphasis is given to
the major art-producing cultures of the Equatorial forest and the Southern
Savanna regions of Cameroon, Gabon, Congo, Zaire, and Angola.
The historical and cultural contexts for the visual arts associated with
centralized leadership and non-centralized societies are explored. (Same
as HA 578.) LEC.

AAAS 584. Black American Literature. 3 Hours. H.
A study of the literature written by Black Americans from the pre-Civil War
period to the present. Emphasis upon specific historical periods in the
development of Black literature as well as on a critical analysis of major
autobiographical, poetic, and fictional works. LEC.

AAAS 585. Race and the American Theatre. 3 Hours. U.
The representation(s) of race in significant texts and performance styles
in American theatre analyzed according to political ideologies, dramatic
movements and the impact of these factors on the representation of the
“other” in the theatre. (Same as AMS 529 and THR 529.) LEC.

AAAS 590. The Rise and Fall of Apartheid. 3 Hours. H.
This course will deal with the last fifty years of South African history during
which apartheid came to be formulated, supported, and perpetuated, and
the forces that were responsible for its disintegration by 1990. Reference
will also be made to the transformation process since April 1994. (Same
as HIST 599.) LEC.

AAAS 598. Sexuality and Gender in African History. 3 Hours. NW
AE42 / H.
An examination of the history of sexuality and gender in Africa with a
focus on the 19th and 20th centuries. Major issues and methods in the
historical scholarship on gender and sexuality will be covered. Topics
of historical analysis include life histories, rites of passage, courtship,
migration, reproduction, education, masculinities, homosexuality, colonial
control, and changing gender relations. Prior course work in African
history is suggested. Graduate students will complete an additional project
in consultation with the instructor. (Same as HIST 598.) LEC.

AAAS 600. Politics in Africa. 3 Hours. NW AE42 / S.
A survey of politics in Africa, focused on the countries of sub-Saharan or
Black Africa. The course includes a historical discussion of precolonial
African, colonization and the creation of contemporary states, and the
politics of independence, before examining contemporary political
systems and the forces influencing patterns of politics on the continent.
(Same as POLS 665.) Prerequisite: POLS 150 or AAAS 105 or AAAS 305
or consent of instructor. LEC.

AAAS 611. History of the Black Power Movement. 3 Hours. H.
Examines the Black Power Movement in its many manifestations,
beginning with a discussion of its political and cultural background:
the transition from Civil Rights to Black Power in the African American
Freedom Movement of the 1960s; the impact on African Americans
of African decolonization and the spread of anti-colonial and anti-imperialist
movements throughout other parts of the globe. The course also
examines the Black Arts Movement and its influence on the Black Power
Movement and vise versa. Therefore, some attention will also be paid
to the music, literature, theater, and the graphic arts of the period, and
the aesthetic and political critiques of these artistic forms. Prerequisite: AAAS
511 not required but recommended. LEC.

AAAS 630. The Life and Intellectual Thought of W.E.B. Du Bois. 3
Hours. H.
A critical examination of W. E. B. Du Bois, paramount black scholar and
activist whose massive body of scholarly work spans the period from late
19th through the mid-20th centuries. Course covers the major works of
Du Bois. Topics include Du Bois as sociologist, historian, propagandist,
and creative writer. Moreover, the course deals with Du Bois as an intellectual
in conversation with other black thinkers, including individuals such as,
Booker T. Washington, Alexander Crummell, Anna Julia Cooper, Ida B.
Wells-Barnett, Marcus Garvey, E. Franklin Frazier, Walter White and
Thurgood Marshall. LEC.
AAAS 650. Sufism. 3 Hours. NW / H.
A survey of developments in Sufi (Islamic Mystical) thought, poetry, and ritual throughout Muslim history and across the Muslim world. (Same as REL 650.) Prerequisite: AAAS 349/REL 350 or permission of instructor. LEC.

AAAS 657. Gender in Islam and Society. 3 Hours. NW / H.
An investigation of the relationship between Islam, and gender roles and status in religious texts (Quran and Hadith) and in societies across the Muslim world, past and present. (Same as REL 657.) Prerequisite: AAAS 349/REL 350 or permission of instructor. LEC.

AAAS 662. Gender and Politics in Africa. 3 Hours. S.
This course is designed to explore the field of gender and African politics. We begin by paying particular attention to African women's political roles during the pre-colonial and colonial society. Next, we examine the impetus, methods, and path of liberation struggles and how gender roles were shaped, shifted, and changed during these struggles. The majority of the class focuses on current issues in African politics, including gender and development, HIV/AIDS and women's health, gender and militarism. We also explore women's roles in political institutions, civil society organizations, trade and labor unions, and transnational movements. We also examine contemporary constructions of masculinity and femininity in African states and explore how these constructions affect social policy and national political agendas. (Same as WGSS 662.) LEC.

AAAS 663. The Anthropology of Islam. 3 Hours. NW / H.
This course uses critical readings of major anthropological works on Islam to: 1) analyze various interpretations of "Islamic cultures" through a discussion of regionally-grounded works, and 2) examine how the anthropological study of Islam also is informed by theoretical and philosophical approaches to major anthropological questions, such as religion, myth, kinship, social organization, and power. The course offers both a history of various interpretations of Islam as well as a history of theories of these interpretations. (Same as ANTH 663.) LEC.

AAAS 676. West African Art. 3 Hours. NW / H/W.
Introduction to the rich visual art traditions of West Africa. Emphasis is given to the major art-producing cultures of the Western Sudan and the Guinea Coast, including the archaeological cultures of Nigeria, Mali, and Ghana. The diverse forms of figure sculptures and masquerade performance and meanings of these arts in historical and cultural contexts are examined. This course requires more intensive work than AAAS 376 and is open to upper division and graduate students only. Not open to students who have taken AAAS 376/HA 376. (Same as HA 676.) LEC.

AAAS 677. African Design. 3 Hours. NW / H/W.
A survey of sub-Saharan African media, emphasizing textiles, ceramics, metal and bead work, the artist's techniques, working methods and apprenticeship, and historical and contemporary cultural contexts, including the influence of tourism and the international art market on artistic production and style. Open to juniors, seniors, and graduate students only. (Same as HA 677.) Prerequisite: AAAS 376 or HA 376, or AAAS 578 or HA 578, or an introductory course in art history at the college level, or consent of instructor. LEC.

AAAS 679. African Expressive Culture: ______. 3 Hours. NW / H/W.
An in-depth examination of an artistic tradition shared by a number of African cultures. Discussion includes historical development related to style, use and meaning and other relevant issues. Open to juniors, seniors, and graduate students only. (Same as HA 679.) Prerequisite: AAAS 376 or HA 376, or AAAS 578 or HA 578, or an introductory course in art history at the college level, or consent of instructor. LEC.

AAAS 680. Introduction to Modern Africa. 3 Hours. H/W.
An interdisciplinary approach to cross-cultural understanding of Africa's place in the modern world. Specific emphasis will be given to the role of Africa in world history, African cultures, modern African history, and problems of development and nation building in Africa. Prerequisite: Consent of instructor. LEC.

AAAS 690. Investigation and Conference. 1-3 Hours. AE61 / H/W.
Individual and supervised readings in selected areas of African and African-American studies which will be an investigation of a subject selected by the student with the advice and direction of an instructor. Individual reports and conferences. Prerequisite: Seniors and consent of department. IND.

AAAS 695. Honors Project in: ______. 3 Hours. AE61 / H.
An individual research project in African-American or African studies under the direction of a specialist in the area of the student's interest, the results of the project to be presented in written form and to be defended before a committee of three faculty members as provided for under the requirements for Honors. Majors only and permission of instructor. IND.

AAAS 700. Africa in World Politics. 3 Hours.
A 20th-century and 21st-century study of the combined internal and external forces that precipitated the rise of Africa, the major African issues in international relations, and Africa's impact on the modern world. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 701. Politics in Africa. 3 Hours.
A survey of politics in Africa, focused on the countries of sub-Saharan or Black Africa. The course includes a historical discussion of precolonial Africa, colonization and the creation of contemporary states, and the politics of independence, before examining contemporary political systems and the forces influencing patterns of politics on the continent. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 715. Seminar in African Art. 3 Hours.
A concentrated study of a special topic relating to African Art studies. Different topics are offered in different semesters. (Same as HA 715.) Prerequisite: Nine hours of Art History and/or consent of instructor. LEC.

AAAS 716. Women in Islam. 3 Hours.
Addresses the widely-held stereotype of Muslim women as pawns in a patriarchal socio-religious context. Investigating the Muslim cultures of certain regions, the course will examine the manner in which indigenous culture was influenced by the introduction of Islam and the historical impact of Islam on women's social roles. Focusing principally on contemporary social change, the course will consider how socio-political change affects religious roles where religion is integrally involved in daily life. To what extent is individualism valued, and how are the pressures of late 20th-century and early 21st-century life mediated? The course will draw on texts from history, sociology, and literature. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 720. Intercultural Communication: The Afro-American. 3 Hours.
An examination of the barriers to effective communication between Black Americans and non-Black Americans. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.
AAAS 723. Special Topics in Africana Studies: ______. 3 Hours.
Seminar in an area of current interest in African and African-American Studies. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 727. African-American Culture. 3 Hours.
This course defines African American culture and identifies ways in which it is distinct. The course identifies the roots of African American culture, as well as the transformations occurring over time. The course covers identity issues and considers the possibility of complex, multi-identity structures. The course addresses the issues of whether there is a common narrative or a common root metaphor for African American culture, how this is known epistemologically, internally and externally, and how epistemological "knowledge" is appropriated. Course pedagogy includes text readings, case studies, performance events, and media events. LEC.

AAAS 730. Black Leadership. 3 Hours.
The course focuses on the concept of leadership and on Black leadership in the United States. An in-depth analysis of selected case studies of Black leaders both historical and contemporary. Some attention will be given to the dispersion of Africans into the Americas and the leadership that emerged, conditioned both by environmental factors and the psychology engendered by the system of slavery. Selected successful Black leaders will be invited to visit the class from time to time. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 731. African Literature. 3 Hours.
Introduction to African Literature. Reading, analysis, and discussion of contemporary fiction, poetry, and drama from sub-Saharan Africa. Brief attention will be paid to historical development and to traditional literature. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 732. Francophone African Literature. 3 Hours.
This course is an introduction to 20th-century and modern Francophone African literature covering selected works by major authors from both sub-Saharan Africa and the Maghreb. Attention will be given primarily to the novel, although some poetry will also be read. Topics and themes include negritude. African identity in the wake of colonialism, Islam, and women's writing. Classes will be conducted in English. Students may read the texts in French or in translation. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 733. Islamic Literature. 3 Hours.
This course examines the realities of Muslim women's experiences as conveyed in their own voices. Works are drawn from all over the world, from Africa and the Middle East to Europe and the U.S. and cover from the 19th-century to the present. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 734. African Women Writers. 3 Hours.
This course focuses on African women's writing from all regions of the continent. Works included deal with a wide variety of issues relevant to African women, as well as universal issues of conceptions of gender roles, and the struggle to attain personal rights and freedom within traditional cultural frameworks. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 735. Muslim Women's Autobiography. 3 Hours.
This course examines the realities of Muslim women's experiences as conveyed in their own voices. Works are drawn from all over the world, from Africa and the Middle East to Europe and the U.S. and cover from the 19th-century to the present. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 740. The Afro-American Family: A Psychological Approach. 3 Hours.
The examination of the structure, values, and behavior patterns of the contemporary African-American family as influenced by African cultures and kinship systems and the institution of slavery in association with other factors. Social and psychological forces that have enhanced or blocked family survival, stability, and advancement will be explored. The orientation of Black family life will emphasize its strengths, weaknesses, adaptations, strong kinship bonds, and equilitarian family roles. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 745. Arab Thought and Identity. 3 Hours.
The intention of this course is to present a comprehensive portrait and a deeper understanding of the Arab society and its cultural background. We will focus on the debate that is still raging about traditionalism versus modernity, and authenticity (assala) and specificity (Khususiyya) versus westernization. Moreover, we will discuss the question of Arab identity which manifests itself through a sense of belonging and diversity of affiliations, and relies as well on shared culture and its variations, and shared place in history and common experiences. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 749. Islam. 3 Hours.
Islam's origins, the prophet Muhammed, the Holy Koran, religious symbols and moral mandates, and historical developments. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 750. Popular Culture in the Muslim World. 3 Hours.
A study of pop songs, television, comics, and other idioms of popular culture from different parts of the Muslim world, with attention to Muslims' sense of humor, tragedy, aesthetics, and pertinent issues of the day. LEC.

AAAS 760. Topics and Problems in African and African-American Studies. 3 Hours.
Individual investigation of special topics in African and African-American studies. May not be repeated for credit. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 770. Language and Society in Africa. 3 Hours.
Examines issues and problems associated with language use in sub-Saharan Africa from a sociological perspective. Topics covered include an overview of the types of languages spoken on the continent: indigenous languages, colonial languages, pidgins and creoles, and Arabic as a religious language; problems associated with the politics of literacy and language planning, writing and standardization of indigenous languages; and the cultural and ideological dilemmas of language choice. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.
AAAS 774. Topics in Literatures of Africa and the African Diaspora: ______. 3 Hours.
An intensive study of the literatures of Africa and/or African diaspora (people of African descent dispersed around the world). This study will focus on the major characteristics of a particular period, genre, mode, and/or theme in literatures such as African, Caribbean, Afro-Brazilian, African American, African Canadian, Black British. Critical theories pertinent to writers and their work will be covered. Topics may include studies in drama, poetry, or the novel; migration narratives; literature of a particular era, such as the Harlem Renaissance, Negritude, or the Black Arts Movement; representations of gender, etc. As topics vary by semester, the course may be repeated for credit. (Same as ENGL 774.) LEC.

AAAS 788. The Black Woman. 3 Hours.
An interdisciplinary study of the role of Black women in our society, from the African background through the plantation experience to the present. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 801. Introduction to Africana Studies: African-American. 3 Hours.
An introduction to, and overview of, the historical, intellectual, and professional foundations of African-American Studies; a multidisciplinary examination of the key texts and issues in the field. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 802. Introduction to Africana Studies: African. 3 Hours.
An introduction to, and overview of, the historical, intellectual, and professional foundations of African Studies; a multidisciplinary examination of the key texts and issues in the field. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 803. Research Methods in Africana Studies. 3 Hours.
A multidisciplinary introduction to the range of research methods employed to examine African and African-American history, cultures, and societies. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 804. Seminar in Africana Studies. 3 Hours.
An interdisciplinary, comparative exploration of the histories, cultures, and societies of Africans and peoples of African descent. Students will be required to utilize the skills gained in AAAS 801 and AAAS 802 to design and implement a project that will be critically assessed in the seminar. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. Prerequisite: AAAS 801 and AAAS 802 or consent of instructor. LEC.

AAAS 810. Comparative Racial and Ethnic Relations. 3 Hours.
An examination of constructions of race and ethnicity around the world. Emphasis is on the social, political, historical, cultural and economic factors that lead to the creation of ethnic and racial identities, ethnic conflict and accommodation, ethnic movements, and ethnic political organization. Racial and ethnic relations in the U.S. are compared with other countries. Major focus is placed on ethnicity in Africa, Asia, Latin America, the Caribbean, and/or the Middle East. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 811. The Civil Rights Movement. 3 Hours.
An examination of the Civil Rights Movement in American History. Emphasis is placed on the activities of major Civil Rights organizations, Civil Rights legislation and its impact on American life, and conflicts between integrationist and separatist forces in politics, economics, education, culture and race relations in the United States. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 812. The Black Power Movement. 3 Hours.
This course will examine the Black Power Movement in its many manifestations, beginning with a discussion of its political and cultural background: the transition from Civil Rights to Black Power in the Afro-American freedom movement of 1960’s; the impact on African Americans of African decolonization and the spread of anti-colonial and anti-imperialist movements throughout other parts of the globe. There will also be some examination of the Black Arts Movement and its influence on the Black Power Movement and vice versa. Therefore, some attention will also be paid to the music, literature, theater, and the graphic arts of the period, and the aesthetic and political critiques of these artistic forms. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 822. African and African-American Religion. 3 Hours.
Historical development, systematic ideas and rites of selected periods, cultural settings, and movements. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 825. Social History of Black Aging in America. 3 Hours.
The purpose of this course is to provide a comprehensive historical examination of American society’s changing attitudes and responses to aging and older adults, with emphasis on the Black aged. Beginning with the African background where older adults were highly valued, the course explores the impact of slavery, the industrial Revolution, urbanization and the development of the youth-oriented culture prevalent in the United States today. Subsequently, the course focuses on the emergence of twentieth-century social gerontological problems and the role of the modern Black movements, public agencies, and private organizations in addressing the issues. Film, essays, drama, and/or fiction are utilized to illustrate the cultural attitudes of each historical period. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 827. Popular Culture in Africa. 3 Hours.
This course examines multiple expressions of popular culture in contemporary Africa, focusing on the aesthetics of forms such as music, theatre, dress, street art, and popular literary genres, as well as the social themes they deal with and the societies that produce them. The approach will be based on a critical reconsideration of notions such as traditional versus modern culture, elite versus folk art, westernization, and cultural hybridity, in order to find better ways of discussing the cultural vibrancy of everyday life in contemporary Africa. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 830. The Life and Times of W.E.B. Du Bois. 3 Hours.
A critical examination of the life and thought of W. E. B. Du Bois, paramount black scholar and activist whose massive body of scholarly work spans the period from late 19th through the mid-20th centuries. Course covers the major works of Du Bois. Topics include Du Bois as sociologist, historian, propagandist, and creative writer, taking into account his often shifting views on art and culture, politics, leadership, civil rights and the color line, trade unionism, Pan-Africanism, socialism, internationalism, and, of course, double consciousness, among other issues. Moreover, the course will deal with Du Bois as an intellectual in conversation with other black thinkers, including individuals such as

AAAS 832. Comparative Black Literature. 3 Hours.  
Reading, analysis, and discussion of contemporary fiction, poetry, and drama from Africa, the Caribbean, and the United States. Brief attention will be paid to historical development and to traditional literature. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 834. The Rhetoric of Black Americans. 3 Hours.  
A study of the rhetoric of Black Americans, from their earliest protest efforts to the contemporary scene, with the focus on the methods and themes employed to alter their status in American society. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 843. Language and Culture in Arabic-Speaking Communities. 3 Hours.  
The course examines the links between language structure, patterns of use, language choice, and language attitudes in the diglossic and bilingual Arabic-speaking communities. It also explores language as a reflector and creator of Arab culture (e.g. linguistic encoding of politeness, the Quranic text as the spoken and written word, the role of tropes in Arabic rhetoric). The topics for discussion range from the micro-level language choice to the macro-level issues of national language policies and planning within the domain of government and education across the Arab world. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 845. Unveiling the Veil. 3 Hours.  
This course seeks to unveil a complex cultural practice that has been misconstrued by many scholars. It explores the versatility of the meaning of the veil. It examines the ways in which the veil has become a symbol of privacy, cultural identity, religious assertion, resistance and liberation, besides being a symbol of constraint, oppression, backwardness, and sexual mystery. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 851. Environmental Issues in Africa. 3 Hours.  
Acquaints students with the complexities of debates on environmental problems in Sub-Saharan Africa. Topics addressed may include deforestation, desert expansion, wildlife conservation, soil erosion, climate change, coral reef destruction, water resources development, mangrove preservation, and the environmental effects of war, industrialization, and urbanization. Class presentations and projects synthesize the perspectives of both human and physical geography. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 852. Classical Islamic Literature. 3 Hours.  
An examination of major developments in classical Islamic literature in the Middle East and beyond, with attention to the poetic and prose works (in translation) that emerged from them. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 853. Geography of African Development. 3 Hours.  
Acquaints students with the values and social parameters of African agricultural and pastoral practice. Topics include customary land rights, African perspectives on the natural world, gender issues in African agriculture, and the urbanization of African cultures. The course also contrasts African views with those of Western development practitioners and donor agencies. Case studies from different countries are used to highlight the continent’s regional differences. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 855. African Film and Video. 3 Hours.  
A critical study of Africa and its peoples as depicted in films and videos. The aesthetic, cultural, economic, political, historical, and ideological aspects of African films and videos will be examined. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 857. Cities and Development. 3 Hours.  
An intermediate-level course in urban geography, with an emphasis on cities in the developing world. Example cities in Latin America and the Caribbean, Sub-Saharan Africa, the Middle East, South Asia, and/or Southeast Asia may be examined. The main focus is on the intersection between urbanization and economic development, but social, political, and cultural aspects of development in cities are considered. Other topics include the geographic impacts of European colonialism, urbanization and industrialization, rural-to-urban migration, urban structure and spatial dynamics, urban planning, and environmental sustainability. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 860. Race, Gender, and Post-Colonial Discourses. 3 Hours.  
An examination of the ways in which the concept of race, gender, and post-colonialism frame African literatures from the Caribbean, North America, and the continent itself. The course will focus on these discourses grounding them in critical frameworks within which they can be contextually analyzed and evaluated, at the same time examining their impact in literacy praxis and theory. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 864. Race American Literature. 3 Hours.  
A study of the literature written by Black Americans from the pre-Civil War period to the present. Emphasis upon specific historical periods in the development of Black literature as well as on a critical analysis of major autobiographical, poetic, and fictional works. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 884. Black American Literature. 3 Hours.  
A study of the literature written by Black Americans from the pre-Civil War period to the present. Emphasis upon specific historical periods in the development of Black literature as well as on a critical analysis of major autobiographical, poetic, and fictional works. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.
movements and the impact of these factors on the representation of the "other" in the theatre. LEC.

**AAAS 890. The Rise and Fall of Apartheid. 3 Hours.**
This course will deal with the fifty years of South African history during which apartheid came to be formulated, supported, and perpetuated, and the forces that were responsible for its disintegration by 1990. Reference will also be made to the transformation process since April 1994. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

**AAAS 898. Sexuality and Gender in African History. 3 Hours.**
An examination of the history of sexuality and gender in Africa focused on the 19th-century to the present. Major issues and methods in the historical scholarship on gender and sexuality will be covered. Topics of historical analysis include life histories, rites of passage, courtship, marriage, reproduction, education, masculinities, homosexuality, colonial control, and changing gender relations. Prior course work in African history is suggested. At least advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

**AAAS 899. Thesis. 1-6 Hours.**
Investigation and research of a topic for a master's thesis. A maximum of 6 thesis hours may be counted toward the 33 hours required for the degree. THE.

**AMHR 110. Elementary Amharic I. 5 Hours. U.**
Basic level of oral fluency and aural comprehension. Vocabulary acquisition, pronunciation, grammar, and writing. Reading of simple texts. Not open to native speakers of Amharic. LEC.

**AMHR 120. Elementary Amharic II. 5 Hours. U.**
A continuation of AMHR 110. Readings in cultural texts. Prerequisite: AMHR 110. LEC.

**AMHR 177. First-Year Seminar: _____, 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Amharic. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**AMHR 210. Intermediate Amharic I. 3 Hours. U.**
Intermediate oral proficiency and aural comprehension. Systematic review of grammar. Writing skills beyond the basic level. Introduction to modern Amharic texts and discussion in Amharic. Prerequisite: AMHR 120. LEC.

**AMHR 220. Intermediate Amharic II. 3 Hours. U.**
Continuation of AMHR 210. Discussion in Amharic of texts studies. Prerequisite: AMHR 210. LEC.

**ARAB 110. Elementary Arabic I. 5 Hours. U.**
Five hours of class per week. Basic level of oral fluency and aural comprehension. Vocabulary acquisition, pronunciation, grammar, and writing. Reading of simple texts. Not open to native speakers of Arabic. LEC.

**ARAB 120. Elementary Arabic II. 5 Hours. U.**
Five hours of class per week. A continuation of ARAB 110. Readings in cultural texts. Prerequisite: ARAB 110. LEC.

**ARAB 177. First-Year Seminar: _____, 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Arabic. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**ARAB 210. Intermediate Arabic I. 3 Hours. U.**
Three hours of class conducted in Arabic. Intermediate oral proficiency and aural comprehension. Systematic review of grammar. Writing skills beyond the basic level. Introduction to modern Arabic texts and discussion in Arabic. Prerequisite: ARAB 120. LEC.

**ARAB 220. Intermediate Arabic II. 3 Hours. U.**
Three hours of class conducted in Arabic. Continuation of ARAB 210. Discussion in Arabic of texts studied. Prerequisite: ARAB 210. LEC.

**ARAB 310. Advanced Arabic I. 3 Hours. U.**
A practical Arabic language course involving advanced study of the grammar, reading of texts on a variety of subjects, conversation, and composition. Taught in Arabic. Designed for students who have had two or more years of Arabic study. Open to native speakers. Prerequisite: ARAB 220 or consent of instructor. LEC.

**ARAB 320. Advanced Arabic II. 3 Hours.**
A continuation of ARAB 310. Prerequisite: Satisfactory completion of ARAB 310 or consent of instructor. LEC.

**ARAB 401. Readings in Arabic I. 3 Hours. U.**
Designed for native and near-native speakers, this course involves reading newspapers and other publications in the language intended for native speakers, conversation, oral presentations, and advanced grammar. Prerequisite: Native or near-native speaker proficiency or consent of instructor. LEC.

**ARAB 402. Readings in Arabic II. 3 Hours. U.**
Continuation of ARAB 401. LEC.

**HAIT 110. Elementary Haitian I. 3 Hours. U.**
Beginning course in the vernacular language of Haiti, Martinique, Guadeloupe and other areas of the Caribbean and the Indian Ocean. Conversational approach, with essentials of grammar. Reading of basic texts. Special attention to folk culture as expressed by language. No previous knowledge of another foreign language is required. LEC.

**HAIT 120. Elementary Haitian II. 3 Hours. U.**
Continuation of HAIT 110, with further readings in Haitian literature. Prerequisite: HAIT 110 or consent of instructor. LEC.

**HAIT 177. First-Year Seminar: _____, 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Haitian. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**HAIT 230. Intermediate Haitian I. 3 Hours. U.**
Continued practice in conversation and composition; intensive and extensive readings from contemporary press, short story, poetry, and folk tales. Prerequisite: HAIT 120 or consent of instructor. LEC.

**HAIT 240. Intermediate Haitian II. 3 Hours. U.**
Continuation of HAIT 230, with additional readings from theatre, novel, and historical texts. Prerequisite: HAIT 230 or consent of instructor. LEC.

**HAIT 300. Contemporary Haiti. 3 Hours. NW / H.**
Detailed analysis of recent Haitian history. The focus will include interactions between religion, social structure, politics, economics and international relations. (Same as AAAS 302.) Prerequisite: AAAS 301/HAIT 200, or consent of instructor. LEC.

**HAIT 350. Advanced Haitian I. 3 Hours. U.**
Course objective is a sophisticated command of understanding, speaking, reading, and writing Haitian. Texts include newspapers and other Haitian publications as well as spoken material produced essentially for native
speakers. Conversation and oral presentations. Keeping of personal journal in Haitian. LEC.

HAIT 360. Advanced Haitian II. 3 Hours. U.
Continuation of HAIT 350, plus advanced readings from Haitian authors such as Carrie Paultre, Frank Etienne, Lyonel Desmarattes, and Michel-Rolph Trouillot. LEC.

May be taken more than once, total credit not to exceed fifteen hours. Material not covered by course work, and/or in field of student's special interest. Conferences. Course taken for one hour of credit may not be used to fulfill College's humanities distribution requirement. Prerequisite: Six hours of Haitian Creole and consent of instructor. IND.

Advanced work in either language or literature or both. May be taken more than once, total credit not to exceed fifteen hours. Conferences. As a three-credit-hour course, it may count toward a major in African and African-American studies. Prerequisite: Four semesters of Haitian Creole or equivalent and consent of instructor. IND.

Advanced work in Haitian culture. May be taken more than once, total credit not to exceed fifteen hours. Conferences. As a three-credit-hour course, it may count toward a major in African and African-American studies. No knowledge of Haitian or French is required. Prerequisite: AAAS 301 or HAIT 200, or consent of instructor. IND.

HAIT 700. Investigation and Conference. 1-6 Hours.
Supervised individual readings in selected areas of Haitian language, literature, and culture. Individual reports and conferences. Prerequisite: Consent of instructor. RSH.

HAUS 110. Elementary Hausa I. 5 Hours. U.
Five hours of class per week. Basic level of oral fluency and aural comprehension. Vocabulary acquisition, pronunciation, grammar, and writing. Reading of simple texts. Not open to native speakers of Hausa. LEC.

HAUS 120. Elementary Hausa II. 5 Hours. U.
Five hours of class per week. A continuation of HAUS 110. Readings in cultural texts. Prerequisite: HAUS 110. LEC.

HAUS 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Hausa. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

HAUS 210. Intermediate Hausa I. 3 Hours. U.
Three hours of class conducted in Hausa. Intermediate oral proficiency and aural comprehension. Systematic review of grammar. Writing skills beyond the basic level. Introduction to modern Hausa texts and discussion in Hausa. Prerequisite: HAUS 120. LEC.

HAUS 220. Intermediate Hausa II. 3 Hours. U.
Three hours of class conducted in Hausa. Continuation of HAUS 210. Discussion in Hausa of texts studied. Prerequisite: HAUS 210. LEC.

HAUS 310. Advanced Hausa I. 3 Hours. U.
A practical Hausa language course involving advanced study of the grammar, reading of texts on a variety of subjects, conversation, and composition. Taught in Hausa. Designed for students who have had two or more years of Hausa study. Open to native speakers. Prerequisite: HAUS 220 or consent of instructor. LEC.

HAUS 320. Advanced Hausa II. 3 Hours. U.
A continuation of HAUS 310. Prerequisite: Satisfactory completion of HAUS 310 or consent of instructor. LEC.

HAUS 401. Readings in Hausa I. 3 Hours. U.
Designed for native and near-native speakers, this course involves reading newspapers and other publications in the language intended for native speakers, conversation, oral presentation, and advanced grammar. Prerequisite: Native or near-native speaker proficiency or consent of instructor. LEC.

HAUS 402. Readings in Hausa II. 3 Hours. U.
Continuation of HAUS 401. LEC.

KISW 110. Elementary KiSwahili I. 5 Hours. U.
Five hours of class per week. Basic level of oral fluency and aural comprehension. Vocabulary acquisition, pronunciation, grammar, and writing. Reading of simple texts. Not open to native speakers of KiSwahili. LEC.

KISW 120. Elementary KiSwahili II. 5 Hours. U.
Five hours of class per week. A continuation of KISW 110. Readings in cultural texts. Prerequisite: KISW 110. LEC.

KISW 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in KiSwahili. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

KISW 210. Intermediate KiSwahili I. 3 Hours. U.
Three hours of class conducted in KiSwahili. Intermediate oral proficiency and aural comprehension. Systematic review of grammar. Writing skills beyond the basic level. Introduction to modern KiSwahili texts and discussion in KiSwahili. Prerequisite: KISW 120. LEC.

KISW 220. Intermediate KiSwahili II. 3 Hours. U.
Three hours of class conducted in KiSwahili. Continuation of KISW 210. Discussion in KiSwahili of texts studied. Prerequisite: KISW 210. LEC.

KISW 310. Advanced KiSwahili I. 3 Hours. U.
A practical KiSwahili language course involving advanced study of the grammar, reading of texts on a variety of subjects, conversation, and composition. Taught in KiSwahili. Designed for students who have had two or more years of KiSwahili study. Open to native speakers. Prerequisite: KISW 220 or consent of instructor. LEC.

KISW 320. Advanced KiSwahili II. 3 Hours. U.
A continuation of KISW 310. Prerequisite: Satisfactory completion of KISW 310 or consent of instructor. LEC.

KISW 401. Readings in KiSwahili I. 3 Hours. U.
Designed for native and near-native speakers, this course involves reading newspapers and other publications in the language intended for native speakers, conversation, oral presentation, and advanced grammar. Prerequisite: Native or near-native speaker proficiency or consent of instructor. LEC.

KISW 402. Readings in KiSwahili II. 3 Hours. U.
Continuation of KISW 401. LEC.

KISW 410. Advanced KiSwahili. 3 Hours. U.
The course objective is a sophisticated command of speaking, listening, reading, and writing in KiSwahili. Texts used include newspapers and other KiSwahili publications not expressly for language learners, and spoken material intended for native speakers is introduced. Conversation and oral presentations. Advanced grammar. Available for elective credit in the major. Prerequisite: Native, near-native or second
analyses are used to inform interventions. Students will also learn about
how behavioral scientists analyze human behavior and how these
teaching strategies may be applied in settings such as education, juvenile delinquency, substance abuse. Students will learn
to problems facing contemporary societies (e.g., autism, public health, developmental
disabilities (e.g., autism), delinquency, independent living for people with
abilities, educational systems, and gerontology. Open only to students in the University Honors Program.

ABSC 140. Introduction to Principles of Behavior. 3 Hours. SI / S.
An introduction to rationales, methods, and findings resulting from the
empirical study of human behavior. Readings, lectures, videos, and
classroom demonstrations are used to illustrate various principles of
behavior and techniques of application. These principles are organized
into a general theory of human conduct that is contrasted with alternative
explanations of human behavior. Students learn basic principles of
scientific method and their implications for behavioral science and human
affairs. (Formerly HDFL 140.) LEC.

ABSC 150. Community Leadership. 3 Hours. SF AE51 / S.
An introduction to analysis, intervention, evaluation, and leadership in
contemporary problems facing local communities. Readings, lectures,
and service-learning activities enable students to understand community
problems and how citizens and professionals can address them.
(Formerly HDFL 150.) LEC.

ABSC 151. Community Leadership, Honors. 3 Hours. SF AE51 / S.
An introduction to analysis, intervention, evaluation, and leadership in
contemporary problems facing local communities. Readings, lectures,
and service-learning activities enable students to understand community
problems and how citizens and professionals can address them. Open
only to students in the University Honors Program. (Formerly HDFL 151.)
LEC.

ABSC 160. Introduction to Child Behavior and Development. 3
Hours. SI GE3S / S.
An introduction to child behavior and development with an emphasis
on the normal developmental range of growth, intelligence, cognition,
emotion, language, and social skills from birth to adolescence. (Formerly
HDFL 160.) LEC.

ABSC 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing
current issues in Applied Behavioral Science. Course is designed to
meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are
coordinated and approved by the Office of First-Year Experience.
Prerequisite: First-time freshman status. LEC.

ABSC 268. Introduction to Marriage and Family Relations. 3 Hours. S.
This course focuses on the family unit and the factors that affect its
development. Topics include dating and cohabitation; family and lifestyle
diversity; parental roles and child development; divorce and stepfamilies.
The course emphasizes research related to these issues. (Formerly HDFL 288.) LEC.

ABSC 279. Study Abroad Topics in: ______. 1-5 Hours. S.
A course designed to enhance international experience in topic areas
related to applied behavioral science at the freshman/sophomore level.
Coursework must be arranged through the Office of KU Study Abroad.
May be repeated for credit if the content differs. Prerequisite: Department permission. LEC.

**ABSC 304. The Principles and Procedures of Behavior Modification and Therapy. 3 Hours. GE3S / S.**

An advanced examination of the principles of applied behavior analysis as used to address problems in developmental disabilities, childhood autism, language development, early childhood education, with adolescent and family life, and in normal everyday adult behavior. Issues in measurement, design, and evaluation of the effects of applied behavior analysis procedures and ethical implications of the use of these procedures are examined. Procedures used to teach and maintain appropriate behaviors, eliminate inappropriate behaviors, and develop comprehensive behavioral intervention programs are described. (Formerly HDFL 304.) Prerequisite: ABSC 100/101 or ABSC/HDFL 140. LEC.

**ABSC 308. Research Methods and Application. 4 Hours. GE11 / S.**

Examines research methods used to identify, describe, understand, and intervene on socially important problems occurring across the life span (e.g., early childhood, adolescence, elders) and in varied settings (homes, classrooms, group-care facilities, and communities). Discusses research methods and concepts (e.g., prediction, experimental control, reliability, validity) within scientific, psychological, and behavior-analytic frameworks. Presents strategies and tactics regarding descriptive and experimental methods, direct and indirect measurement, graphical and statistical analysis, and single-subject and group experimental designs. Examines ethics and social responsibility in research. Provides opportunities to read primary and secondary sources, develop research questions, write and present research proposals, and assist in the conduct of research projects. (Formerly HDFL 308.) Prerequisite: ABSC/HDFL 140 or ABSC/HDFL 304. LEC.

**ABSC 310. Building Healthy Communities. 3 Hours. SF AE51 / S.**

This course teaches knowledge and skills for addressing issues in community health and development (e.g., substance abuse, adolescent pregnancy, child and youth development, prevention of violence). Students learn core competencies such as analyzing community problems and goals, strategic planning, intervention, and evaluation. In a service-learning component, students apply these skills to issues that matter to them and to the communities they serve. (Formerly HDFL 310.) LEC.

**ABSC 311. Building Healthy Communities, Honors. 3 Hours. SF AE51 / S.**

This course teaches knowledge and skills for addressing issues in community health and development (e.g., substance abuse, adolescent pregnancy, child and youth development, prevention of violence). Students learn core competencies such as analyzing community problems and goals, strategic planning, intervention, and evaluation. In a service-learning component, students apply these skills to issues that matter to them and to the communities they serve. (Formerly HDFL 311.) Prerequisite: Open only to students in the University Honors Program. LEC.

**ABSC 342. Adult Development and Aging. 3 Hours. S.**

An overview of environmental, cultural, and biological influences of adult development and aging. Course material is organized in terms of topics, rather than presenting a chronological account. (Formerly HDFL 342.) Prerequisite: ABSC 100/101, ABSC/HDFL 140, ABSC/HDFL 150/151, or ABSC/HDFL 160. LEC.

**ABSC 350. The Behavioral Treatment of Children with Autism. 3 Hours. S.**

Students learn about methods of teaching children with autism and about evaluating those methods. Topics include: basic methods of teaching as applied to imitation, productive and receptive language, self-help skills, and engagement in community activities, as well as observation and measurement of behavior in community settings and evaluating consumer satisfaction. The course consists of classroom lectures, discussions, demonstrations, examinations, and completion of laboratory and observation assignments. Enrollment priority is given to majors who intend to do practicum work with children with autism. (Formerly HDFL 350.) Prerequisite: ABSC/HDFL 304 or instructor permission. LEC.

**ABSC 356. Foundations of Early Childhood Education. 3 Hours. S.**

This course introduces students to the field of early childhood education. Contemporary perspectives and professional practices are examined through an analysis of historical and philosophical ideologies. (Formerly HDFL 356.) Prerequisite: ABSC/ HDFL 160 or instructor permission. LEC.

**ABSC 360. Drugs, Addiction, and Behavior. 3 Hours. S.**

This course offers an overview of the basic and applied research in behavioral pharmacology and addictions, as well as interventions. Among the topics it covers are a history of drugs, addiction, and behavior; basic principles of drug action (e.g., pharmacodynamics); behavioral pharmacology testing paradigms (e.g., self-administration); drug action and effects (e.g., alcohol, nicotine, designer drugs, anti-depressants); behavioral deficits associated with addictions (e.g., memory); addiction treatment and recovery (e.g., maturing out, contingency management); and drugs and society. Prerequisite: ABSC 100. PSYC 104 is also recommended. LEC.

**ABSC 405. Children and Media. 3 Hours. H.**

The applied study of child development theories and research methods on the influences and effects of television and related visual media on childhood in the contexts of families, schools, and society. (Same as PSYC 405 and THR 405) (Formerly HDFL 405.) LEC.

**ABSC 410. Behavioral Approaches in Working with Adolescents. 3 Hours. S.**

Addresses some of the basic behavioral techniques used with juveniles who have problems in school, at home, or in the community: readings and role-playing sessions covering assessment of problems, relationship development, observing and defining behavior, teaching and contracting techniques, and counseling. (Formerly HDFL 410.) Prerequisite: ABSC/ HDFL 140; ABSC/HDFL 304 highly recommended. LEC.

**ABSC 425. Teaching Apprenticeship in Applied Behavioral Science. 3 Hours. S.**

Students read new materials, become more fluent with ABSC 100 content, and acquire tutoring skills. Course may not be repeated. Prerequisite: ABSC 100 and consent of the instructor and department chair. LEC.

**ABSC 433. Analysis of Cultural, Ethnic, and Gender Roles in Childhood and Adolescence. 3 Hours. S.**

This course examines aspects of different cultures and ethnic groups, and the definitions of gender role behavior found in them. The research literature in these areas is reviewed and the implications for early childhood education settings are studied. The course examines this literature in order to provide an increased understanding of effective approaches to educational practices directly related to the structure of society in the United States. (Formerly HDFL 433.) Prerequisite: ABSC/ HDFL 160 or instructor permission. LEC.

**ABSC 437. Independent Living and People with Disabilities. 3 Hours. S.**

A multi-disciplinary seminar exploring theory, method, research, and practice in independent living. The course reviews personal and environmental factors as they relate to everyday problems affecting people with varying disabilities. It also contains service-learning activities in which students apply skills and knowledge gained in the classroom.
ABSC 441. Ethical, Legal and Professional Issues in Applied Behavioral Science. 3 Hours. S.
The course covers ethical and legal issues in the responsible conduct of basic, applied, intervention and prevention research (e.g., informed consent and assent with typical and atypical populations); inclusion of underrepresented groups, participatory action research; bias, fraud, and plagiarism; conflict of interest; reporting misconduct; authorship conflict). It also covers professional issues in behavioral consultation and training, review of the Behavior Analysis Certification Board task list on basic behavior-analytic skills, client-centered responsibilities, and foundational knowledge. This course satisfies the Behavior Analysis Certification Board requirement for 15 classroom contact hours of coursework related to Ethical Considerations in Behavior Analysis needed to take the BACB examination. This course is taught at the 400 and 800 levels, with additional assignments at the 800-level. Prerequisite: ABSC 308. LEC.

ABSC 444. Curriculum Development for Young Children. 3 Hours. S.
A survey of educational materials and activities appropriate for young children. Students explore several components of effective curriculum development (e.g., objectives, methods of activity presentation, teaching strategies) and learn to integrate them to construct curricula for a range of content and skill areas. By focusing on functional components of a curriculum, students learn to construct, critically evaluate, and modify curricula for typically and atypically developing children. Prerequisite: ABSC 304 or instructor permission. LEC.

ABSC 455. Health, Safety, and Nutrition in Early Childhood Development. 3 Hours. S.
This course addresses children’s health, safety, and nutritional needs and contemporary approaches to achieving wellness. Students develop analytical skills through reading, discussion, and application of theoretical and empirical concepts. Current research results are emphasized and applied to course problem sets and projects. (Formerly HDFL 455.) Prerequisite: ABSC/HDFL 160 or equivalent knowledge. LEC.

ABSC 469. Special Topics in: _____. 1-3 Hours. S.
A course designed for the study of special topics in applied behavioral science. Course content addresses major topics and specialized issues in the field. May be repeated for credit if the content differs. Prerequisite: Instructor permission. LEC.

ABSC 470. Organizational Behavior Management. 3 Hours. S.
This course offers detailed discussion of the organizational behavior management (OBM) literature including performance management, behavioral systems analysis, and behavior-based safety. This course also addresses empirically supported staff training procedures and research in implementation science. Students assist with OBM-relevant research and develop skills in both translational and applied OBM research. Prerequisite: ABSC 100. LEC.

ABSC 479. Study Abroad Topics in: _____. 1-5 Hours. S.
A course designed to enhance international experience in topic areas related to topics in applied behavioral science at the junior/senior level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if the content differs. Prerequisite: Department permission. LEC.

ABSC 486. Issues in Parenting. 3 Hours. S.
Theoretical approaches to the study of parenting and parent-child relationships, techniques for analyzing common parenting problems, designing appropriate interventions, fostering effective communication skills, understanding issues of diversity, and promoting parent education programs. Professional collaboration and support of families and children are emphasized throughout. Students develop analytical skills through reading, discussion, and application of theoretical and empirical concepts. (Formerly HDFL 486.) Prerequisite: ABSC/HDFL 160 or equivalent knowledge of child development or child psychology. LEC.

ABSC 489. Directed Readings in: _____. 1-3 Hours. S.
A course designed for directed readings in applied behavioral science. Readings address major topics and specialized issues in the field. May be repeated for credit if the content differs. (Formerly HDFL 484.) Prerequisite: Instructor permission. IND.

ABSC 499. Directed Research in: _____. 1-3 Hours. AE61 / S.
Basic and applied research experience. The course provides training in research methods, measures, and designs, and the conduct of research, in the behavioral sciences. May be repeated for credit if the content differs. Prerequisite: Instructor permission. RSH.

ABSC 509. Contemporary Behavioral Science: Historical, Conceptual, and Comparative Foundations. 3 Hours. AE61 / S.
This course provides a survey of modern behavioral science and its applications. It reviews the field's history; integrates its sub-disciplines; situates it within the natural sciences, social sciences, and humanities; and compares and contrasts it with other perspectives. It covers recent advances in research, their implications for understanding human behavior, and their application to solving societal problems. And, it addresses the ethical implications of applied behavioral science. (Formerly HDFL/PSYC 641.) Prerequisite: ABSC 100/101 or ABSC/HDFL 140, and ABSC/HDFL 304 or instructor permission. LEC.

ABSC 535. Developmental Psychopathology. 3 Hours. S.
A review of contemporary psychological and developmental disorders of children and youth. Course presents current models of psychopathology, classification systems, assessment methods, and treatment approaches designed for the individual, the family, and the community. Specific attention is given to age, gender, and cultural differences and similarities. Topics include: anxiety disorders, oppositional behavior disorders, physical/sexual abuse, learning disabilities, depression, chronic physical illness, and autism. (Same as PSYC 535.) (Formerly HDFL 535.) Prerequisite: ABSC/HDFL 160 or PSYC 333, or instructor permission. LEC.

ABSC 542. Applied Gerontology. 3 Hours. S.
This course will provide an overview of social and behavioral problems faced by older adults, people who provide for elders, and human service programs for elders. It also surveys empirically-derived intervention strategies designed to maintain abilities and reduce or eliminate problem behaviors experienced by elders or their caregivers. (Formerly HDFL 542.) Prerequisite: ABSC/HDFL 304 and ABSC/HDFL 308, or instructor permission. LEC.

ABSC 555. Issues in Administering Early Childhood Services. 2 Hours. S.
This course provides an overview of professional, social, legal, and economic issues associated with the administration of early childhood services and programs. Emphasis is placed on theoretical principles, empirical research, and professional responsibilities inherent in the provision of quality service, including needs assessment, organizational skills, delivery systems, human resource management, communication skills, grant writing, legal and ethical considerations, and advocacy. (Formerly HDFL 555.) Prerequisite: Senior standing in the early childhood specialty area or instructor permission. LEC.

ABSC 560. The Juvenile Justice System: A Behavioral and Legal Perspective. 3 Hours. S.
An overview of the juvenile justice system, including the history, development, and current controversy over children’s rights in the legal
system examined in light of relevant principles of behavioral science and behavioral systems of rehabilitation. Topics include delinquency, miscreancy, status offenses, dependent-neglected children, child abuse, and juvenile court procedures and personnel (e.g., probation officers), and rehabilitative programs. (Formerly HDFL 560.) Prerequisite: ABSC 100. LEC.

ABSC 562. Behavioral Community Psychology. 3 Hours. S.
A seminar that provides an overview of the history and origin of behavioral community psychology. The course examines the development and future of behavioral community psychology as an integration of two sub-disciplines, applied behavior analysis and community psychology. Provides an integrated review of empirically-based behavioral interventions applied in community-based settings. Prerequisite: ABSC 100, or ABSC 150, or ABSC 310 or instructor permission. Course is offered at the 500 and 800 levels with additional assignments at the 800-level. LEC.

ABSC 565. Applied Developmental Psychology. 3 Hours. S.
An advanced study of the application of theories and concepts of developmental and behavioral psychology to a range of specific issues and problems of childhood and adolescence. This course relies heavily on the empirical research literature. Topics include contemporary social issues and child development, research in applied settings, assessment, intervention, and prevention, as well as program evaluation. (Same as PSYC 565.) (Formerly HDFL 565.) Prerequisite: ABSC/HDFL 160 or PSYC 333, and ABSC/HDFL/PSYC 535. LEC.

ABSC 599. Honors and Thesis in Applied Behavioral Science. 1-5 Hours. AE61 / S.
A two-semester course combining small group discussions of selected, advanced topics in applied behavioral science with honors thesis supervision on a project of the student’s own design. Students normally enroll for one or two hours in fall semester and three to five hours in spring semester. (Formerly HDFL 496.) Prerequisite: ABSC 304, ABSC/HDFL 308, and instructor permission. IND.

ABSC 606. Special Projects in the Community. 1-10 Hours. S.
Structured opportunities to develop and apply knowledge and skills (e.g., analyzing programs, strategic planning, intervention, evaluation) in a project that addresses a community problem or goal. (Formerly HDFL 606.) Prerequisite: Instructor permission. IND.

ABSC 620. Drug Abuse: From Basic Research to Public Policy. 3 Hours. S.
This course reviews basic and applied research in the social, behavioral, and neural sciences on how environmental variables, brain mechanisms, individual history, and cultural constraints interact and maintain drug abuse. Topics include the mechanisms of drug action; the safety, toxicity, stimulus properties, and functional impairments related to commonly abused drugs; common models of treatment and prevention; and historical and current legislative and judicial approach to drug abuse. (Formerly HDFL 620.) Prerequisite: A course in biology and a course in either applied behavioral science or psychology. LEC.

ABSC 626. Psychology of Adolescence. 3 Hours. S.
Impact of factors of social environment and physical growth upon psychological development from puberty to young adulthood. (Same as PSYC 626.) Prerequisite: PSYC 104, PSYC 333, or HDFL/ABSC 160. LEC.

ABSC 632. Advanced Child Behavior and Development. 3 Hours. S.
An advanced course in child development that includes a survey of the field’s principles and theoretical approaches, and current issues in research and practice. Topics will include: prenatal development, cognition and language, social-emotional development, socialization influences in childhood, developmental psychopathology, and social policies. (Formerly HDFL 632.) (Same as PSYC 632.) Prerequisite: ABSC/HDFL 160, PSYC 333, or instructor permission, and senior or graduate status. LEC.

ABSC 671. Applied Behavior Analysis. 3 Hours. S.
This advanced course extends knowledge and skills in analyzing behavioral problems, designing interventions, and planning applied research projects. Topics include the selection of problems and target populations, analysis of problems/goals, designing measurement systems, developing interventions, and disseminating products from applied behavioral research. (Formerly HDFL 671) Prerequisite: ABSC/HDFL 304 or instructor permission. LEC.

ABSC 672. Applied Behavior Analysis, Honors. 3 Hours. S.
This advanced course extends knowledge and skills in analyzing behavioral problems, designing interventions, and planning applied research projects. Topics include the selection of problems and target populations, analysis of problems/goals, designing measurement systems, developing interventions, and disseminating products from applied behavioral research. Students design an intervention research project. Prerequisite: Open only to students in the University Honors Program; ABSC/HDFL 304 or instructor permission. LEC.

ABSC 675. Practicum in Infant-Toddler Care and Early Intervention I. 3-5 Hours. AE61 / S.
Experience in a classroom-based early intervention and child-care program serving children younger than 3 years. Students gain practical experience with care-giving and teaching practices appropriate for typically and atypically developing children. Students learn to develop and implement individualized curricula based on assessments of children's skills. (Formerly HDFL 558.) Prerequisite: ABSC/HDFL 444 (or concurrent enrollment) and instructor permission. FLD.

ABSC 676. Practicum in Infant-Toddler Care and Early Intervention II. 3-5 Hours. AE61 / S.
An advanced practicum providing experience in classroom-based early-intervention and child-care program serving children younger than 3 years. Students gain practical experience with care-giving and teaching practices appropriate for typically and atypically developing children. Students learn to develop and implement individualized curricula based on assessments of children's skills. (Formerly HDFL 559.) Prerequisite: ABSC/HDFL 444, HDFL 558 or ABSC 675, and instructor permission. FLD.

ABSC 677. Practicum in Preschool Education and Intervention I. 3-5 Hours. AE61 / S.
A one-semester practicum providing opportunities for students to assume responsibility for the education and guidance of young children in an early childhood program. Regularly scheduled individual and staff conferences enable students to evaluate personal growth and progress as teachers of young children. (Formerly HDFL 492.) Prerequisite: ABSC/HDFL 444 (or concurrent enrollment) and instructor permission. Must also meet special state requirements for child care employees and volunteers. FLD.

ABSC 678. Practicum in Preschool Education and Intervention II. 3-5 Hours. AE61 / S.
A one-semester advanced practicum providing opportunities for students to assume responsibility for the education and guidance of young children in an early childhood program. Regularly scheduled individual and staff conferences enable students to evaluate personal growth and progress as teachers of young children. (Formerly HDFL 493.) Prerequisite: ABSC/HDFL 444, HDFL 492 or ABSC 677, and instructor permission. Must also meet special state requirements for child care employees and volunteers. FLD.
ABSC 679. Practicum in Behavior Analysis Research in Early Childhood Education. 1-6 Hours. AE61 / S.
A two-semester practicum providing opportunities for supervised training in one of several ongoing research projects in the field of behavior analysis, either basic or applied. Students assist in conducting research and participate in individual and group meetings to discuss and evaluate research and related methodological issues. (Formerly HDFL 688.) Prerequisite: ABSC/HDFL 308 and instructor permission. FLD.

ABSC 680. Practicum in Advanced Laboratory in the Development of Behavioral Treatments for Children with Autism. 1-6 Hours. AE61 / S.
Students participate in an intensive behavioral treatment program teaching language, social skills, self-help skills, and academic skills to young children with autism. Students learn: to develop and implement treatment programs; design and use of a system of data collection and analysis; and apply the principles and philosophy of community and school mainstreaming. (Formerly HDFL 550.) Prerequisite: ABSC/HDFL 350 and instructor permission. LAB.

ABSC 682. Organizational Behavior Management Practicum. 1-5 Hours. AE61 / S.
This practicum course is designed to provide training and support practice in addressing socially significant problems and goals of community-based organizations using behavior analysis to guide assessment and intervention. Additionally, this course promotes community-university partnerships to support change and improvement in organizations through service learning. All practicum students are required to have previously completed ABSC 100 and selected applied behavioral science as a major or minor. FLD.

ABSC 685. Practicum in Community-based Residential or Day Treatment Programs for Disabled Adults. 3-6 Hours. AE61 / S.
A one or two-semester practicum in which students are provided with the opportunity to work directly with developmentally disabled adults in either community-based residential or day treatment programs. Students are required to read relevant literature, carry out treatment programs, and participate in weekly meetings to discuss treatment goals and progress. (Formerly HDFL 696.) Prerequisite: ABSC/HDFL 304, ABSC/HDFL 410, and instructor permission. FLD.

ABSC 687. Practicum in Behavioral Gerontology. 1-6 Hours. AE61 / S.
A one or two-semester practicum providing opportunities for supervised training in behavioral gerontology. Students: (a) read literature in the area of their specific practicum setting such as adult day care, senior centers, nursing homes; (b) assist in collecting information relevant to evaluating the program effectiveness of their efforts on behalf of the elderly; and (c) participate in discussions and planning meetings relevant to maintenance and improvement of operation of the practicum. (Formerly HDFL 644.) Prerequisite: ABSC/HDFL 342 or ABSC/HDFL 542 and instructor permission. FLD.

ABSC 690. Practicum in Community Health and Development. 1-6 Hours. AE61 / U.
A two-semester practicum in which students engage in structured opportunities to practice core competencies related to the work of promoting community health and development (e.g., strategic planning, intervention, evaluation). In weekly group meetings, students prepare for their individual working field settings (e.g., health and human service agencies, research and advocacy organizations, community organizations). (Formerly HDFL 690). Prerequisite: ABSC/HDFL 150, ABSC/HDFL 310, and instructor permission. FLD.

ABSC 691. Practicum in Community Health and Development, Honors. 1-6 Hours. AE61 / U.
A two-semester practicum in which students engage in structured opportunities to practice core competencies related to the work of promoting community health and development (e.g., strategic planning, intervention, evaluation). In weekly group meetings, students prepare for their individual working field settings (e.g., health and human service agencies, research and advocacy organizations, community organizations). (Formerly HDFL 692). Prerequisite: Open only to students in the University Honors Program; ABSC/HDFL 151, ABSC/HDFL 311 and instructor permission. FLD.

ABSC 692. Practicum in Basic Research. 3 Hours. AE61 / S.
Practical supervised training in the laboratory study of human and/or animal behavior. Students assist in conducting basic research, read and discuss research articles, attend lab meetings, and acquire data analysis and presentation skills. Prerequisite: ABSC 308 (or concurrent enrollment) and permission of the instructor. RSH.

ABSC 693. Practicum in Historical and Conceptual Foundations. 3-6 Hours. AE61 / S.
Practical supervised training in the historical and conceptual foundations of applied behavioral science (e.g., behavior analysis). Students research and read primary source literatures and write papers that advance our understanding of the field’s foundations (e.g., empirical, theoretical). Prerequisite: ABSC 100/101, ABSC 304, ABSC 308, and ABSC 509 (or concurrent enrollment), and permission of instructor. IND.

ABSC 694. Practicum in Juvenile Problems. 3-6 Hours. AE61 / S.
A one-semester practicum providing opportunities for students to aid professionals in the development and implementation of behavioral treatment plans with adolescents. Regularly scheduled individual and group meetings enable the evaluation of the practicum students’ progress while working in the rehabilitative process for juveniles who have problems that can bring them into contact with the juvenile justice system. (Formerly HDFL 694.) Prerequisite: ABSC/HDFL 410, ABSC/HDFL 560, and instructor permission. FLD.

ABSC 695. Special Practicum in: ____. 3-6 Hours. S.
A one or two-semester practicum providing opportunities for supervised, hands-on training outside the existing specialty areas or their options. This practicum must be arranged with the prior approval of a faculty advisor and the department’s Undergraduate Curriculum Committee. Students should see an advisor about this practicum early in their junior year. Prerequisite: Instructor permission. FLD.

ABSC 696. Special Practicum in, Honors: ____. 3-6 Hours. S.
A one or two-semester practicum providing opportunities for supervised, hands-on training outside the existing specialty areas or their options. This practicum must be arranged with the prior approval of a faculty advisor and the department’s Undergraduate Curriculum Committee. Students should see an advisor about this practicum early in their junior year. Prerequisite: Open only to students in the University Honors Program and instructor permission. FLD.

ABSC 698. Special Research Practicum in: ____. 3-6 Hours. S.
A one or two-semester research practicum providing opportunities for supervised, hands-on research training outside the existing specialty areas or their options. This practicum must be arranged with the prior approval of a faculty advisor and the department’s Undergraduate Curriculum Committee. Students should see an advisor about this practicum early in their junior year. Prerequisite: Instructor permission. FLD.
ABSC 699. Special Research Practicum in, Honors: _____. 3-6 Hours.

A one or two-semester research practicum providing opportunities for supervised, hands-on research training outside of the existing specialty areas or their options. This practicum must be arranged with the prior approval of a faculty advisor and the department’s Undergraduate Curriculum Committee. Students should see an advisor early in their junior year about the practicum and its prerequisites and requirements. Prerequisite: Open only to students in the University Honors Program and instructor permission. FLD.

ABSC 701. Parenting in Modern Society. 3 Hours.

The theoretical study of parenting and parent-child relationships, techniques for analyzing common parenting problems, designing appropriate interventions, fostering effective communication skills, understanding issues of diversity, and promoting parent education programs are some of the issues addressed in this course. Professional collaboration and support of families and children are emphasized throughout. Students develop analytical skills through reading, discussion, and application of theoretical and empirical research. (Formerly HDFL 701.) Prerequisite: ABSC/HDFL 160 or equivalent knowledge of child development or child psychology. LEC.

ABSC 702. Curriculum Development for Young Children. 3 Hours.

A survey of educational materials and activities that are appropriate for young children (birth to age 8). Students explore several components of effective curriculum (e.g., objectives, effective methods of activity presentation, teaching strategies) and learn to combine them to construct curriculums for a range of content and skill areas. By focusing on the functional components of curriculums, students learn to construct, critically evaluate, and modify them for both typically developing children and children with special needs. A BACB® pre-approved course. (Formerly HDFL 702.) LEC.

ABSC 703. Leadership in Early Education Programs: Theory and Research. 3 Hours.

Effective leadership skills and professional roles associated with the administration of early childhood services and programs are examined in this course. Theoretical principles, empirical research, and professional responsibilities inherent in the provision of quality service, including needs assessment, organizational skills, delivery systems, human resource management, communication skills, grant writing, legal and ethical considerations, conflict resolution, and advocacy are explored through readings, discussion, and assigned projects. Not open to students who have completed ABSC 555. (Formerly HDFL 677.) Prerequisite: ABSC/HDFL 160 or equivalent knowledge of child development or child psychology. LEC.

ABSC 704. Research Practicum in Clinical Child Psychology. 3 Hours.

This course provides students in the Clinical Child Psychology Program with the opportunity to enhance and consolidate their research activities by fulfilling one of the elective cluster course requirements. This practicum involves a contract with a research advisor and the program director. The contract includes definable products and dates for completion to prepare research for submission for publication, develop a grant proposal, or conduct additional research project independent of other requirements in the program. The course is not to be taken as an overload, but is to be part of a full-time course schedule. May be repeated. (Same as PSYC 704.) (Formerly HDFL 704.) Prerequisites: Graduate standing in clinical child psychology and instructor permission. LEC.

ABSC 705. Pediatric Psychology. 3 Hours.

Discussion of behavior problems commonly encountered in the pediatric population, including reviews of data-based methodologies for remediation. Topics include general child rearing skills, bedtime problems, enuresis, encopresis, toilet training, self-injurious behavior, temper tantrums, behavior in community settings, child abuse, psychotropic drugs for children, adolescent behavior problems and selection of children’s play materials. (formerly HDFL 705.) Prerequisite: ABSC/HDFL 160, ABSC/HDFL 632, or PSYC 602. LEC.

ABSC 706. Special Topics in Clinical Child Psychology: _____. 3 Hours.

A course offering detailed discussion of the literature and research methods of a special topic within clinical child and pediatric psychology. Topic and instructor may change by semester and will be announced in the Schedule of Classes. May be repeated. (Same as PSYC 706.) (Formerly HDFL 706.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. LEC.

ABSC 709. Biology and Behavior. 3 Hours.

A course on the role of physiology and anatomy in behavior, with an emphasis on their participation in the basic behavioral processes and in typical and atypical behavioral development. The course also addresses issues in measurement and current research. (Formerly HDFL 709.) Prerequisite: ABSC/HDFL 796; ABSC/HDFL 798 recommended. LEC.

ABSC 710. Community Health and Development. 3 Hours.

This course extends knowledge and skills for addressing issues in community health and development (e.g., substance abuse, adolescent pregnancy, child and youth development, prevention of violence). Students learn core competencies such as analyzing community problems and goals, strategic planning, intervention, and evaluation, and then apply these skills to issues that matter to them and to the communities they serve. (Formerly HDFL 710.) (Same as ISP 871.) LEC.

ABSC 716. Experimental Problems in Community Settings. 1-5 Hours.

Research in the experimental design and analysis of community settings. No more than 10 hours total. (Formerly HDFL 716.) Prerequisite: Instructor permission. RSH.

ABSC 719. Experimental Field Work in Community Settings. 1-5 Hours.

Instruction in the methods and techniques of the experimental design and analysis of community settings through supervised participation in established research programs. Emphasizes the techniques of gathering original experimental data. No more than 10 hours total. (Formerly HDFL 719.) Prerequisite: Instructor permission. RSH.

ABSC 721. Biological Bases of Mental Retardation. 4 Hours.

This course deals with the biological substrates of mental retardation. Retardation is classified as a medical syndrome, rather than by behavioral patterns, but behavioral peculiarities are addressed where relevant. Attention is directed to both genetic causes such as the chromosomal anomalies (e.g., Mongolism) and molecular and metabolic errors (e.g., phenylketonuria), as well as to the environmentally produced retardation by nutritional deficiency, prenatal rubella, and brain trauma. (Formerly HDFL 721.) Prerequisite: One course in biology or equivalent. LEC.

ABSC 723. Adolescent Adjustment. 3 Hours.

An overview of adolescence with primary emphasis on various adjustment difficulties and respective therapeutic approaches. Content to provide perspectives on relevant practice, research, theory, and contemporary social forces. (Formerly HDFL 723.) Prerequisite: Instructor permission. LEC.

ABSC 725. Research Methods and Application. 3 Hours.

Surveys research methods used to identify, describe, understand, and intervene on socially important problems occurring across the life span (e.g., early childhood, adolescence, elders) and in varied settings (homes,
classes, group-care facilities, and communities). Discusses research methods and concepts (e.g., prediction, control, reliability, validity) within scientific, psychological, and behavior-analytic frameworks. Presents strategies and tactics regarding descriptive and experimental methods, direct and indirect measurement, graphic and statistical analysis, and single-subject and group experimental designs. Examines ethics and social responsibility in research. Provides opportunities to read secondary and primary sources, develop research questions, write and present research proposals. (Formerly HDFL 725.) Prerequisite: Instructor permission. RSH.

**ABSC 730. Developmental Neurobiology. 3 Hours.**
This course consists of lectures and discussion sessions on topics that describe the structural and functional maturation of the nervous system. The areas covered deal with the morphological, physiological, and biochemical changes in the developing central nervous system of vertebrates (including human infants), and with the interaction of the external environment with some of these maturational processes. Prerequisite: Introductory human development, psychology, or biology course. LEC.

**ABSC 735. Within Subjects Research Methodology and Direct Observation. 3 Hours.**
A graduate level introduction to the logic of experimentation, direct observation strategies, and research conducted using individual (e.g., single subject) and time series experimental designs. An ABA-accredited and BACB® pre-approved course. (Formerly HDFL 735.) Prerequisite: Graduate standing in applied behavioral science or instructor permission. LEC.

**ABSC 741. Readings in Gerontology. 3-5 Hours.**
Supervised readings in topical areas of gerontology. A program of study, conferences, and reports are developed by the instructor and student. (Formerly HDFL 741.) Prerequisite: Instructor permission. RSH.

**ABSC 742. Research in Gerontology. 1-10 Hours.**
Original investigations of some unsolved problems relating to adult development and aging. (Formerly HDFL 742.) Prerequisite: Graduate standing or instructor permission. RSH.

**ABSC 756. Philosophical Bases of Early Childhood Education. 3 Hours.**
Historical influences and current theoretical models of early childhood education are addressed through a survey and analysis of the literature. Not open to students who have completed ABSC 356. (Formerly HDFL 756.) Prerequisite: ABSC/HDFL 160 or equivalent knowledge of child development or child psychology. LEC.

**ABSC 756. Evaluating and Disseminating Scientific Material I. 1-3 Hours.**
Intensive training in the evaluation and production of scientific critiques and reviews of current issues in the analysis of behavior, as disseminated through the media. May be repeated. (Formerly HDFL 765.) Prerequisite: Instructor permission. LEC.

**ABSC 778. Gerontology Proseminar. 3 Hours.**
A proseminar coordinated by the Gerontology Center. The proseminar explores essential areas of gerontology for researchers and practitioners, providing a multidisciplinary (e.g., psychology, biology, sociology, communication) perspective on aging. The proseminar surveys contemporary basic and applied research, service programs, and policy and management issues in gerontology. (Same as AMS 767, COMS 787, PSYC 787, and SOC 767.) (Formerly HDFL 787.) LEC.

**ABSC 803. Design and Analysis of Community Development Methods. 1-6 Hours.**
An examination of principles and practices of community development and evaluation of methods used to promote community improvement. May be repeated if the content differs. (Formerly HDFL 801.) Prerequisite: Instructor permission. RSH.

**ABSC 802. Behavior Analysis in Developmental Disabilities. 3 Hours.**
A graduate seminar that includes an overview of the behavioral characteristics of various developmental disabilities and examination of empirically-supported behavioral approaches to the study and treatment of developmental disabilities. Topics will include classification and etiology, motivation, methods for developing appropriate skills, assessment and treatment of behavior disorders, staff training, and legal and ethical issues related to treatment. Prerequisite: ABSC 796 and instructor permission. LEC.

**ABSC 801. Fundamentals of Psychological Assessment and Intervention with Children. 3 Hours.**
Lecture and supervised experience covering the theoretical and empirical literature on assessment and intervention methods for children, adolescents, and families. Students will learn and demonstrate evidence-based clinical interviewing skills, behavioral observation techniques, risk assessment techniques, therapeutic communication approaches, strategies for providing assessment feedback to families, and ethical principles related to the provision of assessment and psychotherapy (including client file and resource management.) The course requires interaction with clinical populations and communication with referral
sources. (Same as PSYC 803.) Prerequisite: Graduate student in clinical child psychology program. LEC.

ABSC 804. Research in Community Health Promotion. 1-6 Hours. Supervised, original investigations of problems relevant to community health, such as the prevention of substance abuse or promotion of child outcomes. As appropriate, the course is focused on any combination of: literature research, research planning, and preparation conducting research, analyzing data, writing research reports, or preparing oral reports of completed research. (Formerly HDFL 804.) Prerequisite: Instructor permission. RSH.

ABSC 805. Functional Behavioral Assessment. 3 Hours. The strategies, tactics, and ethics of functional assessment are presented in the larger context of behavioral assessment (e.g., nomothetic and idiographic approaches). Research articles relevant to indirect, descriptive, and experimental functional assessment approaches and assessment-based interventions are carefully reviewed to determine the appropriate conditions for each type of assessment and intervention. (Formerly HDFL 805.) Prerequisite: ABSC 796 and instructor permission. LEC.

ABSC 806. Functional Behavioral Assessment Practicum. 1-6 Hours. This course provides supervised experience in the use of functional behavioral assessment in home, clinic, or educational environments with young children presenting problem behaviors. (Formerly HDFL 806.) Prerequisite: ABSC 805 and instructor permission. LEC.

ABSC 807. Design and Evaluation of Community Health Promotion Methods. 1-6 Hours. An examination of the methods used to develop and evaluate community health promotion programs. The course addresses topics of interest to participants, such as substance abuse, adolescent pregnancy, or child outcomes. May be repeated for credit if the content differs. (Formerly HDFL 807.) Prerequisite: Instructor permission. LEC.

ABSC 808. Professional Issues: Clinical Child Psychology. 1 Hour. Consideration of special problems confronting the child and family oriented scientist-practitioner, and in the development of a professional identity. Topics include critical issues, including ethical, legal, cultural, empirical, and clinical aspects of research and practice. May be repeated. (Formerly HDFL 808.) (Same as PSYC 808.) Prerequisite: Graduate standing in clinical child psychology. LEC.

ABSC 810. Introduction to Developmental Assessment. 3 Hours. A course covering the general principles of developmental assessment from birth through adulthood, with special emphasis on the history and nature of assessment instruments and the criteria for acceptance, reliability, and stability of results. Selected assessment techniques for infants, preschool children, elementary school children, adolescents, and adults are reviewed and evaluated for their utility, limitations, and applications. A critical analysis of assessment in general and particular assessment tools is made. (Formerly HDFL 810.) LEC.

ABSC 811. Achievement and Intellectual Assessment in Clinical Child Psychology. 3 Hours. Course covers the basic theory, research, administration, and reporting of psychological assessment of development, intelligence, and achievement for children, adolescents, and adults within cultural and developmental contexts. The range of psychological instruments examined includes, for example, WIAT, K-ABC, W-J, S-B, WISC, WAIS, and WPPSI. (Same as PSYC 811.) Prerequisite: Graduate student in clinical child psychology. LEC.

ABSC 812. Behavioral and Personality Assessment of Children. 3 Hours. Lecture, laboratory, field work, and supervision. Theory and applications in the psychological evaluation of children with standardized assessment techniques. The administration, scoring, interpretation, and reporting of behavioral and personality functioning in children. (Formerly HDFL 812.) (Same as PSYC 812.) Prerequisite: Graduate standing in clinical child psychology. LEC.

ABSC 813. Behavioral Science Research Proseminar. 1-3 Hours. A master’s level professional seminar in which faculty and students present research proposals; offer formal presentations of completed empirical research, reviews of the literature, and other areas of scholarship; and engage discussion about contemporary empirical, conceptual, and professional issues in applied behavioral science. May be repeated for a total of six credits. (Formerly HDFL 813.) Prerequisite: Graduate standing in applied behavioral science or instructor permission. LEC.

ABSC 814. Advanced Child and Family Assessment. 3 Hours. Lecture, laboratory, field work, and supervision. Supervised experience in specialized psychological assessment approaches for children and families. Emphasis on interviewing, observation, psychometric scales, consultation, rationale, administration, analysis, and reporting of mental health functioning of children and families. Experience with clinical populations, and communication with referral sources. (Formerly HDFL 814.) (Same as PSYC 814.) Prerequisite: Graduate student in clinical child psychology. LEC.

ABSC 820. Advanced Child Development. 3 Hours. A survey of the basic empirical research in the field of child development, covering intelligence, cognition, perception, attention, personality, social behavior, and socialization processes. These literatures are integrated and their implications for social application are addressed. (Formerly HDFL 820.) (Same as PSYC 820.) Prerequisite: A course in child development or equivalent. LEC.

ABSC 821. Behavior Analysis of Child Development. 3 Hours. An advanced graduate seminar on the behavior-analytic approach to child development. Students examine the behavior-analytic view of child development and compare and contrast this approach with other systems for understanding development. Students also review and critically evaluate current and seminal literature related to several different developmental domains (e.g., motor, emotional, social, cognitive development) and explore implications for the application of current knowledge. An ABA-accredited and BACB® pre-approved course. (Formerly HDFL 821.) Prerequisite: ABSC 798 and consent of instructor. LEC.

ABSC 822. Children and Public Policy. 3 Hours. This course examines how public policies affect the development of children. Includes examination of child and family policy in the United States and other countries, policy-related research on children, major policy issues affecting children, and child advocacy. (Formerly HDFL 822.) Prerequisite: Instructor permission. LEC.

ABSC 824. Treatment of Severe Learning Problems. 3 Hours. The course reviews new approaches to working with persons with retardation and autism; theoretical orientations and how they affect implementation of procedures; and current research for treatment outcomes in various developmental areas of persons with retardation. It covers approaches used with persons through the life span, from childhood through adulthood, that are based on ecological and stimulus control variables. Ethical and practical implications are the focus of class lectures and discussions. (Formerly HDFL 824.) LEC.
ABSC 825. Social Development. 3 Hours.
A lecture and discussion course in social development. It includes such topics as theoretical approaches to the study of social development, as well as the literature on family processes, peer relations, aggression and prosocial behavior, child abuse and neglect, family violence, child care, and the media. (Same as PSYC 825.) (Formerly HDFL 880.) Prerequisite: A course in child psychology or development. LEC.

ABSC 828. Research in Early Intervention with Children. 3 Hours.
A seminar on current issues in assessment and intervention for young children who are at risk for or who have special needs. Provides foundation for evaluating and understanding research in early intervention. Includes historical, conceptual and legislative underpinnings of early intervention, risk factors affecting development, methodological issues in early intervention research, best practice standards, and applications to social, language, and pre-academic domains. (Formerly HDFL 828.) LEC.

ABSC 831. Science of Human Behavior. 3 Hours.
A graduate seminar on the analysis of human behavior, grounded in basic behavioral principles. The focus is on the process and products of human development, among them motivation/emotion, social behavior, personality, sensation/perception, language, cognition, creativity, attitudes/beliefs, consciousness/unconsciousness, purpose/will, and values. The course is pre-approved by the Behavior Analysis Certification Board® for its BCBA® certification requirements. Prerequisite: ABSC 798 and Master’s degree in Applied Behavioral Science or instructor permission. SEM.

ABSC 834. Directed Readings in Community Health Promotion. 1-5 Hours.
Supervised readings in topical areas of community health promotion, such as the prevention of substance abuse and promotion of child outcomes. A program of study, conferences, and reports is developed by the instructor and student. (Formerly HDFL 834.) RSH.

ABSC 837. Advanced Study of People with Disabilities. 3 Hours.
This course reviews major approaches in identifying disability pathogenesis and explores the biological bases of selected congenital physical disabilities, and etiologies of selected acquired physical disabilities. Rehabilitation approaches and the role of scientist-practitioners in working with people with disabilities are also discussed. This course primarily covers adults with physical disabilities. (Formerly HDFL 837.) Prerequisite: Graduate standing or instructor permission. LEC.

ABSC 840. Theoretical Concepts of Human Development and Child Care Practice. 3 Hours.
Basic introduction to treatment concepts and procedures related to child development and child-care programs. The major goal is to provide a theoretical framework that is effective in dealing with various types of child deviancy. (Formerly HDFL 840.) Prerequisite: Graduate standing or instructor permission. LEC.

ABSC 841. Ethical, Legal, and Professional Issues in Applied Behavioral Science. 3 Hours.
The course covers ethical and legal issues in (a) the responsible conduct of basic, applied, and intervention research (e.g., informed consent and assent with typical and atypical populations; inclusion of underrepresented groups; bias, fraud, and plagiarism in data collection and reporting; conflict of interest; reporting misconduct; authorship) and (b) professional issues in teaching, research, and service (e.g., written and presented scientific communication; grant preparation; the journal review process; cultural competence; teaching; vita preparation). The course will also include instruction in the preparation of editorial reviews for manuscripts submitted for publication to in peer-reviewed journals, in partial fulfillment of the department’s doctoral requirement for preparing editorial reviews. A BACB pre-approved course. Prerequisite: Graduate standing in applied behavioral science. LEC.

ABSC 846. Practicum in Clinical Child Psychology I. 1-3 Hours.
Lecture, laboratory, field work, and supervision appointment. Psychological evaluation and treatment of children and their families; supervised, progressive experience in psychological interventions in clinical child psychology. (Same as PSYC 846.) (Formerly HDFL 846.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. FLD.

ABSC 847. Practicum in Clinical Child Psychology II. 1-3 Hours.
A continuation of ABSC 846/PSYC 846. (Formerly HDFL 847.) (Same as PSYC 847.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. FLD.

ABSC 848. Applied Gerontology: Practice and Intervention. 3 Hours.
A survey of intervention research in gerontology. Program evaluations designed to determine the effectiveness of community-based interventions, current social service delivery practice, and contemporary social policies are examined. An ABA-accredited and BACB® pre-approved course. (Formerly HDFL 848.) LEC.

ABSC 856. An Interdisciplinary Approach to Intervention with the Handicapped. 3 Hours.
This course surveys knowledge from various disciplines that address developmental disabilities across the life span. Its focus is on designing strategies for individual intervention and treatment programs by an interdisciplinary team. Designed for students in social work, speech pathology, psychology, nutrition, audiology, special education, physical therapy, nursing, child development, behavior analysis, and related fields. (Formerly HDFL 707.) Prerequisite: A basic course in child development or instructor permission. LEC.

ABSC 861. Applied Behavior Analysis. 3 Hours.
This advanced course extends knowledge and skill in analyzing behavioral problems, designing interventions, and planning applied research projects. Topics include the selection of problems and target populations, analysis of problems and goals, designing measurement systems, developing interventions, and disseminating products from applied behavioral research. Students use examples from their own applied research. An ABA-accredited and BACB® pre-approved course. (Formerly HDFL 871.) LEC.

ABSC 862. Behavioral Community Psychology. 3 Hours.
A seminar that provides an overview of the history and origin of behavioral community psychology. The course will examine the development and future of behavioral community psychology as an integration of two sub-disciplines, applied behavior analysis and community psychology. The course will provide an integrated review of empirically-based behavioral interventions applied in community-based settings. The course is offered at the 500 and 800 levels with additional assignments required at the 800-level. Prerequisite: ABSC 796, or ABSC 710, or instructor permission. SEM.

ABSC 865. Applied Behavior Analysis in Complex Organizations. 3 Hours.
An examination of the theory, principles, and methods of behavior analysis and their applications to problems of human behavior in complex organizations such as businesses, industries, human service organizations, and governments. (Formerly HDFL 888.) Prerequisite: Graduate standing or instructor permission. LEC.
ABSC 866. Service System and Consumer Issues in Developmental Disabilities. 3 Hours.
This course provides a service-system perspective on developmental disabilities. Students learn (a) how service systems have developed for people with developmental disabilities; (b) about service systems from the perspective of agency administrators, program evaluation, and public and private payment systems (e.g., health insurance, Medicaid, Medicare, CHIPS, Title V); and (c) from consumers, themselves, about the barriers they face in obtaining needed services. Finally, students learn about advocating for service-system change at a consumer, program, and policy level. Prerequisite: Graduate standing or instructor permission. FLD.

ABSC 870. Practicum I in Behavioral Psychology. 1-6 Hours.
Instruction and supervised laboratory or field work for master’s students. Practica are offered by different instructors on different topics; may be repeated for credit if the content differs. Topics and instructors are announced in the Schedule of Classes. Prerequisite: Graduate standing in applied behavioral science or instructor permission. FLD.

ABSC 871. Practicum I in Behavior Analysis: ____. 1-6 Hours.
Instruction and supervised laboratory or field work for master’s students. Practica are offered by different faculty members on different topics; may be repeated for credit if the content differs. Topics and instructors are announced in the Schedule of Classes. (Formerly HDFL 873.) Prerequisite: Graduate standing in applied behavioral science or instructor permission. FLD.

ABSC 872. Practicum I in: ____. 1-6 Hours.
Instruction and supervised laboratory or field work for master’s students. Practica are offered by different faculty members on different topics; may be repeated for credit if the content differs. Topics and instructors are announced in the Schedule of Classes. (Formerly HDFL 784.) Prerequisite: Graduate standing in applied educational psychology or instructor permission. FLD.

ABSC 873. Practicum in Educational Psychological/Rehabilitative Services: ____. 3-6 Hours.
This course is for students who wish to complete practicum experiences in services related to persons with retardation, autism, or physical disabilities in programs in various settings, such as the Ann Sullivan Center in Lima, Peru and the Algeria School in Paraguay. The course is designed to give interested students opportunities to work with professionals in these programs on a semester or summer basis. The course consists of participation in professional activities associated with the practicum program and a report of these activities to the instructor. (Formerly HDFL 789.) Prerequisite: Instructor permission. FLD.

ABSC 874. Practicum in Consumer Evaluation of Behavior Programs. 3-6 Hours.
A practicum course designed to provide students with the knowledge, background, and practical experience in the conduct of consumer evaluations for behavioral treatment programs. (Formerly HDFL 855.) Prerequisite: Instructor permission. FLD.

ABSC 875. Practicum in Community Health Promotion. 1-6 Hours.
A practicum course designed to provide students with knowledge, background, and practical experience in the implementation of community health promotion projects and their evaluation. May be repeated for credit if the content differs. (Formerly HDFL 808.) Prerequisite: Instructor permission. FLD.

ABSC 876. Practicum in Community Development. 1-6 Hours.
A practicum course designed to provide students with knowledge, background, and practical experience in the implementation of community improvement projects and their evaluation. May be repeated for credit if the content differs. (Formerly HDFL 802.) Prerequisite: Instructor permission. FLD.

ABSC 877. Advanced Practicum in Gerontology. 1-6 Hours.
Supervised practical experience in working with elders in home, community, or institutional settings. Regular individual conferences with faculty are used to evaluate student progress. (Formerly HDFL 849.) Prerequisite: Graduate standing or instructor permission. FLD.

ABSC 880. Early Childhood Practicum for Allied Professionals. 1-6 Hours.
Professionals in fields such as journalism, social welfare, and psychology may have career interests that include work with or on behalf of young children. This practicum provides students with individualized opportunities to work with young children in a group setting in order to extend their professional skills. (Formerly HDFL 790.) Prerequisite: Instructor permission. FLD.

ABSC 881. Early Childhood Care and Intervention Practicum I. 1-6 Hours.
A course covering the specification of learning goals and the implementation and evaluation of curriculum design management of groups of young children. May be repeated for no more than a total of six credit hours. (Formerly HDFL 791.) Prerequisite: Instructor permission. FLD.

ABSC 882. Early Childhood Care and Intervention Practicum II. 1-6 Hours.
A course to assess and teach skills in diagnosis and evaluation of particular problems in the developmental process of young children (1-5 years of age), and to design and implement interventions. May be repeated for no more than a total of six credit hours. (Formerly HDFL 792.) Prerequisite: ABSC 791 and instructor permission. FLD.

ABSC 883. Early Childhood Administration Practicum. 1-6 Hours.
Experiences in understanding and developing parent satisfaction with care arrangements for their child(ren), providing services to personnel responsible for care and development of young children, and/or maximizing use of available services for young children on their behalf. May be repeated for no more than a total of six credit hours. (Formerly HDFL 793.) Prerequisite: ABSC 791 and instructor permission. FLD.

ABSC 884. Early Childhood Early Intervention Practicum. 1-6 Hours.
Laboratory teaching in an early childhood classroom that includes children who are developmentally delayed, demonstrate behavioral or learning difficulties, or have other developmental disabilities. Experience includes individualized programming for children with special needs, as well as group management and group curriculum planning. May be repeated for no more than a total of six credit hours. (Formerly HDFL 794.) Prerequisite: ABSC 791 and instructor permission. FLD.

ABSC 885. Early Childhood Teacher Training Practicum. 1-6 Hours.
Experience in supervising staff who work in programs for young children. Supervision includes orienting, monitoring, and evaluating staff performance; opportunities for interaction with other professionals; experience in facilitating staff communication; and consulting on research projects. (Formerly HDFL 795.) Prerequisite: ABSC 791 and instructor permission. FLD.

ABSC 886. Developmental Assessment Practicum: ____. 1-6 Hours.
This course provides direct experience in the developmental assessment of a selected age group, such as infants, preschool and elementary children, adolescents, or adults. It may be repeated providing the age group specification is not repeated. (Formerly HDFL 811.) Prerequisite: HDFL 810 or an equivalent course. FLD.

ABSC 887. Clinical Practicum in Pediatric Psychology. 1-6 Hours.
Supervised experience with pediatric patients referred for behavior problems, including, for example, temper tantrums, enuresis, encopresis, and hyperactivity. Also includes evaluation and treatment of children with
commonly encountered behavior problems. In addition, students observe pediatric staff performing appropriate physical exams and observe the interaction between the medical staff and the pediatric psychologist. (Formerly HDFL 823.) Prerequisite: ABSC 705 and instructor permission. FLD.

ABSC 888. Diversity Issues in Clinical Psychology. 3 Hours.
Review of individual differences pertaining to culture, ethnicity, race, gender, sexual orientation, age, etc., as these have an impact upon theory, research, assessment, and treatment issues in clinical psychology. (Same as PSYC 888.) Prerequisite: Graduate status in clinical psychology, or consent of instructor. LEC.

ABSC 890. Seminar in: ___. 3 Hours.
A seminar for master’s level students. It examines basic and applied research literatures in specialized fields of applied behavioral science. May be repeated for credit if the content differs. (Formerly HDFL 701.) Prerequisite: Graduate standing in applied behavioral science or instructor permission. LEC.

ABSC 891. Research in: ___. 1-6 Hours.
Supervised research investigations in basic or applied behavioral science for master’s students. The course introduces observational measurement, research methods and designs, and the conduct of research in the behavioral sciences. May be repeated for credit if the content differs. (Formerly HDFL 800.) Prerequisite: Graduate standing or instructor permission. RSH.

ABSC 893. Special Topics in: ___. 1-3 Hours.
A research and readings course for master’s students. It allows them to concentrate their studies on selected basic and applied problems in behavioral science and carry out independent research. May be repeated for credit if the content differs. (Formerly HDFL 722, HDFL 724, HDFL 725, HDFL 799.) Prerequisite: Graduate standing or instructor permission. RSH.

ABSC 894. Study Abroad Topics in: ___. 1-3 Hours.
A course designed to enhance international experience in topic areas related to behavioral science for master’s students. May be repeated for credit if the content differs. Prerequisite: Graduate standing or instructor permission. LEC.

ABSC 897. Master’s Thesis in Clinical Child Psychology. 1-10 Hours.
Supervised research experience for completing the thesis leading to master’s degree. Graded on a satisfactory/unsatisfactory basis. (Formerly HDFL 897.) (Same as PSYC 897.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. RSH.

Supervised research experience for the thesis leading to a master’s degree in applied behavioral science. May be repeated. Graded on a satisfactory/unsatisfactory basis. (Formerly HDFL 899.) Prerequisite: Graduate standing in applied behavioral science or instructor permission. RSH.

ABSC 900. Self-Control, Impulsivity, and Human Addictive Disorders. 3 Hours.
This course examines basic research designed to explore variables affecting animal and human decision making; particularly decisions classified as demonstrating impulsivity and self-control. The evidence for genetic and learning contributions to patterns of impulsive decision making will be explored, as will the relation between impulsivity and a range of addictive disorders. LEC.

ABSC 905. Psychopathology in Children. 3 Hours.
Diagnosis and treatment of psychological problems in childhood and adolescence. Preference given to graduate students in child clinical psychology, school psychology, and counseling psychology. (Same as PSYC 905.) Prerequisite: Fifteen hours of graduate credit in psychology or consent of instructor. LEC.

ABSC 908. Psychotropic Drugs: Effects Through the Life Span. 3 Hours.
This course covers basic pharmacological concepts, neuropharmacological principles, and the therapeutics of drug effects on behavior. Special attention is given to age and history as influences in psychopharmacological outcomes. (Formerly HDFL 908.) LEC.

ABSC 913. Behavioral Science Research Proseminar. 1-3 Hours.
A doctoral level professional seminar in which faculty and students present research proposals; offer formal presentations of completed empirical research, reviews of the literature, and other areas of scholarship; and engage discussion about contemporary empirical, conceptual, and professional issues in applied behavioral science. May be repeated for a total of eight credits. (Formerly HDFL 913.) Prerequisite: Graduate standing in behavioral psychology or instructor permission. LEC.

ABSC 920. Seminar in Language Development. 3 Hours.
The course pertains to relevant research regarding infant speech development, vocabulary development, linguistic development, articulation development, and language retardation. (Same as SPLH 966.) (Formerly HDFL 920.) LEC.

ABSC 921. The History and Systems of Psychology. 3 Hours.
An advanced graduate seminar on the history of psychology and its systems, and their relations to contemporary psychology. Pertinent issues in the history and philosophy of science are addressed (e.g., scientific revolutions), as are concerns in the historiography of psychology (e.g., presentism). (Formerly HDFL 981.) Prerequisite: Master’s degree or instructor permission. LEC.

ABSC 931. Verbal Behavior. 3 Hours.
An advanced graduate seminar on the analysis of the verbal behavior of the proficient speaker and the biological, environmental, and motivational factors affecting it. Structural and developmental issues, as well as implications for language training and remediation are integrated throughout. Critiques and rebuttals are examined, along with current empirical and conceptual advances in research and theory. An ABA-accredited and BACB® pre-approved course. (Formerly HDFL 931.) Prerequisite: ABSC 798, advanced coursework in psycholinguistics or linguistics, or instructor permission. LEC.

ABSC 934. Directed Readings in Clinical Child Psychology. 3-5 Hours.
Designed to meet the needs of advanced students whose study in clinical child psychology cannot be met with present courses or for whom advanced work is desired in a specialized area of study. (Formerly HDFL 934.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. RSH.

ABSC 935. Experimental Foundations of Applied Behavior Analysis. 3 Hours.
A graduate level introduction to basic behavioral research. This course surveys seminal and current research in the experimental analysis of behavior and relates this work to research and practice in applied
behavior analysis. Topics include respondent conditioning, complex
schedule performance, avoidance, stimulus control, and choice.
Prerequisite: ABSC 798 and consent of instructor. LEC.

ABSC 940. Measurement and Experimental Design for Applied Research. 3 Hours.
This is an advanced course on research methods helpful in the
development, evaluation, and dissemination of effective and sustainable
behavior-analytic programs. The practices examined involve (a) selecting
non-reactive measures of staff implementation behaviors; (b) selecting
effective and sustainable components of a staff management program;
and (c) experimentally analyzing the effectiveness and sustainability of
the staff management program. Particular emphasis is placed on the
analysis of the principles of behavior that determine the maintenance
of staff interventions and, therefore, the survival of behavioral programs
in their post-research phase. Students read and discuss the literature
on factors that promote or impede program survival. Students design
an intervention program using the practices examined in the course,
simulate an experimental analysis of the program, and write a JABA-
style manuscript describing the program and their simulated data. An
ABA-accredited and BACB® pre-approved course. (Formerly HDFL
940.) Prerequisite: ABSC/HDFL 735 or HDFL 803, ABSC/HDFL 796, and
ABSC/HDFL 871 or instructor permission. LEC.

ABSC 941. Teaching and Conference. 3-6 Hours.
This course is used by graduate students fulfilling the doctoral program
teaching requirement. Students assist in class preparation and
organization, teaching, grading, and office hours or serve as discussion
section leaders or laboratory course supervisors. They meet regularly with
the faculty members they are assisting. Students enroll for 3 hours for
the equivalent of a 25% assistantship and 6 hours for a 50% equivalent.
(Formerly HDFL 941.) Prerequisite: Instructor permission. FLD.

ABSC 942. Techniques of Data Analysis for Applied Research. 3 Hours.
This course examines data analysis procedures commonly used with
both large group and single subject experimental designs. In addition to
presenting specific data analysis techniques, the strengths and
weaknesses inherent in the various techniques are carefully reviewed and
evaluated. (Formerly HDFL 942.) Prerequisite: ABSC/HDFL 735 or HDFL
803 and an intermediate statistics course. LEC.

ABSC 943. Advanced Practicum in Clinical Child Psychology III. 1-3 Hours.
Lecture, laboratory, field work, and supervision appointment. Advanced
psychological intervention techniques for children, youth, and families;
supervised progressive experience in application of behavioral and
psycho-therapeutic methods to behavioral and emotional problems.
(Formerly HDFL 943.) (Same as PSYC 943.) Prerequisite: Graduate
standing in clinical child psychology and instructor permission. FLD.

ABSC 944. Advanced Practicum in Clinical Child Psychology IV. 1-3 Hours.
A continuation of ABSC/HDFL 943 and PSYC 943. (Formerly HDFL 944.)
(Same as PSYC 944.) Prerequisite: Graduate standing in clinical child
psychology and instructor permission. FLD.

ABSC 947. Advanced Practicum in Clinical Child Psychology V. 1-5 Hours.
A continuation of ABSC/HDFL 944 and PSYC 944. May be taken in
more than one semester. (Formerly HDFL 947.) (Same as PSYC 947.)
Prerequisite: Graduate standing in clinical child psychology and instructor
permission. FLD.

ABSC 951. The Analysis of Cognition. 3 Hours.
A graduate seminar on the behavior analysis of cognition. Topics include
consciousness, attention, perception, memory, language, rule-governed
behavior, problem-solving, decision-making, generativity, creativity, and
beliefs and attitudes. Comparisons and contrasts are drawn among
different theoretical orientations (information-processing, parallel-
processing, nonmediational theories). Prerequisite: ABSC 798, advanced
coursework in cognitive psychology, or instructor permission. RSH.

ABSC 961. Advanced Seminar in Applied Behavior Analysis: ____. 3 Hours.
An advanced seminar examining the literature and research methods
in specialized areas of applied behavior analysis (e.g., developmental
disabilities, community health, organizational development). May be
repeated for credit if the content differs. An ABA-accredited and BACB®
pre-approved course. (Formerly HDFL 971.) LEC.

ABSC 963. Clinical Child Psychology Internship. 1 Hour.
Three consecutive enrollments, covering a minimum of eleven months of
experience in an approved clinical psychology field setting; supervision
by qualified clinical child psychology faculty and field staff clinicians.
Required of all clinical child psychology program students. An intensive
guided experience in application of clinical child psychology theory,
methods, and practices. Integrates scientific and clinical aspects of field.
(Formerly HDFL 963.) (Same as PSYC 963.) Prerequisite: Completion
of Ph.D. comprehensive examinations, graduate standing in clinical child
psychology, and permission of clinical child psychology faculty. FLD.

ABSC 965. Evaluating and Disseminating Scientific Material II. 1-3 Hours.
Intensive training in the evaluation and production of scientific critiques
and reviews on current issues in the analysis of behavior, as disseminated
through the media. May be repeated. (Formerly HDFL 965.) Prerequisite:
Instructor permission. LEC.

ABSC 970. Practicum II in Behavioral Psychology. 1-6 Hours.
Advanced instruction and supervised laboratory or field work for doctoral
students beyond ABSC 870. May be repeated for credit if the content
differs. Prerequisite: Graduate standing in behavioral psychology or
instructor permission. FLD.

ABSC 971. Practicum II in Behavior Analysis: ____. 1-6 Hours.
Advanced instruction and supervised laboratory or field work for doctoral
students beyond ABSC 871. May be repeated for credit if the content
diffs. Prerequisite: Graduate standing in behavioral psychology or
instructor permission. FLD.

ABSC 972. Practicum II in: ____. 1-6 Hours.
Advanced instruction and supervised laboratory or field work for doctoral
students beyond ABSC 872. May be repeated for credit if the content
differs. Topic and instructor are announced in the Schedule of Classes.
Prerequisite: Graduate standing in applied behavioral science or instructor
permission. FLD.

ABSC 976. Therapeutic Interventions with Children. 3-5 Hours.
Clinical approaches to the therapeutic treatment of children with special
emphasis on research findings and laboratory (practicum) experience. A
survey of relationship therapies, operant strategies, system approaches,
parent education and play therapy by the right therapist for a specific child
with a particular problem. (Same as PSYC 976.) Prerequisite: Instructor
permission. FLD.

ABSC 981. History of Applied Behavioral Science. 3 Hours.
An advanced graduate seminar on the long past, short history, recent
origins, and modern history of applied behavioral science. This includes
the field’s history, internally: its conceptual system, sciences and
discipline, profession, and institutions. It also includes the field’s history,
ABSC 999. Methods of Obtaining External Research Funding. 1-3 Hours.
The objective of this course is to demystify this process and prepare participants to submit their first independent research grant application. Participants learn about the characteristics of different funding mechanisms and agencies, the characteristics of successful and unsuccessful application strategies, how to turn an initial research idea into a competitive application, ethical issues that influence each stage of the development and submission process, and the nuts and bolts of grant development and management. Specific activities include critiquing an actual NIH grant application, participating in a mock review panel, and developing an actual grant application. LEC.

ABSC 990. Advanced Seminar in: ______. 3 Hours.
An advanced seminar for doctoral students. It examines basic and applied research literatures in specialized fields of applied behavioral science. \( \text{May be repeated for credit if the content differs. (Formerly HDFL 930.) Prerequisite: Graduate standing in behavioral psychology or instructor permission. LEC.} \)

ABSC 991. Advanced Research in: ______. 1-9 Hours.
Advanced, supervised research in basic or applied behavioral science for doctoral students. The course may focus on any combination of a literature review, research planning and preparation, conducting research, analyzing data, writing research reports, and preparing oral reports of completed research. \( \text{May be repeated for credit if the content differs. (Formerly HDFL 900.) Prerequisite: Graduate standing in behavioral psychology or instructor permission. RSH.} \)

ABSC 992. Advanced Readings in: ______. 1-6 Hours.
An advanced individual, supervised study of recent research and scholarship for doctoral students. The course emphasizes current scholarship in selected areas of basic and applied behavioral science and its conceptual foundations. \( \text{Designed for students whose needs cannot be met in other courses. May be repeated for credit if the content differs. (Formerly HDFL 933.) Prerequisite: Graduate standing in behavioral psychology or instructor permission. RSH.} \)

ABSC 993. Advanced Special Topics in: ______. 1-3 Hours.
An advanced research and readings course for doctoral students. It allows them to concentrate their studies on selected basic and applied problems in behavioral science and carry out independent research. \( \text{May be repeated for credit if the content differs. (Formerly HDFL 931. Prerequisite: Graduate standing in behavioral psychology or instructor permission. RSH.} \)

ABSC 994. Advanced Study Abroad Topics in: ______. 1-6 Hours.
An advanced course designed to enhance international experience in topic areas related to behavioral science for doctoral level students. \( \text{May be repeated for credit if the content differs. Prerequisite: Graduate standing in behavioral psychology or instructor permission. LEC.} \)

ABSC 998. Doctoral Dissertation in Clinical Child Psychology. 1-10 Hours.
Research experience making an original contribution to literature in clinical child psychology. \( \text{Graded on a satisfactory/unsatisfactory basis. (Same as PSYC 998.) (Formerly HDFL 998.) RSH.} \)

ABSC 999. Doctoral Dissertation in Behavioral Psychology. 1-9 Hours.
Advanced supervised research that makes an original, empirical contribution to the literature in applied behavioral science leading to a doctoral degree in behavioral psychology. \( \text{May be repeated. Graded on a satisfactory/unsatisfactory basis. (Formerly HDFL 999.) Prerequisite: Graduate standing in behavioral psychology or instructor permission. THE.} \)

American Studies Courses

AMS HR. Philosophy and Religion. 3 Hours. HR / H.
LEC.

AMS 100. Introduction to American Studies. 3 Hours. HT AE41/GE3H / H.
An interdisciplinary introduction to American studies. Students explore the major concepts and trends in American history, culture, and society. \( \text{Not open to students who have taken AMS 101. LEC.} \)

AMS 101. Introduction to American Studies, Honors. 3 Hours. HT AE41/GE3H / H.
An interdisciplinary introduction to American studies. Students explore the major concepts and trends in American history, culture, and society. \( \text{Not open to students who have taken AMS 100. Prerequisite: Membership in the University Honors Program or approval by the American Studies Program. LEC.} \)

AMS 110. American Identities. 3 Hours. SC AE41/GE3S / S.
An interdisciplinary introduction to individual and group identities over time. Students explore theories and methods related to identity from various perspectives, such as race, class, gender, sexuality, age, religion, and region. \( \text{Not open to students who have taken AMS 112 or SOC 112. (Same as SOC 110.) LEC.} \)

AMS 112. American Identities, Honors. 3 Hours. SC AE41/GE3S / S.
An interdisciplinary introduction to individual and group identities over time. Students explore theories and methods related to identity from various perspectives, such as race, class, gender, sexuality, age, religion, and region. \( \text{Not open to students who have taken AMS 110 or SOC 110. (Same as SOC 112.) Prerequisite: Membership in the University Honors Program or approval by the American Studies Program. LEC.} \)

AMS 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Americana Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. \( \text{Prerequisite: First-time freshman status. LEC.} \)

AMS 260. America's Latinos/Latinas. 3 Hours. AE41 / U.
An introduction to the Latino/a population (Mexican-Americans, Puerto Ricans, Cuban-Americans, Dominican-Americans, and Central and South Americans) in the US. Students discuss how US and Latin American societies have shaped Latino incorporation into the United States. We also discuss contemporary political, cultural and social issues that pertain to Latinos/as in the US. \( \text{(Same as SOC 260.) LEC.} \)

AMS 290. Religion in American Society. 3 Hours. HR AE41/GE3S / H.
A broad introduction to religion in American culture. This class emphasizes the well-established religions with large followings (viz. Judaism, Catholicism, Eastern Orthodoxy, and Protestantism). Some attention is also given to other religions active in America. Other topics covered include the relationship of church and state, religion in ethnic and racial minority groups, and women and religion. \( \text{Not open to students who have taken REL 172. (Same as REL 171.) LEC.} \)
AMS 310. American Culture, 1600-1876. 3 Hours. H.
An examination of the major historical shifts, trends, and conflicts that have shaped the multicultural nature of life in the United States from the initial European settlements to 1876. In addition to tracing developments in literature, architecture, drama, music, and the visual arts, this course will investigate patterns and changes in the popular, domestic, and material culture of everyday life in America. (Same as HIST 310.) Prerequisite: AMS 100 or AMS 110 or H IST 128. LEC.

AMS 312. American Culture, 1877 to the Present. 3 Hours. H.
An examination of the major historical shifts, trends, and conflicts that have shaped the multicultural nature of life in the United States from 1877 to the present. In addition to tracing developments in literature, architecture, drama, music, and the visual arts, this course will investigate patterns and changes in the popular, domestic, and material culture of everyday life in America. (Same as HIST 312.) LEC.

AMS 316. Ministers and Magicians: Black Religions from Slavery to the Present. 3 Hours. AE41 / H.
This course examines the history and diversity of African American religious expression from slavery until the present, emphasizing both mainstream and alternative faiths. It covers the religious world views of enslaved Africans, and examines faiths inside and outside of Christianity. Topics may include: independent black churches, magical practices, the Holiness and Pentecostal movements, black Islam, religious freemasonry, and esoteric faiths. The class emphasizes the influence of gender, class, race, migration, and urbanization on black religion. (Same as AAAS 316 and HIST 316.) LEC.

AMS 317. African American Women: Colonial Era to the Present. 3 Hours. H.
This interdisciplinary course covers the history of African American women, beginning in West and Central Africa, extending across the Middle Passage into the Americas, and stretching through enslavement and freedom into the 21st century. The readings cover their experiences through secondary and tertiary source materials, as well as autobiographies and letters, plays and music, and poems, novels, and speeches. (Same as AAAS 317, HIST 317, and WGSS 317.) LEC.

AMS 320. Border Patrolled States. 3 Hours. H.
Examines the politics of immigrant, citizenship and space through official, intellectual and popular responses to the growth of Latino/a populations in the U.S. and to international migration to and from Mexico and Central America. Topics include consideration of how responses to immigration articulate racialized and culturally specific (including linguistic and religious) concepts of the nation, and how questions of citizenship and residency dovetail with issues of community “voice”, public space, and diverse notions of “security”. LEC.

AMS 322. Modernism. 3 Hours. H.
Examines modernism as a transnational cultural movement primarily from the 1890s to the 1940s, but also considers the impact of modernism on later twentieth century cultural production. Provides an interdisciplinary exploration of art, architecture, film, literature and music. Topics include debates related to periodization, the nature of progress, the impact of colonialism and imperialism, the power of reason, and the relationship to previous “traditional” ideas. LEC.

AMS 330. American Society. 3 Hours. H.
The social structure and organization of American society with special reference to recent social changes. (Same as SOC 330.) Prerequisite: An introductory course in sociology or American studies. LEC.

AMS 332. The United States in Global Context. 3 Hours. AE42 / S.
Examines the influence abroad of US culture, policies and practices and the impact of other countries on US culture, society, and politics. Among the topics that may be examined are race, ethnicity, colonialism, imperialism, migration, technology, communications and media, popular culture, language, health, domestic and transnational organizations, as well as economic, political, religious, military and educational institutions. (Same as SOC 332). LEC.

AMS 340. Black Leadership. 3 Hours. H/W.
The course focuses on the concept of leadership and on black leadership in the United States; an in-depth analysis of selected case studies on black leaders, both historical and contemporary. Some attention will be given to the dispersion of Africans into the Americas and the leadership that emerged, conditioned both by environmental factors and the psychology engendered by the system of slavery. Selected successful black leaders will be invited to visit the class from time to time. (Same as AAAS 330.) LEC.

AMS 344. Case Study in American Studies: ______. 3 Hours. H.
This course examines in depth a specific American studies or theme. LEC.

AMS 345. Cultural Studies. 3 Hours. H.
Students gain awareness of major scholars and “schools” that have pursued critical, interdisciplinary research or cultural processes and products in the field of American Studies. Topics may include cultural materialism, semiotics, nationalism, ethnic/racial identity, gender and sexuality, cultural politics, mass media, public spheres, social space and place, commodity consumption, music, and popular culture. LEC.

AMS 350. Visual Culture and the Harlem Renaissance. 3 Hours. H.
Examines the African American cultural movement through art; the artistic gaze in novels; representations of African Americans in film; as well as the influence of musical and dramatic performance on the African American image. Considers the impact of American, European, and other cultural influences on black artists of the time. LEC.

AMS 360. Theory and Method. 3 Hours. H.
An introduction through a topical theme to theories and methods currently used in American Studies. Prerequisite: AMS 100, AMS 110 and AMS 320 or their equivalent, or consent of instructor. LEC.

AMS 390. Geography of the United States and Canada. 3 Hours. S.
A study of the different physical, economic, and cultural settings in the United States and Canada which form the basis for the various forms of livelihood. Emphasis on the United States. (Same as GEOG 390.) Prerequisite: An introductory geography course, or background in United States or Canadian history, social science, or culture, or consent of instructor. LEC.

AMS 494. Topics in: ______. 1-4 Hours. H.
Interdisciplinary study of selected aspects of American society or culture or of the American experience. LEC.

AMS 510. History of American Women--Colonial Times to 1870. 3 Hours. H.
A survey of women’s roles as housewives, mothers, consumers, workers, and citizens in pre-industrial, commercial, and early industrial America. (Same as HIST 530 and WGSS 510.) LEC.

AMS 511. History of American Women--1870 to Present. 3 Hours. AE41 / H.
A survey of women’s history in the United States that will include radical and reform movements, the impact of war and depression, professionalization, immigration, women’s work and the biographies of leading figures in women’s history. (Same as HIST 531 and WGSS 511.) LEC.
AMS 512. History of Women and Work in Comparative Perspective. 3 Hours. H.
This course explores the connection between historical changes in the labor process and the occupational choices available to women in different countries. Through discussion and analyses of texts, students will evaluate the construction of a gendered division of work as shaped over time by economic, cultural, and political forces. The chronological and geographical focus may vary depending on the instructor. (Same as HIST 532 and WGSS 512.) LEC.

AMS 515. American Women and World War II. 3 Hours. H.
Examines histories of U.S. women during World War II through an interdisciplinary approach that draws on popular culture and oral history. Utilizes theories and methods of oral history and examines representations of women such as Rosie the Riveter, GI Jane and the Sweetheart at Home. Topics include the consumption of images, the function of images in war and the relationship between popular culture and war. LEC.

AMS 520. Topics in Latino Studies: ______. 3 Hours. U.
The study of special topics in Latino Studies. Students may repeat this course when different topics are offered. LEC.

AMS 522. American Racial and Ethnic Relations. 3 Hours. S.
Analysis of the basic sociological concepts that apply to majority-minority relations; with special emphasis on racial and ethnic interaction in the United States. (Same as SOC 522.) Prerequisite: A distribution course in sociology or American studies. LEC.

AMS 529. Race and the American Theatre. 3 Hours. U.
The representation(s) of race in significant texts and performance styles in American theatre analyzed according to political ideologies, dramatic movements and the impact of these factors on the representation of the "other" in the theatre. (Same as AAAS 585 and THR 529.) LEC.

AMS 534. Comparative Racial and Ethnic Relations. 3 Hours. NW / S.
An examination of constructions of race and ethnicity around the world. Emphasis is on the social, political, historical, cultural and economic factors that lead to the creation of ethnic and racial identities, ethnic conflict and accommodation, ethnic movements, and ethnic political organization. Racial and ethnic relations in the U.S. are compared with other countries. Major focus is placed on ethnicity in Africa, Asia, Latin America, the Caribbean, and/or the Middle East. (Same as AAAS 510 and SOC 534.) LEC.

AMS 536. Ethnicity in the United States: ______. 3 Hours. S.
An examination of the history, sociology, and culture of U.S. ethnic categories (e.g., American Indians, Latinos, Asian Americans, Jewish Americans, Irish Americans). The specific group studied varies from semester to semester. Course may be repeated for credit. (Same as SOC 536.) Prerequisite: A principal course in American Studies, Sociology, or Anthropology, or permission of instructor. LEC.

AMS 540. Culture, Space and Power in Urban America. 3 Hours. H.
Surveys scholarship on urban expressive culture as it illuminates the politics to identity and public space by African American and Latino/a urban communities. Explores how race, class and gender positionality affect and reflect access to public space and recognition in the public sphere through aesthetic practices such as hip-hop, graffiti writing and custom car cruising. LEC.

AMS 550. Research Seminar in: ______. 3 Hours. AE61 / H.
A seminar exploring a specific American studies theme. A research paper or equivalent project is required. Prerequisite: AMS 360 (a grade of C or better is recommended) or consent of instructor. Cannot be taken concurrently with AMS 551, AMS 552 or AMS 553. LEC.

AMS 551. Research Project in American Studies. 3 Hours. AE61 / H.
Independent research on a selected topic under the direction of a faculty member. Students write an original research paper or complete an equivalent project in another medium, grounded in primary as well as secondary sources. Prerequisite: AMS 550 or consent of instructor. RSH.

AMS 552. Public Service in American Studies. 3 Hours. AE61 / H.
Independent public service in a selected area undertaken in consultation with and under the direction of a faculty member. Students produce a final written project on the experience that integrates the public service experience and academic materials, or complete an equivalent project in another medium. Prerequisite: AMS 550 or consent of instructor. FLD.

AMS 553. Honors in American Studies. 3 Hours. AE61 / H.
Honors equivalent of AMS 551. May be taken twice for credit. Three hours of AMS 553 may be substituted for a course in an appropriate category in the American Studies major. Prerequisite: AMS 550, eligibility for departmental honors, or consent of instructor. RSH.

AMS 554. Advanced Topics in American Literature to 1865: ______. 3 Hours. H.
Study of American literary works before 1865. Topics may focus on a particular genre, theme, topic, historical period, author, or group of authors. May be repeated for credit as the topic changes. (Same as ENGL 576.) Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

AMS 555. Advanced Topics in American Literature Since 1865: ______. 3 Hours. H.
Study of American literary works after 1865. Topics may focus on a particular genre, theme, topic, historical period, author, or group of authors. May be repeated for credit as the topic changes. (Same as ENGL 577.) Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

AMS 556. Gender, Culture, and Migration. 3 Hours. H.
This course brings a human face to the 21st century manifestation of globalization by focusing on the issues of culture, gender and migration. How do these three aspects create the “global village” amongst both the host and donor peoples? When people move from one place to another, what do they leave behind, what do they take with them? What is gained, or lost by the host community? What is the impact of migration on a specific group’s and individual’s sense of identity? How has migration affected the people’s construction, understanding, and practice of gender? Given their primary roles in the home and within the culture, these questions and more are posed with particular attention to women. Migration theories, interviews and personal testimonies as well as literary and dramatic works are critical to our analyses of the issues raised and enable us to hold conversations with, and listen to the stories of the ordinary people who make globalization happen and sustain it. (Same as AAAS 565 and WGSS 565.) LEC.

AMS 576. Cultural Geography of the United States. 3 Hours. S.
Distributions of major culture elements including folk architecture, religion, dialect, foodways, and political behavior are systematically studied from a predominantly historical perspective. These discussions are followed by a survey of the major culture regions in America. Although not absolutely necessary, familiarity with concepts treated in any of the following courses would be helpful: AMS 100, AMS 110, ANTH 108, ANTH 308, GEOG 102, or GEOG 390. (Same as GEOG 576.) LEC.

AMS 579. Geography of American Foodways. 3 Hours.
An interdisciplinary approach to food that explores the diversity of eating habits across the United States and the role of food as an indicator of cultural identity and change. Current regional and ethnic food consumption patterns are stressed. Topics include multiculturalism and
AMS 580. American Art. 3 Hours. H.
A survey of American painting, sculpture, and architecture from colonial to recent times. (Same as HA 570.) Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

AMS 590. Transnational Asian Film. 3 Hours. H.
Examines the ways that contemporary East Asian films and the American film industry appropriate cinematic techniques, styles and themes from one another. Uses cultural studies theories to examine the construction of cultural and historical narratives of transnational interaction among East Asian countries. Explores the impact of economic globalization on transnational film production. LEC.

AMS 629. Sociology of Sport. 3 Hours. S.
Examination of organized sport as a social institution and its relation to other social institutions (e.g., political, economic, educational, and religious), with special emphasis on American society. Analysis of the social correlates of sports participation and a consideration of the role of sport in social change. (Same as SOC 629.) Prerequisite: A principal course in American studies or sociology, or consent of instructor. LEC.

AMS 650. Jazz and American Culture. 3 Hours. H.
This course considers cultural and social histories of jazz, from the 1920s through the present day, as sites for exploring ideological struggles over such fields as race, class, gender, sexuality, democracy, capitalism, freedom, community, Americaness, and globalization in the U.S. The course will explore such questions as the following: What music was called jazz at what times and places? What did it mean to whom? Who played it? Who wrote about it? Who listened to it? Who danced to it? Who policed it? Who produced it? Who used it to rebel? Who used it to survive? What did all of these practices mean to participants? The course will examine struggles over social meanings in the U.S. through a study of jazz performance, labor, representation, marketing, consumption, censorship, and historiography. Prerequisite: A course in American studies, American history, or consent of instructor. (Same as WGSS 652.) LEC.

AMS 652. Jazz I, Roots to 1955. 3 Hours. H.
Survey of jazz music, from ragtime and blues to jazz of the 1940s and 50s. Covers various styles of jazz, including New Orleans, swing, bebop and cool. Students are expected to have a basic understanding of melody, harmony and rhythm, although ability to read scores is not necessary. Graduate students will complete additional work to be determined in consultation with the instructor. LEC.

AMS 653. Jazz II, 1955-Present. 3 Hours. H.
Survey of jazz music, from 1950s to the present. Covers various styles of jazz, including free jazz, postmodern jazz and fusion. Students are expected to have a basic understanding of melody, harmony and rhythm, although ability to read scores is not necessary. Graduate students will complete additional work to be determined in consultation with the instructor. LEC.

AMS 680. Jazz Autobiography. 3 Hours. H.
Examines the literary and musical significance of jazz autobiographies since the 1940s. Authors include Louis Armstrong, Jelly Roll Morton, Billie Holiday, Charles Mingus, Nina Simone and others. Graduate students will complete additional work to be determined in consultation with the instructor. LEC.

AMS 682. Jazz Narratives in Novels and Films. 3 Hours. H.
Examines jazz and musicians’ life stories in prose fiction and fictional or biographical films. Novels may include works by John Cllellon Holmes and Nathaniel Mackey. Films may include Lady Sings the Blues and Space is the Place. Graduate students will complete additional work to be determined in consultation with the instructor. LEC.

AMS 690. Black Cultural Studies. 3 Hours. H.
Examines critical approaches to the study of African American cultural production. Uses literature, films, music, art and performance to explore the development of interpretations of black culture. Covers major developments in black aesthetics in the twentieth century, various theoretical schools of thought, and significant writers such as bell hooks, Stuart Hall, and Gina Dent. Graduate students will complete additional course work to be determined in consultation with the instructor. LEC.

AMS 694. Directed Readings. 1-4 Hours. H.
Consent of instructor is required. IND.

AMS 696. Studies in: _____, 3 Hours. H.
Interdisciplinary study of different aspects of the American experience in different semesters. LEC.

AMS 700. Introduction to Museum Exhibits. 3 Hours.
This course will consider the role of exhibits as an integrated part of museum collection management, research, and public service. Lecture and discussion will focus on issues involved in planning and producing museum exhibits. Laboratory exercises will provide first hand experience with basic preparation techniques. Emphasis will be placed on the management of an exhibit program in both large and small museums in the major disciplines. (Same as BIOL 787, GEOL 781, HIST 723, and MUSE 703.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

AMS 714. Conservation Principles and Practices. 3 Hours.
This course will acquaint the future museum professional with problems in conserving all types of collections. Philosophical and ethical approaches will be discussed, as well as the changing practices regarding conservation techniques. Emphasis will be placed on detection and identification of causes of deterioration in objects made of organic and inorganic materials, and how these problems can be remedied. Storage and care of objects will also be considered. (Same as BIOL 700, GEOL 780, HIST 722 and MUSE 706.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

AMS 720. The Nature of Museums. 3 Hours.
The purpose of this course is to provide an overview of the kinds of museums, their various missions, and their characteristics and potentials as research, education, and public service institutions responsible for collections of natural and cultural objects. (Same as BIOL 788, GEOL 782, HIST 720, and MUSE 702.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

AMS 725. Museum Studies Workshop: _____. 1-3 Hours.
Short term, intensive workshops presented to provide specialized background in a variety of skills required in historical archives or museums. FLD.

AMS 730. Principles and Practices of Museum Collection Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museum collections, their associated data, and their use in scholarly research; cataloging, storage, fumigation, automated information management and related topics will be presented for museums of art, history, natural history and anthropology. (Same as BIOL 798, GEOL 785, HIST 725, and MUSE 704.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.
AMS 731. Museum Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museums as organizations; accounting, budget cycles, personnel management, and related topics will be presented using, as appropriate, case studies and a simulated museum organization model. (Same as BIOL 785, GEOL 783, HIST 728, and MUSE 701.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

AMS 773. Music in America. 3 Hours.
A survey of historical developments from the Pilgrims to the present. (Same as MUSC 759.) Prerequisite: One course in the field of music history and literature or consent of instructor. LEC.

AMS 767. Gerontology Proseminar. 3 Hours.
A proseminar coordinated by the Gerontology Center. The proseminar explores essential areas of gerontology for researchers and practitioners, providing a multidisciplinary (psychology, biology, sociology, and communication) perspective on aging. The proseminar surveys contemporary basic and applied research, service programs, and policy and management issues in gerontology. (Same as ABSC 787, COMS 787, PSYC 787, and SOC 767.) (Formerly HDFL 787.) LEC.

AMS 787. Field Work. 1-12 Hours.
Supervised field research in aspects of American civilization. Prerequisite: Consent of instructor. FLD.

AMS 797. Introduction to Museum Public Education. 3 Hours.
Consideration of the goals of an institution’s public education services, developing programs, identifying potential audiences, developing audiences, and funding. Workshops and demonstrations are designed for students to gain practical experience working with various programs and developing model programs. (Same as BIOL 784, GEOL 784, HIST 721, and MUSE 705.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

AMS 799. American Studies Museum Apprenticeship. 1-6 Hours.
Provides directed, practical experience in research, collection care and management, public education, and exhibits with emphasis to suit the particular requirements of each student. (Same as ANTH 799, BIOL 799, GEOL 723, HIST 799, and MUSE 799.) FLD.

AMS 801. Introduction to American Studies. 3 Hours.
An introduction to the field of American Studies through an examination of some of the classic and innovative works, issues, debates, and controversies in the history and the literature of American Studies. LEC.

AMS 802. Theorizing America. 3 Hours.
Drawing from a broad range of perspectives (e.g., cultural theory, social theory, literary theory, etc.), this course will introduce students to current theoretical debates in American studies and the concepts that inform them. LEC.

AMS 803. Research Methods in American Studies. 3 Hours.
An introduction to the range of interdisciplinary research methods in American studies. Emphasis will be placed on an examination of the assumptions, logics, and procedures involved in various approaches to understanding American society and culture. LEC.

AMS 804. Research Seminar. 3 Hours.
An intensive application of theoretical and methodological issues to the development of specific substantive research problems. Students will be expected to design and implement a study that will be critically assessed in the seminar. LEC.

AMS 805. American Pluralism: Race, Ethnicity, and Religion in American Life. 3 Hours.
Analysis of the dynamics of intercultural and intergroup relations in America with special emphasis on the examination of major conceptual perspectives that have characterized the study of race, ethnicity, and religion in American life. LEC.

AMS 808. Studies in: ______. 3 Hours.
Interdisciplinary study of different aspects of the American experiences in different semesters. LEC.

AMS 809. Advanced Research Seminar. 3 Hours.
An intensive application of theoretical and methodological issues to the development of specific substantive research problems. Students will be expected to design and implement a study that will be critically assessed in the seminar. Prerequisite: AMS 804. Permission of the instructor required. LEC.

AMS 835. Colloquium in the History of Gender. 3 Hours.
This colloquium will cover theoretical and topical readings on the history of manhood, womanhood, and gender systems. (Same as HIST 895 and WGSS 835.) LEC.

AMS 836. Colloquium in United States Women’s History. 3 Hours.
This colloquium will cover theoretical and topical readings on the history of women in the United States from the pre-contact period to the present. It is designed to familiarize students with the most important and current historiography in the field. (Same as HIST 896 and WGSS 836.) LEC.

AMS 837. Comparative Colloquium in Women’s History. 3 Hours.
This colloquium will approach the history of women from a comparative perspective through theoretical and topical readings on women in at least two different cultures. (Same as HIST 897 and WGSS 837.) LEC.

AMS 896. Examination Preparation. 1-6 Hours.
Directed and independent study in preparation for the doctoral comprehensive examinations. May be repeated. RSH.

AMS 899. Thesis. 1-6 Hours.
Investigation of a topic for master’s thesis. Total enrollment in this course may not exceed six hours of credit. THE.

AMS 900. Teaching Seminar. 1-6 Hours.
This seminar is designed to assist students in the preparation, presentation, and evaluation of teaching in American Studies. Graded on a satisfactory/unsatisfactory basis. LEC.

AMS 973. Seminar in United States Women’s History. 3 Hours.
This research seminar will focus on the history of women in the United States from the pre-contact period to the present. Students will research and write a paper using primary sources, and present those papers to the seminar for evaluation. (Same as HIST 973 and WGSS 873.) LEC.

AMS 996. Examination Preparation. 1-9 Hours.
Directed and independent study in preparation for the doctoral comprehensive examinations. May be repeated. RSH.

AMS 997. Directed Readings. 1-4 Hours.
Directed reading in an area of American culture in which there is no appropriate course in the offerings of the American Studies program or of the cooperating departments, but in which there is a member of the graduate faculty competent and willing to direct a program of study. RSH.

AMS 998. Seminar in: ______ . 3 Hours.
Topics vary from semester to semester. Graduate students are consulted in selecting topics. LEC.

AMS 999. Dissertation. 1-12 Hours.
THE.

Anthropology Courses

ANTH 100. General Anthropology. 3-4 Hours. SC AE42/GE3S / S.
Lecture and discussion sections covering the four primary fields of Anthropology: Biological Anthropology, Linguistics, Social Anthropology,
and Archaeology. Concepts and approaches to each field, using past and present examples from around the world, will be examined with an emphasis on the unity of the anthropological approach. Future directions of human experience are explored. Discussion sections will be used to examine material covered in lecture and in readings in specific cultural and evolutionary contexts. Discussion and application of fundamental concepts to contemporary events, examination of fossil collections, and viewing and discussion of relevant visual materials are among topics to be covered in sections. LEC.

ANTH 102. Succeeding in Anthropology. 1 Hour. S.
This course is designed to enhance students’ chances for success in anthropology major and life after college. Students will learn how to maximize their possibilities for gaining academic assistance, grants, and career building, as well as design strategies for winning jobs, entry into graduate programs, and paid internships at home and abroad. LEC.

ANTH 104. Fundamentals of Physical Anthropology. 3-4 Hours. NB GE3N / N.
Lecture and discussion sections covering the mechanisms and principles of Darwinian evolution with special emphasis on human and primate data. Lecture topics include genetics, variation, primates, ethology, and the fossil evidence for human evolution. Discussion sessions include topics in Mendelian and population genetics, blood group systems, quantitative morphological variation, and fossil human and primate skeletal material. LEC.

ANTH 105. Fundamentals of Physical Anthropology, Honors. 3-4 Hours. NB GE3N / N.
An honors section of ANTH 104 for students with superior academic records. LEC.

ANTH 106. Introductory Linguistics. 3 Hours. SC AE41/AE42/GE11/GE3S / S.
Introduction to the fundamentals of linguistics, with emphasis on the description of the sound system, grammatical structure and semantic structure of languages. The course will include a survey of language in culture and society, language change, computational linguistics and psycholinguistics, and will introduce students to techniques of linguistic analysis in a variety of languages including English. (Same as LING 106.) LEC.

ANTH 107. Introductory Linguistics, Honors. 3 Hours. SC AE41/AE42/GE11/GE3S / S.
Introduction to the fundamentals of linguistics, with emphasis on the description of the sound system, grammatical structure and semantic structure of languages. The course includes a survey of language in culture and society, language change, computational linguistics and psycholinguistics, and introduces students to techniques of linguistic analysis in a variety of languages including English. Open only to students admitted to the University Honors Program or by consent of instructor. (Same as LING 107.) LEC.

ANTH 108. Introduction to Cultural Anthropology. 3-4 Hours. SC AE42/GE3S / S.
An introduction to the nature of culture, language, society, and personality. Included in this survey are some of the major principles, concerns, and themes of cultural anthropology. The variety of ways in which people structure their social, economic, political, and personal lives. Emphasized are the implications of overpopulation, procreative strategies, progress and growth of cultural complexity, developments in the Third World, and cultural dynamics in Western as well as in non-Western societies. LEC.

ANTH 109. Introduction to Cultural Anthropology, Honors. 3-4 Hours. SC / S.
An honors section of ANTH 108 for students with superior academic records. LEC.

ANTH 110. Introduction to Archaeology. 3-4 Hours. HT GE3H / H.
A general introduction to the study of archaeology. Evolution of prehistoric cultures in adaptive response to changing natural and social environments, from the early Paleolithic to the emergence of urban civilizations. LEC.

ANTH 111. Introduction to Archaeology, Honors. 3-4 Hours. HT GE3H / H.
An honors section of ANTH 110 for students with superior academic records. LEC.

ANTH 160. The Varieties of Human Experience. 3 Hours. NW AE42/GE3H/GE3S / S/W.
An introduction to basic concepts and themes in cultural anthropology by means of the comparative study of selected cultures from around the world, for the purpose of appreciating cultural diversity. Emphasis is on systems of belief and meaning. Not open to students who have taken ANTH 360. LEC.

ANTH 161. The Third World: Anthropological Approaches. 3-4 Hours. NW / S/W.
Violent change, revolution, planned change, and peaceful transition in non-Western cultures. A study of development, modernization, nation-building, rapid acculturation, and war. LEC.

ANTH 162. The Varieties of Human Experience, Honors. 3 Hours. NW AE42/GE3H/GE3S / S/W.
An honors section of ANTH 160 for students with superior academic records. Not open to students who have had ANTH 160 or ANTH 360. LEC.

ANTH 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Anthropology. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

ANTH 293. Myth, Legend, and Folk Beliefs in East Asia. 3 Hours. NW AE42 / H/W.
A survey of the commonly held ideas about the beginning of the world, the role of gods and spirits in daily life, and the celebrations and rituals proper to each season of the year. The purpose of the course is to present the traditional world view of the peoples of East Asia. (Same as EALC 130, REL 130.) LEC.

ANTH 300. General Anthropology. 3 Hours. AE42/GE3H/GE3S / S.
A more intensive treatment of the content of ANTH 100. Not open to students who have had ANTH 100. LEC.

ANTH 301. Anthropology Through Films. 3 Hours. AE42 / S.
An exploration of the human ways through films. Cross-cultural interpretations by filmed records of varieties of interpersonal relations seen through such aspects of culture as hunting, war, marriage, religion, sex, kinship, and death. Patterns of interactions are analyzed by examples from cultures around the world, primarily the non-Western world. LEC.

ANTH 303. Peoples and Cultures of North Africa and the Middle East. 3 Hours. NW / S.
This course familiarizes students with the peoples and cultures of North Africa and the Middle East. It examines the cultural, demographic, and religious diversity of the region, as well as the development of the early
Islamic community and the formation of Islamic institutions. Issues such as religion and politics, inter-religious relations, nation-building, Islamic response to colonialism, Palestinian-Israeli conflict, Islamic resurgence, secularism, democratization, and gender, are also explored. (Same as AAAS 303.) LEC.

ANTH 304. Fundamentals of Physical Anthropology. 3-4 Hours. NB GE3N / N.
A more intensive treatment of the content of ANTH 104. Not open to students who have had ANTH 104 or ANTH 105. LEC.

ANTH 308. Introduction to Cultural Anthropology. 3-4 Hours. SC AE42/GE3S / S.
An introduction to the nature of culture, language, society, and personality. Included in this survey are some of the major principles, concerns, themes of cultural anthropology, and the variety of ways in which people structure their social, economic, political, and personal lives. Emphasized are the implications of overpopulation, procreative strategies, progress and growth of culture complexity, developments in the Third World, and cultural dynamics in Western as well as in non-Western societies. Not open to students who have taken ANTH 108 or ANTH 109. LEC.

ANTH 310. Introduction to Archaeology. 3-4 Hours. HT GE3H / H.
A more intensive treatment of the content of ANTH 110. Not open to students who have taken ANTH 110 or ANTH 111. LEC.

ANTH 313. New Discoveries in Archaeology. 3 Hours. S.
Recent discoveries in anthropological archaeology in various areas of the world and their impact on existing bodies of fact and theory, and on established methods of archaeological discovery. LEC.

ANTH 315. The Prehistory of Art. 3 Hours. S.
A survey of prehistoric art focusing on the material record and interpretations of rock art (paintings, engravings on rock surfaces in rock-shelters, caves and in open air sites) and portable art created by prehistoric people. The emphasis is on the small-scale societies (hunter-gatherer and early food producers) around the world before the appearance of written records in respective geographic areas. Environmental, social and cultural contexts in which these art forms were created are discussed along with a review of past scholarship and current interpretive approaches to this old and enduring expression of human creativity. Course may be offered in lecture or online format. (Same as HA 315.) LEC.

ANTH 317. Prehistory of Europe. 3 Hours. S.
A survey of one million years of prehistory from the peopling of the European continent to the Roman Empire. The course will focus on the growth of culture, considering economy and technology, art and architecture. Topics will include the Neanderthals, the big game hunters of the Ice Age, the megalith builders, the Celts. Prerequisite: An introductory course in anthropology, history, or cultural geography. LEC.

ANTH 318. Prehistory of Kansas. 3 Hours. S.
A survey of the changing lifeways of Native Americans in Kansas from the time of the earliest inhabitants of at least 12,000 years ago to the period of Euro-American contact. Extensive use will be made of Museum of Anthropology collections. LEC.

ANTH 320. Language in Culture and Society. 3 Hours. SC AE41/AE61 / S.
Language is an integral part of culture and an essential means by which people carry out their social interactions with the members of their society. The course explores the role of language in everyday life of peoples in various parts of the world and the nature of the relationship between language and culture. Topics include world-view as reflected in language, formal vs. informal language, word taboo, and ethnography of speaking. (Same as LING 320.) LEC.

ANTH 321. Language in Culture and Society, Honors. 3 Hours. SC AE41/AE61 / S.
An honors section of ANTH 320 for students with superior academic records. Not open to students who have had ANTH 320 or LING 320. (Same as LING 321.) Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

ANTH 340. Human Variation and Evolution. 3 Hours. AE41 / N.
An examination of biochemical and physical variability in contemporary human populations. Topics include: genetic basis of human diversity, evolutionary theory, population genetics, blood groups, biochemical variations, body size and shape, pigmentation, and other morphological characteristics. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.

ANTH 341. Human Evolution. 3 Hours. N.
The evolutionary processes and events leading to the development of humans and the humanlike forms from primate ancestors; fossil hominids and the origin of modern Homo Sapiens. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.

ANTH 343. Food, Nutrition and Culture. 3 Hours. U.
The course is a cross-cultural survey of human dietary practices (foodways). Students are introduced to the concepts of nutrition, diet and cuisine. Evolutionary and adaptive aspects of human diets and cuisines are considered. Nutritional, environmental/technological, social and ideological aspects of regional and ethnic foodways are examined. Invited lecturers from different cultural traditions offer indigenous perspectives on their foodways. LEC.

ANTH 350. Human Adaptation. 3 Hours. S.
A survey and examination of present-day human populations focusing upon adaptations in different environments and the interaction of culture and biology. General evolutionary theory is treated with an emphasis on the mechanisms of evolutionary change. Genetic, physiological, and cultural adaptations to environmental stress are discussed from the standpoint of their past evolutionary significance and their influence on contemporary human variation. Prerequisite: ANTH 104 or ANTH 304. LEC.

ANTH 352. Controversies on the Living and the Dead. 3 Hours. N.
The pros and cons of conflicting theories on the past and present evolution are examined. Race and intelligence, evolution of skin color, and genetic future of humans are among the considered topics. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.

ANTH 359. Anthropology of Sex. 3 Hours. N.
An evolutionary perspective on the behavior and biology of males and females in human society. Topics will include the evolution of sexual dimorphism, social and biological issues in human reproduction, primate social patterns, human sexual behavior and taboos, sex and social structure, and the sociobiology of sex. LEC.

ANTH 360. The Varieties of Human Experience. 3 Hours. NW AE42/GE3H/GE3S / S/W.
A more intensive treatment of ANTH 160. An introduction to basic concepts and themes in cultural anthropology by means of the comparative study of selected cultures from around the world, for the purpose of appreciating cultural diversity. Emphasis is on systems of belief and meaning. Not open to students who have taken ANTH 160. LEC.
ANTH 361. The Third World: Anthropological Approaches. 3-4 Hours. NW / S/W.
A more intensive treatment of the content of ANTH 161. Not open to students who have had ANTH 161. LEC.

ANTH 362. Peoples of Southeast Asia. 3 Hours. NW / S/W.
An analysis of the cultural diversity and unity of the peoples of Burma, Thailand, Laos, Cambodia, Vietnam, Malaysia, Indonesia, and the Philippines. Emphasis on cultural-historical relationships and theories of cultural development and change. LEC.

ANTH 363. Gendered Modernity in East Asia. 3 Hours. S.
This course explores rapidly changing gender relationships and the sense of being “modern” in East Asia by examining marriage and family systems, work, education, consumer culture, and geopolitics. The class seeks to understand how uneven state control over men and women shapes desires, practices, and norms and how men and women act upon such forces. Avoiding biological or social determinism, this course treats gender as an analytical category and examines how modern nation-states and global geopolitics are constituted and operated. (Same as EALC 363 and WGSS 363.) LEC.

ANTH 364. Peoples of Japan and Korea. 3 Hours. NW / S/W.
An analysis of the cultural diversity and unity of the peoples of Japan and Korea. Emphasis on historical and ethnological relationships, social structure, and ethics. (Same as EALC 364.) LEC.

ANTH 365. Japanese People through Film. 3 Hours. NW / S/W.
Japanese people’s culture and society through an extensive examination of both documentary and feature films. Readings from social science fields and literature will be used—the former to supply a theoretical framework for the study of Japanese people and the latter to further the inquiry into the individual sentiment motivating actions. (Same as EALC 365.) LEC.

ANTH 366. The Life Cycle in Japanese Culture and Literature. 3 Hours. NW / H/W.
A study of the Japanese people from birth to death: what it means to be born in a Japanese family, to grow up Japanese, and to die Japanese. Anthropological works and selections from Japanese literature and film will be used to examine ways in which Japanese people live through the critical periods in their life cycle. (Same as EALC 366.) LEC.

ANTH 368. The Peoples of China. 3 Hours. NW / S/W.
An analysis of the cultural origin, diversity, and unity of the peoples of China. Emphasis on historical development, social structure, cultural continuity and change, and ethics. (Same as EALC 368.) LEC.

ANTH 370. Peoples and Cultures of the Pacific. 3 Hours. NW / S/W.
A survey of the native cultures of Australia, Melanesia, Micronesia, and Polynesia. Investigation of the origins and dispersal of Pacific peoples, their cultural adaptations to differing habitats, their forms of social, political, and religious organization. Consideration of the problems and cultural changes resulting from colonization and modernization. Prerequisite: ANTH 100, ANTH 108, ANTH 160, ANTH 308, ANTH 360, or consent of instructor. LEC.

ANTH 372. Religion, Power, and Sexuality in Arab Societies. 3 Hours. NW / S.
This course examines theories of religion, discourse, power, gender and sexuality in their application to Arab societies. The course introduces different aspects of Arab cultures. Through canonical works, we study political domination, tribal social organization, honor, tribe, shame, social loyalty, ritual initiations and discuss how these issues speak generally to anthropological inquiry. Regionally specific works are then framed by an additional set of readings drawn from anthropological, linguistics, and social theories. (Same as AAAS 372.) LEC.

ANTH 376. North American Indians. 3 Hours. NW AE41 / S/W.
A survey of American Indian cultures north of Mexico at the time of the first contact with Western civilization; detailed studies of selected Indian cultures. LEC.

ANTH 379. Indigenous Traditions of Latin America. 3 Hours. NW / S/W.
A survey of the major indigenous traditions of Mesoamerica, the Andes, and lowland tropical Latin America. Coverage emphasizes how indigenous cultural traditions and societies have both continued and changed since the European Invasion and addresses such current issues as language rights, territorial rights, sovereignty, and state violence. Students enrolled in the 600-level section will be required to complete additional research and class leadership tasks. Not open to students who have taken LAA 634. (Same as LAA 334.) LEC.

ANTH 380. Peoples of South America. 3 Hours. NW / S/W.
A survey of native peoples and cultures of South America from the time of initial Western contacts to the present day. LEC.

ANTH 382. People and the Rain Forest. 3 Hours. S.
An analysis of the cultural origin, diversity, and unity of the peoples of the neotropics. Emphasizing the peoples of Amazonia, the course introduces students to topics associated with the economic, political, and cultural dimensions of social life in rain forest communities. LEC.

ANTH 387. Field Research on Gender. 3 Hours. S.
This course examines gender roles and gender culture in Costa Rica, especially in the southern part of the country. Students will be introduced, both theoretically and practically, to feminist anthropology as well as gender ethnography. It covers academic literature about the topic, and literature written by women. The class will also discuss different types of machismo culture and the structures and functioning of families in southern Costa Rica. Class taught in Golfito, Costa Rica. Course taught in Spanish. Contact the Department of Anthropology, or the Office of Study Abroad, LEC.

ANTH 389. The Anthropology of Gender: Female, Male, and Beyond. 3 Hours. NW GE21.
This course will introduce students to cultural constructions and performances of masculinity, femininity, and alternative genders across time and space. Topics and cases will be drawn from primarily non-Western cultures, ranging from Javanese markets to Pacific Rim gardens, and from Haitian vodou to Maya royal politics. This course uses research by archeologists, linguists, anthropologists, and sociocultural anthropologists. (Same as WGSS 389.) LEC.

ANTH 397. Museum Anthropology. 3 Hours. S.
An introduction to the historical background, practice, and ethical issues involved in the creation, presentation, and dissemination of anthropological information in a museum setting. Students participate in the study of a collection of material culture (artifacts) from the Museum of Anthropology, culminating in development of a script for an exhibit. FLD.

ANTH 400. Topics in Anthropology. Honor: _______. 3 Hours. H.
Selected issues and theories in contemporary anthropology (cultural, linguistic, biological, archaeological) for honors students. Topic for semester to be announced. May be repeated for credit if content varies. Prerequisite: Admission to the University Honors Program or consent of instructor. LEC.

ANTH 401. Integrating Anthropology. 3 Hours. S.
Capstone course that integrates the primary fields of anthropology. Students apply concepts and approaches from each field to a particular topic in preparation for and presentation of a cross-disciplinary and
ANTH 406. Laboratory Techniques in Archaeology. 3 Hours. S.
A survey of basic laboratory procedures associated with specimen preparation, analysis, classification, and measurement of archaeological materials, with emphasis on lithic and ceramic technology. Formal lectures and laboratory sections. LEC.

ANTH 410. Archaeological Myths and Realities. 3 Hours. S.
A more intensive treatment of the content of ANTH 210. Not open to students who have had ANTH 210. LEC.

ANTH 415. The Rise of Civilization. 3 Hours. S.
A study of evolutionary processes leading to the birth of the early great urban civilizations of the Old World and the New World. Patterns of growth and similarities and differences in the rise of urban complexes and states in Mesopotamia, Egypt, the Indus Valley, and in Mexico/Guatemala and Peru. LEC.

ANTH 418. Summer Archaeological Field Work. 1-8 Hours. AE61 / S.
Under the direction of a professional archaeologist, undergraduate and graduate students are taught proper procedures for the excavation and laboratory analysis of data from a prehistoric or historic archaeological site. Data gathered may be used for additional graduate research. Enrollment by application; limited to twenty students. A fee for subsistence costs will be charged. FLD.

ANTH 419. Training in Archaeological Field Work. 1-6 Hours. S.
Undergraduate and graduate students are taught techniques of archaeological field work, including survey and excavation, as well as laboratory procedures, including artifact classification and curation. FLD.

ANTH 430. Linguistics in Anthropology. 3 Hours. S.
The study of language as a symbolic system. Exploration into the interrelatedness of linguistic systems, of nonlinguistic communicative systems, and of other cultural systems. (Same as LING 430.) LEC.

ANTH 440. Introduction to Primates. 3 Hours. N.
A review of the evolution and behavior of nonhuman primates. The survey includes the stages of primate evolution, morphology of living primates, and descriptions and analyses of primate behavioral patterns. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.

ANTH 442. Anthropological Genetics. 3 Hours. N.
Principles of human genetics involved in biological anthropology. The genetics of non-Western populations considered within an evolutionary framework. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.

ANTH 445. Topics in Biological Anthropology: ______. 3 Hours. N.
Seminar concentrating on selected problems and issues in contemporary biological anthropology. Topic for semester to be announced. Course may be repeated for a maximum of nine hours of credit. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.

ANTH 447. Human Behavioral Genetics. 3 Hours. S.
A survey of human behavioral genetics for upper division undergraduates. Emphasis is on how the methods and theories of quantitative, population, medical, and molecular genetics can be applied to individual and group differences in humans. Both normal and abnormal behaviors are covered, including intelligence, mental retardation, language and language disorders, communication, learning, personality, and psychopathology. (Same as BIOL 432, PSYC 432, SPLH 432.) Prerequisite: Introductory courses in biology/genetics or biological anthropology and psychology are recommended. LEC.

ANTH 449. Laboratory/Field Work in Human Biology. 1-3 Hours. AE61 / N.
Faculty supervised laboratory or field research for Human Biology majors. Students design and complete a research project in collaboration with a Human Biology faculty member. (Same as BIOL 449, SPLH 449, and PSYC 449.) Prerequisite: Consent of instructor and Human Biology major. FLD.

ANTH 459. Anthropology of Sex. Honors. 3 Hours. H.
The course is an introduction to the evolutionary study of human sexual behavior. Using an explicitly Darwinian framework, it examines the biological basis for human mate selection, male and female mating strategies, child-birth and child-care practices, parental care, marriage, and family structure. The power of Darwinian theory to predict human sexual behavior is tested in anthropological field studies, designed and carried out by students in the class. Class time is allocated for discussion of students' research as it progresses through each stage, and results are presented in the last weeks of the semester. Prerequisite: Introductory class in biology or biological anthropology. Open only to students in the University Honors Program, or by consent of instructor. LEC.

ANTH 460. Theory in Anthropology. 3 Hours. GE3H / S.
A critical examination of the main theories and concepts in cultural anthropology. Consideration of the philosophical presuppositions underlying past and current theoretical issues and trends. LEC.

ANTH 461. Introduction to Medical Anthropology. 3 Hours. S.
An introduction to the social and cultural practices that contribute to health and disease, including a survey of therapy systems in both Western and non-Western societies (e.g., Native American, African, Western allopathic medicine, etc.). This course should be of special interest to premedical students and majors in the allied health professions. LEC.

ANTH 465. Genocide and Ethnocide. 3 Hours. S.
Study of the killing of peoples and cultures. Case studies, focusing primarily on tribal South America. Examination of the implications of these studies as regards our definition of culture and our evaluation of aid programs, missionary efforts, and international business expansion. LEC.

ANTH 474. Applied Cultural Anthropology. 3 Hours. S.
Applications of anthropological theory, methods, and findings in programs of community and national development, public health, international aid, and military assistance. Examination of the role of the anthropologist, of ethics and values in intervention schemes, and of the organization of planned change in applied programs. Intensive analysis of selected case studies. FLD.

ANTH 480. Technology and Society in the Contemporary World. 3 Hours. AE61 / S.
The impact of scientific and technological advances on social and personal life in contemporary society. A wide range of topics will be dealt with during the semester; examples include the internet and new modes of communication, developments in genetics and medicine, and testing for intelligence, drugs, lie detection, and other purposes. LEC.

ANTH 482. Psychological Anthropology. 3 Hours. S.
Introduction to the interrelationship of individual and society: processes of socialization, perception and cognition, personality and culture, with emphasis on the psychological interpretation of human behavior and the sociocultural contexts of psychological processes. Both ethnographic and cross-culturally comparative perspectives are introduced. LEC.

ANTH 484. Magic, Science, and Religion. 3 Hours. NW / S/W.
A comparative study of religion and systems of value and belief in non-Western cultures. LEC.
ANTH 496. Reading and Research. 1-6 Hours. AE61 / S.
Individual investigation of special problems in anthropology. Maximum of three credit hours in any one semester. Prerequisite: Consent of instructor. IND.

ANTH 498. Seminar in Technology: _____. 3 Hours. S.
Topic for semester to be announced. LEC.

ANTH 499. Senior Honors Research. 1-6 Hours. AE61 / S.
Individual research under the direction of one or more instructors in the department. Maximum of four credit hours in any one semester. Prerequisite: A grade-point average of 3.5 in anthropology and 3.0 in all courses, and consent of instructor. IND.

ANTH 500. Topics in Archaeology: _____. 3 Hours. S.
Seminar concentrating on selected problems and issues in contemporary archaeology. Topic for semester to be announced. Course may be repeated for a maximum of nine hours of credit. Prerequisite: Successful completion of a course in archaeology at any level, or by permission of instructor. LEC.

ANTH 501. Topics in Sociocultural Anthropology: _____. 3 Hours. S.
Course concentrating on selected problems, theories, and issues in contemporary sociocultural anthropology. Topic for semester to be announced. LEC.

ANTH 502. Topics in Anthropological Linguistics: _____. 3 Hours. S.
Course concentrating on selected problems, theories, and issues in contemporary anthropological linguistics. Topic for semester to be announced. LEC.

ANTH 503. Topics in Biological Anthropology: _____. 3 Hours. S.
Course concentrating on selected problems, theories, and issues in contemporary biological anthropology. Topic for semester to be announced. LEC.

ANTH 504. North American Archaeology. 3 Hours. S.
A general survey of the archaeology of North America. Detailed coverage of selected problems. LEC.

ANTH 505. Prehistory of Eastern North America. 3 Hours. S.
A survey of the archaeological record of eastern North America from the late Pleistocene to the time of European contact. The diverse environments of eastern North America are considered in conjunction with the dynamic climatic and ecological changes which have occurred during the past 20,000 years to provide a background for study of the prehistoric groups who occupied the region. Topics will include the change in economies, technologies, and organization from the earliest hunter-gatherers through the development of pre-Colombian complex societies. Prerequisite: ANTH 110 or ANTH 310. LEC.

ANTH 506. Ancient American Civilizations: Mesoamerica. 3 Hours. NW / S/W.
An archaeological survey of the Precolumbian heritage of Mexico and Central America. The sites and cultures of the Olmecs, Teotihuacan, the Maya, the Zapotecs, the Toltecs, and the Aztecs will be considered in detail. Investigations of ancient art and architecture, crafts and technologies, trade and exchange, religious beliefs and practices, and writing and calendrical systems will be directed toward understanding the growth and the decline of these Native American civilizations. LEC.

ANTH 507. The Ancient Maya. 3 Hours. S/W.
An intensive examination of current scholarship on the ancient Maya civilization of Mexico and Central America. The course will consider Maya culture from its roots in early villages of the Preclassic period to the warring city-states of the Postclassic period. Topics will include settlement and subsistence systems, sociopolitical evolution, art and architecture, myth and symbolism, and Maya hieroglyphic writing. An important theme of the course will be the relevance of the Precolumbian Maya for understanding complex societies and contemporary Latin American culture. Prerequisite: Successful completion of one of the following: ANTH 110, ANTH 310, ANTH 415, ANTH 506, or ANTH 508. LEC.

ANTH 508. Ancient American Civilizations: The Central Andes. 3 Hours. NW / S/W.
An archaeological survey of the ancient peoples of Peru and neighboring countries in South America. The origins of complex societies on the coast and in the Andean highlands will be reviewed with special consideration of the role of "vertical" environments in the development of Andean social and economic systems. Cultures such as Chavin, Moche, Nazca, Huari, Tiahuanaco, Chimú, and the rise of the imperial Inca state will be examined through artifacts, architectural remains, and ethnohistoric documents. LEC.

ANTH 510. An Introduction to Southwestern Archaeology. 3 Hours. NW / S.
Consideration of the history and processes of cultural development from the evidence of humans' first presence to the historic period in the Southwestern United States and Northern Mexico. Special attention will be devoted to the origins, changes within, and connections to modern Southwestern native peoples of three long-lived traditions known as Hohokam, Mogollon, and Anasazi. Prerequisite: ANTH 110 or ANTH 310. LEC.

ANTH 512. Ethnohistory: _____. 3 Hours. S.
A critical evaluation of the records (local traditions, written documents, maps, photographs, etc.) relevant to a reconstruction of the history of cultures. Topic for the semester to be announced. LEC.

ANTH 514. The Near East in Prehistory. 3 Hours. S.
A broad examination of the prehistory of the Near East, emphasizing selected regional and research themes. Discussion will include a consideration of cultural adaptation and environmental diversity, early history of archaeological work, and current research trends. While all cultural periods will be examined, a major emphasis will be on the origins of food production and Neolithic economies. LEC.

ANTH 515. Topics in Old World Prehistory: _____. 3 Hours. S.
Topic for the semester to be announced. An introductory course in archaeology recommended. LEC.

ANTH 516. Hunters and Gatherers. 3 Hours. S.
The diversity of hunter-gatherer cultures documented in the ethnographic and archaeological records is considered on a global scale, with particular attention given to the relationships between environment, technology, and organization. The evolution of hunter-gatherers from the earliest hominids until their interaction with more complex societies is considered, with emphasis given to the variation and nature of change in these societies. Prerequisite: ANTH 108 or ANTH 310, or ANTH 308 or ANTH 310. LEC.

ANTH 517. Geoarchaeology. 3 Hours. N.
Application of the concepts and methods of the geosciences to interpretation of the archeological record. The course will focus primarily on the field aspects of geoarchaeology (e.g., stratigraphy, site formational processes, landscape reconstruction), and to a lesser extent on the array of laboratory approaches available. (Same as GEOG 532.) Prerequisite: GEOG 104, ANTH 110, or ANTH 310. LEC.

ANTH 518. Environment and Archaeology. 3 Hours. S.
An investigation of the relationships between the biophysical world and the development of human cultures. Examination of archaeological methods employed in the study of these relationships. LEC.
ANTH 519. Lithic Technology. 3 Hours. S.
An introduction to the analysis and interpretation of prehistoric stone industries. Topics discussed include origins and development of lithic technology, principles of description and typology, use and function of stone tools; interpretation of flint knapping. Prerequisite: An introductory course in archaeology. LEC.

ANTH 520. Archaeological Ceramics. 3 Hours. S.
Practicum in the method and theory of pottery analysis in archaeology. Topics include manufacturing techniques, classification, and compositional analysis of pottery artifacts, as well as strategies for interpreting the role of ceramic vessels in food production, storage, and consumption; social and ritual activities; trade and exchange; and the communication of ideas. Prerequisite: ANTH 110 or ANTH 310. LEC.

ANTH 521. Zooarchaeology. 3 Hours. S.
This course is intended to complement faunal identification with practical involvement in analyses and interpretation of archaeological faunal assemblages using a variety of modern methods. Students will participate in the study of specific archaeological faunal remains, development of comparative zooarchaeological collections, and in middle-range research to document the variety of agents that affect faunal remains. Prerequisite: ANTH 110 or ANTH 310. LEC.

ANTH 522. Paleoenthobotany. 3 Hours. S.
This course discusses the relationship between past human groups and their plant environment, including the use of plants for food, fuel, shelter, and household articles. Topics include a review of the development of paleoenthobotanical research, methods and techniques of data recovery, basics in plant identification, methods of data quantification and interpretation, and current research topics. In addition to selected readings, students will participate with the development of comparative botanical collections and the interpretation of botanical remains recovered from archaeological contexts. Prerequisite: ANTH 110 or ANTH 310. LEC.

ANTH 523. Great Plains Archaeology. 3 Hours. S.
A survey is provided of the archaeological record and its interpretations for the Great Plains area of North America. The records from earliest human occupation, variation in hunter and gatherer societies, to horticultural and farming societies, and the historic period are reviewed. The history of archaeological research in the region, explanatory frameworks and models, and discussion of changes in economy, technology, mobility, social organization, and population movements are among the topics of concern. LEC.

ANTH 540. Demographic Anthropology. 3 Hours. S.
This course will survey demographic topics that are relevant to anthropological research and theory. Topics will include family and household structure, fertility, nuptiality, mortality, migration, and paleodemography. Emphasis will be placed on methods in use in these areas and applications from the literature. Prerequisite: Three courses in anthropology (at least one in physical and one in cultural) or graduate standing. LEC.

ANTH 542. Biology of Human Nutrition. 4 Hours. N.
Lecture and discussion. A comprehensive introduction to human nutrition, focusing on the anatomical, biochemical, and physiological aspects of nutrition. The essential nutrients and their role in human metabolism are covered in detail, and the course's systemic approach places a strong emphasis on integration of metabolism. Students also are introduced to human dietary evolution, the concept of nutritional adaptation, and cross-cultural differences in diet and nutritional physiology. Discussion sections focus on applied aspects of human nutrition, including dietary assessment. The course is a prerequisite for ANTH 543, which is recommended as the second course in a sequence on human nutrition. Prerequisite: ANTH 104 or ANTH 304, and BIOL 152. Students who have not had BIOL 152 should have taken a comparable introductory course in organismal physiology. LEC.

ANTH 543. Anthropology of Food and Nutrition. 3 Hours. N.
The first half of the course focuses on nutrition through the life cycle, with an emphasis on biological, cultural, and environmental factors that influence human dietary intake and nutrition across the life span. Particular attention is given to the role of nutrition in cross-cultural variation in human growth, development, and aging. The second half of the course examines evolutionary aspects of human nutrition, including the origins and adaptive significance of regional and cultural basis. The development of taste and food preferences, at the level of the individual and population, as well as symbolic aspects of dietary behavior also will be considered. Prerequisite: ANTH 542 or permission of instructor. LEC.

ANTH 544. Origins of Native Americans. 3 Hours. N.
A survey of the genetic, linguistic, historic, archaeological, and morphological evidence for the origins of indigenous populations of the Americas. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.

ANTH 545. Contemporary Health Issues in Africa. 3 Hours. S.
The course examines health and nutrition in African communities, using the methods of biological and medical anthropology. Fundamental to the approach taken in the course is the understanding that the health of human groups depends on interactions between biological and cultural phenomena in a particular ecological context. One topic will be selected per semester, to examine in detail the full array of epidemiological factors contributing to patterns of specific diseases. AIDS, childhood diseases, and reproductive health of African women are among possible topics. Course material will be selected from scholarly and medical publications, as well as coverage in the popular media. The use of a variety of sources will enhance understanding of the biological and cultural issues involved and will help students identify possible bias and misinformation in popular coverage of events such as famine or epidemic in African settings. (Same as AAAS 554.) Prerequisite: An introductory course in either anthropology or African studies. LEC.

ANTH 549. Human Paleontology: Fossil Apes to Australopithecus. 3 Hours. N.
This course is an intensive survey of the fossil evidence for hominoid evolution up to the emergence of the first hominids—Australopithecus. Topics include the origin and evolution of the great apes, gibbons, and extinct forms such as Ramapithecus and Gigantopithecus, as well as the appearance of Australopithecines. Functional morphology is stressed. This course may be taken either before or after ANTH 550. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.

ANTH 550. Human Paleontology: Homo Erectus to Homo Sapiens. 3 Hours. N.
The rise of genus Homo is the theme of this course. Fossils representing erectus, Neanderthal, Upper Paleolithic, and post-Pleistocene forms are discussed in detail with particular emphasis on the relationship between cultural and morphological change. The course is a continuation of ANTH 549, but may be taken out of sequence. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.

ANTH 555. Evolution of Human Diseases. 3 Hours. N.
This course traces the evolution of human diseases over the past 3 million years. Topics include paleopathology, epidemics/pandemics, genetic adaptations to diseases, and emerging/reemerging diseases. In addition, interrelationships between humans and diseases, coupled with interactions with other animals, vectors, and natural and cultural environments are discussed. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.
ANTH 560. Introduction to Economic Anthropology. 3 Hours. S.
This course uses ethnographic case materials to explore the ways humans provision themselves under different social and environmental conditions. It introduces the basic theories, concepts, and debates of economic anthropology and provides a foundation for more advanced courses in this subdiscipline. Prerequisite: ANTH 108/308 or ANTH 160/360, or permission of instructor. LEC.

ANTH 561. Indigenous Development in Latin America. 3 Hours. AE42 / S.
Surveys the history of the development enterprise since WWII, examines the marginalization and impoverishment of Latin America's indigenous peoples, and provides training to carry out projects for and with them to enhance their quality of life. Development is understood as not merely technological or economic, but also social, emotional, and educational. Students work in teams to design their own mock development project. A 3-credit non-obligatory companion course, Applied Anthropological Field School among the Ch'orti' Maya, will follow in the intersession after each version of this course. (Same as LAA 561.) Prerequisite: ANTH 100, ANTH 108, ANTH 160 or LAA 100; or consent of instructor. LEC.

ANTH 562. Mexamérica. 3 Hours. AE41 / S.
This class surveys the relations between Mexico and the U.S. as nation-states, and among Mexicans, Mexican Americans, and Anglo Americans (to a lesser extent other U.S. citizens) in historical perspective. Issues of sovereignty, national and ethnic identity, immigration, migration, labor relations, popular culture, media, and transnational economics are covered. Prerequisite: ANTH 108/308 or ANTH 160/360 or LAA 100. LEC.

ANTH 563. Cultural Diversity in the United States. 3 Hours. SC / S.
Anthropological approaches to racial, ethnic, religious, and localized communities in contemporary U.S. Surveys major theories from social science, considers case studies of immigrant indigenous peoples from historical and contemporary, local, national, and international perspectives, and addresses questions concerning the sources, conditioners, and consequences of in-group and out-group identities. Prerequisite: Introductory cultural anthropology and one cultural course numbered 300 or above, or permission of instructor. LEC.

ANTH 564. The Peoples of Africa. 3 Hours. NW / S/W.
“Peoples of Africa” examines the anthropology of Sub-Saharan Africa through selected case studies of particular societies and issues that have wider comparative relevance. Normally two to four societies are selected for the semester and studied through ethnographic, historical, and literary monographs. These case studies are examined in their pre-colonial, colonial, and postcolonial histories. Lectures, readings, and exercises emphasize three kinds of reasoning -- geographical, historical, and cultural context -- required to grasp events and issues in unfamiliar societies. The course also features major anthropological ideas that emerged in the study of African society, and tracks how anthropology has been adapted by African scholars, policy makers, and activists. LEC.

ANTH 565. Popular Images in Japanese Culture, Literatures, and Films. 3 Hours. NW / S/W.
The course examines recurring themes and images in Japanese culture through films, literary works, and anthropological and other social science literature. These themes and images are studied in the contexts of both modern and traditional cultures. Although the popular deviates from the orthodox, nevertheless, the energy and pervasiveness of these bastard offspring enforces and sustains “proper” cultural values. As a result of exploration of both highways and backroads of cultural expression, a holistic picture of Japanese ethos will emerge. (Same as EALC 565.) LEC.

ANTH 567. Japanese Ghosts and Demons. 3 Hours. NW / S/W.
An investigation of deeply rooted Japanese beliefs about intimate relationships among humans, animals, and nature - beliefs which help to explain the mysterious and to lend order to the world. Anthropological works, selections from Japanese literature, historical documents, artworks, and films will be used to examine supernatural themes. (Same as EALC 567.) LEC.

ANTH 568. Kongo Trans-Atlantic. 3 Hours. S.
This seminar explores Kongo culture and history through a cross-section of the African-Atlantic World: Western Equatorial Africa and related New World societies in Jamaica, Brazil, Haiti, Cuba, and the Georgia and Carolina Coasts, and New Orleans (thus in former British, Portuguese, French, Spanish, and U.S. colonial territories). The seminar will assess recent scholarship on patterns of slavery and resistance, cultural and linguistic change, creolization and hybridization. (Same as AAAS 568). LEC.

ANTH 569. Contemporary Central America and Mexico. 3 Hours. S.
Mexico and Central America have formed a cultural interaction zone for thousands of years, and today share common challenges, particularly political, economic, and social ones related to the Spanish colonial legacy, U.S. involvement, and their place in the global economy. Some of the issues addressed include racism, civil war, migration, youth gangs, narco-trafficking, resource extraction, homeless children, the transition from local subsistence economies to low-income work, and struggles for indigenous rights. Prerequisite: ANTH 160 or ANTH 162, or ANTH 360, ANTH 108 or ANTH 308, or LAA 100. LEC.

ANTH 570. Anthropology of Violence. 3 Hours. S.
Introduces students to the comparative and cross-cultural study of violence. The course begins by surveying different anthropological approaches to the study of violence, with special attention paid to classical social theorists as well as ethnographic works. Topics may include (post) coloniality and identity politics, nationalism, race, religion, and political culture; geographic areas to be covered may include Africa, Europe, Latin America, the Middle East, and South Asia. LEC.

ANTH 571. Violence, Aggression, and Terrorism in the Modern World. 3-4 Hours. S.
A cultural and psychological analysis of the sources, dynamics, effects, and practices of modern patterns of violence. Variations in psycho/social reactions to violence will be examined with reference to personal, social, and cross-cultural characteristics. Particular attention will be given to the cultural and individual characteristics of people who successfully survive violence and terrorism targeted at them. Emphasis will be upon the psychological and cultural origins of terrorism and violence in modern societies. Prerequisite: Introductory course in anthropology or psychology. LEC.

ANTH 580. Feminism and Anthropology. 3 Hours. S.
This seminar will introduce students to feminism in anthropology, including feminist theories, methodologies, ethnographic styles, and the history of women in the discipline since the late 1800s. Emphasis is on the social contexts for feminist theory-building since the 1960s and changing ideas about gender and power. (Same as WGSS 580.) Prerequisite: One of the following: ANTH 389, ANTH 460, WGSS 201; or permission of instructor. LEC.

ANTH 582. Ethnobotany. 3 Hours. S.
Course will involve lectures and discussion of ethnobotany - the mutual relationship between plants and traditional people. Research from both the field of anthropology and botany will be incorporated in this course to study the cultural significance of plant materials. The course has 7 main areas of focus: 1) Methods in Ethnobotanical Study; 2) Traditional Botanical Knowledge - knowledge systems, ethnolinguistics; 3) Edible and
ANTH 583. Love, Sex, and Globalization. 3 Hours. S.
Escalating transnational flows of information, commodities, and people have created innumerable kinds of “intimate” contacts on a global scale, such as mail order brides, child adoption, sex tourism, commodified romance, and emotional labor. Exploring the ways that cultural artifacts of intimacy are rendered, fetishized, and reified in a free market economy, this course examines how discourses on love and sex encounter, confront, and negotiate the logics of the capitalist market, the discrepant narratives of (colonial) modernity, and the ethics of pleasure. In so doing, this course navigates the treacherous interplay among emotions—specifically love, sex, and money, seeking the potential and limits of cultural politics of emotions. (Same as WGSS 583.) LEC.

ANTH 586. Visual Anthropology. 3 Hours. U.
This course takes a hands-on approach to the study of theory, ethics, and methods in visual ethnographic representation. Students also read and consider historical dimensions in this subdiscipline and complete individual and team projects in photographic and videographic media. Prerequisite: An introductory course in cultural anthropology or permission of the instructor. LEC.

ANTH 587. Multidisciplinary Field School in Partnership with the Chorti Maya. 3 Hours. S.
Teams of interdisciplinary students partner with the Chorti Maya of Guatemala and Honduras to share information and experiences. One third of the course consists of readings and 4-5 orientation sessions on campus, and two thirds entails two weeks in Central America. Examples of activities might include historical research, water testing and improvement, photography, art, music, tourism consultation, marketing of crafts, human rights advocacy, web design, computer training, and museum work, among others. There are no prerequisites, but students with a working knowledge of Spanish will receive preference for admission. (Same as LAA 587.) LEC.

ANTH 595. The Colonial Experience. 3 Hours. NW / S/W.
An anthropological and historical examination of the processes and dynamics of the colonial experience. Cross-cultural psychosocial phenomena that have profoundly affected the values and social organizations of both colonizers and colonized will be emphasized. Specific examples will be chosen from the former American, Japanese, and European colonial empires with emphasis on Asia. LEC.

ANTH 603. Shamanism Past and Present. 3 Hours. S.
This course explores shamanism, broadly defined as the practice of gaining insight through the use of ecstatic techniques (dance, drumming, trance, vision quests, and the use of psychotropic substances) for the purpose of interpreting existence and healing illnesses, through a consideration of theories and evidence for its practice from Upper Paleolithic times to the present day. Examples from the ancient cultures of Asia, Europe, Africa, Australia, and the Americas are used to explore current theoretical approaches in order to identify shamans and shamanism in the past. Issues of identifying shamans and shamanism in art and archaeological contexts are discussed. The course also explores the role that shamanism plays in a wide variety of cultures. The principal goal of the course is to provide a reasoned, critical interpretation of shamanism in the context of contemporary debates about its definition and active practice. Prerequisite: ANTH 108/308 or ANTH 110/310 or ANTH 160/360. LEC.

ANTH 605. Mortuary Practices in the Archaeological Record. 3 Hours. S.
Students study theories and methods of burial practices in the archaeological record. They learn about past communities; attitudes toward death and burial and how social organization, complexity, ideology, power, gender and age roles contribute to mortuary practices. The course examines a variety of Old and New World examples from different chronological periods through class presentations, debates and written assignments. The course focuses on comparisons and evaluation of traditional and current methods and approaches. Prerequisite: ANTH 100/300 or ANTH 110/310 or instructor’s consent. LEC.

ANTH 619. Field Concepts and Methods in Geoaarcheology. 3 Hours. S.
A field course taught during the three week summer session. Involves all-day excursions to different regions in order to introduce students to a variety of archaeological landscapes and environments. Focuses on the application of geoscientific concepts and methods in archaeological field investigations, emphasizing natural processes such as erosion, deposition, weathering, and biological and human activity that create and modify the archaeological record, and on soil-stratigraphic and geophysical approaches to landscape and site investigations. LEC.

ANTH 648. Human Osteology. 4 Hours. N.
Techniques in bone identification, sex, race, age determination, paleognath reconstruction, paleopathology, and bone biology are reviewed. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LAB.

ANTH 650. Human Reproduction: Biology and Behavior. 3 Hours. N.
This is a comprehensive course in the biology of human reproduction (anatomy, physiology, and endocrinology). The implications of human reproductive biology for the evolution of human behavior are considered as well. Students also examine in detail the methods and theories underlying two interconnected approaches utilized by biological anthropologists in the study of human reproduction: human reproductive ecology, which focuses on the biological determinants of human reproductive function and reproductive success, and human behavioral ecology, which focuses on evolutionary relationships between human reproductive strategies and human social behavior. The course is the first part of a two-semester sequence (ANTH 650 and ANTH 660) that examines in detail biological and cultural determinants of human reproductive strategies. Prerequisite: ANTH 359 or BIOL 152 or permission of instructor. LEC.

ANTH 652. Population Dynamics. 3 Hours. N.
Examination of possible interrelationships between the demographic structure of a population and the forces of evolution. Students are exposed to field methods and techniques of population studies. Prerequisite: An introductory course in anthropology, biology, or permission of instructor. LEC.

ANTH 660. Human Reproduction: Culture, Power, and Politics. 3 Hours. S.
This seminar analyzes and critiques the socially constructed nature of reproductive practices and their articulation with relations of power. Topics range from conception to menopause, infertility to population. Cases are drawn from a wide variety of cultural contexts. This course is the second part of a two-semester sequence (beginning with ANTH 650) that examines in detail biological and cultural determinants of human reproduction. (Same as WGSS 660.) Prerequisite: ANTH 650, or 6 hours in women’s studies, or permission of instructor. LEC.
ANTH 661. Cultural Dynamics. 3 Hours. S.
A survey of representative studies of the processes of cultural stability and change, and of theories of innovation, diffusion, acculturation, growth, and planned intervention in cultural processes. LEC.

ANTH 663. The Anthropology of Islam. 3 Hours. NW / H.
This course uses critical readings of major anthropological works on Islam to: 1) analyze various interpretations of "Islamic cultures" through a discussion of regionally-grounded works, and 2) examine how the anthropological study of Islam also is informed by theoretical and philosophical approaches to major anthropological questions, such as religion, myth, kinship, social organization, and power. The course offers both a history of various interpretations of Islam as well as a history of theories of these interpretations. (Same as AAAS 663.) LEC.

ANTH 664. Women, Health, and Healing in Africa. 3 Hours. H.
The course explores the values, practices, cultural systems and social-economic conditions that influence the sickness and health of women in Africa. The focus is on theoretical and applied debates and issues including: contraception, infertility, and reproduction; HIV/AIDS and other sexually transmitted infections; spiritual suffering and mental illness; trauma and violence; chronic illness, disability, and aging; pharmaceuticals, biotechnologies, and clinical research. Prerequisite: 6 hours of coursework in Anthropology and/or Women’s Studies and/or African American Studies. LEC.

ANTH 665. Women, Health, and Healing in Latin America. 3 Hours. S.
This seminar uses a life-cycle approach to examine women’s health (physical, mental, and spiritual) and their roles as healers. Special consideration is given to the effects of development programs on well-being, access to health care, and changing roles for women as healers. Cases will be drawn from a variety of Latin American contexts. (Same as WGSS 665 and LAA 665.) Prerequisite: 6 hours of coursework in anthropology and/or women’s studies and/or Latin American studies. LEC.

ANTH 666. Anthropology of Religion. 3 Hours. S.
An examination of the various approaches (individual, ritual, and cultural) anthropologists have adopted in the study of religion, with emphasis on millenarian and prophetic movements as examples of radical change. LEC.

ANTH 667. Primitive Mythology. 3 Hours. S/W.
Methods of studying the mythology of nonliterate peoples; historical survey of theories of myth; consideration of worldwide myths and primitive mythologies from specific cultures. LEC.

ANTH 670. Contemporary American Culture. 3 Hours. S.
An anthropological investigation, in seminar format, of the social consequences of transformations in today’s society. Specific topics may include: the information explosion; developments in science and technology; genetics and assisted reproduction; ethnic and cultural diversity; and changing views of the normal and abnormal, sexual and other forms of relationships, and of the self. Prerequisite: An introductory course in cultural anthropology, sociology, or American studies. LEC.

ANTH 671. The Culture of Consumption: (E.G. United States and Japan). 3 Hours. S.
Examines the ideologies of capitalism and consumerism as they influence social institutions and daily life. Topics for consideration grow out of instructors’ interests and may include areas such as class, religion, advertising, politics, gender, medicine, environment, childhood, and education. Prerequisite: ANTH 560 or permission of instructor. LEC.

ANTH 672. Meat and Drink in America. 3 Hours. S.
This seminar examines food and beverage production and consumption in the United States. Organized metaphorically as a meal, the course explores where food and beverages come from, how they are produced and by whom, and what they mean to us as eaters and drinkers. Although the course surveys food and beverage production and consumption in general, special attention is given to meat and poultry, alcohol, coffee, carbonated drinks, regional foods, opposition to consumption of meat and alcohol, and tobacco. LEC.

ANTH 673. Neoliberalism and Globalization. 3 Hours. S.
Transnational processes profoundly shape the 21st century human experience. This course links theories of economic globalization with ethnographic case materials. It explores the spread of the dominant ideology driving these processes and the effects of neoliberal policies on the urgent and vital matters facing humanity today: war and peace, social justice, democracy, cultural pluralism, and ecologically sustainable development. The course thereby links macro-economic policies to the experiences of families, workers, communities, women, indigenous peoples, and other social groups. Prerequisite: ANTH 560 or permission of instructor. LEC.

ANTH 674. Political Anthropology. 3 Hours. S.
Analysis of political systems of tribal societies and of pre-industrial states. LEC.

ANTH 675. Anthropology of Law. 3 Hours. S.
Comparative analysis of the legal and political strategies used to achieve social control in both Western and non-Western cultures. Emphasis on the differential use of customary and legal sanctions, formalized procedures of negotiation or adjudication, and the role of legal specialists in society. LEC.

ANTH 676. Culture Wars. 3 Hours. S.
A seminar exploring the political, religious, cultural and ideological antagonisms that divide contemporary society. Topics of division to be treated may include Christianity vs. Islam, evolutionism vs. intelligent design, attitudes pertaining to sexual orientation, and the proper relation between church and state. LEC.

ANTH 680. Culture and Human Biology. 3 Hours. S.
A lecture course concerned with the relationship between culture and biological systems; the prohibition of incest; socialization and aggression in ethnological studies; disease and therapy; and other alterations of mind and body states. LEC.

ANTH 684. Anthropology and the Health Sciences. 3 Hours. S.
Ecology of human health; cultural and social factors in the etiology of human diseases; social and cultural variables involved in health practices, programs, the organization of healing systems and the diagnostic process; the consequences of health innovations and medicotechnical apparatus. LEC.

ANTH 690. The Social Construction of the Self. 3 Hours. AE42/GE3H / S.
A seminar exploring concepts of the self as the product of variable social and cultural conditions. Consideration of dominant anthropological and interdisciplinary theories of the self and how the self is construed in various societies from Asia, the Pacific, and elsewhere. LEC.

ANTH 695. Cultural Ecology. 3 Hours. S.
Investigation of the interactions between sociocultural systems and the natural environment, including a survey of major theories and descriptive studies. (Same as GEOG 670.) LEC.

ANTH 696. Language, Culture and Ethnicity in Prehistoric Eastern Europe. 3 Hours. S.
The course is for students who wish to understand the prehistory of Eastern Europe with special attention to the Slavs. The interdisciplinary course examines East European prehistory from the perspectives of archaeology and linguistics, considering also how ideologies have
influenced the interpretation of results. No language prerequisite. (Same as SLAV 635) LEC.

ANTH 699. Anthropology in Museums. 3 Hours. S.
The course reviews the history of archeological, ethnographic, physical anthropological and other types of collections. It also considers current issues facing anthropologists, such as: contested rights to collections and the stories that accompany them; representation and interpretation of cultures; art and artifact; conceptualization, design and building of exhibitions; and anthropological research and education in the museum. LEC.

ANTH 701. History of Anthropology. 3 Hours.
Development of the field of anthropology and its relations with intellectual history. Emphasis on method and theory in historical context. Required of all M.A.-level students in anthropology. Prerequisite: Consent of instructor or graduate standing. LEC.

ANTH 702. Current Archaeology. 3 Hours.
An introduction to fundamental theoretical orientations and methodological approaches in world archaeology. Case studies illustrate data acquisition, dating methods, culture history, paleoenvironmental models, and culture processes. Required of all M.A.-level students in anthropology. Prerequisite: Consent of instructor or graduate standing. LEC.

ANTH 703. Current Biological Anthropology. 3 Hours.
The fundamental issues, methods, and theories in contemporary biological anthropology. Required of all M.A.-level students in anthropology. Prerequisite: Consent of instructor or graduate standing. LEC.

ANTH 704. Current Cultural Anthropology. 3 Hours.
The fundamental issues, methods, and theories in contemporary cultural anthropology and anthropological linguistics. Required of all M.A.-level students in anthropology. Prerequisite: Consent of instructor or graduate standing. LEC.

ANTH 705. Technological Change: ______. 3 Hours.
Studies in technological change through invention, evolution, and diffusion. Topic for semester to be announced. LEC.

ANTH 706. Current Linguistic Anthropology. 3 Hours.
This course will cover fundamental issues, methods, and theories in contemporary linguistic anthropology. (Same as LING 706.) Prerequisite: Graduate standing or consent of the instructor. LEC.

ANTH 707. Responsible Research and Scholarship in Anthropology. 3 Hours.
This course examines a range of issues critical to responsible research, scholarship, and practice in anthropology. Required for all doctoral students in Anthropology. Prerequisite: Graduate standing in anthropology or consent of instructor. SEM.

ANTH 710. History of American Archaeology. 3 Hours.
A survey of the development of method and theory in American archaeology, with emphasis on North America. Prerequisite: Graduate standing or consent of instructor. LEC.

ANTH 715. Seminar in North American Archaeology. 2-4 Hours.
In-depth examination of specific problems and issues in the study of archaeology in North America including the Arctic. Prerequisite: Graduate standing in Archaeology or instructor's consent. SEM.

ANTH 718. Seminar in Latin American Archaeology: ______. 3 Hours.
In-depth examination of specific problems and issues in the study of Precolombian societies of Mesoamerica, Central America, and South America. Topic for semester to be announced. Prerequisite: ANTH 506, ANTH 508, and/or consent of instructor. LEC.

ANTH 720. Seminar in Old World Prehistory: ______. 2-4 Hours.
Studies of prehistoric cultures and their natural environments. Topic for semester to be announced. Prerequisite: Graduate standing in anthropology or consent of instructor. LEC.

ANTH 725. Introduction to Linguistic Science. 3 Hours.
An introduction to the theory and techniques of linguistic science for majors and others intending to do advanced work in linguistics and linguistic anthropology. Emphasis on the sound system, grammatical structure, and semantic structure of languages. Lectures and laboratory sessions. (Same as LING 700.) Not open to students who have taken ANTH/LING 106 or ANTH/LING 107. Prerequisite: Graduate standing. LEC.

ANTH 730. Linguistics in Anthropology. 3 Hours.
The study of language as it concerns anthropology. Language systems in relation to culture, language taxonomy, semantics, and linguistic analysis as an ethnographic tool. (Same as LING 730.) Prerequisite: Graduate standing. LEC.

ANTH 732. Discourse Analysis. 3 Hours.
This course focuses on linguistic frameworks for the analysis of discourse. Discourse is a linguistic system larger than the sentence (utterance), which connects and contextualizes speech and written text. This course focuses on current issues and theoretical frameworks in the analysis of discourse. Using oral and written data, students will examine how contexts influence and shape linguistic form. Topics covered include transcription systems, the structure and organization of different genres of language, and the performance of social actions, including stance-taking, framing, and the construction of identity. Students will also have an opportunity to perform discourse analytic research on the data of their choice. (Same as LING 732.) Prerequisite: ANTH 706 or permission of the instructor. LEC.

ANTH 733. Language, Gender and Sexuality. 3 Hours.
This course focuses on the complex relationship between language use and the social construction of gender and sexuality i.e. how language is used in the construction of gender and sexuality, and how gender and sexuality are performed and enacted through language. Examines theoretical notions of language, gender, and sexuality from linguistics, linguistic anthropology, and sociology. Among the topics covered are cross-cultural definitions of masculinity and femininity, construction of gendered and sexual identities through language use, language and power, ideologies, style, and performativity. The course will consider research on language, gender, and sexuality in a variety of cultures within the last 50 years. (Same as LING 733.) Prerequisite: ANTH 706 or permission of the instructor. LEC.

ANTH 734. Language Evolution. 3 Hours.
Human language demonstrates a level of complexity not found in the communicative systems of other species. This course focuses on the development of human language, so as to obtain a better understanding of the origin and development of human language. Questions addressed include: what features of language are distinct from other communicative system, when did human language originate, in what stages did human language evolve, and how does language relate to properties of the human brain and mind? Data from a variety of disciplines will be considered, including primatology, human development, cognition, evolutionary biology, archaeology, and linguistics. (Same as LING 734.) Prerequisite: ANTH 106 or ANTH 107 or LING 106 or LING 107 or ANTH 736 or LING 708 or ANTH 725. LEC.

ANTH 736. Linguistic Analysis. 3 Hours.
Practice in applying the techniques of phonological, grammatical, and syntactic analysis learned in introductory linguistics to data taken from a variety of languages of different structural types. (Same as LING 708.)
Prerequisite: An introductory course in linguistics. Not open to students who have taken LING 308. LEC.

ANTH 740. Linguistic Data Processing. 3 Hours.
The tools and techniques necessary to analyze linguistic fieldwork data, including research design, recording and elicitation techniques, computational data processing and analysis, and field ethics. Techniques of research, field recording, and data analysis technology. Methods of phonetic transcription, grammatical annotation, and analysis of language context. Practice of techniques via short studies of at least one language. (Same as LING 740.) Prerequisite: LING 700 or permission of instructor. LEC.

ANTH 741. Field Methods in Linguistic Description. 3 Hours.
The elicitation and analysis of phonological, grammatical, and discourse data from a language consultant. In-depth research on one language. Techniques of research design, methods of phonetic transcription, grammatical annotation, and analysis of language context. (Same as LING 741.) Prerequisite: LING 705 or permission of instructor. LEC.

ANTH 743. Nutritional Anthropology: Methods and Theory. 3 Hours.
This is an intensive course aimed explicitly at graduate students whose research involves some aspect of human dietary behavior (foodways) and human nutrition. It examines the application of both biological and cultural theory to the study of human nutrition and cross-population variation in nutritional strategies and dietary practices. Topics include, among others, the evolution of human nutrition, environment and nutrition, nutritional epigenetics, effects of food scarcity, the cultural meanings of food, food as metaphor, and food and language. A second emphasis of the course is on field methods in nutritional anthropology, including dietary interviews, observation of dietary behaviors, nutritional and anthropometric assessment, nutrient analysis and ever-expanding field methods in nutritional ecology (nutritional endocrinology, physiology and genetics). Ethical issues in nutritional anthropology also are considered. Prerequisite: Graduate student status or permission from instructor. LEC.

ANTH 747. North American Indian Languages. 3 Hours.
Introduction to the nature and distribution of North American Indian languages. Prerequisite: ANTH 306 or ANTH 430 or ANTH 730. LEC.

ANTH 748. Language Contact. 3 Hours.
Theories and case studies of languages in contact. Areal and genetic linguistics, genesis of pidgins and creoles, multilingualism. Social, political, economic, and geographic factors in language change. (Same as LING 748.) Prerequisite: A course in linguistics. LEC.

ANTH 749. Linguistics and Ethnolinguistics of China and Central Asia: ______. 3 Hours.
Selected topics in linguistics and linguistic anthropology, focusing on dominant and/or minority languages of China, Central Asia, or a particular region of Central and Eastern Eurasia. Topics may include any subfield of linguistics, including language contact, typology, dialectology, and sociolinguistics. Topic for semester to be announced. (Same as LING 749.) Prerequisite: A course in linguistics. LEC.

ANTH 754. Biological Bases of Human Behavior. 3 Hours.
The role of behavioral genetics in normal behavior is examined in this seminar. There is special emphasis on the genetics of complex human behavior such as sensory perception, aggression, intelligence, proxemics, kinesics, and learning. Several abnormal conditions, such as schizophrenia, chromosomal aberrations, alcoholism, and brain dysfunction are discussed in terms of the genetic and environmental interactions. LEC.

ANTH 756. Genetics of Isolates. 3 Hours.
The evolutionary effects of finite population size and reproductive isolation are discussed in this seminar. Stochastic processes, genetic distances, approaches to population structure, and measures of inbreeding are considered. Prerequisite: ANTH 652 or consent of instructor. LEC.

ANTH 759. Dental Anthropology. 3 Hours.
An intensive study of human teeth. Principles of eruption, growth, genetics, anatomy, pathologies, measurements, casting, and cultural changes in teeth will be presented. Prerequisite: Consent of instructor. LEC.

ANTH 761. Introduction to Medical Anthropology. 3 Hours. SC.
An introduction to the social and cultural practices that contribute to health and disease, including a survey of therapy systems in both Western and non-Western societies (e.g., Native American, African, Western allopathic medicine, etc.). This course should be of special interest to premedical students and majors in the allied health professions. Graduate version of ANTH 461 with more advanced requirements. Prerequisite: Graduate standing or consent of instructor. LEC.

ANTH 762. Human Growth and Development. 3 Hours.
Consideration of comparative physical growth patterns throughout the human life cycle. Sex and population differences in skeletal, dental, and sexual maturation. Effect of genetic and environmental factors upon growth and maturation. Prerequisite: An introductory course in biological anthropology or consent of instructor. LEC.

ANTH 764. Selected Topics in Human Paleontology: ______. 3 Hours.
Intensive, high-level survey and critique of the application of modern biological theory of evolution and taxonomy to the problems of primate and human evolution. Prerequisite: Consent of instructor. LEC.

ANTH 766. Topics in Biological Anthropology: ______. 3 Hours.
Topic for semester to be announced. Students may repeat the course for different topics. Prerequisite: Consent of instructor. LEC.

ANTH 769. Seminar in Primate Studies. 3 Hours.
Survey of field and laboratory investigations of the comparative anatomy and behavior of nonhuman primates. LEC.

ANTH 770. Research Methods in Physical Anthropology. 3 Hours.
A practical course in the use of special laboratory techniques of biological anthropological research and methods of data presentation. Prerequisite: Consent of instructor. LAB.

ANTH 775. Seminar in Cultural Anthropology: ______. 3-9 Hours.
Intensive consideration of special problems in cultural anthropology. Topic for semester to be announced. LEC.

ANTH 777. Seminar in Applied Cultural Anthropology. 3 Hours. S.
Selected problems in applying anthropological theory, methods, and findings in programs of directed change. FLD.

ANTH 780. Social Organization. 3 Hours.
Comparative analysis of the structure, development, and function of human social groups. Emphasis on kinship, legal, economic, and political institutions. Prerequisite: Graduate standing or consent of instructor. LEC.

ANTH 781. Symbolic Anthropology. 3 Hours.
An examination of anthropological approaches to religion, world view, and other symbol systems in simple and complex societies. Prerequisite: Graduate standing or consent of instructor. LEC.

ANTH 783. Doing Ethnography. 3 Hours.
Ethnography is both process and product. The product, a representation of a culture (or selected aspects of a culture), is based on fieldwork, the common term for the ethnographic process. This course explores how ethnographers prepare for the field, do their fieldwork, then report it. LEC.

ANTH 785. Topics in Ethnology: ______. 3 Hours.
Topic for semester to be announced. Usually the course will focus on selected problems in the social and cultural life of a people in a
particular geographic region of the world. Coverage will include both the classical ethnological literature as well as special issues of current concern. Students may repeat the course for different topics. Prerequisite: Graduate standing or consent of instructor. LEC.

ANTH 786. Ethnographic Documentary Production. 3 Hours.
This course combines classroom and fieldwork in applications of theories, ethics, and methods of visual representation. Students carry out team-based ethnographic fieldwork projects through which they learn about pre-production, video production, and nonlinear post-production of ethnographic video documentaries. Prerequisite: Successful completion of ANTH 564 or permission of instructor. LEC.

ANTH 788. Symbol Systems: ____. 3 Hours.
Anthropological approaches to the study of worldview, religion, folklore, mythology, art, and other expressive behavior. Topic for the semester to be announced. Prerequisite: Graduate standing or consent of instructor. LEC.

ANTH 789. Anthropology of Gender: Advanced Seminar in the Four Fields. 3 Hours.
This seminar is intended primarily for graduate students in anthropology or other disciplines that share an interest in any of the subdisciplines of anthropology (archaeology, linguistic anthropology, biological anthropology, and sociocultural anthropology) and/or methodological and applied anthropology. Students pursuing Honors or other major research projects are also encouraged to participate. Students will receive training in the contemporary theories, research, and pedagogies informing the anthropology of gender. Class participants will explore how these materials intersect with their current thesis or research projects and develop syllabi specific to their subdiscipline. (Same as WGSS 789.) Prerequisite: Permission of instructor. LEC.

ANTH 794. Material Culture. 3 Hours.
The historical and cross-cultural study of artifacts as embodiments of technological, social, organizational, and ideological aspects of culture. LEC.

ANTH 799. Anthropology Museum Apprenticeship. 1-6 Hours.
Provides directed, practical experience in research, collection care and management, public education, and exhibits, with emphasis to suit the particular requirements of each student. Limit of six hours of credit for the M.A. degree. (Same as AMS 799, BIOL 799, GEOl 723, HIST 799, and MUSE 799.) FLD.

ANTH 810. Seminar in Ethnolinguistics: ____. 2-3 Hours.
An advanced study of the relationships between language and culture. Subject will vary each semester; students may repeat the course more than once. (Same as LING 810.) LEC.

ANTH 811. Quantitative Archaeology. 3 Hours.
Instruction in statistical methods for analyzing quantitative data in archaeological research. Topics will include techniques for handling nominal, ordinal, and radio-scale variables, the collection and presentation of quantitative information, and the use of computers. Prerequisite: Graduate standing and college-level algebra and/or consent of instructor. LEC.

ANTH 849. Seminar in Archaeology: ____. 2-4 Hours.
Subject matter of seminar to be announced for semester. LEC.

ANTH 851. Data Analysis in Archaeology: ____. 1-6 Hours.
A two-semester course designed to provide graduate students with basic principles in the analysis of archaeological data. Course content will include an introduction to archaeological systematics, analytical procedures, application of multivariate statistics, and computer applications. Topic for semester to be announced. FLD.

ANTH 853. Theory and Current Problems in Archaeology. 3 Hours.
Consideration of scientific methodology, basic assumptions of anthropological archaeology, relationship of archaeology and anthropology, and current theoretical and methodological trends in archaeology. LEC.

ANTH 876. Advanced Medical Anthropology: ____. 3-6 Hours.
This course provides advanced training in selected aspects of medical anthropology; the topic for a particular semester will reflect the current interests of the instructor. It is expected that the course content will alternate between theoretical and applied emphases. May be repeated for a total of six hours credit. Prerequisite: ANTH 461 or consent of instructor. LEC.

ANTH 880. Advanced Feminist Anthropology: ____. 3-6 Hours.
Intensive consideration of special problems in feminist anthropology. Topic for the semester to be announced. May be repeated for a total of six hours credit. (Same as WGSS 880.) Prerequisite: Permission of instructor. LEC.

ANTH 889. Summer Archaeological Field Work. 1-8 Hours.
Under the direction of a professional archaeologist, undergraduate and graduate students are taught proper procedures for the excavation and laboratory analysis of data from a prehistoric or historic archaeological site. Data gathered may be used for additional graduate research. Enrollment by application; limited to twenty students. A fee for subsistence costs will be charged. FLD.

ANTH 890. Training in Archaeological Field Work. 1-6 Hours.
Graduate students are taught techniques of archaeological field work, including survey and excavation, as well as laboratory procedures, including artifact classification and curation. FLD.

ANTH 896. Graduate Research. 1-9 Hours.
Individual investigation of special problems in anthropology. Limit of six hours credit for the M.A. degree. RSH.

ANTH 897. Internship Research. 4-6 Hours.
Experiential learning in the application of anthropology through placement in business, government, community, research, or social service organization or agency. Students design and implement an anthropological project under faculty supervision. Prerequisite: Graduate standing in Anthropology. RSH.

ANTH 898. Internship Analysis. 1-6 Hours.
Experiential learning in the application of anthropology through placement in business, government, community, research, or social service organization or agency. This course is a sequel to ANTH 897. Students finish up any remaining research and deliver their findings to the client. They also prepare a written report and a verbal presentation for the Department of Anthropology. Prerequisite: ANTH 897 and Graduate standing in Anthropology. RSH.

ANTH 899. Master’s Thesis. 1-12 Hours.
Limit of six hours credit for the M.A. degree. Graded on a satisfactory/unsatisfactory basis. THE.

ANTH 996. Graduate Research. 1-9 Hours.
Individual investigation of special problems in anthropology. RSH.

ANTH 999. Doctoral Dissertation. 1-12 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

Bioinformatics Courses

BINF 701. Bioinformatics I. 5 Hours.
First semester of a two-semester course in bioinformatics and computational biology. Topics include basic concepts of bioinformatics and molecular modeling, bioinformatics databases, computational tools
and modeling methods, protein sequence and structure alignment, conformational analysis, secondary structure determination, tertiary structure modeling (homology, threading, ab initio, molecular dynamics and Monte Carlo simulations, protein folding and dynamics), as well as students presentations of material from current papers in the field of study and their own on-going research for discussion and critique. Prerequisite: College introductory biochemistry (no requirement for specific courses), math, and computer courses or concurrent enrollment in such courses and consent of instructor. (Same as PHCH 701.) LEC.

BIOL 100. Principles of Biology. 3 Hours. NB GE3N / N.
Intended for non-science majors. The basic concepts of biology at the cellular, organismal, and population levels of organization and their applications to humans and modern society. An honors section, BIOL 101, is offered for students with superior academic records. BIOL 100 and BIOL 102 (or BIOL 101 and BIOL 103, honors) satisfy the College natural science with laboratory requirement. Concurrent enrollment in BIOL 102 is recommended. LEC.

BIOL 101. Principles of Biology, Honors. 3 Hours. NB GE3N / N.
Intended for non-science majors with superior academic records. The basic concepts of biology at the cellular, organismal, and population levels of organization and their applications to humans and modern society. Concurrent enrollment in BIOL 102 or BIOL 103 is recommended. BIOL 101 and either BIOL 102 or BIOL 103 satisfy the College natural science with laboratory requirement. Prerequisite: Membership in the College Honors Program or consent of instructor. LEC.

BIOL 102. Principles of Biology Laboratory. 1 Hour. U.
Intended for non-science majors. Exercises are designed to give the student hands-on experience with selected topics from the associated lecture course (BIOL 100). An honors laboratory (BIOL 103) is offered for students with superior academic records. Prerequisite: Concurrent enrollment in BIOL 100 is recommended. LAB.

BIOL 103. Principles of Biology Laboratory, Honors. 1 Hour. U.
Intended for non-science majors with superior academic records. Exercises are designed to give the students hands-on experience with selected topics from the associated lecture course (BIOL 101). Prerequisite: Membership in the College Honors Program or consent of instructor. Concurrent enrollment in BIOL 101 is recommended. LAB.

BIOL 105. Biology Orientation Seminar. 1 Hour. N.
Introduces interested students to information about majoring in the biological sciences at the University of Kansas. Students learn about degree requirements, academic advising, research opportunities, and career options, as well as how to align academic and professional goals. Graded on a satisfactory/unsatisfactory basis. LEC.

BIOL 110. Microorganisms in Your World. 3 Hours. NB / N.
A course for students who are not science majors. Designed to acquaint students with some microbial activities which affect their lives. Includes the historical development of microbiology, the basic principles of microbial growth, disinfection, antibiotics, infection, and immunity; and some commercial, agricultural, and industrial uses of microorganisms. Emphasis is on infectious diseases. Not open to students with any credit in microbiology. May not be counted as a prerequisite for any other microbiology course. LEC.

BIOL 116. Introduction to Evolutionary Biology. 3 Hours. N.
An account of evolutionary thinking from classical to contemporary time. The emphasis is on mainstream developments (Darwinism, Mendelism, the Modern Synthesis, Cultural Ecology), but certain social issues will be examined (social Darwinism, creationism). LEC.

BIOL 120. Insects in Your World. 3 Hours. NB GE3N / N.
Students will learn about the global impact of insects on human concerns, both positive (pollination and decomposition) and negative (competition with humans for food, fiber, and shelter, and disease transmission) while developing an appreciation for the ways in which scientists work with real problems involving insects. The course will cover the overwhelming abundance and diversity of insects, and their life history, ecology, behavior, and physiology. This course is intended for both nonbiology and biology majors. Format: two lectures and one discussion section per week. LEC.

BIOL 150. Principles of Molecular and Cellular Biology. 4 Hours. NB GE3N / N.
An integrated lecture and laboratory course for biology majors and students planning to take additional courses in biology. This course covers basic biochemistry, cell structure and function, molecular biology, genetics, physiology, and development of plants and animals. Three hours of lecture and three hours of laboratory per week. An honors section (BIOL 151) is offered for students with superior academic records. Prerequisite: Concurrent or prior enrollment in CHEM 130, CHEM 190, CHEM 150, or CHEM 170, or consent of instructor. LEC.

BIOL 151. Principles of Molecular and Cellular Biology, Honors. 4 Hours. NB GE3N / N.
An integrated lecture and laboratory course for students with superior academic records who are biology majors or who plan to take additional courses in biology. This course covers basic biochemistry, cell structure and function, molecular biology, genetics, physiology, and development of plants and animals. Three hours of lecture and three hours of laboratory per week. Prerequisite: Membership in the University Honors Program and concurrent or prior enrollment in CHEM 130, CHEM 190, CHEM 150, or CHEM 170, or consent of instructor. LEC.

BIOL 152. Principles of Organismal Biology. 4 Hours. NB GE3N / N.
An integrated lecture and laboratory course for biology majors and students who plan to take additional courses in biology. This course covers basic elements of plant and animal morphology and physiology, principles of evolution, organismal diversity and phylogeny, population biology, population genetics, ecology, and behavior. Three hours of lecture and three hours of laboratory per week. An honors section (BIOL 153) is offered for students with superior academic records. Prerequisite: BIOL 150 or BIOL 151. LEC.
BIOL 153. Principles of Organismal Biology, Honors. 4 Hours. NB GE3N / N.
An integrated lecture and laboratory course for students with superior academic records who are biology majors or planning to take additional courses in biology. This course covers basic elements of plant and animal morphology and physiology, principles of evolution, organismal diversity and phylogeny, population biology, population genetics, ecology, and behavior. Three hours of lecture and three hours of laboratory per week. Prerequisite: BIOL 150 or BIOL 151 and membership in the University Honors Program or consent of instructor. LEC.

BIOL 177. First Year Seminar: ____. 3 Hours. NB GE11.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in biology. Does not contribute to major requirements in biology. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

BIOL 200. Basic Microbiology. 3 Hours. NB GE3N / N.
Introduction to bacteria and viruses. Topics include historical development of microbiology, bacterial structure and growth, enzymes and energy production, disinfection, antibacterial drugs, gene transfer, viral replication, infection and immunity, with emphasis on infectious diseases. Can be substituted for BIOL 201 as a prerequisite for other microbiology courses by consent of department. Not open to those with credit in BIOL 110, BIOL 201, BIOL 400, or BIOL 401. Prerequisite: A course in high school biology and a course in high school chemistry. This course is not recommended for first semester freshmen. LEC.

BIOL 203. Introductory Microbiology Laboratory. 2 Hours. U.
Laboratory exercises to complement BIOL 200. Prerequisite: BIOL 200. May be taken concurrently. LAB.

BIOL 210. Introduction to Clinical Laboratory Sciences. 1 Hour. U.
An introductory overview of medical technology as a profession including types of analyses performed, specialties, interrelationships in the health care system and a visit to a clinical laboratory. This course will enable those considering a major in medical technology to have a clear definition of the profession. This course does not meet any degree requirements in biology. No prerequisite. (Same as CLS 210.) LEC.

BIOL 215. Plants Through Time. 3 Hours. NB / N.
Examines the evolution of plants and their environments from the origin of life to the present, including the historical development of the biosphere, mass extinctions (past and present), and social implications of future climate changes and deforestation. Not recommended for students with credit in GEOL 121. LEC.

BIOL 225. Evolution and the History of Life. 3 Hours. GE3N / N.
This introductory course for non-majors focuses on the significance of the history of life and the fossil record for our understanding of evolution. Key events in the history of life are considered, including the origins of life, the eukaryotic cell, and humans, and also various mass extinctions. The focus is on general scientific and evolutionary principles and mechanisms that can be extracted from the study of the fossil record. It also uses the lessons of the fossil record to consider the prospects for our own species. LEC.

BIOL 240. Fundamentals of Human Anatomy. 3 Hours. N.
Introduction to the gross anatomy of the human body. Covers the spatial arrangement and appearance of structures throughout the body, including visual identification of these structures. Musculoskeletal relationships, and the anatomy of major organ systems, are emphasized. Not intended for biology majors. Prerequisite: BIOL 100, or equivalent. LEC.

BIOL 241. Human Anatomy Observation Laboratory. 2 Hours. U.
One of the two laboratories in gross anatomy designed to complement BIOL 240. Emphasizes the three-dimensional appearance and spatial relationships of anatomical structures through supervised observations of pre-dissected human cadavers. Limited to students enrolled in, or seeking admission to, programs that require a human anatomy observation laboratory. Concurrent or prior enrollment in BIOL 240 is required. LAB.

BIOL 242. Human Anatomy Dissection Laboratory. 3 Hours. U.
One of the two laboratories in gross anatomy designed to complement BIOL 240. Provides an opportunity to develop a comprehensive three-dimensional understanding of anatomical structures and spatial relationships while gaining substantial dissecting experience. Students perform supervised dissection of human cadavers. Limited to students enrolled in, or seeking admission to, programs that require a human anatomy laboratory. Concurrent or prior enrollment in BIOL 240 is required. LAB.

BIOL 246. Principles of Human Physiology. 3 Hours. N.
An introduction to the physiological and biochemical processes and general physiological principles necessary to sustain life. Organ and organ system processes are emphasized. Intended for students majoring in allied health or sports related curricula who require a course in human physiology. Not intended for biology majors. Prerequisite: BIOL 100 or equivalent. LEC.

BIOL 247. Principles of Human Physiology Laboratory. 2 Hours. U.
Designed to complement BIOL 246. Uses experiments and simulations to demonstrate laboratory techniques and representative processes in areas of human physiology. Concurrent or prior enrollment in BIOL 246 required. LAB.

BIOL 350. Principles of Genetics. 4 Hours. N.
Why are related individuals more similar than unrelated individuals and what is the basis for heritable traits? From Mendel’s discoveries of the patterns of genetic inheritance, to the study of transmissible hereditary factors, genetics is central to understanding the biological sciences. Topics include molecular genetics and genetic engineering; Mendelian genetics and mapping; control of gene expression; cytogenetics; epigenetics and non-Mendelian genetics; and population and quantitative genetics. Examples are taken from a wide variety of organisms, including viruses, bacteria, plants, fungi, insects, and humans. Prerequisite: Two semesters of college-level chemistry and BIOL 150 or BIOL 152; or consent of the instructor. LEC.

BIOL 360. Principles of Genetics, Honors. 4 Hours. N.
The science of genetics aims to explain why individuals differ from one another and how these differences are inherited. Honors Genetics covers all core topics in fundamental genetics: Mendelian inheritance, meiosis and recombination, mutation, molecular genetics, population genetics, quantitative genetics and genomics. Special attention given to the practice of genetics and the complex relationship between genotype, phenotype and environment. A broader goal of Honors Genetics is to provide students a framework for understanding recent advances in medical genetics and the modern era of personal genomics. Prerequisite: Two semesters of college-level chemistry and BIOL 150 or BIOL 152, membership in the University Honors Program; or consent of the instructor. LEC.

BIOL 400. Fundamentals of Microbiology. 3 Hours. NB GE3N / N.
Fundamental principles of microbiology with emphasis on physical and chemical properties of the bacterial cell; microbial metabolism, cultivation, growth and death of bacteria; microbial genetics, pathogenesis and immunity, industrially important microorganisms. Prerequisite: BIOL 150 or BIOL 151 and two semesters of college chemistry, or consent of the instructor. LEC.
BIOL 401. Fundamentals of Microbiology, Honors. 3 Hours. N. 
Honors section of BIOL 400 and BIOL 612, by application and invitation. Prerequisite: BIOL 151, two semesters of college chemistry, and membership in the University Honors Program, or consent of the instructor. LEC.

BIOL 402. Fundamentals of Microbiology Laboratory. 2 Hours. U. 
Laboratory exercises designed to complement BIOL 400 or BIOL 700. Prerequisite: BIOL 400 or BIOL 612, or BIOL 400 or BIOL 612 concurrently. LAB.

BIOL 405. Laboratory in Genetics. 2 Hours. U. 
A laboratory program which includes written reports on fruit fly crosses, exercises on meiosis, probability and statistics, human genetics and computer simulations of genetics problems. Prerequisite: Concurrent or prior (preferred) enrollment in BIOL 350 or its equivalent. LAB.

BIOL 408. Physiology of Organisms, 3 Hours. N. 
A comprehensive and integrative approach to the study of organisms with an emphasis on physiological, ecological, structural, and behavioral adaptations to differing environments. Prerequisite: BIOL 152 or BIOL 153 and CHEM 130 or CHEM 190 or CHEM 170; or consent of the instructor. LEC.

BIOL 409. Physiology of Organisms, Laboratory, 2 Hours. U. 
The laboratory exposes the students to the structure and function of the major groups of animals and plants. Students use basic techniques of biological observation, such as microscopy and dissection, and experimental techniques to analyze plant and animal function. Prerequisite: Concurrent or prior enrollment in BIOL 408, or consent of the instructor. LAB.

BIOL 410. Human Biogeography, Honors. 3 Hours. N. 
Principles of evolution and earth change are used to examine distributions of human populations, wealth, and resources. Readings from the current literature will be included. Lecture and discussion. (Same as GEOG 410.) Prerequisite: BIOL 152 or BIOL 153 or GEOG 107 and membership in the University Honors Program or consent of instructor. LEC.

BIOL 412. Evolutionary Biology. 4 Hours. N. 
Introduction to the patterns and processes of organic evolution. Considered are the history of evolutionary thought, molecular evolution, genetics and macroevolution, selection and adaptation, and speciation and macroevolution. Emphasis will be placed on how scientists study and document change over time in natural populations, methods for testing hypotheses about events in evolutionary history, and how discovering evolutionary mechanisms at one level of organization can help to explicate general processes in the natural world. Prerequisite: BIOL 152 and BIOL 350, or consent of the instructor. LEC.

BIOL 413. History and Diversity of Organisms. 3 Hours. N. 
An integrated lecture and laboratory course presenting an overview of the variety and ancestry of life on earth. Using representatives from prokaryotes, protists, plants, fungi, and animals, principles of phylogenetic reconstruction are illustrated and evolutionary trends in the life history features, functional morphology, and structural complexity of extant and extinct organisms are presented. Two hours of lecture and three hours of laboratory per week. Prerequisite: BIOL 152 or BIOL 153, or consent of the instructor. LEC.

BIOL 414. Principles of Ecology. 3 Hours. N. 
Study of the principles underlying species population density changes, community structure and dynamics, biogeochemical cycles, and energy flow and nutrient cycling in ecosystems. Prerequisite: BIOL 152 or BIOL 153, or consent of the instructor. LEC.

BIOL 415. Field and Laboratory Methods in Ecology. 2 Hours. N. 
This course complements BIOL 414 with field trips and laboratory exercises that illustrate the basic concepts of ecology. Topics covered include methodologies for quantitative sampling of terrestrial and aquatic systems, design of field studies, computer simulation and digital data analysis techniques, and scientific writing. Prerequisite: Concurrent or prior enrollment in BIOL 414. A statistics course is recommended. FLD.

BIOL 416. Cell Structure and Function. 3 Hours. N. 
Lecture survey of molecular cell biology with emphasis on experimental approaches to understanding cell function; topics include biological membranes and transmembrane transport, vesicular trafficking (secretion and endocytosis), cell signaling, cell motility and the cytoskeleton, and the regulation of the cell division cycle. Prerequisite: BIOL 150 or BIOL 151; BIOL 350 or BIOL 360; CHEM 130 or CHEM 190 or CHEM 170; and CHEM 135 or CHEM 195 or CHEM 175, or consent of the instructor. LEC.

BIOL 417. Biology of Development. 3 Hours. N. 
A general course designed to introduce students to the developmental biology of animals. Emphasis is placed on understanding how a single-celled fertilized egg develops into a complex multicellular organism by the processes of cell division, differentiation, growth, and morphogenesis. Lectures stress experimental approaches to investigating development, including classic embryology and modern molecular genetics. Prerequisite: BIOL 350 or consent of the instructor. LEC.

BIOL 418. Laboratory in: ______. 1-3 Hours. U. 
A varied program of laboratory and fieldwork designed to introduce students to investigative approaches in the study of the basic concepts of biological science. Students may enroll in more than one section. Prerequisite: BIOL 100, BIOL 101, BIOL 150, BIOL 151, or exemption. Each section may have additional prerequisites to be determined by instructor. LAB.

BIOL 419. Topics in: ______. 1-3 Hours. N. 
Courses on special topics in biology, given as need arises. May be lectures, discussions, readings, laboratory, or fieldwork. Students may select sections according to their special needs. IND.

BIOL 420. Seminar: ______. 1-3 Hours. N. 
The preparation and presentation of oral reports on selected topics from the recent research literature. Students may choose one interest group each semester, but may enroll in a given interest group only once. Enrollment in each interest group limited to twenty students. Prerequisite: Course work varying with the topic of the seminar, or consent of instructor. LEC.

BIOL 421. Topics in Molecular Biosciences: ______. 3 Hours. N. 
Lecture instruction and the preparation and presentation of oral and written reports on selected topics from the recent research literature in molecular biosciences. Students may enroll in a given topic only once. Prerequisite: Course work varying with the topic of the seminar; or consent of instructor. LEC.

BIOL 423. Non-laboratory Independent Study. 1-9 Hours. AE61 / N. 
Original study in discussion or preparation of review papers on selected topics of current interest. May be undertaken only with the consent of the major advisor and of the faculty member who will guide the research. Prerequisite: Consent of instructor. IND.

BIOL 424. Independent Study. 1-9 Hours. AE61 / N. 
Original study in laboratory or field in selected topics of current research interest. May be undertaken only with the consent of the major advisor and of the faculty member who will guide the research. Prerequisite: Consent of instructor. IND.
**BIOL 425. Teaching Apprenticeship in Biology. 1-9 Hours. N.**
Involvement as teaching assistant for a course in Biology. Credit hours shall not exceed the credits offered for the course being taught. May be undertaken only with the consent of the Director of Undergraduate Biology and of the faculty member who will teach the course. Prerequisite: Consent of instructor and Director of Undergraduate Biology. FLD.

**BIOL 426. Laboratory in Cell Biology. 3 Hours. U.**
Laboratory exercises will examine the function, organization, and composition of eukaryotic cells. Prerequisite: BIOL 150 or BIOL 151, CHEM 130 or CHEM 190 or CHEM 170; concurrent or prior enrollment in BIOL 416 or BIOL 536; or consent of the instructor. BIOL 350 or BIOL 360 is highly recommended. LAB.

**BIOL 427. Developmental Biology Laboratory. 2 Hours. U.**
Laboratory exercises examine processes of early development in animal model organisms. Students study the normal development of live embryos and prepared slides of sea anemones, sea urchins, frogs and chicks. Study of regeneration and axial patterning through experimental manipulation of invertebrates is also explored. Prerequisite: Concurrent or prior enrollment in BIOL 417. LAB.

**BIOL 428. Introduction to Systematics. 3 Hours. N.**
Basic elements of systematic theory and practice; phylogenetic reconstruction using morphological and molecular data; interpretation of phylogenetic hypotheses; principles of nomenclature and classification; evolutionary processes and patterns of species diversity; discussion of the aims and needs of taxonomy; species and speciation; construction of keys; significance of biological collections. Prerequisite: BIOL 152 or BIOL 153. Not intended for students with advanced systematics background. LEC.

**BIOL 430. Laboratory in Molecular Biology. 3 Hours. U.**
Practical experience in recombinant DNA technology and molecular cloning. Prerequisite: BIOL 416 or a course in biochemistry or microbiology. LAB.

**BIOL 432. Human Behavioral Genetics. 3 Hours. S.**
A survey of human behavioral genetics for upper division undergraduates. Emphasis is on how the methods and theories of quantitative, population, medical, and molecular genetics can be applied to individual and group differences in humans. Both normal and abnormal behaviors are covered, including intelligence, mental retardation, language and language disorders, communication, learning, personality, and psychopathology. (Same as ANTH 447, PSYC 432, SPLH 432.) Prerequisite: Introductory courses in biology/genetics or biological anthropology and psychology are recommended. LEC.

**BIOL 435. Introduction to Neurobiology. 3 Hours. N.**
Basic principles of neurobiology. The focus will be on the nature of communication among nerve cells and their targets. Topics will include the development, structure and function of nerve cells, chemistry of neurotransmission, processing and integration including the cellular and molecular basis of higher functions and neurological disorders. Prerequisite: BIOL 150 or BIOL 151. LEC.

**BIOL 440. Advanced Human Anatomy. 6 Hours. N.**
Integrated lecture and laboratory course designed to provide students with a detailed understanding of the structure of the human body. Cadaver dissection will reinforce three-dimensional relationships discussed in lecture and each of the main organ systems will be considered using a regional approach to the body. Prerequisite: BIOL 152 or equivalent; BIOL 240, BIOL 241, or BIOL 242; and instructor consent. LEC.

**BIOL 448. Kansas Plants. 3 Hours. N.**
A study of common and important non-cultivated Kansas plants, with special emphasis on the ecology of the state; paleoclimatic and paleobotanical background of the central prairies and plains; present climate, physiography and vegetation; poisonous, edible, and medicinal plants; identification by means of simplified keys. Prerequisite: BIOL 100, BIOL 101, BIOL 150, or BIOL 151 and BIOL 152 or BIOL 153. LEC.

**BIOL 449. Laboratory/Field Work in Human Biology. 1-3 Hours. AE61 / N.**
Faculty supervised laboratory or field research for Human Biology majors. Students design and complete a research project in collaboration with a Human Biology faculty member. (Same as ANTH 449, PSYC 449, and SPLH 449.) Prerequisite: Consent of instructor and Human Biology major.

**BIOL 454. Brain Diseases and Neurological Disorders. 3 Hours. N.**
Major brain diseases and neurological disorders such as stroke, Alzheimer’s Disease, Parkinson’s Disease, Huntington’s Disease, Multiple Sclerosis, Epilepsy, Schizophrenia, etc., will be discussed in terms of the etiology, molecular, and cellular basis of potential therapeutic interventions. Graduate students are required to present original research paper assigned by the instructor to the class in addition to other assignments for all the students enrolled. Prerequisite: BIOL 150, or consent of instructor. LEC.

**BIOL 461. Biodiversity of the Rainforest. 3 Hours. N.**
An introduction to birds, bats, and plants of the rainforest, with emphasis on general characteristics of each of the taxa and their relationship to the tropical ecosystem, as well as their particular anatomy, ecology, behavior, and diversity. Field work focuses on identification of birds and bats (at species level), plants (at family level), and on capturing and preservation techniques. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

**BIOL 463. Introduction to Ornithology of the Tropics. 4 Hours. N.**
A theory and practice course on birds. Course covers morphology, reproduction, evolution, ecology, and behavior, as well as systematics of Costa Rican birds. Course includes field work on bird identification. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

**BIOL 465. Marine Biology. 4 Hours. N.**
A theory and practice course on biotic relations, the role of organisms and marine biodiversity. It covers basic marine principles and physico-chemical processes (temperature, salinity, dissolved oxygen, nutrients, and pH in the water) and their effect on the abundance, and horizontal and vertical distribution of marine organisms. Course includes field work on data collection. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

**BIOL 467. Marine Resources Management. 3 Hours. N.**
A theory and practice course which focuses on the techniques used for monitoring the growth of fish, shrimp, and mollusks, with the purpose of understanding the variables that could produce the best yields. The course covers ecology (population growth, competition, predators, ecosystem dynamics), and fishery biology (growth, fish yield, capture efficiency) applicable in the field experiments. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or
equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

**BIOL 468. Fresh Water Ecology. 4 Hours. N.**
A theory and practice class on the study of rivers and lagoons. It includes systematicas of rivers, lagoons, and reservoirs. Course includes theory and field work to monitor physical (stream topography, flow, edge vegetation), chemical (nutrients, temperature, pH levels, dissolved oxygen), and biological (collecting and identification of aquatic insects) conditions in rivers. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

**BIOL 477. Ecology and Global Change. 3 Hours. N.**
Humans influence both natural and managed ecosystems. This course studies the effects of climate change, land-use change, and reductions in biodiversity on ecosystems. Emphasis is placed on how biological and physical processes may be perturbed by human influences. Topics include the greenhouse effect, species extinctions, human disease expansion, and the effects of global change on agricultural productivity. A combination of lectures and discussion address issues from a scientific basis and link these ecological issues to our everyday lives and society as a whole. Prerequisite: BIOL 152, BIOL 153, or equivalent, or permission of instructor. LEC.

**BIOL 480. Biology and Diversity of Parasites. 3 Hours. N.**
Introductory lecture course to the field of Parasitology. Provides basic knowledge about the morphology and biology of parasitic animals. Coverage includes a diversity of protozoan and metazoan groups parasitizing animals, including humans (e.g., malaria, amoebas, hookworms, tapeworms). Some emphasis is given to groups of parasites of particular medical and/or economic importance. Selected principles of parasitism are introduced. Prerequisite: BIOL 152 or BIOL 153, or permission of instructor. LEC.

**BIOL 481. Parasitology Laboratory. 1 Hour. U.**
Laboratory course in the study of protozoan and metazoan parasites of animal, including humans, emphasizing their diversity, classification, morphology, and identification. One three-hour laboratory each week. Prerequisite: Concurrent or prior enrollment in BIOL 480. LAB.

**BIOL 494. Introduction to Mammalogy. 3 Hours.**
A study of mammals, with emphasis on evolution, biogeography, systematics, and natural history. Lectures, laboratory, and field study. Prerequisite: BIOL 152 or 153 or permission of instructor. LEC.

**BIOL 499. Introduction to Honors Research. 2 Hours. N.**
Intended for sophomores planning to enroll in the Biology Honors Program. Students interested in pursing Biology Honors discuss with Biology faculty members the rationale, methods, and interpretations of research being carried out in individual faculty labs to learn how scientific research is conducted. Prerequisite: At least 17 credit hours of college level natural sciences coursework or consent of instructor. LEC.

**BIOL 500. Biology of Insects. 3 Hours. N.**
Lectures and demonstrations providing an introduction to the study of insects, including general classification, structure, phylogeny, identification, development, physiology, behavior, ecology, and relations to human affairs. Prerequisite: BIOL 152, 153, or equivalent, or permission of instructor. LEC.

**BIOL 502. Laboratory in Insect Biology and Diversity. 2 Hours. U.**
Laboratory and field studies of insects, emphasizing their diversity, classification, ecological relationships, morphology, and behavior. Course provides practical application of principles covered in BIOL 500. Prerequisite: Concurrent or prior enrollment in BIOL 500 or the equivalent. LAB.

**BIOL 503. Immunology. 3 Hours. N.**
Lectures on the nature and mechanisms of natural and acquired resistance including humoral and cellular immunity. Characteristics of antigens and antibodies and of their interaction; ontogeny and cellular basis of immune responsiveness, hypersensitivity; specific immunologic tolerance. Not open to those with credit in BIOL 524. Prerequisite: BIOL 400 or BIOL 401, or consent of instructor. LEC.

**BIOL 504. Immunology Laboratory. 2 Hours. U.**
Laboratory designed to complement BIOL 503. Prerequisite: BIOL 503, or BIOL 503 concurrently. LAB.

**BIOL 505. Social Insects. 3 Hours. N.**
Lectures and laboratory demonstrations on presocial and social insects, specifically termites, ants, wasps, and bees. Emphasis will be placed on evolution of social behavior and the place of social insects in sociobiology. Prerequisite: BIOL 152, BIOL 153, or equivalent. LEC.

**BIOL 506. Pathogenic Microbiology. 3 Hours. N.**
Lectures. Characteristics and mechanisms of pathogenic microorganisms and disease processes. Elements of host-parasite interactions. Not open to freshmen or sophomores. Prerequisite: BIOL 503, or consent of instructor. LEC.

**BIOL 507. Pathogenic Microbiology Laboratory. 2 Hours. U.**
Laboratory to complement BIOL 506. Cultivation of pathogenic microorganisms, diagnostic procedures, and experiments to demonstrate various aspects of microbial pathogenicity and host responses. Prerequisite: BIOL 402 and BIOL 506 (or concurrent enrollment) or consent of instructor. LAB.

**BIOL 509. Biology of Spiders. 3 Hours. N.**
An introduction to the evolution, anatomy, physiology, behavior, and ecology of spiders and other arachnids. Special topics include the action of spider venoms; the composition and uses of silk; courtship and mating; predation; social behavior; and the role of spiders in natural and agricultural ecosystems. Concurrent enrollment in BIOL 511 is encouraged. Prerequisite: BIOL 152, BIOL 153 or permission of instructor. LEC.

**BIOL 510. Comparative Anatomy. 5 Hours. N.**
Structure, function, and evolution of the vertebrates. Lectures and laboratory study. A course designed for zoologists. Prerequisite: BIOL 100, BIOL 101, BIOL 150, or BIOL 151 and BIOL 152 or BIOL 153. LEC.

**BIOL 511. Biology of Spiders Laboratory. 1 Hour. U.**
Topics will include comparative biology of arachnid orders (spiders, scorpions, harvestmen, mites, and others), external and internal anatomy of spiders, identification of common spider families and genera, and spider behavior. Students will be required to make a small collection (collect, preserve, and identify specimens). Prerequisite: BIOL 509; concurrent enrollment is preferred. LAB.

**BIOL 512. General Virology. 3 Hours. N.**
Lectures and discussions covering the basic nature and characteristics of viruses from a general biological point of view: viruses of bacteria, animals and plants, physical-chemical properties; host cell-viral interactions; mode of replication of DNA and RNA viruses, tumor viruses. Prerequisite: BIOL 400, BIOL 401 or consent of instructor. LEC.

**BIOL 513. Virology Laboratory. 2 Hours. U.**
Experiments involving cultivation, quantitation, and identification of animal viruses, continuous cell culture and primary chicken embryo culture techniques. Molecular biology techniques are used to demonstrate the...
steps in virus replication. The value of viruses as tools to understand normal cellular processes is emphasized in experiments which demonstrate the relative simplicity of viruses and the relative complexity of eukaryotic cells. Demonstrations include transformation of cells by tumor viruses and electron microscopy of virus particles. Prerequisite: BIOL 402 and BIOL 512, or consent of instructor. LAB.

BIOL 514. Principles of Ecology, Honors. 3 Hours. N.
Honors section of BIOL 414 for students with superior academic records. Course covers core concepts on the ecology of individuals, populations, communities, and ecosystems. Relative to BIOL 414, topics are presented in greater depth with increased student participation and stronger emphasis on the primary scientific literature. Prerequisite: BIOL 100, BIOL 101, BIOL 150, or BIOL 151 and BIOL 152 or BIOL 153. Open only to students admitted to the University Honors Program or by consent of instructor. LEC.

BIOL 516. Microbial Physiology. 3 Hours. N.
Elements of microbial physiology. Carbohydrate metabolism; enzymes and coenzymes; microbial nutrition; quantitative problems in microbial physiology; a survey of microbial metabolic types. Prerequisite: BIOL 400 or BIOL 612 and BIOL 402, and five hours of organic chemistry. LEC.

BIOL 517. Microbial Physiology Laboratory. 2 Hours. U.
Laboratory designed to complement BIOL 516. Prerequisite: BIOL 516, or BIOL 516 concurrently. LAB.

BIOL 518. Microbial Genetics. 3 Hours. N.
Bacteria and viruses as models of genetic systems. Mutagenesis and repair. Transformation, transductions, and recombination. Molecular biology of gene expression. Prerequisite: An introductory microbiology course. LEC.

BIOL 519. Microbial Genetics Laboratory. 2 Hours. U.
Laboratory designed to complement BIOL 518. Prerequisite: BIOL 402, BIOL 518, or BIOL 518 concurrently. LAB.

BIOL 520. Marine Biology. 3 Hours. N.
This introductory course covers biological, physical, and chemical ocean sciences, with an emphasis on ecological aspects. In addition to this Lawrence campus course, students may enroll for a supplementary 1 credit field trip class to a Caribbean coral reef island offered in December or January. Prerequisite: BIOL 414 or permission of the instructor. LEC.

BIOL 521. Insect Systematics. 4 Hours. N.
A study of the diversity of insects, including the classification of all living and fossil orders and the more common families primarily on the basis of external morphology. The biology, ecology, phylogeny, and geological history of each order is covered. Includes both lectures and laboratory exercises. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 500, BIOL 502 or equivalent, or permission of instructor. LEC.

BIOL 525. Aquatic Entomology. 4 Hours. N.
Designed to enable students to develop skill in the area of identification of aquatic insects and to gain a detailed comprehension of their community structure and dynamics. The external morphology of all aquatic orders is covered, followed by consideration of specific physiological and behavioral adaptations that facilitate an aquatic existence. Includes both lectures and laboratory exercises. Requirements include making a collection of aquatic insects. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 414 or BIOL 500. LEC.

BIOL 526. Insect Physiology and Internal Morphology. 3 Hours. N.
Mechanisms and integration of the internal life-supporting systems of insects, emphasizing the interdependence of structure and function. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 408 and BIOL 500, or permission of instructor. LEC.

BIOL 528. External Morphology of Insects. 4 Hours. N.
A study of external structure common to all insect orders, with detailed comparative laboratory studies of representative species. Includes both lectures and laboratory exercises. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 500, BIOL 502 or equivalent, or permission of instructor. LEC.

BIOL 529. Immature Insects. 3 Hours. N.
The classification, structure, and ecological distribution of immature insects, especially larvae of Holometabola. Includes both lectures and laboratory exercises. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 502 or permission of instructor. LEC.

BIOL 533. Biology of Fungi. 4 Hours. N.
a study of the major groups of fungi from slime molds to mushrooms. Emphasis on their activities in natural substrates, isolation techniques, parasitic and mutualistic relationships with other organisms, uses in research, industrial applications, production of mycotoxins and poisons, and physiological, genetic and reproductive behavior. Lectures, laboratory, and field trips. Prerequisite: BIOL 100, BIOL 101, BIOL 150, or BIOL 151 and BIOL 152 or BIOL 153. LEC.

BIOL 536. Cell Structure and Function (Honors). 3 Hours. N.
BIOL 536 is the honors version of BIOL 416. Completion of this class will satisfy the BIOL 416 requirement. Open to students in the Honors program or by permission of instructor. Prerequisite: BIOL 350 or consent of instructor. LEC.

BIOL 540. General Invertebrate Zoology. 4 Hours. N.
Phylogeny, physiology, and embryology; evolutionary processes; characteristics of major ecological groupings. Laboratory will consider major taxonomic categories with emphasis on functional morphology and its evolutionary modifications. Prerequisite: BIOL 152 or BIOL 153. LEC.

BIOL 545. Evolution of Development. 3 Hours. N.
An advanced course designed to expose students to evolutionary change in the developmental patterning of plant and animal form. This course integrates multiple biological disciplines including phylogenetics, comparative morphology, molecular evolution and developmental genetics to explore biodiversity at a mechanistic level. Topics range from issues surrounding homology assessment to empirical examples of how changes in gene expression or function may have shaped morphological diversity. Prerequisite: BIOL 350 or equivalent. LEC.

BIOL 555. General Plant Physiology. 3 Hours. N.
The principal physiological processes of higher plants including photosynthesis, respiration, water relations, mineral nutrition, and factors associated with morphogenesis. Prerequisite: BIOL 408 or consent of instructor. LEC.

BIOL 556. Histology. 3 Hours. N.
Study of detailed microscopic anatomy of cells, tissues, and organs of mammals. Examples are drawn from normal and abnormal tissue, histochemistry, and electron microscopy. Lecture and demonstrations. A course in anatomy and physiology is highly recommended. Prerequisite: BIOL 152 or BIOL 153. LEC.

BIOL 570. Introduction to Biostatistics. 3 Hours. N.
Statistical concepts related to biological problems. Topics include the scientific method, data representation, descriptive statistics, elementary probability distributions, estimation and hypothesis testing, emphasizing
the analysis of variation. Prerequisite: College algebra and ten hours of natural science. LEC.

BIOL 571. Introduction to Biostatistics Laboratory. 2 Hours. U.
Introductory statistical analyses on microcomputers. Data entry and export; simple graphs and exploratory data analysis; descriptive statistics; sampling; point and interval estimation; one and two sample t-tests; Chi-square; regression and correlation; analysis of variance; and nonparametric methods. Prerequisite: BIOL 570 or equivalent (may be taken concurrently), LAB.

BIOL 582. Principles of Biogeography. 3 Hours. N.
An introduction to the study of the distribution of life on earth. Covers geographical patterns of species diversity and the processes that give rise to those patterns: speciation, extinction, dispersal, vicariance, continental drift, ecological interactions, and phylogeny. Topics are presented within the framework of evolutionary history and include discussion of the biology of species on islands, terrestrial biomes, altitudinal zonation of species, latitudinal species gradients, historical factors governing species distributions, macroevolutionary trends in the fossil record, and application of modern molecular techniques for testing biogeographical hypotheses. Prerequisite: BIOL 152 or 153 and past or concurrent enrollment in BIOL 412, 413, 414, or 550; or permission of Instructor. LEC.

BIOL 583. Herpetology. 3 Hours. N.
A study of amphibians and reptiles. This lecture course will explore the taxonomic diversity of amphibians and reptiles, and current areas of active research in herpetology. Topics will be considered within a phylogenetic framework, and include discussion on systematics, biogeography, tetrapod origins, skeletal systems, growth, circulatory system, locomotion, thermal and water regulation, hibernation, ecology, sexual behavior, parental care, and mimicry. LEC.

BIOL 592. Ichthyology. 4 Hours. N.
A study of fishes. Lecture topics include the structure and adaptations of fishes to the aquatic environment and a survey of major fish groups with emphasis on their evolution and biogeography. Laboratory topics include a survey of fish diversity using specimens and the use of keys to identify fishes, with emphasis on the Kansas fish fauna. This course meets with BIOL 792. Students taking this course at the 700 level will have additional work required of them. Prerequisite: BIOL 152 and/or BIOL 413. LEC.

BIOL 593. Ornithology. 3 Hours. N.
A lecture and laboratory course on the biology, evolution, and diversity of birds. Prerequisite: BIOL 412 (or BIOL 413), or permission of instructor. LEC.

BIOL 594. Forest Ecosystems. 3 Hours.
Students learn basic concepts of forest productivity, forest water relations, forest hydrology, nutrient cycling, through soils and vegetation, nutrient uptake, carbon cycling, decomposition, linkages to aquatic ecosystems, and agents of disturbance to these cycles. The class spends a significant part of the semester exploring forest soil profiles and the challenges they present to different forest ecosystems. We discuss the function of forested ecosystems in a global context and identify and understand smaller-scale processes that drive forest function. Prerequisite: CHEM 135 or CHEM 195 or CHEM 175, and BIOL 414. LEC.

BIOL 595. Human Genetics. 3 Hours. N.
A lecture course providing balanced coverage of Mendelian and molecular genetics of humans; includes discussions and presentations on current issues in human and medical genetics. Prerequisite: BIOL 350. LEC.

BIOL 596. Research Methods. 3 Hours. N.
An introduction for pre-service teachers to the tools used by scientists to solve scientific problems. Topics include design of experiments and interpretation of their results, use of statistics, mathematical modeling, laboratory safety, ethical treatment of human subjects, writing scientific papers, giving oral presentations, and obtaining data from the scientific literature. Open only to students in the UKanTeach program. LEC.

BIOL 599. Senior Seminar: ______. 1 Hour. AE61 / N.
A synthesis and discussion of current trends in a discipline or disciplines related to one of the degrees offered in the biological sciences. Emphasis is placed on providing seniors with an appreciation of the discipline’s state-of-the-art and on developing skills for success in the next stage of a career in the biological sciences. Topics depend on the associated degree program. Prerequisite: Must be taken in the final year of a degree and students must have completed most of the course work required for one of the degrees in the biological sciences. LEC.

BIOL 600. Introductory Biochemistry, Lectures. 4 Hours. N.
Designed to offer the essentials of the chemistry of the constituents of living organisms and the changes these constituents undergo (during life processes) in the human body and other living forms. Prerequisite: BIOL 150 or BIOL 151 and one semester of organic chemistry. LEC.

BIOL 601. Principles of Biochemistry Laboratory. 2 Hours.
Theory and methods in the development of protein separation and purification, enzyme structure/function, and enzyme kinetics derived from primary literature searches and readings. Prerequisite or Co-requisite: BIOL 600; or consent of instructor. LAB.

BIOL 602. Plant Ecology. 3 Hours. N.
Introduction to basic concepts, focused at community and species level. Architectural ecomorphology of plants and their physiological responses to physical factors: solar radiation, climate, and soils. Plant succession as an interaction among species differing in ecomorphology and life style. Classification and ordination of plant communities: practice and theory. Other topics include: species diversity and lognormal distribution as to abundance classes; species/area relations and theory of island biogeography; allelochemical defenses; genealogy; paleoecology. Prerequisite: BIOL 414 or consent of instructor. Concurrent enrollment in parallel laboratory, BIOL 607, recommended. LEC.

BIOL 603. Systematic Botany. 3 Hours. N.
A lecture/laboratory course providing hands-on experience with plant identification, a history of plant classification, the principles of nomenclature and character analysis, the basics of systematics theory, and a phylogenically-oriented introduction to vascular plant diversity. Prerequisite: BIOL 413 or equivalent. LEC.

BIOL 606. Ecological Plant Physiology. 3 Hours. N.
Physiological responses of higher plants to environmental factors are discussed. Major topics are: water relations, heat transfer, resistance to water and temperature stress, dormancy, photoperiodism, photosynthesis and respiration under natural conditions, and effects of environmental pollution. Prerequisite: BIOL 408 or consent of instructor. LEC.

BIOL 607. Field and Laboratory Exercises in Plant Ecology. 2 Hours. U.
Introduction to quantitative analysis of plant communities and correlated environmental parameters; field and/or laboratory measurements of ecophysiological traits and comparative ecomorphology of principal species. Prerequisite: BIOL 414. Concurrent enrollment in parallel lecture, BIOL 602, recommended, but not required. LAB.

BIOL 609. Current Progress in Microbiology. 1 Hour. U.
A seminar course which will focus on current research in microbiology. A term paper will be required of each student. May be repeated for credit. Required of all majors in the senior year. Prerequisite: Two courses in microbiology. LEC.
BIL 611. Molecular Systematics and Evolution. 4 Hours. N.
An introduction to the use of molecular data in systematics and population biology. Topics include: evolution of genes and proteins; properties of mitochondrial DNA, chloroplast DNA, ribosomal RNA genes, protein-coding genes, and repetitive DNAs; laboratory methods for data collection; and data analysis. Prerequisite: BIOL 350. BIOL 550 or equivalent is recommended. LEC.

BIL 612. Fundamentals of Microbiology. 3 Hours. NB / N.
Lectures. Fundamental principles of microbiology with emphasis in physical and chemical properties of the bacterial cell; microbial metabolism, cultivation, growth and death of bacteria; microbial genetics; pathogenesis and immunity, industrially important microorganisms. Meets with BIOL 400, but students will be given additional and more advanced assignments, and will carry higher expectations. Prerequisite: BIOL 150 or BIOL 151 and two semesters of college chemistry, or consent of instructor. LEC.

BIL 613. Biology of Honeybees. 3 Hours. N.
Social organization, evolution, behavior, morphology, communication, pollination biology, and ecology of honeybees. Experience will be gained with colony dynamics and behavior while working with bees in the field. Prerequisite: BIOL 152, BIOL 153, or consent of instructor. LEC.

BIL 616. Medical Entomology. 3 Hours. N.
A study of the major human diseases transmitted by arthropods with emphasis on the biology and ecology of vectors, vector feeding mechanisms as related to disease transmission, epidemiology of arthropod-borne diseases, and the impact of arthropod-borne diseases on humans. Laboratory work on recognition of vector species, information sources, and use of taxonomic keys. Prerequisite: BIOL 152 or BIOL 153 and a course in microbiology or consent of instructor. LEC.

BIL 622. Paleontology. 3 Hours. N.
A study of the structure and evolution of ancient life; the nature and diversity of life through time; the interactions of ancient organisms with their environments and the information that the study of fossils provides about ancient environments; the use of fossils to determine the ages of rocks and the timing of past events in earth history; and the patterns of extinction through time. (Same as GEOL 521.) Prerequisite: BIOL 100, BIOL 101, BIOL 152, BIOL 153, GEOL 105, or GEOL 304. LEC.

BIL 623. Paleontology Laboratory. 1 Hour. U.
Laboratory course in the study of fossils with emphasis on the practice of paleontology and the morphology of ancient organisms. (Same as GEOL 523.) LAB.

BIL 625. Behavioral Ecology and Sociobiology. 3 Hours. N.
The role of natural selection in animal behavior, and the influence of behavior on population biology and social dynamics of animal species. Topics include: game theory and optimization as applied to animal behavior; altruism, cooperation and competition; kin recognition and interactions; group formation and dynamics, dominance, aggression, and territoriality; feeding strategies; reproductive behavior including mate choice, parental care, and mating systems. Prerequisite: BIOL 152; either BIOL 350, BIOL 412 or BIOL 414 recommended; or consent of instructor. LEC.

BIL 630. Conservation and Wildlife Biology. 3 Hours. N.
Examination of the concepts and processes involved in conservation of plant and animal populations and communities. Topics to be covered include conservation of endangered species, problems with invasions of exotic species and habitat fragmentation, wildlife management, and design of nature reserves. Prerequisite: BIOL 414. BIOL 412 strongly recommended. LEC.

BIL 636. Biochemistry I. 3 Hours. N.
First semester of a two-semester lecture course in introductory biochemistry. Emphasis upon the physical structure of macromolecules and membranes, enzyme structure/function, and enzyme kinetics. Prerequisite: CHEM 335 or consent of instructor. LEC.

BIL 637. Introductory Biochemistry Laboratory. 2 Hours. U.
The laboratory portion of BIOL 600 or 636. Experiments have been selected to introduce the student to cell constituents and biochemical reactions. One four-hour laboratory and one-hour lecture each week. Prerequisite: BIOL 600 or BIOL 636, or concurrent enrollment. LAB.

BIL 638. Biochemistry II. 3 Hours. N.
Second semester of a two-semester lecture course in introductory biochemistry. Emphasis upon the metabolism of carbohydrates, lipids, amino acids, proteins, and nucleic acids. Prerequisite: BIOL 636. LEC.

BIL 639. Advanced Biochemistry Laboratory. 2 Hours. U.
The laboratory portion of BIOL 638. One four-hour laboratory and a one-hour lecture each week. Experiments have been selected to familiarize students with experimental biochemical techniques using state-of-the-art methodology. Prerequisite: BIOL 637 and 638 (BIOL 638 may be taken concurrently). LAB.

BIL 640. The Biology and Evolution of Fossil Plants. 3 Hours. N.
A lecture course in which fossil plants, protists and fungi are examined throughout geologic time. Emphasis will be directed at paleoecology, biogeography and the stratigraphic distribution and composition of ancient floras. (Same as GEOL 528.) Prerequisite: BIOL 413 or permission of instructor. LEC.

BIL 641. Laboratory in Paleobotany. 1 Hour. U.
An examination of selected fossil plants throughout geological time and the techniques used to study them; laboratory will include identification and the use of plant fossils in biostratigraphy. (Same as GEOL 529.) Prerequisite: BIOL 413 or permission of instructor. Must be taken concurrently with BIOL 640. LAB.

BIL 644. Comparative Animal Physiology. 3 Hours. N.
Lecture and discussion of the basic mechanism of organic maintenance and integration; a comparative treatment of the uniformities and diversity of animal function; emphasis on environmental adaptations and evolutionary relationships. Prerequisite: BIOL 408, five hours of organic chemistry, and one year of college physics, or consent of instructor. LEC.

BIL 646. Mammalian Physiology. 4 Hours. N.
Lectures and demonstrations. An intermediate course in the functions, mechanisms and interactions of mammalian organ systems. Discussions span topics from molecular to whole animal functions. Required for pharmacy students and strongly recommended for students planning advanced work in any area of physiology. The student is assumed to have the knowledge and ability to utilize their math and science background. Prerequisite: Five hours of organic chemistry, a course of college physics. LEC.

BIL 647. Mammalian Physiology Laboratory. 2 Hours. U.
Laboratory experiments in representative areas of mammalian physiology designed to complement BIOL 646. Not open to students with credit in BIOL 247. Prerequisite or Co-requisite: BIOL 646. LAB.

BIL 648. Systematics and Macroevolution. 3 Hours. N.
An introduction to the theory of macroevolution and the fundamental principles of systematics. Intended for students planning to pursue advanced studies in organismal biology, evolution, and/or systematics. Topics in macroevolution will include hierarchy theory, species concepts, speciation and species selection. Methods of phylogenetic estimation will be discussed and include parsimony, Maximum likelihood and Baysian
inference. Evolutionary studies utilizing phylogenies including tests of homology, studies of character evolution, and biogeography will be discussed. An overview of classification and nomenclature will also be provided. Prerequisite: BIOL 412 or equivalent. LEC.

**BIOL 650. Advanced Neurobiology. 3 Hours. N.**
The course builds an in depth knowledge about basic mechanisms of synaptic communication among nerve cells and their targets, and the structure and function of nervous systems. Topics include nervous system development and synapse formation, structure and function of neurons, physiological and molecular basis of synaptic communication between neurons, mechanisms of synaptic plasticity involved in learning and memory, sensory systems (vision, auditory, vestibular, motor reflexes and pain), processing of neural information at cellular and system levels, synapse regeneration and diseases of the nervous system. Prerequisite: BIOL 435 (Introduction to Neurobiology), or consent of instructor. LEC.

**BIOL 652. Comparative Animal Behavior. 3 Hours. N.**
A comparative analysis of behavior as an adaptive mechanism; emphasis on ontogenetic and evolutionary aspects of behavior. Prerequisite: BIOL 152 or BIOL 153, and PSYC 104, or consent of instructor. LEC.

**BIOL 654. Comparative Animal Behavior, Laboratory. 1 Hour. U.**
Laboratory and field phase of BIOL 652. Students may elect sections according to their special interests. Prerequisite: Prior or concurrent enrollment in BIOL 652. LAB.

**BIOL 655. Behavioral Genetics. 3 Hours. N.**
A survey of behavioral genetics in animals and humans. Emphasis is on how the methods and theories of quantitative, population and molecular genetics can be applied to individual and group differences in animals. Behaviors covered may include circadian rhythms, foraging, courtship, learning and memory, anxiety, social structures and human behaviors. Prerequisite: BIOL 350 or consent of instructor. LEC.

**BIOL 656. Ecosystem Ecology. 3 Hours. N.**
An introduction to the patterns and processes that affect terrestrial ecosystems. Emphasis is placed on understanding nutrient cycles (e.g., carbon nitrogen phosphorous), hydrologic cycles, and patterns of net primary productivity. The role of both natural and anthropogenic disturbances in structuring terrestrial ecosystems is examined in the context of global land-use patterns. Discussion of current research literature will be expected. (Same as EVRN 656.) Prerequisite: BIOL 414 and CHEM 130. LEC.

**BIOL 661. Ecology of Rivers and Lakes. 3 Hours. N.**
Study of the ecology and structure of creeks, rivers, ponds, lakes, and wetlands as well as some of the major human impacts. Prerequisite: One year of biology or permission of the instructor. BIOL 414 recommended. LEC.

**BIOL 662. Aquatic Ecology Laboratory. 2 Hours. U.**
A field and laboratory course introducing biological, physical, and chemical characteristics of lentic (ponds and lakes) and lotic (creeks and rivers) habitats. Students learn sampling and monitoring techniques and how to classify aquatic biota at higher taxonomic levels. Co- or prerequisite: CHEM 130 or CHEM 190 or CHEM 170, and BIOL 661. LAB.

**BIOL 664. Vertebrate Biology. 3 Hours. N.**
A laboratory course emphasizing principles of systematics and identification and the behavioral ecology of local vertebrate animals. Prerequisite: BIOL 152, BIOL 153 or consent of instructor. LAB.

**BIOL 667. Chemical Communication in Sex, Feeding, and Fighting. 3 Hours. N.**
The course focuses on the role of chemical information molecules in the interrelationships among organisms, with particular attention to interactions (a) within and between animal species, (b) within and between plant species, (c) between animals and plants, (d) between predators and prey, and (e) between parasites and hosts. Prerequisite: BIOL 100 or BIOL 101 or BIOL 152 or BIOL 153 or consent of instructor. LEC.

**BIOL 668. Evolutionary Ecology. 3 Hours. N.**
Emphasis will be on the themes that interface ecology and evolutionary studies. Topics will include selection theory; reproductive, foraging, and sex allocation problems; coevolution; patterns or morphological and behavioral adaptations; competition, predation, and population regulation. Special attention will be given to the philosophy and practice of resolving unanswered questions in evolutionary ecology. Prerequisite: BIOL 412 or permission of instructor. LEC.

**BIOL 669. Biology of Freshwater Invertebrates. 3 Hours. N.**
A lecture, field, and laboratory course examining the classification, biological characteristics, and ecology of invertebrates in lotic and lentic habitats. Major groups of benthic and planktonic invertebrates will be studied, including aquatic insects, crustaceans, molluscs, and others. Prerequisite: BIOL 540, BIOL 660, BIOL 661, or BIOL 663, or permission of instructor. LEC.

**BIOL 672. Gene Expression. 3 Hours. N.**
A study of the structure and expression of genes in prokaryotes and eukaryotes. Emphasis on the mechanisms of DNA, RNA, and protein biosynthesis. Prerequisite: A course in biochemistry or consent of instructor. LEC.

**BIOL 673. Cellular and Molecular Neurobiology. 3 Hours.**
Mechanisms of neural function and development will be considered at the cellular and molecular levels. Synaptic mechanisms of learning and memory, modulation of transmitter release, and the molecular basis of neurodegenerative disorders will also be discussed. Prerequisite: BIOL 435, BIOL 464, or permission of instructor. LEC.

**BIOL 676. Mammalian Neuroanatomy. 3 Hours. N.**
Lectures, video tape demonstrations, and laboratory dissection of mammalian nervous system with some attention to human material. Major emphasis on nervous system structure as it relates to function. For neurobiology and pre-health science majors. Prerequisite or Corequisite: A course in neurobiology (BIOL 435, BIOL 650), or permission of the instructor. LAB.

**BIOL 688. The Molecular Biology of Cancer. 3 Hours. N.**
The basic concepts of molecular biology are examined and used to probe the process by which a normal cell becomes a cancer cell. The course investigates DNA damage and repair, chemical carcinogenesis, gene cloning and manipulation, the control of gene expression in eukaryotes, tumor viruses, the roles of oncogenes and tumor suppressor genes in carcinogenesis, and cancer therapy. Prerequisite: BIOL 350 and BIOL 416; or BIOL 536; or consent of instructor. LEC.

**BIOL 694. The Art of Becoming a Professional Scientist. 3 Hours. N.**
Discusses aspects of graduate education that are directed at students entering graduate school and that focus on how to be successful in the post PhD phases of a career, but that must be initiated early in the graduate student program of study. One three hour discussion per week. Senior standing and planning on entering graduate school. LEC.

**BIOL 695. Animal Communication and Sensory Ecology. 3 Hours. N.**
Lectures and discussion sessions. A study of the propagation and perception of olfactory, acoustic, and visual signals produced by animals in the context of communication. Both physiological and evolutionary perspectives will be treated. Prerequisite: A course in behavior or consent of instructor. LEC.
BIOL 699. Biology Honors Research Colloquium. 1 Hour. AE61 / U.
Students pursuing Honors in Biology will meet weekly to discuss, both
formally and informally, their honors research. Background information
and experimental approaches of the research will be examined and
critiqued. Prerequisite: Enrollment in Biology Honors program and consent
of instructor. LEC.

BIOL 700. Conservation Principles and Practices. 3 Hours.
This course will acquaint the future museum professional with problems
in conserving all types of collections. Philosophical and ethical
approaches will be discussed, as well as the changing practices regarding
conservation techniques. Emphasis will be placed on detection and
identification of causes of deterioration in objects made of organic and
inorganic materials, and how these problems can be remedied. Storage
and care of objects will also be considered. (Same as AMS 714, GEOL
780, HIST 722 and MUSE 706.) Prerequisite: Museum Studies student,
Indigenous Nations Studies student, or consent of instructor. LEC.

BIOL 701. Topics in: ______. 1-3 Hours.
Advanced courses on special topics in biology, given as need arises.
Lectures, discussions, readings, laboratory, or field work. Students may
select sections according to their special interests. LEC.

BIOL 702. Laboratory Practice: Radiation Safety Procedures. 0.75
Hours.
An introduction to the basic properties of radioisotopes, and the
fundamental safety practices needed for the safe use of low levels of
radioactive materials. Risks associated with radiation exposures and
applicable state and federal regulations are discussed. (Normally the
content of the first ten hours of BIOL 703.) Prerequisite: Senior standing in
one of the sciences. LAB.

BIOL 703. Radioisotopes and Radiation Safety in Research. 1.25
Hour.
An introduction to the properties of radioactive materials, radiations,
and their interaction with matter, methods of radiation detection and
measurement, protective measures, applicable state and federal
regulations, design and implementation of safety management systems
in the research laboratory, design of tracer experiments, and the risks
associated with radiation exposure. Prerequisite: BIOL 702 or concurrent
enrollment in BIOL 702, algebra and two semesters of either physics or
chemistry. LEC.

BIOL 704. Research Animal Methods. 3 Hours.
Lectures, discussions, and laboratory sessions. Selection of proper animal
models for specific research studies. Various external influences that alter
research data. Routine techniques including restraint, sample collection,
injection, anesthesia and euthanasia. Prevention and handling of common
research animal problems or diseases. Proper and humane animal care
as defined by the Federal Animal Welfare Act. Prerequisite: Senior or
graduate standing in one of the biological sciences or permission of
instructor. LEC.

BIOL 706. Current Trends in Curation and Collection Management. 2
Hours.
Seminar course to provide students with a working knowledge of the
primary issues and current trends in building, administration, and care
of scientific collections. Topics include permits, collecting, accessioning,
cataloging, preservation, protective conservation, and access to
collections and data. The course format consists of readings, lectures,
guest speakers, discussions, and visits to scientific collections on campus.
(Same as MUSE 710.) LEC.

BIOL 708. External Morphology of Insects. 4 Hours.
A study of external structure common to all insect orders, with detailed
comparative laboratory studies of representative species. The course is
offered at the 500 and 700 levels, with additional assignments at the 700
level. Prerequisite: BIOL 500, BIOL 502 or equivalent, or permission of
instructor. LEC.

BIOL 709. Immature Insects. 3 Hours.
The classification, structure, and ecological distribution of immature
insects, especially larvae of Holometabola. Includes both lectures and
laboratories. The course is offered at the 500 and 700 levels, with
additional assignments at the 700 level. Prerequisite: BIOL 502 or consent
of instructor. LEC.

BIOL 710. Insect Development. 3 Hours.
A study of the embryonic and postembryonic development of insects.
Emphasis is placed on developmental physiology of the early embryonic
stages, the morphogenesis of organ systems, and the action of hormones
in postembryonic development. Laboratory includes demonstrations and
histological and experimental work. Prerequisite: Consent of instructor or
BIOL 500. LEC.

BIOL 711. Insect Systematics. 4 Hours. N.
A study of the diversity of insects, including the classification of all
living and fossil orders and the more common families primarily on the
basis of external morphology. The biology, ecology, phylogeny, and
geological history of each order will be covered. Includes both lectures
and laboratory exercises. The course is offered at the 500 and 700 levels,
with additional assignments at the 700 level. Prerequisite: BIOL 500 and
BIOL 502 or equivalent, or permission of instructor. LEC.

BIOL 712. Evolutionary Biology - Graduate. 3 Hours.
A thorough survey of evolutionary biology. Topics include: the history of
evolutionary thought, genetics and the nature of variation, adaptation,
speciation, coevolution, macroevolution, the comparative method, and
the history of life. Prerequisite: BIOL 350 or equivalent or consent of
instructor. LEC.

BIOL 714. Community and Ecosystem Ecology. 3 Hours.
Study of factors determining distribution of organisms, community
structures, energy flow in ecosystems, and functional analysis of
ecosystems. Discussion periods will include reading from current scientific
literature. Prerequisite: Intended for graduate students in biology who did
not have an undergraduate course in community ecology. Consent of
instructor. LEC.

BIOL 716. Insect Physiology and Internal Morphology. 3 Hours.
Mechanisms and integration of the internal life-supporting systems of
insects, emphasizing the interdependence of structure and function. The
course is offered at the 500 and 700 levels, with additional assignments
at the 700 level. Prerequisite: BIOL 408 and BIOL 500, or permission of
instructor. LEC.

BIOL 717. Insect Ecology and Behavior. 3 Hours.
Lectures and laboratory demonstrations. A study of insect population
dynamics, life history strategies, co-evolutionary interactions, foraging,
and reproductive and social behaviors. Approaches from basic population
biology and behavioral ecology are emphasized. Prerequisite: A course in
ecology or behavior, or consent of instructor. LEC.

BIOL 718. Laboratory in Molecular Biology. 3 Hours.
Practical experience in recombinant DNA technology and molecular
cloning. Given concurrent with BIOL 418. Prerequisite: BIOL 416 or
course in biochemistry or microbiology. Training in radiation safety
preferred. LAB.

BIOL 719. Light and Electron Microscopy. 3 Hours.
A lecture and laboratory class emphasizing the theoretical and practical
use of light microscopes and scanning and transmission electron
microscopes. A variety of approaches using light microscopy will be
employed, including brightfield, phase, fluorescence, DIC, polarization, and darkfield optics. A variety of techniques will be used to prepare specimens and view them using scanning and transmission electron microscopy. Video and computer-aided analysis of images as well as conventional photographic techniques will be included. Prerequisite: Permission of instructor. LEC.

**BIOL 720. Scientific Illustration. 3 Hours.**
Lectures, demonstrations, and studio participation. Instruction in the preparation of illustrations for scientific publications, theses, and oral and poster presentations. Emphasis on basic drafting and layout skills, and pen and ink and tone renderings intended for publication. Attention given to preparation of photographs for publication and oral presentations. Instruction provided in use of specialized optical equipment for drawing. Prerequisite: Upper division or graduate standing and permission of instructor. LEC.

**BIOL 721. Microbial Genetics. 3 Hours.**
Bacteria and viruses as models of genetic systems. Mutagenesis and repair. Transformation, transductions, and recombination. Molecular biology of gene expression. This course is the graduate-level section of BIOL 518 and MCRB 510. Graduate students will be assigned additional and more advanced studies. Prerequisite: An introductory microbiology course or permission of instructor. LEC.

**BIOL 725. Aquatic Entomology. 4 Hours.**
Identification of aquatic insects and detailed study of their community structure and dynamics. The external morphology of all aquatic orders will be covered, followed by consideration of specific physiological and behavioral adaptations that facilitate an aquatic existence. Includes both lectures and laboratory exercises. Requirements include making a collection of aquatic insects. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 414 or BIOL 500 or permission of instructor. LEC.

**BIOL 742. Plant Population Biology. 3 Hours.**
A survey of the major areas of plant population ecology and genetics including competition, demography, pollination ecology, gene flow, natural selection and mating systems. Each topic is introduced by a lecture and is further explored by discussion of the current literature. Prerequisite: BIOL 412 or equivalent. LEC.

**BIOL 743. Population Genetics. 3 Hours.**
Description and discussion of genetic variation in natural populations. The effects and interaction of selection, migration, mutation, mating systems, and finite population size on the maintenance of genetic variation. Discussion of the interface with evolution and population ecology. Prerequisite: BIOL 404 and BIOL 412 or equivalent. LEC.

**BIOL 745. Laboratory in Experimental Ecology. 3 Hours.**
A series of seven laboratory modules emphasizing quantitative methods and experimental analysis. Each module requires data collection analysis, and written interpretation. Modern instrumentation, including use of microcomputers, is emphasized. Topics include ecological modeling, ecological genetics, physiological ecology, community structure, mating and reproduction and precipitation and soil chemistry. Prerequisite: BIOL 412 or BIOL 414. LAB.

**BIOL 746. Principles of Systematics. 4 Hours.**
Lectures: historical and philosophical foundations of modern systematics; theory and practice of classifications; character analysis; phylogeny reconstruction; formulation and testing of systematic hypotheses; species concepts and speculation; the interface between systematics and evolutionary theory, particularly the origins of asymmetric diversity patterns, macroevolution, adaptation, coevolution, and the evolution of higher taxa; roles of paleontological, ontogenetic, biochemical, and molecular data in systematics; and biogeography. Laboratory work: practical applications of nomenclature, development of keys, descriptions and systematic revisions, character analysis, phylogeny reconstruction, hypothesis testing, interpretation of biogeographic patterns. (Three hours lecture and two hours laboratory per week.) Prerequisite: BIOL 628 or equivalent. Intended for graduate students planning to specialize in systematics. LEC.

**BIOL 747. Quantitative Genetics. 3 Hours.**
A discussion of genetic traits for which individual gene differences do not separate a population into qualitatively distinct groups. Includes the estimation of heritability, genetic determination, and number of loci, and a study of selection theory. Prerequisite: BIOL 404 or BIOL 412 or equivalent and a course in statistics. LEC.

**BIOL 749. Topics in Stable Isotopes in the Natural Sciences: 2-3 Hours.**
Isotopic compositions of substances provide powerful insights into many topics in the natural sciences. Applications of isotopic analyses of carbon, hydrogen, oxygen, and nitrogen to selected research topics such as plant resource use, food web analysis, paleoecology, paleodiet reconstruction, hydrology, and soils genesis will be examined. Knowledge of isotope chemistry is not required. (Concepts necessary to understand pertinent articles will be taught during the first class meetings.) May be repeated. (Same as GEOG 749.) LEC.

**BIOL 750. Advanced Biochemistry. 3 Hours.**
The structures and dynamics of proteins and nucleic acids will be developed in terms of well-understood examples which will also be used to discuss the function of major classes of proteins. The application of structural and dynamical principles to biological membranes and their function will also be discussed. Prerequisite: BIOL 807 and BIOL 808, a general biochemistry course, or permission of instructor. LEC.

**BIOL 751. Plant Communities of North America. 3 Hours.**
Physiognomic and floristic analysis of the vegetation, with emphasis on the Southwest; distribution of communities in relation to climate, substratum, and disturbance; recognition of dominant elements of vegetation through study of specimens and illustrative material. Prerequisite: BIOL 602. LEC.

**BIOL 752. Cell Biology. 3 Hours.**
A lecture course emphasizing biochemical, developmental, and molecular aspects of cell structure and function. Prerequisite: BIOL 807 and BIOL 808, or BIOL 416 or BIOL 536, or permission of instructor. LEC.

**BIOL 753. Advanced Genetics. 3 Hours.**
An advanced course in modern genetic analysis of eukaryotes. Course material will consist mainly of primary literature in the field of genetics. Topics covered include: genomic structure and genome projects; nature of mutations; mutant analysis; genetic recombination and mapping; analysis of gene function; genetic buffering; RNAi and epigenetics; and the genetics of model organisms. This course is meant for graduate students in the Molecular Biosciences and Genetics programs. Prerequisite: BIOL 807 and BIOL 808, or a course in genetics and a course in biochemistry, or permission of the instructor. LEC.

**BIOL 754. Brain Diseases and Neurological Disorders. 3 Hours.**
Major brain diseases and neurological disorders such as stroke, Alzheimer’s Disease, Parkinson’s Disease, Huntington’s Disease, Multiple Sclerosis, Epilepsy, Schizophrenia, etc., will be discussed in terms of the etiology, molecular, and cellular basis of potential therapeutic interventions. Graduate students are required to present original research paper assigned by the instructor to the class in addition to the other assignments for all the students enrolled. Prerequisite: BIOL 150, or consent of instructor. LEC.
BIOL 755. Mechanisms of Development. 3 Hours.
Molecular aspects of differential gene function, signal transduction, and cell polarity in the regulation of morphogenesis. Prerequisite: BIOL 807 and BIOL 808 for graduate students; BIOL 417 or equivalent for undergraduate students; or permission of instructor. LEC.

BIOL 756. Cell and Tissue Culture Laboratory. 3 Hours.
An introduction to current laboratory methods of cell and tissue culture, intended to provide an understanding of and substantial experience in several aspects of animal cell growth, cell synchrony, cell nutrition, the production and selection of mutant cell lines, the production and use of heterokaryons and interspecific hybrids, cell transformation in vitro, the cultivation and characterization of differentiated cells in culture, enzyme induction, and cell karyotyping. LAB.

BIOL 757. Carcinogenesis and Cancer Biology. 3 Hours.
This course surveys the field of cancer research. The major goal is to introduce the breadth of cancer research while, at the same time, providing sufficient depth to allow the student to recognize problems in cancer and to design experiments which study cancer biology. Toward that end, the student should (at the conclusion of the course) be able to: define cancer, identify and discuss its causes; identify and discuss the genetic basis for cancer development and progression; discuss the theoretical basis for cancer therapy design and efficacy testing; discuss the biochemical, molecular and cellular events involved in the natural history of major human neoplasms. Prerequisite: Permission of instructor. LEC.

BIOL 757. The Vegetation of the Earth. 3 Hours.
A discussion of the world's vegetation in its natural condition and as affected by man. Included are aspects of its economic and cultural usefulness and the problem of its preservation. Prerequisite: BIOL 634. LEC.

BIOL 758. Plant Molecular Biology. 3 Hours.
Gene expression in chloroplasts, mitochondria, and plant nuclei, and regulatory interactions among these genomes. Special topics include the molecular biology of the photosynthetic apparatus, nitrogen fixation, stress and development, viruses and viroids, transposable genetic elements and gene evolution, and gene transfer and plant genetic engineering. Prerequisite: A course in biochemistry, cell or molecular biology, or permission of instructor. LEC.

BIOL 767. Plant Biochemistry. 3 Hours.
A detailed study of plant biochemistry with emphasis on metabolic and regulatory processes particularly characteristic or unique in plants. Prerequisite: BIOL 600 or equivalent. LEC.

BIOL 768. Gene Expression. 3 Hours.
A study of the structure and expression of genes in prokaryotes and eukaryotes. Emphasis on the mechanisms of DNA, RNA, and protein biosynthesis. This course meets concurrently with BIOL 672 and is open to graduate students seeking a more rigorous treatment of techniques in molecular biology that students receive in BIOL 672. Prerequisite: A course in biochemistry or consent of instructor. LEC.

BIOL 775. Chemistry of the Nervous System. 3 Hours.
A detailed study of the molecular aspects of nerve transmission will be covered with special emphasis on the uptake, storage, release, biosynthesis and metabolism of specific neurotransmitters. Drugs affecting these processes and current research on receptor isolation and receptor mechanisms will be discussed from a chemical viewpoint. (Same as CHEM 775, MDCM 775, NURO 775, PTX 775, and PHCH 775.) Prerequisite: BIOL 600 or equivalent or consent of instructor. LEC.

BIOL 777. Integrative and Developmental Neurobiology. 3 Hours.
Cellular processing of neural information both at the local level and in long distance integration. Local computing functions, and integration of these functions among the various areas to produce coherent movement and perceptions will be discussed. A description of forces guiding the development of the nervous system to form a coherent working system in both invertebrate and vertebrate animals will be presented, as well as determinants of brain sexual dimorphism. Prerequisite: An upper level course in physiology or BIOL 520. LEC.

BIOL 780. Fisheries. 2 Hours.
Philosophy and practice of conservation as it applies to major world fisheries. Species principally utilized, factors affecting production, methods for appraisal and management of stocks. Historical and prospective roles of the fisheries in relation to human food supplies and recreational needs. Prerequisite: BIOL 412. LEC.

BIOL 781. Fisheries, Laboratory. 2 Hours.
Training in field and laboratory techniques for fishery research and management. Prerequisite: Concurrent or prior enrollment in BIOL 780. LAB.

BIOL 782. Principles of Biogeography. 3 Hours.
A synthesis of historical and ecological biogeography of plants and animals, treating vicariance, dispersal, and community patterns; lectures, readings, discussions. A course in systematics and a course in ecology are recommended. LEC.

BIOL 783. Herpetology. 3 Hours. N.
A study of amphibians and reptiles. This lecture course will explore the taxonomic diversity of amphibians and reptiles, and current areas of active research in herpetology. Topics will be considered within a phylogenetic framework, and include discussion on systematics, biogeography, tetrapod origins, skeletal systems, growth, circulatory system, locomotion, thermal and water regulation, hibernation, ecology, sexual behavior, parental care, and mimicry. Students taking the course at the 700 level will have additional work required of them. Prerequisite: BIOL 152 Principles of Organismal Biology, and/or BIOL 413 History and Diversity of Organisms. LEC.

BIOL 784. Introduction to Museum Public Education. 3 Hours.
Consideration of the goals of an institution's public education services, developing programs, identifying potential audiences, developing audiences, and funding. Workshops and demonstrations are designed for students to gain practical experience working with various programs and developing model programs. (Same as AMS 797, GEOG 784, HIST 721, and MUSE 705.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

BIOL 785. Museum Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museums as organizations; accounting, budget cycles, personnel management, and related topics will be presented using, as appropriate, case studies and a simulated museum organization model. (Same as AMS 731, GEOG 783, HIST 728, and MUSE 705.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

BIOL 786. Fundamentals of Tropical Biology. 1-8 Hours.
The tropical environment and biota; ecologic relations, communities and developing model programs. (Same as AMS 721, GEOG 783, HIST 728, and MUSE 705.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

BIOL 787. Introduction to Museum Exhibits. 3 Hours.
This course will consider the role of exhibits as an integrated part of museum collection management, research, and public service. Lecture and discussion will focus on issues involved in planning and producing museum exhibits. Laboratory exercises will provide first hand experience
with basic preparation techniques. Emphasis will be placed on the management of an exhibit program in both large and small museums in the major disciplines. (Same as AMS 700, GEOL 781, HIST 723, and MUSE 703.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

**BIOL 788. The Nature of Museums. 3 Hours.**
The purpose of this course is to provide an overview of the kinds of museums, their various missions, and their characteristics and potentials as research, education, and public service institutions responsible for collections of natural and cultural objects. (Same as AMS 720, GEOL 782, HIST 720, and MUSE 702.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

**BIOL 789. Field Course in Entomology. 1-6 Hours.**
Field experiences in various habitats, with an emphasis in ecology, systematics, behavior, and collection techniques. FLD.

**BIOL 790. Paleontology of Lower Vertebrates. 3 Hours.**
General account of the osteology, geological distribution, and evolution of the principal groups of fishes, amphibians, reptiles, and birds. Lectures and laboratory. (Same as GEOL 725.) LEC.

**BIOL 791. Paleontology of Higher Vertebrates. 3 Hours.**
Evolution of mammals, and anatomical modifications involved in the process as ascertained from the fossil record. Lectures and laboratory. (Same as GEOL 726.) LEC.

**BIOL 792. Ichthyology. 4 Hours.**
A study of fishes. Lecture topics include the structure and function of fishes; the adaptations of fishes to the aquatic environment; and a survey of major fish groups with emphasis on evolutionary relationships and biogeography. Laboratory topics include a survey of fishes using specimens, and the use of keys to identify fishes with emphasis on the Kansas fish fauna. A research paper using primary scientific literature is required. Prerequisite: Graduate standing or permission of the instructor. LEC.

**BIOL 794. Mammalogy. 3 Hours.**
A study of mammals, with emphasis on systematics, biogeography, and natural history. Lectures, laboratory, and field study. Prerequisite: BIOL 100 or BIOL 413. LEC.

**BIOL 795. Biology of Amphibians. 3 Hours.**
Evolutionary biology of amphibians with emphasis on systematics, morphology, development, reproductive strategies, and distribution; lectures and laboratory. Prerequisite: BIOL 664 or permission of instructor. LEC.

**BIOL 796. Biology of Reptiles. 3 Hours.**
Evolutionary biology of reptiles with emphasis on systematics, morphology, reproductive strategies, and distribution; lectures and laboratory. Prerequisite: BIOL 664 or permission of instructor. LEC.

**BIOL 797. Field Course in Vertebrate Paleontology. 3-6 Hours.**
Training in the techniques of collecting vertebrate fossils, description and interpretation of the stratigraphy of fossiliferous sediments, and interpretation of the adequacy and bias of samples. FLD.

**BIOL 798. Principles and Practices of Museum Collection Management. 3 Hours.**
Lecture, discussion, and laboratory exercises on the nature of museum collections, their associated data, and their use in scholarly research; cataloging, storage, fumigation, automated information management and related topics will be presented for museums of art, history, natural history and anthropology. (Same as AMS 730, GEOL 785, HIST 725, and MUSE 704.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

**BIOL 799. Natural History Museum Apprenticeship. 1-6 Hours.**
Provides directed, practical experience in collection care and management, public education, exhibits and administration with emphases to suit the particular requirements of each student. Full time for one semester or half time for two semesters. (Same as AMS 799, ANTH 799, GEOL 723, HIST 799, and MUSE 799.) FLD.

**BIOL 801. Topics in: _____. 1-3 Hours.**
Advanced courses on special topics in biology, given as need arises. Lectures, discussing readings, laboratory or field work. Students may select sections according to their special interests. LEC.

**BIOL 802. The Art of Becoming a Professional Scientist. 3 Hours.**
Discusses aspects of graduate education that are directed at the post PhD phases of a career, but that must be initiated early in the graduate student program of study. One 3-hour discussion per week. LEC.

**BIOL 804. Scientific Integrity: Molecular Biosciences. 1 Hour.**
This course introduces aspects and issues associated with being an ethical, responsible, and professional research scientist. Included topics are professional practices, regulations, and rules that define the responsible and ethical conduct of research. Graduate students will become familiar with and prepare to navigate through challenges that occur during a career in research science. The format of individual classes is expected to incorporate both instruction and discussion. Prerequisite: Admission to the graduate program in Molecular Biosciences, or consent of instructor. LEC.

**BIOL 806. Major Patterns in Insect Evolution. 3 Hours.**
Extensive reading and discussion of the primary literature on topics relating to major patterns in the evolutionary history of insects, including the fossil history of insects, the monophyly of arthropods, the origin of wings, the changing role of insects in ecological communities, the origins of social behavior, modes and mechanisms of speciation, and patterns of species diversity. Assigned readings require a solid background in evolutionary theory and insect biology, especially morphology, development, and classification. Prerequisite: Permission of instructor. LEC.

**BIOL 807. Graduate Molecular Biosciences. 6 Hours.**
An introduction to the advanced study of biochemistry, microbiology, genetics, cell and developmental biology, and neurobiology for all Molecular Biosciences graduate students. Topics can include macromolecular structure, metabolism, kinetics and thermodynamics, bioinformatics, prokaryotic and eukaryotic genetic mechanisms, cell structure and function, signal transduction, basic and pathogenic bacteriology, immunology, virology, membrane potentials, synaptic transmission, and sensory neurophysiology. Prerequisite: Admission to the graduate program in Molecular Biosciences, or consent of instructor. LEC.

**BIOL 809. Graduate Molecular Biosciences for Medicinal Chemists. 4 Hours.**
An introduction to the advanced study of biochemistry, microbiology, and neurobiology for graduate students in Medicinal Chemistry. Prerequisite: Admission to the graduate program in Medicinal Chemistry and consent of instructor. LEC.

**BIOL 810. Seminar in Biochemistry. 1 Hour.**
Presentation and discussion of specific areas of recent research in biochemistry. This course may be taken more than once. LEC.

**BIOL 811. Advanced Molecular and Cellular Immunology. 2 Hours.**
Covers recent advances in immunobiology and immunomodulation. Topics include structure and function of antibodies, hybridoma systems, idiotypes, induction and regulation of the immune response through cell interactions and cytokine action, and the role of immune activity in disease
states such as hypersensitivity, autoreactivity, and cancer. Prerequisite: BIOL 807 and BIOL 808, or an introductory course in immunology, or consent of instructor. LEC.

**BIOL 812. Mechanisms of Host-Parasite Relationships. 2 Hours.**
Emphasis is on virulence factors of microorganisms and the host response to infection. Topics will include pathogenesis of intracellular and extracellular parasites, bacterial adhesins, and toxins, and the role of innate and acquired immunity in host resistance and the response to infection. Prerequisite: BIOL 807 and BIOL 808, or a course in biochemistry, or consent of instructor. LEC.

**BIOL 813. Advanced Bacterial Physiology. 2 Hours.**
The intermediary reactions catalyzed by the bacterial cell during energy-requiring processes. Thermodynamic considerations of these processes are discussed. Knowledge of calculus is recommended. Prerequisite: BIOL 807 and BIOL 808, or a course in microbiology and a course in biochemistry, or consent of instructor. LEC.

**BIOL 814. Advanced Molecular Virology. 2 Hours.**
The course concentrates on evaluation of current literature concerning all aspects of molecular biology, biochemical characterization, and pathogenic mechanisms involved in host-virus interactions. Students will be expected to present articles and participate in discussions. Prerequisite: BIOL 807 and BIOL 808, or a course in microbial genetics and a course in virology, or consent of instructor. LEC.

**BIOL 815. Advanced Molecular Genetics. 2 Hours.**
A literature-based course that covers recent advances in microbial molecular genetics. Topics include transcription, translation, mutagenesis and repair, genetic exchange mechanisms, and regulation of gene expression. Prerequisite: BIOL 807 and BIOL 808, or a course in microbial genetics, or consent of instructor. LEC.

**BIOL 818. Techniques in Molecular Biosciences. 2 Hours.**
This course provides an introduction to common techniques used for research strategies in molecular biosciences. The course will cover common techniques in cell biology, biochemistry, microbiology, and neurobiology. Information will be presented in lectures and through practical demonstrations. This course is primarily intended for first year graduate students in the Department of Molecular Biosciences. Prerequisite: Enrollment in the Molecular Biosciences Graduate Program or consent of instructor. LAB.

**BIOL 840. Scientific Communication. 2 Hours. N.**
Principles of English communication skills for the professional scientist. The course explores the form, function, and practice (including ethics) of scientific communication, emphasizing elements of writing and speech that are important to clarity and precision. The course covers written and verbal communication of primary research results as well as composing correspondence, a curriculum vitae, reviews, etc. Prerequisite: Graduate standing. LEC.

**BIOL 841. Biometry I. 5 Hours.**
The application of statistical methods to data from various fields of biological research. Special emphasis is placed on practical computational procedures. Prerequisite: College algebra. LEC.

**BIOL 842. Biometry II. 3 Hours.**
This course is primarily devoted to special advanced topics in analysis of variance, analysis of covariance and regression analysis. Polynomial regression and multiple linear regression will be presented as will the general linear model. Elementary matrix algebra will be developed as needed. Prerequisite: BIOL 841. LEC.

**BIOL 847. Phylogenetics. 3 Hours.**
An introduction to the theory and practice of phylogenetic systematics. Includes principles of character analysis including determination of homology and determination of character polarity, testing alternate phylogenetic trees, and reconstructing trees using computer techniques. Also includes principles of constructing phylogenetic classifications and the nature of taxa in the phylogenetic system. Other topics, such as the nature of species and principles of biogeography are included. Prerequisite: Twenty hours natural history. LEC.

**BIOL 848. Phylogenetic Methods. 4 Hours.**
A survey of methods for inferring phylogenetic trees from character data and using phylogenies to address evolutionary questions. Lectures will present the relevant theory and algorithmic description of methods. Computer lab will familiarize students with software that implements the analyses discussed in lecture. Intended for graduate students specializing in systematics. Prerequisite: BIOL 845 and BIOL 841 or consent of instructor. LEC.

**BIOL 872. Gene Expression II. 3 Hours.**
Second semester of a two-semester lecture course on gene expression. Emphasis on control of gene expression at the transcriptional and post-transcriptional levels. Prerequisite: BIOL 772 or consent of instructor. LEC.

**BIOL 888. Topics in Evolutionary Morphology: ______, 2 Hours.**
Presentation and discussion by graduate students and faculty of selected topics centering on observed changes in structure and function of organisms from a phylogenetic point of view. Presentation will include results of original research when possible and appropriate, and otherwise, will be based on syntheses of recent literature. RSH.

**BIOL 890. Advanced Study in Microbiology. 1-10 Hours.**
Original investigation by students at the master’s degree level. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Ten or more hours of microbiology and consent of department. RSH.

**BIOL 895. Human Genetics. 3 Hours.**
A lecture course providing balanced coverage of Mendelian and molecular genetics of humans; includes discussions and presentations on current issues in human and medical genetics. Prerequisite: A course in genetics. LEC.

**BIOL 899. Master's Thesis. 1-10 Hours.**
Research which is to be incorporated into an M.A. thesis. Not more than ten hours may be earned. Graded on a satisfactory/unsatisfactory basis. THE.

**BIOL 901. Graduate Seminar in Biochemistry and Biophysics. 1 Hour.**
Advanced course examining current research topics in biochemistry and biophysics. Extensive student/faculty interaction is emphasized utilizing lectures, class discussion of assigned readings of research reports, and oral presentations. Prerequisite: Enrollment in graduate school, and departmental admission. LEC.

**BIOL 902. Graduate Seminar in Molecular, Cellular, and Developmental Biology. 1 Hour.**
Advanced course examining current research topics in molecular, cellular, and developmental biology. Extensive student/faculty interaction is emphasized utilizing lectures, class discussion of assigned readings of research reports, and oral presentations. Prerequisite: Enrollment in graduate school, and departmental permission. SEM.

**BIOL 903. Graduate Seminar in Neurobiology. 1 Hour.**
Advanced course examining current research topics in neurobiology. Extensive student/faculty interaction is emphasized utilizing lectures,
class discussion of assigned readings of research reports, and oral presentations. Prerequisite: Enrollment in graduate school, and departmental permission. LEC.

BIOL 904. Graduate Seminar in Microbiology. 1 Hour. 
Advanced course examining current research topics in microbiology. Extensive student/faculty interaction is emphasized utilizing lectures, class discussion of assigned readings of research reports, and oral presentations. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Enrollment in graduate school, and departmental permission. RSH.

BIOL 905. Advanced Molecular Genetics. 1-3 Hours.
A review of current literature in molecular genetics. RSH.

BIOL 906. Advanced Genetics. 1-3 Hours.
May be repeated for credit up to six hours. Review of current literature and genetic theory of selected topics such as population, molecular, quantitative, and physiological genetics. RSH.

BIOL 911. Research Topics in Plant Physiology and Biochemistry. 1-6 Hours.
Directed research on selected topics. Prerequisite: BIOL 770 or equivalent. RSH.

BIOL 918. Modern Biochemical and Biophysical Methods. 4 Hours.
This course emphasizes the use of techniques for solving problems of structure and function of biological macromolecules. Students will complete several modules that consist of lectures relating to theory and practical aspects of each methodological approach, and apply these techniques to solving a specific problem. Students will submit a paper describing the resulting data and conclusions. Prerequisite: BIOL 807, BIOL 808, and BIOL 818, or permission of instructor. LEC.

BIOL 925. Research Grant Proposal Preparation. 3 Hours.
This course introduces the basics of preparing a successful scientific grant application. Topics to be covered include how to develop a novel, fundable project, scientific writing and grantsmanship, and what criteria reviewers consider in evaluating grants. The course will be a mix of instruction and class discussion. Prerequisite: Admission to the graduate program in Molecular Biosciences, or consent of instructor. LEC.

BIOL 930. Ultrastructure and Cellular Mechanisms. 3 Hours.
Two lectures and one seminar-recitation. A detailed consideration of electron microscopic analyses of cell structure as related to cell function. Prerequisite: BIOL 416. LEC.

BIOL 943. Multivariate Data Analysis. 3 Hours.
Matrix formulation of multivariate models and data. Specific methods covered include Principal Components Analysis, Factor Analysis, Multiple Group Discriminant Analysis and Canonical Analysis, and Canonical Correlation Analysis. Prerequisite: BIOL 842 or knowledge of elementary matrix algebra. LEC.

BIOL 944. Topics in Quantitative Ecology: ______. 1-3 Hours.
Presentation and discussion by instructor and students of mathematical and statistical concepts in ecology. Topics are selected from texts or sets of readings. LEC.

BIOL 950. Evolutionary Mechanisms. 3 Hours.
Reading and discussions of evolutionary mechanisms from the genetic, ecologic, and systematic viewpoints. Prerequisite: BIOL 412. LEC.

BIOL 952. Introduction to Molecular Modeling. 3 Hours.
Introduction to theory and practice of contemporary molecular modeling, including molecular mechanics, molecular dynamics, computer graphics, data analysis, use of structure and sequence databases, docking, and homology modeling. Weekly computer laboratory section aimed at allowing participants to pursue independent research projects that incorporate modeling aspects. Lectures, laboratory manuals, program descriptions, and technical notes are presented on course web page. (Same as MDCM 952.) Prerequisite: Graduate standing or consent of instructor. LEC.

BIOL 968. Seminar in Vegetation Geography. 2-3 Hours.
(Same as GEOG 937.) LEC.

BIOL 985. Advanced Study. 1-10 Hours.
Individual investigations; laboratory, field or museum; or reading assignments in specialized topics not ordinarily treated in other courses. Graded on a satisfactory/unsatisfactory basis. RSH.

BIOL 999. Doctoral Dissertation. 1-12 Hours.
Original research that is to be incorporated into a Ph.D. dissertation. Graded on a satisfactory/unsatisfactory basis. THE.

BTEC 300. Introduction to Biotechnology. 3 Hours. N.
Review of techniques used in food, agricultural, pharmaceutical, industrial, and environmental biotechnology. Role of regulatory agencies during the discovery, development, and manufacture of new medical devices, biotechnology, biomedical, and pharmaceutical products. Guest presentations in biotechnology. Prerequisite: BIOL 416. LEC.

BTEC 330. Biotechnology Regulation and Documentation Processes. 3 Hours. N.
Current good manufacturing practices (GMP) as they apply in the biotechnology workplace. History, rationale, purpose, and GMP requirements applicable to the manufacturing, packaging, labeling, testing, and control of pharmaceutical products, and consequences of inaction. Prerequisite: BTEC 300. LEC.

BTEC 340. Biotechnology Research Methods and Applications. 3 Hours. N.
Introduction to fermentation and protein chemistry. Theory behind laboratory techniques and overview of industrial scale expression systems. Bacterial cell culture techniques, principles of fermenter operation and purification, documentation procedures, important tasks for clean room operations, including sanitization, sterilization, cleaning procedures, calibration, and environmental monitoring. Prerequisite: BTEC 300; BIOL 600. LEC.

BTEC 341. Principles of Bioprocessing Laboratory I. 1 Hour. N.
Laboratory sessions involve use of microbial expression vectors, fermentation systems, and large-scale purification of recombinant protein. Includes bacterial cell culture techniques, principles of bioreactor/fermentation operations and purification techniques, and calibration. Primary goal of this course is to provide students with an advanced background in bacterial upstream and downstream biotechnology. Prerequisite: BTEC 300; BTEC 340 or concurrent enrollment in BTEC 340. LAB.

BTEC 405. Microbial Genetics Laboratory. 4 Hours. N.
Research projects center on using molecular genetics to examine the biology of the bacterium Pseudomonas aeruginosa, an opportunistic pathogen often found in the lungs of cystic fibrosis patients. Students engage in independent projects to probe various aspects of P. aeruginosa physiology such as antibiotic resistance, phase variation, toxin production, secondary metabolite production, twitching motility, swarming behaviors, and more. Projects aim to discover the molecular basis for these processes using both classical and new, cutting-edge techniques. These include plasmid manipulation, genetic complementation, mutagenesis, PCR, DNA sequencing, enzyme assays, and gene expression studies. Prerequisite: BIOL 350; BIOL 402. LAB.

BTEC 424. Independent Study in Biotechnology. 1-3 Hours. N.
Independent project at a related bioscience industry partner or faculty in selected topics of current translational research interest. May be
undertaken only with the consent of the major advisor who will guide the research after determining objectives with the interested industry partner or faculty. Prerequisite: Consent of instructor. IND.

BTEC 440. Biotechnology Research Methods and Applications II. 3 Hours. N.
Theory and practicum behind laboratory techniques and overview of industrial scale expression systems of insect or mammalian protein chemistry. Cell culture techniques, principles of bioreactor operation and purification, documentation procedures, important tasks for clean room operations, including sanitization, sterilization, cleaning procedures, calibration, and environmental monitoring are evaluated. Prerequisite: BTEC 340; BTEC 341. LEC.

BTEC 441. Principles of Bioprocessing Laboratory II. 1 Hour. N.
Mammalian cell culture techniques, principles of bioreactor operations and purification techniques, and calibration. The primary goal of this course is to provide students with an advanced background in mammalian upstream and downstream biotechnology. Prerequisite: BTEC 341; BTEC 440 or concurrent enrollment in BTEC 440. LAB.

BTEC 450. Applied Bioinformatics. 3 Hours. N.
Overview of the fields of bioinformatics and genomics. Topics, tools, issues and current trends in these and related fields are discussed. Principles and practical application of bioinformatics tools in molecular biology and genetics are evaluated. The haploid human genome occupies a total of just over 3 billion DNA base pairs. This information is not contained in books, but stored in electronic databases. Computational biology utilizes infer function by comparative analysis. This course is designed for life scientists from all fields to introduce them to the power of bioinformatics and enable them to access and utilize biological information in databases for their own research. Prerequisite: BTEC 300; BIOL 570 or MATH 365 or PSYC 210. LEC.

BTEC 460. Introduction to Quality Control/Quality Assurance in Biotechnology. 3 Hours. N.
Quality control techniques, assurance issues, and management methods. Quality in design and planning, in the constructed project, and in production of goods and services. Prerequisite: BTEC 330. LEC.

BTEC 475. Bioseparations Laboratory. 2 Hours. N.
Develop novel and effective strategies for extraction and purification of recombinant and native biomolecules by understanding constraints posed by the biological system and the products. Research projects are geared toward developing cost-effective processes for recovery of industrial and biopharmaceutical products derived from a variety of native and/or transgenic sources. Prerequisite: BTEC 405; BTEC 441. LAB.

BTEC 494. Selected Topics in Biotechnology. 1 Hour. N.
Course work varies with the topic of the seminar. The preparation and presentation of oral reports on selected topics from recent translational research literature. Students may choose one interest group each semester, but may enroll in a given interest group only once. May be repeated for credit when topics vary. Prerequisite: BTEC 300 and approval of instructor. LEC.

BTEC 501. Ethical Issues in Biotechnology. 1 Hour. N.
Student investigations and discussions of current controversial issues in biotechnology. This course emphasizes thinking about new technologies in a rational and thoughtful way. Prerequisite: BTEC 300. LEC.

BTEC 541. Gene Expression Analysis: Microarrays. 2 Hours. N.
This course reviews current theory, techniques, instrumentation, troubleshooting, analysis tools, and advanced protocols for microarray analysis. Students have the opportunity to utilize skills learned during lecture in a laboratory environment. At the conclusion of this course, students understand microarray experimental design, its tools, and analysis of generated data. Prerequisites: BTEC 300. LAB.

BTEC 542. Protein Expression in Insect Cells. 2 Hours. N.
Introduction to the insect cells expression system, and its advantages and disadvantages. Introduction to expression of recombinant proteins with baculovirus. Outline of antibody and antibody fragments as well as other complex proteins. Basic techniques used for growth and maintenance of insect cell cultures. The lab portion of the course provides students with practical experience in protein expression techniques in the insect cells expression system. Prerequisite: BTEC 300. LAB.

BTEC 545. RNA Interference and Model Organisms. 2 Hours. N.
Introduction and history of RNA interference technology. Principles, mechanism, and applications of RNA interference in model organisms. Laboratory sessions include RNA interference-mediated silencing of genes in plants, C. elegans, and mammalian cell culture. Prerequisite: BTEC 300. LAB.

BTEC 547. Bioanalytical Lab. 2 Hours. N.
Analytical methods used for testing biotherapeutics are examined. Emphasis is placed on assessing protein concentration, purity, identity and activity. The importance of sample processing, throughput and level of validation are explored as samples from upstream processing, downstream processing and final bulk are interrogated. Students also learn key concepts used to validate the performance of analytical methods. Prerequisite: BTEC 300. LAB.

BTEC 599. Biotechnology Capstone Experience. 3 Hours. N.
Supervised internship at a biotech company; or an independent thesis; or honors thesis with Honors Program. Prerequisite: BTEC 441 and approval of instructor. FLD.

Chemistry Courses

CHEM 100. Chemistry in Context: _____ 3 Hours. NP GE3N / N.
An introduction to chemistry that focuses on basic chemical principles, designed for students with no previous background in chemistry. This course promotes the development of chemical literacy within a context that encourages an appreciate for the role and significance of chemistry in the modern world. Not intended for students who need to fulfill a specific chemistry requirement as part of their degree program. LEC.

CHEM 110. Introductory Chemistry. 5 Hours. NP GE3N / N.
This integrated lecture and laboratory course provides an introduction to basic concepts related to general, organic, and biological chemistry. Suitable for students seeking an introductory course and for students who are majoring in health and allied health fields. Students whose majors require more than one semester of chemistry should enroll in CHEM 130, CHEM 170, or CHEM 190. CHEM 110 and CHEM 150 cannot both be taken for credit. LEC.

CHEM 130. General Chemistry I. 5 Hours. NP GE12/GE3N / N.
This course seeks to develop a working knowledge of the conceptual foundation and the quantitative chemical relationships on which subsequent chemistry courses are built. Atomic structure, chemical bonding, reaction stoichiometry, thermochemistry, and periodic trends are emphasized in this integrated lecture and laboratory course. Students pursuing or considering a major in one of the chemical sciences should strongly consider taking CHEM 170 or CHEM 190. Students with credit in CHEM 110 will have two hours added on to their total number of hours required for graduation. Prerequisite: Must be eligible for MATH 115. LEC.

CHEM 135. General Chemistry II. 5 Hours. GE12/GE3N / N.
This course, which is a continuation of CHEM 130, focuses on chemical kinetics, chemical equilibrium, acid-base chemistry, and thermodynamics. Additional topics, such as environmental chemistry, electrochemistry,
instructor. LEC.

higher, (c) a mathematics ACT score of 28 or higher; or permission of

into the KU Honors Program, (b) an AP exam score in chemistry of 3 or

total number of hours required for graduation. Prerequisite: high-school

provides a more thorough treatment of the concepts and topics covered

qualified and motivated students having a strong interest in chemistry,

This integrated lecture and laboratory course is designed for students pursuing or considering a major in one of the chemical sciences such as chemistry, biochemistry, chemical engineering or petroleum engineering. The CHEM 170/CHEM 175 course sequence covers the same general topics as CHEM 130/CHEM 135, but with an increased emphasis on modern applications of chemistry. Students with credit in CHEM 110 will have two hours added on to their total number of hours required for graduation. Prerequisite: Eligibility for MATH 115. LEC.

CHEM 170. Chemistry for the Chemical Sciences I. 5 Hours. GE12/GE3N / N.
The first course in a two-course sequence focused on the principles and applications of modern chemistry. This integrated lecture and laboratory course is designed for students pursuing or considering a major in one of the chemical sciences (such as chemistry, biochemistry, chemical engineering or petroleum engineering). The CHEM 170/CHEM 175 course sequence covers the same general topics as CHEM 130/CHEM 135, but with an increased emphasis on modern applications of chemistry. Students with credit in CHEM 110 will have two hours added on to their total number of hours required for graduation. Prerequisite: Eligibility for MATH 115. LEC.

CHEM 175. Chemistry for the Chemical Sciences II. 5 Hours. N.
An integrated lecture and laboratory course which is a continuation of CHEM 170. Prerequisite: CHEM 130, CHEM 170 or CHEM 190. LEC.

CHEM 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Chemistry. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

CHEM 180. Seminar I. 0.5 Hours. U.
Special topics for chemistry majors such as using the chemical literature, educational and professional perspectives, scientific ethics, and undergraduate research opportunities. It is recommended that students take this half-semester course in their freshman or sophomore year. Prerequisite: A declared major in chemistry or consent of instructor. LEC.

CHEM 190. Foundations of Chemistry I, Honors. 5 Hours. NP GE12/GE3N / N.
This integrated lecture and laboratory course, which is designed for qualified and motivated students having a strong interest in chemistry, provides a more thorough treatment of the concepts and topics covered in CHEM 130 and CHEM 170. It is anticipated that students in CHEM 190 plan to take more than one year of chemistry at the college level. Students with credit in CHEM 110 will have two hours added on to their total number of hours required for graduation. Prerequisite: high-school chemistry and calculus; at least one of the following: (a) acceptance into the KU Honors Program, (b) an AP exam score in chemistry of 3 or higher, (c) a mathematics ACT score of 28 or higher; or permission of instructor. LEC.

CHEM 195. Foundations of Chemistry II, Honors. 5 Hours. GE12/GE3N / N.
A course designed for qualified and motivated students with strong interest in chemistry to provide a more thorough treatment of the concepts and topics of advanced general chemistry. It is anticipated that the students in CHEM 195 have completed CHEM 190 or excelled in CHEM 130 or CHEM 170. Prerequisite: Membership in the University Honors Program, CHEM 130, CHEM 170 or CHEM 190, or consent of the department. LEC.

CHEM 309. History of Chemistry. 3 Hours. H.
Birth of modern chemical science from roots in Greek natural philosophy, alchemy, Renaissance medicine and technology. The Chemical Revolution of Lavoisier and Dalton. Maturity of chemistry in the 19th and 20th centuries, along with an examination of growth of chemical institutions and the rise of chemical industry. Emphasis on developments from the 18th century to the present. (Same as HIST 309.) LEC.

CHEM 310. Fundamentals of Organic Chemistry. 3 Hours. GE3N / N.
A study of the structures and reactions of important classes of organic compounds. Along with the organic laboratory, CHEM 331, this course will fulfill the needs of students requiring a single semester of organic chemistry. Students requiring more than one semester of organic chemistry should enroll in CHEM 330. Prerequisite: CHEM 135, CHEM 175 or CHEM 195. LEC.

CHEM 330. Organic Chemistry I. 3 Hours. GE3N / N.
A study of the structure and reactivity of selected classes of organic compounds. CHEM 330 is the first course of a two-semester sequence. Students who require only one semester of organic chemistry should enroll in CHEM 310. Students with credit in CHEM 310 will have two hours added on to their total number of hours required for graduation. Prerequisite: CHEM 135, CHEM 175 or CHEM 195. LEC.

CHEM 331. Organic Chemistry I Laboratory. 2 Hours. U.
Emphasis on basic techniques for the preparation, separation, and purification of organic compounds. Required for a major in chemistry and by those departments and programs specifying a complete undergraduate organic chemistry course. Prerequisite or corequisite: CHEM 310 or CHEM 330 or CHEM 380. LAB.

CHEM 335. Organic Chemistry II. 3 Hours. N.
A continuation of CHEM 330, intended for students who want further training in organic chemistry. Prerequisite: CHEM 330 or CHEM 380. LEC.

CHEM 336. Organic Chemistry II Laboratory. 2 Hours. U.
More advanced organic laboratory techniques with emphasis on modern spectroscopic methods for determining the structure and purity of organic compounds. Prerequisite: CHEM 331. Prerequisite or corequisite: CHEM 335 or CHEM 385. LAB.

CHEM 380. Organic Chemistry I, Honors. 3 Hours. GE3N / N.
This is the first half of a two-semester sequence in organic chemistry for students with strong records in previous chemistry courses and who are planning or considering a major in a chemistry-related field. The content is similar to that of CHEM 330 but with coverage in greater depth and more emphasis on developing problem-solving skills. Students requiring only one semester of organic chemistry should not enroll in this course but take CHEM 310. Students with credit in CHEM 310 who take and complete CHEM 380 will have two hours added to their total number of credit hours required for graduation. Prerequisite: CHEM 135, CHEM 175 or CHEM 195 and membership in the University Honors Program or consent of instructor. LEC.
CHEM 385. Organic Chemistry II, Honors. 3 Hours. N.
This is the second course in a two-semester sequence in organic chemistry for students with strong records in previous chemistry courses and who are planning or considering a major in chemistry or in a chemistry-related field. The content is similar to that of CHEM 335 but with coverage in greater depth and more emphasis on developing problem-solving skills. Prerequisite: CHEM 330 or CHEM 380 and membership in the University Honors Program, or consent of instructor. LEC.

CHEM 450. Directed Readings/Laboratory in Chemistry. 1-3 Hours. N.
Individual and supervised study or laboratory work on special topics or problems in chemistry. Prerequisite: Ten hours of chemistry and a minimum overall grade-point average of 2.0 or consent of department. IND.

CHEM 510. Biological Physical Chemistry. 3 Hours. N.
A one semester course, designed particularly for biology, biochemistry, and premedical students, which surveys the fundamentals of physical chemistry. The basic principles of thermodynamics, chemical kinetics, quantum chemistry, and spectroscopy will be introduced, and their application to aqueous solutions and biochemical systems will be emphasized. Prerequisite: One semester of organic chemistry, two semesters of calculus, and two semesters of physics. LEC.

CHEM 511. Biological Physical Chemistry Laboratory. 2 Hours. AE61 / U.
A course particularly for biology, biochemistry, and premedical students. Experiments in physical chemistry illustrating the fundamental principles of quantum mechanics, spectroscopy, thermodynamics, and kinetics as applied to chemical systems. Prerequisite: CHEM 510. LAB.

CHEM 530. Physical Chemistry I. 3 Hours. N.
An introduction to the basic principles of quantum mechanics, atomic and molecular structure, molecular rotations and vibrations, group theory, spectroscopy, and statistical mechanics. Prerequisite: CHEM 135, CHEM 175 or CHEM 195; PHSX 211 and PHSX 212; MATH 121, MATH 122 and MATH 220 or MATH 320; and completion of, or concurrent enrollment in MATH 290 or consent of instructor. LEC.

CHEM 531. Physical Chemistry Laboratory I. 2 Hours. U.
Experiments in physical chemistry, with emphasis on the fundamental principles of quantum mechanics and spectroscopy as applied to chemical systems. Prerequisite: CHEM 530. LAB.

CHEM 535. Physical Chemistry II. 4 Hours. N.
Emphasizes the thermodynamics of molecular systems with application to the structure and properties of gases, liquids, solids, materials, statistical thermodynamics, chemical kinetics, and reaction dynamics. Prerequisite: CHEM 530 and MATH 290 or consent of instructor. LEC.

CHEM 536. Physical Chemistry Laboratory II. 2 Hours. U.
Experiments in physical chemistry, with emphasis on the fundamental principles of chemical thermodynamics and kinetics. Prerequisite: CHEM 535 or consent of instructor. LEC.

CHEM 598. Research Methods. 3 Hours. N.
An introduction for pre-service teachers to the tools used by scientists to solve scientific problems. Topics include design of experiments and interpretation of their results, use of statistics, mathematical modeling, laboratory safety, ethical treatment of human subjects, writing scientific papers, giving oral presentations, and obtaining data from the scientific literature. Open only to students in the UKanTeach program. LEC.

CHEM 620. Analytical Chemistry. 3 Hours. N.
Principles of analytical chemistry with emphasis on the fundamental reactions used for chemical analysis. Topics include chemical equilibria in acid/base, complexation, separations, and redox systems, data analysis, potentiometry and spectrophotometry. Prerequisite: One semester of organic chemistry and organic chemistry laboratory, CHEM 535 or CHEM 510 (or concurrent enrollment in CHEM 510), or permission of instructor. Corequisite: CHEM 621. LEC.

CHEM 621. Analytical Chemistry Laboratory. 2 Hours. U.
Experiments illustrate fundamental principles of chemical analysis methods. The course serves as an introduction to advanced instrumental methods of analysis. Prerequisite: One semester of organic chemistry and organic chemistry laboratory, CHEM 535 or CHEM 510 (or concurrent enrollment in CHEM 510), or permission of instructor. Corequisite: CHEM 620. LAB.

CHEM 635. Instrumental Methods of Analysis. 2 Hours. AE61 / U.
Theory and application of instrumental methods to modern analytical problems. Topics covered include atomic and molecular spectroscopy, electrochemistry, mass spectrometry, and separations. Prerequisite: CHEM 620 and CHEM 621 and one semester of physical chemistry laboratory, or permission of instructor. Corequisite: CHEM 636. LEC.

CHEM 636. Instrumental Methods of Analysis Laboratory. 2 Hours. AE61 / U.
Theory and application of instrumental methods to modern analysis problems. Experiments covered in this capstone laboratory course include atomic and molecular spectroscopy, electrochemistry, and separation methods. Prerequisite: CHEM 620 and CHEM 621, and one semester of physical chemistry laboratory; or permission of instructor. Corequisite: CHEM 635. LAB.

CHEM 660. Systematic Inorganic Chemistry. 3 Hours. N.
A systematic study of the elements and their compounds, emphasizing the relationship between properties of substances and their atomic and molecular structures and the positions of the elements in the periodic systems. Prerequisite: CHEM 510 or CHEM 530. LEC.

CHEM 661. Advanced Inorganic Laboratory. 2 Hours. U.
Experiments concerning the synthesis and characterization of inorganic compounds. Prerequisite: CHEM 660 or concurrent enrollment in CHEM 660. LAB.

CHEM 668. Topics in Chemistry: ______. 1-5 Hours. N.
Courses on special topics in chemistry, given as the need arises. Course may be repeated for different topics. Prerequisite: 20 hours of Chemistry. Each section may have additional prerequisites to be determined by the instructor. LEC.

CHEM 695. Seminar II. 0.5 Hours. U.
Special topics and presentations by students and faculty in areas of current interest such as recent advancements in chemistry, professional development, societal issues facing chemists, and reports of ongoing research. This half-semester course is recommended for seniors. Prerequisite: CHEM 180. LEC.

CHEM 698. Undergraduate Research Problems. 1-6 Hours. AE61 / N.
May be repeated to accumulate a maximum of 10 credit hours. An undergraduate research course, in any of the fields of chemistry, consisting of either experimental work or the preparation of an extensive paper based on library investigation of a selected topic. A final report must be submitted to the department at the end of the semester. Open by permission of the department to those with at least 20 hours of chemistry. IND.

CHEM 699. Undergraduate Honors Research. 2-6 Hours. AE61 / N.
To be taken two semesters for a total of no more than 8 hours. An undergraduate research course, in any of the fields of chemistry. At the completion of the research, a written thesis, and an oral presentation will be required. Prerequisite: Admission to Chemistry Honors Program. IND.
CHEM 700. Responsible Scholarship in the Chemical Sciences. 1 Hour.
A course for beginning graduate students with particular emphasis on scholarship issues relevant to the chemical sciences. Topics will include scientific ethics, codes of conduct, record keeping, authorship, and the responsibilities of a scientist. Group discussions, particularly centered around case studies, will be a significant component of the course. LEC.

CHEM 701. Laboratory Safety in the Chemical Sciences. 1 Hour.
A course for beginning graduate students focusing on chemical safety in modern laboratories. The course will feature practical instruction in lab safety, an introduction to safety resources, and group discussions centered around case studies. LEC.

CHEM 718. Mathematical Methods in Physical Sciences. 3 Hours.
Review of all complex variable theory; introduction to the partial differential equations of physics; Fourier analysis; and special functions of mathematical physics. (Same as PHSX 718.) Prerequisite: Two semesters of junior-senior mathematics. LEC.

CHEM 720. Fundamentals and Methods of Analytical Chemistry. 3 Hours.
An introductory graduate level course in analytical chemistry, in which the principles of electrochemistry, spectroscopy, and separation science are utilized to solve analytical problems in inorganic, organic, and biochemistry. Prerequisite: An undergraduate course in analytical chemistry, a year of organic chemistry, and a year of physical chemistry. LEC.

CHEM 730. Coordination and Organometallic Chemistry. 3 Hours.
An examination of the basic foundations of coordination chemistry and organometallic chemistry including symmetry methods, bonding, magnetism, and reaction mechanisms. Prerequisite: Two semesters of organic chemistry and one semester of physical chemistry in which quantum chemistry is introduced. The latter course may be taken concurrently with CHEM 730. LEC.

CHEM 740. Principles of Organic Reactions. 3 Hours.
A consideration of the structural features and driving forces that control the course of chemical reactions. Topics will include acid and base properties of functional groups; qualitative aspects of strain, steric, inductive, resonance, and solvent effects on reactivity; stereo-chemistry and conformations; an introduction to orbital symmetry control; basic thermodynamic and kinetic concepts; and an overview of some important classes of mechanisms. Prerequisite: Two semesters of undergraduate organic and one semester of physical chemistry or concurrent enrollment. LEC.

CHEM 742. Spectroscopic Identification of Organic Compounds. 3 Hours.
The use of techniques such as infrared, nuclear magnetic resonance, and ultraviolet spectroscopy, and mass spectrometry for elucidating the structure of organic molecules. A lecture and workshop course. Prerequisite: CHEM 626 and CHEM 627. LEC.

CHEM 750. Introduction to Quantum Mechanics. 3 Hours.
An introduction to the basic principles of quantum theory relevant to atomic and molecular systems. Topics include operators and operator algebra, matrix theory, eigenvalue problems, postulates of quantum mechanics, the Schrödinger equation, angular momentum, electronic structure, molecular vibrations, approximation methods, group theory, and the foundations of spectroscopy. Prerequisite: Two semesters of physical chemistry. LEC.

CHEM 760. Introduction to Chemistry in Biology. 3 Hours.
A comprehensive introduction to the application of chemistry to address problems in biology at the molecular level. The fundamentals of biomolecules (nucleic acids, proteins, lipids and carbohydrates) and techniques of chemical biology research will be discussed. LEC.

CHEM 775. Chemistry of the Nervous System. 3 Hours.
A study of the overall concept of central nervous system functioning. A brief introduction to neuroanatomy and neurophysiological techniques as well as a relatively detailed discussion of the chemistry of neurotransmitters is included. (Same as BIOL 775, MDCM 775, NURO 775, PTX 775, and PHCH 775.) Prerequisite: One year of undergraduate organic chemistry. LEC.

CHEM 800. Research. 1-10 Hours.
Original investigation on the graduate level. RSH.

CHEM 810. Colloquium: ______. 1 Hour.
Colloquia on various topics of current interest are presented by students, faculty, and visiting scientists. LEC.

CHEM 812. Chemical Seminar. 1-3 Hours.
Individual studies of certain advanced phases of chemistry not covered in the regular graduate courses. IND.

CHEM 820. Analytical Separations. 3 Hours.
An advanced treatment of analytical separations techniques. The theory of separation science will be augmented with discussion of practical aspects of instrumentation and experiment design. Prerequisite: CHEM 720. LEC.

CHEM 822. Electrochemical Analysis. 3 Hours.
An advanced treatment of selected electroanalytical techniques and methodology. Prerequisite: CHEM 720. LEC.

CHEM 824. Spectrochemical Methods of Analysis. 3 Hours.
General concepts of encoding chemical information as electromagnetic radiation; major instrumental systems for decoding, interpretation, and presentation of the radiation signals; atomic emission, absorption, and fluorescence; ultraviolet, visible, infrared, and microwave absorption; molecular luminescence; scattering methods; mass spectrometry; magnetic resonance; automated spectrometric systems. Prerequisite: CHEM 720. LEC.

CHEM 826. Mass Spectrometry. 3 Hours.
An introduction to mass spectrometry. The various ionization techniques and mass analyzers will be discussed, and many examples of different mass spectrometric applications will be introduced. Prerequisite: CHEM 720. LEC.

CHEM 828. Bioanalysis. 3 Hours.
A course covering important aspects in modern chemical measurement with particular emphasis placed on bioanalysis. This course will survey the modern analytical challenges associated with the ongoing efforts in genomics and proteomics and discuss future trends in methods in instrumentation. Prerequisite: CHEM 720. LEC.

CHEM 830. Structure, Bonding and Spectroscopic Methods in Inorganic Chemistry. 3 Hours.
An introduction to quantum and group theories in relation to bonding and physicochemical properties of inorganic substances. Topics include vibrational and electronic spectroscopies, magnetism, and inorganic photochemistry. Prerequisite: CHEM 730. LEC.

CHEM 832. Inorganic Reaction Mechanisms and Catalysis. 3 Hours.
Mechanistic aspects of transition metal chemistry including substitution reactions, electron transfer reactions, rearrangement reactions, ligand reactions and inorganic photochemistry. Principles and applications of heterogeneous and homogeneous catalytic processes emphasizing catalysis at transition metal centers. Prerequisite: CHEM 730. LEC.
CHEM 840. Physical Organic Chemistry. 3 Hours.
An examination of the methods used to probe the mechanisms of organic reactions and of the chemistry of some important reactive intermediates. Topics will include isotope effects, kinetics, linear free energy relationships, solvent effects, a continuing discussion of orbital symmetry, rearrangements, carbocations, carbanions, carbenes, radicals, excited states, and strained molecules. Prerequisite: CHEM 740. LEC.

CHEM 842. Organic Synthesis I. 3 Hours.
A discussion of fundamental reactions for the formation of carbon-carbon bonds, oxidation, reduction, and functional group interchange. Prerequisite: CHEM 740. LEC.

CHEM 844. Problem Solving in Organic Chemistry. 1 Hour.
A course designed to develop a student's ability to apply fundamental concepts of mechanistic organic and organometallic chemistry, physical organic chemistry, bioorganic chemistry, synthetic organic reactions and techniques for structure elucidation. Students will propose solutions to practice problems mimicking challenges that arise in contemporary research in organic chemistry. The format includes interactive problem-solving discussions led by faculty and peers and monthly written examinations. May be repeated up to three times until the student has passed at least four of the written exams. Graded on a Satisfactory/Unsatisfactory basis. Prerequisite: CHEM 740 or permission of instructor. SEM.

CHEM 850. Advanced Quantum Mechanics. 3 Hours.
The advanced mathematical and physical principles of quantum mechanics relevant to atomic and molecular systems. Topics may include abstract vector spaces and representations, time-dependent quantum dynamics, electronic structure theory, density matrices, second-quantization, advanced group theory, path integrals, and scattering theory. Prerequisite: CHEM 750 or its equivalent. LEC.

CHEM 852. Statistical Thermodynamics. 3 Hours.
Thermodynamics and introduction to equilibrium statistical mechanics with emphasis on problems of chemical interest. The course consists of two roughly equal parts: 1) An advanced overview of the laws and concepts of thermodynamics with application to specific problems in phase and chemical equilibria and 2) An introduction to equilibrium statistical mechanics for both classical and quantum systems. Prerequisite: CHEM 750 or its equivalent. LEC.

CHEM 854. Chemical Kinetics and Dynamics. 3 Hours.
A study of the rates, mechanisms, and dynamics of chemical reactions in gases and liquids. Topics include an advanced overview of classical kinetics, reaction rate theories (classical collision theory, transition-state theory and introductory scattering theory), potential energy surfaces, molecular beam reactions, photochemistry, Marcus electron transfer theory and other areas of current interest. Prerequisite: CHEM 750 or its equivalent. LEC.

CHEM 856. Molecular Spectroscopy. 3 Hours.
Quantitative molecular spectroscopy and its chemical applications. The basic principles of the molecular energy levels, selection rules and spectral transition intensities will be discussed and applied to rotational, vibrational, electronic, and nuclear magnetic spectroscopy. Linear and nonlinear spectroscopies will be addressed. Prerequisite: CHEM 750 or its equivalent. LEC.

CHEM 899. Master’s Thesis. 1-10 Hours.
Research work (either experimental or theoretical) in chemistry for students working toward the M.S. degree. Graded on a satisfactory/unsatisfactory basis. THE.

CHEM 900. Advanced Research. 1-10 Hours.
Original investigation in chemistry at the graduate level. Graded on satisfactory/unsatisfactory basis. Prerequisite: Advancement to doctoral candidacy. RSH.

CHEM 914. Computational Methods in Physical Sciences. 3 Hours.
Advanced computer applications in physical science. General discussion and illustration of problem organization and solution by numerical and other methods with examples from physics, astronomy, and other physical sciences. Students will design, write, validate, and document a computer program to solve a physical problem. (Same as ASTR 815 and PHSX 815.) Prerequisite: Six hours of computer science courses numbered 300 or above, and six hours of physics and/or astronomy courses numbered 300 or above. LEC.

CHEM 930. Bioinorganic Chemistry. 3 Hours.
A survey of metalloproteins and metalloenzymes, their structures and functions, including recent advances in biomimetic modeling, small molecule activation in biological systems, and related physical methods. Prerequisite: CHEM 832. LEC.

CHEM 942. Organic Synthesis II. 3 Hours.
A survey of important techniques in organic chemistry with respect to scope, limitations, mechanism, and stereochemistry. Emphasis will be placed on new synthetic methods and application of such methods to the synthesis of structurally interesting compounds, particularly natural products. Prerequisite: CHEM 842. LEC.

CHEM 950. Advanced Statistical Mechanics. 3 Hours.
Advanced equilibrium statistical mechanics and introduction to nonequilibrium statistical mechanics. Topics include: the theory of liquids, critical phenomena linear response theory and time correlation functions, Langevin dynamics, and molecular hydrodynamics. (Same as PHSX 971.) Prerequisite: CHEM 909 or equivalent. LEC.

CHEM 970. College Teaching Experience in Chemistry. 3 Hours.
A student will engage in a semester-long, planned instructional activity that shall include college classroom teaching under the supervision of a chemistry department faculty member. Prerequisite: Two semesters as a graduate teaching assistant. LEC.

CHEM 980. Advanced Topics in Chemistry: ____. 2-3 Hours.
A course covering special advanced topics in chemistry not included in other graduate courses. One or more topics will be covered in a given semester and an announcement of the course content and prerequisites will be made at the end of the previous semester. This course may be taken more than once when the topic varies. LEC.

CHEM 999. Doctoral Dissertation. 1-10 Hours.
Research work (either experimental or theoretical) in chemistry for students working toward the Ph.D. degree. Graded on a satisfactory/unsatisfactory basis. THE.

Classics Courses

CLSX 148. Greek and Roman Mythology. 3 Hours. HL GE3H / H/W.
A systematic examination of the traditional cycles of Greek myth and their survival and metamorphosis in Latin literature. Some attention is given to the problems of comparative mythology and the related areas of archaeology and history. Slides and other illustrated materials. No knowledge of Latin or Greek is required. LEC.

CLSX 149. Greek and Roman Mythology Honors. 3 Hours. HL GE3H / H/W.
The study of Greek and Roman mythology through extensive readings in primary classical texts and secondary authors. Prerequisite: Admission to the Honors Program or consent of instructor. LEC.
CLSX 151. Introduction to Classical Archaeology. 3 Hours. HT GE11/GE3H / H/W.
An introduction to the history, methods, and excavation techniques of archaeology, with special emphasis on ancient Greece and Rome. Topics include stratigraphy, chronology, artifact analysis, the role of archaeology in our understanding of Greek and Roman society, and the treatment of archaeology in popular culture. Illustrated throughout with presentations of important archaeological sites of the ancient Mediterranean such as Athens and Pompeii, from the earliest times through late antiquity. LEC.

CLSX 177. Frist Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Classics. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

CLSX 178. Writing About Greek and Roman Culture. 3 Hours. GE21 / H.
This course uses focused content from Greek and Roman mythology as a vehicle for learning, applying, and practicing essential skills of writing. The content varies from term to term but is always circumscribed, such as Helen of Sparta, nature myths, the wandering hero, or children in Greek tragedy. Students complete a variety of writing exercises that build upon each other and include revision. The course will be taught in English. LEC.

CLSX 230. Greek Literature and Civilization. 3 Hours. HL GE3H / H.
An introduction to ancient Greek literature and civilization. Studied against the historical and cultural background of their times will be writers of poetry and prose such as Homer, Sappho, the tragedians, Aristophanes, Plato, and topics arising from the texts such as religion, athletics, oral performance, sexuality, and the development of literary genres. No knowledge of Greek required and no prerequisite. LEC.

CLSX 232. Word Power: Greek and Latin Elements in English. 3 Hours. H/W.
A study of English words drawn from Greek and Latin for all those interested in the sources of the English vocabulary. Enough Greek and Latin for essential purposes is also studied. No knowledge of Greek or Latin is required. A student may not receive credit for both CLSX 232 and CLSX 332. LEC.

CLSX 240. Roman Literature and Civilization. 3 Hours. HL GE3H / H.
An introduction to ancient Roman literature and civilization. Studied against the historical and cultural background of their times will be authors such as Plautus, Vergil, Livy, Petronius, and topics arising from the texts such as religion, oratory, slavery, political propaganda, the Roman games, and the development of Roman literature. No knowledge of Latin required and no prerequisite. LEC.

CLSX 231. Greek and Roman Art. 3 Hours. H/W.
A survey of the art of ancient Greece and Rome (ca. 1000 B.C.E.-500 C.E.). Emphasis on major sites, architecture, sculpture, and painting. Illustrated lectures and discussion; use of the Wilcox Classical Museum. No knowledge of Greek or Latin is required. Not open to students who have taken both CLSX 526/HA 526 and CLSX 527/HA 537, except with permission of the instructor. (Same as HA 317, HWC 317.) LEC.

CLSX 330. Greek Literature and Civilization, Honors. 3 Hours. HL GE3H / H.
Honors version of CLSX 230. An introduction to ancient Greek literature and civilization through extensive readings in primary Greek texts. No knowledge of Greek required. Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

CLSX 332. Scientific Word Power: Greek and Latin Elements in the Vocabulary of Science. 3 Hours. H.
A study of the terminology of science with reference to its debt to the Greek and Latin languages. While all the natural sciences will be treated, there will be some emphasis on the biological sciences. No knowledge of Greek or Latin is required. A student may not receive credit for both CLSX 232 and CLSX 332. LEC.

CLSX 340. Roman Literature and Civilization, Honors. 3 Hours. HL GE3H / H.
Honors version of CLSX 240. An introduction to ancient Roman literature and civilization through extensive readings in primary Roman texts. No knowledge of Latin required. Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

CLSX 350. Modern Themes, Ancient Models: ______. 3 Hours. H.
The study of the evolution of a cultural or literary tradition from the Graeco-Roman world into modern times. The theme of the course will normally vary from semester to semester; topics such as these may be examined: the analysis of a literary genre (e.g., drama, satire, lyric), the transformation of the ancient mythical heritage, the reception of ancient astronomy. Students should consult the Schedule of Classes for the theme of the course in a given semester. With departmental permission, may be repeated for credit as topic varies. (Same as HWC 380.) LEC.

CLSX 351. Introduction to Classical Archaeology, Honors. 3 Hours. HT GE11/GE3H / H/W.
Honors version of CLSX 151, with the focus towards critical approaches and research. Special attention is paid to recent methodological, theoretical, and ethical debates within the profession of Classical archaeology. Assignments and activities may include position papers on contentious issues of the day, research assignments, and/or field trips to museums and related institutions. Prerequisite: Admission to the Honors Program or consent of instructor. LEC.

CLSX 355. Ancient Greece and Rome in Film. 3 Hours. H.
This course explores the reception of the cultures of ancient Greece and Rome in film. Students in this course learn about the cultures of ancient Greece and Rome through primary sources, and analyze several films from the 20th and 21st centuries for which these sources are relevant. The course considers the relationship between historical accuracy and artistic license in the films selected for the course, how each film reflects the concerns of the modern cultural context in which it was made, the common visual and thematic elements that link films set in ancient Greece or Rome, and the reuse of elements from Greek and Roman mythology and history in films set in the modern world. No knowledge of Latin or Greek required. LEC.

CLSX 374. Gender and Sexuality, Ancient and Modern. 3 Hours. AE42 / H.
Classical Greek and Roman attitudes to gender and sexuality compared and contrasted with modern notions and behaviors. Attention is paid to literature (dramatic, philosophical, medical, and legal texts) and archaeological evidence (vase painting, sculpture, and domestic architecture). The course may include the following topics: age divisions and rites of passage from childhood to maturity; marriage; conception, birth, and infanticide; the family; love; homoeroticism; property and economics; and sexuality and the law, politics, and religion. No knowledge of Greek or Latin is required: (Same as HWC 374.) LEC.

CLSX 375. Studies in: ______. 1-3 Hours. H/W.
Selected readings in Greek and Roman antiquity and the classical tradition for students who desire special work on a flexible basis. No knowledge of Greek or Latin is required. May be repeated for credit, the maximum being twelve hours. Prerequisite: Consent of instructor. LEC.
CLSX 384. The Rise of Greek Tragedy. 3 Hours. H.
Plays by Aeschylus, Sophocles, and Euripides will be read in translation. The criticism of the plays, and the role they play in Athenian (and Greek) culture of the 5th century. This course includes the Oresteia, Oedipus Tyrannus, Antigone, and Medea. No knowledge of Greek is required. LEC.

CLSX 388. Poetry and Politics in Fifth-Century Athens. 3 Hours. H.
The later plays of Euripides and Sophocles, selected plays by the comic dramatist Aristophanes, and passages from the historian Thucydides. Criticism of the plays, and discussion of themes common to literature and history in this period. The dissolution of a high culture. CLSX 384 is NOT a prerequisite. No knowledge of Greek required. LEC.

CLSX 490. Comprehensive Examination of Classical Antiquity. 1 Hour. U.
An examination covering the six areas of course work and reading for the Classical Antiquity major, to be taken by the student pursuing the major in the last semester of the senior year. Prerequisite: A declared major in Classical Antiquity and status as a graduating senior. IND.

CLSX 492. Independent Study for Classical Antiquity Majors. 3 Hours. U.
Under the supervision of an advisor in Classics, the student will do extensive reading in the area of Classics generically defined, to result in two or more papers as agreed upon between faculty and student. IND.

CLSX 496. Honors Essay in Classical Antiquity. 3 Hours. AE61 / H/W.
Individual directed research and preparation of an essay on a topic in Classical literature, culture, or language. Prerequisite: Eligibility for departmental honors and consent of essay advisor. IND.

CLSX 501. The History of the Latin Language. 3 Hours. H.
The place of Latin among the Indo-European languages and the languages of Italy, its development as a literary medium, and how it changed in pronunciation, vocabulary, and grammar from its beginnings through the Medieval period. LEC.

CLSX 502. Development of Ancient Greece, ca. 1000-300 B.C.E.: 3 Hours. H/W.
Emphasis on the ancient sources and texts, developments in political institutions and society, the changing definitions of personal, cultural, and national identities, and the cultural tensions between Greece and the cultures to the west and east, especially Italy and Persia. No knowledge of the ancient languages is required. (Same as HIST 502). LEC.

CLSX 515. Gender and Sexuality in Greek Culture. 3 Hours. H.
This course explores various approaches to the study of gender and sexuality in Greek antiquity. Contents will vary, and the course may focus on methodology and case studies, or on particular themes, historical periods, or artistic or literary genres. No knowledge of Greek or Latin is required. (Same as WGSS 515.) Prerequisite: Graduate status, or 6 credit hours in Classics, Greek, Latin, or Women, Gender and Sexuality Studies; or permission of instructor. LEC.

CLSX 516. Gender and Sexuality in Roman Culture. 3 Hours. H.
This course explores various approaches to the study of gender and sexuality in Roman antiquity. Contents will vary, and the course may focus on methodology and case studies, or on particular themes, historical periods, or artistic or literary genres. No knowledge of Greek or Latin is required. (Same as WGSS 516.) Prerequisite: Graduate status, or 6 credit hours in Classics, Greek, Latin, or Women, Gender and Sexuality Studies; or permission of instructor. LEC.

CLSX 525. Aegean Archaeology and Art. 3 Hours. H/W.
An interdisciplinary survey of the major cultures of the prehistoric Aegean (Greek) world from the Neolithic period to the end of the Bronze Age (ca. 3000-1100 B.C.E.), with special emphasis on the cultural and artistic achievements of the Mycenaeans, Minoans, and Cycladic islanders, including their contacts with the neighboring cultures of Anatolia (Hittites and Troy), the Levant, Egypt, and South Italy. Includes lecture with slides and discussion. For advanced undergraduates with backgrounds in the humanities and for graduate students (especially in Classics and History of Art). No knowledge of Greek or Latin is required. (Same as HA 525.) LEC.

CLSX 526. Greek Archaeology and Art. 3 Hours. H/W.
An interdisciplinary survey of the material culture of the ancient Greek world from the Protogeometric period to the end of the Hellenistic age (ca. 1100 - 30 B.C.E.), with emphasis on the major sites, monuments, and changing forms of social and artistic expression (e.g., architecture, sculpture, vase painting). Includes lectures with slides and discussion; use of the Wilcox Museum of Classical Antiquities. For advanced undergraduates with backgrounds in the humanities and for graduate students (especially in Classics and History of Art). No knowledge of Greek or Latin is required. (Same as HA 526.) LEC.

CLSX 527. Roman Archaeology and Art. 3 Hours. H/W.
An interdisciplinary survey of the material culture of ancient Rome from its origins to the late empire (8th c.B.C.E. - 4th c.C.E.). Emphasis on major sites, monuments, and changing forms of social and artistic expression, as well as on Etruscan and Greek influence on Rome and Rome’s influence on its provinces. Includes lectures with slides and discussion; use of the Wilcox Museum of Classical Antiquities. No knowledge of Greek or Latin is required. For advanced undergraduates with backgrounds in the humanities and for graduate students (especially in Classics and History of Art). (Same as HIST 527). LEC.

CLSX 529. Archaeology and Art of the Ancient Near East. 3 Hours. H.
A cross-cultural survey of the material remains of the major civilizations of the ancient Near East, including Anatolia, Mesopotamia, the Levant, and Egypt from Neolithic period to the rise of the Roman empire (ca. 6000 B.C.E. - 30 B.C.E.). Includes lectures with slides and discussion. For advanced undergraduates with backgrounds in the humanities and for graduate students (especially in Classics and History of Art). No knowledge of Greek or Latin is required. (Same as HA 529.) LEC.

CLSX 538. Pompeii and Herculaneum. 3 Hours. H.
An interdisciplinary treatment of the art and archaeology of the ancient Roman cities of Pompeii and Herculaneum in Italy. Emphasis on the structures and decorations of major public spaces and houses and on aspects of cultural, social, political, commercial, and religious life from the period of the second century B.C.E. to 79 C.E., when Pompeii and Herculaneum were buried by the eruption of Mt. Vesuvius. Slide lectures and discussion. (Same as HA 538, HWC 538.) Prerequisite: Graduate status, or 6 credit hours in Classics, Greek, Latin, History of Art, or permission of the instructor. LEC.

CLSX 550. Capstone in Classics. 1-3 Hours. AE61 / H.
This capstone seminar synthesizes various aspects in the discipline of Classics by focusing on recent award-winning scholarship or creative work in the field. Specific assignments and additional readings vary from one semester to another and will be stated on the instructor’s syllabus. Introductory knowledge of Greek or Latin is required. Prerequisite: 15 hours in CLSX/LAT/GRK at the 200 level or above, or status as a senior major in the department, or permission of the instructor. LEC.

CLSX 570. Study Abroad Topics in Greek and Roman Culture: 1-3 Hours. H.
This course is designed for the study of special topics in Classics at the junior/senior level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.
CLSX 575. Readings in: ____. 1-3 Hours.
Selected readings in Greek and Roman antiquity and the classical tradition for students who desire special work on a flexible basis. No knowledge of Greek or Latin is required. May be repeated for credit if topic varies. Only six hours may count toward the major. Prerequisite: Consent of instructor. LEC.

CLSX 576. Topics in Greek and Roman Literature: ____. 3 Hours. H.
Lecture and discussion course focusing on a theme, genre, or period of literature from the ancient classical world. No knowledge of Greek or Latin is required. May be repeated for credit if topic varies. Only 6 hours may count toward the major. LEC.

CLSX 577. Topics in the Archaeology and Art of the Ancient Mediterranean: ____. 3 Hours. AE61 / H.
Lecture and discussion course focusing on a theme, medium, region, or period in the archaeology and art of the ancient Near Eastern and classical world. May be repeated for credit if topic varies. Only 6 hours may count toward the major. LEC.

CLSX 675. Studies in: ____. 1-3 Hours. H/W.
Selected readings in Greek and Roman antiquity and the classical tradition for students who desire special work on a flexible basis. No knowledge of Greek or Latin is required. May be repeated for credit, the maximum being twelve hours. Prerequisite: Consent of instructor. IND.

CLSX 717. Investigations in Greek Drama I. 3 Hours.
Attendance at CLSX 384 required, plus one seminar per week, discussing the scholarly background of the major lecture, as well as the problems and aims of teaching Greek drama in English to undergraduates. No knowledge of Greek is required. RSH.

CLSX 718. Investigations in Greek Drama II. 3 Hours.
A continuation of CLSX 717. Attendance at CLSX 388 plus one seminar per week. No knowledge of Greek is required. RSH.

CLSX 790. Practicum in the Teaching of Classics. 0.5 Hours.
Required of all assistant instructors and teaching assistants in the teaching of Classics courses. May be repeated up to three semester hours credit in total. FLD.

CLSX 899. Thesis. 1-6 Hours.
Thesis hours. THE.

GRK 104. Elementary Ancient Greek. 5 Hours. U.
The essentials of ancient Greek grammar, with readings. LEC.

GRK 105. Elementary Ancient Greek, Honors. 5 Hours. U.
The essentials of ancient Greek grammar. Prerequisite: Membership in the University Honors Program or permission of instructor. LEC.

GRK 108. Ancient Greek Readings and Grammar. 5 Hours. U.
A continuation of Greek 104, with extensive readings from one or more classical authors. Prerequisite: GRK 104 or GRK 105. LEC.

GRK 109. Ancient Greek Readings and Grammar, Honors. 5 Hours. U.
A continuation of GRK 105, with extensive readings from one or more classical authors. Prerequisite: GRK 104 or 105; and membership in the University Honors Program or permission of instructor. LEC.

GRK 112. Intermediate Ancient Greek. 3 Hours. U.
Systematic grammar review and selected texts from Plato and Euripides. Prerequisite: GRK 108 or GRK 109 or consent of instructor. LEC.

GRK 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Greek. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

GRK 301. Philosophy and Oratory. 3 Hours. H/W.
Systematic grammar review in conjunction with readings selected from Plato, Aristotle and the Attic orators, with attention to issues of interpretation and social and cultural history. Prerequisite: GRK 108 or GRK 109. LEC.

GRK 302. Drama and Lyric Poetry. 3 Hours. H/W.
Systematic grammar review in conjunction with readings selected from Aeschylus, Sophocles, Euripides, and the lyric poets, with attention to issues of literary interpretation and cultural history. Prerequisite: GRK 108 or GRK 109. LEC.

GRK 303. Greek Narrative Prose. 3 Hours. H/W.
Systematic grammar review in conjunction with readings selected from the historians Herodotus, Thucydides, and Xenophon, as well as from the Greek novels and the New Testament. Attention will be given to issues of interpretation and cultural history. Prerequisite: GRK 108 or GRK 109. LEC.

GRK 310. Homer’s Odyssey. 3 Hours. H/W.
Selections from Homer’s Odyssey, with attention to issues of literary translation and interpretation, performance, and social and cultural history. Prerequisite: GRK 301, or GRK 302, or GRK 303. LEC.

GRK 312. Homer’s Iliad. 3 Hours. H/W.
Selections from Homer’s Iliad, with attention to issues of literary translation and interpretation, performance, and social and cultural history. Prerequisite: GRK 301, or GRK 302, or GRK 303. LEC.

GRK 375. Readings in: ____. 1-3 Hours. H/W.
Readings in classical Greek texts. May be repeated for up to twelve hours. Prerequisite: GRK 108 or the equivalent. IND.

GRK 496. Honors Essay in Greek. 3 Hours. AE61 / H/W.
Individual directed research and preparation of an essay on a topic in Greek literature or language. Prerequisite: Eligibility for departmental honors and consent of essay advisor. IND.

GRK 508. Early Greek Philosophy. 3 Hours. H/W.
A study of the doctrines of Greek philosophy before Plato. Emphasis on the Pre-Socratic philosophers with some attention paid to the Sophists and the Hippocratic Corpus. (Same as PHIL 508.) Prerequisite: PHIL 384, or GRK 301, or GRK 302, or GRK 303, or GRK 310, or GRK 312, or permission of instructor. LEC.

GRK 701. Archaic Poetry. 3 Hours.
Close reading of texts from Homer, Hesiod, Pindar, the lyric poets. LEC.

GRK 702. Drama. 3 Hours.
Close reading of texts from Aeschylus, Sophocles, Euripides, Aristophanes. LEC.

GRK 703. History and Oratory. 3 Hours.
Close reading of texts from Herodotus, Thucydides, Xenophon, Attic orators. LEC.

GRK 704. Philosophy. 3 Hours.
Close reading of texts from Plato, Aristotle, the Pre-Socratics. LEC.

GRK 705. Readings in Classical Greek. 3 Hours.
Extensive reading in a variety of Greek authors. LEC.

GRK 790. Practicum in the Teaching of Greek. 0.5 Hours.
Required of all assistant instructors and teaching assistants in the teaching of Greek. May be repeated up to three semester hours credit in total. FLD.
GRK 798. Studies in: _____. 1-3 Hours.
Selected readings for qualified students who desire special work on a flexible basis. May be repeated for credit, the maximum being twelve hours. Prerequisite: Undergraduate proficiency in Greek or equivalent. RSH.

GRK 899. Thesis. 1-6 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

LAT 104. Elementary Latin I. 5 Hours. U.
An introduction to the Latin language. LEC.

LAT 105. Elementary Latin I, Honors. 5 Hours. U.
Integrates study of elementary Latin with study of Roman culture. Prerequisite: Admission to Honors Program or permission of department. LEC.

LAT 108. Elementary Latin II. 5 Hours. U.
Latin grammar concluded with selected readings. Prerequisite: LAT 104 or LAT 105, or permission of department. LEC.

LAT 109. Elementary Latin II, Honors. 5 Hours. U.
Latin grammar concluded with selected readings, integrated with study of Roman culture. Prerequisite: LAT 105 or permission of department. LEC.

LAT 112. Readings in Latin Literature. 3 Hours. U.
Systematic grammar review in conjunction with selected prose authors, such as Cicero or Caesar, with additional readings in Roman poetry. Attention to literary history and historical context. Prerequisite: LAT 108 or LAT 109, or permission of department. LEC.

LAT 113. Readings in Latin Literature, Honors. 3 Hours. U.
Systematic grammar review in conjunction with selected prose authors, such as Cicero or Caesar, with additional readings in Roman poetry. Exercises in literary analysis and/or prose composition. Prerequisite: LAT 109 or permission of department. LEC.

LAT 177. First Year Seminar: _____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Latin. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

LAT 200. Vergil's Aeneid. 3 Hours. H/W.
Selections from Vergil's Aeneid, with attention to literary interpretation and literary history. Prerequisite: LAT 112 or LAT 113 or permission of department. LEC.

LAT 201. Vergil's Aeneid, Honors. 3 Hours. H/W.
Selections from Vergil's Aeneid with attention to literary history. Exercises in literary interpretation and verse composition. Prerequisite: LAT 113 or permission of department. LEC.

LAT 300. Intermediate Latin Composition. 3 Hours. H/W.
Composition in Latin prose, stressing the basic principles of Latin syntax and style. Recommended for majors and minors. Prerequisite: LAT 200 or LAT 201. LEC.

LAT 301. Prose Fiction and Epistolography. 3 Hours. H/W.
Selected readings from such authors as Cicero, Seneca, Petronius, Pliny, and Apuleius, with attention to literary interpretation and historical context. Prerequisite: LAT 200 or LAT 201, or permission of department. LEC.

LAT 302. Hexameter Poetry. 3 Hours. H/W.
Selected readings from such authors as Lucretius, Vergil, Ovid, and the satirists, with attention to literary interpretation and historical context. Prerequisite: LAT 200 or LAT 201, or permission of department. LEC.

LAT 303. Roman Historians. 3 Hours. H/W.
Selected readings from such authors as Caesar, Livy, and Tacitus, with attention to issues in Roman history and historiography. Prerequisite: LAT 200 or LAT 201, or permission of department. LEC.

LAT 304. Lyric and Elegiac Poetry. 3 Hours. H/W.
Selected readings from such authors as Catullus, Horace, Tibullus, Propertius, Sulpicia, Ovid, and Martial, with attention to literary interpretation and historical context. Prerequisite: LAT 200 or LAT 201, or permission of department. LEC.

LAT 305. Roman Drama. 3 Hours. H/W.
Selected readings from such authors as Plautus, Terence, and Seneca, with attention to literary interpretation, theater history, and performance. Prerequisite: LAT 200 or LAT 201, or permission of department. LEC.

LAT 375. Readings in: _____. 1-3 Hours. H/W.
Readings in Latin literature, selected in consultation with the instructor. May be repeated for up to twelve hours. Prerequisite: LAT 200 or LAT 201, or consent of instructor. IND.

LAT 496. Honors Essay in Latin. 3 Hours. AE61 / H/W.
Individual directed research and preparation of an essay on a topic in Latin literature or language. Prerequisite: Eligibility for departmental honors and consent of essay advisor. IND.

LAT 700. Advanced Latin Prose Composition. 3 Hours.
An examination of the grammar, syntax, and style of the Latin language through exercises in composition. Prerequisite: Consent of instructor. LEC.

LAT 701. Hexameter Poetry. 3 Hours.
Close reading of texts from authors such as Lucretius, Vergil, Ovid, Statius. Prerequisite: Consent of instructor. LEC.

LAT 702. Lyric and Elegy Poetry. 3 Hours.
Close reading of texts from authors such as Catullus, Horace, Propertius, Tibullus, Sulpicia, Ovid, Martial. Prerequisite: Consent of instructor. LEC.

LAT 703. History, Oratory, Philosophy. 3 Hours.
Close reading of texts from authors such as Cicero, Livy, Seneca, Tacitus, Augustine. Prerequisite: Consent of instructor. LEC.

LAT 704. Drama, Satire, and Novel. 3 Hours.
Close reading of texts from Plautus, Terence, Horace, Petronius, Seneca, Juvenal, Apuleius. LEC.

LAT 705. Readings in Classical Latin. 3 Hours.
Extensive reading in a variety of Latin authors. LEC.

LAT 790. Practicum in the Teaching of Latin. 0.5 Hours.
Required of all assistant instructors and teaching assistants in the teaching of Latin. May be repeated up to three semester hours credit in total. FLD.

LAT 791. Seminar in the Teaching of Latin. 3 Hours.
An introduction to teaching required of all assistant instructors and teaching assistants. Topics to include: pronunciation, etymology, Latin style, testing methods, and the selecting of texts. LEC.

LAT 798. Studies in: _____. 1-3 Hours.
Selected readings for qualified students who desire special work on a flexible basis. May be repeated for credit, the maximum being twelve hours. Prerequisite: Undergraduate proficiency in Latin or equivalent. RSH.

LAT 899. Thesis. 1-6 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.
Communication Studies Courses

COMS 104. Introduction to Communication Studies. 3 Hours. H. Survey of the major areas of the Communication Studies field. Provides an overview of communication theory and research methods, and introduces key topics, approaches, and applications in core areas such as rhetoric, organizational communication, interpersonal communication, intercultural communication, and communication technology. LEC.

COMS 130. Speaker-Audience Communication. 3 Hours. GE22 / U. Study of rhetorical theory and its application to the preparation, presentation, and criticism of oral discourse in audience situations. Special consideration of listening behavior and of the ethical conduct of speech in a free society. This course fulfills the College argument and reason requirement. LEC.

COMS 131. Speaker-Audience Communication, Honors. 3 Hours. GE22 / U. The study of rhetorical theory and its application to the preparation, presentation, and criticism of oral discourse in audience situations. Special consideration of listening behavior and of the ethical conduct of speech in a free society. This course fulfills the College argument and reason requirement. This is an honors section of COMS 130 open only to students in the Honors Program. LEC.

COMS 132. Oral Communication for the Professional Schools. 3 Hours. GE22 / U. Grounded in communication theory, the purpose of this new course is to teach public speaking skills within a professional context. Focus is on the preparation, presentation, and critique of various forms of oral communication, including but not limited to informative, persuasive, and group presentations. Course is restricted to students in the professional schools. LEC.

COMS 150. Personal Communication. 3 Hours. U. This course is an introduction to communication theory, process, and skill. The course seeks to increase the student's understanding of communication theory, both interpersonal and public, and of his or her own communicative behavior. Class projects and participation urge students to apply this theoretical knowledge to a variety of settings, including interpersonal and addressing groups and audiences. This course does not fulfill the College argument and reason requirement. Not open to those who have credit in COMS 130. LEC.

COMS 177. First Year Seminar: ____. 3 Hours. GE11 / U. A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Communication Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

COMS 201. Introduction to Leadership. 2 Hours. H. This course introduces students to the study of the leadership process. The course covers theories and research on core themes of leadership, focusing on how course materials relate to students’ own leadership experiences. This course is taught online. Concurrent enrollment in COMS 202 is recommended. Students considering the Leadership Studies Minor must complete COMS 202. Not open to seniors. LEC.

COMS 202. Introduction to Leadership Applications. 1 Hour. AE51 / H. This course focuses on the application of information learned in COMS 201. Activities and discussions emphasize application, analysis, and engagement with the process of leadership. Concurrent enrollment in COMS 201 is recommended. Students considering the Leadership Studies Minor must complete COMS 201 and COMS 202. Not open to seniors. Prerequisite/co-requisite: COMS 201. LEC.

COMS 210. Communication in Organizational and Professional Contexts. 3 Hours. S. Introduces foundational concepts in organizational communication, focusing on topics such as superior-subordinate relationships, information- and feedback-seeking, relationships with stakeholders, and dealing with organizational change. The course emphasizes individual communication practices and responsibilities that contribute to organizational outcomes and personal success in organizations. LEC.

COMS 230. Fundamentals of Debate. 3 Hours. GE11 / U. Introduction to the principles of debating. Emphasis on debating techniques, analysis of the question, methods of using evidence, refutation, and brief making. This course fulfills the College argument and reason requirement. LEC.

COMS 231. Practicum in Forensics. 1 Hour. U. For students selected by faculty supervisor for work on university debate squad. Students to enroll at time of their selection. Recurring enrollments permitted. FLD.

COMS 232. The Rhetorical Tradition. 3 Hours. HR / H. Historical survey of theories of communication and persuasion, the people who produced them, and the philosophical assumptions upon which they rest. Beginning with the Greeks, especially Plato and Aristotle, and ending with selections from Kenneth Burke and other contemporary figures, the course focuses on changing concepts of rhetoric throughout a time span of some 2000 years. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 235. Introduction to Rhetoric and Social Influence. 3 Hours. HL GE11 / H. This course examines in detail the texts of speeches and essays on controversial issues in order to illustrate the varied forms of rhetorical action and the diverse modes of analysis and evaluation that can be applied to them. Examples are drawn from the rhetorical literature of contemporary U.S. speakers and prose writers. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 238. Cases in Persuasion. 3 Hours. H. An exploration of basic principles that explain the effect and effectiveness of the arts of persuasion currently practiced in American society. Class discussions of incidents leading to the discovery of principles and theories that explain them. Continuing emphasis on issues concerning the ethical character of persuasion in contemporary life. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 244. Introduction to Interpersonal Communication Theory. 3 Hours. SI GE3S / S. Examines basic theoretical perspectives and research on verbal and nonverbal communication elements affecting communication between individuals in a variety of contexts. Topics include communication competence, developmental aspects of interpersonal communication, and interpersonal influence. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 246. Introduction to Intercultural Communication. 3 Hours. S. This course attempts to provide an understanding of communication as it affects culture and as it is affected by culture. Special emphasis will be placed on the principle of similarity and differences as it relates to the roles of verbal and non-verbal symbols, codes, and cues, stereotypes, prejudices and value and thought patterning systems between and among cultures. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 307. Introduction to Political Communication. 3 Hours. S. The primary goal of this course is to encourage critical engagement in politics and political campaigns. This course addresses various elements...
of political communication, with primary focus on the political campaign. By the end of the semester students are able to understand the relevant theories of political communication, evaluate and use critical thinking skills in consuming political messages, and grasp the complex structural and situational factors that influence political discourse. Prerequisite: COMS 130. LEC.

COMS 310. Introduction to Organizational Communication. 3 Hours. SC GE3S / S.
This course provides a foundation for the study of communication in organizational contexts. It introduces students to various organization theories including classical, human relations, systems, and cultural approaches and examines the role of communication in each. Information flow, communication climate, communication networks, work relationships and managerial communication are discussed as well as organizational symbolism, conflict resolution, rituals and ethics. The course is designed to heighten students' awareness of the role of communication in the organizing process and to develop their abilities to diagnose and prevent communication-related problems. Prerequisite: COMS 130 or COMS 150. LEC.

COMS 320. Communication on the Internet. 3 Hours. S.
This course introduces social and communication issues in the context of online interaction. Surveys a range of social internet technologies (e.g., newsgroups, chat, MUDs, etc.). Focus is on the interpersonal topics, including the establishment and maintenance of individual and cultural identities, personal relationships, the emergence of online communities, power and conflict in online groups, language use in online contexts, and how online groups are used to enhance or alter civic and global cultures. LEC.

COMS 330. Effective Business Communication. 3 Hours. S.
The purpose of this course is to develop effective written, spoken, and electronically mediated communication skills necessary for business. Students will write short technical reports, plan meetings and conferences, prepare and present briefings and persuasive proposals with visual aids, and examine the use of new communication technologies. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 331. Persuasive Speaking. 3 Hours. H.
Guided experiences in the preparation and presentation of discourse intended to influence outcomes of human interactions in various speaker-audience situations, including television. Special emphasis on speech styles in influencing thought, attitudes, and behavior. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 335. Rhetoric, Politics and the Mass Media. 3 Hours. H.
This course investigates the ways in which rhetorical strategies (persuasive and linguistic usage) permeate the relationship between politics and politicians and the mass media. We will analyze media coverage of political debates, the presidential use of radio, television and press conferences, and the network evening news coverage of political events to see how political decisions are influenced by and influence the media. (Same as POLS 521.) Prerequisite: COMS 130 or COMS 150. LEC.

COMS 342. Problem-Solving in Teams and Groups. 3 Hours. S.
This course introduces basic concepts important to leading and/or participating in problem-solving work teams. Problem identification and analysis and leadership are emphasized and practiced. Teamwork variables are discussed and promoted. Lecture, demonstrations, exercises in class are structure for students to analyze groups outside of class. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 344. Relational Communication. 3 Hours. S.
This course studies communication issues, theories, research and skills applicable to sustaining and enriching long-term relationships, such as families, friendships and close workplace collaborations. Emphasis is given to applying course concepts to students’ own relationships and interaction in class. Prerequisite: COMS 244. LEC.

COMS 356. Introduction to Behavioral Research Methods in Communication. 3 Hours. GE12 / S.
An introduction to the nature of theory and theory building in the study of human communication. Research methods include experimentation, survey, content analysis, and field description. An introduction to statistics and statistical tests is included as well. Prerequisite: MATH 101 and admission to the Communication Studies major or consent of instructor. LEC.

COMS 410. Micro-Level Organizational Communication. 3 Hours. S.
An examination of dyadic level communication in organizations, with emphasis on contexts of superior-subordinate and peer communication. The course also addresses contexts of organizational entry and exit, perception and judgment, information seeking, feedback, and organizational attachment. Prerequisite: COMS 310. LEC.

COMS 411. Macro Level Organizational Communication. 3 Hours. S.
An exploration of the communication patterns and challenges between organizational groups and organizations as a whole. Key elements include networks, boundary spanning, inter-organizational collaboration, and the role of technology in linking large organizational components. Prerequisite: COMS 310 or instructor permission. LEC.

COMS 412. Communication in Distributed Organizations. 3 Hours. S.
Examination of the communication challenges faced by distributed organizations, especially those with a global presence. Topics include telework, virtual terms, and new processes required to support interaction among people located in several different places. Prerequisite: COMS 310 or permission of instructor. LEC.

COMS 420. Communication, Technology and Globalization. 3 Hours. H.
Examines the social, cultural, and economic challenges and opportunities advanced communication technologies and globalization pose to processes such as democratic deliberation, urban governance, and environmental sustainability. Prerequisite: COMS 130. LEC.

COMS 425. Communication and the American Presidency. 3 Hours. H.
Examination of the ways in which American presidents communicate with the American people and how such communication influences the public. Emphasis is on a number of approaches to better understanding presidential communication, including rhetorical, historical, and content analysis. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 431. Communication and Leadership. 3 Hours. H.
This course provides an overview of the role of communication in leadership in a variety of contexts, including: interpersonal, small group, intercultural, organizational, and public sphere. It will include theoretical and experiential approaches to effective leadership communication. Prerequisite: Admission to Leadership Minor or consent of instructor. LEC.

COMS 435. Forms and Styles of American Public Discourse. 3 Hours. H.
Changing styles of public discourse are examined from the beginning of the nation to contemporary times, and the generic forms of address that have emerged from our national dialogue, such as jeremiads, inaugurals and apologies, are studied from a formistic perspective. Prerequisite: COMS 235. LEC.
COMS 440. Communication and Gender. 3 Hours. AE41 / S.
Focuses attention on the relationship between communication and gender, including both physical and psychological dimensions. Topics include: sex role orientations and stereotypes; perceived and actual differences in verbal and nonverbal communication behaviors; the influence of gender on communication in a variety of contexts. (Same as WGSS 440.) Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 441. Health Communication. 3 Hours. H.
This course is a survey of the many disciplines found in the field of health communication, including persuasion that targets health-related behavior, negotiation of treatment with health care providers, emotional support of patients, news media coverage of medical research, and health campaign principles. Prerequisite: COMS 130. LEC.

COMS 447. Intercultural Communication: The Afro-American. 3 Hours. AE41 / H/W.
An examination of the barriers to effective communication between black Americans and non-black Americans. (Same as AAAS 420.) Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 450. Ethical Issues in Political Communication. 3 Hours. H.
Application of ethical standards to the evaluation of political communication. Examination of value questions related to advocacy in modern society (propaganda, demagoguery, credibility). Analysis of First Amendment rights and other issues pertaining to censorship and freedom of speech (defamation, dissent, incitement, public morals, privacy). Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 453. Communication in Political Campaigns. 3 Hours. H.
This course examines political communication as it evolves throughout a political campaign and includes such topics as theories and strategies, stages in political campaigns, influence of the mass media, television advertising, candidate debates, polling, and the use of new technologies in delivering campaign communication. Selected examples from recent campaigns illustrate the strategies and effects of political communication as we examine how politicians persuade us to vote for them. Prerequisite: A course in communication studies. LEC.

COMS 459. Undergraduate Seminar in: ___. 1-3 Hours. H.
Course organized any given semester to study particular subject matter or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. (Distribution credit given for two or three hours only.) LEC.

COMS 460. Undergraduate Seminar in: ___. 1-3 Hours. S.
Course organized any given semester to study particular subject matter or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. (Distribution credit given for two or three hour enrollments only.) LEC.

COMS 485. Communication and Organizational Change. 3 Hours. S.
Examines communication processes that support or hinder implementation of organizational change. Topics include stakeholder analysis, individual responses to change, communicating about change, generating support for change, and managing resistance to change. LEC.

COMS 496. Capstone in: ___. 3 Hours. S.
In the capstone course students synthesize and apply knowledge and skills gained through the major. Capstone coursework requires students to integrate practices and theories learned in their areas of concentration. Topics within each concentration change as needs and resources develop. Prerequisite: Senior standing, COMS 130, and completion of COMS 235 and COMS 356 or concurrent enrollment. LEC.

COMS 497. Honors Seminar. 3 Hours. AE61 / H.
This course is intended for honor students who want to learn more about the history of communication studies, major areas of research, or more in-depth knowledge about special communication-related topics. Areas to be covered may change as needs and resources change. LEC.

COMS 498. Honors Thesis. 2-6 Hours. AE61 / H.
(Six hours maximum credit, which may be distributed through two semesters.) Study should include readings directed toward original research, i.e., an intensive investigation of a specific problem in this field. Prerequisite: Consent of the Department Honors Committee. IND.

COMS 499. Directed Study in Communication Studies. 1-3 Hours. H.
(A maximum of six hours of credit may be counted, with not more than four in a single area of study.) Investigation of a special topic or project selected by the student with advice, approval, and supervision of an instructor. Such study may take the form of directed reading, or special research, individual reports and conferences. (Distribution credit given for two-three hours only.) Prerequisite: At least seven hours of credit in the department and consent of instructor. IND.

COMS 503. Post-Soviet Communication. 3 Hours. H.
This course is designed to acquaint students with the shifting manner of public discourse in Post-Soviet Russia and help them to explore in some depth cross-cultural communication between America and Russia. In addition to contemporary and historical background on Russian communicative practices, students examine discourse in business development, mass media, marketing, and advertising. All readings in English. (Same as SLAV 503). LEC.

COMS 530. Internship in Communication Studies. 1-3 Hours. AE61 / S.
Students do communication-centered fieldwork in an organization related to their career goals. Criteria for the organizations and work assignments suitable for internship credit are in an information brochure available at the COMS Department office and website. The internship plan is developed with field supervisor and internship faculty adviser. Reports and meetings are required. Prerequisite: Permission of instructor, admission to COMS major. FLD.

COMS 531. Seminar in Leadership Strategies and Applications. 3 Hours. H.
This seminar serves as the capstone course for the Leadership Studies minor. It includes advanced readings on leadership theory and practice, as well as major written and applied projects in which students integrate and demonstrate what they have learned in the program. Prerequisite: COMS 201, COMS 431, and admission to the Leadership Studies minor. LEC.

COMS 532. Leadership Studies Practicum. 1-3 Hours. AE61 / U.
Students engage in a variety of training programs and field experiences in which they learn about leadership, observe leaders in action, and involve themselves in leadership activities. Written assignments and group discussions are used to analyze their learning. Should be taken for a total of three credit hours, across more than one semester. Prerequisite: COMS 201 and admission to the Leadership Studies minor. FLD.

COMS 535. American Public Address, Puritans to 1900. 3 Hours. H.
A history of American public address from the Puritans to about 1900. Students examine discourse in American public address in which they learn about leadership, observe leaders in action, and involve themselves in leadership activities. Written assignments and group discussions are used to analyze their learning. Should be taken for a total of three credit hours, across more than one semester. Prerequisite: COMS 235. LEC.

COMS 536. American Public Address, 1900-Present. 3 Hours. H.
A history of American public address from 1900 to the present. Using the tools of rhetorical criticism, students describe, analyze, and evaluate
select rhetoric from the period. Graduate students are assigned extra reading and a research paper. Prerequisite: COMS 235. LEC.

COMS 537. Communication in Conflict Resolution. 3 Hours. S.
An examination of conflict situations and the manner in which communication can serve as a vehicle for their intensification or resolution. The focus is on the theory of games as it applies to conflict within interpersonal situations; implications will be drawn for larger social systems. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 538. Persuasion Theory and Research. 3 Hours. S.
This course focuses on the social scientific study of persuasion. Traditional theories of attitude change and persuasion research are studied along with techniques of measuring attitudes. Attention is also given to the attitude-behavior relationship and the production of compliance-gaining messages. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 539. Argumentation. 3 Hours. S.
Analysis of the theory and techniques of argumentation in historical and contemporary writings, with special emphasis on the works of Aristotle, John Stuart Mill, Richard Whateley, and Stephen Toulmin. Application of argumentation theory to political and legal discourse. Opportunity for student performances in the preparation and criticism of argument. Prerequisite: Four hours in the department. LEC.

COMS 543. Group Leadership Practicum. 1-3 Hours. S.
Theory and practice in leadership of small group interaction. Includes responsibility for conducting a semester-long series of group meetings in an educational context under the supervision of faculty, study and training in leadership skills, a weekly practicum seminar, and individual conferences with supervising instructor. May be taken more than once, but not for more than four hours total credit. (Distribution credit given for two-three hours only.) Prerequisite: COMS 344, COMS 455, and permission of instructor. FLD.

COMS 544. Advanced Interpersonal Communication: Theories and Research. 3 Hours. S.
Intensive exploration of contemporary theories and research in the field of interpersonal communication; emphasis on an array of theoretical models and research exemplars; comparative analysis of major theoretical and research paradigms. Prerequisite: COMS 244 or instructor consent. LEC.

COMS 546. Communication Across the Life-span. 3 Hours. S.
Examination of the ways in which communication changes across the life-span, and influences human development. Course will include topics such as barriers to communication among elderly populations; communication and mis-communication across generations; the role of language in constructing life-span development (e.g., the mid-life crisis); development of language and social interaction during childhood; peer relationships and communication in adolescence; uses and effects of mass communication across the life-span. Prerequisite: COMS 244 and COMS 356. LEC.

COMS 547. Communication and Culture. 3 Hours. S.
A study of the systematic relationship between communication and culture. Emphasis is on culture as a variable in communicative situations: cultural aspects of attitude and cognition, language interchange, cultural differences in extra-verbal behavior, interaction between oral traditions and mass media. Prerequisite: COMS 130, COMS 150, COMS 230, or an introduction course in anthropology. LEC.

COMS 548. Theories of the Interview. 3 Hours. S.
Comprehensive study of communication processes in dyadic, face-to-face situations commonly encountered in organizations and professional environments. Intensive analysis of simulated and real-life interviews. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 549. Communication in Service and Sales. 3 Hours. S.
This course will deal with communication between organizational personnel and their customers or clients. Case studies and research concerning communication behaviors of service providers and salespeople will be covered. Prerequisite: COMS 310. LEC.

COMS 551. The Rhetoric of Black Americans. 3 Hours. H/W.
A study of the rhetoric of black Americans, from their earliest protest efforts to the contemporary scene, with focus on the methods and themes employed to alter their status in American society. (Same as AAAS 534.) Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 552. The Rhetoric of Women’s Rights. 3 Hours. AE41 / H.
An analysis of the themes and rhetorical strategies of the women’s rights movement in America. The course will view the struggle for women’s rights from a historical perspective and will conclude with contemporary issues concerning the role of women in society. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 554. Rhetoric of Popular Culture. 3 Hours. H.
A study of the social and cultural importance of popular culture. Emphasis is on using rhetorical analysis and a number of important theoretical perspectives to help examine popular culture’s often unnoticed influence. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 555. Family Communication. 3 Hours. S.
An examination of trends and theory related to the scientific study of the family, with a focus on issues related to family interaction, functioning, relationships, and communication. Research and theories from communication, sociological, and psychological perspectives are employed to examine topics such as family violence, mental health problems, marital satisfaction, divorce, courtship, and the impact of the family on its children (and vice versa). Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 557. East Asian Communication. 3 Hours. S.
Explores the major communication theories and research in the East Asian cultural contexts by focusing on the Chinese, Japanese, and Korean cultures. Examines, from a broader perspective, certain cultural values (e.g. harmony, hierarchy, conservatism, and modernism) upheld in East Asian cultures and their influences on people’s communicative behaviors in an age of globalization. Students explore issues of history, identity, verbal and non-verbal symbols, stereotypes, prejudice, values and thought patterning systems in the East Asian cultural context from a communicative perspective. This course is designed as a bridge course and meets with a graduate level section of the same title. Prerequisite: COMS 246. LEC.

COMS 559. Seminar in: _____. 1-3 Hours. H.
Course organized any given semester to study particular subject matter or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. (Distribution credit given for two-three hours only.) LEC.

COMS 560. Seminar in: _____. 3 Hours. S.
Course organized any given semester to study particular subject matter or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. (May be repeated for credit if content varies.) LEC.

COMS 590. Nonverbal Communication. 3 Hours. S.
Examination of non-linguistic behavior in human communication, including proxemics (spacing), kinesics (movement and expression), and paralinguistics (voice quality). Includes phylogenetic and developmental
perspectives, methods of analysis, applications to interpersonal problems. (Same as PSYC 590.) Prerequisite: COMS 356 or PSYC 210 or PSYC 211. LEC.

COMS 603. Topics in Presidential Rhetoric: ______. 3 Hours. H.
This course involves an examination of presidential rhetoric, including a focus on the strategies present in presidential discourse, the function that this rhetoric serves, and the historical context in which it was presented. One or more important presidential rhetors will be covered each semester. This course can be repeated for credit if taken under a different topic. LEC.

COMS 605. Speech Writing. 3 Hours. H.
Emphasis is on actual practice in preparing speech manuscripts for oneself and others. Model speeches are examined to better understand language, evidence, and stylistic choices available to speech writers. The ethical dimensions of writing for others in corporate and political positions are stressed. Students are required to prepare a variety of speeches and analyses of others’ speeches. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 607. Political Communication. 3 Hours. H.
This course will focus on contemporary political communication theory and illustrate how such theories are exemplified in modern political contexts: political arguments and developing consensus, constitutional issues and hearings, the rhetorical presidency, the dissemination of political information, and political uses of definition. (Same as POLS 520.) Prerequisite: COMS 130 or COMS 150. LEC.

COMS 620. Communication and New Technology. 3 Hours. S.
This course explores the impact of new communication technology on individuals and groups in various contexts. Topics include: The development of computer-mediated communication, social and psychological impacts of new communication technology, the evolution of telework and advances in interactive telecommunications. LEC.

COMS 639. Legal Communication. 3 Hours. S.
An analysis of how communication principles and theories operate within the context of the legal system. Topics covered will include the lawyer/client interview, depositions and pre-trial discovery, settlement negotiation, jury selection, opening and closing statements, and witness testimony. Prerequisite: COMS 130 or COMS 150. LEC.

COMS 647. Issues in Intercultural Communication. 3 Hours. S.
Examination of the processes and factors affecting communication in an intercultural context, and of methods of training for intercultural communication roles. Prerequisite: COMS 547 and an introductory course in anthropology, or consent of instructor. LEC.

COMS 656. Mass Media: Social Science Applications. 3 Hours. S.
This course introduces students to the major theories of and prominent research in mass communication. The aim is to stimulate critical thinking about the content and effects of mass communication, develop critical consumption skills, and enhance awareness of public policy issues relating to the media. Students are required to read a variety of chapters and articles on mass communication, promoting independent investigation into specific areas of interest. This course is a bridge course and meets with a graduate level section of the same title. Prerequisite: COMS 356. LEC.

COMS 667. Interpersonal Communication in Multinational Organizations. 3 Hours.
A study of interpersonal communication in management and professional development in intercultural situations. Focus on preparation of the global manager or professional in the organizational environment. Special attention to the problems and challenges of intercultural interactions in the context of multinational organizations. LEC.

COMS 669. Human Conflict and Peace. 3 Hours. H.
Study of religious, cultural, and social traditions toward understanding the nature and purposes of human conflict. Analysis of various meanings of peace, with emphasis on study of nonviolent approaches to management of conflict. Class discussion, readings, and individual research projects. (Same as REL 669.) Prerequisite: Junior standing or above. LEC.

COMS 710. Survey of Theory and Research in Organizational Communication. 3 Hours.
This course examines the theoretical and philosophical underpinnings of organizational communication research. Course topics cover variable analytic traditions and systems theory, as well as cultural, critical, and various interpretive approaches to understanding communication in organizational contexts. Prerequisite: COMS 310 and permission of the instructor. LEC.

COMS 730. Writing and Speaking for Decision Makers. 3 Hours.
Theory and application of communication strategies for corporate communication. This course presents rhetorical analysis of organizational situations and audiences, focusing on corporate decision-makers. Included are informative and persuasive communications such as board presentations, requests for proposal and responses to RFPs, grant proposals, and persuasive presentations for adoption, implementation, or evaluation of organizational programs. Course is limited to Regents Center students only. LEC.

COMS 741. Special Topics in Communication Studies: ______. 2-3 Hours.
Examination of special topics in Communication Studies. Prerequisite: Instructor consent. LEC.

COMS 784. Proseminar in Communication and Aging. 1 Hour.
A weekly forum for students and faculty to discuss professional issues and interdisciplinary research in communication and aging. May be repeated for credit. (Same as PSYC 784.) (Same as SPLH 784.) Prerequisite: Consent of instructor. LEC.

COMS 787. Gerontology Proseminar. 3 Hours.
A proseminar coordinated by the Gerontology Center. The proseminar explores essential areas of gerontology for researchers and practitioners, providing a multidisciplinary (psychology, biology, sociology, and communication) perspective on aging. The proseminar surveys contemporary basic and applied research, service programs, and policy and management issues in gerontology. (Same as ABSC 787, AMS 767, PSYC 787, and SOC 767.) (Formerly HDFL 787.) LEC.

COMS 807. Rhetoric, Politics and the Mass Media. 3 Hours.
This course investigates the ways in which rhetorical strategies (persuasive and linguistic usage) permeate the relationship between politics and politicians and the mass media. We will analyze media coverage of political debates, the presidential use of radio, television and press conferences, the network evening news coverage of political events, the influence of political advertising to see how political decisions are influenced by and influence the media. LEC.

COMS 810. Organizational Communication: Theory and Research. 3 Hours.
This course examines the theoretical and philosophical underpinnings of organizational communication research. Course topics cover variable analytic traditions and systems theory, as well as cultural, critical, and various interpretive approaches to understanding communication in organizational contexts. Prerequisite: COMS 310 and permission of instructor. LEC.
COMS 835. Impression Formation and Interpersonal Behavior. 3 Hours.
Intensive investigation of the processes involved in impression formation and of the effects of established impressions upon interpersonal communication. (Same as PSYC 845.) Prerequisite: COMS 535 or PSYC 670. LEC.

COMS 844. Seminar in Interpersonal Communication. 3 Hours.
This class will address current theory and research in interpersonal communication. Issues addressed may include verbal or nonverbal communication in families, close relationships, initial interactions, and the like. LEC.

COMS 846. Communication and Aging. 3 Hours.
Examination of the interrelationship between communication and the aging process. The course will include current research and theory on such topics as intergenerational communication, language and age identity, age-stereotyping and communication, mass media and aging, age and health communication, and others of current interest in the field. LEC.

COMS 848. Communication Audits in Organizations. 3 Hours.
The principal thrust of this course is a hands-on analysis of the communication in 1-2 organizations. Students work as a consulting group to analyze dimensions of communication, communication channels, job satisfaction, organizational commitment, and communication strategies. Experience is gained in organizational research methods, instrument development, organizational analysis, feedback, and organizational development. LEC.

COMS 850. Introduction to Research Methods. 3 Hours.
An introduction to methodological approaches to the study of communication. Approaches considered will include (a) humanistic message analysis and evaluation; (b) ethnographic and observational techniques; (c) survey construction and execution; and (d) experimental design and procedures. Special focus on issues of validity, reliability, and ethics. LEC.

COMS 851. Communication Research: Historical and Descriptive. 3 Hours.
An introduction to types of historical and descriptive research in human communication. Library resources and methods of research will be covered. Emphasis will be placed upon preparing a research prospectus and upon writing the research report. LEC.

COMS 852. Communication Research: Experimentation and Quantitative Analysis. 3 Hours.
An introduction to the process of research in communication studies, including consideration of basic principles in research design, methods of observation and measurement, and the application of appropriate statistical techniques. LEC.

COMS 855. Qualitative Research Methods in Communication Studies. 3 Hours.
Study of strategies for describing communication behavior in particular contexts, emphasizing ethnography and specific observational and interview data gathering and analysis methods. Prerequisite: COMS 755 or equivalent. LEC.

COMS 856. Communication Research: Quantitative Analysis. 3 Hours.
An intermediate overview of statistical techniques commonly used in communication research. Content will include a review of univariate statistical tests such as t-test, correlation, chi-square, and other nonparametric techniques of data analysis. Additionally, factorial analysis of variance, multiple regression, and factor analysis will be covered, along with the application of appropriate statistical techniques. Prerequisite: COMS 850 and an introductory course in statistics. LEC.

COMS 859. Proseminar in Communication Studies. 3 Hours.
An overview and integration of communication studies based upon an examination of selected basic writings in the discipline. LEC.

COMS 860. New Communication Technology and the Work Place. 3 Hours.
An examination of changes in the work place and for workers associated with new communication technologies such as e-mail, voice mail, teleconferencing, distributed computer processing, and computer-supported decision making. Emphasis is on changes in organizational communication patterns, participant responses to the technologies, and evaluation of the outcomes of implementing work place communication technologies. To be taken by Regents Center students. LEC.

COMS 898. Investigation and Conference (For Master’s Candidates). 1-8 Hours.
(Limited to eight hours credit toward the M.A. degree.) Directed research and experimentation for M.A. students in some phase of speech science or the teaching of speech and drama. RSH.

COMS 899. Master’s Thesis. 1-6 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

COMS 907. Seminar in Political Communication. 3 Hours.
This course will focus on contemporary political communication theory and illustrate how such theories are exemplified in modern political contexts: political arguments and developing consensus, communication strategies in Congressional and bureaucratic decision-making, the rhetorical presidency, the dissemination of political information, political narrative, and political campaigns. LEC.

COMS 930. Seminar in Speech: _____ . 1-4 Hours.
Special problems in speech. Prerequisite: Twelve hours of credit in the department. LEC.

COMS 932. Theories of Rhetoric: Classical. 3 Hours.
An intensive study of the rhetorical theories of classical writers from 466 B.C. to the decline of Roman oratory. Principal emphasis will be on Isocrates, Plato, Aristotle, Quintilian, Cicero, and Longinus. LEC.

COMS 933. Theories of Rhetoric: Neo-Classical. 2-3 Hours.
A study of the development of rhetorical theory from 325 A.D. to the twentieth century. Notable departures from the classical tradition will be examined. Special concentration on the writings of Augustine and the tradition of medieval preaching. Alcuin, Ramus, Bacon, Campbell, Whately, Blair, John Quincy Adams, and the elocutionary movement. LEC.

COMS 936. Seminar in Language and Discourse. 3 Hours.
This seminar uses interdisciplinary readings to examine central theoretical questions regarding language and communication. The course moves from considering major theoretical positions to current research in communication on discourse. Methodological issues in the study of language and discourse are also addressed. LEC.

COMS 938. Seminar in Persuasion. 2-3 Hours.
Examination of selected topics in persuasion, with emphasis on the application of recent theories and experimental research to the analysis of persuasive discourse. Prerequisite: COMS 538 or equivalent. LEC.

COMS 939. Seminar in Argumentation. 2-3 Hours.
Examination of special problems in argumentation, with emphasis on the relationship of systems of argumentation to their philosophic presuppositions. Discussion of the writings of Toulin, Natason, Johnstone, Perelman, Dewey. Prerequisite: COMS 539 or equivalent. LEC.
COMS 941. Seminar in Health Communications. 3 Hours.
This course is a survey of the many disciplines of study found in the field of health communication. Emphases include decision making regarding health-related behaviors, the influence of interpersonal messages, negotiating treatment with health care providers, coping with medical difficulties, the critical examination of medical research, news, and health campaigns, and the impacts of new technologies. SEM.

COMS 945. Seminar in Social Support. 3 Hours.
This course is a survey of the many disciplines of the fundamental form of communication known as social or emotional support or comforting. Emphases include message-, receiver-, and interactionally-oriented approaches, as well as support contexts, dilemmas, structures, features, and positive effects on physical and mental health. SEM.

COMS 946. Seminar in Communication and Intergroup Relations. 3 Hours.
Conceptual and theoretical frameworks for exploring and understanding relations between individuals from different societal groups (e.g., cultural/ethnic, gender, age). Focus on issues of identity, power relations as manifested in interpersonal, mass media, and organizational contexts. The course will include methodological and applied implications for studying different groups, both within the USA and around the world. LEC.

COMS 947. Communication in Cultural Innovation and National Development. 3 Hours.
An examination of the role of speech and other types of communication in the introduction of change within cultures and the diffusion of innovation between cultures. Specific communication problems concerning agriculture, education, international aid, military assistance, and public health will be discussed. LEC.

COMS 948. Seminar in Organizational Communication. 2-3 Hours.
Analysis of speech communication functions in the organizational structures of business, industry, labor, military, education, government, and professional agencies. Development of conceptual schemes for conducting research and training programs on speech systems which characterize the operation of organized groups. LEC.

COMS 950. Seminar in Public Address: ____. 3 Hours.
The study of public address by historical periods or by topics. LEC.

COMS 951. Seminar in Movement Theory and Genre Criticism. 3 Hours.
This course examines the theoretical and methodological underpinnings of approaches to rhetorical analysis focusing on social movements and rhetorical genres. It will review existing theory on these topics, develop a methodological approach to both forms of critical analysis, and test each methodological approach via case studies. Prerequisite: COMS 755 or consent of instructor. LEC.

COMS 952. Seminar in Mythic and Narrative Approaches to Rhetorical Criticism. 3 Hours.
This course examines the theoretical and methodological underpinnings of approaches to rhetorical analysis focusing on narrative rhetoric, with a special emphasis on myth as a type of narrative. It will review existing theory on these topics, consider a number of alternative methodological approaches, and test each methodological approach via case studies. Prerequisite: COMS 755 or consent of instructor. LEC.

COMS 953. Seminar in Organizational Rhetoric. 3 Hours.
This course focuses on theoretical and methodological materials related to the use of rhetoric in an organizational setting. It will review existing theory and methodological development on this topic, paying special attention to the distinction between rhetoric used within an organization and rhetoric focused on audiences external to the organization. Multiple case-studies will be considered to illuminate the functioning of both internal and external organizational rhetoric. Prerequisite: COMS 755 or consent of instructor. LEC.

COMS 955. Seminar in Rhetorical Criticism. 3 Hours.
A study of contemporary and historical writings on rhetorical criticism. Emphasis is placed upon the development of critical methodology for future research and writing. Prerequisite: COMS 755. LEC.

COMS 958. Comparative Theories of Speech Communication. 3 Hours.
A descriptive and comparative analysis of theories of communication applicable to speech behavior. Prerequisite: COMS 859 or equivalent. LEC.

COMS 959. Theories of Rhetoric: Contemporary. 3 Hours.
A study of the writings on rhetorical theory in the twentieth century. Principal emphasis will be on the psychological treatment of rhetoric. I.A. Richards and Kenneth Burke, and the relationship in the twentieth century between rhetoric and dialectic, rhetoric and poetic. Prerequisite: COMS 859 or equivalent. LEC.

COMS 997. Research in: ______. 1-6 Hours.
Supervised research under the direction of a faculty member on a topic of mutual interest to the faculty and graduate student. RSH.

COMS 998. Investigation and Conference (For Doctoral Candidates). 1-8 Hours.
(Limited to eight hours credit towards the Ph.D. degree.) Directed research and experimentation for Ph.D. students in some phase of speech science or the teaching of speech and drama. RSH.

COMS 999. Doctoral Dissertation. 1-12 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

East Asian LanguagesCourses
CEAS 200. Topics in East Asian Studies: ______. 1-3 Hours. U.
An introductory interdisciplinary topics course addressing contemporary issues related to one or more East Asian countries. Format and content will vary. Does not count toward the EALC major or minor requirements unless otherwise indicated by EALC in the Schedule of Classes. LEC.

CEAS 500. Seminar in East Asian Studies: ______. 1-3 Hours. U.
An interdisciplinary seminar addressing contemporary issues related to one or more East Asian countries. Prerequisites to be determined by instructor(s) on the basis of course content. Does not count toward the EALC major or minor requirements unless otherwise indicated by EALC in the Schedule of Classes. LEC.

CEAS 700. Contemporary East Asia. 3 Hours.
This graduate seminar explores rapidly changing societies in contemporary East Asia, particularly China, Japan, and Korea. The course provides a critical overview of East Asia and its diversity and complexity using cross-cultural perspectives and interdisciplinary social science approaches, and situates East Asian societies in the context of globalization. LEC.

CEAS 802. Research Seminar. 3 Hours.
Students will work with the instructor and, when appropriate, an additional faculty advisor to design, research and write up a research paper on an East Asian topic of their choosing. Students enrolling in this course are expected to have taken a social science research methods class prior to taking this course and to apply those methods to the research process. A core course for the MA in Contemporary East Asian Studies. Prerequisite: Permission of the instructor. SEM.
CHIN 100. Elementary Conversational Chinese I. 3 Hours. U.
Three hours of class per week plus outside use of recorded text materials. Basic spoken language instruction intended primarily for beginners planning travel or work in China and Taiwan. Introduction to basic written characters. Does not fulfill College of Liberal Arts and Sciences foreign language distribution requirements or department major and minor requirements. LEC.

CHIN 101. Elementary Conversational Chinese II. 3 Hours. U.
Continuation of CHIN 100. Prerequisite: CHIN 100 or equivalent. LEC.

CHIN 102. Beginning Chinese I. 4 Hours. U.
Taught mainly in the summer, this course covers about 75% of the material in CHIN 104, upon which this course is modeled. LEC.

CHIN 104. Elementary Chinese I. 5 Hours. U.
Three hours of lecture and three hours of spoken drill each week. An introduction to spoken and written modern standard Chinese (Mandarin). Not open to students with native ability in Mandarin or Chinese dialect. Students who have any previous knowledge of Chinese must take a placement exam before enrolling in Chinese classes at K.U. Consult Department of East Asian Languages and Cultures for details. LEC.

CHIN 106. Elementary Chinese for Advanced Beginners. 3 Hours. U.
This course is designed for students who have already acquired some elementary Chinese language abilities (in high school or from family), but cannot be placed in CHIN 108, Elementary Chinese II. The course focuses on perfecting listening, speaking, reading and writing skills, and prepares students for CHIN 108. For admission to the class, students must take the EALC Chinese placement exam, be interviewed by designated instructors, and approved. LEC.

CHIN 108. Elementary Chinese II. 5 Hours. U.
Continuation of CHIN 104. Prerequisite: CHIN 101, CHIN 104, or equivalent. LEC.

CHIN 148. Intensive Elementary Chinese. 10-12 Hours. U.
An accelerated one semester course in elementary Chinese, covering the material of CHIN 104 and CHIN 108. Classes meet for two hours of lecture and one hour of drill daily. Emphasis on spoken language with grammar and readings in selected texts. No prerequisite. LEC.

CHIN 177. First Year Seminar: _____ 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Chinese. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

CHIN 204. Intermediate Chinese I. 5 Hours. U.
Continuation of CHIN 108. Three hours of lecture and three hours of spoken drill. Prerequisite: CHIN 108 or equivalent. LEC.

CHIN 206. Intermediate Chinese Conversation. 2 Hours. U.
Practice in speaking, presentation of prepared talks, and guided discussions. This course is primarily used to award transfer credit and does not fulfill any portion of the College of Liberal Arts and Sciences foreign language requirement. Prerequisite: CHIN 204 or equivalent. FLD.

CHIN 208. Intermediate Chinese II. 5 Hours. U.
Continuation of CHIN 204. Prerequisite: CHIN 204. LEC.

CHIN 251. Reading and Writing Chinese I. 1-3 Hours. H.
Designed for those who speak modern standard (Mandarin) Chinese but lack reading and writing skills. Focuses on acquiring knowledge of the Chinese writing system and preparing students for possible entry into advanced courses in Chinese, e.g. CHIN 504 (Advanced Modern Chinese I), or, after appropriate testing, for possible exemption from the College of Liberal Arts and Sciences foreign language requirement. Students should take the online Chinese placement exam and consult with the Chinese Language Program Coordinator. Enrollment by permission of the Chinese Language Program Coordinator only. LEC.

CHIN 252. Reading and Writing Chinese II. 1-3 Hours. H.
Continuation of CHIN 251. Prerequisite: CHIN 251 or permission of the instructor. LEC.

CHIN 290. Accelerated Chinese. 3 Hours. U.
Instruction in reading and writing Chinese for students who already possess a degree of oral/aural proficiency. This course will prepare students for enrollment in CHIN 504, Advanced Modern Chinese I. No prerequisites. Consent of instructor required. LEC.

CHIN 342. Introduction to Classical Chinese. 3 Hours. H.
An introduction to Classical Chinese through detailed analysis of short original passages from a variety of early Chinese texts. Students gain a foundation in the grammar and vocabulary of Classical Chinese, preparing them for CHIN 544. The course is offered at the 300 and 500 levels, with additional requirements for students taking the 500 level. Prerequisite: A basic knowledge of Chinese characters (e.g. from CHIN 108 or JPN 108) and consent of the instructor, or CHIN 208 or JPN 208. Not open to students who have completed CHIN 542. LEC.

CHIN 386. Advanced Chinese Conversation. 2 Hours. U.
Guided discussions designed to increase fluency and further improve pronunciation. Prerequisite: CHIN 504 or equivalent. LEC.

CHIN 498. Directed Readings in Chinese. 1-4 Hours. H/W.
Readings in Chinese on a subject selected by a student with the advice and direction of the instructor. Individual meetings and reports. Prerequisite: Consent of instructor. IND.

CHIN 504. Advanced Modern Chinese I. 5 Hours. H/W.
Five hours of class and two of drill. Readings in selected modern Chinese literary texts and discussion in Chinese of recordings of stories and dramas. Prerequisite: CHIN 208 or equivalent. LEC.

CHIN 508. Advanced Modern Chinese II. 5 Hours. H/W.
Continuation of CHIN 504. Prerequisite: CHIN 504 or equivalent. LEC.

CHIN 512. Advanced Chinese I. 2 Hours. H/W.
Readings in modern Chinese texts on a variety of subjects and discussion in Chinese. Prerequisite: CHIN 218 or equivalent. LEC.

CHIN 513. Advanced Chinese II. 2 Hours. H/W.
Continuation of CHIN 512. Prerequisite: CHIN 512 or equivalent. LEC.

CHIN 542. Introduction to Classical Chinese. 3 Hours. H/W.
An introduction to Classical Chinese through detailed analysis of short original passages from a variety of early Chinese texts. Students gain a foundation in the grammar and vocabulary of Classical Chinese, preparing them for CHIN 544. The course is offered at the 300 and 500 levels, with additional requirements for students taking CHIN 542. Prerequisite: A basic knowledge of Chinese characters (e.g. from CHIN 108 or JPN 108) and consent of instructor, or CHIN 208 or JPN 208. Not open to students who have completed CHIN 342. LEC.

CHIN 544. Readings in Classical Chinese: _____ 3 Hours. AE42/ AE61 / H/W.
Classical Chinese is the language of the most famous works of Chinese philosophy and most Chinese literature before the twentieth century. The course introduces readings from a specific philosophical school or literary genre, for example: Confucian Philosophical Texts, Daoist Philosophical Texts, Poetry, Ming/Qing fiction, etc. Prerequisite: CHIN 342 or CHIN 542 or consent of the instructor. May be repeated for credit if content varies. LEC.
CHIN 562. Modern Chinese Texts I. 3 Hours. NW AE61 / H/W.
Readings and interpretation of varied modern Chinese texts. Continued study of the language in the form of oral discussion and written reports. Prerequisite: CHIN 504 or equivalent. LEC.

CHIN 564. Modern Chinese Texts II. 3 Hours. H/W.
A continuation of CHIN 562 with materials of increasing difficulty. Prerequisite: CHIN 562. LEC.

CHIN 580. Introduction to Chinese Research Materials. 1 Hour. U.
An introduction to basic reference works in Chinese and Western languages, including dictionaries, encyclopedias, concordances, and bibliographies. Library organization and research methods will also be discussed. (Five week course.) Prerequisite: CHIN 208 or equivalent. LEC.

CHIN 598. Readings in: ____. 1-3 Hours. H/W.
Students will read selections from materials on a given topic or topics. May be repeated for credit. Prerequisite: CHIN 564 or permission of instructor. IND.

CHIN 690. Seminar in Chinese Texts. 1-3 Hours. H/W.
Varying topics with varying prerequisites. LEC.

CHIN 801. Directed Readings and Research in Chinese. 1-4 Hours.
Advanced language training for the study of Chinese sources in the humanities or social science field of the student. Prerequisite: Consent of instructor. RSH.

CHIN 880. Advanced Chinese Research Materials. 2 Hours.
A detailed examination of various Chinese language reference works and research materials. Emphasis will be placed on the use of different types of reference works to carry out research strategies. Prerequisite: CHIN 504 or equivalent and CHIN 580. LEC.

EALC 105. Living Religions of the East. 3 Hours. HR/NW AE42/GE3H / H/W.
A basic introduction to religion in India, China, and Japan with emphasis upon religions that affect the modern period. Not open to students who have taken REL 108/EALC 108. (Same as REL 106.) LEC.

EALC 108. Living Religions of the East, Honors. 3 Hours. HR/NW AE42/GE3H / H.
A basic introduction to religion in India, China, and Japan with emphasis upon religions that affect the modern period. Open only to students in the University Honors Program or by permission of instructor. Not open to students who have taken REL 108/EALC 105. (Same as REL 108.) LEC.

EALC 121. Introduction to Contemporary China. 3 Hours. NW AE42 / H.
An overview of contemporary Chinese culture and society since the economic reforms and opening up launched in 1978, through the study of changes in politics, the economy, society, culture and everyday life in China. The course is taught in English. No prior knowledge of Chinese language is required. LEC.

EALC 130. Myth, Legend, and Folk Beliefs in East Asia. 3 Hours. NW AE42 / H/W.
A survey of the commonly held ideas about the beginning of the world, the role of gods and spirits in daily life, and the celebrations and rituals proper to each season of the year. Prerequisite: ANTH 293 or equivalent. REL 130. LEC.

EALC 131. Myth, Legend, and Folk Beliefs in East Asia, Honors. 3 Hours. NW / H/W.
A survey of the commonly held ideas about the beginning of the world, the role of gods and spirits in daily life, and the celebrations and rituals proper to each season of the year. The purpose of the course is to present the world view of the ordinary peoples of East Asia in contrast to their more sophisticated systems of philosophy that are better known to the Western world. Open only to students in the University Honors Program or by permission of instructor. LEC.

EALC 136. The Japanese Tradition. 3 Hours. NW / H/W.
An examination of the cultural heritage of Japan from earliest times to Meiji Restoration. Emphasis will be placed upon Japan's literary tradition. Not open to students with credit in EALC 512. LEC.

EALC 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in East Asian Languages and Cultures. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

EALC 198. Studies in: ____. 1-5 Hours. H.
Special purpose subject in East Asia and contiguous regions. LEC.

EALC 231. Introduction to: ____. 1-3 Hours. NW / H/W.
Topics are various aspects of Chinese and Japanese cultures. LEC.

EALC 298. Studies in: ____. 1-5 Hours. H.
Special purpose subject in East Asia and contiguous regions. LEC.

EALC 301. Cultural Traditions of China, Inner Asia, and Tibet. 3 Hours. NW / H.
This course acquaints the student with the broad outlines of the traditional cultures and literatures of China and the contiguous regions of Inner Asia and Tibet. Course materials include translations and discussions of oral tales, epics, poetry, novels, and biography, which explore the interaction between these regions and cultures as well as their continuities and disparities. The course is most appropriate for students with no background in Asian culture. LEC.

EALC 302. Cultural Traditions of Japan and Korea. 3 Hours. NW / H/W.
A wide-ranging examination of the similarities and difference between Japanese and Korean culture through folklore, literature, film, and other texts. Format: Lecture and discussion. Designed for students with no background in Asian culture. LEC.

EALC 310. The Chinese Novel. 3 Hours. H/W.
Reading and analysis of the form and types of Chinese novel, its beginnings and development to the present day. LEC.

EALC 312. Traditional Japanese Literature in Translation. 3 Hours. H/W.
A survey of the major works of Japan’s long literary heritage. Readings from such classics as the Tale of Genji, the world’s first novel, No drama, and poetry will acquaint the student with one of the world’s great literary traditions. (Not open to students with credit in EALC 712.) LEC.

EALC 314. Traditional Chinese Literature in Translation. 3 Hours. H/W.
A general survey of representative literary works of major genres in traditional China. Lectures, assigned readings, and discussions in English. A knowledge of Chinese is not required. (Not open to students with credit in EALC 714.) LEC.

EALC 315. Survey of Japanese Film. 3 Hours. NW AE42 / H.
This course surveys the major developments in and critical approaches to twentieth-century Japanese film. Focusing mostly on narrative films, the course introduces students to basic methodological issues in Japanese film history, especially questions of narrative, genre, stardom, and authorship. We examine Japanese cinema as an institution located within specific contexts focusing on the ways in which this institution shapes gender, race, class, ethnic and national identities. This course examines
how patterns of distribution, exhibition, and reception have influenced film aesthetics and film style over the last century. Through secondary readings, lectures, and discussions students critically examine how Japanese cinema as an institution both responds to and intervenes in the social, cultural, and political history of twentieth century Japan. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. (Same as FMS 315.) LEC.

EALC 316. Modern Japanese Literature in Translation: 1868-1945. 3 Hours. AE42 / H/W.
A survey of major literary works of Japan's modern era through the Pacific War. Topics include the social and spiritual challenges of modernization, urbanization, and the issues of race and national identity. Works by Soseki, Ogai, Akutagawa, Tanizaki, Kawabata, and others will be covered. This course is offered at the 300 and 700 levels, with additional assignments at the 700 level. Not open to students who have completed EALC 716. LEC.

EALC 317. Contemporary Japanese Literature in Translation: 1945-Present. 3 Hours. AE42 / H/W.
A survey of major literary works of Japan's post-war and contemporary eras. Topics include life during and after the war, the experience of the atomic bomb, and the postmodern landscape. Works by Dazai, Mishima, Oe, Abe, Murakami, and others will be covered. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. Not open to students who have completed EALC 717. LEC.

EALC 318. Modern Chinese Fiction and Film. 2-3 Hours. H/W.
A general survey of important Chinese fiction and film of the 20th century. Lectures, readings, and discussions in English. Knowledge of Chinese is not required. Not open to students with credit in EALC 518. This course is taught at the 300 and 500 levels with additional assignments at the 500-level. LEC.

EALC 319. Contemporary Chinese Fiction and Film. 3 Hours. H.
A general survey of important Chinese fiction and film from the late 20th century to the present. Lectures, readings, and discussions in English. A knowledge of Chinese is not required. (Not open to students with credit in EALC 519.) LEC.

EALC 320. Modern East Asia: Multiple Perspectives. 3 Hours. NW / H.
A survey of the major political changes in China, Japan, Korea and Tibet in the 20th century. Students will learn about the changes that swept through East Asia as it rapidly modernized via documentary films and lectures and will study the impact of these changes on individuals by reading autobiographies. LEC.

EALC 330. Chinese Literature and Culture: Premodern Times. 3 Hours. NW / H/W.
An examination of Chinese literature and culture from earliest times to the modern period. Not open to students who have taken EALC 530. This course is taught at the 300 and 500 levels with additional assignments at the 500-level. LEC.

EALC 331. Studies In: ____. 1-3 Hours. H/W.
Topics in the Chinese and Japanese cultures. LEC.

EALC 332. Asian Literature in Translation: ____. 3 Hours. NW / H/W.
Introduction to Asian culture and society through close reading and analysis of important works of Asian literature. Themes and issues to be focused upon will vary (e.g., traditional or modern literature of China, Japan, or Korea, and special topics of interest). Lecture and discussion format. Knowledge of Asian languages is not required. LEC.

EALC 333. Asian Literature in Translation, Honors: ____. 3 Hours. NW / H/W.
Introduction to Asian culture and society through close reading and analysis of important works of Asian literature. Themes and issues to be focused upon will vary (e.g., traditional or modern literature of China, Japan, or Korea, and special topics of interest). Lecture and discussion format. Knowledge of Asian languages is not required. Open only to students in the University Honors Program or by permission of instructor. LEC.

EALC 340. Structure of Chinese. 3 Hours. H.
A detailed study of the phonological and grammatical structure of Chinese and the interactions between language and culture. Depending on student interest, a unit on the pedagogy of teaching Chinese as a foreign language may also be included. Primarily for students who want a linguistic knowledge of the language rather than a practical command of it. Students taking the course at the 500 level will have more work required of them. LEC.

EALC 350. Contemporary Japan. 3 Hours. NW / U.
An exploration of the Japanese way of life, self-concepts, and world view through lecture, discussion, reading, and field trips to businesses, community organizations, and cultural sites. Offered only during the Summer Institute in Hirotsuka, Japan. LEC.

EALC 351. Colonial Korea. 3 Hours. H.
This course examines the history, society, and culture of Korea from the end of Choson dynasty through the Colonial period (1910-1945) in its East Asian and global context. The course uses a multi-disciplinary approach, including history, anthropology, literature, and film. Not open to students with credit in EALC 561. LEC.

EALC 352. Post-Colonial Korea. 3 Hours. H.
This course examines the history, society, and culture of South Korea from the time of its liberation from Japan in 1945 to the present in its East Asian and global context. The course uses a multi-disciplinary approach, including history, anthropology, literature, and film. Prerequisite: EALC 361 or EALC 561, or permission of the instructor. Not open to students with credit in EALC 562. LEC.

EALC 363. Gendered Modernity in East Asia. 3 Hours. H.
This course explores rapidly changing gender relationships and the sense of being “modern” in East Asia by examining marriage and family systems, work, education, consumer culture, and geopolitics. The class seeks to understand how uneven state control over men and women shapes desires, practices, and norms and how men and women act upon such forces. Avoiding biological or social determinism, this course treats gender as an analytical category and examines how modern nation-states and global geopolitics are constituted and operated. (Same as ANTH 363 and WGSS 363.) LEC.

EALC 364. Peoples of Japan and Korea. 3 Hours. NW / S/W.
An analysis of the cultural diversity and unity of the peoples of Japan and Korea. Emphasis on historical and ethnological relationships, social structure, and ethics. (Same as ANTH 364.) LEC.

EALC 365. Japanese People through Films. 3 Hours. NW / S/W.
Japanese people’s culture and society through an extensive examination of both documentary and feature films. Readings from social science fields and literature will be used--the former to supply a theoretical framework for the study of Japanese people and the latter to further the inquiry into the individual sentiment motivating actions. (Same as ANTH 365.) LEC.
EALC 366. The Life Cycle in Japanese Culture and Literature. 3 Hours. NW / H/W.
A study of the Japanese people from birth to death: what it means to be born in a Japanese family, to grow up Japanese, and to die Japanese. Anthropological works and selections from Japanese literature and film will be used to examine ways in which Japanese people live through the critical periods in their life cycle. (Same as ANTH 366.) LEC.

EALC 368. The Peoples of China. 3 Hours. NW / S/W.
An analysis of the cultural origin, diversity, and unity of the peoples of China. Emphasis on historical development, social structure, cultural continuity and change, and ethics. (Same as ANTH 368.) LEC.

EALC 370. Chinese Folk Belief. 3 Hours. H/W.
A survey of the beliefs of the ordinary Chinese people throughout the centuries with regard to myths, the other world, festivals, and the gods. Prerequisite: A course dealing with China. LEC.

EALC 380. Popular Cultures of East Asia. 3 Hours. NW / H.
This course examines the contemporary popular cultures of Korea, Japan, China, and Taiwan, with particular emphasis on relations between East Asia and North America. Students study the issue of globalization and how the transnational flow of commodities and culture affects local societies and individual identities. They learn to identify, describe, and analyze the cross-cultural content of popular cultural artifacts and modes of expression relating to East Asia. To this end, they explore in detail such subjects as: fashion, foodways, cinema, manga, soap operas, and punk rock. Not open to students who have taken EALC 580. LEC.

EALC 410. The Culture of Play in Japan. 3 Hours. NW / N/W.
This course examines the phenomenon and manifestations of play in Japanese culture. Topics include but are not confined to: the philosophy of play, the semiotics of play, the places of play, the role of laughter, play in Japanese religion, simulation and performance, and play and competition. LEC.

EALC 411. The Culture of Play in Japan, Honors. 3 Hours. NW / N/W.
This course examines the phenomenon and manifestations of play in Japanese culture. Topics include but are not confined to: the philosophy of play, the semiotics of play, the places of play, the role of laughter, play in Japanese religion, simulation and performance, and play and competition. Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

EALC 412. Visual and Literary Culture in Modern Japan. 3 Hours. H.
This course examines the interconnections between the evolution of modern Japanese literature and vision technologies such as painting, panoramas, magic lanterns, stereoscopes, photography, motion pictures, television, and computers. The course provides an overview of modern Japanese literature from the perspectives of the visual culture in which that literature was conceived. The course considers such authors as Higuchi, Soseki, Ogai, Shimazaki, Akutagawa, Tanizaki, Yokomitsu, Kawabata, and Abe. Not open to students who have completed EALC 612. LEC.

EALC 413. Asian Media Studies. 3 Hours. H.
This course examines new and emerging media in East Asia and how the media industries of East Asia function. Using recent scholarship and industry data on contemporary cybertecture, music studies, and television industries of East Asia we examine how such factors as globalization, post-colonialism, censorship, emerging technology, and national media legislation affect regional and transnational media industries in Japan, South Korea, and Mainland China/Taiwan/Hong Kong. (Same as FMS 413.) LEC.

EALC 415. Ancient China. 3 Hours. NW / H.
A survey of ancient Chinese culture to the Qin period. Major archaeological discoveries and the literary tradition are taken as the primary evidence through which a number of topics are introduced (for example: environment, food, writing, art, thought, ritual). A knowledge of Chinese is not required. The course is offered at the 400 and 600 levels, with additional assignments at the 600 level. Not open to students who have completed EALC 615. LEC.

EALC 418. Sexual Politics in Chinese Literature and Culture: Premodern Times. 3 Hours. NW / H.
This course uses myth, literature, history, biography, and other documents to discuss sexual politics in China from ca 1500 B.C.E. to the end of the last dynasty in 1911. Topics include: emperors, empresses, and consorts, polygamy, prostitution, love, yin and yang cosmology, the art of the bedchamber, women’s literature, and erotic literature. Recommended: A course in East Asian studies. Not open to students who have taken EALC 618. This course is taught at the 400 and 600 levels with additional assignments at the 600-level. LEC.

EALC 420. Daily Life in China From the Opium War to the Present. 3 Hours. NW / H/W.
Daily life and issues of social and cultural interaction between China and Western nations from the Opium War to the present. Fiction, travel diary, historical sources, film, and personal accounts will make up course materials. LEC.

EALC 431. Studies in: ____. 1-3 Hours. H/W.
Topics in the Chinese and Japanese traditions. LEC.

EALC 488. Senior Seminar in East Asian Languages and Cultures. 3 Hours. AE61 / H/W.
Open to seniors majoring in East Asian Languages and Cultures or by consent of instructor. LEC.

EALC 498. Directed Readings in East Asian Languages and Cultures. 1-4 Hours. AE61 / H/W.
Readings in English on an East Asian subject, selected by a student with the advice and direction of the instructor. Individual meetings and reports. Prerequisite: ECIV 104 or ECIV 304 and consent of instructor. IND.

EALC 499. Honors Thesis. 3 Hours. AE61 / H/W.
Required of all students working for a degree with honors. May be repeated for a total of nine semester hours. IND.

EALC 508. Religion in China. 3 Hours. NW AE42/GE3H / H/W.
Survey of religious thought and practice in China from the Shang to the People’s Republic. (Same as REL 508.) LEC.

EALC 509. Religion in Japan. 3 Hours. NW AE42/GE3H / H/W.
Survey of religious thought and practice in Japan from the Jomon period to the present. (Same as REL 509.) LEC.

EALC 510. Education in Japan. 3 Hours. NW / N/W.
An investigation of the relationship between education and Japanese national and cultural identity as expressed in conceptions of childhood: philosophical and political positions underlying curricular and administrative policies, teachers’ training, and pedagogical styles; the interface between education, ”work,” and the economy in general; and the theme of ”internationalization,” (kokusaika). The course is taught in English. LEC.

EALC 518. Modern Chinese Fiction & Film. 3 Hours. H.
A general survey of important Chinese fiction and film of the 20th century. Lectures, readings, and discussions in English. Knowledge of Chinese is not required. Not open to students with credit in EALC 318. This course is taught at the 300 and 500 levels with additional assignments at the 500-
level. Prerequisite: An introductory East Asian studies course such as ECIV 104 or ECIV 304 or EALC 105; or consent of instructor. LEC.

**EALC 519. Contemporary Chinese Fiction and Film. 3 Hours. H.** A general survey of important Chinese fiction and film from the late 20th century to the present. Lectures, readings, and discussions in English. A knowledge of Chinese is not required. This course is taught at the 300 and 500 levels with additional assignments at the 500-level. Prerequisite: An introductory East Asian studies course such as ECIV 104 or ECIV 304 or EALC 105; or consent of instructor. (Not open to students with credit in EALC 319.) LEC.

**EALC 520. Entrepreneurship in East Asia. 3 Hours. NW / H.** An intensive examination of the history and current status of entrepreneurship in China, Japan, and other nations in East Asia. This course investigates the role of entrepreneurs in Asian economic development from the nineteenth century to the present, as well as the relation between entrepreneurship and Asian cultural traditions. The opportunities and challenges of entrepreneurship in East Asia today are also considered. (Same as HIST 640.) LEC.

**EALC 527. Asian Theatre and Performance. 3 Hours. NW / H.W.** A survey of traditional and modern theatre and performance in Asia, with greatest attention given to India, China, and Japan. A study of plays, dramatic genres, history, conventions of play production, and acting styles and other performance forms. (Same as THR 527). LEC.

**EALC 530. Chinese Literature and Culture: Premodern Times. 3 Hours. NW / H.W.** An examination of Chinese literature and culture from earliest times to the modern period. This course is taught at the 300 and 500 levels with additional assignments at the 500-level. Prerequisite: An introductory East Asian studies course, such as ECIV 104 or ECIV 304 or EALC 105; or consent of the instructor. Not open to students with credit in EALC 330. LEC.

**EALC 536. Cultural Traditions of Japan. 3 Hours. NW / H.W.** An examination of the major intellectual and aesthetic trends in Japanese history. The course is designed to give teachers and professionals, as well as students with a general interest in Japan, an overview of its unique cultural tradition. Not open to students with credit in EALC 136. LEC.

**EALC 541. Asian Film. 3 Hours. NW AE42 / H.** Seminar on various national film cultures of East and Southeast Asia. Representative films are studied from formal, stylistic, and socio-historic perspectives. Addresses the 12 impact of key cultural, economic, and political issues on each film industry. Class discussion, reports, and acting styles and other performance forms. (Same as AES 541.) LEC.

**EALC 543. Contemporary Japanese Film. 3 Hours. NW AE42 / H.** Seminar on the major developments in the contemporary (1980-present) Japanese film industry examining how filmmaking practices and film criticism have been influenced by such issues as transnationalism, postcolonialism, critical race theory, postmodernism, and new media. We survey recent Industrial and stylistic trends as well as key critical debates. Class discussion, reports, and individual research papers. The course is offered at the 500 and 700 levels, with additional assignments at the 800 level. (Same as AES 543.) Prerequisite: Junior status. LEC.

**EALC 555. Buddhists and Buddhism in China. 3 Hours. NW AE42 / H.** A reading and media-rich survey of institutional, ritual, literary, educational, and exegetical practices that have shaped the lives of Buddhists in China, past and present. Alterities within the Buddhist tradition, and interactions with other religious options, are considered. (Same as REL 555.) LEC.

**EALC 561. Colonial Korea. 3 Hours. H.** This course examines the history, society, and culture of Korea from the end of the Choson dynasty through the colonial period (1920-1945) in its East Asian and global context. The course uses a multi-disciplinary approach, including history, anthropology, literature and film. Prerequisite: An introductory East Asian studies course, such as ECIV 104 or ECIV 304, or EALC 105; or consent of instructor. There are additional readings and more extensive writing assignments than in EALC 361. Not open to students with credit in EALC 361. LEC.

**EALC 562. Post-Colonial Korea. 3 Hours. H.** This course examines the history, society, and culture of South Korea from the time of its liberation from Japan in 1945 to the present in its East Asian and global context. The course uses a multi-disciplinary approach, including history, anthropology, literature, and film. Prerequisite: EALC 361 or EALC 561, or permission of the instructor. There are additional readings and more extensive writing assignments than in EALC 362. Not open to students with credit in EALC 362. LEC.

**EALC 563. Cultural History of Korea. 3 Hours. H.** This course examines the cultural history of Korea in periods prior to the 19th Century. Special attention is given to varying constructions of cultural value, heritage, and identity, together with the historically specific factors that engendered them. (Same as HIST 590.) LEC.

**EALC 564. Modern Korean Culture and Society. 3 Hours. H.** This course examines the history, society, values, and political economy of Korea in its East Asian and global context. The course uses multi-disciplinary approaches, including those of history, anthropology, literature and film. Prerequisite: An introductory course in East Asian studies, or permission of instructor. LEC.

**EALC 565. Popular Images in Japanese Culture, Literatures, and Films. 3 Hours. NW / S/W.** The course examines recurring themes and images in Japanese culture through films, literary works, and anthropological and other social science literature. These themes and images are studied in the contexts of both modern and traditional cultures. Although the popular deviates from the orthodox, nevertheless, the energy and pervasiveness of these offspring enforce and sustain “proper” cultural values. As a result of exploration of both highways and backroads of cultural expression, a holistic picture of Japanese ethos will emerge. (Same as ANTH 565.) LEC.

**EALC 567. Japanese Ghosts and Demons. 3 Hours. NW / S/W.** An investigation of deeply rooted Japanese beliefs about intimate relationships among humans, animals, and nature - beliefs which help to explain the mysterious and to lend order to the world. Anthropological works, selections from Japanese literature, historical documents, artworks, and films will be used to examine supernatural themes. (Same as ANTH 567.) LEC.

**EALC 570. The Structure of Japanese. 3 Hours. H.** A detailed study of the phonological and grammatical structure of Japanese and the use of the language in social/cultural contexts. Primarily for students who want a linguistic knowledge of the language rather than a practical command of it. (Same as LING 570.) LEC.

**EALC 572. The Structure of Chinese. 3 Hours. AE42 / H.** A detailed study of the phonological and grammatical structure of Chinese and the interactions between language and culture. Depending on student interests, a unit on the pedagogy of teaching Chinese as a foreign language may also be included. Primarily for students who want a linguistic knowledge of the language rather than a practical command of it. (Same as LING 572.) LEC.
EALC 575. Love, Sexuality and Gender in Japanese Literature. 3 Hours. H.
An examination of Japanese attitudes toward love, sexuality, and gender differences as revealed in literature from the tenth century to the present. Discussion format. LEC.

EALC 578. Gender and Society in Modern China. 3 Hours. H.
This course examines gender politics and social institutions in modern China by examining important literary works and films from the Republican era (1911-1949), the Maoist era (1949-1976), and the post-Mao era (1976-present). Secondary readings are also supplied. All the readings are in English. No knowledge of Chinese is required. Prerequisite: An introductory East Asian studies course such as ECIV 104. ECIV 304, or EALC 105; or consent of the instructor. LEC.

EALC 580. Popular Cultures of East Asia. 3 Hours. NW / H.
This course examines the contemporary popular cultures of Korea, Japan, China, and Taiwan, with particular emphasis on relations between East Asia and North America. Students study the issue of globalization and how the transnational flow of commodities and culture affects local societies and individual identities. They learn to identify, describe, and analyze the cross-cultural content of popular cultural artifacts and modes of expression relating to East Asia. To this end, they explore in detail such subjects as: fashion, foodways, cinema, manga, soap operas, and punk rock. More extensive writing requirements than 380. Not open to students who have taken EALC 380. LEC.

EALC 583. Imperial China. 3 Hours. NW / H/W.
An intensive survey of China’s traditional civilization and its history, with emphasis on the last centuries of imperial rule under the Sung, Yuan, Ming, and Ch’ing dynasties (to 1850). (Same as HIST 583.) LEC.

EALC 584. Modern China. 3 Hours. NW AE42 / H/W.
An intensive survey of China’s history from the early 19th century to the present. Key topics include the decline of the traditional system, the rise of communism, the Maoist era, and the tensions of change and control in the 1980s and 1990s. (Same as HIST 584.) LEC.

EALC 585. Reform in Contemporary China. 3 Hours. NW AE42 / H/W.
Examines the epochal changes that have occurred in China from Deng Xiaoping’s rise to power in 1978 to the present. Includes a focus on the historical background of the revolutionary period before examining the political and economic changes that spawned the 1989 “pro-democracy” movement at Tiananmen. The course includes an analysis of the events of the 1990s focusing on U.S.-China political and economic relations and the destabilizing effects of inflation, infrastructural reform, political and economic decentralization, and leadership succession. A previous course on China is helpful, but not mandatory. (Same as POLS 668.) LEC.

EALC 587. Early Modern Japan. 3 Hours. NW AE42 / H/W.
Early modern Japan (16th to 19th century) examines the history, culture, and patterns of life during an era of rigid social control but artistic brilliance. After an historical overview of the period, students will explore topics including the social structure, travel, religion, thought, and the formation of traditional cultural forms such as Kabuki theater. (Same as HIST 587.) LEC.

EALC 588. Japan, 1853-1945. 3 Hours. NW / H/W.
This course provides an intensive survey of Japanese history from the arrival of Commodore Perry through the Pacific War. Social, economic, and political themes will be emphasized. Among the topics covered will be the Meiji Restoration, industrialization, Japanese imperialism, Taisho democracy, and wartime mobilization. (Same as HIST 588.) LEC.

EALC 589. Japan Since 1945. 3 Hours. NW / H/W.
This course provides an overview of Japanese history from the end of World War II to the present day. Among the topics covered will be the Allied Occupation, postwar politics and social change, the economic “miracle,” popular culture, women and the family, crime and punishment, the educational system, and Japan’s place in the world. (Same as HIST 589.) LEC.

EALC 590. Topics in East Asian Languages and Cultures: ______. 1-9 Hours. H/W.
Specific topical courses will be offered every year covering a number of disciplines. Credit, description, and prerequisites will vary. Note: May be repeated for credit up to the stated limit. LEC.

EALC 591. Topics in East Asian Languages and Cultures: ______. 1-9 Hours. S/W.
Specific topical courses will be offered every year covering a number of disciplines. Credit, descriptions, and prerequisites will vary. Note: May be repeated for credit up to the stated limit. LEC.

EALC 592. Modern Korea. 3 Hours. NW / H/W.
This course will examine selected topics in Modern Korean history in the 19th and 20th centuries, with special emphasis on Korea’s connections to China and Japan. (Same as HIST 592.) Prerequisite: A college-level course in East Asian history or culture, or consent of instructor. LEC.

EALC 594. Law and Society in Traditional China. 3 Hours. H/W.
The course begins with a series of lectures on the main principles underlying Chinese social structure. The course then examines the application of those principles in legal cases. Students read legal cases in translation and argue them in class. (Same as HIST 594.) Prerequisite: A course in Chinese history. LEC.

EALC 596. Defining Japan: Marginalized Groups and the Construction of National Identity. 3 Hours. NW / H/W.
This course investigates the construction of national identity in modern Japan by examining the historical experiences of groups marginalized by mainstream society. We will explore the pressures of conformity, the pervasiveness of social ostracism and the surprising diversity in Japanese society. Among the groups discussed will be indigenous peoples (the Ainu, Okinawans), the Korean minority, the outcast class (burakumin), the sick and disabled, the Yakuza, and political activists. (Same as HIST 596.) LEC.

EALC 597. Japanese Theater History. 3 Hours. NW / H/W.
This course examines the historical development and characteristics of Japanese theater, with special attention to traditional theater and the genre of noh, kyogen, and kabuki in particular, tracing their origins in the pre-modern era and their continued performance today. To gain an understanding of the historical and artistic setting of these arts, lectures and readings will consider broader issues such as performance and ritual in religion and daily life, gender and representation, and folk theater. A portion of this class will include practical studies of theatrical forms including noh dance and kabuki music (shamisen). (Same as HIST 597.) LEC.

EALC 598. History and Structure of the Japanese Language. 3 Hours. H/W.
The historical development of Japanese. Study of Japanese phonology, morphology and syntax, using the techniques of descriptive linguistics and generative grammar. Prerequisite: An introductory course in linguistics or one year of Japanese. LEC.

EALC 600. Biography of a City: ______. 3 Hours. H/W.
This interdisciplinary, team-taught course surveys the artistic, intellectual, and historical development of some of the great cities of the world, such as Kyoto or Tokyo. LEC.
EALC 612. Visual and Literary Culture in Modern Japan. 3 Hours. H.
This course examines the interconnections between the evolution of modern Japanese literature and vision technologies such as painting, panoramas, magic lanterns, stereoscopes, photography, motion pictures, television, and computers. The course provides an overview of modern Japanese literature from the perspectives of the visual culture in which that literature was conceived. The course considers such authors as Higuchi, Soseki, Ogai, Shimazaki, Akutagawa, Tanizaki, Yokomitsu, Kawabata, and Abe. There will be additional assignments for students in 612. Not open to students who have completed EALC 412. LEC.

EALC 615. Ancient China. 3 Hours. NW / H/W.
A survey of ancient Chinese culture to the Qin period. Major archaeological discoveries and the literary tradition will be taken as the primary evidence through which a number of topics are introduced (for example: environment, food, writing, art, thought, ritual). A knowledge of Chinese is not required. The course is offered at the 400 and 600 levels, with additional assignments at the 600 level. Not open to students who have completed EALC 415. LEC.

EALC 618. Sexual Politics in Chinese Literature and Culture: Premodern Times. 3 Hours. NW / H.
This course uses myth, literature, history, biography, and other documents to discuss sexual politics in China from ca 1500 B.C.E. to the end of the last dynasty in 1911. Topics include: emperors, empresses, and consorts, polygamy, prostitution, love, yin and yang cosmology, the art of the bedchamber, women’s literature, and erotic literature. Prerequisite: A course in East Asian studies. Not open to students who have taken EALC 418. This course is taught at the 400 and 600 levels with additional assignments at the 600-level. LEC.

EALC 620. Daily Life in China from the Opium War to the Present. 3 Hours. NW / H/W.
Daily life and issues of social and cultural interaction between China and Western nations from the Opium War to the present. Fiction, travel diary, historical sources, film, and personal accounts will make up course materials. LEC.

EALC 636. Women in Japanese Literature. 3 Hours. H/W.
An examination of women as subjects, readers, and writers of Japanese literature. Topics may include images and stereotypes of women in Japanese literature; feminist readings of this literature; female culture; and the psychodynamics of female creativity. LEC.

EALC 642. Chinese Thought. 3 Hours. NW AE42/GE3H / H/W.
A survey of the principal modes of Chinese thought from their origins through the imperial period. Not open to students with credit in EALC 132. (Same as HWC 524 and PHIL 506.) Prerequisite: Eastern civilizations course or a course in Asian history or a distribution course in philosophy. LEC.

EALC 646. Chinese Law. 3 Hours. H/W.
The history and development of civil and criminal law in China from its beginnings until the present. The course will be taught both by lectures and by discussion of cases. A section of the course will concern modern Chinese law. Prerequisite: A course on China, or general background in law or business. LEC.

EALC 649. Doing Business With China: Law and Policy. 3 Hours. NW / H/W.
A study of the issues involved in doing business with China. The current Chinese political and economic context will be examined, followed by a study of the Chinese legal system and Chinese economic law and regulation. Relevant U.S. law will also be considered. Prerequisite: A course on China, or general background in law or business. LEC.

EALC 656. Government and Politics of East Asia. 3 Hours. NW AE42 / S/W.
A comparative examination of the contemporary political institutions, processes and ideas of China, Japan, and Korea. (Same as POLS 656.) Prerequisite: A distribution course in political science or a course in East Asian studies. LEC.

EALC 666. Political Economy of East Asia. 3 Hours. S.
This course provides basic understanding of fiscal, monetarist, and trade policies; how governments in East Asia use them to pursue growth; the extent to which these governments follow or controvert economics to pursue growth; and how the performances of economies in East Asia relate to the US and global economies. (Same as POLS 666.) Prerequisite: POLS 150. LEC.

EALC 676. International Relations of Asia. 3 Hours. S/W.
An intensive study of the problems of ideological conflict, diplomatic relations, strategic arrangements, economic cooperation, and cultural exchange in East and Southeast Asia with special emphasis upon the roles of major world powers. (Same as POLS 676.) Prerequisite: POLS 170 or a course in East Asian studies. LEC.

EALC 678. Chinese Foreign Policy. 3 Hours. S/W.
In-depth examination of China’s changing policies toward other countries with special emphasis on policy-making process, negotiating behavior, military strategy, economic relations, and cultural diplomacy. (Same as POLS 678.) LEC.

EALC 700. Introduction to East Asian Studies. 1 Hour.
Required of all M.A. students in the Department regardless of concentration. Introduction to resources in East Asian languages and literature. LEC.

EALC 701. Practicum in Teaching Chinese. 1 Hour.
This course is required every semester for graduate teaching assistants in the Chinese language program in EALC. The course will cover applicable second language acquisition theories and principles of foreign language pedagogy and focus on teaching methodologies, instructional techniques, and development of pedagogical materials specific to the Chinese classroom. This class will be conducted in a seminar format. Prerequisite: Teaching appointment in the East Asian Languages and Cultures department. SEM.

EALC 702. Practicum in Teaching Japanese. 1 Hour.
This course is required every semester for graduate teaching assistants in the Japanese language program in East Asian Languages and Cultures. The course will cover applicable second language acquisition theories and principles of foreign language pedagogy and focus on teaching methodologies, instructional techniques, and development of pedagogical materials specific to the Japanese language classroom. This class will be conducted in a seminar format. Prerequisite: Teaching appointment in the East Asian Languages and Cultures department. SEM.

EALC 703. Practicum in Teaching Korean. 1 Hour.
This course is required every semester for graduate teaching assistants in the Korean language program in East Asian Languages and Cultures. The course will cover applicable second language acquisition theories and principles of foreign language pedagogy and focus on teaching methodologies, instructional techniques, and development of pedagogical materials specific to the Korean language classroom. This class will be conducted in a seminar format. Prerequisite: Teaching appointment in the East Asian Languages and Cultures department. SEM.

EALC 712. Readings in Traditional Japanese Literature. 3 Hours.
A survey of Japanese literature from earliest times to 1868. Students will study the major writers in each genre, with special emphasis on an
individual research topic. A knowledge of Japanese is not required. (Not open to students with credit in EALC 312.) LEC.

EALC 714. Readings in Traditional Chinese Literature. 3 Hours.
A general survey of representative literary works of major genres in traditional China. Lectures, assigned readings, and discussions in English. A knowledge of Chinese is not required. (Not open to students with credit in EALC 314.) LEC.

EALC 715. Survey of Japanese Film. 3 Hours.
This course surveys the major developments in patterns of distribution, exhibition, and reception and their influence on film aesthetics in twentieth century Japanese film. Through secondary readings, lectures, and discussions students will examine how Japanese cinema as an institution responds to and intervenes in the social, cultural, and political history of twentieth century Japan. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. (Same as FMS 714.) LEC.

A survey of major literary works of Japan's modern era through the Pacific War. Topics include the social and spiritual challenges of modernization, urbanization, and the issues of race and national identity. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. An individual research project in an area of the student's special interest will be required. Not open to students who have completed EALC 316. LEC.

EALC 717. Contemporary Japanese Literature in Translation: 1945-Present. 3 Hours.
A survey of major literary works of Japan's post-war and contemporary eras. Topics include life during and after the war, the experience of the atomic bomb, and the postmodern landscape. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. An individual research project in an area of the student's special interest will be required. Not open to students who have completed EALC 317. LEC.

EALC 718. Readings in Modern Chinese Literature. 2-3 Hours.
A general survey of the important writers of the 20th century and their works. Lectures, readings, and discussions in English. A knowledge of Chinese is not required. (Not open to students with credit in EALC 318.) LEC.

EALC 732. Seminar in Eastern Religious Thought: ____. 3 Hours.
Analysis of the religious thought of selected thinkers of India, China, and/or Japan, traditional and modern. May be taken more than once if subject matter varies sufficiently. (Same as REL 762.) Prerequisite: REL 507, REL 508, REL 509, or permission of the instructor. LEC.

EALC 733. Seminar in Eastern Religious Texts: ____. 3 Hours.
Analysis of selected religious text or texts from India, China, or Japan, in translation. May be taken more than once if subject matter varies sufficiently. (Same as REL 733.) Prerequisite: REL 507, REL 508, REL 509, or permission of the instructor. LEC.

EALC 743. Contemporary Japanese Film. 3 Hours.
Seminar on the major developments in the contemporary (1980-present) Japanese film industry examining how filmmaking practices and film criticism have been influenced by such issues as transnationalism, postcolonialism, critical race theory, postmodernism, and new media. We will survey recent industrial and stylistic trends as well as key critical debates. Class includes discussion, reports, and individual research papers. This course is offered at the 500 and 700 levels, with additional assignments at the 700 level. (Same as FMS 743.) SEM.

EALC 747. East Asian History and Culture for Teachers. 2 Hours.
An advanced survey of the history, culture, and contemporary affairs of China, Japan and Korea, specifically designed for K-12 educators who wish to incorporate East Asian topics into their classroom teaching. Pedagogical methods and resources for the study of East Asia will be emphasized. Topics covered will address relevant benchmarks in the state curricular standards in social studies, themes from the Advanced Placement world history examination, and the national standards in world history. (Same as HIST 747.) Prerequisite: Approval of the instructor. LEC.

EALC 762. Readings in Japanese Religion. 3 Hours.
A high-level introduction to the traditional religions of Japan, with special emphasis on Japanese Buddhism. Texts to be used will include translations of original documents as well as secondary studies. Those students who have competence in Japanese will be required to do some readings in that language, but a knowledge of the language is not a prerequisite. LEC.

EALC 764. Modern Korean Culture and Society. 3 Hours.
An examination of the history, society, values, and political economy of Korea in its East Asian and global context. The course will use a multi-disciplinary approach, including history, ethnography, fiction and film. LEC.

EALC 766. Japanese People: Their Culture and Literature. 3 Hours.
A study of Japanese people's life cycle through a combination of theoretical social scientific observations of Japanese as a cultural group and personal literary descriptions of them. An individual research paper is required. (Not open to students with credit in EALC 366.) LEC.

EALC 776. Seminar in Religion and Society in Asia: ____. 3 Hours.
Analysis of selected Asian religions and their relationships to selected Asian societies. May be taken more than once if subject matter varies sufficiently. (Same as REL 776.) Prerequisite: REL 507, REL 508, REL 509, or permission of the instructor. LEC.

EALC 790. Topics in East Asian Languages and Cultures: ____. 1-3 Hours.
Special topical courses covering a number of disciplines. Credit descriptions and prerequisites will vary. NOTE: May be repeated for up to 12 total credits. RSH.

EALC 801. Directed Readings. 1-5 Hours.
Designed to meet the needs of advanced students whose study in East Asian studies cannot be met with regular courses. Prerequisite: Consent of instructor. RSH.

EALC 841. Asian Film. 3 Hours.
Seminar on various national film cultures of East and Southeast Asia. Representative films are studied from formal, stylistic, and socio-historic perspectives. Addresses the impact of key cultural, economic and political issues on each film industry. Class includes discussion, reports, and individual research papers. This course is offered at the 500 and 800 levels, with additional assignments at the 800 level. (Same as FMS 841.) SEM.

EALC 888. Contemporary China Studies. 3 Hours.
This course will review and analyze the current literature on China's social and political development, including a wide range of topics within political science. There is a rich body of literature within each topic such as civil society in China, legal reform, political culture, nationalism, gender issues, ethnicity, political behavior, elections, economic development, and inequality. This course will introduce key literature within each topic focusing on the debates among China scholars as well as how these debates fit in the general field of political science. (Same as GIST 888 and POLS 888.) Prerequisite: POLS 668 or permission of the instructor. LEC.
EALC 899. Thesis. 1-6 Hours. 
An inquiry into the source material upon a specific subject. THE.

ECIV 104. Eastern Civilizations. 3 Hours. HL/NW AE42 / H/W.
This course acquaints the student with the broad outlines of the traditional cultures and literatures of East Asia, and explores the interaction between these regions and cultures as well as their continuities and disparities. Course materials include translations and discussions of original sources. The course is most appropriate for students with no background in Asian culture. Does not complete major requirement. Not open to students with credit in ECIV 304. LEC.

ECIV 105. Eastern Civilizations Honors. 3 Hours. HL/NW AE42 / H/W.
An introductory course designed to acquaint the student with the broad outlines of the traditional cultures and literatures of East Asia. By reading translations of original source materials, the student is able to see the interaction among the various cultures as well as their essential continuity. The course is most appropriate for students without any background in Asian culture. Offered for students with superior academic records. Open only to students in the University Honors Program or by permission of instructor. LEC.

ECIV 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Eastern Civilization. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

ECIV 304. Eastern Civilizations. 3 Hours. HL/NW AE42 / H/W.
This course acquaints the student with the broad outlines of the traditional cultures and literatures of East Asia, and explores the interaction between these regions and cultures as well as their continuities and disparities. Course materials include translations and discussions of original sources. The course is most appropriate for students with no background in Asian culture. Not open to students with credit in ECIV 104. If majoring in EALC and have completed ECIV 104, see major advisor about completing the ECIV 304 major requirement. LEC.

ECIV 305. Eastern Civilizations Honors. 3 Hours. HL/NW AE42 / H/W.
An introductory course designed to acquaint the student with the broad outlines of the traditional cultures and literatures of East Asia. By reading translations of original source materials, the student is able to see the interaction among the various cultures as well as their essential continuity. The course is most appropriate for students without any background in Asian culture. Similar to ECIV 304, but reading and writing assignments reflect the fact that this is an honors course. Open only to students in the University Honors Program or by permission of instructor. LEC.

JPN 100. Beginning Japanese I. 3 Hours. U.
An introduction to Japanese. Familiarity with the basic structural patterns of the language through conversation is stressed. The hiragana and katakana syllabaries are introduced and a few characters are learned. Usually offered as part of a Summer Study Abroad Program. LEC.

JPN 101. Beginning Japanese II. 3 Hours. U.
Continuation of JPN 100. Available to students who took JPN 100 as part of the Summer Study Abroad Program. Not available for credit for students who have previously completed JPN 104. Prerequisite: JPN 100 or equivalent. LEC.

JPN 104. Elementary Japanese I. 5 Hours. U.
Three hours of lecture, three hours of drill per week. Acquisition of basic language skills (listening, speaking, reading, writing). Not available for credit for students who have previously completed JPN 101. LEC.

JPN 108. Elementary Japanese II. 5 Hours. U.
Continuation of JPN 104. Prerequisite: JPN 101, JPN 104, or equivalent. LEC.

JPN 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Japanese. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

JPN 204. Intermediate Japanese I. 5 Hours. U.
Three hours of lecture, three hours of drill. Prerequisite: JPN 108 or equivalent. LEC.

JPN 206. Intermediate Japanese Conversation. 2-4 Hours. U.
Enhancement of conversational ability at the intermediate level. Used primarily to accommodate transfer credits. Prerequisite: JPN 204 or equivalent. LEC.

JPN 208. Intermediate Japanese II. 5 Hours. U.
Continuation of JPN 204. Prerequisite: JPN 204. LEC.

JPN 226. Japanese in Context - Intermediate. 3 Hours. U.
Supervised and individualized study and practice of language skills through direct experience in interviews and guided practical applications in various public settings in Japan. Some conventional classroom instruction in grammar included. Offered only during the Summer Institute in Hiratsuka, Japan. Prerequisite: Two semesters or the equivalent of Japanese language study. LEC.

JPN 233. Special Skills in Japanese: ____. 1-4 Hours. U.
Instruction in special skills in Japanese, such as pronunciation, recognition of Chinese characters, comprehension of broadcast media, etc. at the freshman/sophomore level. Course work must be arranged through the office of KU Study Abroad and approved by the Department of East Asian Languages and Cultures. May be repeated for credit if content varies. LEC.

JPN 306. Advanced Japanese Conversation I. 2 Hours. H/W.
Intensive practice of communicative skills at the advanced level. Prerequisite: JPN 308 or equivalent. LEC.

JPN 310. Advanced Japanese Conversation II. 2 Hours. H/W.
Continuation of JPN 306. LEC.

JPN 326. Japanese in Context - Advanced. 3 Hours. U.
Supervised and individualized study and practice of language skills through direct experience in interviews and guided practical applications in various public settings in Japan. Some conventional classroom instruction in grammar and usage. Offered only during the Summer Institute in Hiratsuka, Japan. Prerequisite: Four semesters or the equivalent of Japanese language study. LEC.

JPN 333. Special Skills in Japanese: ____. 1-4 Hours. U.
Instruction in special skills in Japanese, such as pronunciation, recognition of Chinese characters, comprehension of broadcast media, etc. at the junior/senior level. Course work must be arranged through the office of KU Study Abroad and approved by the Department of East Asian Languages and Cultures. May be repeated for credit if content varies. LEC.

JPN 386. Advanced Japanese Conversation III. 1-3 Hours. U.
Instruction in discussion in formal contexts and speech making. Prerequisite: JPN 504 or equivalent. LEC.
Readings in Japanese on a subject selected by a student with the advice and direction of the instructor. Individual meetings and reports. Prerequisite: Consent of instructor. IND.

JPN 504. Advanced Modern Japanese I. 3 Hours. H/W.
Readings in selected modern Japanese texts on various topics: history, education, language, society, business, and literature. Meets three hours per week. Prerequisite: JPN 208 or equivalent. LEC.

JPN 508. Advanced Modern Japanese II. 3 Hours. H/W.
Continuation of JPN 504. Prerequisite: JPN 504 or equivalent. LEC.

JPN 509. Business Japanese. 3 Hours. U.
Study of Japanese language especially appropriate to business situations. Although the course emphasizes developing conversational ability, the primary focus is on strengthening reading and writing in the specialized area. The course includes discussion of non-verbal aspects of Japanese business practices as well. Prerequisite: The first semester of third-year Japanese or the equivalent. LEC.

JPN 542. Introduction to Classical Japanese I. 3 Hours. H/W.
Introductory grammar and readings in classical Japanese texts. Prerequisite: JPN 508. LEC.

JPN 544. Introduction to Classical Japanese II. 3 Hours. H.
Continued readings of classical Japanese texts, on the intermediate and advanced level. Introduction to the elements of kambun (Sino-Japanese) and sorobun (epistolary) styles. Prerequisite: JPN 542 or equivalent. LEC.

JPN 562. Modern Japanese Texts I. 3 Hours. AE61 / H/W.
Readings and interpretation of modern Japanese texts from various fields. Continued study of the language in the form of oral discussion and written reports. Prerequisite: JPN 508. LEC.

JPN 564. Modern Japanese Texts II. 3 Hours. H/W.
A continuation of JPN 562. Prerequisite: JPN 562 or equivalent. LEC.

JPN 569. Advanced Business Japanese. 3 Hours. U.
This course strengthens reading and writing skills and continues developing conversational ability. It assumes a higher level of competency in Japanese than JPN 509 and includes both verbal and non-verbal aspects of Japanese business practices. Prerequisite: Completion of third-year Japanese or equivalent. LEC.

JPN 598. Readings in: ____. 1-3 Hours. H/W.
Students will read selections from materials on a given topic or topics. May be repeated for credit. Prerequisite: JPN 564 or permission of instructor. IND.

JPN 690. Seminar in: ____. 1-3 Hours. H/W.
Varying topics with varying prerequisites. LEC.

JPN 801. Directed Readings and Research in Japanese. 1-4 Hours.
Advanced language training for the study of Japanese sources in the humanities or social science field of the student. Prerequisite: JPN 564 or consent of instructor. RSH.

JPN 880. Advanced Japanese Research Materials. 2 Hours.
A detailed examination of various Japanese language reference works and research materials. Emphasis will be placed on the use of different types of reference works to carry out research strategies. Prerequisite: JPN 508 or equivalent and JPN 580. LEC.

KOR 104. Elementary Korean I. 5 Hours. U.
Five hours of class and two hours of drill in the spoken language each week. Grammar and readings in selected texts. LEC.

KOR 108. Elementary Korean II. 5 Hours. U.
Continuation of KOR 104. Prerequisite: KOR 104. LEC.

KOR 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Korean. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

KOR 204. Intermediate Korean I. 5 Hours. U.
Five hours of class and two hours of spoken drill. Readings in selected texts in modern Korean. Prerequisite: KOR 108 or equivalent. LEC.

KOR 208. Intermediate Korean II. 5 Hours. U.
Continuation of KOR 204. Prerequisite: KOR 204. LEC.

KOR 498. Directed Readings in Korean. 1-4 Hours. H/W.
Readings in Korean on a subject selected by a student with the advice and direction of the instructor. Individual meetings and reports. Prerequisite: Consent of instructor. IND.

KOR 504. Advanced Modern Korean I. 4 Hours. H/W.
Readings in and discussion of selected modern Korean texts on various topics: history, literature, society, and language. Prerequisite: KOR 208 or equivalent. LEC.

KOR 508. Advanced Modern Korean II. 4 Hours. H/W.
Readings and analysis of modern or contemporary texts from various fields. Includes oral discussion and written essays. Prerequisite: KOR 504 or equivalent. LEC.

KOR 562. Modern Korean Texts I. 1-5 Hours. H.
Readings and analysis of modern or contemporary texts from various fields. Includes oral discussion and written essays. Prerequisite: KOR 508 or equivalent. LEC.

KOR 564. Modern Korean Texts II. 1-5 Hours. H.
Continuation of KOR 562. Reading and analysis of modern or contemporary texts from various fields. Includes oral discussion and written essays. Prerequisite: KOR 564 or equivalent. LEC.

MONG 101. Elementary Mongolian I. 3 Hours. U.
The first semester of Elementary Mongolian is designed to give the student basic communicative competency, including pronunciation and intonation, structure, and syntax. Effective oral and written communication is stressed. LEC.

MONG 102. Elementary Mongolian II. 3 Hours. U.
A continuation of Elementary Mongolian I. Prerequisite: Elementary Mongolian I or the equivalent. LEC.

MONG 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Mongolian. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

TIB 101. Elementary Tibetan I. 3 Hours. U.
An introduction to the Tibetan language in both its literary and colloquial forms according to the Central Tibetan dialects. Four semesters of 3-credit Tibetan language courses fulfill the College of Liberal Arts and Sciences foreign language requirement. LEC.

TIB 102. Elementary Tibetan II. 3 Hours. U.
A continuation of TIB 101. Prerequisite: TIB 101 or equivalent. Four semesters of 3 credit Tibetan language courses fulfill the College of Liberal Arts and Sciences foreign language requirement. LEC.

TIB 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Tibetan. Course is designed to meet the critical
thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

TIB 201. Intermediate Tibetan I. 3 Hours. U.
Continuation of TIB 102. Prerequisite: TIB 102 or equivalent. Four semesters of 3-credit Tibetan language courses fulfill the College of Liberal Arts and Sciences foreign language requirement. LEC.

TIB 202. Intermediate Tibetan II. 3 Hours. U.
Continuation of TIB 201. Prerequisite: TIB 201 or equivalent. Four semesters of 3-credit Tibetan language courses fulfill the College of Liberal Arts and Sciences foreign language requirement. LEC.

UYGR 101. Elementary Uyghur I. 3 Hours. U.
Uyghur is an important Central Asian Turkic language spoken by nine million people in China. The first semester is designed to give the student basic communicative competency, including pronunciation and intonation, structure, and syntax. Effective oral and written communication is stressed. LEC.

UYGR 102. Elementary Uyghur II. 3 Hours. U.
Continuation of UYGR 101. Prerequisite: UYGR 101 or the equivalent. LEC.

UYGR 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Uyghur. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

UYGR 201. Intermediate Uyghur I. 3 Hours. U.
Continuation of UYGR 102. Prerequisite: UYGR 201 or equivalent. LEC.

UYGR 202. Intermediate Uyghur II. 3 Hours. U.
Continuation of UYGR 201. Prerequisite: UYGR 201 or equivalent. LEC.

Economics Courses

ECON 104. Introductory Economics. 4 Hours. SF GE3S / S.
An introduction to modern economics designed primarily for students who do not plan to major in economics. Topics include economic history, the operation of economic institutions, and the formation and execution of economics policies to meet the current problems of the do domestic and international economy. Course may be offered in lecture or online format. Prerequisite: MATH 101 or MATH 104, or eligibility for MATH 115 or MATH 121. LEC.

ECON 105. Introductory Economics, Honors. 4 Hours. SF GE3S / S.
An introduction to modern economics designed primarily for students who do not plan to major in economics. Topics include economic history, the operation of economic institutions, and the formation and execution of economic policies to meet the current problems of the domestic and international economy. Prerequisite: Consent of the Economics Department and MATH 101 or MATH 104, or eligibility for MATH 115 or MATH 121. LEC.

ECON 110. The Economics of Globalization. 3 Hours. SF AE42 / S.
The course emphasizes the application of economic methods of analysis to the public policy issues that globalization creates. Topics covered may include the following: winners and losers from trade; links between trade and labor markets; links between trade and foreign investment; the international financial system and exchange rates; outsourcing and multinational corporations; international institutions and regional trade agreements. LEC.

ECON 120. Principles of Microeconomics. 3 Hours. SF GE3S / S.
an analytical introduction to microeconomics. Topics include theory of markets, public policy, international trade, economic efficiency, and equity. Prerequisite: MATH 101 or MATH 104, or eligibility for MATH 115 or MATH 121. LEC.

ECON 142. Principles of Microeconomics. 3 Hours. SF GE3S / S.
an honors section of ECON 142. An analytical introduction to microeconomics. Topics include theory of markets, public policy, international trade, economic efficiency, and equity. Prerequisite: Consent of the Economics Department and MATH 101 or MATH 104, or eligibility for MATH 115 or MATH 121. LEC.

ECON 201. Intermediate Microeconomics I. 3 Hours. SF GE3S / S.
an honors section of ECON 142. An analytical introduction to microeconomics. Topics include theory of markets, public policy, international trade, economic efficiency, and equity. Prerequisite: Consent of the Economics Department and MATH 101 or MATH 104, or eligibility for MATH 115 or MATH 121. LEC.

ECON 202. Intermediate Microeconomics II. 3 Hours. SF GE3S / S.
an honors section of ECON 142. An analytical introduction to microeconomics. Topics include theory of markets, public policy, international trade, economic efficiency, and equity. Prerequisite: Consent of the Economics Department and MATH 101 or MATH 104, or eligibility for MATH 115 or MATH 121. LEC.

ECON 245. Study Abroad Topics in: ____. 1-5 Hours. S.
This course is designed for the study of special topics in economics at the freshman/sophomore level. Coursework must be arranged by the office of KU Study Abroad and approved by the Economics Department. This course may be repeated for credit if content varies. LEC.

ECON 250. Study Abroad Topics in: ____. 1-5 Hours. S.
Topics in Applied Economics. Prerequisite: MATH 101 or MATH 104, or eligibility for MATH 115 or MATH 121. LEC.

ECON 301. Topics in Applied Economics. 3 Hours. S.
Topics in Applied Economics. (Topic, instructor, and specific prerequisites to be announced in the Schedule of Classes.) This course will focus on an area of applied economics of current interest. This course cannot be used to fulfill the elective course requirements for the Economics major or the Economics minor. LEC.

ECON 305. Topics in Applied Economics. 3 Hours. S.
Topics in Applied Economics. (Topic, instructor, and specific prerequisites to be announced in the Schedule of Classes.) This course will focus on an area of applied economics of current interest. This course cannot be used to fulfill the elective course requirements for the Economics major or the Economics minor. LEC.
The theory of national income and unemployment, the analysis of aggregate demand, the general degree of utilization of productive resources, the general level of prices, and related questions of policy. Prerequisite: ECON 142 and ECON 144 and consent of department. LEC.

ECON 526. Introduction to Econometrics. 3 Hours. S.
An introduction to the statistical analysis of economic data and its application to economic inquiry. Includes extensive use of statistical software. Prerequisite: ECON 142, ECON 144, and MATH 526 or equivalent. LEC.

ECON 530. American Economic Development. 3 Hours. H.
An introductory study of the development of the American economy from colonial times to the present. Investigates long-term trends in output, population, and output per capita, as well as short-term fluctuations, and the variables and institutions that determined these fluctuations and trends. (Same as HIST 628.) Prerequisite: ECON 104 or ECON 142 and ECON 144. LEC.

ECON 535. Economic History of Europe. 3 Hours. S.
An introductory study of European economic history from the Middle Ages to the 1980s. Investigates the sources of economic growth, and the interaction between economic forces and social institutions. Topics covered will include the rise of commerce, the agricultural and industrial revolutions, imperialism, the Great Depression, and European recovery after World War II. (Same as HIST 528.) Prerequisite: ECON 104 or ECON 142 and ECON 144. LEC.

ECON 536. Economic Issues of the European Union. 3 Hours. S.
A survey of the economies of the European Union, with a focus on the economic development of the member states since World War II, and an examination of the various economic issues confronting them today. (Same as EURS 536.) Prerequisite: ECON 104 or ECON 144. LEC.

ECON 540. Recent American Economic History. 3 Hours. S.
An empirically oriented examination of the American economy designed to apply economic concepts to a wide variety of topics such as monetary and fiscal policy, income distribution, the Great Depression, poverty, population growth, the defense sector, education, research and development, technological change, and industrial organization. Prerequisite: ECON 104 or ECON 142 and ECON 144; ECON 520 and/or ECON 522 recommended. LEC.

ECON 550. Environmental Economics. 3 Hours. U.
This course provides an overview of the theory and empirical practice of economic analysis as it applies to environmental issues. Topics include externalities (a type of market failure), the valuation of nonmarket goods, the practice of benefit-cost analysis, and the efficiency and cost effectiveness of pollution control policies. Most importantly, the course permits students to perform economic field research, using state-of-the-art techniques in a manner accessible to undergraduate students. (Same as EVRN 550.) Prerequisite: ECON 104 or ECON 142. LEC.

ECON 560. Economic Systems. 3 Hours. S.
Critical analysis of economic theories underlying such economic systems as capitalism, different types of socialism, communism, and fascism. Comparative study of economic planning, production, distribution, price formation, economic institutions, and forms of government in countries under different economic systems. Prerequisite: ECON 104 or ECON 142 and ECON 144. LEC.

ECON 562. The Russian Economy. 3 Hours. S/W.
An analytical survey of Russian economic development, with emphasis on the structure and operation of the Russian economy and transition issues. Prerequisite: ECON 104 or 142 and ECON 144 and consent of instructor. LEC.
ECON 563. Current Economic Issues of East Europe. 3 Hours. S.
An institutional and theoretical analysis of the issues arising from the transition from a command economy to a free market-oriented economy. With emphasis on the former Soviet Union, topics will include: assessment of the central planning experience; changes in property rights and their effect on resource allocation; market mechanisms and how they work when market institutions are at the formative stage; and public interest under privatization. Prerequisite: ECON 142 and ECON 144. LEC.

ECON 564. Topics in Applied Economics: ______. 3 Hours. S.
This course will focus on an area of applied economics of current interest. This course can be used to fulfill the elective course requirement for the Economics major. Prerequisite: ECON 142 and ECON 144. LEC.

ECON 570. Economics for Management Decisions. 3 Hours. S.
Economic analysis of the firm with emphasis on managerial decisions in a business environment. Topics include supply and demand with applications, consumer behavior, quantitative demand analysis, production and cost, transactions costs and the organization of the firm, strategic decisions in alternative market environments, risk and uncertainty, imperfect information, and project evaluation. Prerequisite: ECON 142. LEC.

ECON 582. Economic Development. 3 Hours. S.
An introduction to economic growth and development in high and low income countries, problems of development, and development policy. Prerequisite: ECON 104 or ECON 142. LEC.

ECON 583. Economic Issues of East Asia. 3 Hours. S.
This course will study the economics of the East Asian countries, especially China, Japan, Korea, and Taiwan. Topics to be covered include economic growth, development and change, international trade, inflation, unemployment, income distribution, and urbanization. Emphasis will be on the post World War II period. Prerequisite: ECON 104 or ECON 142 and ECON 144. ECON 522 recommended. LEC.

ECON 584. Economic Development of Latin America. 3 Hours. S.
This course explores development strategies followed in the countries of Latin America and the Caribbean, and analyzes current debates over development strategy. Topics covered include: debt, structural adjustment, and multilateral lending agencies; trade policy, and regional or hemispheric integration; state intervention in the economy; the role of elites; environmental degradation and sustainable development; land reform and agricultural policy; transnational enterprises and foreign investment; women in work and the household; migration (rural-urban, and international); and grassroots development projects. Prerequisite: ECON 104 or ECON 144. LEC.

ECON 586. Economic Issues in China. 3 Hours. S.
This course studies the Chinese economy, especially during the post-1979 reform period, and its relationship to the development of the Greater China Circle (China, Hong Kong, and Taiwan). Topics to be covered include economic development during the pre-1979 reform period, economic reform, and its impacts on China, Hong Kong, Taiwan, and lessons from the Chinese economic reforms. Prerequisite: ECON 142 and ECON 144. LEC.

ECON 587. Economic Development of Africa. 3 Hours. S.
This course studies current economic issues facing African countries. It studies the general characteristics of several African economies and examines the impact of economic development policies, including those of international organizations, on the economies of Africa. Topics include poverty, income inequality, debt, foreign investment policies, trade policies, and government regimes. Prerequisite: ECON 104 or ECON 142 and ECON 144. LEC.
ECON 631. Economics of Regulation. 3 Hours. S.
This course studies topics in the economic effects of industry regulation by administrative agencies as a substitute for market competition. Topics include various theories of regulatory behavior, the theory of natural monopoly, the economic effects of rate of return regulation on the performance of electric utilities, and the effects of recent social and environmental regulation. Prerequisite: ECON 520 or ECON 524. LEC.

ECON 635. Science and Technology in Economic Growth. 3 Hours. S.
An analytical and historical exploration of the roles that science and technology have played in the economic growth of industrial societies. This course will examine the forces that have shaped the rate and direction of technological change, and the impact of technological change on Western living standards. Topics covered will include factors influencing the pace of innovation, the diffusion of new technologies, international technology transfers, growth accounting, and models of aggregate economic growth. Prerequisite: ECON 520 or ECON 524. LEC.

ECON 640. Labor Economics. 3 Hours. S.
Analysis of labor markets and differences in wage rates and incomes. Topics include returns to education and training, labor unions, unemployment, anti-poverty programs, and other government policies influencing the labor market. Prerequisite: ECON 520 or ECON 524. LEC.

ECON 675. Introduction to Welfare Economics. 3 Hours. S.
This course provides a nontechnical introduction to optimal resource allocation from the societal point of view as well as alternative individual mechanisms for achieving such an optimum. Prerequisite: ECON 520 or ECON 524. LEC.

ECON 680. Economic Growth. 3 Hours. S.
This course studies growth with an emphasis on national evidence and macroeconomic policy issues. Classic and modern growth theories are developed and evaluated on the basis of how well they fit empirical evidence. Theories are developed in which productivity growth results from endogenous changes in technology or in the efficiency with which factors are utilized. The fundamental factors that affect productivity are examined, and they may include government policies, income inequality, geography, climate, resources and other factors. Prerequisite: ECON 522. LEC.

ECON 700. Survey of Microeconomics. 3 Hours.
A comprehensive survey of microeconomics, including the theories of consumption, production, distribution, pricing, and resource allocation. Prerequisite: ECON 520 and MATH 116 or MATH 121; and completion of ECON 142 and ECON 144, ECON 520, and ECON 522 with a grade-point average of at least 3.0 or graduate standing. LEC.

ECON 701. Survey of Macroeconomics. 3 Hours.
A comprehensive survey of the modern theory of national income determination with particular emphasis on the foundation of macroeconomic models and their empirical implementation. Prerequisite: ECON 522 and MATH 116 or MATH 121. LEC.

ECON 705. Development of Economic Thought. 3 Hours.
The development of economic thought from the time of the physiocrats through the modern period. Consideration is given to the works of the English Classical school, the school of Vienna, the historical school, the Lausanne school, and Cambridge school. In addition, the development of economic thought in the United States during the period is treated. Prerequisite: ECON 520 and ECON 522. LEC.

ECON 715. Elementary Econometrics. 3 Hours.
An elementary analysis of the problems of estimation, prediction, and hypothesis testing in the context of general linear, stochastic difference equation and simultaneous equations models. Applications of econometric theory to practical economic problems will be emphasized. Prerequisite: DSCI 301 or its equivalent; MATH 116 or MATH 121; and completion of ECON 142 and ECON 144, ECON 520, and ECON 522 with a grade-point average of at least 3.00 (B) or graduate standing. LEC.

ECON 716. Econometric Forecasting. 3 Hours.
An analysis of econometric forecasting techniques, including time-series models, single-equation regression models, and multiple-equation regression models. The course will examine forecasts of (a) macroeconomic variables, such as interest rates, investment, GNP, and the rate of inflation; and (b) market variables, such as price and quantity. Prerequisite: ECON 715 or ECON 817. LEC.

ECON 730. Topics in Industrial Organization. 3 Hours.
Advanced study of recent research in applied microeconomics and business behavior. Topics include vertical integration, collusion, multi-plant and multi-product operations, regulated industries, tying arrangements, and the empirical links between monopoly power and profitability. Prerequisite: ECON 630 or equivalent. LEC.

ECON 735. Science and Technology in Economic Growth. 3 Hours.
An analytical and historical exploration of the roles that science and technology have played in the economic growth of industrial societies. Topics covered include factors influencing the pace and character of technological innovation, national systems of innovation, the diffusion of new technologies, measurement of the benefits of new technologies, and the role of technology in various growth theories. Prerequisite: ECON 520, or ECON 524, or consent of instructor. LEC.

ECON 740. Theory of Economic Growth and Development. 3 Hours.
Advanced study of the theory of economic growth and development. Recent growth models, theory of underdevelopment, programming, policies and plans for development. Prerequisite: ECON 520 and ECON 522. LEC.

ECON 741. Economic Planning. 3 Hours.
A study of the techniques employed in the preparation of a national economic plan and of the policies required for its implementation. Special attention is given to the purposes of a plan, development strategies, investment requirements, and project appraisal. The development plans of several countries are examined to illustrate problems of planning economic development. Prerequisite: ECON 520 and ECON 522. LEC.

ECON 750. The Theory of International Finance. 2-3 Hours.
This course examines the modern, financial-asset market approach to exchange rate determination as well as dynamic exchange rate models. Possible topics may include exchange rate overshooting, exchange rate crises, and international policy coordination. Prerequisite: ECON 605 and MATH 116. LEC.

ECON 760. The Theory of Public Finance. 3 Hours.
An analysis of governmental fiscal activity and its economic effects with emphasis on the determination and incidence of budget policy. Prerequisite: ECON 520 and ECON 522; ECON 622 recommended. LEC.

ECON 761. Public Sector: Urban and Regional Finance. 3 Hours.
An analysis of the American state and local finance scene with special emphasis on urban and regional tax and expenditure problems and issues. Prerequisite: ECON 520 and ECON 522; ECON 622 recommended. LEC.

ECON 765. Advanced American Economic Development. 3 Hours.
A study of the process of economic growth as it has occurred in the American economy, with emphasis on 19th century developments. The structural changes that accompanied growth and the impact of technological change are among the major topics considered.
ECON 765. Economic History. 3 Hours.
The development of market economies and economic institutions. The course will focus on Europe, but will include comparisons with other developed nations. Topics include: long-run economic growth, the rise of capitalist agriculture and industry, the causes and consequences of technological change; changes in income distribution and economic organization; and the social and cultural effects of economic change. Prerequisite: ECON 520, ECON 522, and ECON 535 or ECON 530, or consent of instructor. LEC.

ECON 766. Economic History. 3 Hours.
The development of market economies and economic institutions. The course will focus on Europe, but will include comparisons with other developed nations. Topics include: long-run economic growth, the rise of capitalist agriculture and industry, the causes and consequences of technological change; changes in income distribution and economic organization; and the social and cultural effects of economic change. Prerequisite: ECON 520, ECON 522, and ECON 535 or ECON 530, or consent of instructor. LEC.

ECON 768. The Industrial Revolution. 3 Hours.
An examination of the development of the industrialization of England and its impact on the North Atlantic economy. Consideration will be given to the effects of demographic and technical changes upon economic structure and the changing economic relationships between nations. Prerequisite: ECON 520 and ECON 522 or consent of instructor. LEC.

ECON 769. Financial Economics. 3 Hours.
An introduction to the economic analysis of choice under uncertainty and complete pricing theory. Topics include the general equilibrium Arrow-Debreu model of complete markets; capital asset pricing model; stochastic dominance; portfolio frontiers; mutual fund separation theorems; arbitrage pricing theory; valuation of derivative securities. Both single-period models and multi-period models will be discussed. Students should have some background in elementary linear algebra, calculus, and probability theory. Prerequisite: DSCT 301 and ECON 700 or equivalent. LEC.

ECON 770. Economics of the Labor Market. 3 Hours.
A theoretical and empirical analysis of labor supply and demand, human capital, information and labor mobility, unemployment, discrimination, and union behavior and influence. Prerequisite: ECON 520, and MATH 121 or MATH 115 and MATH 116. LEC.

ECON 790. Game Theory and Applications. 3 Hours.
This course covers basic game theory and applications. Topics covered include strategic games with complete information, Bayesian games (with incomplete information), extensive games with perfect information, and extensive games with imperfect information. Equilibrium concepts covered include Nash equilibrium, mixed-strategy Nash equilibrium, rationalizability, Bayesian Nash equilibrium, sub-game perfect Nash equilibrium, and sequential equilibrium. Depending on availability of time, additional topics may include strictly competitive games and repeated games. The course may include diverse applications such as in business strategy, auctions, voting, international trade, military conflicts, contracts, regulation, and industrial organization. Prerequisite: MATH 122 and MATH 526. LEC.

ECON 791. Game Theory and Applications II. 3 Hours.
This course is a continuation of game theory and applications (ECON 790). Topics may include rationality and common knowledge, multi-stage games and repeated games, coalitional games and the core, and sequential rationality, including possible applications such as signaling, reputation, and information transmission. Additional topics may include, among others, strictly competitive games, auctions, and evolutionary game theory. The course may include diverse applications within and outside economics. Perquisite: ECON 790 or consent of instructor LEC.

ECON 800. Optimization Techniques I. 3 Hours.
Economic models involving the maximization of a scalar (vector) function subject to equality and inequality constraint where the variables are in a finite dimensional Euclidean space. Characterization of optimal points by way of first and second order derivatives and by way of saddle points. Duality theorems of mathematical programming. Prerequisite: Consent of instructor. LEC.

ECON 801. Microeconomics I. 3 Hours.
An advanced course in price and distribution theory. Prerequisite: ECON 800 or consent of instructor. LEC.

ECON 802. Microeconomics II. 3 Hours.
The study of the operation of the economic system taking into account the diversity of goods and services. Primary attention is centered upon the competitive economy. A study is made of the existence, uniqueness, stability, and comparative statics of equilibrium positions. In addition, a study is made of ways of evaluating alternative states of the economy in terms of systems of value judgments. This includes a discussion of the Arrow Impossibility Theorem; the notion of a Pareto-satisfactory process is introduced and the relationship between Pareto-optimal states and competitive equilibrium positions is studied. Prerequisite: ECON 801. LEC.

ECON 803. Growth Theory. 3 Hours.
The study of Harrod-Domar growth models; the Solow model; Uzawa’s two sector model; n-sector growth models; the Ranis-Fei development models; and other application of growth theory to public policy. Prerequisite: ECON 700 and ECON 701. LEC.

ECON 805. Teaching Methods in Economics. 3 Hours.
The goal of the course is to enhance undergraduate student learning by refining and expanding the teaching techniques in the teaching assistant’s arsenal. The course starts by discussing and illustrating the importance of setting the tone on the first day of class. Then the course turns to ways of creating intellectually exciting lectures and discussion sections. Active learning comes next as the course presents techniques to involve actively the students in their learning experience. Then the course examines ways for recognizing and broadening our teaching styles to include different learning styles. The course also discusses the evaluation of students by emphasizing the importance of matching the assessment of students with course objectives. This course will not assume any prior teaching experience. Prerequisite: Consent of instructor. LEC.

ECON 806. Optimization Techniques II. 3 Hours.
Economic models involving the maximization of an integral (a vector of integrals) subject to differential equality (inequality), integral equality (inequality), and finite equality (inequality) constraints. Characterization of optimal paths by way of first and second derivatives. Existence of optimal paths. Prerequisite: Consent of instructor. LEC.

ECON 810. Macroeconomics I. 3 Hours.
A survey of basic macroeconomic models, including Classical and Keynesian as well as more recent ones. Topics also cover monetary and fiscal stabilization policies, the role of rational expectations, and basic behavioral equations. Tradeoffs of inflation and unemployment are examined both theoretically and empirically. Prerequisite: ECON 809 or consent of instructor. LEC.

ECON 811. Macroeconomics II. 3 Hours.
Structure of dynamic models and intertemporal optimization. Monetary and real business cycle theories and long-run economic growth. Microeconomic foundations of macroeconomics, theories of explicit and implicit contracts, and implications of overlapping generations models. Prerequisite: ECON 810. LEC.

ECON 817. Econometrics I. 3 Hours.
An intensive study of the general linear model and distribution theory associated with the multivariate normal; stochastic difference equation; autocorrelation, errors in variables. Prerequisite: MATH 628. LEC.
ECON 818. Econometrics II. 3 Hours.
The study of estimation and hypothesis testing within the context of the stochastic simultaneous equations model. Prerequisite: ECON 817. LEC.

ECON 820. Applied General Equilibrium. 3 Hours.
A study of numerical applications of Walrasian general equilibrium theory to problems in public finance, international trade, and macroeconomics. The Arrow-Debreu model will be reviewed with emphasis on the use of Kakutani’s fixed point theorem to prove existence of equilibrium. Fixed point algorithms used to solve the general equilibrium model will be studied. The Shoven-Whalley method for introducing taxes into the general equilibrium model will be discussed and extended to open economy models with tariffs and quotas. Finally, dynamic macroeconomic models will be studied and financial assets will be introduced in perfect foresight models. Prerequisite: ECON 801 or consent of instructor. LEC.

ECON 825. Tutorial. 0 Hours.
This course is designed to provide extra assistance for graduate students in economics. RSH.

ECON 830. Game Theory and Industrial Organization. 3 Hours.
a comprehensive introduction to game theory and the theory of the industrial organization. Basic game theoretic equilibrium concepts will be discussed in the context of static games, games of incomplete information, and dynamic games. These concepts will be applied to the theory of industrial organization. Topics may include mechanism design, market failure, monopoly, imperfect competition and oligopoly, limit pricing, predatory pricing, innovation and technical change, advertising and signaling theory, collusion and coordination, regulation under incomplete information, agency and auditing problems, incentives in hierarchies, job market signaling, insurance markets, nonlinear pricing and monopoly, and bargaining and long term relations. Prerequisite: ECON 801 and 802. RSH.

ECON 831. Economics of Regulation. 3 Hours.
This course provides an analytical introduction to the study of the economic rationale for and effects of government regulation of industry. Special emphasis will be placed on public utility regulation. Prerequisite: ECON 700. LEC.

ECON 835. Comparative Economic Systems. 3 Hours.
Comparative studies of the organization, operation, and performance of economic systems. Theoretical issues involving the comparison of different economic systems will be covered. Theoretical characterizations of different economic systems such as capitalistic economies, socialist economies, and centrally planned economies, will be developed. Case studies of economic institutions and economic performance in various countries will be examined. Prerequisite: ECON 700 and ECON 701. LEC.

ECON 840. Microeconomic Issues in Development Economics. 3 Hours.
This course will examine the process and policies of economic development from a microeconomic perspective. Selected topics may include: the use of input-output matrices in development planning; price controls and corrections for their allocative distortions; international trade policies; transformations from planned to market economies; labor markets and labor mobility; and capital markets and capital mobility. LEC.

ECON 842. Theory of Economic Planning. 3 Hours.
Formal construction of the foundations of economic planning with emphasis on concise discussion of the logic behind the techniques utilized in economic planning. Topics that will be studied include: social welfare, short-term planning, price guided planning procedures, non-price guided planning procedures, long-term planning objectives, and characteristics of optimal plans. Prerequisite: ECON 802 or consent of instructor. LEC.

ECON 844. Macroeconomic Issues in Development Economics. 3 Hours.
This course will examine the process and policies of economic development from a macroeconomic perspective. Topics will include the theory of growth in the dual economy, the role of foreign trade in economic development, inflation and stabilization in developing economies, the problem of foreign debt, the relationship between financial and real development, and various development policies. Prerequisite: ECON 810 or consent of instructor. LEC.

ECON 850. The Advanced Theory of International Finance. 3 Hours.
This is an advanced course in international finance. Possible topics include optimizing, equilibrium models of exchange rate determination, empirical tests of international asset-pricing models, international policy coordination, and properties of different international monetary arrangements. Prerequisite: ECON 811. LEC.

ECON 851. The Theory of International Trade. 3 Hours.
The study of the pure theory of international trade; factor-prize equalization, trade and welfare, general equilibrium in the international economy, comparative statics, and stability conditions. Prerequisite: ECON 700 and ECON 701. LEC.

ECON 855. Natural Resources. 3 Hours.
Advanced analysis of the economic relationships between natural resources, population, and environment. Emphasis is on the analytical techniques useful for solving the economic problems of natural resource allocation over time. Prerequisite: ECON 700. LEC.

ECON 860. Advanced Public Finance. 3 Hours.
A rigorous treatment of the economics of the public sector. Emphasis will be placed on government expenditure and taxation. Possible topics include tax incidence, optimal taxation, dynamic analysis of fiscal policy, public goods, and cost benefit analysis. Prerequisite: ECON 801 or permission of instructor. LEC.

ECON 866. Selected Problems in American Economic History. 3 Hours.
A critical study of selected aspects of American economic history with particular emphasis upon the testing of hypotheses that have been advanced to explain the growth and development of the American economy. Prerequisite: ECON 766. LEC.

ECON 869. Advanced Financial Economics. 3 Hours.
This course presents an analysis of financial markets and instruments, together with the quantitative tools essential for research in the field. The material will be presented in a discrete time setting and will stress the link between financial economics and equilibrium theory. Topics will include securities pricing in the absence of arbitrage, the theory of risk and utility in the basic portfolio problem, mean variance analysis and the CAPM, the Martingale properties of security prices, restricted participation, asymmetric information, and recent research results. Prerequisite: ECON 802 or consent of instructor. LEC.

ECON 870. Applied Microeconomics. 3 Hours.
This course introduces students to the data and empirical methods used in the fields of applied economics such as labor economics, public finance, and industrial organization. The course will focus on how to adjust for self-selection and identify causal relationships in applied microeconomic fields. Topics covered include economic data and statistical programming, instrumental variables, difference-in-differences, regression discontinuity, count data, sample selection, treatment effects, and duration models. Attention will be given to the suitability of the methods to the research question under consideration. Each topic will emphasize the proper application of the methods using the standard textbook treatment as well as assigned papers that examine the basic
economic issues, the econometric techniques, and the applications to data. Prerequisite: ECON 817 and ECON 818, or consent of instructor. ECON 915 is recommended. LEC.

ECON 880. Selected Topics in Economic Theory: ______. 1-3 Hours.
An advanced course in economic theory that will study selected topics in economic theory such as consumer theory, linear economics, decision theory, stability of economic equilibrium, comparative statics, etc. Prerequisite: Consent of instructor. LEC.

ECON 899. Master’s Thesis. 1-10 Hours.
The University of Kansas

ECON 901. Advanced Economic Theory I. 3 Hours.
Advanced study of current general equilibrium analysis, the mathematical tools involved in such analysis, and some applications to other branches of economic theory. Prerequisite: ECON 802 and ECON 810. LEC.

ECON 902. Advanced Economic Theory II. 3 Hours.
A continuation of the advanced study of general equilibrium analysis. Prerequisite: ECON 901. LEC.

ECON 910. Economic Theory Seminar-Workshop. 1-3 Hours.
This seminar-workshop is designed to study advanced research topics in the areas of microeconomic and macroeconomic theory, and also provide assistance in the preparation and development of the dissertations of Ph.D. candidates in these areas of specialization. LEC.

ECON 911. Applied Macroeconomics. 3 Hours.
An advanced exploration of the microeconomic foundations of macroeconomics, neoclassical macroeconomics with and without money, Keynesian and neo-Keynesian macroeconomics, and economic stabilization, inflation, and unemployment. Prerequisite: ECON 802 and ECON 810. LEC.

ECON 912. Advanced Macroeconomics. 3 Hours.
An analysis of economic policy in dynamic economic models. The effects of various policies on the equilibrium, stability, and adjustment paths of the models will be considered. Both open and closed economies will be analyzed. Prerequisite: ECON 810. MATH 320 is recommended. LEC.

ECON 913. Monetary Economics. 3 Hours.
This course examines how money, monetary policy, and monetary institutions influence the macroeconomy. Modern theories of money demand are presented and critiqued. The function of commercial banks, non-bank financial intermediaries, and central banks in the money supply process is addressed. Interrelationships between the tools, the instruments, the operating procedures, the intermediate targets, and the goals of policy are examined. Additional topics may include the monetary transmission mechanism, the effect of uncertainty on optimal policy decisions, the rules versus discretion debate, the monetary implications of fiscal policy, the term structure of interest rates, the causes and consequences of bank runs and financial panics, and the optimal method of constructing weighted monetary aggregates. Prerequisite: ECON 811 or consent of instructor. LEC.

ECON 915. Advanced Econometrics I. 3 Hours.
The study of selected topics in applied cross-section econometrics for use mainly in applied microeconomics, public finance, and labor economics. Topics include traditional econometrics of production and demand, latent variable models, panel data studies, probabilistic choice models, censored and truncated models, sample selection, disequilibrium models, duration studies, and semi- and non-parametric models. Prerequisite: ECON 818, or consent of instructor. LEC.

ECON 916. Advanced Econometrics II. 3 Hours.
A study of selected topics in applied time-series econometrics for use mainly in applied macroeconomics, international finance, and development economics. Topics include empirical applications of ARCH models, VAR models (study of impulse response function and variance decomposition), unit-root cointegration and long memory models. Bayesian unit root analysis, estimation and inference of dynamic general equilibrium models, model calibration and simulation are also possible topics of this course. Prerequisite: ECON 818, or consent of instructor. LEC.

ECON 917. Advanced Econometrics III. 3 Hours.
A study of structural and nonlinear time series approaches to econometric modeling and inference. The course emphasizes techniques needed to use economic theory in system-wide econometrics. Emphasis is placed on selection of functional form for approximation to theoretical functions and the use of duality theorems for derivation of the resulting econometric systems of equation. Inference with those models will be by nonlinear parametric, semi-parametric, and nonparametric methods. Prerequisite: ECON 818. LEC.

ECON 918. Financial Economics. 3 Hours.
This course is designed to provide a variety of new econometric tools useful to investigate financial data. It discusses how to measure and forecast financial volatility using models such as Stochastic Volatility, multivariate GARCH, and Dynamic Conditional Correlation models. It also covers Dynamic Factor models and State Space models, which can be used in many financial data analyses. The course will be particularly helpful for the students preparing dissertations in the field of finance, macro-finance, monetary economics, international finance, and development economics. It will also benefit the students interested in more practical use of tools in the field such as financial risk management, insurance, and commercial banking. Prerequisite: ECON 818. ECON 916 is recommended. LEC.

ECON 920. Econometrics Seminar-Workshop. 1-3 Hours.
This seminar-workshop is designed to study advanced research topics in the area of econometric theory and application, and also provide assistance in the preparation and development of the dissertations of Ph.D. candidates in this area of specialization. LEC.

ECON 925. Economic Dynamics. 3 Hours.
A study of the concepts of equilibrium and stability in various economic frameworks; static economies, changing economies, and disaggregated and aggregated economies. Prerequisite: ECON 802. LEC.

ECON 930. Economic History Seminar-Workshop. 1-3 Hours.
This seminar-workshop is designed to study advanced research topics in the area of economic history, and also provide assistance in the preparation and development of the dissertations of Ph.D. candidates in this area of specialization. LEC.

ECON 940. Economic Seminar-Workshop in: ______. 1-3 Hours.
This seminar-workshop is designed to study advanced research topics in the specified area of applied economics (public finance, monetary analysis, environment-energy, economic growth and development, urban economics, health care economics, natural resources, labor-manpower, international trade and finance, comparative economic systems, Soviet economics), and also provide assistance in the preparation and development of the dissertations of Ph.D. candidates with dissertations in a specific area of applied economics. LEC.

ECON 950. Special Problems in Economics. 1-3 Hours.
LEC.

ECON 955. Advanced Topics in Natural Resources. 3 Hours.
Rigorous analysis of an Arrow-Debreu economy with natural resources and extensions (including optimal growth, planning procedures, and uncertainty). Investigation of current research topics in theoretical and applied resource economics. Required course for Ph.D. candidates writing
dissertations in natural resources. Prerequisite: Consent of instructor. ECON 927 recommended. RSH.

ECON 970. Advanced Labor Economics. 3 Hours.
A survey of recent labor economics research. Topics include labor supply and demand, human capital investment, and unemployment. Prerequisite: ECON 770. LEC.

ECON 999. Doctoral Dissertation. 1-10 Hours.
The

English Courses

ENGL 50. Basic Writing Skills. 3 Hours. U.
A review of the basic skills of written English, with emphasis on sentence-level grammar. Recommended for all students who score 16 or below on the ACT English test. May be repeated for credit. LEC.

ENGL 101. Composition. 3 Hours. GE21 / U.
Instruction and practice in writing in a variety of rhetorical contexts, including academic ones. LEC.

ENGL 102. Critical Reading and Writing. 3 Hours. GE21 / U.
Builds upon the instruction in writing of ENGL 101, emphasizing critical thinking through careful, thoughtful reading and writing. Also instructs in the evaluation and use of secondary sources. Prerequisite: Completion of ENGL 101 or its equivalent, or an ACT score of 27-31, or an SAT score of 600-649, or an AP exam score of 3 on either the Literature and Composition exam or the Language and Composition exam, or an IB score of 5. LEC.

ENGL 105. Freshman Honors English. 3 Hours. GE21 / U.
Study of significant works of world literature. The primary aims are to develop reading and writing skills and to introduce the students to works of literature drawn from a variety of genres and historical periods. Prerequisite: An ACT score of 31-36, or an SAT score of 650 or higher, or an AP exam score of 3 on either the Literature and Composition exam or the Language and Composition exam, or membership in the University Honors Program. LEC.

ENGL 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in English. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

ENGL 200. Study Abroad Topics in: ______. 1-6 Hours. H.
This course is designed for the study of special topics in English. Coursework is completed through a KU study abroad program. Available only to KU study abroad participants. May be repeated for credit if content varies. Does NOT fulfill any part of the Freshman-Sophomore requirement. LEC.

ENGL 203. Topics in Reading and Writing: ______. 3 Hours. GE11/GE21/GE3H / H.
In-depth reading and writing on a significant topic, theme, or genre. Includes a variety of textual types or a range of historical periods. Continued practice in critical reading and writing. May include but will not be limited to writing in literary genres. Prerequisite: Completion of ENGL 101 and ENGL 102, or their equivalent. LEC.

ENGL 205. Freshman-Sophomore Honors Proseminar: ______. 3 Hours. GE11/GE21/GE3H / H.
Study of a major movement, topic, or theme in literature and culture. The primary aims are to further develop reading and writing skills and to consider significant cultural and artistic issues. Prerequisite: ENGL 105 or an AP exam score of 4 on either the Literature and Composition exam or the Language and Composition exam. LEC.

ENGL 209. Introduction to Fiction. 3 Hours. GE11/GE21/GE3H / H.
In-depth reading of and writing about prose fiction with emphasis on critical analysis of a variety of narrative types from different historical periods. Prerequisite: Completion of ENGL 101 and ENGL 102, or their equivalent. LEC.

ENGL 210. Introduction to Poetry. 3 Hours. GE11/GE21/GE3H / H.
In-depth reading of and writing about poetry with emphasis on critical analysis of a variety of forms and techniques used in poems from different historical periods. Prerequisite: Completion of ENGL 101 and ENGL 102, or their equivalent. LEC.

ENGL 211. Introduction to the Drama. 3 Hours. GE11/GE21/GE3H / H.
Study of plays selected to familiarize the student with dramatic masterpieces and with the drama as a literary type. Prerequisite: Completion of ENGL 101 and ENGL 102, or their equivalent. LEC.

ENGL 300. The Bible, the Classics, and Modern Literature. 3 Hours.
An introduction to the nature and function of literature, emphasizing Biblical, Classical, and other major cultural traditions and their influence on British and American literature. Some ancient and modern works will be studied in conjunction. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 301. Topics in British Literature to 1800: ______. 3 Hours. H.
Study of British literary works before 1800. Topics may focus on a particular genre, theme, topic, historical period, author, or group of authors. May be repeated for credit as the topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 302. Topics in British Literature Since 1800: ______. 3 Hours. H.
Study of British literary works since 1800. Topics may focus on a particular genre, theme, topic, historical period, author, or group of authors. May be repeated for credit as the topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 305. World Indigenous Literatures. 3 Hours. NW AE42 / H.
A survey of contemporary world indigenous literatures that includes those from North America, Australia, New Zealand, the South Pacific, the Arctic, and Latin America. Texts are in English (original or translation). Genres studied include the novel, poetry, and drama, supplemented by works from the oral tradition, the visual arts, and film. (Same as ISP 305.) Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 306. Global Environmental Literature. 3 Hours. H.
An examination of a variety of literary and other representations of human and non-human environments and environmentalism. Particular attention will be paid to how race, gender, class, sexuality, and geography produce and are produced by those representations. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 308. Introduction to Literary Criticism and Theory. 3 Hours. GE3H / H.
Study of significant problems in literary interpretation and methodology, in which basic critical principles and approaches are systematically examined and applied. These approaches might include, but are not limited to, feminism, Marxism, deconstruction, psychoanalysis, and
cultural studies. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 309. The British Novel. 3 Hours. HL / H.
Study of five or more significant novels representative of developments in the British novel of the eighteenth, nineteenth, and twentieth centuries. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 310. Literary History I. 3 Hours. H.
A study of literature in English, including major forms and movements, from the medieval period to Romanticism. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 312. Major British Writers to 1800. 3 Hours. H.
Outstanding works of British literature, from the earliest times to the close of the eighteenth century, studied in chronological sequence and with some attention to the characteristics of the various periods of English literary history embraced. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 314. Major British Writers after 1800. 3 Hours. H.
Outstanding works of British literature, from 1800 to the present, studied in chronological sequence and with some attention to the characteristics of the various periods of English literary history embraced. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 315. Studies in British Literature. 3 Hours. HL AE42 / H.
For students enrolled in the annual summer Study Abroad program, an interdisciplinary program conducted with other humanities departments. British literature is studied in the context of visits to relevant sites such as London, the Lake District, and Edinburgh. Prerequisite: Prior completion of the KU Core Written Communication requirement. Approval for enrollment in the Summer Institute through the Study Abroad office is required. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 316. Introduction to Major American Writers. 3 Hours. H.
Outstanding works of American literature, studied in chronological sequence and with some attention paid to the characteristics of the various periods of American literary history embraced. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 317. Topics in American Literature to 1865: ____. 3 Hours. H.
Study of American literary works before 1865. Topics may focus on a particular genre, theme, historical period, author, or group of authors. May be repeated for credit as the topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 318. Topics in American Literature Since 1865: ____. 3 Hours. H.
Study of American literary works since 1865. Topics may focus on a particular genre, theme, historical period, author, or group of authors. May be repeated for credit as the topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 320. American Literature I. 3 Hours. H.
From the beginnings to 1865, with emphasis on the major writers and movements. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 322. American Literature II. 3 Hours. H.
From 1865 to the present, with emphasis on the major writers and movements. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 323. Twentieth Century Literature and Culture. 3 Hours. H.
The study of British and American literature, emphasizing important figures and movements since World War I. On occasion, the study of literature will be enriched with an investigation of other arts, such as music, film, and painting. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 324. Contemporary Authors: ____. 3 Hours. H.
Study of one or more recent British and/or American authors. (Different authors in different semesters.) May be repeated for credit as the topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 325. Recent Popular Literature. 3 Hours. HL / H.
Study of recent best sellers or other works of popular interest. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 326. Introduction to African Literature. 3 Hours. NW AE42 / H/W.
Reading, analysis, and discussion of contemporary fiction, poetry, and drama from sub-Saharan Africa. Brief attention is paid to historical development and to traditional literature. (Same as AAAS 332.) Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 327. Studies in Twentieth-Century Drama: ____. 3 Hours. H.
A survey of major twentieth-century playwrights and theatre groups, to be selected by the instructor. May be repeated for credit as the topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 328. Literature and Film: ____. 3 Hours. H.
The comparative study of the literary and film treatments of a particular topic or theme, with special attention to the generic qualities of literature and film. May be repeated for credit as the topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 330. Literary History II. 3 Hours. H.
A study of literature in English, including major forms and movements, from the Romantics to the present. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 331. Chaucer. 3 Hours. H.
Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 332. Shakespeare. 3 Hours. H.
A study of ten to fourteen of Shakespeare’s plays. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.
ENGL 334. Major Authors: _____ 3 Hours. H.
Study of one or two major British and/or American authors. Different authors in different semesters. May be repeated for credit as the topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 336. Jewish American Literature and Culture. 3 Hours. AE41 / H.
An examination of Jewish American literature and culture from the 17th century to the present. Materials may include a broad range of literary genres as well as folklore, music, film, and visual art. (Same as JWSH 336.) Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 337. Introduction to U.S. Latino/a Literature. 3 Hours. AE41 / H.
An historical survey of literature by U.S. Latina/o writers of Mexican, Puerto Rican, Cuban, Dominican, and Central/South American descent. Various genres, including oral forms such as corridos as well as novels, poetry, essays, and autobiographical writing, will be considered. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 338. Introduction to African-American Literature. 3 Hours. AE41 / H.
An introduction to prominent works of African-American literature from the 18th century to the present as well as to the basic approaches to study and principles of this body of work, including its connection with African sources. Literature will include a wide variety of genres, and course materials may be supplemented by folklore, music, film, and visual arts. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 339. Introduction to Caribbean Literature. 3 Hours. AE42 / H.
Reading, analysis, and discussion of fiction, poetry, and drama from the Caribbean, including a small selection of Spanish, French, and Dutch Antillean works in translation. (Same as AAAS 333.) Prerequisite: ENGL 102 and one 200-level course in English or consent of instructor. LEC.

ENGL 340. Topics in U.S. Ethnic Literature: _____ 3 Hours. AE41 / H.
A study of literature by authors from one or more ethnic groups within the U.S., including but not limited to Asian American, African American, American Indian, Jewish American, Italian American, U.S. Latina/o. Different topics in different semesters. May be repeated for credit as topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 341. American Literature of Social Justice. 3 Hours. H.
An examination of U.S. literature that addresses situations of political and economic oppression or repression with the potential function of enlisting readers sympathies in a project of social justice. The course focuses on U.S. literary texts dealing with social injustices and the curtailment of human and civil rights and addresses debates surrounding cultural authority and authenticity, identity politics, attempts to represent the voice of the "oppressed," revision of strategies used in slave narrative or in testimonio, and ethical and rhetorical appeals to an assumed readership. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 351. Fiction Writing I. 3 Hours. H.
A study of narrative techniques and practice in the writing of fiction. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 352. Poetry Writing I. 3 Hours. H.
A study of prosody and practice in the writing of verse. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 353. Screenwriting I. 3 Hours. H.
An introduction to the practice of writing and evaluating scripts for film. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 354. Playwriting I. 3 Hours. H.
An introduction to the practice of writing and evaluating scripts for stage. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 355. Nonfiction Writing I. 3 Hours. H.
An introduction to the literary techniques of nonfiction and practice in the writing of one or more of the genre’s subtypes, such as the personal essay, the familiar essay, the lyric essay, the memoir, nature writing, or travel writing. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 356. Advanced Composition: _____ 3 Hours. H.
The principles of effective composition, as applied to a specific topic such as critical writing, expository writing, pre-legal English, book reviewing, etc. May be repeated for credit as topic varies. Prerequisite: Prior completion of the KU Core Written Communication requirement. LEC.

ENGL 357. Professional Writing: _____ 3 Hours. H.
Principles of writing for specific professional contexts, which might include such areas as business writing, legal writing, and literary or arts reviewing, etc. May be repeated for credit as topic varies. Prerequisite: Prior completion of the KU Core Written Communication requirement. LEC.

ENGL 360. Foundations of Technical Writing. 3 Hours. H.
Introduces students to the principles of technical communication. Students learn to organize, develop, write, and revise various technical documents (e.g., letters, manuals, presentations, proposals, reports, resumes, websites) often needed in business, engineering and scientific settings. Includes an introduction to technical-writing software. This course fulfills the prerequisite for ENGL 562 and ENGL 564. Prerequisite: Prior completion of the KU Core Written Communication requirement. LEC.

ENGL 380. Introduction to Rhetoric and Composition. 3 Hours. GE3H / H.
Introduces students to rhetoric and composition, a field that investigates questions about the nature, processes, teaching and historical, social and cultural contexts of writing. Students survey the themes, debates, and trends that inform the work of scholars in this field. Students also become
acquainted with the historical traditions of discourse instruction, and the relevance of those traditions to our current understandings of writing. Prerequisite: Prior completion of the KU Core Written Communication requirement. LEC.

ENGL 385. The Development of Modern English. 3 Hours. H.
An introduction to the history of the English language, with special attention to general structural changes throughout its history, especially changes in vocabulary and meaning, and past influences of other languages upon present usage. Prerequisite: Prior completion of the KU Core Written Communication requirement. LEC.

ENGL 387. Introduction to the English Language. 3 Hours. HL GE3H / H.
A survey of the English language, its historical development, and its grammatical structure. Prerequisite: Prior completion of the KU Core Written Communication requirement. LEC.

ENGL 390. Studies in: ______. 3 Hours. H.
A study of a specialized theme or topic in English studies. May be repeated for credit as the topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 400. Teaching and Tutoring Writing. 3 Hours. U.
Students explore theories and strategies of teaching and tutoring writing across academic disciplines. They learn more about themselves as writers as they build a repertoire of writing techniques useful in their studies, in the workplace, and in their personal lives. By observing and consulting in the writing center, they understand how reflection leads to responsible/responsive and engaged practice. (Same as LAS 440.) LEC.

ENGL 466. Literature for Children. 3 Hours. H.
Wide reading in the great literature of the past and present suitable for children: folktales and epics, mythology, modern fantasy, fiction, poetry. Emphasis on extending the student’s background and developing critical judgment. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 479. The Literature of: ______. 3 Hours. H.
A study of the literary treatment of a particular aspect of British and/or American society. May be repeated for credit as the topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 492. The London Review. 3 Hours. AE42 / H.
This class meets one day a week throughout the semester and includes a nine-day visit to London over the spring break period. Students spend the early part of the semester selecting special interests, researching places to visit and study, and exchanging information. After the trip, students compile and publish a journal entitled "The London Review", which is comprised of essays, photos, art work, and other reflections about their experience in London. Prerequisite: Admission to University Honors Program or permission of instructor. LEC.

ENGL 494. Research Internship. 1-3 Hours. H.
Practical research experience in English studies gained by assisting a faculty member on a faculty research, editorial, pedagogical, or outreach project. Credit hours are graded by faculty on a satisfactory/unsatisfactory basis. May be used as a component of the Research Experience Program (REP). Prerequisite: At least one 300-level English course, declaration of English major, and permission of instructor. FLD.

ENGL 495. Directed Study: ______. 1-3 Hours. H.
Work for advanced majors in fields or on topics not covered in course work. May be repeated for a total of up to six hours. Does not satisfy specific course requirements for the English major. May be counted as part of the total junior-senior credit hours required. Prerequisite: Completion of three junior-senior courses in English and consent of instructor. IND.

ENGL 496. Internship. 1-3 Hours. H.
Practical experience in the use of English skills in supervised academic or professional settings. Credit hours are graded on a satisfactory/unsatisfactory basis, according to the written evaluation provided by the supervisor to the director. Prerequisite: At least one 300-level English course, declaration of English major, and permission of Undergraduate Director. FLD.

ENGL 497. Service Learning Internship. 1-3 Hours. H.
Practical experience in the use of English skills in a non-profit or advocacy context. Credit hours are graded by faculty on a satisfactory/unsatisfactory basis, according to the written evaluation student provided by the on-site supervisor and on the student’s written reflective component assigned and evaluated by the supervising faculty member. May be used as a component of the Service Learning certification program. Prerequisite: At least one 300-level English course, declaration of English major, and permission of instructor. FLD.

ENGL 506. Science Fiction. 3 Hours. AE61 / H.
The development of science fiction as a literary genre, and as a literature of ideas for a future-oriented society. Capstone course. Prerequisite: Prior completion of at least one 300 - 400-level English course. LEC.

ENGL 507. Science, Technology, and Society: Examining the Future through a Science-Fiction Lens. 3 Hours. AE61 / H.
Science and technology offer many benefits to individuals and to societies, yet they also present many challenges. This course explores the past, present, and possible future effects of science and technology on society through readings and discussions of nonfiction articles in conjunction with science-fiction stories and novels. Capstone course. Prerequisite: Prior completion of at least one 300- 400-level English course. LEC.

ENGL 508. Contemporary Literary Theory. 3 Hours. AE61 / H.
Study of selected works of literary theory and of current issues in literary studies. The course is designed for advanced undergraduates who intend to continue their study of literature in graduate school and for new graduate students who require a grounding in literary theory. According to each instructor's interest, the course may survey contemporary literary theory or may focus on a particular topic (e.g., authorship, canon formation, creativity, metaphor, narrative, rhetoric) or on a theoretical position (e.g., cultural studies, deconstruction, feminism, historicism, Marxism, psychoanalysis). A student may repeat the course with the permission of the appropriate director. Prerequisite: Completion of three junior-senior courses in English (or their equivalent) or graduate standing. LEC.

ENGL 520. History of the Book. 3 Hours. AE61 / H.
Brief history of writing materials and handwritten books; history of printed books from the fifteenth century as part of cultural history; technical progress and aesthetic change. (Same as HIST 500.) LEC.

ENGL 521. Advanced Topics in British Literary Literature 1800: ______. 3 Hours. AE61 / H.
A Study of texts written before 1800. May be organized around a particular genre, historical period, a group of writers, or a theme. May be repeated for credit as topic varies. Capstone course. Prerequisite: Prior completion of at least one 300- 400-level English course. LEC.
ENGL 522. Advanced Topics in British Literature After 1800: ____. 3 Hours. H.
A study of texts written after 1800. May be organized around a particular
genre, historical period, group of writers, or a theme. May be repeated for
credit as topic varies. Capstone course. Prerequisite: Prior completion of
at least one 300- or 400-level English course. LEC.

ENGL 525. Shakespeare: ____. 3 Hours. AE61 / H.
Intensive study of selected works. May be repeated for credit as the topic
changes. Capstone course. Prerequisite: Prior completion of at least one
300- or 400-level English course. LEC.

ENGL 530. Irish Literature and Culture: ____. 3 Hours. AE61 / H.
Study of topics in Irish literature and culture. Topics may focus on a
particular genre, theme, historical period or group of authors. May
be repeated for credit as the topic changes. (Same as EURS 512.)
Prerequisite: Prior completion of at least one 300- or 400-level
English course. LEC.

ENGL 531. James Joyce. 3 Hours. AE61 / H.
A study of the major works of James Joyce, with the majority of the
semester dedicated to Ulysses. Capstone course. Prerequisite: Prior
completion of at least one 300- or 400-level English course. LEC.

ENGL 532. Whitman and Dickerson. 3 Hours. AE61 / H.
A study of selected works of Walt Whitman and Emily Dickinson.
Capstone course. Prerequisite: Prior completion of at least one 300- or
400-level English course. LEC.

ENGL 533. William Faulkner. 3 Hours. H.
A study of selected works of William Faulkner. Capstone course.
Prerequisite: Prior completion of at least one 300- or 400-level English
course. LEC.

ENGL 534. Major Authors (Capstone): ____. 3 Hours. H.
Study of one or two major authors. May be repeated for credit as the topic
changes. Capstone course. Prerequisite: Prior completion of at least one
300- or 400-level English course. LEC.

ENGL 536. Readings in the Holocaust. 3 Hours. AE61 / H.
An examination of Holocaust literature, which may include fiction,
nonfiction, poetry, drama, and film. Theoretical concerns may include
such issues as memory, trauma, representation, imagination, exile,
alienation, silence, the body and emotions, and intergenerational
transmission. Capstone course. Prerequisite: Prior completion of at least
one 300- or 400-level English course. LEC.

ENGL 551. Fiction Writing II. 3 Hours. AE61 / H.
Continuation of ENGL 351. May be repeated for undergraduate credit up
to a total of six hours. Prerequisite: ENGL 351 or equivalent. LEC.

ENGL 552. Poetry Writing II. 3 Hours. AE61 / H.
Continuation of ENGL 352. May be repeated for undergraduate credit up
to a total of six hours. Prerequisite: ENGL 352 or its equivalent. LEC.

ENGL 553. Screenwriting II. 3 Hours. AE61 / H.
A continuation of ENGL 353. May be repeated for undergraduate credit up
to a total of six hours. Prerequisite: ENGL 353 or its equivalent. LEC.

ENGL 554. Playwriting II. 3 Hours. AE61 / H.
A continuation of ENGL 354. May be repeated for undergraduate credit up
to a total of six hours. Prerequisite: ENGL 354 or its equivalent. LEC.

ENGL 555. Nonfiction Writing II. 3 Hours. AE61 / H.
Continuation of ENGL 355. May be repeated for undergraduate credit up
to a total of six hours. Prerequisite: ENGL 355 or its equivalent. LEC.

ENGL 560. British Literature of the 20th Century: ____. 3 Hours. AE61 / H.
Study of twentieth-century literary works. Topics may focus on a particular
genre, theme, historical period or group of authors. May be repeated for
credit as the topic changes. Capstone course. Prerequisite: Prior
completion of at least one 300- or 400-level English course. LEC.

ENGL 562. Advanced Technical Writing I. 3 Hours. AE61 / H.
Stresses research methods in technical communication and simulates
on-the-job training through live interviews and other forms of research.
Students master the relevant software tools and begin to develop a
technical-writing portfolio. Prerequisite: ENGL 362. LEC.

ENGL 563. Advanced Technical Writing and Editing. 3 Hours. AE61 / H.
Students apply the principles of communicating business, scientific, and
technical information to targeted readers. Concentration on the varying
writing styles for online documents, proposals, reports, specifications,
journals articles, and larger documents, as appropriate to their audience.
Simulates an internship and helps students further develop a technical-
writing or editing portfolio. Students practice weekly status reports and
a final report detailing their learning experience and present it to an
appropriate technical communication class to help other students better
understand the field. Prerequisite: Instructor permission. LEC.

ENGL 564. Advanced Technical Editing I. 3 Hours. AE61 / H.
Students learn to use specialized vocabulary and editing tools such as
proofreaders' marks, style guides, and standard editorial reference
material; and they practice how to identify and correct common problems.
Students usually work with writers in other technical writing courses,
learning to work productively with others' print and online
documents. Students practice taking editing tests and develop a technical-
editing portfolio. Prerequisite: ENGL 362. LEC.

ENGL 565. The Gothic Tradition. 3 Hours. H.
This course explores and defines the Gothic tradition in British and
American literature from its beginnings in the late eighteenth century to
more recent twentieth-century texts in literature and film. Prerequisite:
Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 567. Modern Drama: ____. 3 Hours. AE61 / H.
A study of American, British, or comparative drama from the late
nineteenth century to the present. May be repeated for credit as the topic
changes. Capstone course. Prerequisite: Prior completion of at least one
300- or 400-level English course. LEC.

ENGL 568. American Literary Environmentalism. 3 Hours. AE61 / H.
An examination of representations of nature and human/nature relations
and their political, social and environmental consequences, with a
special focus on the 19th and 20th centuries, including the writings of
transcendentalists and conservationists, slave narratives, scientific writing
on toxicity and other topics, and environmental justice literature. Capstone
course. Prerequisite: Prior completion of at least one 300- or 400-level
English course. LEC.

ENGL 569. The Modern Tradition. 3 Hours. AE61 / H.
An intensive study of the formative backgrounds of the "modern"
spirit as it is expressed in imaginative literature. Readings from such
influential spokesmen as W. James, Zola, Marx, Darwin, Henry Adams,
Kierkegaard, Dostoevsky, Nietzsche, I.A. Richards, T.S. Eliot, Joyce,
Auden, Rilke, Croce, Yeats, Malraux, Freud, Jung, D.H. Lawrence,
Sartre, Camus, and Gide. Prerequisite: Prior completion of the freshman-
sophomore English requirement or its equivalent. LEC.
ENGL 570. Topics in American Literature: ______. 3 Hours. AE61 / H.
Different topics in different semesters. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 571. American Indian Literature: ______. 3 Hours. NW AE41/ AE61 / H/W.
The study of a wide range of American Indian literature, from various tribes and in a variety of genres. Satisfies the non-western culture course requirement. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 572. Women and Literature: ______. 3 Hours. AE61 / H.
Different topics in different semesters. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 573. U.S. Latina/o Literature: ______. 3 Hours. AE41/AE61 / H.
A study of the literature written by U.S. Latina/o writers of Mexican, Puerto Rican, Cuban, Dominican, and other Central/South American descent, in a variety of genres. Attention is given to the cultural and historical contexts of the literature and to the specificity of particular U.S. Latina/o groups. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 574. African American Literature: ______. 3 Hours. AE41/AE61 / H.
A study of the literature written by African Americans from the pre-Civil War period to the present. Emphasis upon specific historical periods in the development of African American literature as well as on a critical analysis of major autobiographical, poetic, and fictional works. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 575. Literature of the American South. 3 Hours. AE61 / H.
A survey of fiction, non-fiction, poetry, and drama written by selected writers of the American South from the pre-Civil War period to the present. The course will emphasize the critical analysis of individual texts as well as the cultural and historical context of the works. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 576. Advanced Topics in American Literature to 1865: ______. 3 Hours. AE61 / H.
Study of American literary works before 1865. Topics may focus on a particular genre, theme, topic, historical period, author, or group of authors. May be repeated for credit as the topic changes. (Same as AMS 554.) Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 577. Advanced Topics in American Literature Since 1865: ______. 3 Hours. AE61 / H.
Study of American literary works after 1865. Topics may focus on a particular genre, theme, topic, historical period, author, or group of authors. May be repeated for credit as the topic changes. (Same as AMS 555.) Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 578. Poetry, 1900-1945. 3 Hours. AE61 / H.
A Study of English-language poetry of the early twentieth century. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 579. Poetry since 1945. 3 Hours. AE61 / H.
A study of English-language poetry from the mid-twentieth century to the present. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 580. Rhetoric and Writing: ______. 3 Hours. AE61 / H.
A study of selected broad topics in rhetoric and writing, including such topics as the rhetoric of law, the rhetoric of education, persuasion in literature, literacy, and rhetorical genres. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 581. English Language Studies: ______. 3 Hours. H.
A study of selected topics in English language studies (e.g. World Englishes, Language and Literary Style, and The Secret Life of English Words). May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 582. American English. 3 Hours. AE61 / H.
A study of the structure, history, and varieties of the English language in the United States from the period of colonization to the present. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 590. Studies in: ______. 1-3 Hours. AE61 / H.
A study of a specialized theme or topic in English studies. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of the first-and second-year English requirement or its equivalent, and at least one 300- or 400-level ENGL course; or permission of instructor. LEC.

ENGL 592. Survey of: ______. 3 Hours. AE61 / H.
A broad view of major works and authors in a particular period, genre, or mode. May be repeated for credit as the topic varies. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 596. Technical Communication Internship. 1-3 Hours. AE61 / H.
Practical experience in the use of technical-writing or editing skills in supervised professional settings for which the student normally does not receive pay. A 1-3 hour internship requires 40-120 hours of documented on-site work in one semester (40 hours per credit). Credit hours are graded on a satisfactory/unsatisfactory basis, according to a written recommendation from the student’s workplace manager, student work logs and self-evaluation, and an oral report. Prerequisite: Advanced Technical Writing I (English 562) and permission of instructor. LEC.

ENGL 598. Honors Proseminar: ______. 3 Hours. AE61 / H.
Directed reading and participation in small discussion groups, each formed to consider a specific and limited subject during the semester. Witten work will be required, and will be judged on both content and form. The course is part of a departmental program leading to Honors in English. Prerequisite: Admission must be approved by the departmental director of undergraduate studies. LEC.

ENGL 599. Honors Essay. 3 Hours. AE61 / H.
Independent study, culminating in a substantial essay prepared under the direction of a member of the Department of English who is a specialist in the area of the student’s interest. Prerequisite: Admission must be approved by the departmental director of undergraduate studies. LEC.

ENGL 610. The Literature of England to 1500. 3 Hours. AE61 / H.
A survey of the literature of medieval England (in translation). Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.
ENGL 620. Renaissance English Literature: _____. 3 Hours. AE61 / H.
A broad view of literary works written between 1485 and 1660. Surveys may be offered with focus on a particular genre (poetry, drama, or prose), historical period (16th- or 17th-century literature), or group of authors (women writers). May be repeated for credit as topic varies. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 633. Milton. 3 Hours. AE61 / H.
A close reading of Paradise Lost, Paradise Regained, Samson Agonistes, and the minor poems, with illustrative selections of prose. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 640. British Literature, 1600-1800: _____. 3 Hours. AE61 / H.
Study of literary works from the Restoration and eighteenth century. Topics may focus on a particular genre, theme, historical period or group of authors. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 650. Romantic Literature: _____. 3 Hours. AE61 / H.
Study of literary works from the British Romantic period. Topics may focus on a particular genre, theme, historical period or group of authors. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 655. Victorian Literature: _____. 3 Hours. AE61 / H.
Study of literary works from the Victorian period. Topics may focus on a particular genre, theme, historical period or group of authors. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 660. Ecocriticism. 3 Hours. H.
A study of the relationship between various modes of representation and environmentalism. Particular attention paid to the intersection between ecocriticism and other forms of contemporary literary theory, including, for example, critical race studies, poststructuralism, postcolonial theory, gender and sexuality studies, class-based criticism, and animal theory. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 674. African Literature: _____. 3 Hours. NW AE42/AE61 / H.
An advanced study of a topic, genre, or area of written and/or oral African literature. Emphasis is placed on the critical analysis of major works, as well as their cultural and historical contexts. The course also addresses central critical and theoretical debates in the field. May be repeated for credit as the topic changes. Prerequisite: At least one 300- or 400-level English course, or permission of instructor. LEC.

ENGL 690. Studies in: _____. 3 Hours. AE61 / H.
A study of a major topic of concern to English literature. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 707. Literary Criticism to 1800. 3 Hours.
An introduction to the major writings of literary criticism, in their historical context, from Plato and Aristotle to Samuel Johnson. LEC.

ENGL 708. Literary Criticism after 1800. 3 Hours.
An introduction to modern criticism, in its historical context, from Wordsworth and Coleridge to the present. The emphasis will be on major critics and predominant schools. LEC.

ENGL 709. Critical Theory: Problems and Principles: _____. 3 Hours.
Study of a topic (such as mimesis, influence, deconstruction) that is important in critical theory. May be repeated for credit as topic varies. LEC.

ENGL 710. Introduction to Old English. 3 Hours.
A study of the grammatical features of the earliest form of written English, with readings in Old English prose and poetry. LEC.

ENGL 712. Beowulf. 3 Hours.
Prerequisite: An introductory course in Old English. LEC.

ENGL 714. Middle English Literature. 3 Hours.
Reading of selected works in Middle English (exclusive of the works of Chaucer). LEC.

ENGL 720. Chaucer: _____. 3 Hours.
Intensive study of either the Canterbury Tales or Troilus and Criseyde and the earlier poems. May be repeated for credit up to a maximum of six hours. LEC.

ENGL 725. Shakespeare: _____. 3 Hours.
Intensive study of selected plays. May be repeated for credit as the topic changes. LEC.

ENGL 730. Topics in Early Modern Literature: _____. 3 Hours.
Intensive study of texts written between 1485 and 1800. The course may be organized around a particular genre (poetry, prose, drama), historical period (e.g., Elizabethan literature), a major author (e.g., Milton), group of authors (e.g., women writers), or theme (e.g., literature and politics 1660-1800). Students will be expected to read and apply relevant criticism and theory as well as study primary texts. May be repeated for credit as topic varies. LEC.

ENGL 750. British Literature of the 19th Century: _____. 3 Hours.
Intensive study of British literary works of the 1800s. Topics may focus on a particular genre, theme, historical period or group of authors. May be repeated for credit as the topic changes. LEC.

ENGL 751. Fiction Writing III. 1-3 Hours.
Practice in the writing of fiction under the direction of a member of the department working in conjunction with one or more writers in residence. Membership is limited to students who submit, well in advance enrollment, manuscripts showing unusual ability. May be repeated for credit. LEC.

ENGL 752. Poetry Writing III. 1-3 Hours.
Practice in the writing of poetry under the direction of a member of the department working in conjunction with one or more writers in residence. Membership is limited to students who submit, well in advance of enrollment, manuscripts showing unusual ability. May be repeated for credit. LEC.

ENGL 753. Writers Workshop. 1-3 Hours.
An intensive course in writing prose fiction and/or verse. Criticism (NEW) of manuscripts through group meetings and individual conferences with the instructor. Membership limited to students who submit manuscripts showing special ability in at least one of the creative writing forms. May be repeated for credit. LEC.

ENGL 756. Forms: _____. 3 Hours.
A study of literary works belonging to a particular genre or to multiple genres (fiction, nonfiction, poetry, drama etc), either in a particular form (short story, essay, sonnet, etc.), concerned with a particular topic, or illustrative of a particular element of craft (voice, point of view, character development, etc.). Intended primarily for creative-writing students with an interest in developing their skills at reading as writers. May be repeated for credit as the topic varies. LEC.

ENGL 757. Speculative Fiction Writing Workshop. 3 Hours.
An intensive, 2-week course in writing speculative fiction, including genres such as slipstream, magical realism, fantasy, horror, and science fiction. The course is part of the Center for the Study of Science Fiction Summer Institute. Application period: January 1 - April 15. Application includes note
to instructor expressing interest and one story. May be repeated for credit with instructor’s permission. LEC.

**ENGL 760. British Literature of the 20th Century: _____ 3 Hours.**

Intensive study of British literary works written during the 20th century. Topics may focus on a particular genre, theme, historical period or group of authors. May be repeated for credit as the topic changes. LEC.

**ENGL 764. Modern Irish Literature: _____ 3 Hours.**

Intensive study of topics in modern Irish literature. Topics may focus on a particular genre, theme, historical period or group of authors. May be repeated for credit as the topic changes. LEC.

**ENGL 767. Studies in Modern Drama: _____ 3 Hours.**

Reading of selected works in modern and contemporary drama. May be repeated for credit as the topic changes. LEC.

**ENGL 770. Studies in Life Writing: _____ 3 Hours.**

This course focuses on or surveys individual writers in the tradition of life writing; or intensively examines topics such as “Autobiography,” “Memoir and Diary,” “Biography,” “Slave Narrative,” “Letters,” “Personal Essays,” or “Autobiographical Fictions.” Special emphasis within a topic, such as period, gender, or ethnicity, are possible. May be repeated for credit up to a maximum of six hours. LEC.

**ENGL 774. Topics in Literatures of Africa and the African Diaspora: _____ 3 Hours.**

An intensive study of the literatures of Africa and/or African diaspora (people of African descent dispersed around the world). This study will focus on the major characteristics of a particular period, genre, mode, and/or theme in literatures such as African, Caribbean, Afro-Brazilian, African American, African Canadian, Black British. Critical theories pertinent to writers and their work will be covered. Topics may include studies in drama, poetry, or the novel; migration narratives; literature of a particular era, such as the Harlem Renaissance, Negritude, or the Black Arts Movement; representations of gender, etc. As topics vary by semester, the course may be repeated for credit. (Same as AAAS 774.) LEC.

**ENGL 776. American Literature to 1900: _____ 3 Hours.**

Intensive study of North American literary works before 1900. Topics may focus on a particular genre, theme, historical period or group of authors. May be repeated for credit as the topic changes. LEC.

**ENGL 777. American Literature after 1900: _____ 3 Hours.**

Intensive study of North American literary works after 1900. Topics may focus on a particular genre, theme, historical period or group of authors. May be repeated for credit as the topic changes. LEC.

**ENGL 779. U.S. Poetries Since 1900. 3 Hours.**

A colloquium for graduate students, sampling the range of poetries and poetical productions in the United States in the twentieth and twenty-first centuries. LEC.

**ENGL 780. Composition Studies. 3 Hours.**

This course surveys the field of composition studies, examining major issues and theories in the study of writing. The course may include theories from classical to contemporary rhetoric, composition theory from the twentieth century, and the most current debates in the study of writing. LEC.

**ENGL 781. Criticism and the Teaching of Literature. 3 Hours.**

A survey of selected critical theories and of the applicability of those theories to the teaching of literature. LEC.

**ENGL 785. History of the English Language. 3 Hours.**

Historical study of the phonology, morphology, syntax, vocabulary, and semantics of English; the relation between linguistic and cultural change. LEC.

**ENGL 787. Modern English Grammar. 3 Hours.**

A study of contemporary English: phonology, morphology, syntax, and usage. The emphasis is structural, but "traditional" grammar is referred to for contrast, example, and clarification. LEC.

**ENGL 790. Studies in: _____ 3 Hours.**

Examination of a significant topic in literature or the English language. May be repeated for credit as the topic varies. LEC.

**ENGL 800. Methods, Theory, and Professionalism. 3 Hours.**

Acquaintance with resources and practice in techniques that are essential to other graduate courses. Major concerns include the writing and documentation of scholarly papers; basic reference and bibliographical aids; critical approaches to literature and literary historiography; and the place of language and rhetoric in English studies today. LEC.

**ENGL 801. Study and Teaching of Writing. 3 Hours.**

A survey of major concepts and issues in the study of writing, especially as applied to teaching composition. Practices in writing pedagogy are also discussed, and students’ teaching of composition is observed and explored. Required of and enrollment limited to new teachers of English 101. May not be repeated for credit toward graduate degree. LEC.

**ENGL 802. Practicum in the Teaching of College English. 1 Hour.**

A course concerned primarily with the pedagogy of literature and writing about literature. Includes weekly group meetings, individual conferences, and class visitations. Required of and enrollment limited to new teachers of English 102. May not be repeated for credit toward graduate degree. Course graded on a satisfactory/unsatisfactory basis. FLD.

**ENGL 803. Practicum in the Teaching of Creative Writing. 1 Hour.**

A course for graduate teaching assistants pursuing the M.F.A. or Ph.D. with emphasis in Creative Writing. Normally taken in the third year. Concerns primarily the pedagogy of creative writing: workshop techniques, approaches to conferencing, revision strategies, and the like. Includes weekly group meetings as well as class visitations and individual conferences. May not be repeated for credit towards graduate degree. Graded on a satisfactory/unsatisfactory basis. Prerequisite: ENGL 801 and 802. FLD.

**ENGL 880. Topics in Composition Studies and Rhetoric: _____ 3 Hours.**

Examination of selected topics in composition and rhetoric, such as literary studies, genre theory, dialogism, or writing across the curriculum. May be repeated for credit as the topic changes. Prerequisite: ENGL 780 or equivalent. LEC.

**ENGL 885. Writing Center Theory and Administration. 3 Hours.**

This course explores theories motivating writing center administration and practice. Students will investigate the multiple functions of writing centers, from writing labs associated with college composition instruction, to decentralized resources for writing faculty teaching writing across the disciplines, to elementary, secondary, and community support centers for writers, to online administrative perspective, design a research study and propose actions such as creating policy, developing curricula, designing materials, or conducting assessments. (Same as LAS 700.) Prerequisite: LAS 400, ENGL 400, or consent of instructor. LEC.

**ENGL 896. Internship. 1-3 Hours.**

Practical experience under professional supervision in editing, theatrical production, and other activities relevant to the completion of an advanced degree in English. FLD.

**ENGL 897. Preparation for the M.A. Examination. 1-3 Hours.**

An independent reading course for students preparing to take the M.A. examination. The grade in the course will be an S or U, as determined by
performance on the examination. Prerequisite: Consent of the Director of Graduate Studies. RSH.

Graded on a satisfactory/unsatisfactory basis. THE.

ENGL 904. Seminar in Composition Theory: _____ 3 Hours.
Intensive study of one or more theoretical aspects of composition in English (e.g., rhetoric, text grammar, stylistics). Prerequisite: ENGL 800. LEC.

ENGL 905. Seminar in the English Language: _____ 3 Hours.
Close study of the English language in a particular period. Prerequisite: ENGL 800. LEC.

ENGL 908. Seminar in Literary Criticism: _____ 3 Hours.
Close study of one or more major critics, of a major critical school, or of a topic important in literary criticism. Prerequisite: ENGL 800. LEC.

ENGL 915. Seminar in Medieval English Literature: _____ 3 Hours.
Study may center on either Old or Middle English language and literature. Prerequisite: ENGL 800. LEC.

ENGL 916. Seminar in Chaucer: _____ 3 Hours.
Prerequisite: ENGL 800. LEC.

ENGL 920. Seminar in Renaissance English Literature: _____ 3 Hours.
Close study of one or two major authors or of a group of related works. Prerequisite: ENGL 800. LEC.

ENGL 926. Seminar in Shakespeare: _____ 3 Hours.
Prerequisite: ENGL 800. LEC.

ENGL 932. Seminar in Milton: _____ 3 Hours.
Prerequisite: ENGL 800. LEC.

ENGL 940. Seminar in Restoration and 18th Century British Literature: _____ 3 Hours.
One or two authors are read closely, or a group of related works is studied. Prerequisite: ENGL 800. LEC.

ENGL 950. Seminar in 19th Century British Literature: _____ 3 Hours.
Concentrated study of one or two major figures, or a group of significant writers, or an aspect of the literary scene. Prerequisite: ENGL 800. LEC.

ENGL 960. Seminar in 20th Century British Literature: _____ 3 Hours.
Concentrated study of one or two authors, or a group of significant writers, or an aspect of the literary scene. Prerequisite: ENGL 800. LEC.

ENGL 970. Seminar in American Literature: _____ 3 Hours.
Concentrated study of one or two authors or of historical periods or important movements. Prerequisite: ENGL 800. LEC.

ENGL 974. Seminar in Literatures of Africa and the African Diaspora: _____ 3 Hours.
Advanced study in a topic related to literature, language, and cultures of Africa and the African Diaspora, such as a concentrated study of one or two authors, a group of significant writers, an historical period or important movement, or an aspect of the literary or cultural scene of Black writing. May be repeated for credit as the topic varies. LEC.

ENGL 980. Seminar In: _____ 3 Hours.
Advanced study in a topic related to literature, language, theory, or a special skill such as analytical bibliography or editing. Prerequisite: ENGL 800. LEC.

ENGL 997. Preparation for the Comprehensive Examination. 1-12 Hours.
An independent reading course for students preparing to take the Ph.D. comprehensive examination. May normally be taken in the semester or summer session immediately preceding the semester in which the comprehensive examination is taken. Does not count toward the residence requirement. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Consent of the Director of Graduate Studies. RSH.

ENGL 998. Investigation and Conference: _____ 1-6 Hours.
Individual work in (a) language, (b) literature, (c) composition, or (d) the teaching of English, by properly qualified graduate students under the direction of appropriate members of the Graduate Faculty as assigned by the Graduate Director. Limited to 6 hours of credit toward the M.A. or Ph.D. degree; only on three-hour enrollment may substitute for a formal course in satisfying a field distribution requirement. Normally offered for only up to three credit hours in any one enrollment. Permission of the supervising faculty member and of the Graduate Director required for enrollment. RSH.

ENGL 999. Doctoral Dissertation. 1-12 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

Environmental Studies Courses

EVRN 103. Environment and History. 3 Hours. H.
Nature is our oldest home and newest challenge. This course surveys the environmental history of the earth from the extinction of the dinosaurs to the present with a focus on the changing ecological role of humans. It analyzes cases of ecological stability, compares cultural attitudes toward nature, and asks why this ancient relationship seems so troubled. (Same as HIST 103.) LEC.

EVRN 140. Global Environment I: The Discovery of Environmental Change. 5 Hours. GE3N / U.
This interdisciplinary course and laboratory sections survey the foundations of environmental understanding and the process of scientific discovery from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the history of environmental systems and life on earth, the discovery of biotic evolution, ecological change, and climate change. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to earth systems and the development of environmental understanding using historical and present-day examples. (Same as GEOG 140 and HIST 140.) LEC.

EVRN 142. Global Environment II: The Ecology of Human Civilization. 5 Hours. GE3S / U.
This interdisciplinary course and its laboratory sections survey the history of humanity’s relationship with the natural world over the long term from perspectives that combine the principles and methodologies of the humanities, physical, and social sciences. Key topics include the evolution of Homo sapiens and cultural systems; the development of hunter, gatherer, fisher, agricultural, and pastoral lifeways; the ecology of colonialism and industrial civilization, and the emergence of ideological and ethical perspectives on the relationship between nature and culture. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to the humanity’s engagement with the global environment using historical and present-day examples. (Same as GEOG 142 and HIST 142.) LEC.

EVRN 144. Global Environment I: Discovery of Environmental Change, Honors. 5 Hours. U.
This interdisciplinary course surveys the foundations of environmental understanding and the process of scientific discovery from perspectives that combine the principles and methodologies of the humanities,
physical, life and social sciences. Key topics include the history of environmental systems and life on earth, the discovery of biotic evolution, ecological change, and climate change. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to earth systems and the development of environmental understanding using historical and present-day examples. (Same as GEOG 144 and HIST 144.) Open only to students admitted to the University Honors Program or by permission of instructor. LEC.

EVRN 145. Global Environment II: The Ecology of Human Civilization, Honors. 5 Hours. U.
This interdisciplinary course and its laboratory sections survey the history of humanity’s relationship with the natural world over the long term from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics will include the evolution of Homo sapiens and cultural systems; the development of hunter, gatherer, fisher, agricultural, and pastoral lifeways; the ecology of colonialism and industrial civilization, and the emergence of ideological and ethical perspectives on the relationship between nature and culture. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to the humanity’s engagement with the global environment using historical and present-day examples. (Same as GEOG 145 and HIST 145.) Open only to students admitted to the University Honors Program or by permission of instructor. LEC.

EVRN 148. Scientific Principles of Environmental Studies. 3 Hours. NB GE3N / N.
This course presents an overview of our understanding of environmental processes and issues. Topics include scientific principles, resource issues, pollution and global change, among others. This course gives students a rigorous understanding of interactions between humans and their environment and provides students with a scientific basis for making informed environmental decisions. (Same as GEOG 148.) LEC.

EVRN 149. Scientific Principles of Environmental Studies, Honors. 3 Hours. NB GE3N / N.
This course presents an overview of our understanding of environmental processes and issues. Topics include scientific principles, resource issues, pollution and global change, among others. This course gives students a rigorous understanding of interactions between humans and their environment and provides students with a scientific basis for making informed environmental decisions. An honors section of EVRN 148, designed for superior students. (Same as GEOG 149.) Prerequisite: Membership in the University Honors Program or approval of instructor required. LEC.

EVRN 150. Environment, Culture and Society. 3 Hours. SC GE3S / S.
An introduction to geographic approaches to the study of the environment, emphasizing societal and cultural factors that influence human interaction with the biosphere, hydrosphere, lithosphere and atmosphere. The course involves analysis of a broad range of contemporary environmental issues from the local to global scales. (Same as GEOG 150.) LEC.

EVRN 177. First Year Seminar: _______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Environmental Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

EVRN 200. Study Abroad Topics In: _______. 1-6 Hours. S.
This course is designed for the study of special topics in Environmental Studies. Coursework must be arranged through the Office of Study Abroad. May be repeated for credit if content varies. LEC.

EVRN 304. Environmental Conservation. 3 Hours. NE GE3S / N.
A survey of current methods of describing and modeling the function, structure, and productivity of natural and anthropogenically modified earth resource systems, along with a discussion of contemporary views of what constitutes a natural landscape. Fundamental natural science principles about the interplay among lithospheric, atmospheric, hydrospheric, and biospheric components of earth systems are emphasized. Uses of natural resources, including fossil fuels, minerals, and water, are described with attention to the earth’s total energy budget. Human activities that affect preservation, conservation, and multiple uses of earth regions receive attention. Systems under stress through population and other contemporary forces serve as examples. (Same as GEOG 304.) LEC.

EVRN 320. Environmental Policy Analysis. 3 Hours. N.
An historical and analytical study of the formulation, implementation, and consequences of environmental policy in the United States. Attention will be directed at relevant interest groups, issues specific to both rural and urban populations, relationships between national policies and international organizations concerned with environmental problems. Prerequisite: EVRN 148/GEOG 148; and EVRN 103/HIST 103, EVRN 347/HIST 347 or EVRN 150/GEOG 150. LEC.

EVRN 332. Environmental Law. 3 Hours. U.
An introduction to how the American legal process improves, transforms, and damages the natural environment. Emphasizes and compares shifting responsibilities of legal forces and institutions: judges and litigants, legislators and statutes, agencies and administrations, and citizens and regulated entities. Prerequisite: EVRN 148 and EVRN 103/HIST 103, EVRN 347/HIST 347 or EVRN 150/GEOG 150. LEC.

EVRN 335. Introduction to Soil Geography. 4 Hours. N.
The course focuses on the properties and processes of soils as they occur in their environment. The student is introduced to the nature of soil as it functions as a body: genesis of soils; properties of soil solids, especially colloids; soil chemical composition, properties, and reactions; interaction between solid, liquid, and gaseous components in soils; plant-soil-water relationships; biological interactions with soil; classification of soils; and the distribution of soils on the landscape. Not open to students who have taken GEOG 535 or EVRN 535. (Same as GEOG 335.) Prerequisite: GEOG 104 or GEO 101 or consent of instructor; BIOL 100 and CHEM 130 or CHEM 190 recommended. LEC.

EVRN 336. Ethics, Ideas and Nature. 3 Hours. H.
This course examines the ethical frameworks developed for thinking about, using, and protecting the natural world. Examples of topics include indigenous approaches to nature, the history of ecological ideas, environmental movements, the role of the state in managing resources, utilitarianism and progressivism, environmental lawmaking, wilderness advocacy, nature and theology, the rights of nature, and environmental justice. Students are introduced to the theories of duty ethics, justice ethics, utilitarianism, and rights ethics, and required to apply ethical decision making to contemporary and historical environmental issues. Multiple perspectives on the history of human interactions with nature demonstrate the importance of reflecting upon the value systems inherent in human-centered environmental ethics and nature-centered environmental ethics. (Same as HIST 336.) LEC.

EVRN 338. Permaculture Design. 6 Hours. N.
Students learn how a local, sustainable design system known as permaculture design creates an ecologically sound and economically viable way of living. The course consists of lecture, field, and practicum sessions. Lecture topics include food security, permaculture ethics, ecological principles, system design, sustainable soils, food production, food forests, earth works, and construction of human habitats. LEC.
EVRN 347. Environmental History of North America. 3 Hours. H.
A survey of changes in the landscape and in people’s perceptions of the natural world from 1500 to present. Topics include agroecology, water and energy, the impact of capitalism, industrialism, urbanization, and such technologies as the automobile and the origins of conservation. (Same as HIST 347.) LEC.

EVRN 371. Environmental Geopolitics. 3 Hours. S.
This course examines how human relationships with the biophysical world are politicized. Examines key contributions to debates surrounding environmental security, resource conflicts, and related issues, as well as geopolitical assumptions on which these debates build. (Same as GEOG 371.) LEC.

EVRN 385. Environmental Sociology. 3 Hours. S.
This course invites students to study society and its impact on the environment. Environmental problems are social problems. This course will address such issues as social paradigms, theories, inequalities, movements, and research. (Same as SOC 385.) LEC.

EVRN 410. Geospatial Analysis. 3 Hours. N.
Focuses on applications of geospatial technologies to environmental issues using case study examples and data, and provide students with a foundational skill-set in geographic information systems, remote sensing, and GPS techniques. Prerequisite: EVRN/GEOG 148/149; EVRN/HIST 103, EVRN/GEOG 150 or EVRN/HIST 347. LEC.

EVRN 420. Topics in Environmental Studies: _____. 1-6 Hours. N.
Courses on special topics in Environmental Science and/or Policy. These courses may be lecture, discussions, or readings. Students may enroll in more than one interest group but may enroll in a given interest group only once. LEC.

EVRN 425. Global Water Scarcity. 3 Hours. S.
Though natural factors are introduced, this course focuses primarily on the human factors that contribute to global water scarcity. This course also discusses the consequences of water scarcity and its effects on society. Prerequisite: EVRN 148 or permission of instructor. LEC.

EVRN 433. Biogeography Field and Laboratory Techniques. 3 Hours. N.
This course provides undergraduate students with practical experience in field data collection techniques and laboratory data analysis methods. During the first half of the semester, students work in the field using a variety of methods to measure such vegetation characteristics as: cover, density, biomass, leaf area, and canopy architecture. Students gain experience in the use of field instruments including a spectroradiometer, and techniques for quantifying biophysical attributes of vegetation. During the later part of the course, students learn to summarize their field data and examine relationships between the vegetation attributes and measurements made using remote sensing instruments. Recommended: GEOG 316 or an introductory statistics equivalent. (Same as GEOG 433.) FLD.

EVRN 460. Field Ecology. 3 Hours. N.
Provides practical experience in the characterization of a diversity of ecosystem types: lakes, streams, forests, and prairies. This course is writing intensive, and designed for Environmental Studies majors. Prerequisite: EVRN/GEOG 148/149; EVRN/HIST 103, EVRN/HIST 347 or EVRN/GEOG 150; Senior standing. Restricted to declared Environmental Studies majors. FLD.

EVRN 490. Internship in Environmental Studies. 1-8 Hours. AE51 / N.
Supervised practical experience in a specific environmental area of interest. The advisor will schedule regular meetings to evaluate progress and provide assistance. A written summary of the internship experience and evaluation will be prepared independently by the student, a representative of the cooperating agency, and the advisor. Total credit may not exceed 8 hours. Prerequisite: Junior standing and consent of program director. Restricted to declared Environmental Studies majors. Restricted to students with a 2.5 overall GPA or above. FLD.

EVRN 510. Advanced Environmental Applications in Geospatial Techniques. 3 Hours. H/N.
This course focuses on applying advanced geospatial mapping and analysis techniques to “real-world” environmental issues. Course content may include lecture/lab time on advanced geospatial topics; a major class project, small-group projects, or individual projects; or half-semester internships with state agencies or campus entities that will culminate in an individual project. The specific nature of projects will be driven largely by student interest and ability, as well as agency/center needs. Prerequisite: EVRN 410 or equivalent course; or permission of the instructor. LEC.

EVRN 519. Sociology of Global Food. 5 Hours. U.
The Sociology of Global Food offers a critical examination of the global food system since the Industrial Revolution. Topics include the industrialization of agriculture, sustainable agriculture, and the role of food and agriculture in organizing society. This course discusses the emergence of current debates around food and agriculture including food activism, technological developments, human/environment relationships, and labor issues. There is a lab component to this course. (Same as SOC 519.) Prerequisite: Junior standing. LEC.

EVRN 526. Remote Sensing of the Environment I. 4 Hours. N.
Introduction to study of the environment through air photos and satellite imagery, including principles of remote sensing, interactions of electromagnetic energy with the atmosphere and earth’s surface, aerial photography, satellite systems, and sensors (electro-optical, thermal, and radar). Emphasis in the latter part of the course is on such applications as global monitoring, land cover mapping, forestry, agriculture, and oceanography. Laboratory emphasizes visual interpretation of aerial photography and satellite imagery and an introduction to digital image processing in the department’s NASA Earth Science Remote Sensing Laboratory. (Same as GEOG 526.) Prerequisite: MATH 101 or equivalent. GEOG 358 recommended. LEC.

EVRN 528. Environmental Justice and Public Policy. 3 Hours. S.
This course provides a broad overview of environmental justice, both as a social movement and as a public policy initiative. Environmental justice examines the distribution of environmental externalities across different socio-economic and racial groups. We will discuss several different public policy areas that have been impacted by the environmental justice movement: hazardous waste facility siting, urban redevelopment and Brownfields, transportation policy, and Native American sovereignty. We will also touch upon international environmental policy in an environmental justice context. Throughout the course we will evaluate empirical issues in studying environmental justice. (Same as POLS 528.) Prerequisite: POLS 306, or a statistics class, or consent of instructor. LEC.

EVRN 535. Soil Geography. 5 Hours. N.
A broad study of the principles and properties of soils and their distribution on the landscape. Topics covered include: pedology, clay mineralogy, soil physics, soil chemistry, management of soils, soil biology, taxonomy, and soil geomorphology. Laboratory section and a field project are required. Not open to students who have taken GEOG 335 or EVRN 335. (Same as GEOG 535.) Prerequisite: GEOG 104 or GEO 101 or consent of the instructor; BIOL 100 and CHEM 130 or CHEM 190 recommended. LEC.

EVRN 538. Soil Chemistry. 3 Hours. N.
This course examines the chemical properties and processes of soils and methods of evaluation. Topics include solid and solution speciation, mineral solubility, soil colloidal behavior, ion exchange, surface complexation, soil salinity and sodicity, soil acidity, oxidation-reduction
reactions, and kinetics of soil chemical processes. (Same as GEOG 538.) Prerequisite: GEOG 335 or GEOG 535 or EVRN 335 or EVRN 535, CHEM 135 or CHEM 195, MATH 121, PHSX 114, or consent of the instructor. LEC.

EVRN 542. Ethnobotany. 3 Hours. S.
Course will involve lectures and discussion of Ethnobotany - the mutual relationship between plants and traditional people. Research from both the field of anthropology and botany will be incorporated in this course to study the cultural significance of plant materials. The course has 7 main areas of focus: 1) Methods in Ethnobotanical Study; 2) Traditional Botanical Knowledge - knowledge systems, ethnolinguistics; 3) Edible and Medicinal Plants of North America (focus on North American Indians); 4) Traditional Phytochemistry - how traditional people made use of chemical substances; 5) Understanding Traditional Plant Use and Management; 6) Applied Ethnobotany; 7) Ethnobotany in Sustainable Development (focus on medicinal plant exploration by pharmaceutical companies in Latin America). (Same as ANTH 582.) Prerequisite: ANTH 104, ANTH 108, EVRN 148, or consent of instructor. LEC.

EVRN 550. Environmental Economics. 3 Hours. U.
This course provides an overview of the theory and empirical practice of economic analysis as it applies to environmental issues. Topics include externalities (a type of market failure), the valuation of nonmarket goods, the practice of benefit-cost analysis, and the efficiency and cost effectiveness of pollution control policies. Most importantly, the course permits students to perform economic field research, using state-of-the-art techniques in a manner accessible to undergraduate students. (Same as ECON 550.) Prerequisite: ECON 104, ECON 140, or ECON 142. LEC.

EVRN 553. Comparative Environmental Politics. 3 Hours. S.
This course compares environmental politics and policies across a number of countries, including those in North America, Western Europe, East Asia, and Latin America. (Same as POLS 553.) LEC.

EVRN 562. United States Environmental History in the 20th Century. 3 Hours. H.
Americans dramatically changed the natural world between 1900 and 2000. This course asks how transformed environments shaped the American experience during a century of technological innovation, democratic renewal, economic expansion, global conflict, and cultural pluralism. Topics include food and markets, energy and transportation, law and politics, protest and resistance, urbanization, and environmentalism's fate in a global information era. (Same as HIST 562.) LEC.

EVRN 563. U.S. Environmental Thought in the 20th Century. 3 Hours. H.
Explores both leading and dissident ideas that Americans have had about the natural world since 1900. Broad chronological periods are explored in some depth, including the Progressive Era, New Deal, Cold War, the Sixties, and the Reagan Eighties. The course uses articles and books, as well as visual and aural forms of communication. Commercial speech, as well as scholarly and literary works, are considered. (Same as HIST 563.) Prerequisite: EVRN 148 or HIST 129, or by permission of instructor. LEC.

EVRN 611. Water Quality, Land Use, and Watershed Ecosystems. 3 Hours. N.
Water quality issues are integrated with land use planning and the development of watershed management strategies. Interrelationships among the hydrologic cycle, atmospheric deposition, nutrient transformations and pesticide use are examined in regards to streams, lake, and groundwater quality. Prerequisite: CHEM 110 or CHEM 130 and BIOL 414, or consent of instructor. LEC.

EVRN 615. Capstone Project. 3 Hours. AE61 / N.
The capstone project provides students with a broad-based, interdisciplinary educational experience and allows them to integrate and synthesize the knowledge they have gained in their environmental studies major. It rejoins the cohort that has separately pursued the BA/BGS and BS tracks and places them in situations in which they address real world environmental issues with a team approach and produce professionally meaningful analytical reports. Prerequisite: Junior standing; EVRN 320, EVRN 332, and EVRN 460. Restricted to declared Environmental Studies majors. LEC.

EVRN 616. Environmental Impact Assessment. 3 Hours. N.
This course provides an overview of environmental laws and regulations. Additional focus is given to the process described in the National Environmental Policy Act (NEPA). Students will learn when NEPA is triggered, the difference between Environmental Impact Statements (EIS) and Environmental Assessments (EIA), and how to write an EIS/EIA. Prerequisite: An introductory course in environmental law, or consent of instructor. LEC.

EVRN 620. Environmental Politics and Policy. 3 Hours. S.
Analysis of environmental politics and the formulation and implementation of environmental policy. Examines the history and development of environmental politics as well as current trends. Themes include interest groups, business interests, political institutions, and specific environmental policy issues. (Same as POLS 624.) LEC.

EVRN 624. Independent Study. 1-9 Hours. AE61 / N.
A research course, in any of the fields of environmental studies, consisting of either experimental research, original policy analysis, or the preparation of an extensive paper based on library investigation. Project topic to be agreed upon in advance with supervising faculty member. Prerequisite: Consent of instructor. IND.

EVRN 625. Honors Research in Environmental Studies. 3 Hours. AE61 / N.
A course giving eligible majors the opportunity to earn Departmental Honors by engaging in an intensive program of study leading to an original piece of research. Prerequisite: Senior standing, approval of the Environmental Studies Program, the Honors Project Director, and an overall 3.25 cumulative grade point average during the semester of enrollment. Restricted to declared Environmental Studies majors. IND.

EVRN 628. The Politics of Public Health. 3 Hours. S.
This course examines the social, institutional and political context of public health policy in the United States. We will examine factors that shape the nation's public health, explore the role of government in reducing risk and promoting well being, and analyze the major institutions responsible for monitoring, protecting and promoting general public health. Themes include the social determinants of health, health disparities, emerging infectious diseases, food safety, transportation, and environmental health. (Same as POLS 628.) Prerequisite: POLS 110 and POLS 306 are recommended. LEC.

EVRN 635. Soil Physics. 3 Hours. N.
Provides theoretical and practical foundations for understanding physical properties and processes of variably-saturated porous media. Focus is on the transport, retention, and transformation of water, heat, gas, and solutes through the soil. We examine modern vadose zone measurement methods, analytical tools, and numerical models for data collection and interpretation. (Same as GEOG 635.) Prerequisite: GEOG 335 or EVRN 335; or GEOG 535 or EVRN 535, and MATH 121, PHSX 114; or consent of instructor. LEC.
EVRN 656. Ecosystem Ecology. 3 Hours. N.
An introduction to the patterns and processes that affect terrestrial ecosystems. Emphasis is placed on understanding nutrient cycles (e.g., carbon nitrogen phosphorous), hydrologic cycles, and patterns of net primary productivity. The role of both natural and anthropogenic disturbances in structuring terrestrial ecosystems is examined in the context of global land-use patterns. Discussion of current research literature will be expected. (Same as BIOL 656.) Prerequisite: BIOL 414 and CHEM 130. LEC.

EVRN 700. Colloquium. 1 Hour.
Topics of current interest in environmental studies. May be repeated for credit for different topics. LEC.

EVRN 701. Climate Change, Ecological Change and Social Change. 3 Hours.
This interdisciplinary graduate seminar examines the history of climate change from natural and physical science, social science, and humanities perspectives. The class explores the ways that different disciplines approach understanding climate change and its impact on natural and human systems and how these understandings have changed over time. The course is team-taught by faculty from the natural and physical sciences, social sciences, humanities, and professional schools, and will include faculty guest speakers from KU and off-campus. Students will write a research paper on a climate change topic of their choice that reflects the historical and interdisciplinary approaches of the seminar. A goal of the seminar is to assemble student papers for presentation and possible publication. Prerequisite: Consent of instructor. LEC.

EVRN 702. Energy, Ecology and Community in Kansas. 3 Hours.
This interdisciplinary graduate seminar examines the role of climate in shaping energy, ecology, and community in Kansas from natural and physical science, social science, and/or humanities perspectives. The class will combine lectures, group projects, and field research to understand the ways that climate change and energy production are reshaping the human and natural systems in Kansas and the Great Plains. The course is team-taught by faculty from the natural and physical science, social science, humanities and professional schools, and will include faculty guest speakers from KU and off-campus. LEC.

EVRN 720. Topics in Environmental Studies: _____, 1-6 Hours.
Courses on special topics in Environmental Studies. These courses may be lecture, seminars, or readings. Students may enroll in more than one interest group but may enroll in a given interest group only once. LEC.

EVRN 730. Environmental Toxicology. 3 Hours.
Examines the effects of toxic chemicals on individuals, populations, communities and ecosystems. Topics include major classes of pollutants, movement, distribution and fate of pollutants in the environment, mechanisms of action, toxicity testing, and environmental assessment. LEC.

EVRN 745. Environmental Data Analysis and Statistics. 3 Hours.
Survey of common statistical methods for analyzing environmental data. Includes techniques for environmental monitoring, impact assessment, and site reclamation, as well as methods for handling censored data, time series, and spatial analysis. Sampling design, data interpretation, and presentation of statistical results will be emphasized. Prior coursework or practical experience in statistics is expected. Prerequisite: Permission of instructor. LEC.

EVRN 815. Professional Science Masters Capstone. 3 Hours.
A culminating experience to develop a workforce project, producing a written report and presented orally to a committee that includes an industry member. Students will develop an applied workforce project in the student’s place of employment for full time employees or an internship for full time students. The students will document their project in a written report and present their project to the Environmental Studies faculty (2), and the student’s employer or representative if practical. LEC.

EVRN 915. Capstone. 3 Hours.
The goal of this research seminar is to discuss individual students’ research, culminating in the completion of a paper in Environmental Studies for presentation at a professional meeting and/or publication in a professional journal. SEM.

French Italian Courses

FREN 100. French for Reading Knowledge. 3 Hours. U.
Special course for candidates for advanced degrees in other departments. Fundamentals of grammar and reading of material of medium difficulty. Intended primarily for graduate students, but open also to seniors planning graduate study. Does not satisfy any part of the undergraduate language requirement. Presupposes no previous study of French. Conducted in English. LEC.

FREN 104. Elementary French, Overseas. 1-5 Hours. U.
Basic language instruction in French for beginners participating in study abroad programs in France or a French-speaking country. Graded satisfactory/unsatisfactory. LEC.

FREN 107. Elementary French I for the Professional Schools. 3 Hours.
Essentials of French grammar; practice in speaking, reading, and writing French. Introduction to French business culture. Three hours of class per week. This course does not satisfy the College of Liberal Arts and Sciences foreign language requirement. LEC.

FREN 108. Elementary French II for the Professional Schools. 3 Hours. U.
Essentials of French grammar; practice in speaking, reading, and writing French. Introduction to French business culture. Three hours of class per week. This course does not satisfy the College of Liberal Arts and Sciences foreign language requirement. Prerequisite: FREN 107 or equivalent. LEC.

FREN 109. Elementary French III for the Professional Schools. 3 Hours. U.
Essentials of French grammar; practice in speaking, reading, and writing French. Introduction to French business culture. Three hours of class per week. This course does not satisfy the College of Liberal Arts and Sciences foreign language requirement. Prerequisite: FREN 108 or equivalent. LEC.

FREN 110. Elementary French I. 5 Hours. U.
Five hours of class per week. A balanced approach stressing understanding, speaking, reading, and writing. LEC.

FREN 120. Elementary French II. 5 Hours. U.
Five hours of class per week. A balanced approach stressing understanding, speaking, reading, and writing. Prerequisite: FREN 110 or by departmental permission. LEC.

FREN 152. France and the French. 3 Hours. HL AE42/GE3H / H.
A comprehensive, interdisciplinary survey of French culture that may include topics ranging from the earliest times to the present, with particular attention to literature, the arts, thought, politics, society, food, and customs. Taught in English. Does not fulfill any requirement in the French major or minor. LEC.

FREN 177. First Year Seminar: _____, 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in French. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics
are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

FREN 230. Intermediate French I. 3 Hours. U.
Third-semester course stressing oral and written work in French; systematic review of grammar and introduction to reading in cultural texts. (See also FREN 231, FREN 234.) Prerequisite: FREN 120 or by departmental permission. LEC.

FREN 231. Intermediate French I, Honors. 3 Hours. U.
Similar in approach and content to FREN 230; smaller class size; open to students who had done very good to excellent work in previous French classes. Prerequisite: Grade of B or A in FREN 120 or departmental permission. LEC.

FREN 234. Intermediate French I and II. 6 Hours. U.
One-semester course meeting five times a week for six hours credit. Material same as in FREN 230 and FREN 240. (FREN 234, FREN 240, FREN 241--each completes foreign language requirement.) Prerequisite: FREN 120 or by departmental permission. LEC.

FREN 240. Intermediate French II. 3 Hours. U.
Continuation of FREN 230. (FREN 234, FREN 240, FREN 241--each completes foreign language requirement.) (See also FREN 241.) Prerequisite: FREN 230, FREN 231, or by departmental permission. LEC.

FREN 241. Intermediate French II, Honors. 3 Hours. U.
Similar in approach and content to FREN 240; smaller class size; open to students who have done very good to excellent work in previous French classes. Prerequisite: A grade of A in FREN 230 or FREN 231, or departmental permission. LEC.

FREN 300. Intensive Review of French Grammar. 3 Hours. H/W.
Designed to provide essential skills for advanced courses. Prerequisite: FREN 234, FREN 240, FREN 241, or by departmental permission. LEC.

FREN 310. French Phonetics. 3 Hours. GE3H / H/W.
A course in practical phonetics with exercises stressing rhythm, intonation, and individual sounds. Prerequisite: FREN 240, FREN 241, or by departmental permission. LEC.

FREN 315. Le Francais Pratique. 1-6 Hours. H/W.
Supplementary non-major language course that can be a sequel to the first four semesters of French. Primarily for students studying abroad. Covers vocabulary study, oral exercises, discussion of texts, writing, and free conversation. Prerequisite: FREN 230/231 or FREN 234, FREN 240/241. LEC.

FREN 326. Introduction to French Literature. 3 Hours. HL AE42/GE3H / H.
Analysis of selected texts from various genres; special emphasis on explication de texte. Prerequisite: FREN 300 (or with FREN 300), or by departmental permission. LEC.

FREN 330. French Language and Civilization I. 3 Hours. H.
A study of French grammar, conversation, and composition, with selected aspects of French civilization. Available to participants in the Summer Language Institutes, and selected Study Abroad programs. LEC.

FREN 340. French Language and Civilization II. 3 Hours. H.
A study of French grammar, conversation, and composition, with selected aspects of French civilization. Available to participants in the Summer Language Institutes, and selected Study Abroad Programs. LEC.

FREN 350. Applied French Grammar and Composition I. 3 Hours. H/W.
Systematic grammar review with extensive practice in writing French. Prerequisite: FREN 300 or FREN 326. LEC.

FREN 352. French for Journalism and Business. 3 Hours. H/W.
Practical acquisition of skills necessary to understand the language of journalism and business. Prerequisite: FREN 300. LEC.

FREN 375. Intermediate French Conversation. 3 Hours. H/W.
Three meetings per week. Guided discussions designed to increase fluency, improve pronunciation, and acquire vocabulary. Sections limited to twelve students. May be designated a KULAC class at the discretion of the instructor. Prerequisite: FREN 300 or concurrent enrollment in FREN 300. LEC.

FREN 376. Advanced French Conversation. 3 Hours. H/W.
Three meetings per week. Guided discussions designed to increase fluency, improve pronunciation, and knowledge of French culture and language. Classes have centered around topics such as the French Revolution, the Arts, Renaissance Festivals, and French cinema. Sections limited to twelve students. May be designated a KULAC class at the discretion of the instructor. Prerequisite: FREN 375. LEC.

FREN 401. Paris, City of Lights and Legends. 3 Hours. HL AE42/GE3H / H.
An exploration of the French capital from its origins to present as emblem and icon of the social, literary, cultural, and political development of the French nation and of French ideals. Topics include great persons, events, works, symbols, and myths since the founding of the city to the present. Taught in English. Does not fulfill any requirement in the French major or minor. LEC.

FREN 405. French Literature in Translation. 3 Hours. HL AE42/GE3H / H.
Readings and discussions of representative great masterpieces of French literature from the medieval Arthurian romances and chansons de geste to the present, with particular emphasis on the question of the interrelations of form and content. Includes such authors as Rabelais, Montaigne, Racine, Moliere, Voltaire, Balzac, Flaubert, Baudelaire, Proust, Gide, Camus, and Beckett. Conducted in English. A reading knowledge of French is extremely useful but not a requirement. LEC.

FREN 406. Introduction to French Culture Through Film. 3 Hours. AE42/GE3H / H/W.
Discussion of great masterpieces of French film from the silent era to the present, with a particular emphasis on how film portrays and conveys important aspects of French culture past and present. The works of a variety of film-makers may be covered, and may include among others Georges Melies, Jean Vigo, Jean Renoir, Abel Gance, Rene Clair, Marcel Carne, Jean Cocteau, Alain Resnais, Jean-Luc Godard, Francois Truffaut, Agnes Varda, Louis Malie, Eric Rohmer, and Claude Berri. Films will be shown in French with subtitles in English. Knowledge of French is useful, but not required. LEC.

FREN 410. Survey of French Culture I. 3 Hours. AE42/GE3H / H/W.
A survey of the historical, philosophical, literary, and artistic development of France, from the beginning through the 17th century. Prerequisite: FREN 300 and FREN 326. May be designated a KULAC class at the discretion of the instructor. LEC.

FREN 420. Survey of French Culture II. 3 Hours. AE42/GE3H / H/W.
Continuation of FREN 410, from the 18th century to the present. Prerequisite: FREN 300 and FREN 326. May be designated a KULAC class at the discretion of the instructor. LEC.

FREN 430. La France d’Aujourd’Hui. 3 Hours. AE42/GE3H / H/W.
Social, political, and economic trends from 1939 to present, with emphasis on period since 1968. Prerequisite: FREN 300 and FREN 326. May be designated a KULAC class at the discretion of the instructor. LEC.
FREN 431. French-Speaking World (Outside France). 3 Hours. AE42/GE3H / H/W.
Cultures of the some 235 million persons in the five world areas whose everyday and/or official language is French: Canada; Caribbean (e.g., Haiti, Guadeloupe, Martinique); Europe (e.g., Belgium, Switzerland); Africa and Indian Ocean (23 former French or Belgian colonies); Pacific (e.g., Tahiti, New Caledonia). Also French-speaking settlers in the United States (Louisiana, South Carolina, New England, Kansas). French presence in Indo-China and the Near East. Prerequisite: FREN 300 and FREN 326. (May be taken concurrently with FREN 300 and/or FREN 326.) May be designated a KULAC class at the discretion of the instructor. LEC.

FREN 432. Francophone African Literature. 3 Hours. NW AE42/GE3H / H/W.
This course is an introduction of 20th Century African literature written in French, covering selected works by major authors from both sub-Saharan Africa and the Maghreb. Attention will be given primarily to the novel, although some poetry will also be read. Topics and themes include neocolonialism, African identity in the wake of colonialism, Islam, and women's writing. Classes will be conducted in English. Students may read the texts in French or in translation. (Same as AAAS 432.) Prerequisite: ENGL 102 and a 200-level English course. LEC.

FREN 440. Studies in French Culture: ___. 3 Hours. H/W.
Representative topics are: History of Paris, Role of Women in French Literature and Culture, Interrelationships of the Arts, French-speaking African Culture, Culture of French Canada. May be repeated for credit with departmental permission; may also be repeated as part of major in French language and culture. Prerequisite: FREN 300 and FREN 326. May be designated a KULAC class at the discretion of the instructor. LEC.

FREN 450. French Literature of the Middle Ages. 3 Hours. AE42/GE3H / H/W.
Study of the principal authors, movements, and themes of the period. Prerequisite: FREN 300 and FREN 326. LEC.

FREN 455. French Literature of the Renaissance. 3 Hours. AE42/GE3S / H/W.
Study of the principal authors, movements, and themes of the period. Prerequisite: FREN 300 and FREN 326. LEC.

FREN 460. French Literature of the Seventeenth Century. 3 Hours. AE42/GE3S / H/W.
Study of the principal authors, movements, and themes of the period. Prerequisite: FREN 300 and 326. LEC.

FREN 462. French Literature of the Eighteenth Century. 3 Hours. AE42/GE3S / H/W.
Study of the principal authors, movements, and themes of the period. Prerequisite: FREN 300 and 326. LEC.

FREN 465. French Literature of the 19th Century. 3 Hours. AE42 / H/W.
Study of the principal authors, movements, and themes of the period. Prerequisite: FREN 300 and FREN 326. LEC.

FREN 470. French Literature of the Twentieth Century. 3 Hours. AE42/GE3S / H/W.
Study of the principal authors, movements, and themes of the period. Prerequisite: FREN 300 and FREN 326. LEC.

FREN 480. Studies in French Literature: ___. 3 Hours. H/W.
A study of a period, theme, group of authors, or movement. Subject matter will vary; may be taken more than once if subject differs. Prerequisite: FREN 300 and FREN 326. LEC.

FREN 495. Directed Readings in French. 1-15 Hours. AE61 / U.
May be taken more than once, total credit not to exceed fifteen hours. Fields not covered by course work, and/or field of student's special interest. Conferences. Counts as humanities when taken for two or three hours. Prerequisite: Twenty-five hours of French and consent of instructor. IND.

FREN 499. Honors in French. 3 Hours. AE61 / H/W.
Various topics in French or Francophone literature or culture. May be taken more than once, total credit not to exceed nine hours. Minimum of six hours of FREN 499 required for B.A. with Honors in French. Student must discuss Honors eligibility and their topic with a faculty member before enrolling. IND.

FREN 500. Advanced French Phonetics. 3 Hours. GE3S / H/W.
Advanced theory and practice of French pronunciation. Not open to students who have taken FREN 310, except by departmental permission. Prerequisite: FREN 300 or FREN 326 or graduate standing. LEC.

FREN 530. Studies in Film: ___. 3 Hours. AE42/AE61 / H/W.
Studies in an aspect of film, a director or group of directors. Emphasis on French film. Given in French or English. LEC.

FREN 592. French Culture Through Film I, Beginnings to 1950. 3 Hours. AE42/AE61 / H/W.
A survey of the major public images of French culture as surveyed in French silent and sound film from the early 1900s through World War II and its immediate aftermath. Students will view and discuss a selection of films that address crucial aspects of French culture such as (but not limited to) gender, war and peace, daily life, art and artists, tradition and revolution, city life versus country life, social classes, moral choice, and individual freedoms. The course will include discussion of the cultural and artistic significance of major French film movements like Poetic Realism. In addition to viewing and discussing films, students will read and analyze the writings of a number of French intellectuals, writers, and artists who have had a major influence on French culture as it appears in films from 1900-1950. May be taught in French or English. For students who already have some knowledge of French culture. LEC.

FREN 593. French Culture Through Film II, 1950-Present. 3 Hours. AE42/AE61 / H/W.
A survey of the major public images of French culture as surveyed in French silent and sound film from 1950 to present. Students will view and discuss a selection of films that address crucial aspects of French culture such as (but not limited to) gender, war and peace, daily life, art and artists, tradition and revolution, city life versus country life, colonialism and post-colonialism, social classes, moral choice, and individual freedoms. The course will include discussion of the cultural and artistic significance of major French film movements like the New Wave. In addition to viewing and discussing films, students will read and analyze the writings of a number of French intellectuals, writers, and artists who have had a major influence on French culture as it appears in films from 1950-present. May be taught in French or English. For students who already have some knowledge of French culture. LEC.

FREN 600. Studies in: ___. 3 Hours. H/W.
Topics vary by semester. May be repeated for credit. Prerequisite: Departmental permission. LEC.

FREN 610. Theme et Version. 3 Hours. H/W.
Exercises in English-French and French-English translation, designed to enable the student to write with greater clarity and precision in both languages. LEC.
FREN 620. Expository French Writing. 3 Hours. H/W.
Intensive practice in writing French, designed to clarify fine points of grammar and usage and to aid the student in developing an accurate and graceful prose style. LEC.

FREN 680. Language Teaching and Advanced Conversation. 2-3 Hours. U.
A summer course designed principally for secondary school language teachers. Discussion of current theory in language acquisition integrated into an intensive oral review of French. Meets three hours daily for two weeks; includes lab. (Not applicable toward a major or graduate degree in French.) LEC.

FREN 681. Language Teaching for Oral Proficiency. 1 Hour. U.
A summer course designed principally for secondary school language teachers. Provides an orientation to proficiency-based models in foreign language instruction, national standards in the rating of foreign language proficiency, and curriculum development sessions which address issues of articulation in foreign language curricula. (Not applicable toward a major or graduate degree in French.) (Same as GERM 681 and SPAN 681.) LEC.

FREN 700. Old French. 3 Hours.
Introduction to grammar and structure through the reading of representative works. LEC.

FREN 701. History of the French Language. 3 Hours.
Major aspects of development and growth. Conducted in English. LEC.

FREN 702. Provençal. 3 Hours.
Introduction to grammar and structure of the language through a reading of representative works from the Troubadour period. LEC.

FREN 703. Structure of Modern French. 3 Hours.
Linguistic analysis of the phonological, morphological, and syntactic structure of modern French. Description in terms of current theories and models. Application of linguistic analyses to the teaching of French. LEC.

FREN 704. Methods in French Language Instruction. 3 Hours.
This course provides an overview of current and historical approaches to foreign language teaching, with reference to the instruction of French. Past and current trends and methodologies of language instruction are examined in order to acquaint students with various classroom approaches. Research findings in second language acquisition are explored and their implications discussed so as to show how these findings lead to more effective classroom practices. LEC.

FREN 720. Introduction to Graduate Studies in French. 3 Hours.
This course is an introduction to the skills required of students doing graduate degrees in French; areas covered include 1) introduction to literary theory and criticism, 2) bibliography and research methods, including database management software, 3) preparation and presentations of a research/conference paper, 4) technology training, including web design, on-line portfolio, and digital humanities, and 5) professional ethics and awareness of the academic market and alternative careers. LEC.

FREN 730. Introduction to French Poetry. 3 Hours.
A detailed introduction to versification, rhetoric, image and symbol as they apply to the study of poetry. Texts will be chosen from one or more periods of French literature and will include poems in verse and prose. Considerations and readings on the history of French poetry, on the composition of recueils, on poetic theory, and on the relation of poetry to other genres and media may be incorporated. LEC.

FREN 732. Francophone Studies. 3 Hours.
Selected movements, themes, genres, topics in the cultures and/or literatures of the French-speaking world outside France. May be repeated for credit. LEC.

FREN 740. Medieval French Literature. 3 Hours.
Literary history of the period, with discussion of representative works read for the most part in the original old French. LEC.

FREN 750. French Literature of the Sixteenth Century. 3 Hours.
A survey of the major writers, covering Rabelais, Sceve, Louise Labé, Marguerite de Navarre, Ronsard, Du Bellay, Montaigne, and d'Aubigné. LEC.

FREN 763. French Drama of the Seventeenth Century. 3 Hours.
Development of baroque and classical French drama, with emphasis on Corneille, Molière, and Racine. LEC.

FREN 765. Nondramatic French Literature of the Seventeenth Century. 3 Hours.
Esthetics of baroque and classicism. Emphasis on Descartes, Pascal, La Rochefoucauld, Mme de Lafayette, although other authors may be studied. LEC.

FREN 770. French Literature of the Eighteenth Century. 3 Hours.
Special attention paid to Montesquieu, Voltaire, Diderot, and Rousseau; also development of novel and drama. LEC.

FREN 782. French Novel of the 19th Century. 3 Hours.
Emphasis on major novelists of the century: Balzac, Stendhal, Flaubert, and Zola. LEC.

FREN 785. French Romantic Movement. 3 Hours.
Major Romantic writers viewed in context of intellectual, esthetic, and social milieu of period 1800-1850. LEC.

FREN 795. French Post-Romanticism. 3 Hours.
Literary movements developing out of reaction to Romanticism: Realism, Naturalism, Parnassianism. LEC.

FREN 799. Masters Seminar. 1 Hour.
To meet Masters degree requirement for continual enrollment. This course will be graded satisfactory/unsatisfactory. FLD.

FREN 800. Studies in: ____. 3 Hours.
Study of topics not limited to one century. May be repeated for credit. LEC.

Selected topics to be specified. Study of form, movements, or themes in the French Novel, not limited to one century. May be repeated for credit. LEC.
FREN 814. Studies in the French Short Story: ____. 3 Hours. Selected topics to be specified. Study of form and theory of the French short story, not limited to one century. LEC.

FREN 842. Arthurian Literature in France. 3 Hours. Origins and development of Arthurian legend; analysis of major texts. Prerequisite: FREN 700. LEC.

FREN 848. Studies in Medieval French Literature: ____. 3 Hours. Various movements, themes, or genres. May be repeated for credit. Prerequisite: FREN 700. LEC.

FREN 850. Early Renaissance Literature. 3 Hours. Emphasis on Rabelais, Marguerite de Navarre, Marot, Maurice Sceve and Louise Labé. LEC.

FREN 858. Studies in Sixteenth Century French Literature: ____. 3 Hours. Various movements, themes, or genres. May be repeated for credit. LEC.

FREN 868. Studies in Seventeenth Century French Literature: ____. 3 Hours. Various movements, themes, or genres. May be repeated for credit. LEC.

FREN 871. Literature of the Enlightenment in France. 3 Hours. Philosophical thought in 18th century as reflected in literature. Emphasis on philosophies, with discussion of external influences. LEC.

FREN 872. Novel of the Eighteenth Century in France. 3 Hours. Origins and development to Revolution; thematic analysis with attention to critical attitudes and their influence upon evolution of novel as genre. LEC.

FREN 878. Studies in Eighteenth Century French Literature: ____. 3 Hours. Various movements, themes, or genres. May be repeated for credit. LEC.

FREN 887. Symbolist Movement in France. 3 Hours. Works of major symbolist poets, including Baudelaire, Verlaine, Rimbaud, Mallarme, and Valery. LEC.

FREN 888. Studies in Nineteenth Century French Literature: ____. 3 Hours. Various movements, themes, or genres. May be repeated for credit. LEC.

FREN 897. New Directions in the French Novel. 3 Hours. Samuel Beckett to the nouveau roman. LEC.

FREN 898. Studies in Twentieth Century French Literature: ____. 3 Hours. Various movements, themes, or genres. May be repeated for credit. LEC.

FREN 899. M.A. Thesis. 1-6 Hours. THE.

FREN 900. Seminar in French: ____. 3 Hours. Topics in literary, linguistic, and cultural research. May be repeated for credit. LEC.

FREN 955. Investigation and Conference. 1-3 Hours. Readings and research projects in French language, literature, and culture for PhD students. Directed work to fulfill needs not met by available courses. One-three hours credit in any semester. Prerequisite: By Special Departmental Permission only. RSH.

FREN 999. Ph.D. Dissertation. 1-12 Hours. THE.

ITAL 100. Italian for Reading Knowledge. 3 Hours. U. Special course for candidates for advanced degrees. Fundamentals of grammar and reading of material of medium difficulty. Open to graduate students and to seniors planning graduate study. Does not satisfy any part of the undergraduate language requirement. Presupposes no previous study of Italian. Conducted in English. LEC.

ITAL 103. Elementary Italian Language and Civilization. 3 Hours. H. A systematic review of the fundamentals of Italian grammar through practice in conversation and writing, with an introduction to Italian culture. Available only to participants in study abroad programs. This course does not satisfy the College of Liberal Arts and Sciences foreign language requirement. No prerequisite. LEC.

ITAL 107. Elementary Italian Conversation I. 3 Hours. U. First part of a two-course sequence (with 108) for students with no previous study of a foreign language and minimal linguistic background as well as for students in professional schools who plan to participate in study abroad programs in Italy. Offers knowledge of essential grammar and basic oral communication skills through practice in grammar, listening comprehension, and conversation. Active participation required. Completion of both ITAL 107 and ITAL 108 is equivalent to ITAL 110 and allows students to enroll in ITAL 120. Prerequisite: ITAL 107 or Italian Coordinator’s approval. LEC.

ITAL 108. Elementary Italian Conversation II. 3 Hours. U. A continuation of ITAL 107, second part of a two-course sequence for students with no previous study of a foreign language and minimal linguistic background as well as for students in professional schools who plan to participate in study abroad programs in Italy. Offers knowledge of essential grammar and basic oral communication skills through practice in grammar, listening comprehension, and conversation. Active participation required. Completion of both ITAL 107 and ITAL 108 is equivalent to ITAL 110 and allows students to enroll in ITAL 120. Prerequisite: ITAL 107 or Italian Coordinator’s approval. LEC.

ITAL 110. Elementary Italian I. 5 Hours. U. Introduction to Italian language and culture. Essentials of grammar and practice in speaking, understanding, reading, and writing. Active participation required. Five hours of class per week. LEC.

ITAL 120. Elementary Italian II. 5 Hours. U. Five hours of class. Reading of simple texts; diction; speaking; elementary composition. Prerequisite: ITAL 110. LEC.

ITAL 152. Studies in Italian Heritage. 3 Hours. AE41/GE11 / H. A comprehensive, interdisciplinary survey of the ways in which the historical culture of Italy can be found in Lawrence, KS. Emphasis is on politics, sciences, philosophy, media, and immigration. Uses materials from various KU collections. Taught in English. Does not fulfill any requirement in the Italian major or minor. LEC.

ITAL 155. Intensive Basic Italian I. 3 Hours. U. First part of a two-course sequence (with ITAL 156) for students with previous language study or strong linguistic background. Same content as ITAL 110 but accomplished in three hours of class per week. Active participation required. Prerequisite: Previous study of another language or permission of instructor. LEC.

ITAL 156. Intensive Basic Italian II. 3 Hours. U. A continuation of ITAL 155, second part of a two-course sequence for students with previous language study or strong linguistic background. Same content as ITAL 120 but accomplished in three hours of class per week. Active participation required. Prerequisite: ITAL 155 or permission of instructor. LEC.

ITAL 177. First Year Seminar: ____. 3 Hours. GE11 / U. A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Italian. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.
ITAL 203. Intermediate Italian Language and Civilization. 3 Hours. H.
A systematic review of Italian grammar through practice in conversation and composition, with an introduction to Italian culture. Available only to participants in study abroad programs. This course does not satisfy the College of Liberal Arts and Sciences foreign language requirement. Prerequisite: ITAL 120. LEC.

ITAL 230. Intermediate Italian I. 3 Hours. U.
Review and expansion of grammatical structures introduced in Elementary Italian I and II, with continued practice in speaking, understanding, reading, and writing, coordinated with the study of cultural texts. Active participation required. Prerequisite: ITAL 120 or ITAL 156. LEC.

ITAL 240. Intermediate Italian II. 3 Hours. U.
Continuation of ITAL 230. (ITAL 240 completes foreign language requirement.) Review and expansion of grammatical structures introduced in Elementary Italian I and II, with continued practice in speaking, understanding, reading, and writing, coordinated with the study of cultural texts. Active participation required. Prerequisite: ITAL 230. LEC.

ITAL 300. Composition and Conversation. 3 Hours. H/W.
Study of advanced grammatical structures with extensive practice in writing and conversation. Guided discussions on a variety of contemporary Italian literary, journalistic, and cinematic works. Active participation required. Prerequisite: ITAL 240 or permission of instructor. LEC.

ITAL 301. Introduction to Italian Literature I. 3 Hours. AE42/GE3S / H/W.
Representative works and trends from origins to Renaissance. Prerequisite: ITAL 240 or reading knowledge of Italian. LEC.

ITAL 302. Introduction to Italian Literature II. 3 Hours. AE42/GE3S / H/W.
Representative works and trends from 17th century to present. Prerequisite: ITAL 240 or reading knowledge of Italian. LEC.

ITAL 303. Italian Language and Civilization I. 3 Hours. U.
An advanced study of Italian grammar, conversation, composition, with selected aspects of Italian civilization. Available only to participants in the KU summer language institute or semester abroad program in Florence or Rome. Prerequisite: ITAL 240. LEC.

ITAL 304. Italian Language and Civilization II. 3 Hours. U.
An advanced study of Italian grammar, conversation, composition, with selected aspects of Italian civilization. Available only to participants in the KU summer language institute or semester abroad program in Florence or Rome. Prerequisite: ITAL 303. LEC.

ITAL 315. Advanced Composition and Conversation. 3 Hours. H/W.
Continuation of ITAL 300. Study of advanced grammatical structures with extensive practice in writing and conversation. Guided discussions on a variety of contemporary Italian literary, journalistic, and cinematic works. Active participation required. Prerequisite: ITAL 300 or permission of instructor. LEC.

ITAL 335. Italy and the Italians I. 3 Hours. HL AE42/GE3H / H.
Survey of Italian culture with study of geography, history, government, education, Roman archaeology, and music. Lecture, discussion, and supportive readings. Not open to native speakers of Italian. LEC.

ITAL 336. Italy and the Italians II. 3 Hours. GE11/GE3H/GE3S / H.
Survey of Italian culture with study of art and architecture, literary masterpieces in translation, science, culinary arts, and cinema. Lecture, discussion, and supportive readings. Not open to native speakers of Italian. LEC.

ITAL 340. Studies in Italian Culture: ____. 3 Hours. AE42 / H.
A study of particular aspects of and/or periods in Italian culture. May be repeated for credit with departmental permission. Prerequisite: ITAL 240 or permission of instructor. LEC.

ITAL 405. Italian Literature in Translation: ____. 3 Hours. AE42/GE3S / H/W.
Major works representing various movements, themes, or genres. May be repeated with departmental permission. All work done in English. LEC.

ITAL 410. 19th and 20th Century Short Stories. 3 Hours. AE42 / H/W.
A survey of representative short stories of the 19th and 20th Centuries, including Verga, Panzini, Pirandello, Guareschi, Moravia, Calvino, Landolfi, and Bigiaretti. Prerequisite: ITAL 240 or reading knowledge of Italian or permission of instructor. LEC.

ITAL 420. 19th and 20th Century Poetry. 3 Hours. AE42 / H/W.
A survey of 19th and 20th century poets and their works, including Leopardi, Pascoli, d’Annunzio, Govoni, Palazzeschi, Gozzano, Marinetti, Bocchioni, Ungaretti, Montale, Quasimodo, and Pasolini. Prerequisite: ITAL 240 or reading knowledge of Italian or permission of instructor. LEC.

ITAL 430. Dante’s Masterpiece. 3 Hours. AE61 / H/W.
Detailed study of Dante’s epic poem with a close reading of the Inferno. Prerequisite: ITAL 300 or demonstrated knowledge of Italian. LEC.

ITAL 440. Italian Renaissance and Early Modern Literature. 3 Hours. H/W.
Detailed study of selected masterpieces of the Italian Renaissance from the 13th to the 18th centuries. Prerequisite: ITAL 300 or demonstrated knowledge of Italian. LEC.

ITAL 465. 19th and 20th Century Novels I. 3 Hours. AE42/GE3S / H/W.
With Italian 466, a survey of representative 19th and 20th century novels including those of Manzoni, Pirandello, Svevo, Deledda, Vittorini, Moravia, Pavese, Pratolini, Buzzati, Ginzburg, and Calvino. Prerequisite: ITAL 240 or reading knowledge of Italian or permission of instructor. LEC.

ITAL 466. 19th and 20th Century Novels II. 3 Hours. AE42/GE3S / H/W.
See ITAL 465. Prerequisite: ITAL 240 or reading knowledge of Italian or permission of instructor. LEC.

ITAL 480. Studies in Italian Literature: ____. 3 Hours.
A study of a period, theme, group of authors, or cultural movement. Subject matter will vary; may be taken more than once if subject differs. Prerequisite: ITAL 300 or demonstrated knowledge of Italian. LEC.

ITAL 495. Directed Readings in Italian. 1-3 Hours. AE42 / U.
May be taken more than once, total credit not to exceed nine hours. Various fields of Italian literature. Prerequisite: Consent of instructor, given only to those having demonstrated ease in reading Italian. IND.

ITAL 499. Honors in Italian. 3 Hours. AE61 / H.
Various topics in Italian literature or culture. Minimum of three hours of Italian 499 required for a B.A. with Honors in the Italian option of the French degree. Students must discuss Honors eligibility and their topic with a faculty member before enrolling. Honors paper must be written in Italian. LEC.

ITAL 502. Dante’s Divine Comedy I. 3 Hours. AE61 / H/W.
Detailed study of Dante’s masterpiece. Attention will also be given to such matters as the development of the Italian language at Dante’s period and the relation of the Comedy to Dante’s other works. Prerequisite: Reading knowledge of Italian. LEC.

ITAL 503. Dante’s Divine Comedy II. 3 Hours. AE61 / H/W.
Continuation of ITAL 502. Prerequisite: Completion of ITAL 502. LEC.
ITAL 695. Graduate Directed Readings in Italian. 1-3 Hours. U.
May be taken more than once, total credit not to exceed nine hours.
Directed readings, conferences with instructor. Prerequisite: ITAL 495 or consent of instructor. IND.

Geography Courses

ATMO 105. Introductory Meteorology. 5 Hours. NE GE3N / N.
A lecture and laboratory course introducing students to the atmosphere, weather and climate phenomena, and their controlling physical processes. Topics covered include: the structure of the atmosphere, energy and energy budgets, climate and climate change, air pollution, clouds and precipitation, pressure and wind systems, severe weather, and weather forecasting. LEC.

ATMO 106. Introductory Meteorology, Honors. 5 Hours. NE GE3N / N.
Honors version of ATMO 105. A lecture and laboratory course introducing students to the atmosphere, weather and climate phenomena, and their controlling physical processes. Topics covered include: the structure of the atmosphere, energy and energy budgets, climate and climate change, air pollution, clouds and precipitation, pressure and wind systems, severe weather, and weather forecasting. Prerequisite: Membership in University Honors Program or by permission of instructor. LEC.

ATMO 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Atmospheric Science. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

ATMO 220. Unusual Weather. 3 Hours. NE GE11/GE3N / N.
An introductory lecture course which surveys the general principles and techniques of atmospheric science and illustrates their application through discussions of natural but unusual weather phenomena such as blizzards, hurricanes, tornados, and chinooks, of the effects of air pollution on weather, and of intentional human alteration of the atmosphere. LEC.

ATMO 310. Aviation Meteorology. 3 Hours. N.
This course introduces students to meteorological events that affect aircraft operations. Aviation applications of meteorological observations including satellite and radar observations are discussed. Students learn about graphical displays of meteorological information. Numerical forecasting models and how their output is applied for aviation is also considered. Forecasting of weather events of particular interest to aviation such as ceiling, visibility, icing and turbulence is emphasized. Prerequisite: ATMO 105 or AE 245 or equivalent. LEC.

ATMO 321. Climate and Climate Change. 3 Hours. N.
This course is designed to introduce students to the nature of the Earth's physical climate. It introduces the basic scientific concepts underlying our understanding of our climate system. Particular emphasis is placed on energy and water balances and their roles in evaluating climate change. The course also evaluates the impact of climate on living organisms and the human environment. Finally, past climates are discussed and potential future climate change and its impact on humans is evaluated. (Same as GEOG 321.) Prerequisite: ATMO 105 or GEOG 104. LEC.

ATMO 499. Honors Course in Atmospheric Science. 2-3 Hours. AE61 / N.
Open to students with nine hours of upper level credit in Atmospheric Science, an average of at least 3.5 in all Atmospheric Science courses, and an overall average of at least 3.25. Includes the preparation of an honors paper and its defense before a committee of a least two regular faculty members. LEC.

ATMO 505. Weather Forecasting. 3 Hours. N.
A first course in synoptic meteorology designed to introduce students to weather analysis and forecasting through the application of hydrodynamic and thermodynamic principles to operational analysis and forecasting. Topics include analysis and interpretation of surface and upper-air observations and data from satellites, radars, and wind profilers; chart and sounding analysis; and three-dimensional, conceptual models of weather systems. The course includes student-led weather briefings and analysis exercises. Prerequisite: ATMO 105 and MATH 121 or MATH 115. LEC.

ATMO 506. Forecasting Models and Methods. 3 Hours. N.
Introduction to basic numerical weather prediction methods. Computer programs are used to apply numerical methods to weather data and to evaluate dynamical processes on numerical grids. Meteorological graphics packages are used to analyze current weather data and numerical model output. Current operational numerical models and output products are discussed. Prerequisite: ATMO 505, MATH 122, and EECS 138 or EECS 168. LEC.

ATMO 515. Energy and Water Balance. 3 Hours. N.
A study of the distribution and circulation of water in the air-earth system as influenced by atmospheric processes and surface conditions. The solar and terrestrial radiation budget and the water balance at the earth's surface will be applied to agricultural and urban energy and water problems. Prerequisite: ATMO 105 or EECS 138. LEC.

ATMO 521. Microclimatology. 3 Hours. N.
A study of climatic environment near the earth-atmosphere interface. Consideration of rural climates in relation to agriculture and urban climates as influenced by air pollution and other factors. Emphasis is on physical processes in the lower atmosphere, distribution of atmospheric variables, the surface energy budget and water balance. (Same as GEOG 521.) Prerequisite: ATMO 105 and MATH 106 or MATH 121. LEC.

ATMO 525. Air Pollution Meteorology. 3 Hours. N.
A study of background levels and concentrated sources of atmospheric pollution together with considerations of pollution buildup in urban areas as related to particular weather conditions. Inadvertent weather modifications and effects of atmospheric pollution on particular weather events and general climate will be discussed. Prerequisite: ATMO 105, MATH 121, and EECS 138. LEC.

ATMO 531. Topics in Atmospheric Science: ____. 1-3 Hours. N.
An investigation of special topics in atmospheric science. May include topics in dynamic, physical or synoptic meteorology or climatology as well as related topics in earth and physical sciences. May be repeated if topic differs. LEC.

ATMO 605. Operational Forecasting. 2 Hours. N.
Students enhance their forecasting expertise by preparing forecasts for presentation to the public through a variety of media. Classroom activities include weekly map discussions and analysis of current weather situations. Forecasting topics such as forecast verification, aviation forecast products, severe weather, flash floods and watches and warnings are examined. Credit for ATMO 605, ATMO 606, and ATMO 607 is limited to a total of eight hours, six of which may be counted toward a degree in atmospheric science. Prerequisite: ATMO 505. FLD.

ATMO 606. Forecasting Practicum - Private Industry. 2 Hours. AE61 / N.
Practical experience in private industry working with current and/or archived meteorological data. Possibilities include the preparation of forecasts for TV stations and meteorological consulting firms, and working with environmental consulting firms to assess air pollution hazards. May be repeated two times for credit. Credit for ATMO 605, ATMO 606, and
ATMO 670. Forecasting Intern • National Weather Service. 2 Hours. AE52/AE61 / N.
Practical experience working in a National Weather Service forecasting center in analyzing weather data and preparing weather forecasts. May be repeated two times for credit. Credit for ATMO 605, ATMO 606, and ATMO 607 is limited to a total of eight hours, six of which may be counted toward a degree in atmospheric science. Prerequisite: ATMO 605. FLD.

ATMO 630. Synoptic Meteorology. 3 Hours. N.
Interpretation, development, and analysis of synoptic charts. Prerequisite: ATMO 505 and ATMO 640. LEC.

ATMO 634. Physical Climatology. 3 Hours. N.
Atmospheric processes are described and discussed in relation to the climate of the earth's surface. Such topics as the greenhouse effect, ozone depletion, and the effect of solar irradiance on climatic change will be included. The physical processes and relationships between various climatic features will be studied. Prerequisite: ATMO 505 and DSCI 301 or MATH 526. LEC.

ATMO 640. Dynamic Meteorology. 3 Hours. N.
This course introduces the student to the fundamentals of fluid dynamics necessary for understanding large scale atmospheric motions. Fundamental physical laws of conservation of mass, momentum and energy are examined and applied to atmospheric flows. Rotation in the atmosphere is examined quantitatively in terms of both circulation and vorticity. Prerequisite: MATH 223 and PHSX 214 or PHSX 212 and PHSX 236. LEC.

ATMO 642. Remote Sensing. 3 Hours.
This course is designed to prepare students to effectively use remotely sensed data in operational or research settings for further work in this field. Topics include radiation and radiation transfer applied to active and remote sensing; radiative properties of space, sun, earth and atmosphere; instrument design considerations and operational characteristics; inversion methods for temperature or concentration profiling; surface temperature measurement; cloud top height determination; rain rate and wind velocity measurement; severe weather detection; satellite photograph interpretation. Prerequisite: ATMO 680, MATH 581. LEC.

ATMO 650. Advanced Synoptic Meteorology. 3 Hours. N.
Analysis and interpretation of synoptic weather charts including treatment of numerical weather forecasting. Prerequisite: ATMO 630 and ATMO 660. LEC.

ATMO 660. Advanced Dynamic Meteorology. 3 Hours. N.
Advanced study of the atmosphere including treatment of the vorticity equation. Prerequisite: ATMO 640 and MATH 220 or MATH 320. LEC.

ATMO 680. Physical Meteorology. 3 Hours. N.
This course is designed to enhance the student's understanding of atmospheric processes through the study of these processes at molecular through micro scales. Topics include the properties and behavior of gases; transfer processes; phase change; solar and earth radiation; cloud drop, ice crystal and precipitation formation; atmospheric electricity; stratospheric chemistry. Prerequisite: MATH 223; PHSX 214, or PHSX 212 and PHSX 236. LEC.

ATMO 690. Special Problems in Meteorology. 1-3 Hours. N.
Prerequisite: Nine hours in meteorology. IND.

ATMO 697. Seminar for Seniors. 1 Hour. AE61 / N.
Current research in atmospheric science will be discussed. May be repeated for a total of two credit hours. Prerequisite: Senior level in atmospheric science. LEC.

ATMO 699. Undergraduate Research. 2 Hours. AE61 / U.
Work on a research project under the supervision of AE61. Prerequisite: Nine credit hours in atmospheric science. May be taken up to three times for credit. IND.

ATMO 710. Atmospheric Dynamics. 3 Hours.
Presentation of contemporary approaches to the study of atmospheric dynamics. May include methodologies that provide insight into global, synoptic, mesoscale or microscale motions. Prerequisite: ATMO 660 or equivalent. LEC.

ATMO 720. Atmospheric Modeling. 3 Hours.
Illustration and application of contemporary approaches to mathematical and statistical description of atmospheric phenomena. Prerequisite: MATH 122, ATMO 640, ATMO 680, and a course in statistics, or consent of instructor. LEC.

ATMO 727. Atmospheric Storms. 3 Hours.
The physical processes and operating principles involved in the development and life cycles of extreme or unusual weather events including tornadoes, blizzards, lightning displays, and tropical storms. Prerequisite: EECS 138, MATH 121, and ATMO 320. LEC.

ATMO 731. Advanced Topics in Atmospheric Science: _____ 1-3 Hours.
Advanced investigation of special topics in atmospheric science. May include topics in dynamic, physical or synoptic meteorology or climatology as well as related topics in earth and physical sciences. May be repeated if topic differs. LEC.

ATMO 750. Numerical Weather Prediction. 3 Hours.
An exploration of the mathematical methods used to describe the current state of the atmosphere and to predict future states. Current operational numerical weather prediction techniques will be included. Prerequisite: ATMO 660. LEC.

ATMO 825. Seminar in Climatology. 2-3 Hours.
LEC.

ATMO 827. Seminar in Atmospheric Science. 1-3 Hours.
LEC.

ATMO 899. Master's Thesis. 1-10 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

GEOG 100. World Regional Geography. 3 Hours. SC AE42 / S.
An introductory survey of the environmental setting, historically formative periods, and present-day issues that distinguish the major culture areas of the world. LEC.

GEOG 101. World Regional Geography, Honors. 3 Hours. SC AE42 / S.
An introductory survey of the environmental setting, historically formative periods, and present-day issues that distinguish the major culture areas of the world. Open only to students in the College Honors Program, or by consent of instructor. LEC.

GEOG 102. Principles of Human Geography. 3 Hours. SC AE42/ GE33 / S.
An examination of the relationships between humans and their environments. The course introduces students to basic concepts in human geography relating to economic activities, landscapes, languages, migrations, nations, regions, and religions. Serves as the basis for further course work in cultural, economic, political, population, and urban geography. LEC.
GEOG 103. Principles of Human Geography, Honors. 3 Hours. SC AE42/GE3S / S.
An introduction to how human societies organize space and modify the world about them. Resultant patterns on the landscape are interpreted through principles of space perception, cultural ecology, diffusion, land use, and location theory. Comparisons are made between urban and rural areas and between subsistence and commercial societies. Open to students who have been admitted to the College Honors Program. LEC.

GEOG 104. Principles of Physical Geography. 3 Hours. NE GE3N / N.
The components of the physical environment are discussed in order to familiarize the student with their distributions and dynamic nature. Major topics include the atmosphere, landforms, soils, and vegetation together with their interrelationships and their relevance to human activity. This course and GEOG 105 together satisfy the laboratory science requirement. Both courses are required for geography majors. LEC.

GEOG 105. Introductory Laboratory in Physical Geography. 2 Hours. U.
A laboratory course designed to complement GEOG 104 in satisfying the laboratory science requirement. It is required for geography majors. Laboratory exercises include a wide variety of analyses using data on the atmosphere, hydrosphere, biosphere, and lithosphere. Prerequisite: GEOG 104, which may be taken concurrently. LAB.

GEOG 107. Principles of Physical Geography, Honors. 3 Hours. NE GE3N / N.
Interactive processes among the systems of the earth are studied and discussed. Major topics include vegetation, soils, landforms, water, the atmosphere, and cycles of matter between these portions of the earth. The course includes lectures and critical discussions to address study problems in physical geography. Open only to students in the University Honors Program or by consent of the instructor. LEC.

GEOG 111. Maps and Mapping. 4 Hours. H.
How do people find their way from here to there or just around? Simple--they use maps. Maybe not maps on pieces of paper but maps in their heads: mental maps. Different people have different maps, even of the same place. Mapping is an ancient form of communication and maps have created ideas and opinions, promoted understanding and confusion. A non-technical approach to the transformation of space onto maps, to their content and structure, and their role and impact in human activity, past and present. Neither background in geography nor artistic skills are required. LEC.

GEOG 140. Global Environment I: The Discovery of Environmental Change. 5 Hours. GE3S / U.
This interdisciplinary course and laboratory sections survey the foundations of environmental understanding and the process of scientific discovery from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the history of environmental systems and life on earth, the discovery of biotic evolution, ecological change, and climate change. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to earth systems and the development of environmental understanding using historical and present-day examples. (Same as EVRN 140 and HIST 140.) LEC.

GEOG 144. Global Environment I: The Discovery of Environmental Change, Honors. 5 Hours. U.
This interdisciplinary course surveys the foundations of environmental understanding and the process of scientific discovery from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the history of environmental systems and life on earth, the discovery of biotic evolution, ecological change, and climate change. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to earth systems and the development of environmental understanding using historical and present-day examples. (Same as EVRN 144 and HIST 144.) Open only to students admitted to the University Honors Program or by permission of instructor. LEC.

GEOG 145. Global Environment II: The Ecology of Human Civilization, Honors. 5 Hours. U.
This interdisciplinary course and its laboratory sections survey the history of humanity’s relationship with the natural world over the long term from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the evolution of Homo sapiens and cultural systems; the development of hunter, gatherer, fisher, agricultural, and pastoral lifeways; the ecology of colonialism and industrial civilization, and the emergence of ideological and ethical perspectives on the relationship between nature and culture. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to the humanity’s engagement with the global environment using historical and present-day examples. (Same as EVRN 145 and HIST 145.) Open only to students admitted to the University Honors Program or by permission of instructor. LEC.

GEOG 148. Scientific Principles of Environmental Studies. 3 Hours. NB / N.
This course presents an overview of our understanding of environmental processes and issues. Topics include scientific principles, resource issues, pollution and global change, among others. This course gives students a rigorous understanding of interactions between humans and their environment and provides students with a scientific basis for making informed environmental decisions. (Same as EVRN 148.) LEC.

GEOG 149. Scientific Principles of Environmental Studies, Honors. 3 Hours. NB / N.
This course presents an overview of our understanding of environmental processes and issues. Topics include scientific principles, resource issues, pollution and global change, among others. This course gives students a rigorous understanding of interactions between humans and their environment and provides students with a scientific basis for making informed environmental decisions. An honors section of GEOG 148 designed for superior students. (Same as EVRN 149.) Prerequisite: Membership in the University Honors Program or approval of instructor required. LEC.

GEOG 150. Environment, Culture and Society. 3 Hours. SC / S.
An introduction to geographic approaches to the study of the environment, emphasizing societal and cultural factors that influence human interaction with the biosphere, hydrosphere, lithosphere, and atmosphere. The course involves analysis of a broad range of contemporary environmental issues from the local to global scales. (Same as EVRN 150.) LEC.
GEOG 177. Frist Year Seminar: _____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Geography. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

GEOG 210. Computers, Maps, and Geographical Analysis. 3 Hours. N.
This course will introduce students to a number of different methods for the visualization, representation, and analysis of geographical phenomena. Both field and computer-based techniques will be employed to demonstrate the concept of experimental design and the collection, processing, and analysis of geographical data. Topics include: 1) the unique nature of geographic data; 2) mapping techniques and technologies; 3) geographical information systems; 4) remote sensing (aerial photography and satellite imagery); and 5) methods of geographical analysis (e.g., statistic and spatial modeling). LEC.

GEOG 304. Environmental Conservation. 3 Hours. NE GE3N / N.
A survey of current methods of describing and modeling the function, structure, and productivity of natural and anthropogenically modified earth resource systems, along with a discussion of contemporary views of what constitutes a natural landscape. Fundamental natural science principles about the interplay among lithospheric, atmospheric, hydroospheric, and biospheric components of earth systems are emphasized. Uses of natural resources, including fossil fuels, minerals, and water are described with attention to the earth's total energy budget. Human activities that affect preservation, conservation, and multiple uses of earth regions receive attention. Systems under stress through population and other contemporary forces serve as examples. (Same as EVRN 304.) LEC.

GEOG 311. Map Conception and Development. 4 Hours. N.
An examination of the map process with emphasis on two areas: 1) the mental map formed during interaction with the environment and 2) the map as a physical object which emerges from mapping activity. A local area will serve as the laboratory/environment for the mapping activity including production and use. LEC.

GEOG 316. Methods of Analyzing Geographical Data. 4 Hours. N.
Introduces the benefits and limitations of using quantitative methods to analyze geographical problems. Covers traditional descriptive (e.g., measures of central tendency) and inferential statistics (e.g., hypothesis testing) but also inherently geographical approaches such as shape and point pattern analysis, and spatial autocorrelation. Laboratory emphasizes using the computer to explore and analyze geographical problems. LEC.

GEOG 319. Topics in Techniques: _____. 1-3 Hours. N.
An investigation of special topics in Techniques. May include coursework in cartography, GIS, or remote sensing. May be repeated if topic differs. LEC.

GEOG 321. Climate and Climate Change. 3 Hours. N.
This course is designed to introduce students to the nature of the Earth's physical climate. It introduces the basic scientific concepts underlying our understanding of our climate system. Particular emphasis is placed on energy and water balances and their roles in evaluating climate change. The course also evaluates the impact of climate on living organisms and the human environment. Finally, past climates are discussed and potential future climate change and its impact on humans is evaluated. (Same as ATMO 321.) Prerequisite: ATMO 105 or GEOG 104. LEC.

GEOG 331. Regional Geomorphology of the United States. 3 Hours. N.
This course examines forces and processes affecting the earth’s surface, and furthermore identifies and describes the physiographic regions that are the result of these processes. Special efforts are made to explore various photographic resources, satellite imagery, and internet sources or geomorphic data from a regional perspective since there is no wholly satisfactory text available for the course. A research paper is required. Prerequisite: An introductory earth science course or consent of instructor. LEC.

GEOG 332. Glaciers and Landscape. 3 Hours. N.
Elements from glaciology, geology, and climatology are merged to examine the interactions between glaciers and their natural environments, including the processes involved in glacier formation, the relationship between glaciers and climate, the mechanisms of glacier flow, and interpretation of the Earth's glacial record. Emphasis is placed on an interdisciplinary approach to study environmental change and paleoclimate reconstruction. Prerequisite: GEOG 104 or GEOL 101, or consent of instructor. LEC.

GEOG 335. Introduction to Soil Geography. 4 Hours. N.
This course focuses on the properties and processes of soils as they occur in their environment. The student is introduced to the nature of soil as it functions as a body: genesis of soils; properties of soil solids, especially colloids; soil chemical composition, properties, and reactions; interaction between solid, liquid, and gaseous components in soils; plant-soil-water relationships; biological interactions with soil; classification of soils; and the distribution of soils on the landscape. Not open to students who have taken EVRN 535 or GEOG 535. (Same as EVRN 335.) Prerequisite: GEOG 104 or GEOG 101 or consent of instructor; BIOL 100 and CHEM 130 or CHEM 190 recommended. LEC.

GEOG 338. Introduction to River Systems. 3 Hours. N.
A course of fluvial geomorphology. Topics include the drainage basin, fluvial processes, river channel adjustment and forms, human disturbance and geomorphic response, and research methods in fluvial geomorphology. Field trip. Prerequisite: GEOG 104. LEC.

GEOG 339. Topics in Physical Geography: _____. 1-3 Hours. N.
An investigation of special topics in Physical Geography. May include coursework under headings of soils, vegetation, climate, or geomorphology. May be repeated if topic differs. LEC.

GEOG 350. Physical Geography of Africa. 3 Hours. N.
This course is a survey of the basic physical features of the African continent including structure and relief, rivers and lakes, soils and mineral resources. It includes characteristics and processes of African climates, and the ecology of Africa’s four major biomes: tropical rain forest, savanna, steppe, and desert. Climatic and environmental variations of the past, emergence of humankind, and development of pastoral and farming systems are discussed. Contemporary environmental concerns also include deforestation and desertification, the impacts of drought, methods for monitoring African environments, and Africa’s prospects in a 21st century suffering from global warming. (Same as AAAS 350.) LEC.

GEOG 351. Africa’s Human Geographies. 3 Hours. NW AE42/GE3H/GE3S / S/W.
An introduction to historical, cultural, social, political, and economic issues in Africa from a geographic perspective. The course begins with the historical geography of humanity in Africa, from ancient times through to the present. Other topics include cultural dynamics, demography, health, rural development, urbanization, gender issues, and political geography. Case studies from Eastern and Southern Africa will be used to illustrate major themes. (Same as AAAS 351.) LEC.

GEOG 352. Economic Geography. 3 Hours. S.
This course offers an overview of contemporary economic geography with an underlying theme of uneven regional development. Topics examined include: the historical context in which capitalism emerged;
the major theoretical approaches used to understand the temporal and spatial dynamics of capitalist society; a series of case studies of different economic sectors; and the global economy, including its development with respect to colonialism, neocolonialism, international trade, third world development, and population growth. LEC.

GEOG 357. History and Philosophy of Geographic Information Science. 3 Hours. N.
An examination of the development of geographic information science (GISc) from its roots in traditional geography, cartography, and remote sensing to modern geographic information systems (GIS). GIS is explored as a new scientific instrument, a “macroscope” for representing and analyzing complex earth processes, both physical and cultural. The societal benefits and risks of GIS are demonstrated and discussed. LEC.

GEOG 358. Principles of Geographic Information Systems. 4 Hours. N.
An introduction to computer-based analysis of spatial data. Covers basic principles of collecting, storing, analyzing, and displaying spatial data. Emphasis is on problem-solving activities using common spatial analytical techniques (e.g., map overlay). The student will gain extensive hands-on experience with state-of-the-art GIS software. LEC.

GEOG 370. Introduction to Cultural Geography. 3 Hours. GE3S / H.
Charts some of the major lines of research in cultural geography, including critical theory, political economy, poststructuralist thought, feminism, and global consumption. Through fieldwork, diverse research methods are applied to issues such as community development, cultural patterns on the landscape and global impacts on local economies. Prerequisite: GEOG 100, GEOG 101, GEOG 102 or GEOG 103; or consent of instructor. LEC.

GEOG 371. Environmental Geopolitics. 3 Hours. S.
This course examines how human relationships with the biophysical world are politicized. Examines key contributions to debates surrounding environmental security, resource conflicts, and related issues, as well as geopolitical assumptions on which these debates build. (Same as EVRN 371.) LEC.

GEOG 372. Environmental Policy. 3 Hours. N.
An historical and analytical study of the formulation, implementation, and consequences of environmental policy in the United States. Attention is directed at relevant interest groups, issues specific to both rural and urban populations, relationships between national policies and international organizations concerned with environmental problems. Prerequisite: GEOG 148 or EVRN 148; and either EVRN 103 or HIST 103, EVRN 347 or HIST 347, or GEOG150 or EVRN 150. LEC.

GEOG 375. Intermediate Human Geography. 3 Hours. S.
An examination of processes of cultural-economic interaction and patterns of human activity on a global scale. The topics cover the whole spectrum of human geography, with focus on urban-economic development, innovation and diffusion, and trade. Each week the third hour will be devoted to discussion of topics dealt with in lectures presented during the first two hours. Prerequisite: Introductory course in Geography or consent of the instructor. LEC.

GEOG 377. Urban Geography. 3 Hours. S.
This course explores the city from the multiple perspectives of its inhabitants. The cultural viewpoints of place, gender, age, and ethnicity are stressed. Traditional topics such as urban hierarchy, functions of the city, suburbanization, and ongoing changes in core and peripheral areas also receive attention. The distinctive landscapes of individual North American cities are emphasized, but examples also are drawn from throughout the world. LEC.

GEOG 379. Topics in Cultural Geography: _____. 1-3 Hours. S.
An investigation of special topics in Cultural Geography. May include coursework under headings of culture theory, material culture, language, foodways, or religion. May be repeated if topic differs. LEC.

GEOG 390. Geography of the United States and Canada. 3 Hours. S.
A study of the different physical, economic, and cultural settings in the United States and Canada which form the basis for the various forms of livelihood. Emphasis on the United States. (Same as AMS 390.) Prerequisite: An introductory geography course or background in the United States or Canadian history, social science, or culture or consent of instructor. LEC.

GEOG 395. Environmental Issues of: _____. 3 Hours. S.
This regional geography course examines contemporary environmental issues of a particular region of the world based on the expertise of the professor. Course emphasis is on the interaction of natural, socio-economic, and cultural factors of development that give rise to environmental problems. Students learn how local, national, and international government and non-governmental stakeholders address environmental problems. Course may be repeated with different professors. LEC.

GEOG 396. East Asia. 3 Hours. NW AE42/GE3H/GE3S / S/W.
This course is an introduction to the contemporary politics, economy, and culture of Korea, China, and Japan in the context of globalization. In addition to the discussion of individual countries, the course examines the cross-cutting themes such as international relations, cultural exchange, and economic development in the region of East Asia. LEC.

GEOG 397. Geography of Kansas and the Plains. 3 Hours. S.
A study of the different physical, economic, and cultural settings in Kansas and the Plains that form the basis for various kinds of livelihood. LEC.

GEOG 399. Topics in Regional Studies: _____. 1-3 Hours. S.
An investigation of special topics in Regional Studies. May include coursework related to a specific country or region. May be repeated if topic differs. LEC.

GEOG 410. Human Biogeography, Honors. 3 Hours. N.
Principles of evolution and earth change are used to examine distributions of human populations, wealth, and resources. Readings from the current literature will be included. Lecture and discussion. (Same as BIOL 410.) Prerequisite: BIOL 152 or 153 or GEOG 107 and membership in the University Honors Program or consent of instructor. LEC.

GEOG 418. Workshop in Production Cartography. 1-3 Hours. AE61 / N.
Theory and practice of map production and other related graphics using the latest graphic and GIS software. Projects vary but include the processes of design and production, editing and quality control, and a final printed or operational product. Involves a weekly consultation session and laboratory time in KU Cartographic GIS Services. Prerequisite: Completion of GEOG 311 and consent of instructor. IND.

GEOG 433. Biogeography Field and Laboratory Techniques. 3 Hours. N.
This course provides undergraduate students with practical experience in field data collection techniques and laboratory data analysis methods. During the first half of the semester, students work in the field using a variety of methods to measure such vegetation characteristics as: cover, density, biomass, leaf area, and canopy architecture. Students gain experience in the use of field instruments including a spectroradiometer, and techniques for quantifying biophysical attributes of vegetation. During the later part of the course, students learn to summarize their field data and examine relationships between the vegetation attributes and measurements made using remote sensing instruments. Recommended:
GEOG 458. Geographical Information Systems: _____. 1-6 Hours. N.
An introduction to the organization and components of geographic information systems and their software. Fundamental concepts and their implementation with applications to physical and human systems. LEC.

GEOG 490. Geographic Internship. 1-6 Hours. AE61 / N.
Supervised practical experience. The student submits a proposal describing the internship prior to enrollment. Upon acceptance, regularly scheduled meetings with the advisor provide assistance, guidance and evaluation of progress in the professional experience. A written summary of the experience or outcomes of the research project are prepared independently by the student, a representative of the host agency, and the advisor. Total credit not to exceed six hours. Prerequisite: Fifteen hours of geography and permission of instructor. FLD.

GEOG 498. Special Topics in Geography: _____. 1-5 Hours. U.
Prerequisite: Fifteen hours of geography. IND.

GEOG 499. Honors Course in Geography. 2-3 Hours. AE61 / U.
Open to students with nine hours of upper level credit in geography, an average of at least 3.5 in all geography courses, and an overall average of at least 3.25. Includes the preparation of an honors paper and its defense before a committee of at least two regular faculty members. IND.

GEOG 500. Senior Capstone in Geography. 3 Hours. AE61 / N.
The capstone project provides students with a broad-based, interdisciplinary educational experience and allows them to integrate and synthesize the knowledge they have gained in their studies. The course is designed to achieve several objectives: provide an overview of geography as a unified, coherent discipline with multiple perspectives, emphasize writing and analytical skills, introduce students to a major research project that integrates elements of physical and human geography, and cultivate knowledge of future professional development. Graduate students may take this course by permission only. Prerequisite: Nine hours in Geography and status as a senior major in the department; or permission of instructor. LEC.

GEOG 510. Human Factors. 4 Hours. N.
An introduction to the concepts and theories underlying the study of human-technological systems. Human-machine interfaces and system properties and the environment are considered. Lecture-discussion sessions are supplemented by computer-supported laboratory and research activities. LEC.

GEOG 511. Intermediate Cartography: _____. 1-6 Hours. N.
An investigation of special topics in cartography. Can be repeated for different topics. Prerequisite: A course in cartography and consent of instructor. LEC.

GEOG 513. Cartographic Design. 3 Hours. S.
A study of graphic elements and their role in the physical and perceptual structure of the map image. Concepts and principles of design are stressed with particular emphasis on the figure-ground relationships, color and lettering. Prerequisite: GEOG 311. LEC.

GEOG 514. Visualizing Spatial Data. 4 Hours. N.
Students use Visual Basic or other currently prominent programming language to visualize spatial data. Early projects cover basic principles such as color manipulation and spatial transformations. Later projects involve developing more sophisticated software for data presentation, data exploration, and map animation. Prerequisite: Some experience with Visual Basic or other programming language. LAB.

GEOG 516. Applied Multivariate Analysis in Geography. 3 Hours. N.
An introduction to the application of multivariate statistical analysis in geography. Techniques covered include univariate and multivariate analysis of variance, multiple regression, logistic regression, principle components analysis, and spatial regression. Practical applications of the techniques in geographical research context are emphasized. Students will learn how to use statistical packages such as SPSS. Prerequisite: GEOG 316 or equivalent. LEC.

GEOG 517. Data Handling and Map Symbolization. 3 Hours. N.
An analysis of methods for manipulating and symbolizing spatial data. Techniques studied include dot, choropleth, proportional symbols, and isarithmic (contour) mapping. Topics covered include data classification, the use of color, and automated methods of interpolation (triangulation, inverse distance, and kriging). Emphasis is on developing maps that can be presented to the general public, although some consideration is given to visualization software that can be utilized by individuals to explore spatial data. Prerequisite: GEOG 111 or GEOG 210 or GEOG 311. LEC.

GEOG 519. History of Cartography. 3 Hours. H.
A history of mapmaking worldwide from its origins to the present day. Emphasis on maps as historical records of evolving civilizations and cultural landscapes and methods of studying early maps. (Same as HIST 546.) LEC.

GEOG 521. Microclimatology. 3 Hours. N.
A study of climatic environments near the earth-atmosphere interface. Consideration of rural climates in relation to agriculture and urban climates as influenced by air pollution and other factors. Emphasis is on physical processes in the lower atmosphere, distribution of atmospheric variables, the surface energy budget, and water balance. (Same as ATM 521.) Prerequisite: ATM 105 and MATH 106 or MATH 121. LEC.

GEOG 526. Remote Sensing of Environment I. 4 Hours. N.
Introduction to study of the environment through air photos and satellite imagery, including principles of remote sensing, interactions of electromagnetic energy with the atmosphere and earth’s surface, aerial photography, satellite systems, and sensors (electro-optical, thermal, and radar). Emphasis in the latter part of the course is on such applications as global monitoring, land cover mapping, forestry, agriculture, and oceanography. Laboratory emphasizes visual interpretation of aerial photography and satellite imagery and an introduction to digital image processing in the department’s NASA Earth Science Remote Sensing Laboratory. (Same as EVRN 526.) Prerequisite: MATH 101 or equivalent. GEOG 358 recommended. LEC.

GEOG 531. Topics in Physical Geography: _____. 1-3 Hours. N.
An investigation of special topics in physical geography. May include specific course work under the headings of geomorphology, climatology, soils, vegetation, quaternary, paleoenvironments, hydrology, etc. May be repeated, if topic differs. LEC.

GEOG 532. Geoarchaeology. 3 Hours. N.
Application of the concepts and methods of the geosciences to the interpretation of the archeological record. The course will focus primarily on the field aspects of geoarchaeology (e.g., stratigraphy, site formation processes, and landscape reconstruction), and to a lesser extent on the array of laboratory approaches available. (Same as ANTH 517.) Prerequisite: GEOG 104, ANTH 110, or ANTH 310. LEC.

GEOG 535. Soil Geography. 4 Hours. N.
A broad study of the principles and properties of soils and their distribution on the landscape. Topics covered include: pedology, clay mineralogy, soil physics, soil chemistry, management of soils, soil biology, taxonomy, and soil geomorphology. Laboratory section and a field project are required. Not open to students who have taken GEOG 335 or EVRN 335. (Same
as EVRN 535.) Prerequisite: GEOG 104 or GEOL 101 or consent of the instructor; BIOL 104 and CHEM 130 or 190 recommended. LEC.

GEOG 537. Elements of Plant Geography. 3 Hours. N.
An introduction to spatial and temporal variation in natural plant populations and communities. Included is an introduction to methods of analysis, and an overview of structure and process in the earth's major biomes. Prerequisite: GEOG 331; or an introductory biology/botany course and GEOG 104; or consent of instructor. LEC.

GEOG 538. Soil Chemistry. 3 Hours. N.
This course examines the chemical properties and processes of soils and methods of evaluation. Topics include solid and solution speciation, mineral solubility, soil colloidal behavior, ion exchange, surface complexation, soil salinity and sodicity, soil acidity, oxidation-reduction reactions, and kinetics of soil chemical processes. (Same as EVRN 538.) Prerequisite: GEOG 335 or GEOG 535 or EVRN 335 or EVRN 535, CHEM 135 or CHEM 195, MATH 121, PHSX 114, or consent of the instructor. LEC.

GEOG 541. Geomorphology. 4 Hours. N.
A critical study of land forms in relation to tectonics, climatic environment, and geologic processes. The use of geomorphic methods in the interpretation of Cenozoic history is emphasized. Laboratory exercises in analysis of field observations, maps, and photographs. Required field trip and fee. (Same as GEOL 541.) Prerequisite: GEOL 101 and GEOL 103, GEOG 104 and GEOG 105, or GEOL 103 and GEOL 304. LEC.

GEOG 550. Environmental Issues in Africa. 3 Hours. S.
Acquaints students with the complexities of debates on environmental problems in Sub-Saharan Africa. Topics addressed may include deforestation, desert expansion, wildlife conservation, soil erosion, climate change, coral reef destruction, water resources development, mangrove preservation, the environmental effects of war, industrialization, and urbanization. Class presentations and projects synthesize the perspectives of both human and physical geography. (Same as AAAS 551.) Prerequisite: GEOG 104 or permission of instructor. LEC.

GEOG 552. Topics in Urban/Economic Geography: _____. 1-3 Hours. S.
An investigation of special topics in urban/economic geography. May include specific course work under the headings of energy, economic development, international trade, environmental perception, housing, transportation, and migration. May be repeated. LEC.

GEOG 553. Geography of African Development. 3 Hours. NW AE42/ GE3H/GE3S / S.
Acquaints students with the values of social parameters of African agricultural and pastoral practice. Topics include customary land rights, African perspectives on the natural world, gender issues in African agriculture, and the urbanization of African cultures. The course also contrasts African views with those of Western development practitioners and donor agencies. Case studies from different countries are used to highlight the continent's regional differences. (Same as AAAS 553.) LEC.

GEOG 556. Geography of the Energy Crisis. 3 Hours. S.
A discussion and analysis of the basic facts and causes of energy problems on a national and world scale. Examines current production, consumption, efficiency, reserves, conservation, and other energy policy options, including adjustments that will affect consumer use, national politics, and strategic issues. Prerequisite: GEOG 102 or GEOG 375. LEC.

GEOG 557. Cities and Development. 3 Hours. S.
An intermediate level course in urban geography, with an emphasis on cities in the developing world. Example cities in Latin America and the Caribbean, Sub-Saharan Africa, the Middle East, South Asia, and/or Southeast Asia may be examined. The main focus is on the intersection between urbanization and economic development, but social, political, and cultural aspects of development in cities are considered. Other topics include the geographic impacts of European colonialism, urbanization and industrialization, rural-to-urban migration, urban structure and spatial dynamics, urban planning, and environmental sustainability. (Same as AAAS 557.) LEC.

GEOG 558. Intermediate Geographical Information Systems. 4 Hours. N.
An intermediate level course in geographic information science designed for advanced undergraduate and graduate level students who already have an introductory understanding of GIS. Emphasis will be placed on the application of spatial analytical techniques to geographical problem-solving. Topics include spatial data structures, interpolation techniques, terrain analysis, cost surfaces, and database management technique. Students will apply knowledge gained in lecture and reading to natural resource, urban, and scientific applications using state-of-the-art GIS software. Prerequisite: GEOG 358 or consent of instructor. LEC.

GEOG 559. Exploring Oceania. 3 Hours. S.
Acquaints students with the culture and history of Oceania including its settlement and the impacts of European and American colonialism on Australasia, Melanesia, Micronesia, and Polynesia. Emphasis is placed on applying broad geographical concepts to this vast Oceanic region through the lenses of development, media and migration studies. Prerequisite: GEOG 102 or GEOG 103; or consent of instructor. LEC.

GEOG 560. GIS Application Programming. 3 Hours. N.
This course teaches programming within Geographic Information Systems. Students learn how to customize GIS applications to automate data processing and spatial analysis through programming languages. GIS programming concepts and methods are introduced from the aspects of spatial data management and analysis covering both the vector and raster data models. Prerequisite: GEOG 558 and a course in programming languages. LEC.

GEOG 561. Overview of Geographic Information Systems. 3 Hours. S.
A survey of the culture and history of Oceania including its settlement and the impacts of European and American colonialism on Australasia, Melanesia, Micronesia, and Polynesia. Emphasis is placed on applying broad geographical concepts to this vast Oceanic region through the lenses of development, media and migration studies. Prerequisite: GEOG 102 or GEOG 103; or consent of instructor. LEC.

GEOG 562. Political Geography. 3 Hours. S.
Acquaints students with the theories and methods of political geography. Topics include geographical studies of: states, nations, and nationalism; territories and territoriality; geopolitics; and elections. Case studies from various regions of the world are included with an emphasis on the developing world. Prerequisite: GEOG 102 or equivalent or consent of instructor. LEC.

GEOG 567. Cultural Geography of the United States. 3 Hours. S.
Distributions of major culture elements including folk architecture, religion, dialect, foodways, and political behavior are systematically studied from a predominately historical perspective. These discussions are followed by a survey of the major culture regions in America. Although not absolutely necessary, familiarity with concepts treated in any of the following courses
GEOG 579. Geography of American Foodways. 3 Hours.
An interdisciplinary approach to food that explores the diversity of eating habits across the United States and the role of food as an indicator of cultural identity and change. Current regional and ethnic food consumption patterns are stressed. Topics include multiculturalism and regional identity, the symbiotic relationship between restaurant food and home cooking, the recent interest in farmers’ markets and organic foods, and the importance of the food industry and the popular press in setting trends. (Same as AMS 579.) LEC.

GEOG 590. Understanding Central Asia. 3 Hours. NW / S/W.
An intensive, multidisciplinary survey of Central Asia, focusing on the former Soviet republics-Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan-with additional coverage of neighboring regions (the Caucasus and the Caspian basin, Afghanistan, and western China). The course addresses the history of the region (from the Silk Road to Soviet rule), geography, religion, and the building of post-Soviet states and societies. (Same as REES 510.) LEC.

GEOG 591. Geography of Latin America. 3 Hours. SC AE42/GE3S / S/W.
A study of the different physical, economic, and cultural settings in Latin America which form the basis for the various forms of livelihood. LEC.

GEOG 592. Middle American Geography. 3 Hours. S.
This regional study of the natural environments and cultural-historical backgrounds of Mexico, Central America, and the Caribbean details the physical and historical processes that have shaped the cultural landscape. LEC.

GEOG 593. Central American Peoples and Lands. 3 Hours. S.
This is a study of the natural and cultural history of the region’s lands and peoples that focuses on the cultural geography of the surviving indigenous populations, including their culture area, culture history, cultural landscape, and cultural ecology. LEC.

GEOG 594. Geography of the Former Soviet Union. 3 Hours. S/W.
An analysis of the spatial organization of the successor states to the USSR. A study of the diverse human and natural resources, demographic, cultural, and economic conditions. Prerequisite: An introductory geography course or background in Russian-East European history, social science, or culture, or consent of instructor. LEC.

GEOG 595. Geography of Eastern Europe. 3 Hours. S/W.
A study of nations and regions of Eastern Europe, excluding Russia. Prerequisite: An introductory geography course or background in Slavic-East European history, social science, or culture or consent of instructor. LEC.

GEOG 597. Geography of Brazil. 3 Hours. S.
Study of geographic factors, physical and cultural, that are basic to understanding the historical development of Portuguese South America and the contemporary and cultural geography of Brazil. Course also includes a survey of Brazil’s South American neighbors. LEC.

GEOG 601. Indigenous Peoples of the World. 3 Hours. S.
A survey of the varied responses of global Indigenous peoples as a result of the imposition of external economic and political systems. An overview of diverse, thematic issues such as land rights, economic development, resources and cultural patrimony, languages, knowledge systems, and women’s rights from the perspectives of Indigenous societies around the world. Detailed studies of Indigenous peoples seeking recognition and protection under international law are used. (Same as ISP 601.) Prerequisite: Permission of instructor. LEC.

GEOG 635. Soil Physics. 3 Hours. N.
Provides theoretical and practical foundations for understanding physical properties and processes of variably-saturated porous media. Focus is on the transport, retention, and transformation of water, heat, gas, and solutes through the soil. We examine modern vadose zone measurement methods, analytical tools, and numerical models for data collection and interpretation. (Same as EVRN 635.) Prerequisite: GEOG 335 or EVRN 335, or GEOG 535 or EVRN 535, and MATH 121, PHYSX 114; or consent of instructor. LEC.

GEOG 658. Topics in Geographic Information Science: ______. 1-6 Hours.
An investigation of special topics in geographic information science. May include specific coursework under the headings of methodology, basic research, thematic or regional applications, geographic information systems (GIS), Global Positioning System (GPS), and geostatistics. May be repeated if topic differs. LEC.

GEOG 670. Cultural Ecology. 3 Hours. S.
Investigation of the interrelations between socio-cultural systems and the natural environment, including a survey of major theories and descriptive studies. (Same as ANTH 695.) Prerequisite: An introductory course in geography or anthropology. LEC.

GEOG 710. Information Design. 3 Hours.
Concepts and principles for the organization of verbal, numerical, and graphic/spatial data and their application to the production of information displays and instruments. Examination of the evolution of the information design process from the traditional (communication system) perspective to interactive user-centered design approaches. The nature of human information processing in handling information for both visualization and analysis, with particular emphasis on decision-making and usability. Prerequisite: GEOG 510, INDD 510, PSYC 318, PSYC 685, or equivalent, or consent of instructor. LEC.

GEOG 711. Advanced Cartography: ______. 3 Hours.
An investigation of special topics in cartography. Can be repeated for different topics. Prerequisite: Consent of instructor. LEC.

GEOG 713. Practicum in Cartography. 1-6 Hours.
Experience in the organization and presentation of cartographic material in lecture, discussion, and laboratory formats. May be repeated to a total of six credits. Prerequisite: Consent of instructor. FLD.

GEOG 714. Field Experience. 3 Hours. AE61.
Working in a new environment presents problems unlike those encountered in a classroom situation. Data collection techniques and exercises discussed in this off-campus course are intended to provide experience in dealing with an unfamiliar situation. Course location is dictated by the interests and composition of the student group; offered in the first three weeks of August. Geography majors are encouraged to attend. This course is required for graduate students. Fee required. Prerequisite: Junior-senior standing and fifteen hours of geography or consent of instructor. FLD.

GEOG 716. Advanced Geostatistics. 3 Hours.
An introduction to the practical application of advanced geospatial statistical techniques. Potential topics include: spatial regression, interpolation, clustering, and advanced nonparametric statistics. Knowledge of a statistical package and GIS is assumed. Prerequisite: GEOG 516 or equivalent and GEOG 358 or equivalent. LEC.

GEOG 719. Development of Geographic Thought. 2-3 Hours.
Critical analysis of the growth of geographic thought from antiquity to the present: emphasis on structure of modern geography. Prerequisite: Twenty hours of geography or consent of instructor. LEC.
GEOG 726. Remote Sensing of Environment II. 4 Hours.
An overview of techniques for computer analysis of digital data from earth orbiting satellites for environmental applications. Topics covered include: data formats, image enhancements and analysis, classification, thematic mapping, and environmental change detection. The laboratory exercises provide hands-on experience in computer digital image processing in the department's NASA Earth Science Remote Sensing Laboratory. Prerequisite: Introductory statistics and GEOG 526 or equivalent. LEC.

GEOG 731. Topics in Physical Geography: ____. 1-3 Hours.
An investigation of special topics in physical geography. May include specific course work under the headings of geomorphology, climatology, soils, vegetation, quaternary, paleoenvironments, hydrology, etc. May be repeated. RSH.

GEOG 733. Advanced Biogeography Field and Laboratory Techniques. 3 Hours.
This course provides graduate students with practical experience in field data collection techniques and laboratory data analysis methods. During the first half of the semester, students will work in the field using a variety of methods to measure such vegetation characteristics as: cover, density, biomass, leaf area, and canopy architecture. Students will gain experience in the use of field instruments including a spectroradiometer, and techniques for quantifying vegetation biophysical attributes. The laboratory analyses component will include: data summary, data entry, correlation, regression, MANOVA, cluster analysis, and data display, and reporting. Recommended: GEOG 516 or multivariate statistics equivalent. LEC.

GEOG 735. Soil Geomorphology. 3 Hours.
Examines the interaction of pedogenic and geomorphic processes during the Quaternary with an emphasis on strategies and methodologies employed in soil-geomorphic studies. Group research projects incorporating field data collection and analyses are required. Prerequisite: GEOG 335 or GEOG 535 or consent of the instructor. LEC.

GEOG 741. Advanced Geomorphology. 1-3 Hours.
Detailed discussions of processes and landforms characteristic of specific environments. Considered during separate semesters will be general methodology, and fluvial, arid regions, glacial, and shorelines geomorphology. Course may be taken more than once. (Same as GEOL 741.) Prerequisite: GEOG 541. LEC.

GEOG 749. Topics in Stable Isotopes in the Natural Sciences:. 2-3 Hours.
Isotopic compositions of substances provide powerful insights into many topics in the natural sciences. Applications of isotopic analyses of carbon, hydrogen, oxygen, and nitrogen to selected research topics such as plant resource use, food web analysis, paleoecology, paleo diet reconstruction, hydrology, and soils genesis will be examined. Knowledge of isotope chemistry is not required. (Concepts necessary to understand pertinent articles will be taught during the first class meetings.) May be repeated. (Same as BIOL 749.) LEC.

GEOG 751. Analysis of Regional Development. 3 Hours.
An analytical approach to spatial organization of economic activities and aspects of growth and development. Location theory and the geography of trade and migration. A research paper is required. Prerequisite: GEOG 551, or a course in economics, or consent of instructor. LEC.

GEOG 752. Topics in Urban/Economic Geography: ____. 1-3 Hours.
An investigation of special topics in urban/economic geography. May include specific coursework under the headings of energy, economic development, international trade, environmental perception, housing, transportation, and migration. May be repeated. LEC.

GEOG 756. Energy Problems and the Economic-Physical Environment. 2-3 Hours.
This course investigates the economic, social, political, and environmental conditions of energy production, transport, and use: total energy consumption and mix, relations to the level and structure of the economy, substitutability of fuel and energy sources, resource endowment in an international setting. Prerequisite: GEOG 551 or a course in economics or consent of instructor. LEC.

GEOG 758. Geographic Information Science. 4 Hours.
This course integrates topics in geographical information science (GISci) with spatial analytical techniques to solve spatial problems. Focuses on the most current research in GISci and its relevance to the environmental sciences, natural resource management, and spatial decision-making. Students are expected to apply the concepts and techniques learned in this class to their own research projects. Prerequisite: GEOG 316 and GEOG 558, or consent of instructor. LEC.

GEOG 771. Topics in Cultural Geography: ____. 1-3 Hours.
An investigation of special topics in cultural geography. May include specific course methodology, material culture, foodways, religion, and similar topics. May be repeated. LEC.

GEOG 772. Problems in Political Geography. 3 Hours.
Case studies of regional and national power settings with particular emphasis upon the geographical analysis of political developments in unstable areas of the world. Prerequisite: GEOG 102 or GEOG 375. LEC.

GEOG 773. Humanistic Geography. 3 Hours.
A discussion and project-oriented course focused on ways of studying the character and meaning of places. Concepts examined include place image and image makers, landscapes as text, sense of place, vernacular regions, and alternate representations of space. Prerequisite: Graduate standing or fifteen hours of geography or consent of instructor. LEC.

GEOG 775. Proseminar in Population Geography. 3 Hours.
Evaluation of problem formulation data gathering, research methods, and substantive knowledge in the geography of human populations. Concurrent auditing of GEOG 575 plus an additional meeting each week is required. Prerequisite: GEOG 575 and GEOG 516, and SOC 514. LEC.

A detailed description and analysis of selected regions of North America. Prerequisite: An introductory geography course or background in United States or Canadian history, social science, or culture or consent of instructor. LEC.

GEOG 791. Latin American Regions: ____. 3 Hours.
A description and analysis of the principal sources of geographic information pertaining to portions or all of Latin America. Prerequisite: GEOG 591 or concurrent auditing of GEOG 591, or consent of instructor. LEC.

GEOG 794. Regions of the Former USSR. 3 Hours.
A description and analysis of geographic data pertaining to the successor states to the USSR. Prerequisite: Fifteen hours of Geography courses or background in Russian, East European or Middle East studies, or consent of instructor. LEC.

GEOG 795. European Regions: ____. 3 Hours.
Prerequisite: Fifteen hours of geography, background in specified area, or consent of instructor. LEC.

GEOG 796. Asian Regions: ____. 2-3 Hours.
Prerequisite: Fifteen hours in geography courses or background in Asia, or consent of instructor. LEC.
GEOG 801. Indigenous Peoples of the World. 3 Hours.  
A survey of the varied responses of global Indigenous peoples as a result of the imposition of externally-dominated economic and political systems. An overview of diverse, thematic issues such as land rights, economic development, resources and cultural patrimony, languages, knowledge systems, and women’s rights from the perspectives of Indigenous societies around the world. Detailed studies of Indigenous peoples seeking recognition and protection under international law will be used. The course is offered at the 600 and 800 levels, with additional assignments at the 800 level. (Same as ISP 801.) LEC.

GEOG 802. Urban Geographic Information Systems. 3 Hours.  
An advanced survey of urban GIS/LIS focusing on: (1) history; (2) the wide range of applications from Automated Mapping/Facilities Management (AM/FM) to topologically related GIS; (3) generic analytical functions in both raster and vector modalities; and (4) software employed, hardware platforms, and institutional settings. A limited experience in the use of GIS is provided from exercises employing ARC/Info software. Prerequisite: Some experience with DOS based computing. LEC.

GEOG 805. History of Geographic Thought. 2 Hours.  
A course to familiarize students with the history and philosophy of geography as a science and humanity. The course summarizes, reviews, and explores the ongoing relevance of 2,500 years of theoretical and methodological advancements in human and physical geography. LEC.

GEOG 806. Basic Seminar. 2 Hours.  
The second of two courses required of M.A. students designed to provide experience in the development of research proposals and exposure to methodologies in geography. This course deals with approaches to geographic problems, and involves individual examination of special topics which require preparation, presentation, and critical evaluation of research proposals. LEC.

GEOG 818. Problems in Production Cartography. 1-3 Hours.  
Advanced instruction in the theory and practice of producing maps and other related graphics for classroom instruction and research projects. Emphasis will be on current photo-mechanical and automated techniques. Prerequisite: By appointment. Consent of instructor. LEC.

GEOG 835. Practicum in Soil Mapping and Soil Erosion. 3 Hours.  
This course is designed to give graduate students field experience in soil mapping and in the evaluation of soils for loss through processes of erosion. Prerequisite: GEOG 535 or equivalent or consent of instructor. FLD.

GEOG 858. Environmental Geographic Information Systems. 4 Hours.  
An introduction to the use of GIS for environmental inventory, monitoring, and modeling. This course integrates the principles of landscape ecology with the analytical tools of GIS, remote sensing, and spatial analysis. Students will be taught GIS methodologies used to address real world problems and the use of GIS spatial analysis techniques to characterize landscapes and monitor their change. Prerequisite: GEOG 316 and GEOG 558 or equivalents, multivariate analysis recommended. LEC.

GEOG 890. Geographic Internship. 1-6 Hours.  
Supervised professional experience. The student submits to the program committee a proposal describing the internship prior to enrollment. Upon acceptance, regularly scheduled meetings with the advisor provide assistance, guidance and evaluation of progress in the professional experience. A written summary of the experience or outcomes of the research project are prepared independently by the student, a representative of the host agency, and the advisor. Total credit not to exceed six hours. Prerequisite: Twelve hours of graduate level geography courses and consent of program committee. FLD.

GEOG 898. Readings in Geography. 1-4 Hours.  
RSH.

GEOG 899. Master’s Thesis. 1-10 Hours.  
Graded on a satisfactory/unsatisfactory basis. THE.

GEOG 911. Seminar in Cartography: _____. 1-4 Hours.  
Study of selected topics in cartography. Can be repeated for different topics. Prerequisite: GEOG 513 or consent of instructor. LEC.

GEOG 912. Seminar in Quantitative Methods. 2-3 Hours.  
LEC.

GEOG 926. Seminar in Remote Sensing. 2-4 Hours.  
Study of selected topics in remote sensing theory and application. May include independent or group research and/or development work. Topic will be specified in advance. Prerequisite: GEOG 726 or consent of instructor. LEC.

GEOG 935. Seminar in Soil Geography. 2-3 Hours.  
Study of selected topics in theory and method of soil geography. Sample topics include classification, paleopedology, and soil genesis. Field trip and fee may be required. Prerequisite: GEOG 735 or consent of instructor. LEC.

GEOG 937. Seminar in Vegetation Geography. 1-3 Hours.  
(Same as BIOL 968.) LEC.

GEOG 939. Seminar in Fluvial Systems. 2-3 Hours.  
Study of selected topics in theory and method of fluvial systems. Samples include hydraulic geometry, the nature of alluvial sediments, and basin case studies. Topic will be specified in advance. LEC.

GEOG 957. Seminar in Urban and Economic Geography. 2-3 Hours.  
LEC.

GEOG 958. Seminar in Geographic Information Systems. 2-4 Hours.  
Study of selected topics in analysis of digital geographic data. May include research and/or developmental work. Prerequisite: GEOG 758 or equivalent, or consent of instructor. LEC.

GEOG 970. Seminar in Cultural Geography: _____. 2-3 Hours.  
Study of selected topics in the theory and method of cultural geography. Samples include religious patterns, folk architecture, and place-defining novels. Topic will be specified in advance. LEC.

GEOG 972. Seminar in Political Geography. 2-3 Hours.  
Study of selected topics in the theory and method of political geography. Samples include insurgent states, electoral patterns, and political ecology. Topic will be specified in advance. Prerequisite: GEOG 772 or consent of instructor. LEC.

GEOG 975. Seminar in Population Geography. 2-3 Hours.  
Study of selected geographic topics and problems dealing with the distribution of human populations. Prerequisite: GEOG 775 or consent of instructor. LEC.

GEOG 980. Seminar in Geography: _____. 1-3 Hours.  
LEC.

GEOG 990. Seminar in Regional Geography: _____. 1-3 Hours.  
(Selected areas to be specified.) LEC.

GEOG 998. Research in Geography. 1-5 Hours.  
RSH.

GEOG 999. Doctoral Dissertation. 1-10 Hours.  
Graded on a satisfactory/unsatisfactory basis. THE.
Geology Courses

GEOL 101. The Way The Earth Works. 3 Hours. NE GE3N / N.
Introduction to the principles of earth science. Study of the formation, occurrence, and structure of minerals and rocks; action of streams, oceans, glaciers, and other agents in the formation and modification of the landscape; volcanism, earthquakes, and plate tectonics. Discussion of earth processes in the context of sustainable energy, environmental concerns, climate and other topical issues. This course with GEOL 103 satisfies the College laboratory science requirement. Concurrent enrollment in GEOL 103 is recommended for students taking both. Course may be offered in lecture or online format. LEC.

GEOL 102. The Way The Earth Works, Honors. 3 Hours. NE GE3N / N.
Honors section of GEOL 101. An introduction to the principles of earth science. Study of the formation, occurrence, and structure of minerals and rocks; action of streams, oceans, glaciers, and other agents in the formation and modification of the landscape; mountain building, volcanism, earthquakes, and plate tectonics. Discussion of earth processes in the context of sustainable energy, environmental concerns, climate and other topical issues. Not open to students who have taken GEOL 101. This course with GEOL 103 satisfies the College laboratory science requirement. Concurrent enrollment in GEOL 103 is recommended for students taking both. Course may be offered in lecture or online format. LEC.

GEOL 103. Geology Fundamentals Laboratory. 2 Hours. U.
A course in geologic laboratory studies. This course plus GEOL 101, GEOL 102, GEOL 105, or GEOL 106 satisfies the College laboratory science requirement. Gives students practical, hands-on experience with identifying earth materials (rocks, minerals, fossils), understanding their relationships to earth processes, understanding topographic and geologic maps, interpreting results of surficial processes, and learning about deep-earth processes such as earthquakes. Includes short field trips to see geologic structures and results of local geologic processes. This lab course may be offered in on-campus lab or online format. Prerequisite: Previous or concurrent enrollment in GEOL 101, GEOL 102, GEOL 105, or GEOL 106. LAB.

GEOL 105. History of the Earth. 3 Hours. NE GE3N / N.
An introduction to the physical and biological history of the earth, the methods used to decipher earth history, and the development of the geological sciences. This course with GEOL 103 satisfies the College laboratory science requirement. Concurrent enrollment in GEOL 103 is recommended for students taking both. Not open to students who have taken GEOL 106 or GEOL 304. LEC.

GEOL 106. History of the Earth Honors. 3 Hours. NE GE3N / N.
Honors section of GEOL 105. An introduction to the physical and biological history of the earth, the methods used to decipher earth history, and the development of the geological sciences. This course with GEOL 103 satisfies the College laboratory science requirement. Concurrent enrollment in GEOL 103 is recommended for students taking both. Not open to students who have taken GEOL 105 or GEOL 304. LEC.

GEOL 121. Prehistoric Life: DNA to Dinosaurs. 3 Hours. NB GE3N / N.
An introduction to the history of life and the origin and evolution of animals and plants during the earth's long history. The fossil record is interpreted by applying both biological and geological principles. LEC.

GEOL 171. Earthquakes and Natural Disasters. 3 Hours. NE GE3N / N.
Addresses the subject of natural disasters with concentration on earthquake effects and their mitigation. Briefly treats volcanic eruptions, tidal waves, floods, global warming, severe weather, and catastrophic meteorite impacts from the perspective of geological and human significance. Provides a basic background into earth-science processes. LEC.

GEOL 177. First Year Seminar: ______. 3 Hours. NE GE11.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in geology. May not contribute to major requirements in geology. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

GEOL 302. Oceanography. 3 Hours. NE GE3N / N.
Basic description of oceanography: description and discussion of the ocean as a dynamic system. Relationships between and dependence upon the interactions of submarine topography, water chemistry, wave action, and biota in understanding the ocean system. Review of part that humanity plays in perturbing the natural oceanic environment. Discussions of estuarine problems as related to the sea, cultural activities, and rivers. Course may be offered in lecture or online format. Prerequisite: An introductory science course. LEC.

GEOL 304. Historical Geology. 2 Hours. N.
A summary of the measurement of time, the history of life, and the earth's development and the tectonics and rock-forming episodes of North America. Not open to students who have taken GEOL 105, GEOL 106 or GEOL 121. Prerequisite: GEOL 101. LEC.

GEOL 311. Mineralogy and Structure of the Earth. 3 Hours. N.
Basic identification and properties of rocks and minerals in the context of whole-earth structure and evolution. Includes basic chemical equilibria for rock and mineral systems and their bearing on processes involved with formation and evolution of Earth's crust, mantle, and core. Two lectures and one lab per week. Prerequisite: GEOL 101, CHEM 130, and eligibility for MATH 121 or MATH 115. LEC.

GEOL 312. Mineral Structures and Equilibria Laboratory. 1 Hour. U.
A laboratory to accompany GEOL 311. Presents more rigorous analysis of the structures, compositions, and chemical equilibria governing the formation and stability of common rock-forming mineral systems. Prerequisite: GEOL 311 (may be taken concurrently), CHEM 130, and eligibility for MATH 121 or MATH 115. LAB.

GEOL 315. Gemstones. 3 Hours. N.
The properties, occurrence, description, determination, and mineral affinities of gems, ornamental stones, and gem materials. LEC.

GEOL 331. Sedimentology and Surface Processes. 4 Hours. GE3N / N.
Physical, chemical, and biological processes in surface and near-surface environments applied to the recognition of the depositional environment, preservation, and alteration of sedimentary rocks. Field and laboratory study of sedimentary rocks with emphasis on interpretation of original depositional environments and alter processes affecting sedimentary rocks. Prerequisite: GEOL 101. LEC.

GEOL 351. Environmental Geology. 3 Hours. NE GE3N / N.
An introductory course dealing with the implications of geologic processes and materials for civilization. Topics to be considered include: geologic hazards such as floods, landslides, earthquakes, and volcanism; the availability of water, mineral, and energy resources; and the environmental impact of resource utilization. The importance of recognizing geologic constraints in land use planning and engineering projects is emphasized and illustrated by examples. LEC.

GEOL 360. Field Investigation. 2 Hours. N.
Summer session. A field-geology course that provides beginning geology students with an initial understanding of the nature of geological evidence
in the field, the breadth of geological phenomena, and the importance of the interplay of information from many geological disciplines in solving problems. Given at various geologically diverse locations. Fee. Prerequisite: GEOL 101. LEC.

GEOL 391. Special Studies in Geology. 1-6 Hours. N.
Special reports upon subjects in which students have a particular interest. Prerequisite: Fifteen hours of geology. IND.

GEOL 399. Senior Honors Research. 2-5 Hours. AE61 / N.
Normally two to five hours in any one semester with a maximum of eight hours. An undergraduate research course, in any of the fields of geology, open by permission of the department to seniors in the College who have an average grade of B or higher in geology courses. Prerequisite: Thirty hours of geology, five of which may be taken concurrently with this course. IND.

GEOL 501. Error Analysis. 1 Hour. N.
This course covers basic error analysis as it applies to geology. The course will emphasize the description and propagation of errors in data collection and reduction. Subjects include: how to report data and associated errors, error propagation in simple and complex equations, the Normal, Gaussian, and Poisson distributions, linear and higher order regression, and X-squared test. Prerequisite: MATH 121. LEC.

GEOL 512. Igneous and Metamorphic Petrology. 3 Hours. N.
The study of minerals, rocks and fluids within the earth’s crust and mantle to elucidate their mechanisms of formation and the pressure-temperature-composition conditions within the earth. The course emphasizes equilibrium thermodynamics, phase equilibria, fractionation mechanisms, tectonic control of petrogenesis, and quantitative analysis of mineral parageneses. Prerequisite: GEOL 311 and first semester calculus, or permission of instructor. LEC.

GEOL 513. Petrology Laboratory. 1 Hour. U.
A laboratory course to accompany GEOL 512. Material covered will include the use of the polarizing microscope in study of rocks in thin sections; identification of rock-forming minerals in thin section; study of textures as guides to the crystallization process; calculations of chemical changes during fractional crystallization and partial melting. Students will also make extensive study of igneous and metamorphic rocks in hand specimens, accompanied by thin section study, with emphasis on composition, texture, and structure. Students must co-enroll in GEOL 512. Prerequisite: GEOL 312. Concurrent enrollment in GEOL 512 required. LAB.

GEOL 521. Paleontology. 3 Hours. N.
A study of the structure and evolution of ancient life; the nature and diversity of life through time; the interactions of ancient organisms with their environments and the information that the study of fossils provides about ancient environments; the use of fossils to determine the ages of rocks and the timing of past events in earth history; and the patterns of extinction through time. (Same as BIOL 622.) Prerequisite: BIOL 100 or BIOL 152 or GEOL 105 or GEOL 304. LEC.

GEOL 523. Paleontology Laboratory. 1 Hour. U.
Laboratory course in the study of fossils with emphasis on the practice of paleontology and the morphology of ancient organisms. (Same as BIOL 623.) LEC.

GEOL 528. The Biology and Evolution of Fossil Plants. 3 Hours. N.
A lecture course in which fossil plants, protists and fungi are examined throughout geologic time. Emphasis will be directed at paleoecology, biogeography and the stratigraphic distribution and composition of ancient floras. (Same as BIOL 640.) Prerequisite: BIOL 413, or permission of instructor. LEC.

GEOL 529. Laboratory in Paleobotany. 1 Hour. U.
An examination of selected fossil plants throughout geological time and the techniques used to study them; laboratory will include identification and the use of plant fossils in biostratigraphy. (Same as BIOL 641.) Prerequisite: BIOL 413 or permission of instructor. Must be taken concurrently with GEOL 528. LAB.

GEOL 532. Stratigraphy. 4 Hours. AE61 / N.
A study of the principles of lithostratigraphy, biostratigraphy, and sequence stratigraphy. Methods of analysis of stratigraphic data focus on the interpretation of earth history. The stratigraphic record of North America is presented for evaluation of its geologic history. Three lectures and one laboratory per week. Required field trip. Prerequisite: GEOL 101, GEOL 521, and GEOL 331. LEC.

GEOL 534. Volcanology. 3 Hours. N.
Physical and geochemical volcanology. Considers relationship of tectonics and volcanism; types of magmas; rheology of lavas, pyroclastic density currents, and mass movements in volcanic environments; and interpretation of processes and conditions of formation of volcanic rocks from their field character. Field trips to ancient volcanic complexes. Prerequisite: GEOL 331 and GEOL 512, or permission of instructor. LEC.

GEOL 535. Petroleum and Subsurface Geology. 4 Hours. N.
A general study of the occurrence, properties, origin, and migration of petroleum. Studies of various oil fields and oil-bearing basins. Laboratory studies include well logs, subsurface mapping, and cross-sections. Prerequisite: GEOL 331, GEOL 562, and GEOL 572; or CPE 527, or permission of instructor. LEC.

GEOL 536. Geological Log Analysis. 1 Hour. U.
Application of well logging measurements to interpretation subsurface. LEC.

GEOL 537. Petroleum Reservoir Characterization. 3 Hours. N.
Geological, geophysical, and engineering characterization of a petroleum reservoir. Includes mapping; petrophysical, production, and pressure analysis; and numerical modeling. Considers economic analysis of steps to improve oil recovery. Students who have completed GEOL 837 may not take GEOL 537 for credit. Prerequisite: GEOL 535 and permission of instructor. LEC.

GEOL 541. Geomorphology. 4 Hours. N.
A critical study of landforms in relation to tectonics, climatic environment, and geologic processes. The use of geomorphic methods in the interpretation of Cenozoic history is emphasized. Laboratory exercises in analysis of field observations, maps, and photographs. Required field trip and fee. (Same as GEOG 541.) Prerequisite: GEOL 101 and GEOL 103, GEOG 104 and GEOG 105, or GEOL 304 and GEOL 103. LEC.

GEOL 551. Engineering Geology. 3 Hours. N.
Consideration of geologic factors affecting engineering projects. Topics include: techniques of site exploration, engineering properties of soil and rock, geologic conditions important in the design of major structures, and geologic information useful in land-use planning. Prerequisite: An introductory course in geology or consent of instructor. LEC.

GEOL 552. Introduction to Hydrogeology. 3 Hours. N.
Physical description of hydrogeologic media. Elementary groundwater hydraulic: analytical and graphical solutions for steady-state application. Well hydraulics and pumping tests. Basic groundwater geology. Effects of topography and geology on regional flow systems. Field and numerical delineation and analysis of groundwater flow systems and applications. Chemical characteristics of groundwaters and their relationship to aquifer geology and hydrology. Investigations of groundwater quality and contamination. Prerequisite: Two semesters each of calculus, physics, and chemistry. LEC.
GEOL 560. Introductory Field Geology. 3 Hours. AE61 / N. Summer session. The study of the principles of field geology and the application of field methods to solve geological problems. Includes use of topographic maps and aerial photographs for geological mapping, the study of stratigraphic methods by measuring sections, and working field trips to areas of regional geological interest. Given at the University of Kansas Geology Field Camp near Canon City, Colorado. Fee. Prerequisite: GEOL 331, GEOL 360, and GEOL 562, or consent of instructor. FLD.

GEOL 561. Field Geology. 3 Hours. N. Summer session. The application of the principles of field geology to solve complex geological problems in the field. Given at the University of Kansas Geology Field Camp near Canon City, Colorado, or at other sites as appropriate. Fee. Prerequisite: GEOL 560. FLD.

GEOL 562. Structural Geology. 4 Hours. N. A study of primary and secondary rock-structures and their genesis. Includes techniques of structural analysis and introduces mechanisms of rock deformations. Lectures, laboratory, and required field trip. Prerequisite: GEOL 311; PHSX 111, PHSX 114, or PHSX 211 and PHSX 216; and MATH 115 or MATH 121. LEC.

GEOL 570. Natural Disasters. 2-3 Hours. N. Scientific assessment of natural disasters with concentration on earthquake effects and their mitigation. Briefly treats volcanic eruptions, tidal waves, floods, global warming, severe weather, and catastrophic meteorite impacts in a geological and human framework. A research paper or project is required. Prerequisite: An introductory course in a physical science. LEC.

GEOL 572. Geophysics. 3 Hours. N. Introductory study of gravitational, magnetic, seismic, electrical, and thermal properties of the earth. Measurements, interpretation, and applications to exploration, earth structure, and global tectonics. Prerequisite: An introductory course in geology; MATH 116 or MATH 122; and PHSX 115 or PHSX 212 and PHSX 236. PHSX 115 or PHSX 212 may be taken concurrently. LEC.

GEOL 573. Geodynamics and Plate Tectonics. 3 Hours. N. Study of physical processes in the solid Earth and of geophysical approaches to studying Earth systems at regional and global scales. Topics include global potential fields, thermal regime, rheology and Earth deformation, earthquakes and seismic structure, plate motions and global tectonics. (Same as PHSX 528.) Prerequisite: An introductory course in geology; MATH 116 or MATH 122; and PHSX 115 or PHSX 212 and PHSX 236. PHSX 115 or PHSX 212 may be taken concurrently. LEC.

GEOL 575. Seismic Exploration. 3 Hours. N. Application of seismic reflection and refraction techniques to the description of near-surface geology and the exploration for energy and mineral resources. Theory of seismic information, data collection, data processing using computers, and geologic interpretation. Prerequisite: A course in computer programming, either FORTRAN or C, which may be taken concurrently. An introductory geophysics course, such as GEOL 572. LEC.

GEOL 576. Potential Fields Exploration. 3 Hours. N. Use of gravity, magnetic, and electrical signals in the exploration for energy and mineral resources. Elementary potential field theory, data collection methods, data analysis, and interpretation using computers. Prerequisite: A course in computer programming, either FORTRAN or C, which may be taken concurrently. An introductory geophysics course, such as GEOL 572. LEC.

GEOL 577. Environmental Geophysics. 3 Hours. Application of the methods of geophysical exploration to evaluate, mitigate, and prevent environmental problems below the surface of the earth. Development of fundamental principles and discussion of environmental case histories using seismic, gravity, magnetic, electromagnetic, electrical, and radar methods. Prerequisite: An introductory course in geology; MATH 116 or MATH 122; and PHSX 115, or PHSX 212 and PHSX 236. LEC.

GEOL 591. Topics in Geology: _______. 1-5 Hours. N. May include lectures, discussions, readings, laboratory, and field work in geology. Will be given as needed. May be taken more than once. LEC.

GEOL 711. X-Ray Analysis. 1-2 Hours. Introduction to the theory and practice of X-ray diffraction and X-ray fluorescence analysis as applied to geological materials. Includes safety training necessary for the operation of X-ray analytical equipment in the department. Prerequisite: GEOL 311 and PHSX 115 or PHSX 212. LEC.

GEOL 712. Microstructures and Petrofabrics. 3 Hours. This course is geared towards developing a qualitative and quantitative understanding of the fundamentals of rock and mineral deformation necessary to interpret comprehensively microstructural data. Microstructures and petrofabrics contain a wealth of information on kinematics, rheology, and boundary conditions of deforming rocks, important information that often goes unnoticed and unused. This course builds on knowledge acquired in undergraduate structural geology and petrology courses and will give students the tools for a more rigorous and sophisticated evaluation of thin sections and quantitative microstructural and textural data. Required field trip. Prerequisite: GEOL 512 and GEOL 562; or consent of the instructor. LEC.

GEOL 713. Advanced Petrology. 1 Hour. Advanced topics in igneous and metamorphic petrology with emphasis on chemical and isotopic modeling. Course may be repeated, as topics covered vary. LEC.

GEOL 714. Thermochronology. 3 Hours. This advanced course is intended to provide students with an in-depth understanding of the fundamentals and an appreciation of the complexities of thermochronology. The primary focus of this course is on modern thermochronological dating methods, a quantitative understanding of noble gas diffusion, data acquisition and interpretation, numerical modeling of complex thermochronological data, and hands-on laboratory experience in the KU thermochronology facilities. Prerequisite: MATH 122 and GEOL 717; or consent of the instructor. LEC.

GEOL 715. Geochemistry. 3 Hours. Application of chemical equilibria and kinetics to geological environments and processes, with emphasis on processes involving solution equilibria. Includes introduction to thermodynamic aspects of equilibria. Prerequisite: CHEM 188 and MATH 122. LEC.

GEOL 716. Geologic Thermodynamics. 2 Hours. Classical thermodynamics with an emphasis on phase equilibria, solid-solution chemistry, and modeling of natural systems. Prerequisite: Second semester calculus, or permission of instructor. LEC.

GEOL 717. Geochronology. 2-4 Hours. Principles and applications of natural radioactive systems for geochronology and cosmochronology, including use of radiogenic isotopes as geochemical tracers. Prerequisite: GEOL 512 or consent of instructor. LEC.

GEOL 718. Stable Isotope Geochemistry. 1-3 Hours. Principles and applications of equilibria among stable isotopes in the geological environment, with emphasis on the isotopic systems of
hydrogen, carbon, and oxygen. Prerequisite: GEOL 715 or consent of instructor. LEC.

**GEOL 721. Micropaleontology. 3 Hours.**
Systematics, paleontology, evolution, and biostratigraphy of microfossils, particularly foraminifera, ostracodes, and conodonts. Preparation of material for study. Applications of micropaleontology to geologic problems. Prerequisite: GEOL 521 or BIOL 100 or 152. LEC.

**GEOL 722. Paleocology. 3 Hours.**
Principles of ecology as applied to the interpretation of past environments. Prerequisite: GEOL 521. LEC.

**GEOL 723. Paleontology Museum Apprenticeship. 1-6 Hours. N.**
Provides directed, practical experience in care and management of paleontology collections, public education, exhibits, and museum administration with emphasis tailored to fit the needs and interests of each student. Students should expect to spend a minimum of five hours per week for each hour in which they are enrolled. (Same as AMS 799, ANTH 799, BIOL 799, HIST 799, and MUSE 799.) FLD.

**GEOL 724. Paleobiogeography. 3 Hours.**
The study of the coevolution of the Earth and its biota. The class will focus on using phylogenetic approaches with fossil taxa to study how tectonic change has influenced the evolution of life and also to determine what evolutionary patterns can tell us about the nature and sequence of geological events. Prerequisite: GEOL 521, or consent of the instructor. LEC.

**GEOL 725. Paleontology of Lower Vertebrates. 3 Hours.**
General account of the osteology, geologic distribution, and evolution of the principal groups of fishes, amphibians, reptiles, and birds. Lectures and laboratory. (Same as BIOL 790.) Prerequisite: GEOL 105 or GEOL 304, or GEOL 521. LEC.

**GEOL 726. Paleontology of Higher Vertebrates. 3 Hours.**
Evolution of mammals and anatomical modifications involved in the process as ascertained from the fossil record. Lectures and laboratory. (Same as BIOL 791.) Prerequisite: GEOL 105 or GEOL 304 or GEOL 521. LEC.

**GEOL 727. Macroevolution. 3 Hours.**
This course will present a broad survey of topics in macroevolution including the differences between micro- and macroevolutionary patterns and processes and the manners of formulating and analyzing macroevolutionary questions. Discussions will focus on the relevance of hierarchy theory and levels of selection; an overview of species concepts, both ontological and epistemological; and an analysis of the neo-Darwinian synthesis as related to innovations in evolutionary theory. In addition, the relevance of contingency and extinction to evolutionary theory will be emphasized. LEC.

**GEOL 728. Paleopedology. 3 Hours.**
Paleopedology is the study of ancient soils preserved in the geologic record. The course covers concepts of paleopedology and its applications to the interpretation of paleoenvironmental, paleoecologic, and paleohydrogeologic settings and its use in sequence stratigraphy and paleoclimatology. Prerequisite: GEOG 535, GEOL 331, or GEOL 532; or consent of the instructor. LEC.

**GEOL 729. Ichnology. 3 Hours.**
Ichnology is the study of organism-substrate interactions. The class will cover concepts and applications of ichnology in the marine and continental realms, including the behavior of such organisms as microbes, plants, invertebrates, and vertebrates preserved in the geologic record as trace fossils. Ichnology is applied in geology and in the petroleum industry to interpret ancient environments, hydrogeology, ecology, and climate. Prerequisite: GEOL 331, GEOL 521, or GEOL 532; or consent of the instructor. LEC.

**GEOL 731. Terrigenous Depositional Systems. 4 Hours.**
Processes that operate in recent sedimentary environments, responses of sediment to those processes, and criteria for determining depositional environments of ancient sedimentary rocks. Lectures, practical exercises, and field trips. Prerequisite: GEOL 331 or GEOL 532. LEC.

**GEOL 732. Carbonate Depositional Systems. 3 Hours.**
Patterns and processes of contemporaneous carbonate deposition and diagenesis, depositional models; applications to interpretation of carbonate rocks. Lecture, discussion, laboratory and field trips. Prerequisite: GEOL 532 (may be taken concurrently). LEC.

**GEOL 741. Advanced Geomorphology. 1-3 Hours.**
Detailed discussions of processes and landforms characteristic of specific environments. Considered during separate semesters will be general methodology, and fluvial, arid regions, glacial, and shoreline geomorphology. Course may be taken more than once. (Same as GEOG 741.) Prerequisite: GEOL 541. LEC.

**GEOL 751. Physical Hydrogeology. 3 Hours.**
Study of fluid flow in subsurface hydrologic systems. Investigation of the ground water environment including porosity, and hydraulic conductivity and their relationship to typical geologic materials. Examination of Darcy's law and the continuity equation leading to the general flow equations. Discussion of typical hydraulic testing methods to estimate aquifer parameters in various situations and apply these to water resource problems. Study of the basic mechanisms that determine the behavior of typical regional flow systems. (Same as CE 752.) LEC.

**GEOL 753. Chemical and Microbial Hydrogeology. 4 Hours.**
Lecture and discussion of chemical and microbiological controls on groundwater chemistry. Topics include thermodynamic and microbiological controls on water-rock reactions; kinetics; and microbiological, chemical and isotopic tools for interpreting water chemistry with respect to chemical weathering and shallow diagenesis. Origins of water chemistry, changes along groundwater flow paths, and an introduction to contaminant biogeochemistry will be discussed through the processes of speciation, solubility, sorption, ion exchange, oxidation-reduction, elemental and isotopic partitioning, microbial metabolic processes and microbial ecology. An overview of the basics of environmental microbiology, including cell structure and function, microbial metabolism and respiration, microbial genetics and kinetics of microbial growth will be covered. (Same as CE 753.) Prerequisite: One year of chemistry, one year of calculus, one year of biology, an introductory course in hydrogeology, or consent of the instructors. LEC.

**GEOL 754. Contaminant Transport. 3 Hours.**
A study of the transport of conservative and non-conservative pollutants in subsurface waters. Case studies are used to illustrate and develop a conceptual understanding of such processes as diffusion, advection, dispersion, retardation, chemical reactions, and biodegradation. Computer models are developed and used to quantify these processes. (Same as CE 754.) Prerequisite: Introductory Hydrogeology or consent of instructor. LEC.

**GEOL 761. Regional Field Geology. 1-5 Hours.**
A detailed field study of a carefully selected area that includes features of several phases of geology. Field trip fee. Prerequisite: GEOL 581 or equivalent and departmental approval. FLD.

**GEOL 763. Tectonics and Regional Geology. 3 Hours.**
Topics vary with demand and include fundamental features of plate tectonics, interpretation and distribution of regional geology of mountain belts with emphasis on tectonic setting and processes, regional geology,
and tectonics of selected mountain belts. Prerequisite: GEOL 562, GEOL 512, or GEOL 331, and GEOL 572. LEC.

GEOL 771. Advanced Geophysics: ______. 1-3 Hours.
Topics to vary with demand and include heat flow, wave propagation, synthetic seismograms, groundwater exploration, geothermal exploration, electrical methods in exploration, rock mechanics-geotechnophysics, rock magnetism, geomagnetism, paleomagnetism, geophysical inverse theory, and others upon sufficient demand. May be repeated for different topics. (Same as PHSX 727.) Prerequisite: GEOL 572 or GEOL 573/PHSX 528 or consent of instructor. LEC.

GEOL 772. Geophysical Data Analysis. 3 Hours.
Fourier analysis, sampling theory, prediction and interpolation of geophysical data, filtering theory, correlation techniques, deconvolution. Examples will be chosen from various fields of geophysics. (Same as PHSX 722.) Prerequisite: MATH 250/AE 250/ARCE 250/CE 250/CPE 250/ECE 250/EPHX 250/ME 250 and either GEOL 572 or GEOL 573 or PHSX 528. LEC.

GEOL 773. Seismology. 3 Hours.
General theory of seismic waves, wave field extrapolation (migration) by finite difference methods, construction of travel-time curves, reflection and attenuation of coefficients, earthquake source mechanism, distribution and forecasting of earthquakes. (Same as PHSX 723.) Prerequisite: MATH 250/AE 250/ARCE 250/CE 250/CPE 250/ECE 250/EPHX 250/ME 250 and either GEOL 572 or GEOL 573 or PHSX 528. LEC.

GEOL 774. Finite Difference Methods for Geophysics. 2-3 Hours.
Application of finite difference methods to solve the partial differential equations that commonly occur in the study of geophysics. Representative examples will be drawn from groundwater flow, gravity and magnetics modeling, and seismic wave propagation. Emphasis will be on obtaining actual solutions for practical problems. Prerequisite: MATH 250, or MATH 320, or consent of the instructor. LEC.

GEOL 775. Near-Surface Seismology. 3 Hours.
Theoretical and applied study of all aspects of near-surface reflection, refraction, and surface-wave seismology from design and acquisition to interpretation. Prerequisite: MATH 250, GEOL 572, or consent of the instructor. LEC.

GEOL 780. Conservation Principles and Practices. 3 Hours.
This course will acquaint the future museum professional with problems in conserving all types of collections. Philosophical and ethical approaches will be discussed, as well as the changing practices regarding conservation techniques. Emphasis will be placed on detection and identification of causes of deterioration in objects made of organic and inorganic materials, and how these problems can be remedied. Storage and care of objects will also be considered. (Same as AMS 714, BIOL 700, HIST 722 and MUSE 706.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

GEOL 781. Introduction to Museum Exhibits. 3 Hours.
This course will consider the role of exhibits as an integrated part of museum collection management, research, and public service. Lecture and discussion will focus on issues involved in planning and producing museum exhibits. Laboratory exercises will provide first hand experience with basic preparation techniques. Emphasis will be placed on the management of an exhibit program in both large and small museums in the major disciplines. (Same as AMS 700, BIOL 787, HIST 723, and MUSE 703.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

GEOL 782. The Nature of Museums. 3 Hours.
The purpose of this course is to provide an overview of the kinds of museums, their various missions, and their characteristics and potentials as research, education, and public service institutions responsible for collections of natural and cultural objects. (Same as AMS 720, BIOL 788, HIST 720, and MUSE 702.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

GEOL 783. Museum Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museums as organizations; accounting, budget cycles, personnel management, and related topics will be presented using, as appropriate, case studies and a simulated museum organization model. (Same as AMS 731, BIOL 785, HIST 728, and MUSE 701.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

GEOL 784. Introduction to Museum Public Education. 3 Hours.
Consideration of the goals of an institution’s public education services, developing programs, identifying potential audiences, developing audiences, and funding. Workshops and demonstrations are designed for students to gain practical experience working with various programs and developing model programs. (Same as AMS 797, BIOL 784, HIST 721, and MUSE 705.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

GEOL 785. Principles and Practices of Museum Collection Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museum collections, their associated data, and their use in scholarly research; cataloging, storage, fumigation, automated information management and related topics will be presented for museums of art, history, natural history and anthropology. (Same as AMS 730, BIOL 798, HIST 725, and MUSE 704.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

GEOL 791. Advanced Topics in Geology: ______. 1-5 Hours.
Selected offerings in geology. Intended primarily for graduate students and qualified seniors. May include lectures, discussions, reading, laboratory and field work. May be taken more than once. LEC.

GEOL 837. Geoscience and Petroleum Engineering. 3 Hours.
Advanced geological, geophysical, and engineering characterization of a petroleum reservoir. Includes mapping; petrophysical, production, and pressure analysis; and numerical modeling. Considers economic analysis of steps to improve recovery. Students who have completed GEOL 537 may not take GEOL 837 for credit. LEC.

GEOL 851. Field and Laboratory Methods: Physical Hydrogeology. 1 Hour.
Introduction to field and laboratory methods commonly used in physical hydrogeology. Practical experience with common water level measurement techniques, various well pumping techniques, well installation and geologic core sampling, and hydraulic testing. Prerequisite: Introductory course in hydrogeology and familiarity with computer use for data processing, or consent of instructor. FLD.

GEOL 852. Field and Laboratory Methods: Contaminant Transport. 1 Hour.
Introduction to laboratory methods for evaluating reactive transport parameters, followed by development and implementation of computer models. Students will gain experience building models starting from basic transport equations using a spreadsheet platform and, where appropriate, commercial software packages. Prerequisite: GEOL 751 (may be taken concurrently) or equivalent, or consent of the instructor. LAB.

GEOL 853. Field and Laboratory Methods: Chemical Hydrogeology. 1 Hour.
Practical experience in measuring unstable chemical parameters in groundwater, including pH, Eh, dissolved oxygen, temperature, alkalinity, specific conductance, and turbidity. Practical experience in
collecting water samples for chemical analysis, choosing appropriate sample containers and preservation methods, and special techniques for collecting samples for determination of parameters sensitive to environmental changes such as oxygen level or temperature. Prerequisite: GEOL 753 (may be taken concurrently) or equivalent, or consent of the instructor. FLD.

GEOL 854. Field and Laboratory Methods: Geobiology. 1 Hour. Practical experience in cultivating, enumerating and visualizing groundwater microorganisms. Geochemical and molecular techniques for studying microbial community diversity, biomineralization and mineral dissolution, and biodegradation of organic contaminants will be covered. Practical experience in collecting water samples for preservation of microorganisms sensitive to environmental changes such as oxygen level or temperature. Prerequisite: GEOL 753 (may be taken concurrently) or equivalent, or consent of the instructor. FLD.

GEOL 891. Special Studies in Geology. 1-5 Hours. May be repeated. RSH.

GEOL 899. Master's Thesis. 1-12 Hours. THE.

GEOL 921. Advanced Invertebrate Paleontology: _____ 1-3 Hours. Detailed study of systematics, morphology, stratigraphic distribution and paleoecology of major groups of organisms in the fossil record. Specific group or groups covered will vary according to student and faculty needs and interests. May be repeated. Prerequisite: An introductory course in invertebrate paleontology. LEC.

GEOL 932. Carbonate Petrology. 3 Hours. Study of the physical and chemical factors important in the genesis and diagenesis of carbonate rocks. Includes the application of principles learned from research on modern marine environments to the interpretation of ancient carbonates. Various analytical techniques are covered with emphasis on thin section petrography. Prerequisite: GEOL 331 and GEOL 732. LEC.

GEOL 933. Sandstone Petrology. 3 Hours. Description, classification, and interpretation of sedimentary rocks, emphasizing petrographic methods applied to terrigenous rocks and interpretation of provenance of sedimentary sequences. Prerequisite: GEOL 511 and GEOL 531 or GEOL 532. LEC.

GEOL 991. Seminar in: _____ 1-5 Hours. A review of the principles of the geological sciences. Fields considered are: geomorphology, igneous petrology, metamorphic petrology, invertebrate paleontology, groundwater, geochemistry, stratigraphy, sedimentation, micropaleontology, mineralogy, structural geology, and geophysics. Several may be taken concurrently. May be taken more than one semester. LEC.

GEOL 999. Doctoral Dissertation. 1-12 Hours. THE.

Germanic LanguagesLiteratures Courses

DANE 100. Danish Reading Course. 3 Hours. U. Essentials of grammar, practice in speaking, reading, and writing Danish. Five hours of recitation per week. Not open to native speakers of Danish. LEC.

DANE 104. Elementary Danish I. 5 Hours. U. Essentials of grammar, practice in speaking, reading, and writing Danish. Five hours of recitation per week. Not open to native speakers of Danish. LEC.

DANE 105. Elementary Danish I, Honors. 5 Hours. H. Course content similar to DANE 104, with additional work to expand the student's cultural context and understanding. Not open to native speakers of Danish or students who have completed DANE 104. Prerequisite: Open only to students admitted to the University Honors Program or by permission of instructor. LEC.

DANE 108. Elementary Danish II. 5 Hours. U. Continuation of grammar; practice in conversation, composition, and reading. Five hours of recitation per week. Not open to native speakers of Danish. Prerequisite: DANE 104 or permission of instructor. LEC.

DANE 109. Elementary Danish II, Honors. 5 Hours. H. Course content similar to DANE 108, with additional cultural study. Not open to native speakers of Danish or students who have completed DANE 108. Prerequisite: Open to students who received a grade of A in DANE 104 or an A or B in DANE 105. LEC.

DANE 177. First Year Seminar: _____ 3 Hours. GE11 / U. A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Danish. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

DANE 212. Intermediate Danish I. 3 Hours. U. A continuation of DANE 108. Structured grammar review, composition, conversation with readings of literary and cultural texts. Not open to native speakers of Danish. Prerequisite: DANE 108 or permission of instructor. LEC.

DANE 213. Intermediate Danish I, Honors. 3 Hours. H. Course content similar to DANE 212, with additional cultural study. Not open to native speakers of Danish or students who have completed DANE 212. Prerequisite: Completion of DANE 108 with a grade of A, or DANE 109 with a grade of A or B. LEC.

DANE 216. Intermediate Danish II. 3 Hours. U. A continuation of DANE 212. Structured grammar review, composition, conversation with readings of literary and cultural texts. Not open to native speakers of Danish. Prerequisite: DANE 212 or permission of instructor. LEC.

DANE 217. Intermediate Danish II, Honors. 3 Hours. H. Course content similar to DANE 216, with additional cultural study. Not open to native speakers of Danish or students who have completed DANE 216. Prerequisite: Completion of DANE 212 with a grade of A, or DANE 213 with a grade of A or B. LEC.

DANE 220. Intensive Danish. 16 Hours. U. This course is designed to teach speaking, reading, writing, and comprehension skills of first and second year Danish in one semester. Classes are held for four hours a day Monday through Friday (8:30 a.m. - 12:20 p.m.). There are intensive drills in grammar, integrated language lab work, and homework assignments. Not open to native speakers of Danish. Prerequisite: Admission to Danish Institute at the University of Kansas. LEC.

DTCH 100. Dutch Reading Course. 3 Hours. U. Special course designed to enable graduate students to develop a reading knowledge of Dutch as a research skill. Enrollment for undergraduate credit is required. Does not satisfy any part of the
undergraduate language requirement. Not open to native speakers of Dutch. LEC.

**DTCH 101. Dutch Reading Course II. 3 Hours.**
Continuation of DTCH 100. Not open to native speakers of Dutch. Prerequisite: DTCH 100 or equivalent. LEC.

**DTCH 104. Elementary Dutch I. 5 Hours. U.**
Essentials of grammar; practice in speaking, reading, and writing Dutch. Five hours of recitation per week. Not open to native speakers of Dutch. LEC.

**DTCH 105. Elementary Dutch I, Honors. 5 Hours. U.**
Similar to DTCH 104 with additional work to expand the student’s cultural context and understanding. Not open to native speakers of Dutch or students who have completed DTCH 104. Prerequisite: Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

**DTCH 108. Elementary Dutch II. 5 Hours. U.**
Continuation of grammar, practice in conversation, composition, and reading. Five hours of recitation per week. Not open to native speakers of Dutch. Prerequisite: DTCH 104 or equivalent. LEC.

**DTCH 109. Elementary Dutch II, Honors. 5 Hours. U.**
Course content similar to DTCH 108, with additional cultural study. Meets 5 days a week. Not open to native speakers of Dutch. Prerequisite: Open only to students admitted to the University Honors Program or by permission of instructor. LEC.

**DTCH 177. First Year Seminar: ______. 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Dutch. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**DTCH 212. Intermediate Dutch I. 3 Hours. U.**
A continuation of DTCH 108. Structured grammar review, composition, conversation, with readings of literary and cultural texts. Three class meetings per week. Not open to native speakers of Dutch. Prerequisite: DTCH 108 or equivalent. LEC.

**DTCH 213. Intermediate Dutch I, Honors. 3 Hours. U.**
Course content similar to DTCH 212, with additional cultural study. Three class meetings per week. Not open to native speakers of Dutch. Prerequisite: Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

**DTCH 216. Intermediate Dutch II. 3 Hours. U.**
A continuation of DTCH 212. Structured grammar review, composition, conversation, with readings of literary and cultural texts. Three class meetings per week. Not open to native speakers of Dutch. Prerequisite: DTCH 212 or equivalent. LEC.

**DTCH 217. Intermediate Dutch II, Honors. 3 Hours. U.**
Course content similar to DTCH 216, with additional cultural study. Three class meetings per week. Not open to native speakers of Dutch. Prerequisite: Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

**DTCH 453. Investigation and Conference: ______. 1-3 Hours. H/W.**
Independent study and directed reading on special topics. Permission of the instructor who will supervise the student’s work is required. Not open to native speakers of Dutch. IND.

**GERM 100. German Reading Course I. 3 Hours. U.**
A special reading course for candidates for advanced degrees in other departments, designed to aid them in obtaining a reading knowledge of German, for purposes of research. Enrollment for undergraduate credit is required. An intensive study of the fundamentals of grammar, proceeding to the reading of material of medium difficulty. Three recitations weekly. Intended primarily for graduate students, but open also to seniors planning graduate study. The course does not satisfy any part of the undergraduate language requirement. Presupposes no previous study in German. Not open to native speakers of German. LEC.

**GERM 101. German Reading Course II. 3 Hours. U.**
A continuation of GERM 100. Review of grammar, with emphasis on reading and translation of material of an advanced nature in the candidate’s general field. Three recitations weekly. Not open to native speakers of German. LEC.

**GERM 104. Elementary German I. 5 Hours. AE42 / U.**
Introductory German; no previous German required. Development of students' balanced knowledge of the German language and culture, including the ability to understand and produce short spoken, written, and multimedia texts on everyday topics and to interpret, compare, and contrast German and American cultural phenomena. Emphasis on interaction. Not open to native speakers of German. Students who complete this course successfully should take GERM 108. LEC.

**GERM 108. Elementary German II. 5 Hours. AE42 / U.**
Continuation of GERM 104. Further development of students' balanced knowledge of the German language and culture, including the ability to understand and produce short spoken, written, and multimedia texts on everyday topics and to interpret, compare, and contrast German and American cultural phenomena. Emphasis on interaction. Not open to native speakers of German. Students who complete this course successfully should take GERM 201. Prerequisite: GERM 104 or placement by examination. LEC.

**GERM 111. Introduction to German I. 3 Hours. U.**
Introduction to German for special purposes; no previous German required. Provides basic familiarity with the German language, focusing on speaking and reading skills and the essentials of German grammar. Introduction to the culture of the German-speaking world. Three class hours per week; may be delivered by video conference or face-to-face. Does not satisfy any KU language requirement. LEC.

**GERM 112. Introduction to German II. 3 Hours. U.**
Continuation of GERM 111. Further development of basic familiarity with the German language, focusing on speaking and reading skills and the essentials of German grammar. Continued exploration of the culture of the German-speaking world. Three class hours per week; may be delivered by video conference or face-to-face. Does not satisfy any KU language requirement. LEC.

**GERM 113. Introduction to German III. 1.5 Hour. U.**
Continuation of GERM 112. Further development of basic familiarity with the German language, focusing on speaking and reading skills and the essentials of German grammar. Continued exploration of the culture of the German-speaking world. Three class hours per week; may be delivered by video conference or face-to-face. Does not satisfy any KU language requirement. Prerequisite: GERM 111 or permission of instructor. LEC.

**GERM 124. German Cinema in Context. 3 Hours. HL AE42 / H.**
Taught in English. Screening and analysis of German films from the early 20th century to the present. Readings, lectures, and discussions on the films' sources, ideologies, techniques, and artistic achievements. Does not count toward the German major or minor. LEC.

**GERM 125. German Cinema in Context (Honors). 3 Hours. HL AE42.**
Course content similar to GERM 124. Taught in English. Screening and analysis of German films from the early 20th century to the present. Readings, lectures, and discussions on the films' sources, ideologies,
GERM 128. Introduction to the Arts in German-Speaking Europe. 3 Hours. H.
Taught in English. Exploration of the arts in German-speaking Europe: major cultural periods, movements, art forms, and people (artists, architects, composers, writers, filmmakers) from the Middle Ages to the present. Consideration of the arts within the larger European historical and cultural context from which they emerged. Does not count toward the German major or minor. This course is offered at the 100 and 300 levels with additional assignments at the 300-level. Not open to students who have completed GERM 328. LEC.

GERM 132. The City of Berlin in German Culture. 3 Hours. H.
Taught in English. Introduction to Berlin within the context of major German and European historical, social, intellectual, and artistic developments since 1800. Exploration of complex epochs such as the Bismarck, Nazi, Cold War, and post-unification eras through journalism, literature, sociological writings, and film. Does not count toward German major or minor. This course is offered at the 100 and 300 levels with additional assignments at the 300-level. Not open to students who have completed GERM 332. LEC.

GERM 136. The German Transatlantic Experience. 3 Hours. HT AE41 / U.
Taught in English. Introduction to the migration of German-speaking Europeans to North America, 17th century-present. Consideration of European and North American factors motivating migration, the journey to the New World, the experiences of immigrants and their descendants, and the ways in which German-speaking Europeans shaped the multicultural history of America. LEC.

GERM 148. Germanic Mythology, Religion, and Folklore. 3 Hours. H/ W.
Taught in English. Introduction to the pagan myths and beliefs of Teutonic antiquity and their survival in the popular traditions of Germanic countries, within the framework of comparative mythology, archaeology, and anthropology. Does not count toward the German major or minor. LEC.

GERM 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in German. Course is designed to meet the critical reasoning learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

GERM 201. Intermediate German I. 3 Hours. AE42 / U.
Continuation of GERM 108. Further development of students’ balanced knowledge of the German language and culture, including the ability to understand and produce short spoken, written, and multimedia texts in different genres and to interpret, compare, and contrast German and American cultural phenomena. Emphasis on interaction. Not open to native speakers of German. Students who complete this course successfully should take GERM 202. Prerequisite: GERM 108 or placement by examination. LEC.

GERM 202. Intermediate German II. 3 Hours. AE42 / U.
Continuation of GERM 201. Further development of students’ balanced knowledge of the German language and culture, including the ability to understand and produce short spoken, written, and multimedia texts in different genres and to interpret, compare, and contrast German and American cultural phenomena. Emphasis on interaction. Not open to native speakers of German. Students who successfully complete this course should take GERM 301. Prerequisite: GERM 201 or placement by examination. LEC.

GERM 203. Introduction to Business German: Deutsch im Berufsalltag. 3 Hours. AE42 / H.
Continuation of GERM 201; completes language proficiency sequence. Further development of students’ balanced knowledge of the German language and culture, including the ability to understand and produce short spoken, written, and multimedia texts on the topics related to professional communication and to interpret, compare, and contrast German and American business cultural phenomena. Emphasis on interaction. Recommended for students planning to take GERM 352 and GERM 462. Not open to native speakers of German. Prerequisite: GERM 201 or placement by examination. LEC.

GERM 220. Special Studies in Germanic Languages. 1-5 Hours. U.
Credits awarded for elementary instruction in a Germanic language while studying abroad. Transfer credits must be arranged through the KU Office of Study Abroad, with permission from the departmental undergraduate advisor. May be repeated for credit if content varies. LEC.

GERM 222. Special Studies in German: _____. 1-3 Hours. H/W.
Credits awarded for the study of special topics in German while studying abroad. Transfer credits must be arranged through the KU Office of Study Abroad, with permission from the departmental undergraduate advisor. May be repeated for credit if content varies. LEC.

GERM 301. High Intermediate German I. 3 Hours. AE42 / H/W.
Continuation of GERM 202. Further development of students’ use of German through reading and discussion of literary and non-literary texts (spoken, written, multimedia, combined with intensive grammar review. Introduction to expressive functions of German with emphasis on spoken and written communication. Not open to native speakers of German. Students who complete this course successfully should take GERM 302. Prerequisite: GERM 202 or placement by examination. LEC.

GERM 302. High Intermediate German II. 3 Hours. AE42 / H/W.
Continuation of GERM 301. Refinement and expansion of students’ use of German. Reading and discussion in German of literary and non-literary texts (spoken, written, multimedia), combined with continued intensive grammar review. Emphasis on better understanding German grammatical structures and acquisition of vocabulary. Not open to native speakers of German. Students who complete this course successfully should take GERM 401. Prerequisite: GERM 301 or placement by examination. LEC.

GERM 315. German Literature and the Modern Era. 3 Hours. H.
Introduction in English to German writers 1750-present. Discussion of themes such as technology, modern and postmodern developments, gender, war, politics, and culture in German-speaking Europe. Readings include works in translation by influential German writers. Open to first-year students and non-majors; qualifies for major or minor credit when taken with GERM 316, a one-hour discussion section. GERM 315 and GERM 316 are required for admission to all courses beyond GERM 402 (except GERM 444 and GERM 462). LEC.

GERM 316. Discussion Section for German Literature and the Modern Era. 1 Hour. H.
Discussion section to be taken with GERM 315: German Literature and the Modern Era. Introduction to critical German vocabulary for discussing German-language literature in its historical and cultural context. Prerequisite: GERM 202 or placement by examination. GERM 315 qualifies for major or minor credit when taken with GERM 316. LEC.

GERM 320. Border Crossings in German Culture. 3 Hours. HT AE42.
Taught in English. Exploration of writers, filmmakers, and artists who have emigrated from, or migrated to German-speaking Europe. Emphasis on both their transnational impact and their representations of border crossings. Topics may include exile communities before, during, and after
GERM 324. Magic, Monsters and the Occult in German Literature. 3 Hours. HL AE42.
Taught in English. Reading and discussion of fictional and non-fictional works by German writers that address topics such as magic, monsters, and the occult sciences. German poets introduced popular themes, such as the Faust legend and the pact with the devil, and they introduced one of the most popular monsters into literature - the vampire. In this course we read and discuss fictional and nonfictional works by German authors that address these themes, and we discuss the influence that these works have had on other nations' literatures. Does not fulfill any requirement in the German major or minor. Prerequisite: Membership in the University Honors Program or permission of instructor. LEC.

GERM 325. Magic, Monsters, and the Occult in German Literature, Honors. 3 Hours. HL / H.
Taught in English. For centuries German scientists, philosophers and poets have produced groundbreaking literature that has featured magic, monsters and the occult sciences. German poets introduced popular themes, such as the Faust legend and the pact with the devil, and they introduced one of the most popular monsters into literature - the vampire. In this course we read and discuss fictional and nonfictional works by German authors that address these themes, and we discuss the influence that these works have had on other nations' literatures. Does not fulfill any requirement in the German major or minor. Prerequisite: Membership in the University Honors Program or permission of instructor. LEC.

GERM 328. The Arts in German-Speaking Europe. 3 Hours. HL AE42.
Taught in English. Exploration of the arts in German-speaking Europe: major cultural periods, movements, art forms, and people (artists, architects, composers, writers, filmmakers) from the Middle Ages to the present. Consideration of the arts within the larger European historical and cultural context from which they emerged. Does not count toward the German major or minor. This course is offered at the 100 and 300 levels with additional assignments at the 300-level. Not open to students who have completed GERM 128. LEC.

GERM 330. Topics in: ____. 3 Hours. H.
Taught in English. Interdisciplinary study of selected aspects of the society or culture of German-speaking Europe or of the European experience. Does not count toward the German major or minor. LEC.

GERM 332. Berlin in German Culture. 3 Hours. HL AE42.
Taught in English. Introduction to Berlin within the context of major German and European historical, social, intellectual, and artistic developments since 1800. Exploration of complex epochs such as the Bismarck, Nazi, Cold War, and post-unification eras through journalism, literature, sociological writings, and film. Does not count toward German major or minor. This course is offered at the 100 and 300 levels with additional assignments at the 300-level. Not open to students who have completed GERM 132. LEC.

GERM 333. German Conversation and Idioms. 3 Hours. H.
Intensive practice in conversational German with instruction in proper pronunciation as well as an introduction to idiomatic usage. Only for students in the KU Summer Language Institute in Holztkirchen, Germany. Prerequisite: GERM 202 or equivalent fourth -semester German course. LEC.

GERM 335. Love and the German Middle Ages. 3 Hours. H.
Taught in English. Introduction to German conceptions of love, marriage, and adultery in medieval and early modern German-speaking Europe. Exploration of the German contribution to discourse of love through theoretical, literary, and legal texts, as well as through visual and material culture. Examination of German discourse within the broader European context, and of similarities, differences, and continuities between medieval and modern constructs. Does not count toward German major or minor. LEC.

GERM 352. Business German: Deutsch Fur Den Beruf. 3 Hours. H/W.
Extensive practice in business communication: terminology, texts and correspondence, oral practice in business situations. Not open to native speakers of German. Prerequisite: GERM 202 or placement by examination. LEC.

GERM 375. Topics in Film of German-Speaking Europe: _____. 3 Hours. H.
Examination of topics such as Expressionism, Turkish-German culture in contemporary German film, popular filmmaking, post-unification film, German literature as film, German film and national identity. Topics and periods vary. Prerequisite: GERM 302. LEC.

GERM 400. Introduction to German Literary Masterpieces. 3 Hours. H/W.
For students enrolled in the KU Summer Language Institute in Germany. Selected works of major German Language writers of the 19th and 20th centuries. Not open to native speakers of German. Prerequisite: GERM 302. LEC.

GERM 401. Advanced German I. 3 Hours. H.
Continuation of GERM 302. Development of refinement of proficiency in German (speaking, listening, reading, writing), increased understanding of German grammatical structures, development of a more sophisticated vocabulary, and introduction to stylistics through discussion and analysis of literary and nonliterary texts. Students successfully completing GERM 401 may take all other GERM courses at the 400 and 500 levels. Prerequisite: GERM 302. LEC.

GERM 402. Advanced German II. 3 Hours. H.
Continuation of GERM 401. Development of advanced proficiency in German through analysis and discussion of literary and nonliterary texts and practice in advanced composition. Emphasis in both discussions and papers on style and rhetoric and on developing skill in textual analysis. Focus on advanced German grammar and on style and idiomatic expression in spoken and written German. Prerequisite: GERM 401. LEC.

GERM 411. German Culture 1150-1750. 3 Hours. AE61 / H.
Exploration of major cultural periods and movements within the framework of historical and political change, with investigation of themes such as nation and national identity, founding myths, geography, and language. Study of forms of culture in German-speaking Europe, including visual art, music, literature, architecture, and the press. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 412. German Culture 1750-Present. 3 Hours. AE61 / H.
Exploration of major cultural periods and movements 1750-present within the framework of historical and political change, with investigation of themes such as nation and national identity, founding myths, geography, and language. Study of forms of culture in German-speaking Europe, including visual art, music, literature, architecture, and the press. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 444. German Conversation. 3 Hours. H/W.
Further development of practical conversational skills for students with intermediate proficiency in German. Discussion of topics from everyday German life and current affairs, based on German newspapers and magazines. May be repeated but counts only once toward the major or minor. Not open to native speakers of German. Prerequisite: GERM 302. LEC.

GERM 453. Investigation and Conference: ____. 1-3 Hours. H/W.
Independent study and directed reading on special topics. Permission of the instructor who will supervise the student's work is required. Not open to native speakers of German. IND.
GERM 462. The German Business Environment. 3 Hours. H/W.
Introduction to German business practices, including basic information about German economic and corporate life. Especially designed for students intending to participate in an internship with a German company and those who wish to enhance their knowledge of basic business German. Taught in German. Not open to native speakers of German. Prerequisite: One 300-level German course. LEC.

GERM 475. Topics in German Studies: ____. 3 Hours. H.
Exploration of cultural forms such as literature, film, philosophy, social institutions, linguistics, the arts, and the press. Examination of how cultural meaning is produced and interpreted. Topics vary, and course may address topics across a narrow or broad time frame. May be repeated if content varies. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 480. Literature and Culture of German-Speaking Europe 1150-1750. 3 Hours. AE61 / H.
Exploration of medieval and early modern literature within the framework of major cultural movements and historical, political, and economic change. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 481. Literature and Culture of German-Speaking Europe 1750-1830. 3 Hours. AE61 / H.
Exploration of literature within the framework of major cultural movements and historical, political, and economic change. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 482. Literature and Culture of German-Speaking Europe 1830-1918. 3 Hours. AE61 / H.
Exploration of literature within the framework of major cultural movements and historical, political, and economic change. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 483. Literature and Culture of German-Speaking Europe 1918-Present. 3 Hours. AE61 / H.
Exploration of literature within the framework of major cultural movements and historical, political, and economic change. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 501. Advanced German III. 3 Hours. H.
Focus on usage-based grammar of contemporary German. Extensive reading and analysis of grammatical structures in context and integration of form, meaning, and use. Exploration of grammatical structures using contemporary electronic textual analysis tools. Prerequisite: GERM 402. LEC.

GERM 550. German Language Seminar: History of the German Language. 3 Hours. H.
Introduction to basic concepts of German philology and historical linguistics and exploration of the development of a national German language. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 560. German Language Seminar: Structure of the German Language. 3 Hours. H.
This course provides an overview of the structure of modern standard German. Students will explore different levels of the linguistic system of German (including phonology, morphology, and syntax) and complete practical exercises. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 575. Topics in Genre: _____. 3 Hours. H.
Study of the definition, style, form, and content of a specific literary genre in German-language literature and the social, cultural, political, and economic factors that led to its emergence. Consideration of the genre's suitability for particular writers or periods. Topic and period vary. May be repeated if content varies. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 579. Investigation and Conference: ____. 1-3 Hours. AE61 / H/W.
Independent study and directed reading on special topics. Permission of the instructor who will supervise the student's work required. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 580. Senior Capstone Course: German-Speaking Europe Today. 3 Hours. AE61 / H.
Focus on synthesizing students' knowledge of the history, culture, and politics of German-speaking Europe 1945-present. Consideration of scholarly articles, journalism, essays, literary texts, film, and the arts on topics including cultural identity in post-unified Germany; European integration; current debates and controversies; political parties and leading political figures; role of literature, film, music, visual arts, media, and popular culture; role of universities. Required of all German majors in senior year. Prerequisite: GERM 316, GERM 401, and senior standing. LEC.

GERM 598. Research for Departmental Honors. 3 Hours. H.
Research for a departmental honors project, on a topic chosen in conjunction with the faculty advisor. Emphasis on independent study and writing. Open to students with previous coursework in German at the 400 level, an overall 3.0 GPA, and at least a B+ average in advanced work in German. Prerequisite: GERM 316, GERM 401, senior standing, and permission of Undergraduate Advisor. LEC.

GERM 599. Departmental Honors Project. 3 Hours. H.
Continuation of GERM 598. Course consists of completion of Departmental Honors project. Quality of project determines whether student receives credit only or Honors in German. Prerequisite: GERM 598. LEC.

GERM 614. Course in Representative Authors: _____. 3 Hours. AE61 / H.
Readings and discussions in German of selected literary works by a major author (e.g., Goethe, Heine, Fontane, Brecht, Kafka, Grass, etc.). May be repeated. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416 and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC.

GERM 616. Topics in German Literature: ____. 3 Hours. AE61 / H/W.
Readings and discussions in German of selected literary works on a particular topic or theme (e.g., nature, women, art and literature, etc.). May be repeated. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416, and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC.

GERM 618. Topics in German Language and Linguistics: ____. 3 Hours. AE61 / H/W.
Readings and discussions in German in an area of specialized language or linguistic study (e.g., lexical fields, modern German dialects, etc.). May be repeated. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416, and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC.

GERM 620. Topics in German Culture and Folklore: _____. 3 Hours. AE61 / H/W.
Readings and discussions in German on some aspect of German culture or folklore, including Landeskunde (study of contemporary Germany). May be repeated. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416, and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC.

GERM 626. Idiomatic Usage in Modern Colloquial and Literary German. 3 Hours. AE61 / H/W.
Practical exercises in the systematic study of idioms and synonyms, designed to foster a more discriminating and effective usage of German.
Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416 and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC.

GERM 628. Translation into German (Advanced). 3 Hours. AE61 / H/W.
Exercises in the translation of expository and stylistically sophisticated texts from various fields. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416 and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC.

GERM 630. Advanced German Grammar. 3 Hours. AE61 / H/W.
Recommended for students intending to teach German. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416 and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC.

GERM 632. Deutscher Stil (Advanced German Composition). 3 Hours. AE61 / H/W.
Training in writing reports and seminar papers in German. Recommended for students intending to do graduate work in German. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416 and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC.

GERM 681. Language Teaching for Oral Proficiency. 1 Hour. AE61 / U.
A summer course designed principally for secondary school language teachers. Provides an orientation to proficiency-based models in foreign language instruction, national standards in the rating of foreign language proficiency, and curriculum development sessions which address issues of articulation in foreign language curricula. (Not applicable toward a major or graduate degree in German.) (Same as FREN 681 and SPAN 681.) LEC.

GERM 700. Introduction to Graduate Studies in German. 3 Hours.
An introduction to the skills required of students enrolled in graduate degree programs in German Studies; areas covered include 1) introduction to literary theory and criticism, 2) bibliography and research methods, including database management software, 3) preparation and presentations of a research/conference paper, 4) technology training, including web design, on-line portfolio, and digital humanities, and 5) professional ethics and awareness of the academic market and alternative careers. We will also be working on practical, professionally useful goals, such as how to (better) make use of technology, how to create a CV and modify it for different positions, how to write an abstract, and how to produce a conference paper. Course requirements will include a variety of smaller assignments and two larger projects, a web-based professional portfolio and an 8 to10-page conference paper. LEC.

GERM 701. Introduction to the Study of Literature. 3 Hours.
Introduction to methods of literary research and presentation of seminar papers. Exercises in the use of basic guides to the study of German language and literature, in the documentation of scholarly research, and in the writing of interpretive essays, based on reading and discussion of selected works from different periods of the departmental "Basic Reading List. LEC.

GERM 702. Tutorial-Introduction to Graduate Studies in German. 1 Hour.
This course will be taken in conjunction with German 700 Introduction to Graduate Studies in German. Students enroll in this course with a faculty mentor in the German department based on the area in which they will write their research paper for German 700. It is the purpose of this tutorial to provide in-depth guidance specific to the field of German to students throughout the semester as they write their research papers, to help them develop their analytical and responsible research skills, which will serve as a model for longer term papers and theses. RSH.

GERM 703. Methods of Literary Criticism. 3 Hours.
Differentiation of critical methods. Exercises in textual criticism. LEC.

GERM 704. German Stylistics. 3 Hours.
Stylistic analysis of literary texts; writing in German. LEC.

GERM 705. German Phonetics. 3 Hours.
A systematic study of German phonetics. Prerequisite: Graduate standing or consent of instructor. LEC.

GERM 710. Workshop for M.A. Students. 1 Hour.
Discussion of policies in the M.A. program, examinations, thesis proposals, writing of theses, grant proposals, conference presentations, publications of scholarship, and entrance into the academic job market. Required of all M.A. students in the first year in the program. Does not count toward completion of 30 hours of course work for the M.A. RSH.

GERM 711. History of the German Language. 3 Hours.
A comprehensive introduction to the basic concepts of German philology and various aspects of historical linguistics, including the nature of language and linguistic change, discoveries of the pioneer philologists of the 19th century regarding the prehistory of German, and the beginnings of a national German language. LEC.

GERM 712. The Structure of Modern Standard German. 3 Hours.
A descriptive study of the phonetics/phonology and grammar of contemporary standard German. Special emphasis on problems of teaching German to English-speaking students. LEC.

GERM 716. Topics in German Literature: _______. 3 Hours.
Intensive study of a selected topic in German literature. May be repeated. Offered only in conjunction with GERM 616 when taught by a Max Kade Distinguished Visiting Professor. Graduate students will be assigned additional work. LEC.

GERM 718. Topics in German Language and Linguistics: _______. 3 Hours.
Intensive study of a selected topic in German language and linguistics. May be repeated for credit. LEC.

GERM 721. Introduction to Middle High German Literature. 3 Hours.
The elements of Middle High German as required for reading medieval texts in the original. Intensive reading and literary study of at least one text in full. LEC.

GERM 732. Early Modern Period. 3 Hours.
Reading and discussion of major literary works of the period; combined with lectures and background readings on literary, cultural, and political history. LEC.

GERM 734. Age of Goethe. 3 Hours.
Reading and discussion of major literary works in the period; combined with lectures and background readings on literary, cultural, and political history. LEC.

GERM 736. Post-Romantic Nineteenth Century. 3 Hours.
Reading and discussion of major literary works in the period; combined with lectures and background readings on literary, cultural, and political history. LEC.

GERM 738. Twentieth Century. 3 Hours.
Reading and discussion of major literary works in the period; combined with lectures and background readings on literary, cultural, and political history. LEC.

GERM 751. Special Topics in Culture: _______. 3 Hours.
Intensive study of a selected topic in German culture. May be repeated. LEC.
GERM 753. Investigation and Conference: _____, 1-3 Hours.
To be taken only in exceptional cases. Permission of the instructor who will supervise the student’s work is required. RSH.

GERM 754. Studies in Humanism, Renaissance, and Reformation Literature: _____, 3 Hours.
LEC.

LEC.

GERM 756. Studies in Enlightenment Literature: _____, 3 Hours.
LEC.

GERM 760. Studies on Writers of the Age of Goethe: _____, 3 Hours.
LEC.

GERM 762. Studies in Romanticism: _____, 3 Hours.
LEC.

GERM 764. Studies in the Literature of the 19th Century: _____, 3 Hours.
LEC.

GERM 766. Studies in Literature since 1890: _____, 3 Hours.
LEC.

GERM 800. Seminar: Teaching German as a Second Language. 3 Hours.
Introduction to selected aspects of second-language acquisition, foreign-language pedagogy, and contrastive grammar, with the major concentration on practical guidance in teaching elementary German, in test preparation and grading, and in the use of equipment. LEC.

GERM 801. Practicum in GTAs. 1 Hour.
Discussion of matters relating to the teaching of German in specific courses. Required of all GTAs in each semester of teaching, unless enrolled in GERM 800. Does not count toward completion of 30 hours of course work for the M.A. or 27 hours of course work for the Ph.D. IND.

GERM 822. Survey of Medieval German Literature. 3 Hours.
Text-oriented study of the literature of 750-1500 with selected readings in the original and in translation. Prerequisite: GERM 721. LEC.

GERM 823. Readings in Middle High German Epics: _____, 3 Hours.
Reading and literary analysis of one of the following: Nibelungenlied, Erec and Iwein, Tristan, Parzival. Prerequisite: GERM 721. LEC.

GERM 824. Readings in Middle High German Lyrics. 3 Hours.
Reading and literary analysis of one of the following: Minnesangs Fruehling, Walther von der Vogelweide. Prerequisite: GERM 721. LEC.

GERM 851. Studies in Germanic Philology: _____, 3 Hours.
Topics to be announced. Emphasis on studies in etymology, semantics, vocabulary, medieval dialects, linguistic theories. Prerequisite: GERM 711. LEC.

GERM 852. Special Topics in Literature: _____, 3 Hours.
Prerequisite: GERM 701. LEC.

GERM 854. Studies in the Works of: _____, 3 Hours.
In-depth study of the work of a major author in German literature. Prerequisite: GERM 701. LEC.

GERM 855. Introduction to German Applied Linguistics. 3 Hours.
Introduction to theories and topics in German applied linguistics. SEM.

GERM 860. Introduction to Modern German Dialects. 3 Hours.
Introduction to modern German dialects, methods of dialect research and aspects of linguistic assimilation and loss as well as a survey of German-American dialects. Prerequisite: Permission of instructor required. SEM.

GERM 899. Master’s Thesis. 3 Hours.
May not be repeated. THE.

GERM 900. Workshop for Ph.D. Students. 1 Hour.
Discussion of policies in the Ph.D. program, research specializations, examinations, dissertation proposals, writing of dissertations, grant proposals, conference presentations, publication of scholarship, and entrance into the academic job market. Required of all Ph.D. students in the first year in the program. Does not count toward completion of 27 hours of course work for the Ph.D. LEC.

GERM 901. Gothic. 3 Hours.
Reading of selected Gothic texts. Historical and descriptive study of Gothic phonology and grammar, with an introduction to comparative Germanic grammar. Prerequisite: GERM 711. LEC.

GERM 902. Old Saxon. 3 Hours.
Introduction to the elements of its grammar and discussion of its role in the Germanic family of languages. Selected readings from the Heliand and discussion of the entire work. Prerequisite: GERM 711. LEC.

GERM 903. Old High German. 3 Hours.
Reading and discussion of selected prose texts and poetic documents; phonological and grammatical features of the Old High German dialects. Prerequisite: GERM 711. LEC.

GERM 904. Gothic and Its Closest Relatives. 3 Hours.
A survey of the earliest Germanic languages with an emphasis on the comparative phonology and grammar of Gothic, Old High German, and Old Saxon as well as the reading of selections of major texts in those three language. LEC.

GERM 951. Seminar in Germanic Philology: _____, 3 Hours.
LEC.

GERM 952. Seminar in Medieval German Literature: _____, 3 Hours.
LEC.

GERM 953. Investigation and Conference: _____, 1-3 Hours.
To be taken only in exceptional cases. Permission of the instructor who will supervise the student’s work is required. RSH.

GERM 954. Seminar in Humanism, Renaissance, and Reformation Literature: _____, 3 Hours.
LEC.

GERM 955. Seminar in Baroque Literature: _____, 3 Hours.
LEC.

GERM 956. Seminar in Enlightenment Literature: _____, 3 Hours.
LEC.

GERM 960. Seminar on Writers of the Age of Goethe: _____, 3 Hours.
LEC.

GERM 962. Seminar in Romanticism: _____, 3 Hours.
LEC.

GERM 964. Seminar in the Literature of the 19th Century: _____, 3 Hours.
LEC.

GERM 966. Seminar in Problems in Literature since 1890: _____, 3 Hours.
LEC.

GERM 967. Seminar in Special Topics: _____, 3 Hours.
LEC.

GERM 999. Doctoral Dissertation. 1-10 Hours.
The University of Kansas
HNGR 103. Survival Hungarian. 3 Hours. U.
Practical training for people intending to live, study, travel, or work in Hungary. Focus on conversational skills. Intensive practice in speaking and listening, with vocabulary about Hungarian geography, culture, and business. Introduction to basic grammar. Not for native speakers LEC.

HNGR 104. Elementary Hungarian I. 5 Hours. U.
Essentials of grammar, practice in speaking, reading, and writing Hungarian. Five class meetings per week. Not open to native speakers of Hungarian. LEC.

HNGR 108. Elementary Hungarian II. 5 Hours. U.
Continuation of grammar; practice in conversation, composition, and reading. Five class meetings per week. Not open to native speakers of Hungarian. Prerequisite: HNGR 104 or equivalent. LEC.

HNGR 171. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Hungarian. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

HNGR 212. Intermediate Hungarian I. 3 Hours. U.
A continuation of HNGR 108. Structured grammar review, composition, conversation, with readings of literary and cultural texts. Three class meetings per week. Not open to native speakers of Hungarian. Prerequisite: HNGR 210 or equivalent. LEC.

HNGR 216. Intermediate Hungarian II. 3 Hours. U.
A continuation of HNGR 212. Structured grammar review, composition, conversation, with readings of literary and cultural texts. Three class meetings per week. Not open to native speakers of Hungarian. Prerequisite: HNGR 212 or equivalent. LEC.

HNGR 453. Investigation and Conference: ______. 1-3 Hours. U.
Independent study and directed readings on special topics. Permission of the instructor who will supervise the student’s work is required. Not open to native speakers of Hungarian. Prerequisite: HNGR 104 or permission of instructor. IND.

NORW 104. Elementary Norwegian I. 5 Hours. U.
Essentials of grammar, practice in speaking, reading, and writing Norwegian. Five hours of recitation per week. Not open to native speakers of Norwegian. LEC.

NORW 108. Elementary Norwegian II. 5 Hours. U.
Continuation of grammar; practice in conversation, composition, and reading. Five hours of recitation per week. Not open to native speakers of Norwegian. Prerequisite: NORW 104 or permission of instructor. LEC.

NORW 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Scandinavian. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

NORW 212. Intermediate Norwegian I. 3 Hours. U.
A continuation of NORW 108. Structured grammar review, composition, conversation with readings of literary and cultural texts. Not open to native speakers of Norwegian. Prerequisite: NORW 210 or permission of instructor. LEC.

NORW 216. Intermediate Norwegian II. 3 Hours. U.
A continuation of NORW 212. Structured grammar review, composition, conversation with readings of literary and cultural texts. Not open to native speakers of Norwegian. Prerequisite: NORW 212 or permission of instructor. LEC.

SCAN 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Scandinavian. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

SCAN 453. Investigation and Conference: ______. 1-3 Hours. U.
Independent study and directed reading on special topics. Prerequisite: Permission of instructor. IND.

SCAN 560. Scandinavia Past and Present. 3 Hours. H.
This course presents a historical survey of Denmark, Finland, Iceland, Norway and Sweden. In a comparative framework, the course focuses on a variety of central aspects that shaped Scandinavia from the Viking Age to the present. LEC.

SCAN 561. Topics in Scandinavian Languages and Linguistics: ______. 3 Hours.
Intensive study of a selected topic in Scandinavian languages and linguistics. The course deals with the linguistic analysis of language rather than the acquisition of a particular language. May be repeated. Prerequisite: A course in linguistics. LEC.

SCAN 570. Scandinavian Life and Civilization. 3 Hours. H/W.
This course is designed to impart a general knowledge of life in Denmark, Finland, Iceland, Norway, and Sweden, with emphasis on social and cultural conditions, against a geographical and historical backdrop, from the Viking age to the present. Slides and other illustrated materials. (Same as EURS 510.) LEC.

SCAN 660. Representative Authors in English. 3 Hours. H/W.
Intensive study of one or more major authors from the literatures of Scandinavia. May be repeated. LEC.

SCAN 590. Old Norse. 3 Hours.
Introduction to the grammar and reading of the "saga-age" (1100-1350). Varied selections from the literature provide the context in which the language is discussed. LEC.

SCAN 907. Readings in Old Norse Literature. 3 Hours.
Intensive discussion of a single longer saga or several shorter works, or a combination of these on a single theme. Dialectal differences between W. Norse and older Germanic dialects will be noted. Prerequisite: SCAN 906. LEC.

SWEP 104. Elementary Swedish I. 5 Hours. U.
Essentials of grammar, practice in speaking, reading, and writing Swedish. Five hours of recitation per week. Not open to native speakers of Swedish. LEC.

SWEP 105. Elementary Swedish I, Honors. 5 Hours. U.
Similar to SWED 104 with additional work to expand the student’s cultural context and understanding. Not open to native speakers of Swedish or students who have completed SWED 104. Prerequisite: Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

SWEP 108. Swedish Characters and Contexts. 3 Hours.
Continuation of SWED 104. Structured grammar review, composition, conversation with readings of literary and cultural texts. Five class meetings per week. Not open to native speakers of Swedish. LEC.

SWEP 204. Elementary Swedish II. 5 Hours. U.
Continuation of grammar; practice in conversation, composition, and reading. Five hours of recitation per week. Not open to native speakers of Swedish. Prerequisite: SWED 104 or permission of instructor. LEC.
SWED 109. Elementary Swedish II, Honors. 5 Hours. U.
Course content similar to SWED 108, with additional cultural study. Meets 5 days a week. Not open to native speakers of Swedish. Prerequisite: Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

SWED 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Swedish. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

SWED 212. Intermediate Swedish I. 3 Hours. U.
A continuation of SWED 108. Structured grammar review, composition, conversation with readings of literary and cultural texts. Not open to native speakers of Swedish. Prerequisite: SWED 108 or permission of instructor. LEC.

SWED 213. Intermediate Swedish I, Honors. 3 Hours. U.
Course content similar to SWED 212, with additional cultural study. Three class meetings per week. Not open to native speakers of Swedish. Prerequisite: Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

SWED 216. Intermediate Swedish II. 3 Hours. U.
A continuation of SWED 212. Structured grammar review, composition, conversation with readings of literary and cultural texts. Not open to native speakers of Swedish. Prerequisite: SWED 212 or permission of instructor. LEC.

SWED 217. Intermediate Swedish II, Honors. 3 Hours. U.
Course content similar to SWED 216, with additional cultural study. Three class meetings per week. Not open to native speakers of Swedish. Prerequisite: Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

SWED 330. Intermediate Swedish Composition and Conversation. 3 Hours. H.
Extensive practice in writing and speaking Swedish with grammar and review and selected readings. Not open to native speakers of Swedish. Prerequisite: SWED 216 or equivalent. LEC.

Global International Studies Courses

EURS 150. Study Abroad Topics in European Studies: ______. 1-5 Hours. U.
This course is designed for the study of special topics in European Studies at the 100-level (Freshman/Sophomore level). Coursework must be arranged through the KU Office of Study Abroad and approved by a faculty advisor in European Studies. May be repeated for credit if content varies. LEC.

EURS 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in European Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

EURS 302. European Culture and Society 1945 to Present. 3 Hours. HT AE42 / H.
The course provides historical, cultural, and political overviews of Europe since 1945 with particular emphasis on the contribution of French and Italian culture and society. The course emphasizes Europe’s contribution to Western intellectual thought, social movements, arts and literature, and global society. (Same as HWC 302.) LEC.

EURS 329. History of War and Peace. 3 Hours. HL / H.
A study of the changing nature of warfare and the struggle to bring about peace. Topics include pacifism, the “military revolution” that created the first professional armies; the development of diplomatic immunity, truces, and international law; the peace settlements of Westphalia, Utrecht, Vienna, Versailles, San Francisco; the creation of peace movements and peace prizes; the evolution of total war, civil war; and guerrilla warfare involving civilians in the twentieth century; the history of the League of Nations and United Nations; and the rise of intergovernmental and non-governmental organizations. (Same as HIST 329 and PCS 329.) LEC.

EURS 350. Study Abroad Topics in: ______. 1-5 Hours. H.
This course is designed for the study of special topics in European Studies at the Junior/Senior level. Coursework must be arranged through the KU Office of Study Abroad and approved by a faculty advisor in European Studies. May be repeated for credit if content varies. LEC.

EURS 430. European Civilization in World Context: ______. 3 Hours. HL AE42/GE3H / H.
An introduction to the literature of encounter between European and non-European civilizations, drawing on both Western and non-Western sources. The course may include European interactions with areas such as the Mediterranean Basin, Sub-saharan Africa, South and East Asia, and the Americas. World areas and historical periods chosen for study will vary from semester to semester according to the interest and field of the instructor. Not open to freshmen. (Same as HWC 430.) Prerequisite: HWC 114 or HWC 204 and HWC 115 or HWC 205. LEC.

EURS 435. Islam in Europe. 3 Hours. AE42 / H.
Investigation of Muslim migration into Europe and day-to-day interactions of Muslims with other European populations. This is an integrated study of historical, political, religious and economic influences that determine Muslim experience in contemporary European culture. (Same as HWC 435.) LEC.

EURS 500. Seminar in European Studies. 3 Hours. AE42/AE61 / H.
Provides an interdisciplinary approach to the study of modern European civilization. By discussing both classic and contemporary, controversial readings each week and writing several papers during the semester, students acquire an understanding of the development of modern European culture and society and Europe’s contemporary problems. Topics for discussions and papers are drawn from the following subjects: the economic and political integration of European states; modernism and anti-modernism in European culture; imperialism, migration, and ethnic and racial division in European society; democracy versus dictatorship; American-European relations; mass culture, urban development, and the welfare state; and contrasts and comparisons between European Cultures—East and West, North and South. Seminar discussions are led by invited European Studies faculty as well as the instructor or instructors. Required of all European Studies majors. Prerequisite: Junior standing or consent of instructor. LEC.

EURS 501. Senior Thesis in European Studies. 3 Hours. AE61 / H.
European Studies majors will do research and write a substantial paper on a topic in the culture, economy, history, or politics of Europe. Topics will be approved by the European Studies Committee. Students will work with an advisor chosen from among the European Studies faculty and with the European Studies Coordinator. The majority of the students’ work will be done independently with their advisors, but students will meet with the European Studies Coordinator several times as a class to report on their progress and present their final drafts. Required of all European Studies majors. Prerequisite: Completion of EURS 500 and 15 hours toward the Co-Major. IND.
EURS 502. Senior Honors Thesis in European Studies. 3 Hours. 
AE61 / H. 
Open to European Studies majors doing their senior thesis for Honors. 
Prerequisite: Completion of EURS 500, 15 hours toward the Co- 
Major, and approval of Honors thesis by European Studies Committee. 
Completion of or concurrent enrollment in EURS 501. IND. 

EURS 503. Europe Today. 3 Hours. S. 
This intensive, interdisciplinary seminar focuses on current social, 
political, and economic changes in Europe. Topics include European 
integration and the European Union, the conflict between nationalism 
and European consciousness, NATO and U.S.-European relations, 
and international business in Europe. The seminar will include guest lectures from 
an international array of scholars, political officials, and business 
representatives, as well as site visits to their institutions and companies. 
The seminar takes place in Brussels, Belgium, and enrollment is restricted 
to students accepted in the KU Summer Institute for European Studies 
study abroad program. LEC. 

EURS 505. Studies in Exile Literature. 3 Hours. H. 
A multidisciplinary study of selected literary, scholarly, and creative works 
produced by those Europeans forced into exile, emphasizing their impact 
on culture and society both in Europe and in those countries in which the 
exiles resided. Examples: exile during the Nazi dictatorship in Germany 
(1933-1945), during Cold War crises (Berlin 1960, Prague 1968). LEC. 

EURS 506. Culture and Politics of the Cold War in Western Europe. 3 Hours. H. 
An interdisciplinary overview of the Cold War period (1945-1985) focusing 
on Western European dimensions of the problem, based on the view that the 
Cold War structured political institutions, cultures, and societies in 
eduring ways that continue to be relevant today. LEC. 

EURS 507. Research in European Collections. 1-3 Hours. H. 
This course allows students in the European Studies Co-Major and 
related disciplines to receive credit for research related to European 
Collections in one or more of the following institutions: Watson and 
Spencer Research Libraries, the Dole Institute, the Eisenhower and 
Truman Presidential Libraries, the U.S. Army Combined Arms Research 
and Foreign Military Studies Office at Fort Leavenworth, the Linda 
Hall Library in Kansas City, and the Winston Churchill Collection at the 
Westminster College Library in Fulton, Missouri. May be taken in place of 
EURS 501 by European Studies Honors Students if taken for three credit 
hours. Permission of instructor necessary. IND. 

EURS 508. Politics and Economics of Cultural Production in Western Europe. 3 Hours. 
Artists and intellectuals in their relation to state and society. This course 
is designed to introduce students (1) to the role European artists and 
intellectuals have often played in the arena of politics and (2) to the 
privileged place cultural production (arts, literature, media) occupies in the 
formation of various European identities and economies. LEC. 

EURS 509. Introduction to the Study of Southern European Societies. 3 Hours. H. 
Social, historical, and economic study of Southern European societies 
with emphasis on modern period. Relevant to the study of European 
integration and EU enlargement. Consideration of the distinctive southern 
Mediterranean societies from the perspective of their collective identity as 
a regional economic and geopolitical bloc. LEC. 

EURS 510. Scandinavian Life and Civilization. 3 Hours. H. 
This course is designed to impart a general knowledge of life in Denmark, 
Finland, Iceland, Norway, and Sweden with emphasis on social and 
cultural conditions, against a geographical and historical background, 
from the Viking Age to the present. Slides and other illustrated materials. 
(Also as SCAN 570.) LEC. 

EURS 511. Topics in European Studies: ______. 3 Hours. H. 
A study of significant themes, movements, or problems in European 
history, literature, politics, society, or culture. May also relate European 
issues to issues in other world areas (Africa, North America, Asia, etc.) 
May be repeated for credit when topic varies. LEC. 

EURS 512. Irish Literature and Culture: ______. 3 Hours. H. 
Study of topics in Irish literature and culture. Topics may focus on a 
particular genre, theme, historical period, or group of authors. May 
be repeated for credit as the topic changes. (Same as ENGL 530.) 
Prerequisite: Prior completion of at least one 300- or 400-level English 
course. LEC. 

EURS 536. Economic Issues of the European Union. 3 Hours. S. 
A survey of the economies of the European Union, with a focus on the 
economic development of the member states since World War II, and 
an examination of the various economic issues confronting them today. 
(Same as ECON 536) Prerequisite: ECON 104 or ECON 144. LEC. 

EURS 550. Classics of Peace Literature. 3 Hours. HL AE51/AE61 / H. 
A study of influential proposals for world peace from Erasmus’ The 
Complaint of Peace (1516) to the 1995 Hague Appeal for World Peace. 
Selected writings by such authors as Erasmus, Hugo Grotius, Jean- 
Jacques Rousseau, Immanuel Kant, Henry Thoreau, Henri Dunant, 
Berthe von Suttner, Woodrow Wilson, Mahatma Gandhi, and Martin 
Luther King, Jr., are considered. (Same as PCS 550.) Prerequisite: HWC 
204 or HWC 205. LEC. 

EURS 555. The Literature of Human Rights. 3 Hours. H. 
Examines in literature, art, and film from about 1800 to the present, both 
sides of the ongoing debate surrounding the idea that all human persons 
possess inalienable rights because all persons possess intrinsic value as 
persons, value independent of race, gender, caste or class, wealth, age, 
sexual preference, etc. Anti- and pro-rights proponents are paired and 
studied with equal care. (Same as PCS 565.) LEC. 

EURS 580. Directed Study. 1-3 Hours. AE61 / H. 
Independent study and directed reading on special topics. Permission of 
the instructor who will supervise the student’s work is required. LEC. 

EURS 581. Discussion Section in French. 1 Hour. U. 
The 1 credit hour course represents a foreign language discussion section 
to be attached to a major 3-credit hour EURS course (example: EURS 
500). Foreign language discussion sections are an integral part of the 
KULAC program envisaged to reinforce foreign language proficiency. 
LEC. 

EURS 582. Discussion Section in German. 1 Hour. U. 
The 1 credit hour course represents a foreign language discussion section 
to be attached to a major 3-credit hour EURS course (example: EURS 
500). Foreign language discussion sections are an integral part of the 
KULAC program envisaged to reinforce foreign language proficiency. 
LEC. 

EURS 583. Discussion Section in Italian. 1 Hour. U. 
The 1 credit hour course represents a foreign language discussion section 
to be attached to a major 3-credit hour EURS course (example: EURS 
500). Foreign language discussion sections are an integral part of the 
KULAC program envisaged to reinforce foreign language proficiency. 
LEC. 

EURS 584. Discussion Section in Spanish. 1 Hour. U. 
The 1 credit hour course represents a foreign language discussion section 
to be attached to a major 3-credit hour EURS course (example: EURS 
500). Foreign language discussion sections are an integral part of the
KULAC program envisaged to reinforce foreign language proficiency. LEC.

EURS 604. The European Union. 3 Hours. H.
The European Union, the union of 27 European countries, is a culmination of a long history of European unity. The European Union now encompasses population and economic strength rivaling that of the United States. This course examines selected topics in the history of European integration and the political, legal, economic, and social implications of the present European Union as well as its relations with the United States and other regions of the world. LEC.

FARS 110. Elementary Farsi I. 5 Hours. U.
Vocabulary acquisition, pronunciation, grammar, and writing. Course includes reading of simple texts. Five hours of class per week. LEC.

FARS 120. Elementary Farsi II. 5 Hours.
Continuation of FARS 110. Vocabulary acquisition, pronunciation, grammar, and writing. Course includes reading of simple texts. Five hours of class per week. Prerequisite: FARS 110 or departmental permission. LEC.

FARS 210. Intermediate Farsi I. 3 Hours. U.
A continuation of FARS 120. Course emphasizes oral and written work in Farsi. Systematic review of grammar and introduction to reading in cultural texts. Prerequisite: FARS 120 or departmental permission. LEC.

FARS 220. Intermediate Farsi II. 3 Hours. U.
A continuation of FARS 210. Course emphasizes oral and written work in Farsi. Systematic review of grammar and introduction to reading in cultural texts. Prerequisite: FARS 210 or departmental permission. LEC.

FARS 310. Advanced Farsi I. 3 Hours. U.
Enhancement of speaking, comprehension, reading and writing abilities in Farsi. Readings from Farsi literature introduced. Prerequisite: FARS 220 or placement exam that establishes a level of proficiency in Farsi suited to Advanced Farsi I. LEC.

FARS 320. Advanced Farsi II. 3 Hours. U.
Enhancement of speaking, comprehension, reading and writing abilities in Farsi. Readings from Farsi literature introduced. Prerequisite: FARS 310 or placement exam that establishes a level of proficiency in Farsi suited to Advanced Farsi II. LEC.

GIST 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Global International Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

GIST 201. Topics in: ____. 1-3 Hours. U.
An interdisciplinary study of international topics. Designed especially for freshmen and sophomores. May be repeated for credit if content varies. LEC.

GIST 202. Topics in South Asian Studies: ____. 1-3 Hours. U.
An interdisciplinary study of topics related to South Asia. Designed especially for freshmen and sophomores. May be repeated for credit if content varies. LEC.

GIST 203. Topics in Middle Eastern Studies: ____. 1-3 Hours. U.
An interdisciplinary study of topics related to the Middle East. Designed especially for freshmen and sophomores. May be repeated for credit if content varies. LEC.

GIST 250. Introduction to Globalization. 3 Hours. S.
Along with an overview of the origins and historical development of globalization, the course addresses various aspects of the growth of transnational economic, cultural, institutional, and political interconnections, including the implications of rapidly-developing information technology and social media, international security in a transnational world, and the issues related to the movement of goods, people (immigration), images, ideas, and institutional forms across national borders. LEC.

GIST 301. Introduction to Global and International Studies. 3 Hours. S.
This course provides an overview to the major ways and themes involved in the study of world cultures, politics, and societies as applied by disciplines in the social sciences. Topics such as the construction and maintenance of cultures, comparative political systems, global and regional economies, popular culture, gender and the environment will be covered through their manifestations in particular regional and global contexts. LEC.

GIST 350. Study Abroad Topics in: ____. 1-5 Hours. U.
This course is designed for the study of special topics in global and international studies at the junior/senior level. Course work must be arranged through the KU Office of Study Abroad and approved by a faculty adviser in Global and International Studies. May be repeated for credit if content varies. LEC.

GIST 424. Nationalism(s) in Turkey. 3 Hours. S.
This course analyzes the major variations in nationalist paradigms existing in contemporary Turkey, including conservative nationalism, secular nationalism, religious (Islamic) nationalism, and Kurdish nationalism. Through the lens of seminal theories on the origins, development, and types of nationalism and the relevant historical background of the Turkish Republic, we explore how these competing visions of "the nation" and "homeland" have changed, fragmented, and manifested themselves in everyday Turkish politics and society. LEC.

GIST 493. Directed Readings. 3 Hours. U.
Individual and supervised readings in a selected area of international studies. Course is repeatable with permission of the program director. LEC.

GIST 495. Global Internship. 3 Hours. U.
Semester-long internship with a business or organization located abroad or that provides a global or international working context for the interning student. A term paper is required. Prerequisite: Consent of instructor. LEC.

GIST 501. Topics in: ____. 1-3 Hours. U.
An interdisciplinary study of international topics. Designed especially for juniors and seniors. May be repeated for credit if content varies. LEC.

GIST 502. Advanced Topics in South Asian Studies: ____. 1-3 Hours. U.
An interdisciplinary study of topics related to South Asia. May be repeated for credit if content varies. Prerequisite depends on specific topic offered. LEC.

GIST 503. Advanced Topics in Middle East Studies: ____. 3 Hours. U.
An interdisciplinary study of topics related to the Middle East. May be repeated for credit if content varies. Prerequisite depends on specific topic offered. LEC.

GIST 530. Politics and Society in the Contemporary Persianate World. 3 Hours. S.
This course examines the major currents of political developments and their linkages with religion, culture, and civil society in Turkey, Iran, Afghanistan, Pakistan and India since the late nineteenth century. During the "pre-modern" period, all these countries formed part of "the Persianate world," a region that extended from the Iranian plateau to
the Balkans, Central Asia and the Indian subcontinent, mostly under the Turkic administrations, and tied together by trade, Islam, and Persian as the lingua franca. The dissemination of modern Western political thought and nationalism during the colonial period led to nation-states and the end of the linguistic domination of Persian in the region. Though each of these nation-states ultimately took a different trajectory, they each were faced with similar challenges that offer the basis for interesting comparisons between them. This course explores the trajectories of these countries in regard to the relations between the state, religion, and politics, various strands of nationalism, pluralism, religious and ethnic minorities, social equality, and democratization. Prerequisite: GIST 301 or POLS 150. LEC.

GIST 535. Literature and Society in the Contemporary Middle East. 3 Hours. H.
This course offers a general introduction to the modern Middle Eastern literatures in English translation. Through analyses of selected short stories and novels from Arabic, Turkish and Persian literature, the students develop an understanding of the issues that shape everyday life in the Contemporary Middle East. The course investigates issues of nation and national identity, war, ethnicity, class, religion, and gender and sexuality. We use a variety of paradigms, namely nationalist, Marxist, feminist, and Islamist, to provide a theoretical framework for discussion of the selected works. No prior knowledge of Arabic, Turkish or Persian language is needed. Prerequisite: GIST 301. LEC.

GIST 610. Interdisciplinary Methods for Global Contexts. 3 Hours. S.
An introduction to a variety of widely-employed quantitative and qualitative research methods in the social sciences and humanities, including methods such as statistical analysis, ethnography, and content analysis. LEC.

GIST 624. Social Movements in the Middle East. 3 Hours. S.
Using the major theories and approaches comparatively applied to social movements around the world, this course critically analyzes historical and existing cases of social movements and "nonmovements" in the Middle East. We cover examples of Islamist (and post-Islamist), women's, nationalist, democratic, youth and labor movements and their impact on the region. Contextual factors like technology and social networking, regime type, institutions, and socioeconomic structures are also considered for their role in supporting or inhibiting collective action. Prerequisite: GIST 301 or POLS 150. LEC.

GIST 684. International Law: The State and the Individual. 3 Hours. S.
International Law has assumed an increasingly significant role in international life. This course examines major issues in international law including (but not limited to): the changing status and role of the state; rights of minorities and self-determination; the environment; and human rights. The course examines the central questions and the relevant international legal principles associated with each issue. Prerequisite: POLS 170. LEC.

GIST 685. International Law: Laws of Armed Conflict. 3 Hours. S.
This course examines the principles, roles, and functions of international law in the conduct of war. As the course reviews the development and application of the basic rules of armed conflict, several current issues and conflicts are addressed including: the legitimate use of force; the proper definitions of combatants and civilians; actions that constitute war crimes, the legality of new weapons technology, and, if the laws of armed conflict apply to the current "war on terrorism." Prerequisite: POLS 170. LEC.

GIST 698. Capstone Seminar. 3 Hours. AE61 / H.
A seminar designed to introduce students to the theory and practice of global and international studies. A research paper will be required. May not be repeated for credit. Prerequisite: 12 hours of junior/senior level and above courses that satisfy requirements for the major. LEC.

GIST 699. Capstone Seminar, Honors. 3 Hours. AE61 / H.
A seminar designed to introduce honors students to the theory and practice of global and international studies. A research paper will be required. May not be repeated for credit. Prerequisite: 12 hours of junior/senior level and above courses that satisfy requirements for the major. LEC.

GIST 701. Approaches to International Studies. 3 Hours.
This course examines various approaches to the study of cultures, politics, and societies in their global and international contexts through the exploration of a series of exemplary works of global/international research from a variety of disciplines (e.g. anthropology, sociology, political science, economics, geography, history, etc.). The course will cover the major contributions of these disciplines in their approaches to global questions and themes and will provide a multi-disciplinary framework within which students can begin exploring their own global and international research questions. The course also provides an introduction to the major regions and many of the themes that students will be able to specialize in during the course of the MA program. LEC.

GIST 702. Globalization. 3 Hours.
A central issue in international studies is globalization, the increasing interconnectedness of societies and economies. This course examines globalization from an historical and contemporary perspective. Major topics include (but are not necessarily limited to) the historical expansion of the West since 1500, the growth of international economic institutions, conflict among global cultures, the future of state sovereignty, and the challenges of economic integration. LEC.

GIST 703. The World Economy. 3 Hours.
An introduction to international trade and finance, theories of economic development, and international economic structures. Not appropriate for economics majors. LEC.

GIST 704. Global Cultures and Societies. 3 Hours.
Examination of the components of culture, economic and political anthropology, major global cultural areas, and the impact of cultural differences as expressed through language, literature, religion, thought, and motivation in cross-cultural communications. LEC.

GIST 705. Globalization in History. 3 Hours.
A study of the increasing interaction among world societies since 1500 and an investigation of the long-term developments behind current world problems. Major topics include Western expansion since 1500, the spread of state sovereignty, the formation of a world economy, and the spread of international institutions. Current issues will vary, but may include environmental crises, human rights, migration, free trade and the spread of consumer culture, ethnicity and nationalism, and international intervention within states. (Same as HI 705.) LEC.

GIST 706. Comparative Governments. 3 Hours.
Survey of different governmental structures in the contemporary world and the ways these countries have confronted issues such as modernization and development, economic security, ethnic pluralism and conflict, and globalization. LEC.

GIST 710. Interdisciplinary Research Methods for Global Contexts. 3 Hours.
This course addresses the challenges for students engaged in research in an interdisciplinary and international context. The course will take issues for research and place them within the structure of a research design process, including formulation of a general question, the appropriation of theory, the grounding of a literature review, and the posing of a testable research question and/or hypothesis. Students will also be exposed to research methodologies and how these manifest themselves through the logic of the disciplines—such as anthropology, sociology, geography,
political science, history and literature. With a final thesis project design in mind, students will be expected to be expected to be able to utilize the research tools of accessing secondary analytical data, archival research, SPSS, ArcView and methods such as survey construction, implementation, and analysis, interviews, content analysis, discourse analysis, case study, and GIS. Prerequisite: GIST 701 or consent of instructor. LEC.

GIST 750. Topics in International Studies: ______. 3 Hours.
A study of one or more selected topics in international studies. Course may be taken more than once. LEC.

GIST 793. Directed Readings. 1-5 Hours.
Individual and supervised readings in a selected area of international studies. Course is repeatable with permission of the program director. LEC.

GIST 888. Contemporary China Studies. 3 Hours.
This course will review and analyze the current literature on China’s social and political development, including a wide range of topics within political science. There is a rich body of literature within each topic such as civil society in China, legal reform, political culture, nationalism, gender issues, ethnicity, political behavior, elections, economic development, and inequality. This course will introduce key literature within each topic focusing on the debates among China scholars as well as how these debates fit in the general field of political science. (Same as EALC 888 and POLS 888.) Prerequisite: POLS 668 or permission of the instructor. LEC.

GIST 897. Examination Preparation. 1 Hour.
Independent study in preparation for the Comprehensive M.A. examination. Graded on satisfactory/unsatisfactory basis. May be repeated. LEC.

GIST 898. Thesis Writing. 3 Hours.
This course guides MA students through the crafting of their academic or professional thesis. The students begin the course with a literature review and data/research completed, and they will be directed through in-class workshops and deadlines with the intention to produce a full draft of their thesis. Students may choose to draft a thesis that fits either academic conventions for a similar body of research, or they may develop a body of research whose target would be a business or professional audience. Course is designed to assist students in the development of theses with varying methodologies, methods, and audiences on global and international topics. Prerequisite: GIST 710. THE.

GIST 899. Thesis. 1-6 Hours.
Enrollment for writing thesis for master’s degree. THE.

HEBR 110. Elementary Israeli Hebrew I. 5 Hours. U.
A beginning course in modern Israeli Hebrew. Essentials of grammar, syntax and conversational practice; elementary reading and writing. Note: Students with other previous experience in Hebrew must take a placement exam. Prerequisite: HEBR 110. LEC.

HEBR 120. Elementary Israeli Hebrew II. 5 Hours. U.
A continuation of HEBR 110. Note Students with other previous experience in Hebrew must take a placement exam. Prerequisite: HEBR 110. LEC.

HEBR 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Hebrew. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

HEBR 210. Intermediate Israeli Hebrew I. 3 Hours. U.
Further development of language skills: listening comprehension, oral efficiency, intermediate grammar and syntax, reading and writing. Note: Students with other previous experience in Hebrew must take a placement exam. Prerequisite: HEBR 120. LEC.

HEBR 220. Intermediate Israeli Hebrew II. 3 Hours. U.
A continuation of HEBR 210. Note: Students with other previous experience in Hebrew must take a placement exam. Prerequisite: HEBR 210. LEC.

HEBR 230. Biblical Hebrew. 3 Hours. U.
This course introduces students to the grammatical structure and vocabulary of biblical Hebrew. It includes basic biblical passages for students to translate into English and analyze. LEC.

HEBR 240. Biblical Hebrew II. 3 Hours. U.
This is a continuation of HEBR 230. It continues the study of the grammatical structure and vocabulary of biblical Hebrew, and includes biblical texts for students to translate and analyze. Prerequisite: HEBR 230 or permission of the instructor. LEC.

HEBR 340. Advanced Israeli Hebrew I. 3 Hours. U.
Advanced study of Modern Hebrew. This course is designed to strengthen linguistic skills, enrich vocabulary, and further the study of grammar and syntax. Not open to native speakers of Hebrew. Prerequisite: HEBR 220 or permission of the instructor. LEC.

HEBR 350. Advanced Israeli Hebrew II. 3 Hours. U.
Continued advanced study of modern Hebrew. Not open to native speakers of Hebrew. Prerequisite: HEBR 340 or permission of the instructor. LEC.

HEBR 395. Study Abroad Topics in Hebrew: ______. 3-6 Hours. H.
This course is designed for the study abroad of special topics in Hebrew at the junior/senior level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

HEBR 410. Studies in Modern Hebrew Literature. 3 Hours. H.
An introduction to Hebrew literature from the nineteenth century to the present day. The course emphasizes the development of basic interpretive skills and the understanding of basic literary movements, genres, and concepts. Not open to native speakers of Hebrew. Prerequisite: HEBR 220 or equivalent. LEC.

HEBR 420. Studies in Modern Hebrew. 3 Hours. U.
This course is designed to help students achieve fluency in speaking, listening, and writing Modern Hebrew. Not open to native speakers of Hebrew. Prerequisite: HEBR 220 or equivalent. LEC.

HEBR 490. Independent Study. 1-3 Hours. U.
Intensive reading or research under faculty supervision. Not open to native speakers of Hebrew. Prerequisite: HEBR 220 or equivalent. IND.

HNDI 110. Beginning Hindi I. 5 Hours. U.
An introduction to modern standard Hindi that emphasizes acquisition of basic language skills (speaking, comprehension, reading and writing) through a combination of lecture, drill, and work with the Devanagari script. LEC.

HNDI 120. Beginning Hindi II. 5 Hours. U.
A continuation of Beginning Hindi I that builds on basic skills of speaking and comprehension, and the writing and reading of the Devanagari script developed in Beginning Hindi I. Prerequisite: HNDI 110 or placement exam that establishes a level of proficiency in Hindi suited to Beginning Hindi II. LEC.
HNDI 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Hungarian. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

HNDI 210. Intermediate Hindi I. 3 Hours. U.
Enhancement of speaking, comprehension, reading and writing abilities in modern standard Hindi, with emphasis on grammar. Readings will be introduced from representative genres of Hindi literature. Prerequisite: HNDI 120 or placement exam that establishes a level of proficiency in Hindi suited to Intermediate Hindi I. LEC.

HNDI 220. Intermediate Hindi II. 3 Hours. U.
Enhancement of speaking, comprehension, reading and writing abilities in modern standard Hindi, with emphasis on grammar. Readings will be introduced from representative genres of Hindi literature. Prerequisite: HNDI 210 or placement exam that establishes a level of proficiency in Hindi suited to Intermediate Hindi II. LEC.

HNDI 301. Topics in Hindi Culture, Language and Literature: ____. 3 Hours. U.
Investigation of special topics on Hindi culture, language and literature at the undergraduate level. May be repeated for credit when topic varies. LEC.

HNDI 310. Advanced Hindi I. 3 Hours. U.
Enhancement of speaking, comprehension, reading and writing abilities in Hindi. Readings are introduced from representative genres of Hindi literature. Prerequisite: HNDI 220 or placement exam that establishes a level of proficiency in Hindi suited to Advanced Hindi I. LEC.

HNDI 320. Advanced Hindi II. 3 Hours. U.
Enhancement of speaking, comprehension, reading and writing abilities in Hindi. Readings are introduced from representative genres of Hindi literature. Prerequisite: HNDI 310 or placement exam that establishes a level of proficiency in Hindi suited to Advanced Hindi II. LEC.

JWSH 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Jewish Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

JWSH 200. Topics in Jewish Studies: ____. 3 Hours. H.
Examination of special topics in Jewish Studies. May be repeated if topic varies. LEC.

JWSH 311. Narratives of Jewish Life. 3 Hours. HL AE42 / H.
The course focuses on the narratives through which Jews made sense of their lives under the impact of the forces of modernity, beginning in the "old world," and moving through the 19th century and into the 20th. The goal is to analyze how the imagination of Jewish writers was captured by the changes in social structures such as new educational, residential and occupational opportunities, leading to increased interactions with the gentile society. Students read and discuss literary works based in the shtetl in revolutionary Russia, and in America. We will also look at memoirs and letters written by ordinary Jews. All assigned texts will be in English. LEC.

JWSH 315. The Spanish Inquisition. 3 Hours. H.
A broad historical study of the Spanish Inquisition from 1478 to its afterlife in modern culture, including its use in political debates and its depiction in popular culture. Topics include anti-Semitism, the nature of the inquisitorial investigation, the use of torture, censorship and the relationship between the Inquisition, the Spanish monarchy and other religious and lay authorities. Taught in English. Will not count toward the Spanish major. (Same as HIST 325 and SPAN 302.) LEC.

JWSH 318. Jews and Slavs in Eastern Europe. 3 Hours. H.
Jews and Slavs have shared territory from the Middle Ages to the present day. The contact between these culturally and linguistically distinct groups has shaped many centuries of Eastern European history - from the extreme violence of the pogroms to long periods of peaceful coexistence and cooperation. "Jews and Slavs" examines the history and cultural geography of Slavic-Jewish contact from the perspectives of both groups. Through literature, film, journalism, and folklore, students learn about the profound influence Jews and Slavs have had on each other, the uneasy feelings that accompanied their interactions, and the creative and fascinating impact their interaction had on both cultures. (Same as SLAV 318.) LEC.

JWSH 321. Religion of Ancient Israel. 3 Hours. H.
A study of the development of the Hebrew Bible from its earliest stages of oral tradition to its canonization with an emphasis on the relationship of the historical, intellectual, and cultural contexts shaping that development. (Same as REL 311.) Prerequisite: REL 124 or JWSH 124 or permission of instructor. LEC.

JWSH 325. Introduction to Judaism. 3 Hours. H.
Analyzes a selection of the core texts, teachings, and practices of Jewish religious traditions in terms of classical and contemporary understanding. (Same as REL 325.) LEC.

JWSH 327. Jewish Secular Culture. 3 Hours. HL AE42 / H.
By examining the modern concept of Yiddishkeit (Jewishness), this course explores Jewish secularism as a set of modern intellectual, literary, and cultural practices that redefined the relationship between the secular and religious in literature, music, theatre, art, humor, and foodways. This interdisciplinary course draws on theoretical approaches from history, cultural studies, religious studies, folklore, and linguistics to examine the different secularizing cultural practices of the Jews in Central and Eastern Europe, as well as in North America. LEC.

JWSH 336. Jewish American Literature and Culture. 3 Hours. H.
An examination of Jewish American literature and culture from the 17th century to the present. Materials may include a broad range of literary genres as well as folklore, music, film, and visual art. (Same as ENGL 336.) Prerequisite: Prior completion of the KU Core Written
JWSH 338. Languages of the Jews. 3 Hours. H.
From the beginning, Jewish history and culture is closely tied to language, from Hebrew and Aramaic to the languages of diaspora such as Yiddish and Ladino. Focusing on issues of language in society, this course will survey the languages spoken by the Jews throughout their long history in diverse communities around the world. We will learn about Hebrew as a spoken and a sacred language, examine how Jewish languages are born and die, and discuss the resurrection of Modern Hebrew in the state of Israel. All readings are in English. No prior knowledge of languages or linguistics is required. (Same as LING 338.) LEC.

JWSH 339. Languages of the Jews, Honors. 3 Hours. H.
Honors version of JWSH 338 or LING 338, Languages of the Jews. Prerequisite: Membership in the University Honors Program or consent of instructor. (Same as LING 339.) LEC.

JWSH 340. Topics in Modern Jewish Literature: ______. 3 Hours.
This course treats Jewish literature in English or English translation in the 20th and 21st centuries either as a broad survey or according to specific themes. May be repeated for credit. LEC.

JWSH 343. The Holocaust in History. 3 Hours. H.
The systematic murder of the Jews of Europe by the Nazis during World War II is one of the most important events of modern history. This course studies the Holocaust by asking about its place in history. It compares other attempted genocides with the Holocaust and examines why most historians argue that it is unique. Other topics covered include the reasons the Holocaust occurred in Europe when it did, the changing role of anti-Semitism, and the effects of the Holocaust on civilization. The course also discusses why some people have sought to deny the Holocaust. The course concludes by discussing the questions people have raised about the Holocaust and such issues as support for democracy, the belief in progress, the role of science, and the search for human values which are common to all societies. (Same as HIST 343.) LEC.

JWSH 350. Contemporary Jewish Identities. 3 Hours. SC / H.
This course explores the variety of ways in which American Jews create Jewish identities as individuals and groups. It traces the emergence of the various current divisions within Judaism: Reform Judaism (which by definition, implies Orthodoxy), then Conservative Judaism, and then the later development of Reconstructionist Judaism. The course also explores other contemporary options for being Jewish: cultural Jews, secular Jews, unaffiliated Jews, religious Jews, and gay or lesbian or transgendered Jews. LEC.

JWSH 361. Jewish Film. 3 Hours. H.
An examination of the cultural history of the Jews through films that explore Jewish themes, including but not limited to: issues of tradition and modernity, religion and secularism, immigration, gender, Zionism, anti-Semitism, and the Holocaust. Films studied may be in English and in foreign languages (with English subtitles) like Yiddish, Hebrew, and Russian. LEC.

JWSH 395. Study Abroad Topics in Jewish Studies: ______. 3-6 Hours. H.
This course is designed for the study of special topics in Jewish Studies at the junior/senior level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

JWSH 490. Directed Study in Jewish Studies. 3 Hours. AE61 / H.
Intensive reading or research under faculty supervision. Prerequisite: Consent of instructor. IND.

JWSH 491. Directed Study in Jewish Studies, Honors. 3 Hours. AE61 / H.
Honors version of JWSH 490. Intensive reading or research under faculty supervision. Prerequisite: Membership in the University Honors Program or consent of instructor. IND.

JWSH 523. The Dead Sea Scrolls. 3 Hours. H.
A study of the archeological evidence and texts from the Dead Sea area that provide primary evidence for Jewish religious belief and practice in the Greek and Roman periods (ca. 250 B.C.E. - 135 C.E.). (Same as REL 523.) Prerequisite: REL 124 or JWSH 124 or consent of instructor. LEC.

JWSH 525. Jews and Christians. 3 Hours. H.
This course examines the ways Jews and Christians have interacted with and characterized one another at various points in their histories. Special emphasis is placed on the gradual separation of the two religious traditions in the 1st-4th centuries. (Same as REL 525.) Prerequisite: A previous course in Religious Studies or Jewish Studies; or consent of instructor. LEC.

JWSH 526. Jewish History and Literature in the Greek and Roman Periods. 3 Hours. H.
The history and literature of the Jewish people from the hellenistic period (late fourth century B.C.E. to the codification of the Mishnah 210 C.E.). Select texts from the Hebrew Bible, the so-called apocrypha and pseudepigrapha, the Qumran scrolls. Philo, Josephus, related early Christian texts, and Rabbinic texts will be studied. (Same as REL 526.) Prerequisite: REL 124 or JWSH 124 or permission of instructor. LEC.

JWSH 560. Classical and Contemporary Jewish Thought. 3 Hours. H.
An introduction to individual Jewish thinkers and collective projects from Philo to the present, including The Talmud and Midrash, Middle Age and Early Modern Jewish philosophical and Talmudic rationalism and mysticism. Considers such thinkers as Spinoza, Cohen, Solovitchik, Rosenzweig, and Levinas. (Same as REL 560.) Prerequisite: A previous course in Religious Studies or Jewish Studies; or consent of instructor. LEC.

JWSH 570. Studies in Judaism. 3 Hours. H.
A study of the major intellectual sources of the Jewish tradition from the Mishna, Talmud, Midrash, prayerbook, philosophers, the Zohar, and the Shulchan Aruch. (Same as REL 570.) Prerequisite: A course in Religious Studies or Jewish Studies numbered 300 or above. LEC.

JWSH 572. Jewish Folklore. 3 Hours. H.
Jewish folklore is extraordinarily rich and varied. From folktales to riddles, from legends about the exalted rabbit to irreverent jokes, folklore is central to the Jewish way of life. This course traces the extent to which oral elements appear in traditional Jewish literary texts such as the Bible; read and discuss folktales, and examine minor genres such as proverbs, riddles and jokes. Topics include the supernatural beings of Jewish folklore dybbuks, seductive female demons, and golems. Students acquire theoretical tools with which to analyze folklore (Jewish or otherwise), read stories, watch movies, and collect samples of folklore from informants. LEC.

JWSH 573. Jewish Folklore, Honors. 3 Hours. H.
Honors version of JWSH 572. Jewish folklore is extraordinarily rich and varied. From folktales to riddles, from legends about the exalted rabbit to irreverent jokes, folklore is central to the Jewish way of life. This course traces the extent to which oral elements appear in traditional Jewish literary texts such as the Bible; read and discuss folktales, and examine minor genres such as proverbs, riddles and jokes. Topics include the supernatural beings of Jewish folklore dybbuks, seductive female demons, and golems. Students acquire theoretical tools with which to analyze folklore (Jewish or otherwise), read stories, watch movies, and
History of Art Courses

HA 100. Introduction to Western Art History. 3 Hours. HT AE42/GE3H / H.
A chronological survey of Western art and architecture, including the ancient Near East, Europe from antiquity to the present, and North America from the colonial period to the present. The course emphasizes major historical and cultural developments, analyzes key art works and monuments, and introduces basic art historical principles and analytical methods. The course is offered at the 100 and 300 levels, with additional reading and writing assigned at the 300 level. Intended for non-majors. Does not count toward the 30 required hours in the major. Not open to students with credit in HA 103, HA 150, HA 151, HA 160, HA 161, or HA 300. LEC.

HA 103. Introduction to Western Art History, Honors. 3 Hours. HT AE42/GE3H / H.
A chronological survey of Western art and architecture, including the ancient Near East, Europe from antiquity to the present, and North America from the colonial period to the present. The course emphasizes major historical and cultural developments, analyzes key art works and monuments, and introduces basic art historical principles and analytical methods. The course is offered at the 100 and 300 levels, with additional reading and writing assigned at the 300 level. Intended for non-majors. Does not fulfill the 30 required hours in the major. Not open to students with credit in HA 100, HA 150, HA 151, HA 160, HA 161, or HA 303. Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

HA 105. Special Study: ______. 1-6 Hours. H.
This course is designed for the study of special topics in art history at the introductory level, including courses taken in the study abroad program. May deal with individual artists, special themes, or other topics not generally covered in courses offered by the department. May be repeated for credit if content varies. LEC.

HA 150. Western Art History I: Ancient Through Medieval Art. 3 Hours. HT AE42/GE3H / H.
A survey of the art of earlier periods in the West, from prehistoric times through the middle ages in Europe, with special emphasis on the relationship between artistic developments and cultural changes. Not open to students with credit in HA 160. LEC.

HA 151. Western Art History II: Renaissance to Contemporary Art. 3 Hours. H.
A survey of the art of later periods in the West, from the Renaissance to the contemporary period in Europe and America, with special emphasis on the achievements of individual artists in relation to the cultural movements of their times. Not open to students with credit in HA 161. Prerequisite: HA 100, HA 103, HA 150, HA 160, HA 300, or HA 303. LEC.

HA 160. Western Art History I, Honors. 3 Hours. HT AE42/GE3H / H.
Honors section of HA 150. Students taking HA 150 for Honors credit must enroll in HA 160. They will attend HA 150 lectures and Honors discussion group led by the professor in charge of the course. Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

HA 161. Western Art History II, Honors. 3 Hours. H.
Honors section of HA 151. Students taking HA 151 for Honors credit must enroll in HA 161. They will attend HA 151 lectures and Honors discussion group led by the professor in charge of the course. Prerequisite: HA 100, HA 103, HA 150, HA 160, HA 300, or HA 303, and membership in University Honors Program or consent of instructor. LEC.

HA 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in History of Art. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.
HA 303. Introduction to Western Art History,Honors. 3 Hours. HT / H.
A chronological survey of Western art and architecture, including the ancient Near East, Europe from antiquity to the present, and North America from the colonial period to the present. The course emphasizes major historical and cultural developments, analyzes key art works and monuments, and introduces basic art historical principles and analytical methods. The course is offered at the 100 and 300 levels, with additional reading and writing assigned at the 300 level. Intended for non-majors. Does not count toward the 30 required hours in the major. Not open to students with credit in HA 100, HA 103, HA 150, HA 151, HA 160, HA 161, or HA 300. Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

HA 305. Special Study: ____. 1-6 Hours. H.
This course is designed for the study of special topics in art history, including courses taken in the study abroad program. May deal with individual artists, special themes, or other topics not generally covered in courses offered by the department. May be repeated for credit if content varies. LEC.

HA 307. Directed Readings. 1-6 Hours. U.
Supervised study and research into special fields of art of particular interest to the student. Weekly consultation and reports. LEC.

HA 310. The Art and Architecture of Florence and Paris. 3 Hours. H.
Taught in the Humanities and Western Civilization Program Abroad, this course examines the major movements that defined and shaped the art and architecture of Florence and Paris, with special attention to the Renaissance in Florence and the Gothic and modern periods in Paris. Through classroom lectures, readings, and visits to museums, churches, and other historic sites, selected works of art and architecture are analyzed in terms of their formal qualities, iconography, and cultural context. Prerequisite: Approval for enrollment in the Humanities and Western Civilization Study Abroad program through the KU Office of Study Abroad. LEC.

HA 311. The Art and Architecture of the British Isles. 3 Hours. H.
Taught in the British Summer Institute in the Humanities Study Abroad program, this course offers an introductory survey of British art and architecture. Through classroom lectures, readings, and visits to museums, churches, and other historic sites, selected works of art and architecture are analyzed in terms of their formal qualities, iconography, and cultural context. Prerequisite: Approval for enrollment in the British Summer Institute in the Humanities Study Abroad program through the KU Office of Study Abroad. LEC.

HA 315. The Prehistory of Art. 3 Hours. S.
A survey of prehistoric art focusing on the material record and interpretations of rock art (paintings, engravings on rock surfaces in rock-shelters, caves and in open air sites) and portable art created by prehistoric people. The emphasis is on the small-scale societies (hunter-gatherer and early food producers) around the world before the appearance of written records in respective geographic areas. Environmental, social and cultural contexts in which these art forms were created are discussed along with a review of past scholarship and current interpretive approaches to this old and enduring expression of human creativity. Course may be offered in lecture or online format. (Same as ANTH 315.) LEC.

HA 317. Greek and Roman Art. 3 Hours. H/W.
A survey of the art of ancient Greece and Rome (ca. 1000 B.C.E. - 500 C.E.). Emphasis on major sites, architecture, sculpture, and painting. Illustrated lectures and discussion; use of the Wilcox Classical Museum. No knowledge of Greek or Latin is required. Not open to students who have taken both CLSX 526/HA 526 and CLSX 527/HA 537, except with permission of the instructor. (Same as CLSX 317, HWC 317.) LEC.

HA 330. Italian Renaissance Art. 3 Hours. GE3H / H/W.
A survey of the art and architecture of Italy from c. 1300 to 1550. Special emphasis is placed on regional styles and the private, political, and devotional contexts in which works of art and architecture functioned. Some of the artists whose works are considered are Giotto, Duccio, Donatello, Botticelli, Leonardo, and Michelangelo. LEC.

HA 353. Modern and Contemporary African Art. 3 Hours. H.
In this course, we examine the development of artistic modernisms in Africa in historical context. We also study the content, production, patronage, and display of modern and contemporary African art. In doing so, we consider African artists’ engagement with modernity, globalization, and contemporary issues, as well as interrogate influential myths and assumptions regarding African artists and the work they produce. Course themes include the workshop as a critical site, independence movements and the creation of national art forms, art as global commodity, and art in resistance, remembrance, and revolution. (Same as AAAS 353.) LEC.

HA 369. Introduction to Korean Painting. 3 Hours. NW / H.
A history of Korean painting from the 4th through the 19th centuries. An examination of tomb murals, Buddhist painting, landscape, genre painting, portraiture, documentary painting, and decorative symbolic imagery. Lectures and discussion focus on artistic style and cultural context. Completion of HA 266, HA 269 or ECIV 104 is recommended. LEC.

HA 370. American Art. 3 Hours. H.
A survey of American painting, sculpture, and architecture from colonial to recent times. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 376. West African Art. 3 Hours. NW / H/W.
Introduction to the rich visual art traditions of West Africa. Emphasis is given to the major art-producing cultures of the Western Sudan and the Guinea Coast, including the pre-historic cultures of Nigeria, Mali, and Ghana. The diverse forms of figure sculptures and masquerade performance and meanings of these arts in historical and cultural contexts are examined. (Same as AAAS 376.) LEC.

HA 380. History of Photography. 3 Hours. H.
An introduction to the history of photography as a means of artistic expression and visual communication. Special attention is placed on the relation between developments in photography and the artistic and cultural context of the time. LEC.

HA 390. Special Study in African Art: ____. 1-6 Hours. H.
This course is designed for the study of special topics in African art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. LEC.

HA 391. Special Study in Asian Art: ____. 1-6 Hours. H.
This course is designed for the study of special topics in Asian art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. LEC.

HA 392. Special Study in Ancient Art: ____. 1-6 Hours. H.
This course is designed for the study of special topics in ancient art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. LEC.

HA 393. Special Study in Medieval Art: ____. 1-6 Hours. H.
This course is designed for the study of special topics in medieval art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. LEC.
HA 394. Special Study in Renaissance Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in Renaissance art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. LEC.

HA 395. Special Study in Baroque Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in Baroque art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. LEC.

HA 396. Special Study in American Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in American art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. LEC.

HA 397. Special Study in Modern Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in modern art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. LEC.

HA 467. Art and Culture of Japan, Honors. 3 Hours. NW / H/W.
Honors version of HA 267, requiring additional readings and writing assignments. An introduction to the arts of Japan in historical and cultural context. Basic principles and problems of the visual arts are analyzed, as are the major historical trends and periods. Prerequisite: Membership in the University Honors Program or permission of the instructor. Not open to freshmen or students with credit in HA 267. LEC.

HA 468. Art and Culture of China, Honors. 3 Hours. NW / H/W.
Honors version of HA 268, requiring additional readings and writing assignments. An introduction to the arts of China in historical and cultural context. Basic principles and problems of the visual arts are analyzed, as are the major historical trends and periods. Prerequisite: Membership in the University Honors Program or permission of the instructor. Not open to freshmen or students with credit in HA 268. LEC.

HA 469. Art and Culture of Korea, Honors. 3 Hours. NW / H/W.
Honors version of HA 269, requiring additional readings and writing assignments. An introduction to the arts of Korea in historical and cultural context. Basic principles and problems of the visual arts are analyzed, as are the major historical trends and periods. Prerequisite: Membership in the University Honors Program or permission of the instructor. Not open to freshmen or students with credit in HA 269. LEC.

HA 482. Japanese Painting. 3 Hours. NW / H.
A survey covering the development of Japanese painting from the Kofun period down to the early twentieth century. Topics will include Buddhist and other religious paintings, narrative handscrolls, suibokuga, decorative screens, genre paintings and ukiyo-e prints, and western-style paintings of the Meiji and Taisho periods. Work requirements will be greater for students enrolled at the 700 level than at the 400 level. Prerequisite: HA 265, or HA 267, or consent of instructor. LEC.

HA 488. Chinese Painting, Honors. 3 Hours. NW / H/W.
A survey of the development of painting in China, beginning with the earliest forms of figural and landscape depiction. Emphasis will be placed on the major painting traditions of the Song, Yuan, Ming, and Qing Dynasties. Prerequisite: One of the following four courses: HA 150, HA 265, HA 266, or ECIV 104; and membership in the University Honors Program or permission of the instructor. LEC.

HA 498. Honors Essay in Art History. 3 Hours. AE61 / H.
Required for departmental honors. A course of directed research and the preparation of a paper on an art history topic, supervised by a professor. Prerequisite: A grade-point average of 3.5 in art history and 3.25 in all courses, and consent of a major advisor and supervising professor. IND.

HA 500. Prints and Printmakers. 3 Hours. H.
The major historical achievements in the field of printmaking, the artists who produced prints, and the impact of their work on the visual arts. Lectures supplemented by work with original material. Prerequisite: An introductory course in Western art history at the college level and three further hours of history of art or consent of instructor. LEC.

HA 503. Japanese Prints. 3 Hours. NW / H.
A study of the major artists and schools of the Japanese print, especially in their technical and stylistic developments and in their relation to the culture of Japan in the Edo period. Prerequisite: A survey of Asian or Japanese art, or consent of instructor. LEC.

HA 505. Special Study: ______. 1-6 Hours. H.
This course is designed for the study of special topics in art history on a trial basis, open to both undergraduate and graduate students. Prerequisite: An introductory-level course in art history, appropriate to the specific special study topic; or consent of instructor. LEC.

HA 506. Early Medieval and Romanesque Art. 3 Hours. H.
This course examines the art of Europe from the Early Christian era through the Romanesque period, up to 1200. Architecture, sculpture, manuscript illumination, metalwork and painting are explored in relation to their political, religious and social contexts. Graduate students can expect to complete additional reading and writing assignments. Prerequisite: HA 100 or HA 150, or permission of the instructor. LEC.

HA 507. Gothic Art. 3 Hours. H.
This course examines the art of Europe during the Gothic period, from 1140-1500. Architecture, sculpture, manuscript illumination, metalwork, painting and furniture are explored in relation to their political, religious and social contexts. Graduate students can expect to complete additional reading and writing assignments. Prerequisite: HA 100 or HA 150, or permission of instructor. LEC.

HA 508. The Italian Renaissance Home. 3 Hours. H.
This course explores the history of domestic art and architecture in Italy, with a special emphasis on Florence, from c. 1350 to 1600. Palace architecture, religious works made for private devotions, the increasing use of mythological themes in painting and sculpture, birth trays, painted cassoni, majolica, and various types of portraiture are examined within the contexts of contemporary theories of virtue and magnificence, the rituals of marriage and childbirth, the public and private promotion of political and personal agendas, and changing tastes. In addition to acquiring an in-depth knowledge of the artistic and architectural milieu of Italian Renaissance homes and expanding their cultural understanding, students enrolled in this course engage in a series of assignments designed to build and hone their reading, critical thinking, visual analysis, research, and writing skills. The same assignments allow students to integrate their knowledge of and to think creatively about the period, objects, and buildings in question. A high expectation of class participation and the opportunity to present their research provide students with the opportunity to build and strengthen their oral communications skills. Prerequisite: HA 100, HA 150, HA 151, HA 330, or the equivalent, or consent of instructor. LEC.

HA 525. Aegean Archaeology and Art. 3 Hours. H/W.
An interdisciplinary survey of the major cultures of the prehistoric Aegean (Greek) world from the Neolithic period to the end of the Bronze Age (ca. 3000-1100 B.C.E.), with special emphasis on the cultural and artistic achievements of the Mycenaenans, Minoans, and Cycladic islanders, including their contacts with the neighboring cultures of Anatolia (Hittites and Troy), the Levant, Egypt, and South Italy. Includes lecture with slides.
and discussion. For advanced undergraduates with backgrounds in the humanities and for graduate students (especially in Classics and History of Art). No knowledge of Greek or Latin is required. (Same as CLSX 525.) LEC.

HA 526. Greek Archaeology and Art. 3 Hours. H.
An interdisciplinary survey of the material culture of the ancient Greek world from the Protogeometric period to the end of the Hellenistic age (ca. 1100 - 30 B.C.E.), with an emphasis on the major sites, monuments, and changing forms of social and artistic expression (architecture, sculpture, vase painting, and other arts). Includes lectures with slides and discussion; use of the Wilcox Museum of Classical Antiquities. No knowledge of Greek or Latin is required. For advanced undergraduates and graduate students with backgrounds in the humanities; and for graduate students (especially those in History of Art and Classics). (Same as CLSX 526.) LEC.

HA 527. Late Medieval Art in Italy. 3 Hours. H.
This course examines the history of paintings, sculptures and buildings produced in Italy from c. 1250 to 1400. Important individual works, artists, and decorative complexes, such as Giotto's Scrovegni (Arena) Chapel, are analyzed in terms of their stylistic, geographical, social, historical, devotional, and literary contexts. Current theories and controversies pertinent to the history and study of 13th- and 14th-century Italian art are also addressed. Prerequisite: HA 100, HA 150, or the equivalent, or consent of instructor. LEC.

HA 529. Archaeology and Art of the Ancient Near East. 3 Hours. H.
A cross-cultural survey of the material remains of the major civilizations of the ancient Near East, including Anatolia, Mesopotamia, the Levant, and Egypt from Neolithic period to the rise of the Roman empire (ca. 6000 B.C.E. - 30 B.C.E.). Includes lectures with slides and discussion. For advanced undergraduates with backgrounds in the humanities and for graduate students (especially in Classics and History of Art). No knowledge of Greek or Latin is required. (Same as CLSX 529.) LEC.

HA 530. Renaissance Art in Italy: The 15th Century. 3 Hours. H/W.
The focus of this course is the history of Italian painting, sculpture, and architecture from 1400 to 1500. Special emphasis is placed on the diverse artistic styles and functions of works of art, as well as on the artists and patrons that produced them. Domestic art and the art and architecture of the 15th-century Italian courts are also discussed. Prerequisite: HA 100, HA 150, or the equivalent, or consent of instructor. LEC.

HA 531. Renaissance Art in Italy: The 16th Century. 3 Hours. H.
This course explores the history of Italian painting, sculpture, and architecture from c. 1500 to 1600. It focuses on the artistic centers of Florence, Rome, Parma, and Venice. Some of the artists whose works are considered are Leonardo, Michelangelo, Raphael, Pontormo, Titian, Cellini, and Giambologna. The history of 16th-century women patrons and artists is also addressed. Prerequisite: HA 100, HA 150, HA 151, or the equivalent, or consent of instructor. LEC.

HA 532. Michelangelo. 3 Hours. H.
During the sixteenth century, the writer Ludovico Ariosto described the Florentine artist Michelangelo Buonarroti (1475-1564) as "divine." Since that time more has been written about Michelangelo than any other artist of the Italian Renaissance. His ability to work in diverse media, namely painting, sculpture, and architecture, as well as the power of his works, earned him this prominent position in the history of art and made him one of the most influential artists of the early modern period. This course will trace various aspects of Michelangelo's long, sometimes troubled, and vibrant career, focusing on issues such as his techniques, patrons, and the innovative style of his works. Special emphasis will be placed on interpreting primary sources to understand better his life and works and place them within their artistic, historical, social, and religious contexts.

Prerequisite: HA 100, HA 150, HA 151, HA 330, or the equivalent, or consent of instructor. LEC.

HA 533. European Art 1789-1848: Gender and Revolution. 3 Hours. H.
This course will analyze painting in Europe from the late 18th century to the mid-19th century. Particular attention will be paid to the ways in which images represent and/or repress such themes as politics, history, gender, ethnicity, race, and class. Assigned readings present a variety of methodological perspectives--social-historical, feminist, formalist, and psychoanalytic. Graduate students may be expected to complete additional reading and writing assignments. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 534. Art in France 1848-1900: Modernisms. 3 Hours. H.
This course will examine painting in France from 1848 to 1900 with particular emphasis given to the visual articulation and/or repression of such constructs as gender, race, history, and ethnicity. Assigned readings present a variety of methodological perspectives--social-historical, feminist, formalist, and psychoanalytic. Graduate students may be expected to complete additional reading and writing assignments. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 535. Islamic Art and Architecture in Africa. 3 Hours. H.
Study of Islamic art and architecture in various cultural and geographical settings, from the first mosques of North African and the Swahili coast to contemporary Islamized masquerades in West Africa. We consider art objects and architectural sites in terms of religious practice, trade and commerce, ritual and political power, and contemporary expression. (AAAS 536.) Prerequisite: AAAS 102, AAAS 103, HA 100, or HA 150; or permission of instructor. LEC.

HA 537. Roman Archaeology and Art. 3 Hours. H/W.
An interdisciplinary survey of the material culture of ancient Rome from its origins to the late empire (8th c.B.C.E. - 4th c.C.E.). Emphasis on major sites, monuments, and changing forms of social and artistic expression, as well as on Etruscan and Greek influence on Rome and Rome's influences on its provinces. Includes lectures with slides and discussion; use of the Wilcox Museum of Classical Antiquities. No knowledge of Greek or Latin is required. For advanced undergraduates and graduate students with backgrounds in the humanities; and for graduate students (especially those in History of Art and Classics). (Same as CLSX 525.) LEC.

HA 538. Pompeii and Herculaneum. 3 Hours. H.
An interdisciplinary treatment of the art and archaeology of the ancient Roman cities of Pompeii and Herculaneum in Italy. Emphasis on the structures and decorations of major public spaces and houses and on aspects of cultural, social, political, commercial, and religious life from the period of the second century B.C.E. to 79 C.E., when Pompeii and Herculaneum were buried by the eruption of Mt. Vesuvius. Slide lectures and discussion. (Same as CLSX 538, HWC 538.) Prerequisite: Graduate status, or 6 credit hours in Classics, Greek, Latin, History of Art, or permission of the instructor. LEC.

HA 539. History of Japanese Buddhist Art. 3 Hours. H.
A survey of the Buddhist art of Japan that begins with the introduction of Buddhism in the sixth century and ends with contemporary Buddhist art. Students will also consider how Buddhist images function as part of the living religious tradition in Japan. Prerequisite: A survey of either Asian art, Japanese art, Asian religions, Japanese culture, or consent of instructor. LEC.

HA 545. Early Chinese Art. 3 Hours. NW / H.
A survey of Chinese art from Neolithic times through the Han Dynasty (ca. 200 B.C.E.). Emphasis will be placed on recent archaeological excavations
and also on the development of bronze vessels of the Shang and Zhou Dynasties. Prerequisite: A college level introduction to Asian art history, or consent of instructor. LEC.

HA 546. Chinese Sculpture. 3 Hours. H.
A survey of Chinese sculpture from the Shang dynasty through the Song dynasty (1600 BCE-1279 CE), focused on sculptural programs in native funerary art and Buddhist temples and cave-shrines. LEC.

HA 548. Buddhist Scriptures in Chinese Painting. 3 Hours. H.
Examination of Chinese paintings based on the major Buddhist scriptures (sutras) popular in China from the 8th century through the early modern period. Readings include selections from the sutras (in translation). Emphasis is placed on the cultural and religious reasons why certain scriptural themes were selected for representation and on the distinctively Chinese interpretation of these themes in pictorial art. Prerequisite: One of the following: HA 265, HA 266, HA 585, ECIV 104, REL 106. LEC.

HA 549. Chinese Painting. 3 Hours. H.
An introductory survey of painting in China from the 7th through the 19th centuries. Prerequisite: One course in art history, or in East Asian languages cultures; or consent of instructor. LEC.

HA 564. European Art, 1900-1945. 3 Hours. H.
A detailed survey of modern European art from the turn of the century through World War II. Movements to be considered may include post-impressionism, cubism, constructivism, dada, and surrealism. Graduate students may be expected to do additional reading and writing assignments. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 565. Art Since 1945. 3 Hours. H.
An international survey of modern and postmodern art since 1945. Topics to be covered may include abstract expressionism, pop, minimalism, happenings, and performance art, earth works, conceptual art, feminist art, photo-realism, crafts, and new media. Graduate students may be expected to complete additional reading and writing assignments. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 566. Art From 1945 to the 1980's: Modernism to Post-Modernism. 3 Hours. H.
An international survey of modern and postmodern art from World War II to the 1980s. Topics may include abstract expressionism, pop art, minimalism, happenings and performance art, earth works, conceptual art, feminist art, photo-realism, the craft revival, and new media. Graduate students may be expected to complete additional reading and writing assignments. Prerequisite: HA 100, HA 151 or the equivalent, or consent of instructor. LEC.

HA 567. Contemporary Art. 3 Hours. H.
An examination of recent developments internationally in art and visual culture. Emphases may include consideration of diverse critical perspectives, theoretical debates, post- and trans-national art, the impact of new media, and the internationalization of institutions, exhibitions, audiences, and markets. Graduate students may be expected to complete additional reading and writing assignments. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 570. American Art. 3 Hours. H.
A survey of American painting, sculpture, and architecture from colonial times to the present. (Same as AMS 580.) Prerequisite: An introductory course in Western art history at the college level. LEC.

HA 571. Modern Sculpture. 3 Hours. H.
A survey of avant-garde sculpture in Europe and America from the late 19th century to recent times. Attention will focus on the work of major sculptors considered within larger artistic, cultural, and historical contexts. Graduate students may be expected to complete additional reading and writing assignments. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 575. Northern Renaissance Art. 3 Hours. H.
French, Netherlandish, and German art in the 15th and 16th centuries. Manuscripts, painting, prints, and sculpture from Jan Van Eyck to Pieter Brueghel, the Elder. Prerequisite: HA 100, HA 150, HA 151, or the equivalent, or consent of instructor. LEC.

HA 576. Northern Baroque Art. 3 Hours. H.
Seventeenth-century art in the northern and southern Netherlands with emphasis on painting of Rubens and Rembrandt. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 577. Italian Baroque Art. 3 Hours. H.
This course explores the history of art and architecture in Italy during the late sixteenth and seventeenth centuries. The visual culture of the Italian Baroque is examined in terms of style, patronage, and religious or secular function. Attention is also paid to art theory, practice, gender issues, and foreign artists working in Italy, as well as to understanding and interpreting primary sources. Prerequisite: HA 100/HA 300, HA 151, or consent of instructor. LEC.

HA 578. Central African Art. 3 Hours. NW / H/W.
Introduction to the arts and cultures of Central Africa. Emphasis is given to the major art-producing cultures of the Equatorial Forest and the Southern Savanna regions of Cameroon, Gabon, Congo, Zaire, and Angola. The historical and cultural contexts for the visual arts associated with centralized leadership and non-centralized societies are explored. (Same as AAAS 578.) LEC.

HA 580. History of Photography. 3 Hours.
An advanced introduction to the history of photography as a means of artistic expression and visual communication. Special emphasis will be placed on critical readings and research projects. Prerequisite: Six hours of Western art history. LEC.

HA 581. American Art to 1860: Inventing a Nation. 3 Hours. H.
A survey of major artists and movements in painting, sculpture, and allied arts, from the period of initial European settlement to the mid-19th century. Consideration will be given to developments in portraiture, history painting, landscape, still-life, statuary, and decorative arts. Attention will be paid both to formal developments and to cultural context. Graduate students may be expected to complete additional reading and writing assignments. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 582. American Art 1860-1900: Gilded Age. 3 Hours.
A survey of major artists and movements in painting, sculpture, and allied arts, from the late 19th century. Consideration will be given to developments in landscape painting and images of the American West, the impact of impressionism and other European movements, and the decorative programs of the Gilded Age. Attention will be paid both to formal developments and to cultural context. Graduate students may be expected to complete additional reading and writing assignments. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 583. American Art 1900-1945: Rise of Modernism. 3 Hours. H.
A survey of major artists and movements in painting, sculpture, and allied arts, from the early urban realists to the emergent avant-garde at mid century. Consideration will be given to the cosmopolitan tendencies of the 1910s and the 1920s, to regionalist impulses of the 1930s, and the assimilation of European modernism. Attention will be paid both to formal developments and to cultural context. Graduate students may
be expected to complete additional reading and writing assignments. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 584. Kansas Art, History, and Popular Culture. 3 Hours. H.
An overview of the art and cultural history of Kansas (and Kansas City) from territorial days to the present. Emphasis is placed on key issues, figures and events. A general familiarity with American history is recommended. (Same as FMS 414). LEC.

HA 585. The Art of Buddhism. 3 Hours. NW / H/W.
A survey of the Buddhist arts (architecture, sculpture, and painting) of India, China, and Japan. LEC.

HA 587. Japanese Sculpture. 3 Hours. NW / H.
A survey of Japanese sculpture from the Kofun period (300-700 C.E.) to the present day. Emphasis is placed on works of Buddhist sculpture from the 7th through the 13th centuries. Prerequisite: An introductory course in Asian art history or consent of instructor. LEC.

HA 588. Modern and Contemporary Visual Arts of Japan. 3 Hours. H.
This course covers Japanese visual arts from the Meiji era (1868-1912) through the present day. The course is designed thematically as well as chronologically, and examines painting, sculpture and architecture focusing on both socio-political contexts and artistic concerns that emerged at certain times in recent Japanese history. The aim of this course is to provide first-hand knowledge of Japanese modern and contemporary visual arts as well as an in-depth consideration of some of the key issues attached to Japan's modernization and modernity. Prerequisite: A survey of Japanese art, or modern art, or consent of instructor. LEC.

HA 589. Japanese Artistic Encounters with Europe and the United States. 3 Hours. NW / H.
Consideration of Japanese artistic responses to visual culture from Europe and the United States. The course focuses upon Japanese art from the 16th century to the present. Prerequisite: A college-level introduction to Asian art history or consent of instructor. LEC.

HA 590. Special Study in African Art: ___. 1-6 Hours. H.
This course is designed for the study of special topics in African art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. Prerequisite: An appropriate introductory-level course in art history or African Studies, or consent of the instructor. LEC.

HA 591. Special Study in Asian Art: ___. 1-6 Hours. H.
This course is designed for the study of special topics in Asian art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. Prerequisite: An appropriate introductory-level course in art history or Asian Studies, or consent of the instructor. LEC.

HA 592. Special Study in Ancient Art: ___. 1-6 Hours. H.
This course is designed for the study of special topics in ancient art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. Prerequisite: An appropriate introductory-level course in Art History or Classics, or consent of the instructor. LEC.

HA 593. Special Study in Medieval Art: ___. 1-6 Hours. H.
This course is designed for the study of special topics in medieval art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. Prerequisite: An appropriate introductory-level course in art history, or consent of the instructor. LEC.

HA 594. Special Study in Renaissance Art: ___. 1-6 Hours. H.
This course is designed for the study of special topics in Renaissance art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. Prerequisite: An appropriate introductory-level course in art history, or consent of the instructor. LEC.

HA 595. Special Study in Baroque Art: ___. 1-6 Hours. H.
This course is designed for the study of special topics in Baroque art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. Prerequisite: An appropriate introductory-level course in art history, or consent of the instructor. LEC.

HA 596. Special Study in American Art: ___. 1-6 Hours. H.
This course is designed for the study of special topics in American art. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. Prerequisite: An appropriate introductory-level course in art history, or consent of the instructor. LEC.

HA 600. Biography of a City: ___. 3 Hours. H/W.
An interdisciplinary study of a city, covering its history, literature, and arts during the periods when the city’s culture reached its height. LEC.

HA 676. West African Art. 3 Hours. NW / H/W.
Introduction to the rich visual art traditions of West Africa. Emphasis is given to the major art-producing cultures of the Western Sudan and the Guinea Coast, including the archaeological cultures of Nigeria, Mali, and Ghana. The diverse forms of figure sculptures and masquerade performance and the meanings of these arts in historical and cultural contexts are examined. Upper division and graduate students can enroll for this course with appropriate course requirements. Not open to students who have taken AAAS 376/HA 376. (Same as AAAS 676.) LEC.

HA 679. African Expressive Culture: ___. 3 Hours. NW / H/W.
An in-depth examination of an artistic tradition shared by a number of African cultures. Discussion includes historical development related to style, use and meaning and other relevant issues critical to the topic. Open to juniors, seniors, and graduate students only. (Same as AAAS 679.) Prerequisite: AAAS 376 or HA 376, or AAAS 578 or HA 578, or an introductory course in art history at the college level, or consent of instructor. LEC.

HA 704. Seminar on Christian Iconography. 3 Hours.
A study of subject matter in the visual arts and of modes of representing certain themes and categories of ideas and meanings in the history of art. Prerequisite: Nine hours of history of art and knowledge of a foreign language. LEC.
HA 705. Major Artist: ______. 1-3 Hours.
The study in detail of a single artist or of an artist and his school or shop. Prerequisite: An introductory course in Western art history at the college level and the 400-level course in the period in which the artist’s work falls. LEC.

HA 706. Seminar on Special Problems in Art History: ______. 1-6 Hours.
Seminar dealing with particular art historical problems of a special and specific nature. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 707. Directed Readings. 1-6 Hours.
Supervised study and research into special fields of art of particular interest to the student. Weekly consultations and reports. RSH.

HA 710. Museum Techniques and Functions. 3 Hours.
Primarily for graduate students interested in pursuing a career in art museum work. The development of the museum idea, the activities of the art museum, as well as practical experience in the various fields of art museum curatorship and public activity are among the areas studied. LEC.

HA 712. Directed Museum Study. 1-6 Hours.
Supervised study and research projects related to art works in the permanent collections or special exhibitions of local museums of art. Planned in consultation with a faculty member and the director of the museum. RSH.

HA 715. Seminar in African Art. 3 Hours.
A concentrated study of a special topic relating to African Art studies. Different topics are offered in different semesters. (Same as AAAS 715.) Prerequisite: Nine hours of Art History and/or consent of instructor. LEC.

HA 716. Art of the Early Middle Ages in the West. 3 Hours.
A pro-seminar in the art of the West from the Migration Period through the art of the Carolingian Empire. LEC.

HA 719. Art Histories: Theory and Methodology. 3 Hours.
This course examines the major methodologies and theories that have shaped and continue to shape the field of art history. Through critical reading of primary, secondary, and interpretive texts, the course will analyze closely the history and current state of the discipline. Prerequisite: Nine hours of History of Art or consent of instructor. LEC.

HA 723. Romanesque Art. 3 Hours.
A study of Western European sculpture, painting, and architecture from the period of the Migrations, through the so-called “Dark Ages” to the creation of the Gothic style. Prerequisite: A survey of Medieval art. LEC.

HA 725. The Gothic Cathedral. 3 Hours.
The development and spread of Gothic architecture and sculpture in France, England, Spain, and Germany. Prerequisite: A college level introduction to Medieval art history. LEC.

HA 745. Dutch and Flemish Painting of the 17th Century. 3 Hours.
A detailed study of the art of Hals, Rembrandt and Vermeer, on the one hand, and of Rubens and Van Dyck on the other. Prerequisite: A survey of Northern Baroque art or consent of instructor. LEC.

HA 782. Japanese Painting. 3 Hours.
A survey covering the development of Japanese painting from the Kofun period down to the early twentieth century. Topics will include Buddhist and other religious paintings, narrative handscrolls, suibokuga, decorative screens, genre paintings and ukiyo-e prints, and Western-style paintings of the Meiji and Taisho periods. Work requirements will be greater for students enrolled at the 700 level. Prerequisite: HA 265, or HA 267, or consent of instructor. LEC.

HA 788. Proseminar in Japanese Art. 3 Hours.
Critical analysis of readings on selected topics in Japanese art. May be repeated for credit up to a maximum of 12 hours. Prerequisite: Consent of instructor. LEC.

HA 789. Proseminar in Chinese Art. 3 Hours.
Critical analysis of readings on selected topics in Chinese art. May be repeated for credit up to a maximum of 12 credit hours. Prerequisite: Consent of instructor. LEC.

HA 805. Seminar in Graphic Arts: ______. 3 Hours.
A concentrated study of one or more artists, techniques, or movements. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. Prerequisite: A course in graphic art, or in a discipline related to the field of the seminar. LEC.

HA 808. Problems in Connoisseurship West: ______. 3-6 Hours.
The analysis of the work of a specific artist, medium or period, and developing a knowledge of the methods and means of establishing standards of quality and authorship. Includes study in Spencer and/ or Nelson Museums. Prerequisite: Nine hours of art history and a reading knowledge of a pertinent foreign language. LEC.

HA 822. Seminar in Buddhist Art: ______. 3 Hours.
A concentrated study of selected problems dealing with Buddhist art in Asia. Different topics are offered in different seminars. May be repeated for credit up to a maximum of twelve hours. Prerequisite: Reading knowledge of Chinese or Japanese and consent of instructor. LEC.

HA 824. Seminar in Edo Period Painting: ______. 3 Hours.
Special study of one or more schools of painting of the Edo period (1615-1868) in Japan. Individual works will be analyzed in depth. Prerequisite: A course in Japanese painting. LEC.

HA 870. Seminar in Photographic History: ______. 3 Hours.
Advanced study of photographic images as made and used in the nineteenth and twentieth centuries. Requires primary research. Prerequisites include study of nineteenth century history of art. Specific topics vary. LEC.

HA 898. Franklin Murphy Seminar in Art History: ______. 3 Hours.
This seminar is given each spring by the Murphy Lecturer of the year and includes two weeks of intensive study with a nationally known expert in a special field of art history. The other weeks of seminar meetings for the semester are conducted by the faculty member most closely specialized in this field. Prerequisite: Consent of supervising faculty member. LEC.

HA 899. Thesis. 1-6 Hours.
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HA 906. Seminar on Special Problems in Art History: ______. 1-6 Hours.
Seminar dealing with particular art historical problems of a special and specific nature. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 907. Directed Readings in Art. 1-12 Hours.
Supervised study and research into special fields of art of particular interest to the student. Weekly consultation and reports. Prerequisite: Nine hours of art history and a reading knowledge of a pertinent foreign language. RSH.

HA 910. Curatorial Problems. 3-6 Hours.
Primarily for the graduate student interested in art museum work. The student will engage in specialized research related to museum activities resulting in either a research paper, an exhibition, or a catalogue of some portion of the museum’s holdings. Prerequisite: Nine hours of history of art and a reading knowledge of a pertinent foreign language. LEC.
HA 920. Seminar in Early Medieval Art: 3 Hours.
A study of selected problems dealing with the art of the early Middle Ages. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 925. Seminar in Late Medieval Art: 3 Hours.
A study of selected problems dealing with the art of the later Middle Ages. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 930. Seminar in Italian Renaissance Art: 3 Hours.
A concentrated study of one or two artists, monuments or movements. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 935. Seminar in Northern Renaissance Art: 3 Hours.
A concentrated study of one or two artists, monuments or movements. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 940. Seminar in 17th Century Art: 3 Hours.
A concentrated study of one or two artists, monuments or movements. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 950. Seminar in 18th Century Art: 3 Hours.
A concentrated study of one or two artists, monuments or movements. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 955. Seminar in 19th Century Art: 3 Hours.
A concentrated study of one or two artists, monuments or movements. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 960. Seminar in 20th Century Art: 3 Hours.
A concentrated study of one or two artists, monuments or movements. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 965. Seminar in American Art: 3 Hours.
A concentrated study of one or two artists, monuments or movements. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 970. Seminar in Photography and Fine Art: 3 Hours.
Advanced study of the relationships between photographic images, prints, painting, mass media, illustration, and other forms of visual expression. Specific periods and areas of emphasis will vary. Prerequisite: Advanced study of nineteenth century history of art. LEC.

HA 980. Seminar in Chinese Art: 3 Hours.
A concentrated study of one or two artists, monuments or movements. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 982. Seminar in Later Chinese Art: 3 Hours.
A concentrated study of artists, monuments or movements in Later Chinese art. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 16 credit hours. LEC.

HA 990. Seminar in Japanese Art: 3 Hours.
A concentrated study of one or two artists, monuments or movements. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 999. Doctoral Dissertation. 1-12 Hours.

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History Courses

HIST 101. Introduction to History: 3 Hours. HT GE11 / H.
An introduction to the study of history. The course will expose the student to the major issues and methods of historical study. This will be done through the study of a specific historical period or topical area. In the study of this period or topic, students will be introduced to schemes of interpretation, critical readings and analysis, primary sources, and evaluation of evidence. LEC.

HIST 102. Introduction to History, Honors: 3 Hours. HT / H.
An introduction to the study of history. The course will expose the student to the major issues and methods of historical study. This will be done through the study of a specific historical period or topical area. In the study of this period or topic, students will be introduced to schemes of interpretation, critical readings and analysis, primary sources, and evaluation of evidence. Prerequisite: Membership in the College Honors Program or consent of department. LEC.

HIST 103. Environment and History. 3 Hours. H.
Nature is our oldest home and newest challenge. This course surveys the environmental history of the earth from the extinction of the dinosaurs to the present with a focus on the changing ecological role of humans. It analyzes cases of ecological stability, compares cultural attitudes toward nature, and asks why this ancient relationship seems so troubled. (Same as EVRN 103.) LEC.

HIST 104. Introduction to African History. 3 Hours. NW GE11/GE3H / H/W.
An introduction to important historical developments in Africa mainly south of the Sahara. Topics will include early history, empires, kingdoms, and city-states, the slave trade, southern Africa, partition and colonialism, the independence era, military and civilian governments, and liberation movements. Approaches will include literature, the visual arts, politics, economics, and geography. (Same as AAAS 105.) LEC.

HIST 105. Introduction to Ancient Near Eastern and Greek History. 3 Hours. NW GE3H / H/W.
A general survey of the political, social, and economic developments of Mesopotamia, Egypt, Asia Minor, and Greece from Paleolithic times to 323 B.C. LEC.

HIST 106. Introduction to Roman History. 3 Hours. H/W.
A general survey of the political, social, and economic developments of ancient Rome from 753 B.C. to 475 A.D. LEC.

HIST 107. Introduction to the Ancient World. 3 Hours. H.
This course covers the history of the ancient Near East, Greece and Rome with emphasis on the origins of agriculture, writing, cities, empires, and democracy. Students will be introduced to schemes of interpretation, critical readings, and analysis, primary sources, and evaluation of evidence. LEC.

HIST 108. Medieval History. 3 Hours. HT GE11 / H/W.
The history of Europe from the Barbarian Invasions to the beginning of the 16th century. LEC.

HIST 111. Introduction to African History, Honors. 3 Hours. NW / H/W.
An intensive version of AAAS 105/HIST 104. An introduction to important historical developments in Africa, mainly south of the Sahara. Topics include early history, empires, kingdoms and city-states, the slave trade, southern Africa, partition and colonialism, the independence era, military and civilian governments, and liberation movements. Approaches include literature, the visual arts, politics, economics, and geography. Open only to students in the University Honors Program or by consent of instructor. (Same as AAAS 115.) LEC.
HIST 112. Introduction to British History. 3 Hours. H.
This course will introduce students to the concepts, issues, and methods of historical study, at the same time as it explores the main processes and events which shaped the history of Britain and its imperial dependencies. Students will be introduced to the nature and validity of different historical interpretations, and to the purpose and merit of historical writings. LEC.

HIST 113. Europe 1500-1789, Honors. 3 Hours. HT / H.
An introduction to early modern European history, with emphasis on the cultural, political, economic, and social processes and events which helped to shape the modern world: The renaissance, the rise of the nation states, the Reformation, absolutism and constitutionalism, the Enlightenment, and the coming of the French Revolution. Not open to students who have taken HIST 114. This Honors course is a Humanities Historical Studies Principal Course. Prerequisite: Membership in the College Honors Program or consent of department. LEC.

HIST 114. Renaissance to Revolution: Europe 1500-1789. 3 Hours. HT GE11 / H/W.
An introduction to early modern European history, with emphasis on the cultural, political, economic, and social forces which have helped to shape the modern world. The renaissance, the rise of nation states, the Reformation, absolutism and constitutionalism, the Enlightenment, and the coming of the French Revolution. LEC.

HIST 115. French Revolution to the Present: Europe 1789-Present. 3 Hours. HT GE11/GE3H / H/W.
An introduction to recent European history, with emphasis on the social, political, economic, and cultural forces which have helped to create the Europe of today: the French Revolution, the romantic movement, the revolutions of 1848, nationalism, imperialism, Communism, and two World Wars, the cold war, and its aftermath. Not open to students who have taken HIST 115. This Honors course is a Humanities Historical Studies Principal Course. Prerequisite: Membership in the College Honors Program or consent of department. LEC.

HIST 116. French Revolution to the Present: Europe 1789 to Present, Honors. 3 Hours. HT GE11/GE3H / H.
An introduction to recent European history, with emphasis on the social, political, economic, and cultural forces which have helped to create the Europe of today: The French Revolution, the romantic movement, the revolutions of 1848, nationalism, imperialism, Communism, and two World Wars, the cold war and its aftermath. Not open to students who have taken HIST 116. This Honors course is a Humanities Historical Studies Principal Course. Prerequisite: Membership in the College Honors Program or consent of department. LEC.

HIST 117. Russia, an Introductory History. 3 Hours. HT / H/W.
A survey of the evolution of Russia from its origins to the present. The focus will be on the interaction of government and society and on internal and external pressures affecting modernization and reform, revolution, and territorial expansion. LEC.

HIST 118. History of East Asia. 3 Hours. NW AE42 / H/W.
A survey of the history of China, Japan, Korea, and other cultures in East Asia from premodern to modern times. Students are introduced to the major currents of East Asian history and historical methods used to study them. Not open to students with credit in upper division East Asian history. LEC.

HIST 119. History of East Asia, Honors. 3 Hours. NW AE42 / H/W.
A survey of the history of China, Japan, Korea, and other cultures in East Asia from premodern to modern times. Students are introduced to the major currents of East Asian history and historical methods used to study them. Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

HIST 120. Colonial Latin America. 3 Hours. NW AE42/GE3H / H/W.
The principal focus is on the evolution and analysis of societies, economies, and religions of native American peoples, the impact of Spanish and Portuguese conquests and settlement, government, trade and culture upon native civilizations, the influence of African population and culture, and the creole nature of the resulting society in the colonial period. Changes in the society and economy which presaged the movements for independence are also discussed. LEC.

HIST 121. Modern Latin America. 3 Hours. HT GE3H / W.
Students are introduced to historical analysis within the context of the emergence of national identities and the process of modernization in the region. It also discusses key processes such as urbanization and industrialization and examines social movements for reform or revolution in the 20th Century. The course compares social, cultural, economic, and political changes across a variety of countries since 1810, giving particular attention to the legacies of colonialism. In this way the course deals with interpretations of the processes and movements and major issues of Latin American historiography. LEC.

HIST 122. Colonial Latin America, Honors. 3 Hours. NW AE42/GE3H / H/W.
The principal focus is on the evolution and analysis of societies, economies, and religions of native American peoples, the impact of Spanish and Portuguese conquests and settlement, government, trade and culture upon native civilizations, the influence of African population and culture, and the creole nature of the resulting society in the colonial period. Changes in the society and economy which presaged the movements for independence are also discussed. Prerequisite: Membership in the College Honors Program or permission of instructor. LEC.

HIST 123. Modern Latin America, Honors. 3 Hours. HT GE3H / W.
Similar in content to HIST 121. Students are introduced to historical analysis within the context of the emergence of national identities and the process of modernization in the region. The course compares social, cultural, economic, and political changes across a variety of countries since 1810, giving particular attention to the legacies of colonialism. It also discusses key processes such as urbanization and industrialization and examines social movements for reform and revolution in the 20th century. In this way the course deals with interpretations of these processes and movements and major issues of Latin American historiography. Prerequisite: Membership in the University Honors Program or permission of instructor. LEC.

HIST 124. Latin American Culture and Society. 3 Hours. SC / S.
An introduction to the interdisciplinary study of Latin America, as manifest in the arts and literature, history, and in environmental, political, economic, and social realities. Explores and critiques the principal themes and methodologies of Latin American Studies, with an aim towards synthesizing contributions from several different disciplines. Emphasizes the unique insights and perspectives made possible by interdisciplinary collaboration and provides students with the basic knowledge base for understanding Latin America today. (Same as LAA 100.) LEC.

HIST 128. History of the United States Through the Civil War. 3 Hours. HT GE3H / H.
A historical survey of the United States from the peopling of the continent through the Civil War. This survey is designed to reflect the diversity of the American experience, to offer the student a chronological perspective on the history of the United States, and to explore the main themes, issues, ideas, and events which shaped that history. LEC.

HIST 129. History of the United States After the Civil War. 3 Hours. HT GE3H / H.
A historical survey of the American people from Reconstruction to the present. This survey is designed to reflect the diversity of the American experience, to offer the student a chronological perspective on the history
of the United States, and to explore the main themes, issues, ideas, and events that shaped American history. LEC.

HIST 130. History of the United States Through the Civil War, Honors. 3 Hours. HT GE3H / H.
A historical survey of the United States from the peopling of the continent through the Civil War. This survey is designed to reflect the diversity of the American experience, to offer the student a chronological perspective on the history of the United States, and to explore the main themes, issues, ideas, and events which shaped that history. Not open to students who have taken HIST 128. Prerequisite: Membership in the College Honors Program or consent of department. LEC.

HIST 131. History of the United States After the Civil War, Honors. 3 Hours. HT GE3H / H.
A historical survey of the American people from Reconstruction to the present. This survey is designed to reflect the diversity of the American experience, to offer the student a chronological perspective on the history of the United States, and to explore the main themes, issues, ideas, and events which shaped that history. Not open to students who have taken HIST 129. Prerequisite: Membership in the College Honors Program or consent of department. LEC.

HIST 136. Early Science to 1700. 3 Hours. H.
Surveys the Western scientific tradition from roots in ancient Egypt, Mesopotamia, and Greece to the Scientific Revolution in seventeenth-century Europe. Focuses on the theoretical, methodological, and institutional development of the physical and bio-medical sciences. Addresses interactions of science with the technological, religious, philosophical, and social dimensions of Western culture. LEC.

HIST 137. History of Modern Science. 3 Hours. H.
Surveys the history of science from the seventeenth century to the present with study of the changing theoretical, institutional, and social character of the scientific enterprise. Addresses physical, biological, and social sciences with attention to the chemical revolution at the turn of the nineteenth century, evolutionary biology, the new physics of the early twentieth century, and the professionalization of social science. Relates scientific changes to historical developments in technology, religion, national traditions in Europe and the USA, and non-Western cultures. LEC.

HIST 140. Global Environment I: The Discovery of Environmental Change. 5 Hours. GE3H / U.
This interdisciplinary course and laboratory sections survey the history of environmental understanding and the process of scientific discovery from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the history of environmental systems and life on earth, the discovery of biotic evolution, ecological change, and climate change. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to earth systems and the development of environmental understanding using historical and present-day examples. (Same as EVRN 140 and GEOG 140.) LEC.

HIST 141. Global Environment II: The Ecology of Human Civilization. 5 Hours. GE3H / U.
This interdisciplinary course and its laboratory sections survey the history of humanity’s relationship with the natural world over the long term from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the evolution of Homo sapiens and cultural systems; the development of hunter, gatherer, fisher, agricultural, and pastoral lifeways; the ecology of colonialism and industrial civilization, and the emergence of ideological and ethical perspectives on the relationship between nature and culture. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to the humanity’s engagement with the global environment using historical and present-day examples. (Same as EVRN 142 and GEOG 142) LEC.

HIST 144. Global Environment I: The Discovery of Environmental Change, Honors. 5 Hours. U.
This interdisciplinary course surveys the foundations of environmental understanding and the process of scientific discovery from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the history of environmental systems and life on earth, the discovery of biotic evolution, ecological change, and climate change. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to earth systems and the development of environmental understanding using historical and present-day examples. (Same as GEOG 144 and EVRN 144.) Open only to students admitted to the University Honors Program or by permission of instructor. LEC.

HIST 145. Global Environment II: The Ecology of Human Civilization, Honors. 5 Hours. U.
This interdisciplinary course and its laboratory sections survey the history of humanity’s relationship with the natural world over the long term from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the evolution of Homo sapiens and cultural systems; the development of hunter, gatherer, fisher, agricultural, and pastoral lifeways; the ecology of colonialism and industrial civilization, and the emergence of ideological and ethical perspectives on the relationship between nature and culture. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to the humanity’s engagement with the global environment using historical and present-day examples. (Same as EVRN 145 and GEOG 145.) Open only to students in the University Honors Program or by permission of instructor. LEC.

HIST 160. Introduction to West African History. 3 Hours. NW AE42/GE3H / H.
This course treats West African history through the first part of the 20th century. The student is provided with a perspective on the major historical patterns that gave rise to West Africa’s development as an integral part of world history. Special attention is paid to anthropological geographical, and technological developments that influenced West African political and socioeconomic changes. (Same as AAAS 160.) LEC.

HIST 177. First Year Seminar: _____, 3 Hours. HT GE11.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in history. May not contribute to major requirements in history. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

HIST 250. Study Abroad Topics in: _____, 1-5 Hours. H.
This course is designed for the study of special topics in History at the freshman/sophomore level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

HIST 300. Modern African History. 3 Hours. NW AE42 / H/W.
A survey of social, political, and economic developments during the colonial era and independence struggles, followed by a closer examination of the contemporary experience in a selected country or region. (Same as AAAS 305.) LEC.

HIST 301. The Historian’s Craft. 3 Hours. H.
This course introduces students to the practice and methods of the study of history and serves as the gateway to the major. Students learn (1) to think historically; (2) to understand how historians construct and write
about the past through narratives, theory and analytical discussion; 
(3) to critically evaluate historical arguments and the material used to 
substantiate those arguments, including an introduction to the process 
of peer review; (4) to develop writing and research skills including the 
interpretation of primary sources; and (5) to master professional standards 
of presenting their findings. This course is required of all history majors 
and is a prerequisite for HIST 696 Seminar in: ________. Prerequisite: 
Open only to declared History majors or by consent of instructor. LEC.

HIST 302. The Historian’s Craft, Honors. 3 Hours. H.
This course introduces students to the practice and methods of the study of 
history and serves as the gateway to the major. Students learn (1) to 
think historically; (2) to understand how historians construct and write 
about the past through narratives, theory and analytical discussion; 
(3) to critically evaluate historical arguments and the material used to 
substantiate those arguments, including an introduction to the process of 
peer review; (4) to develop writing and research skills including the 
interpretation of primary sources; and (5) to master professional standards of presenting their findings. This course, or HIST 301 - Its non-honors equivalent, is required of all history majors and is a prerequisite for HIST 696 Seminar in: ________. Prerequisite: Open only to students admitted to the University Honors Program who are declared History majors, or by consent of instructor. LEC.

HIST 303. Sin Cities. 3 Hours. H.
This course offers a comparative global introduction to the history of the modern city by looking at the ways in which certain metropolises developed an attractive underbelly of decadence at the same time as they sought to be centers of refined and orderly cosmopolitan life. The course examines topics such as popular culture, gambling, prostitution, crime, violence, nightlife, tourism, and corruption in the context of the increased social mobility that characterized the beginning of the industrial age and that has extended into the 21st century. Students investigate the changing relation between work and leisure, spectacle and consumerism, and urban space and the struggle for order. LEC.

HIST 304. 1642, 1688, 1776: Three British Revolutions. 3 Hours. H.
Explains and analyzes the three revolutions in the English-speaking world which, more than any others, are held to have laid the foundations of modernity. Themes discussed include social, intellectual, and political developments, structures, and conflicts. 1642 and 1688 are treated in the setting of England’s relations with Scotland and Ireland, and against the background of European wars of religion. 1776 is analyzed in a transatlantic context as a civil war within the wider British polity. LEC.

HIST 305. The Scientific Revolution. 3 Hours. H.
Describes and analyzes the factors producing a Scientific Revolution in early-modern Europe. Focuses on fundamental changes in astronomy, cosmology, physics, and biology from Copernicus to Newton. Examines the emergence of experimental method as an essential part of Western science. Portrays the development of new forms of scientific organization and the cultural frameworks that bore and shaped them. Surveys the various interpretations of this period expressed by current historians of science. LEC.

HIST 306. Science and Western Culture. 3 Hours. H.
Analyzes the institutional, social, technological, and political circumstances of science in the Western tradition. Examines the place of science in pre-modern European settings. Emphasizes the shifting centers of national scientific prominence since the seventeenth century from Italy to Britain to France to Germany to the USA. LEC.

HIST 307. Modern African History, Honors. 3 Hours. NW AE42 / H.
An intensive version of HIST 300. A survey of social, political, and economic developments during the colonial era and independence struggles, followed by a closer examination of the contemporary experience in a selected country or region. Open only to students admitted to the University Honors Program, or by consent of the instructor. (Same as AAAS 307.) LEC.

HIST 308. Key Themes in Modern Global History. 3 Hours. H.
A comparative historical analysis of major global developments from the late 15th century to the present. Some of the themes likely to be explored are empire-building, contact between cultures and colonial social relations; the attraction of cities, their role in a global economy and the shift to an urban world; and the impact of capitalism and industrialization on social organization including conflict between classes and changes in the nature of work. Students learn ways of interpreting primary historical documents and comparing historical investigations across time and space. Not open to students who have completed HIST 100. LEC.

HIST 309. History of Chemistry. 3 Hours. H.
Birth of modern chemical science from roots in Greek natural philosophy, alchemy, Renaissance medicine, and technology. The Chemical Revolution of Lavoisier and Dalton. Maturity of chemistry in the 19th and 20th centuries, along with an examination of the growth of chemical institutions and the rise of chemical industry. Emphasis on developments from the 18th century to the present. (Same as CHEM 309.) LEC.

HIST 310. American Culture, 1600-1876. 3 Hours. H.
An examination of the major historical shifts, trends, and conflicts that have shaped the multicultural nature of life in the United States from the initial European settlements to 1876. In addition to tracing developments in literature, architecture, drama, music, and the visual arts, this course will investigate patterns and changes in the popular, domestic, and material culture of everyday life in America. (Same as AMS 310.) Prerequisite: AMS 100 or AMS 110 or HIST 128. LEC.

HIST 311. Great Lives in Science. 3 Hours. H.
This course examines the lives of selected great scientists. Lectures and biographical readings deal with scientists who lived in the period between the seventeenth century and the present. Through comparative biography, the course assesses the theoretical, methodological, institutional, and social development of modern science. LEC.

HIST 312. American Culture, 1877 to the Present. 3 Hours. H.
An examination of the major historical shifts, trends, and conflicts that have shaped the multicultural nature of life in the United States from 1877 to the present. In addition to tracing developments in literature, architecture, drama, music and the visual arts, this course investigates patterns and changes in the popular, domestic, and material culture of everyday life in America. (Same as AMS 312.) LEC.

HIST 313. Conspiracies and Paranoia in American History. 3 Hours. H.
The theme of conspiracy is a recurring motif in American history. This course uses a case-study method to revisit episodes such as the Salem witch trials, the movement against freemasonry, the Slave Power conspiracy, and more recent obsessions such as UFOs and the assassination of John F. Kennedy to explain why so many Americans have embraced conspiracy theories to explain mysterious events and dramatic social change. The course will rely on primary accounts, fiction, and film, as well as secondary historical literature, to examine both “real” and “imaginary” conspiracies and their effects on the politics, culture, and society of the United States. LEC.

HIST 314. Globalization: History and Theory. 3 Hours. H.
Explores the rise of global capitalism in the 19th and 20th centuries, contemporary debates about 21st century globalization, and the role of globalization in our everyday lives. Questions considered include: Is globalization an incremental process that has been going on for centuries, or is it a dramatic new force reshaping the post-Cold War world? Is it a...
HIST 315. Globalization: History and Theory Honors. 3 Hours. H.
Explores the rise of global capitalism in the 19th and 20th centuries, contemporary debates about 21st century globalization, and the role of globalization in our everyday lives. Questions considered include: Is globalization an incremental process that has been going on for centuries, or is it a dramatic new force reshaping the post-Cold War world? Is it a cultural and social process or an economic and political one? Or is it all of these things? Not open to students who have completed HIST 314. Open only to students in the College Honors Program or consent of instructor. LEC.

HIST 316. Ministers and Magicians: Black Religions from Slavery to the Present. 3 Hours. H.
This course examines the history and diversity of African American religious expression from slavery until the present, emphasizing both mainstream and alternative faiths. It covers the religious world views of enslaved Africans, and examines faiths inside and outside of Christianity. Topics may include: independent black churches, magical practices, the Holiness and Pentecostal movements, black Islam, religious freemasonry, and esoteric faiths. The class emphasizes the influence of gender, class, race, migration, and urbanization on black religion. (Same as AAAS 316 and AMS 316.) LEC.

HIST 317. African American Women: Colonial Era to the Present. 3 Hours. AE41 / H.
This interdisciplinary course covers the history of African American women, beginning in West and Central Africa, extending across the Middle Passage into the Americas, and stretching through enslavement and freedom into the 21st century. The readings cover their experiences through secondary and tertiary source materials, as well as autobiographies and letters, plays and music, and poems, novels, and speeches. (Same as AAAS 317, AMS 317, and WGSS 317.) LEC.

HIST 319. History, Women, and Diversity in the U.S.. 3 Hours. AE41 / H.
This survey course explores the history of being female in America through a focus on the ways differences in race, sexuality, ethnicity, class, and life cycle have shaped various aspects of women’s lives. Themes to be explored could include, but are not limited to: social and political activism; intellectual developments; family; women’s communities; work; sexuality; and culture. LEC.

HIST 320. From Goddesses to Witches: Women in Premodern Europe. 3 Hours. HT GE11/GE3H / H.
This course examines the social, cultural, and political contexts of women’s spirituality and their relations to gender relations in Europe from about 30,000 B.C.E. to the 16th century Protestant Reformation. Lectures move both chronologically and topically, covering such subjects as goddess-worshipping cultures, women’s roles in Christian and Jewish societies, symbols of women, and male attitudes toward women. Students will be able to participate in weekly discussions of primary and secondary source readings about women. (Same as WGSS 320.) LEC.

HIST 321. From Mystics to Feminists: Women’s History in Europe 1600 to the Present. 3 Hours. HT AE42/GE11/GE3H / H.
This survey of women’s history in Europe looks at changing patterns of women’s economic roles and family structures in preindustrial and industrial society, the importance of women in religious life, cultural assumptions underlying gender roles, and the relationship of women to political movements, including the rise of feminism. (Same as WGSS 321.) LEC.

HIST 324. History of Women and the Body. 3 Hours. H.
This course examines different notions about women and their bodies from a historical perspective. It discusses the arguments and circumstances that have shaped women’s lives in relation to their bodies, and women’s responses to those arguments and circumstances. This course covers a wide geographical and chronological spectrum, from Ancient societies to the present, from Latin America and the Middle East, to North America and Western Europe. (Same as WGSS 324.) LEC.

HIST 325. The Spanish Inquisition. 3 Hours. H.
A broad historical study of the Spanish Inquisition from 1478 to its afterlife in modern culture, including its use in political debates and its depiction in popular culture. Topics include anti-Semitism, the nature of the inquisitorial investigation, the use of torture, censorship and the relationship between the Inquisition, the Spanish monarchy and other religious and lay authorities. Taught in English. Will not count toward the Spanish major. (Same as JWSH 315 and SPAN 302.) LEC.

HIST 326. Native American Civilizations and their European Conquerors. 3 Hours. NW AE42/GE11/GE3H / H.
The societies, economies, and cultures of Native American peoples in Brazil, Peru, Mexico, and the Southwestern United States will provide the main focus of this course to understand the culture and values of those who preceded the Europeans in the Americas. European culture is also examined, including the motivations for exploration and conquest. The details of the particular conquests and how they affected the resulting composite society will also be discussed, using contemporary eye-witness accounts, films recreating the action, and modern accounts. LEC.

HIST 327. The Premodern Middle East. 3 Hours. NW AE42 / H.
A survey of the history of the Middle East from the origins of Islam in the seventh century to the rise and consolidation of the Ottoman Empire in the eighteenth century. Lectures and discussions focus on diversity within the Middle East at the height of the Islamic empires. Topics include the life of Muhammad and early Islamic communities, expansion of Islam into Asia, Africa and Europe, intellectual strength in the medieval period, and the everyday lives of women, Christians, Jews and other minority groups. LEC.

HIST 328. The Modern Middle East. 3 Hours. NW AE42 / H.
A survey of the history of the Middle East from 1800 to the present. Lectures and discussions focus on diversity within the Middle East over two centuries of major political and cultural change. Topics include causes for the decline of the Ottoman Empire, debates over modernization, European imperialism and the formation of nation-states, twentieth century cultural revolutions and women’s activism, the Arab-Israeli conflict, and the revival of Islamic social movements. LEC.

HIST 329. History of War and Peace. 3 Hours. HL / H.
A study of the changing nature of warfare and the struggle to bring about peace. Topics include pacifism, the “military revolution” that created the first professional armies; the development of diplomatic immunity, truces, and international law; the peace settlements of Westphalia, Utrecht, Vienna, Versailles, and San Francisco; the creation of peace movements and peace prizes; the evolution of total war, civil war, and guerrilla warfare involving civilians in the twentieth century; the history of the League of Nations and United Nations; and the rise of intergovernmental and non-governmental organizations. (Same as EURL 329 and PCS 329.) LEC.

HIST 330. Revolt and Revolution in Early Modern Europe. 3 Hours. H.
A study of forces giving rise to riots, rebellions, and revolution in Western Europe from 1600-1790. The course will examine social and ideological aspects of famine, religious persecution, taxation, war, landlord-tenant relations, and the increasing power of kings. LEC.
HIST 331. Atlantic Societies, 1450-1800: A Comparative History of European Colonization. 3 Hours. H.
This course offers a comparative history of the European (Portuguese, Spanish, French, English, and Dutch) colonization of the Americas. It examines the interaction among peoples and cultures across the Atlantic, from the age of European exploration to the start of the independence movements in the Americas. Themes that will receive special attention include: comparing patterns of colonization, the forging of American societies of European, Native American, and African cultures, the slave trade, and the history of sugar production. LEC.

HIST 332. Eurometro: Visions of the European Metropolis, 1849-1939. 3 Hours. H.
This course investigates the interrelated symbols of the European metropolis during the “Age of Great Cities”, from the filth of the sewers to the “filthiness” of prostitution. Students investigate gender and class in the metropolis by exploring a few stereotypes: the juvenile delinquent, the woman on the street, and the flaneur. The course format stresses discussion of common texts, including short readings of literature from the period and historical scholarship. Students also analyze contemporary photographs, art, architecture, and advertising. LEC.

HIST 334. The Great War: The History of World War I. 3 Hours. H.
A historical survey of the causes, course, and consequences of the conflict, 1878-1919, stressing its socio-economic dimensions as well as its political ramifications and military aspects. Considerable use will be made of visual aids. No prerequisites. LEC.

HIST 336. Ethics, Ideas, and Nature. 3 Hours. AE51 / H.
This course examines the ethical frameworks developed for thinking about, using, and protecting the natural world. Examples of topics include indigenous approaches to nature, the history of ecological ideas, environmental movements, the role of the state in managing resources, utilitarianism and progressivism, environmental lawmaking, wilderness advocacy, nature and theology, the rights of nature, and environmental justice. Students are introduced to the theories of duty ethics, justice ethics, utilitarianism, and right ethics, and required to apply ethical decision making to contemporary and historical environmental issues. Multiple perspectives on the history of human interactions with nature demonstrate the importance of reflecting upon the value systems inherent in human-centered environmental ethics and nature-centered environmental ethics. (Same as EVRN 336.) LEC.

HIST 337. History, Ethics, Modernity. 3 Hours. H.
This course will examine the question “How has human dignity been preserved or violated in the modern age?” Cast in a global framework, some of the probable themes are the history of human rights; the moral universe of genocide; the (in)dignity of industrial work; the shifting status of the poor and the colonized and their treatment by the state and society; the impact of changing technology on ethics in war, peace and the environment; and the violation of dignity as a factor in collective resistance. LEC.

HIST 338. African American Urban Community and Class in the Midwest. 3 Hours. H.
This course provides historical perspective on African Americans and the politics of economic class within black urban spaces from the end of Reconstruction to the post-World War II era. It focuses on the development of an upwardly mobile urban black middle class, and impoverished black urban “underclass,” since the 1960s. Students are encouraged to have taken one of three courses: AAAS 104, AAAS 106, or AAAS 306. (Same as AAAS 328.) LEC.

HIST 340. The History of the Second World War. 3 Hours. H.
A survey of the origins, course, and consequences of the war, 1930-1945. Political, economic, military, and social aspects will be dealt with in the context of their global effects. Extensive use will be made of motion pictures and other media. LEC.

HIST 341. Hitler and Nazi Germany. 3 Hours. H/W.
An examination of the rise of Hitler and Nazism, beginning with the breakdown of 19th century culture in the First World War and continuing through the failure of democracy under the Weimar Republic. The course will also discuss the impact of Nazism on Germany and how Nazism led to the Second World War and the Holocaust. LEC.

HIST 343. The Holocaust in History. 3 Hours. H.
The systematic murder of the Jews of Europe by the Nazis during World War II is one of the most important events of modern history. This course studies the Holocaust by asking about its place in history. It compares other attempted genocides with the Holocaust and examines why most historians argue that it is unique. Other topics covered include the reasons the Holocaust occurred in Europe when it did, the changing role of anti-Semitism, and the effects of the Holocaust on civilization. The course also discusses why some people have sought to deny the Holocaust. The course concludes by discussing the questions people have raised about the Holocaust and such issues as support for democracy, the belief in progress, the role of science, and the search for human values which are common to all societies. (Same as JWSH 343.) LEC.

HIST 345. Hard Times: The Depression Years in America, 1929-1941. 3 Hours. H.
An analysis of the experiences of the American people during the Great Depression. Attention will also be given to the global dimensions of the crisis, socioeconomic dislocation, cultural and institutional change, and the impact of the Asian and European wars. LEC.

HIST 346. Law and Society in America. 3 Hours. H.
Law and lawyers have powerfully shaped American values and institutions. This course explores law’s impact on American society from the age of European colonization through present. Topics include liberty, public order, race and ethnicity, the family, property, speech, environment, and self-government. The course also examines the changing images of lawyers and the law over time. Course materials include not just statutes and court decisions, but literature, imagery, and popular culture materials. LEC.

HIST 347. Environmental History of North America. 3 Hours. H.
A survey of changes in the landscape and in people’s perceptions of the natural world from 1500 to present. Topics include agroecology, water and energy, the impact of capitalism, industrialism, urbanization, and such technologies as the automobile, and the origins of conservation. (Same as EVRN 347.) LEC.

HIST 348. History of the Peoples of Kansas. 3 Hours. H.
A survey of culture and society in Kansas from prehistory to the present. Topics include Native American life, Euro-American resettlement, Bleeding Kansas and the Civil War, agricultural settlement, urbanization and industrialization, depression and recovery, and modern Kansas in transition. Emphasis in the course will be on social and economic conditions, the experience of ethnic and racial groups, inter-racial relations, and the role of women. LEC.

HIST 350. The Korean War, 1950-1953. 3 Hours. H.
An examination of the origins, pattern of development, and legacy of this still unsettled conflict, which in many ways set the tone for the entire post-1945 era of the Cold War. Points of emphasis will include the motives and policies of the major participants (Koreans, Americans, Chinese, and Soviets), as well as the effects of the war on their domestic politics and foreign policy positions. LEC.
HIST 351. American Indian and White Relations to 1865. 3 Hours. H.
This course provides an intensive survey of the Indians of North America from Prehistory to 1865, and focuses on ancient indigenous cultures, early European-Indian relations and the impact of European culture upon the indigenous peoples of North America. (Same as HWC 348, ISP 348.) LEC.

HIST 352. American Indians Since 1865. 3 Hours. H.
This course examines American Indian/White relations from reconstruction to the present. It surveys the impact of westward expansion and cultural changes brought about by the Civil War, forced education, intermarriage, the Dawes Act, the New Deal, the World Wars, termination, relocation and stereotypical literature and movies. The class also addresses the Red Power and AIM movements, as well as indigenous efforts to decolonize and to recover and retain indigenous knowledge. After learning about the past from both Native and non-Native source materials, students will multiple perspectives about historical events and gain understandings of diverse world views, values, and responses to adversity. (Same as HWC 350 and ISP 350.) LEC.

HIST 353. Indigenous Peoples of North America. 3 Hours. NW AE41 / H/W.
This course surveys the history of the first peoples to inhabit North America from prehistory to present. Commonly and collectively referred to as American Indians, indigenous peoples include a diverse array of nations, chiefdoms, confederacies, tribes, and bands, each of which has its own unique cultures, economies, and experiences in dealing with colonial and neocolonial powers. This class seeks to demonstrate this diversity while at the same time providing an understanding of the common struggle for political and cultural sovereignty that all indigenous nations face. Indigenous nations that have developed a relationship with the United States will receive primary focus, but comparative reference will be made to First Nations of Canada. LEC.

HIST 354. Spanish Borderlands in North America. 3 Hours. AE51 / H.
The Northern frontier provinces of the Viceroyalty of New Spain from their exploration and occupation by Spain until their absorption by the United States. LEC.

HIST 355. U.S. Borderlands Since 1848. 3 Hours. H.
This course discusses issues associated with the Mexican borderlands region after conquest and acquisition by the United States. Themes include race relations, immigration, labor, economics, politics, culture, and the environment. We discuss how the region was incorporated into the United States, and how this relationship is evolving. We also examine the notion of a borderlands region and whether or not this is a valid characterization for Kansas. LEC.

HIST 358. The Vietnam War. 3 Hours. H.
This course is a survey of the Vietnam War. It covers the early days of Cold War, 1945-54, and all phases of the Vietnam War: the advisory phase (1955-64); the Americanization phase (1965-68); the Vietnamization Phase (1969-73); and the final phase, the Vietnam Civil War, 1972-75. This course covers the causes, course, conduct, and consequences of the war and in so doing provides a political, military, and social history of the war. LEC.

HIST 360. Science and Religion. 3 Hours. H.
The interaction and significant confrontations between science and religion will be considered together with the religious responses to science and technology. LEC.

HIST 362. The American Way of War Since World War II. 3 Hours. H.
This course is a survey of American Military History from World War II to current military operations. It covers the Cold War, the Korean War, the Vietnam War, both Persian Gulf wars, the global war on terrorism, and the war in Afghanistan. The course examines the causes, course, conduct, and consequences of the wars and covers advances in technology and doctrine, civil-military relations, foreign policy, and inter-service rivalry, providing a political, military, and cultural history of the wars. LEC.

HIST 365. Invention of the Tropics. 3 Hours. H.
This course surveys the history of the tropical environment and its peoples from Europe’s first encounter to today’s ecotourism boom. It focuses on portrayals of the tropics in historical travel accounts and films. Through these sources, we seek to understand how science, technology, and tourism have been used, in turn, as instruments of progress and destruction, tools of empire and national liberation. Case studies are drawn from Latin America, Africa, Oceania, and Asia. LEC.

HIST 366. Old Regime and Revolution in France, 1648-1799. 3 Hours. H.
This course explores the political, social and cultural system of early modern France. It culminates with study of the collapse of monarchy and establishment of republican government during the French Revolution. LEC.

HIST 367. Magic and Superstition in European History. 3 Hours. H.
This course traces the changing role and understanding of magic in European culture, religion, politics and science from the late Middle Ages through the early 20th century. Topics may include alchemy, miracles, magical healing, witchcraft, monsters and demonic possession. LEC.

HIST 368. A History of Afro-Latin America. 3 Hours. H.
This course examines the history of Africans and their descendants in Latin America. In this region, Africans could be found serving as militia commanders, laboring as skilled tradesmen, running their own businesses, working as household servants, and toiling on plantations. Students will study the varied experiences of these men and women across colonial and national boundaries. Topics include: acculturation/Creolization, manumission, family formation, social networks, economic roles, political mobilization, and interaction with indigenous peoples. LEC.

HIST 369. Colonialism and Revolution in the Third World, Honors. 3 Hours. NW AE42 / H.
This course will study the structure and dynamics of colonialism and neocolonialism in the third world beginning in the 19th Century and continuing to the 1980s. It will also examine responses to these systems, from small-scale resistance to nationalist revolutions. Attention will be given to the relationship between ideology and collective behavior. Case studies will be drawn from Africa, Asia, and Latin America. Prerequisite: Membership in the University Honors Program or permission of instructor. LEC.

HIST 370. Violence and Conflict in Latin American History. 3 Hours. H.
This course treats the history of Latin America since the European conquest through the prism of violence and social conflict. It traces the roots of the region’s social collapse during the twentieth century to political and cultural factors in the colonial and early national periods. Using films and literature in addition to historical texts, the course discusses the sources of nationalism, civil wars, banditry, urbanization, violent dissent, military dictatorships, human rights abuses and guerrilla insurgencies as well as the political uses of violence made by different social groups. LEC.

HIST 371. The Cultural History of Modern Latin America. 3 Hours. H.
This course explores themes such as the evolution of national identities, the conflict between the city and the countryside, exile, the surrealist imagination and the cultural resistance against foreign influences through an examination of the literature, film, art, music, religions and popular and material culture of 19th and 20th century Latin America. LEC.
HIST 372. Violence and Conflict in Latin American History, Honors. 3 Hours. H/W.
This course treats the history of Latin America since the European conquest through the prism of violence and social conflict. It traces the roots of the region’s social collapse during the 20th century to political and cultural factors in the colonial and early national periods. Using films and literature in addition to historical texts, the course discusses the sources of nationalism, civil wars, banditry, urbanization, violent dissent, military dictatorships, human rights abuses, and guerrilla insurgencies as well as the political uses of violence made by different social groups. Not open to students who have taken HIST 370. Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

HIST 373. The Supreme Court and Religious Issues in the United States. 3 Hours. H.
Historical study of the interpretation of the religion clauses of the First Amendment with special reference to the questions of establishment, the free exercise of religion, freedom of religious belief, worship, and action, and religion and the public schools. Not open to freshmen. (Same as REL 373.) LEC.

HIST 375. The Supreme Court and Religious Issues in the United States, Honors. 3 Hours. H.
Historical study of the interpretation of the religion clauses of the First Amendment with special reference to the questions of establishment, the free exercise of religion, freedom of religious belief, worship, and action, and religion and the public schools. Open only to students in the University Honors Program or by permission of the instructor. (Same as REL 375.) LEC.

HIST 377. Everyday Communism in Eastern Europe. 3 Hours. H.
This course investigates through film, literature, memoirs, photography, architecture, and scholarship the experience of ordinary citizens under Soviet-style communism in Eastern Europe. We study the ways people supported, resisted, opposed, and merely got by under state socialism from the late 1940s to the collapse of Communism in 1989. LEC.

HIST 378. Beyond the Iron Curtain: Soviet Perspectives on the Cold War. 3 Hours. AE42 / H.
This course reimagines the Cold War through Soviet eyes, challenging assumptions and offering less familiar perspectives on a global conflict. Analyzing Soviet and American mass media, popular culture, declassified documents, and personal stories, students investigate the following: Who started the Cold War, and who won it? Was it a time of relative peace or paranoia? How did the two sides view each other and did espionage help them know each other better? How did people and culture sometimes cross the iron curtain? What were the Soviets doing in places like Latin America and the Middle East? And why were both sides so concerned with Olympic athletes, ballet defectors, and cosmonauts? LEC.

HIST 380. Revolutionary Europe: The People in Arms. 3 Hours. H/W.
A survey of the political, social, economic and cultural transformation of Europe in a century of turmoil, from the Old Regime through the liberal and national revolts of 1848, the Paris Commune and the Russian Revolution. LEC.

HIST 385. Themes in British History. 3 Hours. H.
For students enrolled in the annual summer Study Abroad program. This course examines some of the main events and trends in British history, from the earliest times to recent British history. The specific historical themes investigated will depend upon the instructor. The course can be taken only via enrollment in the KU British Summer Institute in the Humanities. Prerequisite: Approval for enrollment in the Summer Institute through the Study Abroad office. LEC.

HIST 390. Topics in: ______. 3 Hours. H.
A study of a specialized theme or topic in History. May be repeated for credit when topic varies. LEC.

HIST 391. Topics in (Honors): ______. 3 Hours. H.
A study of a specialized theme or topic in History. May be repeated for credit when topic varies. Open only to students admitted to the University Honors Program. Prerequisite: Permission of instructor. LEC.

HIST 392. Huns, Turks, and Mongols: The Nomad Factor in Asian History. 3 Hours. NW / H/W.
This course introduces the history of major nomadic powers in Eurasian Steppe and their impact in the world from the first Millennium BCE to around 1500 AD. The main topics include the culture of the Scythians, the Hun and Xiongnu confederacy, the Mongol conquest, and the Turkish empires in Central and West Asia. It investigates the natural and human forces that shape the identities of the nomads and their changing images in history. LEC.

HIST 393. The Silk Road. 3 Hours. H.
A comprehensive introduction to the cultural influence and material exchange among major civilizations along the Silk Road. It covers the period of more than one thousand years between the 2nd and the 15th centuries CE, during which time forces wielded by the Persians, the Chinese, the Indians, the Tibetans and the Mongols shaped the geopolitical landscape of the vast region that spreads from the Caspian Sea to the Gobi Desert. Students explore the role of the Silk Road in the formation of the religious and ethnic identities of these civilizations, as well as their perceptions towards one another. Along with textual materials, the course uses extensive visual and musical materials to present interesting phenomena, such as Sogdian burial practice, Arab accounts of Tang China, Nestorian Christianity at the Mongol court, and Marco Polo’s journey to the East. The course begins and concludes with discussion of the contemporary significance of the Silk Road as a historical category. LEC.

HIST 394. Made in China: Chinese Business History. 3 Hours. H.
This course examines the development of business in China since 1900. Topics include the rise of industrialism, the role of foreign investment, China’s role in the global market place, the relationship between business and the state, state-run enterprises, factory life, entrepreneurialism, building a domestic market for industrial goods, advertising, consumerism, and economic nationalism LEC.

HIST 397. From Mao to Now: China’s Red Revolution. 3 Hours. NW AE42/GE11 / H.
This course on China’s Communist revolution considers the evolution of Maoism, or Chinese Communism, from its ideological origins through its implementation during and after the Chinese Communist revolution. It examines major Maoist movements such as Land Reform, the Great Leap Forward, the Cultural Revolution, and the cult of Mao. It further considers the globalization of Maoism by examining examples of other Maoist revolutions and revolutionary movements in places like Cambodia, Peru, and Nepal. LEC.

HIST 398. Introduction to History of Japan: Anime to Zen. 3 Hours. NW / H/W.
This course provides a foundation for study of Japanese history. It combines lectures on the scope of Japanese history over the past 2,000 years with discussions of topics key to the development of Japanese civilization such as religion and literature. We analyze how different media, such as film, Japanese animation (anime), and art can be used as historical sources, and how these shape our understanding of Japan. Students hone their ability to analyze both thematic and historical questions through writing assignments and discussions. LEC.
Japan’s warrior class, the samurai, dominated politics and society for more than half of Japan’s recorded history. This course traces the history of the samurai from their origins to the dissolution of their class in 1877, examining their military role, philosophy, and cultural contributions. It also considers continued references to the “spirit of the samurai” in the twentieth century. LEC.

HIST 401. Case Studies in: ____. 2-3 Hours. H.
Examination of a limited aspect of a general subject; other aspects of the same subject may be offered other semesters. LEC.

HIST 402. Roman Military History. 3 Hours. H.
The Defense of the Roman Frontiers. This course emphasizes the development of the frontiers of the Roman empire from Caesar to the late second century. It includes the origins of the Germans and their society, the Celtic background, and the relationship between the emperor and the army. LEC.

HIST 404. Technology: Its Past and Its Future. 3 Hours. H.
An examination of the role of technology and its influence on society. The historical development of technology will be traced up to modern times with an emphasis on its relations to the humanities. Attention will be given to the future of different branches of technology and alternative programs for their implementation. (Same as ENGR 304.) LEC.

HIST 407. History of Science in the United States. 3 Hours. H.
Traces the evolution of a scientific tradition in American culture. Examines the growth of scientific ideas and institutions under European and indigenous influences. Studies the interactions of science with technological, theological, political, and socio-economic developments. LEC.

HIST 410. The American Revolution. 3 Hours. H.
This course will focus on the meaning the American Revolution had for different groups of Americans. Particular emphasis will be on the relationship between ideology and experience, and the impact of the Revolution on such groups as women, slaves, Indians, African-Americans, the poor, merchants, and loyalists. LEC.

HIST 411. The New Republic: U.S. History 1787-1848. 3 Hours. H.
This course traces the history of the United States from the debates over the ratification of the Constitution until 1848. Major topics include the republican experiment, the Market Revolution, the Age of Jackson, religious revivals and reform, slavery and the cotton kingdom, the Manifest Destiny. Historians view the period as vital to understanding the development of the society, economy, culture, and politics of the modern United States. LEC.

HIST 412. The Civil War in America, 1828-1877. 3 Hours. H.
The United States from the rise of sectional conflict through the disintegration and reunification of the Union. LEC.

HIST 413. The Rise of Industrial America, 1877-1920. 3 Hours. H.
The political, economic, social, and intellectual development of the United States from 1877 to 1920. LEC.

HIST 414. Gone with the Wind. 3 Hours. H.
For four years, another country occupied part of what we now think of as the United States. The Confederate States of America was a short-lived experiment founded on the cornerstone of slavery that advocated small government, states’ rights, agriculture, and patriarchy. Even before the Confederacy collapsed, though, none of those ideals was working out well in real life. Why, then, do so many Americans have such a hallowed view of the Confederate experience? This class discusses some military matters but focuses primarily on the homefront. LEC.

HIST 420. Dante’s Comedy. 3 Hours. H.
The complete Divine Comedy will be read in English translation, with equal stress on each of its three parts: the Inferno, the Purgatory, and the Paradise. No prerequisite. (Same as HWC 410.) LEC.

HIST 421. Economic and Social History of Later Medieval Europe, 1000-1500. 3 Hours. H.
An introductory study of European economic and social history from the Tenth Century Crisis to the 1490s. This course investigates the causes of economic development and the interactions among market, nonmarket, and social institutions such as the family. Topics covered include trade, labor, technologies, consumerism, social unrest and the rise of social and economic thought. LEC.

HIST 424. Venice and Florence in the Renaissance. 3 Hours. H.
Comparative urban study of Florence and Venice from the thirteenth through the sixteenth centuries. Principal subjects are the distinctive economies of the city-states, political developments, Renaissance humanism, patronage of the arts, family life, and foreign policy. LEC.

HIST 425. History of the Mediterranean World, 1099-1571. 3 Hours. H.
This course examines Mediterranean civilizations from the First Crusade to the Battle of Lepanto. Topics include the commercial revolution, medieval colonization, the Byzantine and Ottoman states, shipping and navigation, and the Atlantic. Equal coverage of the eastern and western Mediterranean. LEC.

HIST 440. War and United States Society. 3 Hours. H.
A survey of the American experience in military conflict, both foreign and domestic, from the colonial period to the present. In addition to the strategic and tactical aspects of war, the course will treat the political, economic, and social effects in their national and global contexts. Extensive use will be made of audio-visual materials. LEC.

HIST 444. Frozen in Time: Politics and Culture in the Cold War, 1945-75. 3 Hours. H.
This course deals with the interactions between Cold War culture and domestic and international politics chiefly from the American and to some degree comparative perspective. It focuses on the period 1945-1975, and makes use of films, television, music, works of science fiction and related genres, and other cultural manifestations to examine such themes as programs of domestic and international repression, consensus politics, cultural imperialism, gender roles, class, status, and racial dynamics in the context of what was perceived as bipolar rivalry. LEC.

HIST 450. Study Abroad Topics in: ____. 1-5 Hours. H.
This course is designed for the study of special topics in History at the junior/senior level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

HIST 451. Suburbia. 1.5 Hour. H.
A history of the growth of suburban enclaves, from their emergence during the electric streetcar era to their dominance in the late 20th century. This short course features the analysis of class dynamics, racial exclusions, commuting, social conformity and the alienation of the young within a U.S. context, but some attention is given to comparisons with other parts of the world. LEC.

HIST 452. Chicago. 1.5 Hour. H.
A history of the Midwestern metropolis from its origins as a swamp to an industrial port city. Topics covered in this short course may include the meat-packing industry, political corruption and reform, immigration and migration, the rise and demise of neighborhoods, transportation systems, working-class social movements, modern architecture and urban popular culture. LEC.
HIST 453. Anarchism: A Global History. 1.5 Hour. H.
This short course examines the key theorists and organizers of the anarchist movement, beginning with its emergence in the 19th century and extending into its reappearance in the 21st century. It traces developments in Europe, South America, Asia and the United States. Topics may include the Paris Commune, credit unions, propaganda by the deed, wage slavery, resistance to authority, and the general strike. LEC.

HIST 454. Work. 1.5 Hour. H.
This short course traces the evolution of work from pre-industrial times to the computerized workplace. Issues such as the meaning of work, dignity and respect, time efficiency and exploitation, unionization and strikes, workplace democracy, collectives and worker-owned businesses, laziness as a form of resistance to authority, leisure, the culture of striking, and hierarchy and status are explored. The evolution of work in non-U.S. societies is analyzed comparatively. LEC.

HIST 455. Havana. 1.5 Hour. H.
This short course examines the history of the Cuban port city from the era of Spanish colonialism to the "special period" of shortages and deprivations during the 1990s. Topics covered may include popular culture, Caribbean pirates, cigar factories and labor, urban slavery, Chinatown, social revolution, restructuring of urban public space, suburban expansion, modernist architecture, tourism, gambling and vice, historical preservation and the changing conditions of streetlife. LEC.

HIST 460. Topics in: . 1.5 Hour. H.
An eight-week course devoted to a specific historical topic. May be repeated for credit as topics change. LEC.

HIST 461. The Asia-Pacific War, 1937-1945. 3 Hours. H.
This course introduces students to the Asia-Pacific War, which began with the outbreak of fighting between Japan and China in July 1937 and ended with the unconditional surrender of the Japanese Empire to Allied forces in August 1945. The course revolves around three themes, which are explored through lecture, discussion, and extensive use of film and visual materials: the geopolitical and colonial origins of the conflict; the concept of total war and the political and social transformations it unleashed on all belligerent nations; and the ideologies on the home front justifying the mass slaughter of soldiers and civilians. There is also discussion about how people in Japan, the United States, China, Korea, and other countries remember the war in the postwar period. LEC.

HIST 470. Popular Culture in Latin America and Africa. 3 Hours. NW / H.
This course offers a comparative assessment of the origins and practice of various forms of popular culture in the 20th Century in these two regions. Theories that explain the links between modernism and popular culture are discussed. Topics investigated may include the impact of spectacle on the urban environment, the legacies of colonialism in the sphere of culture, and the intersection of public space and popular culture. Forms such as music, cinema, street theater, and sports are explored. LEC.

HIST 480. Traveler Tales of the Middle East. 3 Hours. H.
This reading-intensive seminar examines the multiple visions of "the Orient" that appeared in the letters, memoirs, and novels of Western travelers to the Middle East in the nineteenth and twentieth centuries. We examine the rise of tourism and travel-writing within the Middle East and their links to European imperialism. Working closely with primary source documents, we question what these highly personal and often misinformed types of writing can tell us about the politics and culture of everyday life in the Middle East. LEC.

HIST 481. From Harlem to the Streets: Gender in the Middle East, 1900-Present. 3 Hours. H.
This reading-intensive seminar examines shifts in gender roles and expectations in the Middle East during the twentieth and twenty-first centuries. The course begins with the importance of harems within Middle Eastern society, and traces Middle Eastern women's increasingly public presence in national movements, feminist activism, and peace protests as well as the impact of Western standards of marriage, child-rearing, beauty, and sexuality on gender roles. The course uses primary and secondary sources to analyze how gender identity is informed by religion and culture and grounded in specific historical moments. LEC.

HIST 490. Honors Course in History. 1-3 Hours. AE61 / H.
May be taken more than once; total credit not to exceed six hours. Prerequisite: Approval of the Coordinator of the Honors Program of the Department of History. IND.

HIST 492. Readings in History. 1-4 Hours. AE61 / H.
Investigation of a subject selected by the student with the advice and direction of an instructor. Individual reports and conferences. Two (2) Readings in History courses may be applied to the major and no more than one (1) may be applied to the minor. Prerequisite: Ten hours of college history including at least two upper-class courses and a "B" average in history. Consent of instructor. IND.

HIST 494. Service Learning in History. 1-3 Hours. AE61 / H.
This course is designed to give students the opportunity to apply historical knowledge and ideas gained through course work to real-life situations in volunteer service agencies and community centers. Open to History majors and others with significant History backgrounds. Permission of instructor is required. LEC.

HIST 498. Undergraduate History Honors Seminar. 3 Hours. AE61 / H.
Required for students in the History major honors program, normally in the second semester of their honors projects. Prerequisite: Approval of the Coordinator of the Honors Program of the Department of History. Another seminar experience may be substituted, with the approval of the Honors Coordinator. LEC.

HIST 500. History of the Book. 3 Hours. H.
Brief history of writing materials and handwritten books; history of printed books from the 15th century as part of cultural history; technical progress and aesthetic change. Offered every second year. (Same as ENGL 520.) LEC.

HIST 502. Development of Ancient Greece, ca. 1000-300 B.C.. 3 Hours. H/W.
Emphasis on the ancient sources and texts, developments in political institutions and society, the changing definitions of personal, cultural, and national identities, and the cultural tensions between Greece and the cultures to the west and east, especially Italy and Persia. No knowledge of the ancient languages is required. (Same as CLSX 502.) LEC.

HIST 503. The Ancient History of the Near East. 3 Hours. H.
History of the rise of civilizations in the ancient Near East from the earliest time to the Muslim conquest of the early seventh century, including the areas of Mesopotamia, Egypt, Syria, Palestine and Asia Minor. An archaeological approach is used in focusing attention on the cultural phenomena and achievements of the peoples of these areas, including the Babylonians, Assyrians, Persians, ancient Israelites, Greeks and Romans. LEC.

HIST 506. Roman Republic. 3 Hours. H.
An investigation of the history of Rome from its origins to the end of the Republic in 31 B.C.E., emphasizing political, social and economic aspects of the development of Rome from a minor city to a world power. LEC.
HIST 507. Early Roman Empire. 3 Hours. H.
A political, social, and economic investigation of the early Roman Empire from Augustus to Diocletian emphasizing how Rome held together a world-empire until economic and military problems forced a complete reorganization of the imperial system. LEC.

HIST 508. Late Roman Empire (284-527). 3 Hours. H.
An investigation and analysis of the later Roman Empire from Diocletian to Justinian, emphasizing the Christianization of the empire, its division into Western and Eastern/Byzantine Empires, and the barbarian invasions. LEC.

HIST 509. Multinational Corporations: The Role of Money and Power. 3 Hours. H.
This course explores the origins, historical evolution, and global expansion of multinational corporations since the 1880s. Particular attention is devoted to U.S.-directed multinational businesses with both market-oriented and supply-oriented direct investments abroad and the competitive advantages gained by American capital, management, and marketing expertise vis-a-vis foreign firms operating in Canada, Europe, Asia, Latin America, and Africa. An objective of the course is to assist the student of international business in understanding, analyzing, and addressing various complex, interrelated and interdependent trends and issues in the world community that have had a critical impact on business performance in the international marketplace. LEC.

HIST 510. Topics in: ______. 2-3 Hours. H.
A study of a specialized theme or topic in History. May be repeated for credit when topic varies. LEC.

HIST 512. Foodways: Latin American. 3 Hours. H.
This course explores the traditional foods, ways of eating, and cultural significance of food among peoples of Latin America. The course surveys the vast array of flora in Central and South America and the Caribbean, and focuses on issues of environmental protection, bioethics, food security, and the growth of farming and ranching. The class studies the impact that foods such as maize, potatoes and cacao have had globally, and includes African, Asian, and European influences on Latin cuisine, as well as health problems associated with dietary changes. (Same as HWC 552, ISP 552, and LAA 552.) Prerequisite: Upper division course on Latin America, or permission of the instructor. LEC.

HIST 513. Early Medieval Culture. 3 Hours. H/W.
The formation of a new civilization in Western Europe between the decline of the Roman Empire and the First Crusade is the central stress in this topical study of the institutions and ideas characteristic of the Latin West, 300-1100. LEC.

HIST 515. The Crusades in Cross-Cultural Perspective. 3 Hours. H.
This course examines the development and evolution of the crusade as well as the history of the crusading movement from the 11th to the 15th centuries. Through an analysis of documents from Christian, Jewish, and Muslim perspectives, this course aims to consider "the Crusades" in the broadest possible context. One of the key questions to be addressed in this course is: how did these expeditions to the Holy Land both reflect and influence cross-cultural relations in the medieval Mediterranean World? LEC.

HIST 516. Later Medieval Culture. 3 Hours. H.
The civilization of Medieval Europe at its height (1100-1350); its subsequent disintegration and transformation. LEC.

HIST 519. European Intellectual History of the Seventeenth Century. 3 Hours. H/W.
This course will trace the development of the European intellectual tradition in the crucial period of the seventeenth century. Such topics as the changing views on religion, the decline of Humanism, and the rise of natural science form the center of the course and will be studied against the background of social and political change. Class sessions will consist of discussions of both primary and secondary sources. LEC.

HIST 520. The Age of the Renaissance. 3 Hours. H/W.
A survey of economic, political, social, and cultural developments in Italy in the 14th and 15th centuries, with special attention to those elements in the life of the age which look forward to the modern world. LEC.

HIST 521. The Age of the Reformation. 3 Hours. H/W.
The Protestant revolt of the 16th century. LEC.

HIST 522. The Age of Religious Wars, 1540-1648. 3 Hours. H/W.
The Catholic or Counter-Reformation and the wars of religion, including the Thirty Years War. LEC.

HIST 523. Europe between Absolutism and Revolution. 3 Hours. H/W.
An investigation of why the major states of Europe underwent a crisis at the end of the 1700s that culminated in a wave of democratic revolutions, reforms, and the wars of Napoleon. LEC.

HIST 524. The French Revolution. 3 Hours. H/W.
A study of the origins, development, and impact of the French Revolution, beginning with a description of France in the 18th century and ending with a look at France under Napoleon. LEC.

HIST 525. Modern France: From Napoleon to de Gaulle. 3 Hours. H/W.
A survey of the history of modern France. Beginning with an exploration of the impact of the Revolutionary and Napoleonic era on French institutions, politics, and society, this course examines the search for a viable political system, the acquisition of a colonial empire, the church-state controversy, and the rise of socialism in the twentieth century, and considers the impact of two world wars on French society, the rapid modernization of countryside and cities, and French political leadership from Clemenceau to Blum to de Gaulle in the twentieth century. LEC.

HIST 527. Recent European History, 1870 to the Present. 3 Hours. H/W.
A study of the issues and themes that have shaped the contemporary European world, exploring European politics, economy, and society from the zenith of Europe’s power and influence at the turn of the century through two world wars and into the contemporary era. This survey begins with the period of consolidation of a system of major national states in western Europe and ends with the search for alternatives to that system in the break-up of empires and movements for European unity in the post-World War II era. The course also considers the emergence of the states of central and eastern Europe and examines the impact of the Russian Revolution and the Soviet state on European affairs. Not open to those who have credit in either HIST 435 or HIST 436. LEC.

HIST 528. Economic History of Europe. 3 Hours. S/W.
An introductory study of European economic history from the Middle Ages to the 1980s. Investigates the sources of economic growth, and the interaction between economic forces and social institutions. Topics covered will include the rise of commerce, the agricultural and industrial revolutions, imperialism, the Great Depression, and European recovery after World War II. (Same as ECON 535.) Prerequisite: ECON 104 or ECON 142 and ECON 144. LEC.

HIST 529. Intellectual History of 19th Century Europe. 3 Hours. H/W.
A survey of significant currents of thought during this period. Attention to the problem of the relationship between ideas and the historical situation. LEC.
HIST 530. History of American Women--Colonial Times to 1870. 3 Hours. AE41 / H.
A survey of women's history in the United States that will consider
women's roles as housewives, mothers, consumers, workers, and citizens
in preindustrial, commercial, and early industrial America. (Same as AMS
510 and WGSS 510.) LEC.

HIST 531. History of American Women--1870 to Present. 3 Hours.
AE41 / H.
A survey of women's history in the United States that will include
radical and reform movements, the impact of war and depression,
professionalization, immigration, women's work, and the biographies of
leading figures in women's history. (Same as AMS 511 and WGSS 511.)
LEC.

HIST 532. History of Women and Work in Comparative Perspective. 3
Hours. H.
This course explores the connection between historical changes in
the labor process and the occupational choices available to women in
different countries. Through discussion and analyses of texts, students
will evaluate the construction of a gendered division of work as shaped
over time by economic, cultural, and political forces. The chronological
and geographical focus may vary depending on the instructor. (Same as
AMS 512 and WGSS 512.) LEC.

HIST 533. The History of Women and the Family in Europe, from 1500
to the Present. 3 Hours. H/W.
This course examines how women's roles and the family have changed
in Europe from the early modern period to the present. It will consider
the relation of women and the family to such cultural, social, and political
changes as the Reformation, the French Revolution, middle class culture,
industrialization, and the mass movements of the 19th and 20th centuries.
LEC.

HIST 534. Captivity in America, 1492-1800. 3 Hours. H.
Captivity, threatened and actual, shaped the lives of the people of North
America. It profoundly influenced the ways in which individuals and
communities thought about themselves and the people around them.
Colonists feared captivity among Native Americans; centuries later,
Americans in the early republic rallied to the cause of their countrymen
captured by Barbary pirates. This course examines the impacts, cultural,
social, religious, and otherwise, of a variety of forms of captivity in
colonial British, Spanish, and French North America. Topics in this course
may include the captivity of European explorers and settlers by Native
American groups; the enslavement of peoples from Africa to European
and Native American masters; prisoners of war; naval impressment;
and the displacement and captivity of Native American individuals and
communities. Prerequisite: Successful completion of prior history course
numbered below 500. LEC.

HIST 537. France from the Renaissance to the French Revolution. 3
Hours. H.
A study of the major political developments of early modern France,
including absolutism, corporate institutions, and popular revolts, as well as
an examination of the everyday life and beliefs of ordinary people. LEC.

HIST 538. European Intellectual History of the Eighteenth Century. 3
Hours. H.
An examination of the writing, ideas, and language of the major thinkers
of the Enlightenment, including Diderot, Hume, Kant, Lessing, Rousseau,
and Voltaire. LEC.

HIST 541. British History, 1500-1660. 3 Hours. H.
An introduction to the impact on the British Isles of the Reformation and
Renaissance; the development of the Tudor state; Parliament; the Stuart
monarchy; the Anglican counter-reformation; civil war; the Cromwellian
experiment. LEC.

HIST 543. Modern Iran. 3 Hours. NW / H.
A history of Iran from the sixteenth century to the present with an
emphasis on religious, political, and cultural history. Topics will include
the establishment of Shi'ism as the state religion in the sixteenth
century, the evolution of religio-political thought among the Shi'ite clerical
establishment, great power politics in the nineteenth century, European
cultural and intellectual influence, nation-building and nationalism in the
twentieth century, the Islamic revolution of 1979, and Iranian politics since
the revolution. Prerequisite: HIST 327 and HIST 328. LEC.

HIST 544. Britain and Ireland from 1200 to 1500. 3 Hours. H.
Survey of social, cultural, political, and economic developments with
particular emphasis on interaction between Anglo-Norman/English and
Celtic societies. LEC.

HIST 545. British History, 1660-1832. 3 Hours. H.
A study of Britain's recovery from civil war; state formation and national
identity; ideological conflict; the Revolution of 1688; religion and
secularization; social stability and commercial expansion; reform; threats
to the state, and the American revolution; Britain's survival of the French
Revolution; the breakdown of the ancient regime in 1828-32. LEC.

HIST 546. History of Cartography. 3 Hours. H.
A history of mapmaking worldwide from its origins to the present day.
Emphasis on maps as historical records of evolving civilizations and
cultural landscapes and methods of study early maps. (Same as GEOG
519.) LEC.

HIST 547. The Intellectual History of Europe in the Twentieth
Century. 3 Hours. H.
This course will examine in depth the leading developments in European
thought from the 1920's to the present. Topics will include: existentialism,
philosophic hermeneutics, and postmodernism. LEC.

HIST 548. British History, 1832 to the Present. 3 Hours. H.
A study of the rise of modern Britain from the 1832 Reform Act, a major
step on the path from aristocratic government to mass democratic politics.
It covers the politics and society of the Victorian era, the extension of
British influence overseas, the origins and social impact of two world wars,
the creation of the Welfare State, the loss of Empire, and Britain's entry
into Europe. LEC.

HIST 551. Spain and Its Empire, 1450-1700. 3 Hours. H.
This course will examine the society and culture of Spain in the period
known as "the Golden Age." Subjects that will receive attention include:
rural and urban society, economic and political organization of the
Spanish and American peoples in the early years of the conquest, the
place of women in society, the social basis for "Golden Age" culture, and
the debate over the "decline of Spain. LEC.

HIST 555. Aspects of British Political Thought. 3 Hours. H.
This course will offer an introduction to a number of classic works in
British political thought, placed against their historical background. Close
reading of selected texts will be combined with contextual analysis. LEC.

HIST 556. Aspects of British Political Thought, Honors. 3 Hours. H.
Similar in content to HIST 543. This course will offer an introduction to
a number of classic works in British political thought, placed against their
historical background. Close reading of selected texts will be combined
with contextual analysis. Open only to students in the University Honors
Program or by permission of the instructor. LEC.
HIST 557. Nationalism and Communism in East Central Europe from 1772 to the Present. 3 Hours. H/W.
The peoples of East Central Europe under Hapsburg, Romanov, and German rule; the dissolution of the empires, independence and the role of the new states in the European balance of power; World War II, Soviet domination, and the recent role of East Central Europe in the Communist World. LEC.

HIST 558. Religion in Britain Since the Reformation: A Survey. 3 Hours. H.
This course will deal analytically and synoptically with religion in Britain from the Reformation to the present with special reference to the Church of England, and focuses on the theses of ecclesiology, ecclesiastical polity, and political theology. It is essentially an examination of religious history from a perspective of the history of ideas. (Same as REL 558.) LEC.

HIST 559. Religion in Britain Since the Reformation: A Survey, Honors. 3 Hours. H.
This course deals analytically and synoptically with religion in Britain from the Reformation to the present with special reference to the Church of England, and focuses on the themes of ecclesiology, ecclesiastical polity, and political theology. It is essentially an examination of religious history from the perspective of the history of ideas. Open only to students in the University Honors Program or by permission of instructor. (Same as REL 559.) LEC.

HIST 560. The Value of Freedom. 4 Hours. H.
This course explores multiple definitions of freedom: its value, limitations, and evolving meaning. The course specifically focuses on four major contexts in which human beings have faced existential questions about freedom’s value: politics, religion, work, and gender relations. The goals are to explore the ways in which other societies and epochs have valued freedom and balanced it against competing social goods and thus to attune students to the particularities of today’s definitions and celebrations of freedom. LEC.

HIST 561. Liberation in Southern Africa. 3 Hours. NW AE42 / H.
This course examines struggles for freedom in southern Africa and the consequences of political, economic, and social changes in the region. The end of colonial rule, the demise of white-settler domination, and the fall of the apartheid regime is discussed. As a major political event of the twentieth century, the liberation of southern Africa had both local and global consequences. The course analyzes transnational issues of liberation and resistance to consider broader regional and international perspectives. Course themes pay particular attention to gender and ethnicity and include a focus on democratization and contemporary meanings of liberation. Prior coursework in African Studies is strongly recommended, but not required. (Same as AAAS 561 and POLS 561.) LEC.

HIST 562. United States Environmental History in the 20th Century. 3 Hours. H.
Americans dramatically changed the natural world between 1900 and 2000. This course asks how transformed environments shaped the American experience during a century of technological innovation, democratic renewal, economic expansion, global conflict, and cultural pluralism. Topics include food and markets, energy and transportation, law and politics, protest and resistance, suburbanization, and environmentalism’s fate in a global information era. (Same as EVRN 562.) LEC.

HIST 563. U.S. Environmental Thought in the 20th Century. 3 Hours. H.
Explores both leading and dissident ideas that Americans have had about the natural world since 1900. Broad chronological periods are explored in some depth, including the Progressive Era, New Deal, Cold War, the Sixties, and the Reagan Eighties. The course uses articles and books, as well as visual and aural forms of communication. Commercial speech, as well as scholarly and literary works, are considered. (Same as EVRN 563.) Prerequisite: EVRN 148 or HIST 129, or permission of instructor. LEC.

HIST 564. Medieval Russia. 3 Hours. H.
Political, economic, social, cultural, and religious developments of Russia from the beginnings of the Russian state in the 9th Century through the 17th Century. LEC.

HIST 565. Imperial Russia. 3 Hours. H/W.
The history of Imperial Russia from Peter the Great’s reinvention of the empire in the eighteenth century to its demise in the revolutions of 1917. Placing Russia in a global context, the course examines change and continuity in politics, society, economy, and culture and looks at Russia as a diverse empire between Europe and Asia. Readings include historical scholarship and some of the classics of Russian literature. LEC.

HIST 566. The Rise and Fall of the Soviet Union, 1917 to the Present. 3 Hours. H/W.
An exploration of the Soviet Union’s creation, evolution, collapse, and legacy in contemporary Russia and Eurasia. Drawing on historical scholarship, literature, music, and film, the course examines the major trends and developments in Soviet politics, ideology, society, economy, and culture. Special attention is paid to how the multiethnic Soviet state’s rise and fall reflected broader changes in the world during the post-Soviet century. LEC.

HIST 567. The Middle East After World War II. 3 Hours. NW AE42 / H/W.
An intensive study of developments and changes in the Middle East since World War II. Topics and themes will vary, but may include the long-lasting effects of European imperialism, Big Oil and the energy crisis, the Arab-Israeli conflict and peace process, American intervention in the Middle East, minority communities, and the revival of Islamic and popular protest movements. LEC.

HIST 568. Latin America in the 19th Century. 3 Hours. H/W.
The course will analyze the social, political, and economic problems of the Latin American nations from their independence to the Mexican Revolution (1910). Emphasis will be on the emergence and shaping of the new countries; their transition to modern industrializing societies; and the impact of this transition on Latin American society. LEC.

HIST 569. Slavery in the New World. 3 Hours. H/W.
Slavery, slave culture, and the slave trade in the U.S., Latin America, and the Caribbean will be examined comparatively. Attention will also be given to African cultures, the effects of the slave trade on Africa, and the effects of African cultures on institutions in the New World. (Same as AAAS 574.) LEC.

HIST 570. History of Mexico. 3 Hours. H/W.
Mexican history from preconquest days to the contemporary period. LEC.

HIST 571. History of the Caribbean and Central America. 3 Hours. H/W.
A comparative examination of Central America and the Caribbean. Emphasis is on understanding the complex social, cultural, and political development of this broad region from the pre-Columbian period until the modern era. Topics include: conquest, colonization, racial and ethnic diversity, economic development, political conflict, and globalization. Prerequisite: HIST 120, HIST 121, or HIST 370. LEC.
HIST 578. Social History of South America. 3 Hours. H/W.
The course treats the long-term effort of the South American nations to become urban industrial societies through economic development, emergence of modern pressure groups, improvement of human capital, and the fostering of a sense of national purpose and unity expressed in the participation of the whole population in all of the activities and benefits of life in society. LEC.

HIST 579. The History of Brazil. 3 Hours. H/W.
The history of Brazil from European discovery to the present with emphasis on social and economic change. Topics discussed will include the Indian, African, and European backgrounds, slave society, the frontier in Brazilian development, cycles of economic growth and regionalism, the role of foreign capital, industrial development, labor, urban problems, the military in government, and human rights. LEC.

HIST 580. Economic History of Latin America. 3 Hours. H/W.
A study of the changing economic conditions in Latin America from Colonial times through the Twentieth Century and the effect of these conditions on Latin American society. Emphasis will be on the major theoretical issues of development economics, patterns of growth, and suggested strategies for economic development. Analysis will center on changes in agriculture, industry, labor, finance, transportation and technology, urbanization, immigration, role of women, export and commerce, and foreign involvement. LEC.

HIST 582. Ancient Japan. 3 Hours. NW / H.
Course covers the history of Japan from the prehistoric era through the ancient period (approximately 10,000 BC to 1200 AD). Topics examined include the rise of Japanese Civilization, state formation, early capitals, belief systems, courtly culture in the Heian period (794-1185), and daily life. Writing assignments provide students with opportunities to gain familiarity with historical methods for analysis and to strengthen their written expressions. Not open to students who have taken HIST/EALC 586. LEC.

HIST 583. Imperial China. 3 Hours. NW / H/W.
An intensive survey of China’s traditional civilization and its history, with emphasis on the last centuries of imperial rule under the Sung, Yuan, Ming, and Ch’ing dynasties (to 1850). (Same as EALC 583.) LEC.

HIST 584. Modern China. 3 Hours. NW AE42 / H/W.
An intensive survey of China’s history from the early 19th century to the present. Key topics include the decline of the traditional system, the rise of communism, the Maoist era, and the tensions of change and control in the 1980s and 1990s. (Same as EALC 584.) LEC.

HIST 587. Early Modern Japan. 3 Hours. NW AE42 / H/W.
Early modern Japan (16th to 19th century) examines the history, culture, and patterns of life during an era of rigid social control but artistic brilliance. After an historical overview of the period, students will explore topics including the social structure, travel, religion, thought, and the formation of traditional cultural forms such as Kabuki theater. (Same as EALC 587.) LEC.

HIST 588. Japan, 1853-1945. 3 Hours. NW / H/W.
This course provides an intensive survey of Japanese history from the arrival of Commodore Perry through the Pacific War. Social, economic, and political themes will be emphasized. Among the topics covered will be the Meiji Restoration, industrialization, Japanese imperialism, Taisho democracy, and wartime mobilization. (Same as EALC 588.) LEC.

HIST 589. Japan Since 1945. 3 Hours. NW / H/W.
This course provides an overview of Japanese history from the end of World War II to the present day. Among the topics covered will be the Allied Occupation, postwar politics and social change, the economic "miracle," popular culture, women and the family, crime and punishment, the educational system, and Japan’s place in the world. (Same as EALC 589.) LEC.

HIST 590. Cultural History of Korea. 3 Hours. H.
This course examines the cultural history of Korea in periods prior to the 19th Century. Special attention is given to varying constructions of cultural value, heritage, and identity, together with the historically specific factors that engendered them. (Same as EALC 563.) LEC.

HIST 591. Food in History: West and East. 3 Hours. H/W.
A survey of scholarship on food in the West and in East Asia, choosing works primarily by historians, but also by sociologists, geographers, and anthropologists. We consider how scholars have approached issues concerning food productions and consumption, what habits of eating reveal about daily life, and how and when food is embedded with historiography related to these topics, keeping in mind the famous maxim of the noted French gastronome Brillat-Savarin (d. 1826): "Tell me what you eat: I will tell you what you are. LEC.

HIST 593. Modern Korea. 3 Hours. NW / H/W.
This course will examine selected topics in Modern Korean history in the 19th and 20th centuries, with special emphasis on Korea’s connections to China and Japan. (Same as EALC 593.) Prerequisite: A college-level course in East Asian history or culture, or consent of instructor. LEC.

HIST 594. Law and Society in Traditional China. 3 Hours. S/W.
The course begins with a series of lectures on the main principles underlying Chinese social structure. The course then examines the application of those principles in legal cases. Students read legal cases in translation and argue them in class. (Same as EALC 594.) Prerequisite: A course in Chinese history. LEC.

HIST 596. Defining Japan: Marginalized Groups and the Construction of National Identity. 3 Hours. NW / H/W.
This course investigates the construction of national identity in modern Japan by examining the historical experiences of groups marginalized by mainstream society. We will explore the pressures of conformity, the pervasiveness of social ostracism and the surprising diversity in Japanese society. Among the groups discussed will be indigenous peoples (the Ainu, Okinawans), the Korean minority, the outcast class (burakumin), the sick and disabled, the yakuza, and political activists. (Same as EALC 596.) LEC.

HIST 597. Japanese Theater History. 3 Hours. NW / H/W.
This course examines the historical development and characteristics of Japanese theater, with special attention to traditional theater and the genres of noh, kyogen, and kabuki, in particular, tracing their origins in the pre-modern era and their continued performance today. To gain an understanding of the historical and artistic setting of these arts, lectures and readings will consider broader issues such as performance and ritual in religion and daily life, gender and representation, and folk theater. A portion of this class will include practical studies of theatrical forms including noh dance and kabuki music (shamisen). (Same as EALC 597.) LEC.

HIST 598. Sexuality and Gender in African History. 3 Hours. NW AE42 / H.
An examination of the history of sexuality and gender in Africa with a focus on the 19th and 20th centuries. Major issues and methods in the historical scholarship on gender and sexuality will be covered. Topics of historical analysis include life histories, rites of passage, courtship, marriage, reproduction, education, masculinities, homosexuality, colonial control, and changing gender relations. Prior course work in African history is suggested. Graduate students will complete an additional project in consultation with the instructor. (Same as AAAS 598.) LEC.
HIST 599. The Rise and Fall of Apartheid. 3 Hours. H.
This course will deal with the last fifty years of South African history during which apartheid came to be formulated, supported, and perpetuated, and the forces that were responsible for its disintegration by 1990. Reference will also be made to the transformation process since April 1994. (Same as AAAS 580.) LEC.

HIST 600. West African History. 3 Hours. NW / H/W.
A study of the political, social, and economic development of West Africa until the colonial era. Major focus will be on the role of state formation, trade, ecology, and urbanization in the formation of centralized politics from the 11th to the 16th centuries and the impact of the process of Islamization and Muslim revolution on political and socioeconomic change in selected West African societies in the 19th century. LEC.

HIST 601. Oral History. 3 Hours. H.
This course explores the emergence of oral history as a methodology and focuses on the guidelines and ways to effectively use oral history in historical, journalistic, and social science research. The skills of collecting and sorting information gathered through eyewitness accounts, oral traditions, genealogies, investigative reporting procedures, and questionnaires are developed. The nature of the interview in relation to personal and public documents, ordinary conversation, and other related data sources will be considered in this course. LEC.

HIST 602. Religion in Britain 1785-1925. 3 Hours. H.
This course offers an examination of religious thought and practice during the transition from a pre-industrial, unitary order to a modern urban, industrial, and secular society. It will stress the close study of a range of selected texts, including works by such authors and works as Paley, Horsley, Wilberforce, Thomas Arnold, Newman Maurice, essays and reviews, Jowett, Lux Mundi, Gore, and Temple. It will attend to continental European influences on British thought and set theological debate in the wider context of the intellectual history of the period. LEC.

HIST 603. History of Tibet. 3 Hours. NW AE42 / H.
This course surveys the cultural and political history of Tibet from the eighth to the twentieth century. Through readings, lectures, and discussions, students gain familiarity with the dominant features of Tibetan civilization. Topics include the relationship between Tibet and the civilizations of India and China, Tibetan Buddhism, and the tensions between the struggle for Tibetan independence versus claims of Chinese sovereignty. The course also considers the Tibetan diaspora and the reception of knowledge about Tibetan civilization in the West. LEC.

HIST 604. Contemporary Greater China. 3 Hours. NW AE42 / H.
This course considers contemporary China, Taiwan, and Hong Kong in comparative perspective. It begins in the early twentieth century so as to set up a comparison between Nationalist, Communist and Colonial China. It focuses on the evolution from the 1940s to the present studying the political, economic and social systems of the three regions that constitute what we now call ‘Greater China’ and considers, in particular, important points of difference and similarity between them. LEC.

HIST 605. Medieval Japan. 3 Hours. NW AE42 / H.
Course examines the history of Japan from the end of the ancient period (c. 1200 AD) through the medieval era (approximately 1573). Issues covered include the formation and destruction of the Kamakura and Muromachi warrior governments, medieval religious life and culture. Writing assignments provide students with opportunities to gain familiarity with historical methods for analysis and to strengthen their written expression. Not open to students who have taken HIST/EALC 586. LEC.

HIST 606. History of Sexuality. 3 Hours. H.
This survey course traces the changing conceptions of human sexuality from early civilizations to the present. It will include, but not be limited to, such topics as attitudes and beliefs, laws, sciences and medicine, cultural differences, and the impact of economic change on sexual definition and experience. LEC.

HIST 609. History of Women and Reform in the United States. 3 Hours. AE41 / H.
This survey course will outline the history of women's involvement in reform movements in the United States from 1600 to the present. It will include, but not be limited to, such topics as labor movements, utopian communities, religious revivals, moral reform, women's rights, civil rights. LEC.

HIST 610. American Colonial History. 3 Hours. H.
Examines colonial American history from the age of Columbus to the mid-1760s. The course seeks to place colonial American history into the larger historical context, particularly the expansion of the British Empire in the early modern period. Emphasis in the course will be on migration, social and economic conditions, and inter-racial relations. LEC.

HIST 611. Early American Indian History. 3 Hours. H.
This course will focus on the history of American Indians, especially those of the eastern woodlands, from precontact times to the 1830's. Particular emphasis will be on the response of Indians to demographic catastrophe, the development of trade between Indians and colonists, and Indian responses to European colonization in British America and New France. The role of Indians in the American Revolution and the changes caused by Removal will also be treated. LEC.

HIST 612. History of Federal Indian Law and Policy. 3 Hours. H.
This course offers a comprehensive examination of federal legislation and court decisions in the United States that have affected American Indians. The history of law and policy will be traced from the colonial period, but the major emphasis will be on the struggle of American Indians to preserve sovereignty in the 19th and 20th centuries. LEC.

HIST 613. Slavery and Freedom in the Age of Jackson. 3 Hours. H.
This course focuses on the growing importance of the issues of slavery and freedom in the United States between 1815-1848. Recently, scholars have demonstrated that the period was one of disorienting, dramatic, and unprecedented change as politics, economics, racial and gender roles, and key institutions were permanently transformed. The course will examine these changes and how they, in turn, remade the values and identities of all Americans. LEC.

HIST 615. Rise of Modern America: Politics, Culture, and Society, 1900-1950. 3 Hours. H.
The history of the United States in the First Half of the Twentieth Century. LEC.

HIST 616. Contemporary America, 1941-Present. 3 Hours. H.
A history of the United States from its entry into World War II to the present. A study of such selected topics as women's history and feminism, race relations and the Afro-American civil rights movement, poverty, power, the military-industrial complex, McCarthyism, and presidential administrations. LEC.

HIST 617. America in the 1960's. 3 Hours. H.
The people of the United States experienced significant social political, and cultural change during the 1960's. This course studies the history of these changes, focusing on the American people, the institutions that shaped their lives, and the social and political movements, for and against change, that surfaced during this decade. Specific topics include: the struggle for racial equality, the Kennedy, Johnson, and Nixon administrations; the Vietnam War, the antiwar movement, New Left, and counterculture; feminism's rebirth; the white backlash; and the resurgence of political and cultural conservatism. Course requirements
include readings, discussion, and original historical research and writing. LEC.

HIST 618. History of the American West to 1900. 3 Hours. H. A survey of Western history with emphasis on such topics as Native Americans and Indian-white relations, environment and resource use, exploration and discovery, expansionism and Manifest Destiny, economic development, urban, rural, and alternative communities, ethnic and racial experience, women and violence. Consideration will also be given to topics such as fur trade, mining, the cattle business, and agriculture. LEC.

HIST 619. History of the American Indian. 3 Hours. NW / H/W. A study of Indians in the United States from colonial times to the present. Consideration will be given to the political, social, and cultural history of selected Indian tribes and to Indian-white relations with particular attention to the Indian point of view. Other topics will include a comparative study of Indian policy of nations colonizing in America, cultural intermingling and cultural conflict, and current Indian problems. Slides, films, and guest speakers (including American Indians) will be used in the course. LEC.

HIST 620. History of Kansas. 3 Hours. H. A survey of the history of culture and society from prehistory to the present. Topics include Native American life, Euro-American resettlement, Bleeding Kansas and the Civil War, agricultural settlement, urbanization and industrialization, depression and recovery, and modern Kansas in transition. LEC.

HIST 621. The American West in the 20th Century. 3 Hours. A study of the post-frontier era and the struggle to create a regional identity, drawn from legends of the heroic past, varieties of racial and ethnic experience, political culture, and the possibilities of the land. LEC.

HIST 622. History of the Plains Indians. 3 Hours. NW / H/W. A history of the Plains Indians from the sixteenth century to the present. Consideration will be given to tribal culture and society, to the impact of the fur trade and international rivalries on tribes, and to Indian-white relations. LEC.

HIST 625. Body, Self and Society. 3 Hours. H. An intensive examination of the role of the human body in the creation of personal and social identities in the Western world. Students become acquainted with contemporary theories of embodiment and senses as they are applied to a variety of historical themes, and develop research projects on a topic negotiated with the instructor. (Same as HWC 575, WGSS 575.) Prerequisite: An upper-division course in History, Humanities and Western Civilization, or Women Gender and Sexuality Studies; or permission of instructor. LEC.

HIST 636. Agriculture in World History. 3 Hours. H. A survey of the development of agriculture from prehistory through the present. The major themes of the course will be how various methods of farming have spread around the world, how new techniques have transformed agriculture, and how peasants and farmers have interacted with cities and governments. LEC.

HIST 640. Entrepreneurship in East Asia. 3 Hours. NW / H. An intensive examination of the history and current status of entrepreneurship in China, Japan, and other nations in East Asia. This course investigates the role of entrepreneurs in Asian economic development from the nineteenth century to the present, as well as the relation between entrepreneurship and Asian cultural traditions. The opportunities and challenges of entrepreneurship in East Asia today are also considered. (Same as EALC 520.) LEC.

HIST 646. Witches in European History and Historiography. 3 Hours. H. This course examines witches, witchcraft, and magic in Europe in the late medieval and early modern period (approximately 1200-1700 C.E.). Particular emphasis will be on the variety of historical and anthropological approaches that have been used to study the subject and their meaning in the context of gender politics and gender theory. (Same as WGSS 646.) LEC.

HIST 649. History of Feminist Theory. 3 Hours. H. This discussion course will cover the development of feminist theories from the late Middle Ages to the present. Reading will include Pisan, Woolstonecraft, Mill, Freud, Woolf, Beauvoir, Friedan, Daly, Kristeva, and others. (Same as WGSS 549.) LEC.

HIST 653. American Constitutional History to 1887. 3 Hours. H. A historical study of the colonial origins, revolutionary development, creation of, struggle over and preservation of the American constitutional system from 1763 to 1887. LEC.

HIST 654. American Constitutional History Since 1887. 3 Hours. H. A historical study of the evolution of thought and practice of the constitutional system from the conflict over government regulation of business, through the expansion of executive and legislative power, to the evolution of protections of Bill of Rights guarantees by the Supreme Court and the reaction against that evolution. LEC.
HIST 660. Biography of a City: _____. 3 Hours. AE42 / H.
These interdisciplinary, team-taught courses survey the artistic, intellectual, and historical development of the great cities of the world. London, Paris, and Rome have been offered in recent semesters, and other cities will be studied in the future. LEC.

HIST 661. Palestine and Antiquity. 3 Hours. H.
A survey of the history of Palestine from biblical origins to the Muslim conquest, with emphasis on such topics as social and religious institutions, cultural and communal diversity, and relations between foreign powers and local authorities. The course further explores the roots of the present conflictual situation in this part of the Middle East. LEC.

HIST 666. Contemporary America, 1941-Present, Honors. 3 Hours. H.
A survey of the economic, social, political, and cultural history of the United States from its entry into World War II to the present. Students with credit in HIST 614 or HIST 616 should not enroll in HIST 666. LEC.

HIST 670. Comparative Diasporas. 3 Hours. H.
This course examines history from the point of view of diasporas, groups who move across established borders but maintain an identity linked to an original homeland. This course examines commonalities and differences in the diaspora experience by looking comparatively at a range of prominent cases, including the Jewish, African, Armenian, Greek, Turkish, German, Irish, Italian, South Asian, and Chinese diasporas, the “Gypsies,” and the internal diasporas of multiethnic states like Russia. The course also gives students the opportunity to pursue research on a diaspora of their own choosing. LEC.

HIST 696. Seminar in: _____. 3 Hours. AE61 / H.
A seminar designed to introduce students to the theory and practice of historical inquiry. A research paper will be required. May not be repeated for credit. Prerequisite: Twelve hours of upper-class courses in history and completion of HIST 301 or consent of instructor. LEC.

HIST 699. Philosophy of History. 3 Hours. H.
Topics will include: The nature of historical knowledge; the problems of historical inquiry; a critique of philosophies of history; and a study of history and related disciplines. (Same as PHIL 696.) Prerequisite: A distribution course in philosophy. LEC.

HIST 705. Globalization in History. 3 Hours.
A study of the increasing interaction among world societies since 1500 and an investigation of the long-term developments behind current world problems. Major topics include western expansion since 1500, the spread of state sovereignty, the formation of a world economy, and spread of international institutions. The current world problems investigated will vary, but may include issues such as environmental crises, human rights, migration, free trade and the spread of consumer culture, ethnicity and nationalism, and international intervention within states. (Same as INTL 705.) LEC.

HIST 719. Colloquium in Medieval Latin. 3 Hours.
An introduction to Medieval Latin for students pursuing medieval studies. The material covered will include selections from various literary works, the Vulgate, law codes, legal documents, and other sources from the period 300-1500. May not be retaken for credit. Prerequisite: Four semesters of college Latin or the equivalent, and/or consent of instructor of Ancient-Medieval graduate advisor. LEC.

HIST 720. The Nature of Museums. 3 Hours.
The purpose of this course is to provide an overview of the kinds of museums, their various missions, and their characteristics and potentials as research, education, and public service institutions responsible for collections of natural and cultural objects. (Same as AMS 720, BIOL 788, GEOL 782, and MUSE 702.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

HIST 721. Introduction to Museum Public Education. 3 Hours.
Consideration of the goals of an institution’s public education services, developing programs, identifying potential audiences, developing audiences, and funding. Workshops and demonstrations are designed for students to gain practical experience working with various programs and developing model programs. (Same as AMS 797, BIOL 784, GEOL 784, and MUSE 705.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

HIST 722. Conservation Principles and Practices. 3 Hours.
This course will acquaint the future museum professional with problems in conserving all types of collections. Philosophical and ethical approaches will be discussed, as well as the changing practices regarding conservation techniques. Emphasis will be placed on detection and identification of causes of deterioration in objects made of organic and inorganic materials, and how these problems can be remedied. Storage and care of objects will also be considered. (Same as AMS 714, BIOL 700, GEOL 780, and MUSE 706.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

HIST 723. Introduction to Museum Exhibits. 3 Hours.
This course will consider the role of exhibits as an integrated part of museum collection management, research, and public service. Lecture and discussion will focus on issues involved in planning and producing museum exhibits. Laboratory exercises will provide first hand experience with basic preparation techniques. Emphasis will be placed on the management of an exhibit program in both large and small museums in the major disciplines. (Same as AMS 700, BIOL 787, GEOL 781, and MUSE 703.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

HIST 725. Principles and Practices of Museum Collection Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museum collections, their associated data, and their use in scholarly research; cataloging, storage, fumigation, automated information management and related topics will be presented for museums of art, history, natural history and anthropology. (Same as AMS 730, BIOL 798, GEOL 785, and MUSE 704.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

HIST 727. Practical Archival Principles. 3 Hours.
Study of the principles and practices applicable to the preservation, care, and administration of archives and manuscripts. Practical experience will be an integral part of this course. (Same as MUSE 707.) LEC.

HIST 728. Museum Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museums as organizations; accounting, budget cycles, personnel management, and related topics will be presented using, as appropriate, case studies and a simulated museum organization model. (Same as AMS 731, BIOL 785, GEOL 783, and MUSE 701.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

HIST 740. Topics in History for Educators: _____. 1-3 Hours.
Reading and discussion of selected historical topics, designed specifically for K-12 educators. Pedagogical methods and resources for the study of history will be addressed. Prerequisite: Approval of the instructor. LEC.

HIST 747. East Asian History and Culture for Teachers. 2 Hours.
An advanced survey of the history, culture, and contemporary affairs of China, Japan and Korea, specifically designed for K-12 educators who wish to incorporate East Asian topics into their classroom teaching. Pedagogical methods and resources for the study of East Asia will be emphasized. Topics covered will address relevant benchmarks in the state curricular standards in social studies, themes from the Advanced
Placement world history examination, and the national standards in world history. (Same as EALC 747.) Prerequisite: Approval of the instructor. LEC.

**HIST 748. East Asian Historical Materials: _____**. 3 Hours.
The aim of the course is to provide students with the linguistic tools needed for archival research in East Asian history by assisting them in gaining experience reading primary and secondary language materials in Japanese and/or Chinese including texts in classical forms of these languages. After studying the rules of classical grammar and the particulars of historical materials as needed, students will read primary documents in conjunction with secondary readings in Japanese and/or Chinese. Fundamental aspects of paleography may also be introduced in this course depending on student need. Prerequisite: Capability of reading Japanese or Chinese and permission of the instructor. LEC.

**HIST 799. Museum Studies Apprenticeship. 1-6 Hours.**
Provides directed, practical experience in the collection, care, use, and/or management of historical materials. (Same as AMS 799, ANTH 799, BIOL 799, GEOG 723, and MUSE 799.) Prerequisite: Consent of instructor. FLD.

**HIST 800. Readings in: _____. 1-8 Hours.**
Prerequisite: Consent of instructor. RSH.

**HIST 801. Colloquium in: _____**. 1-6 Hours.
Reading and discussion of selected topics. LEC.

**HIST 802. Seminar in: _____**. 3 Hours.
Research Seminar on selected topics. SEM.

**HIST 805. The Nature of History. 3 Hours.**
Analysis of what historians do and how the profession of history has developed in terms of training, concepts, and practices in both research and teaching. Consideration also of the major controversies that have developed over historical method and historical interpretation, giving greatest emphasis to American and European historiography by providing a relationship to the leading concepts of world history. LEC.

**HIST 806. Studies in: _____**. 3 Hours.
The core course for each thematic major field in the graduate program in History. The course, offered in a colloquium style format, will serve as an introduction to the principal standard literature in the field, and will consider the full range of methodologies or approaches appropriate to the field. LEC.

**HIST 807. Professional Development Colloquium in Pedagogy. 3 Hours.**
This course will help train future professional historians to teach. It will focus on a variety of pedagogical topics for future college history faculty, including: developing students’ critical and analytical thinking; teaching research skills; promoting student involvement/participation; determining course goals; use of multi-media technology. In addition to attending class meetings of History 807, students will attend as observers throughout the semester one 500/600-level course in an area relevant to their future teaching and complete the readings assigned to the class. They will produce a course portfolio for an undergraduate course, including: a syllabus designed by the student; a set of assignments that will be part of that course, such as examinations and papers; sample lesson plans; an annotated bibliography of materials relevant to the subject-matter of the course. LEC.

**HIST 808. Colloquium in Comparative History: _____**. 3 Hours.
A readings-oriented course which explores themes in two or more geographic and/or chronological fields of history. The benefits and disadvantages of comparative methodologies will be analyzed. Topics will vary each term but may include the examination of such subjects as the history of urbanization, labor, colonialism, immigration, the family, political thought, or industrialization. Prerequisite: Varies with area of subtopic. LEC.

**HIST 820. Colloquium on Popular Culture in Latin America. 3 Hours.**
This course examines the history and theory of popular culture in 19th and 20th century Latin America from a cross-disciplinary perspective. Some of the topics covered could include: the historical development of urban popular culture from broadsides and newspapers to radio and telenovelas; the politics of music from the tango to the new song movement; folk art vs. High art in the definition of national identity; cultural imperialism; sports and public rituals as spectacles for the working class; relationship between mass culture and the novel; gender roles and social order as revealed in forms of popular culture; and the politics of the New Latin American Cinema. Discussions will be in English. No prerequisites. LEC.

**HIST 821. Colloquium on Slavery in World. 3 Hours.**
This course will examine the development, scope, and impact of slavery in the Atlantic World (1350-1900). A major focus of this course will be the relationship between various local and regional manifestations of slavery and how those relationships shaped the institution of slavery. Geographically the course will include literature on slavery in Europe, Africa, North America, and Latin America. Emphasis will be placed on examining the effects of slavery on Africans, their descendants, as well as other members of society including European settlers and Native Americans. The readings for this course will highlight important facets of slave life including religion, family life, manumission, and labor. Overall this course aims to illustrate the complex ways in which slavery permeated and shaped the societies that constitute the Atlantic World. LAB.

**HIST 822. Colloquium in the Urban History of Latin America. 3 Hours.**
Explores the growth of the city and urban culture from the Spanish conquest to the present. Focus on such topics as crime, public health, leisure activities, artisans, unionization, residential patterns and transportation. LEC.

**HIST 823. Colloquium on Colonial Latin America. 3 Hours.**
Explores the historiography and major themes and problems of the history of colonial Latin America. Ordinarily this will involve reading and discussion of historiographical articles, major works in the field and works involving new approaches and perspectives. A long historiographical paper will be required. LEC.

**HIST 824. Seminar on Labor in Latin America. 3 Hours.**
Major problems in class conflict resulting from industrialization of peripheral economies. Focus on such topics as labor movements, worker-inspired revolutions, women in the workforce, the ideology of work, labor migration, occupational culture and worker’s relationship to the state. LEC.

**HIST 825. Seminar in Latin American Foreign Relations. 3 Hours.**
This seminar examines the history of Latin American attitudes and policies toward other parts of the world as well as among the Latin American nations themselves. Examples of topics of interest are anti-imperialism, Pan-Americanism, foreign cultural influences, non-intervention, international cooperation and conflict, dependency, transnational corporations, regional integration, international law and doctrine and national security. LEC.

**HIST 826. Seminar in Twentieth Century South America. 3 Hours.**
Research seminar which examines major topics in the recent history of the Andean and Southern Cone countries. Topics such as the history of poverty, the dirty wars and the rise of military regimes, the social collapse of Colombia, Argentina and Peru, and the persistence of traditional
cultures in the face of capitalist transformations will be thoroughly explored. LEC.

HIST 827. Colloquium in the Social History of Latin America. 3 Hours. Explores the historiography, methods and themes of Latin American social history from the conquest to the present. Sessions will focus on specific groups including the history of indigenous groups, peasants, slaves, women, families, workers, and the poor. A long historiographical paper will be required. LEC.

HIST 830. Colloquium in Eighteenth and Nineteenth-Century Britain. 3 Hours. This course examines the varied elite and popular responses to the creation of a capitalist economy (agrarian and industrial) in Britain between 1750 and 1890. LEC.

HIST 831. Colloquium in Twentieth-Century Britain. 3 Hours. This course examines the main developments in the political, social, and cultural history of Britain since 1890. The aim is to trace the relationship between political movements and socio-cultural attitudes and institutions. LEC.

HIST 833. Colloquium in British History, 1500-1660. 3 Hours. This course will engage with recent scholarship on the Renaissance and Reformation, the Civil War and the English Republic. LEC.

HIST 834. Colloquium in the History of the British Empire. 3 Hours. The course will deal selectively with themes in the political and cultural interaction of the peoples of the British Isles with peoples overseas, the expansion and contraction of empire, and the rationales for these processes. LEC.

HIST 836. Colloquium in British Political Thought. 3 Hours. This course provides an introduction to the rich tradition of British writings on politics through a close reading of a number of classic texts, interpreted in their historical settings. LEC.

HIST 837. Colloquium in British Religious History. 3 Hours. This course will deal analytically and synoptically with religion in Britain from the reformation to the present with special reference to the Church of England, and will focus on the themes of ecclesiology, ecclesiastical polity, and political theology. LEC.

HIST 844. Colloquium on East Central Europe, 1772-1914. 3 Hours. The colloquium covers the period beginning with the decline and partitions with Poland and ends with the outbreak of World War I. The major areas of study are the development of modern national consciousness among Poles, Czechs, Slovaks, Magyars, and Ukrainians, and the status of the Jews in these areas; economic, social, and educational development; and the rise of modern political parties. Prerequisite: HIST 557. LEC.

HIST 845. Eastern Europe, 19th and 20th Centuries. 3 Hours. The course considers the challenges of modernity in Eastern Europe, with a focus on the lands of the former Habsburg Empire. The course is designed to introduce students to major issues in modern Eastern European history and historiography, with an emphasis on recent scholarship. Topics include: nationalism, identity formation, anti-Semitism, modernization and urbanization, World War I, interwar nation-states, World War II, Communist takeovers, everyday life under Communism, disissence, Solidarity, the collapse of Communism, and post-socialist transitions. LEC.

HIST 847. Colloquium in Russian History. 3 Hours. A group readings course that begins with Russia in the medieval period and continues through the end of the twentieth century. Topics may vary each term, but may include such subjects as political, social, religious, gender, or intellectual history. The course will focus around significant interpretive issues and the historiography that address them. Basic familiarity with the chronology and the main problems of Russian history is assumed. LEC.

HIST 848. Colloquium in 20th Century Russia. 3 Hours. The focus will be on reading and discussion of historical literature on the end of Imperial Russia, the Russian revolutions, and the Soviet Union and its aftermath. LEC.

HIST 853. Research Seminar: The Atlantic World in the Early Modern Period. 3 Hours. This graduate seminar will focus on interactions between the so-called Old and New Worlds in the three centuries following Columbus’ voyages. The course will pay particular attention to the changes in the lives of Europeans, Africans, and the peoples of the Americas as a result of the emergence of transatlantic economies, empires, and cultural systems. LEC.

HIST 856. Colloquium in Modern European History I - Renaissance to the French Revolution. 3 Hours. This course will concentrate upon a number of selected topics in the history of Europe between the Renaissance and the French Revolution. Emphasis will be placed upon certain problems within this period and the recent historiography that deals with them. The first in a sequence of colloquia in Modern European History. Required for European history graduate students and students majoring in other fields whose secondary fields correspond to this time frame. LEC.

HIST 857. Colloquium in Modern European History II - Major Themes in Early Modern History. 3 Hours. This course will concentrate upon a number of selected topics in early modern European history. Emphasis will be placed upon certain problems within this period and the recent historiography that deals with them. The second in a sequence of colloquia in Modern European History. Required for European history graduate students and students majoring in other fields whose secondary fields correspond to this time frame. LEC.

HIST 858. Colloquium in Modern European History III - French Revolution to the Present. 3 Hours. From the French Revolution into the contemporary era. The third in a sequence of colloquia in Modern European History. Required for European history graduate students and students majoring in other fields whose secondary fields correspond to this time frame. LEC.

HIST 859. Colloquium in Modern European History IV - Major Themes in Modern History. 3 Hours. This course will concentrate upon a number of selected topics in modern European history. Emphasis will be placed upon certain problems within this period and the recent historiography that deals with them. The fourth in a sequence of colloquia in Modern European History. Required for European history graduate students and students majoring in other fields whose secondary fields correspond to this time frame. LEC.

HIST 879. Colloquium on North American Environmental History. 3 Hours. Intensive survey of significant works in the field from colonial times to the present, with attention to bibliography, research methods and needs, and leading issues in interpretation. LEC.

HIST 890. Colloquium in American History 1492-1800. 3 Hours. Study of the leading interpretations of major issues in the history of Colonial and Revolutionary America, including appropriate attention to new approaches and techniques in research. The first course in the sequence of colloquia in United States history. Required of all U.S. history graduate students. LEC.
HIST 891. Colloquium in 19th Century U.S. History. 3 Hours.
Study of the leading interpretations of major issues in the history of the United States in the 19th century. The third course in the sequence of colloquia in United States history. LEC.

HIST 892. Colloquium in 20th Century U.S. History. 3 Hours.
Study of the leading interpretations of major issues in the history of the United States in the 20th century. The third course in the sequence of colloquia in United States history. LEC.

HIST 895. Colloquium in the History of Gender. 3 Hours.
This colloquium will cover theoretical and topical readings on the history of manhood, womanhood, and gender systems. (Same as AMS 835 and WGSS 835.) LEC.

HIST 896. Colloquium in United States Women's History. 3 Hours.
This colloquium will cover theoretical and topical readings on the history of women in the United States from the pre-contact period to the present. It is designed to familiarize students with the most important and current historiography in the field. (Same as AMS 836 and WGSS 836.) LEC.

HIST 897. Comparative Colloquium in Women's History. 3 Hours.
This colloquium will approach the history of women from a comparative perspective through theoretical and topical readings on women in at least two different cultures. (Same as AMS 837 and WGSS 837.) LEC.

HIST 898. Colloquium in Material Culture and History. 3 Hours.
This course provides an overview of theories and methods used in material culture studies and their application to historical research, writing, and presentation. Topics may vary from semester to semester, but could include vernacular architecture, museum studies, anthropology, cultural geography, historical archeology, and perceptual theory. The course will consist of intensive reading, discussion, and written work. While it is not limited to a particular geographical or chronological area, or discipline, given the state of the field most topics will be drawn from U.S. history. LEC.

HIST 900. Independent Research Seminar: _____ 3 Hours.
Design and completion of an independent project, culminating in the production of a professional-quality paper based on original, primary source research. Prerequisite: Consent of the instructor. LEC.

HIST 901. Research Seminar in Global History. 3 Hours.
A research seminar oriented around cross-regional, comparative, and transnational aspects of history, culminating in production of a professional-quality paper based in original, primary source research. SEM.

HIST 910. Seminar in Roman History: _____ 3 Hours.
A research seminar in specialized aspects of Roman history. May be repeated for credit. LEC.

HIST 913. Numismatics as a Basis for Study of Roman Noble Families of the Late Republic. 3 Hours.
A seminar involving the study of the importance and influence of the noble families of Rome on Roman history (200-27 B.C.) with special emphasis on the literary and numismatic evidence. Reading knowledge of Latin will be essential for this course. LEC.

HIST 914. The Major Roman Historians. 3 Hours.
An analysis and criticism of the works of the most significant Roman historians from Sallust to Ammianus Marcellinus, including a comparison and contrast between the Latin and Greek historians who wrote during the Graeco-Roman period (150 B.C.-378 A.D.). LEC.

HIST 918. Elements of Latin Paleography. 3 Hours.
Introduction to the techniques of reading, dating, and localizing medieval Latin manuscripts. LEC.

HIST 919. Seminar in Medieval Europe. 2-6 Hours.
LEC.

HIST 929. Seminar in Modern European History: __________ 2-5 Hours.
A study of sources in some restricted fields and the presentation of research results. A reading knowledge of French or German or some other modern language is desirable. LEC.

HIST 930. Seminar in British History. 3 Hours.
A research seminar focusing on new, actively-investigated and controversial themes in British history, chiefly c. 1660-1832. LEC.

HIST 932. Order and Disorder in Britain and America, c. 1750-1920. 3 Hours.
The study of the history of crime and protest in their relationship with the wider social and political theory of Britain and America. Specific topics may include the impact of industrialization, the notion of the 'moral economy,' the legal and ideological nature of the death penalty, the crowd in history, and the administrative and intellectual developments in policing, prisons, and asylums. LEC.

HIST 934. Seminar in Modern European History. 1-12 Hours.
A research and thesis seminar offered by several members of the Standing Field Committee in Modern European History. Students seeking advanced degrees in European history from the Renaissance to the present will enroll each semester for work on their theses and dissertations. May be repeated. LEC.

HIST 946. Seminar in the Middle East. 3 Hours.
A research seminar in Middle East history, with emphasis on the 19th and 20th centuries. The European impact on and relationships with the Middle East are stressed. LEC.

HIST 949. Seminar in Modern Russian History. 3 Hours.
A focus on major problems of historical interpretation and research investigation from Peter the Great to the present. LEC.

HIST 950. Seminar in Latin American History. 3 Hours.
A research seminar focused on a major theme or problem in Latin American history. LEC.

HIST 951. Seminar in Latin American Revolutions. 3 Hours.
This seminar focuses on sweeping socio-political upheavals such as occurred in Mexico in 1910, Guatemala in 1944, Bolivia in 1952, Cuba in 1959, and Nicaragua in 1979. After considering various sociological and political theories of revolution the seminar searches for an understanding of the basic reasons for revolutions in the countries mentioned (and failure of revolutionary efforts elsewhere) and possible common characteristics of the Latin American revolutionary process. LEC.

HIST 952. Seminar in Ideology, Violence and Social Change in Latin America. 3 Hours.
Research seminar focusing on the role of ideas and ideologies, values and cultural norms in the history of Latin America. Political action, including rebellions, movements and strikes by the masses and efforts toward social control by elites will also be a major theme. Finally the course will examine the meaning of "social change" for Latin America and when it can be said that "social change" actually occurs. LEC.

HIST 955. Seminar in East Asian History. 3 Hours.
A research seminar in East Asian history. Prerequisite: Open only to graduate students having a reading knowledge of at least one East Asian language. LEC.

HIST 962. Seminar in American History. 1-12 Hours.
A research and thesis seminar offered by several members of the Standing Field Committee in United States History. Students seeking advanced degrees in United States history will enroll in the seminar for theses and dissertation credit. May be repeated. LEC.
HIST 964. Seminar in American Colonial History. 3 Hours.
An intensive, research-oriented study of American history from the 1580s to the 1760s. The course will cover both British America and New France. May be repeated. LEC.

HIST 965. The American Revolutionary Experience. 3 Hours.
An intensive, research-oriented study of American history from 1760 to 1800. May be repeated. LEC.

HIST 971. Recent American History, 1920 to the Present. 3 Hours. LEC.

HIST 973. Seminar in United States Women’s History. 3 Hours.
This research seminar will focus on the history of women in the United States from the pre-contact period to the present. Students will research and write a paper using primary sources, and present those papers to the seminar for evaluation. (Same as AMS 973 and WGSS 873.) LEC.

HIST 974. Seminar in American History: ___. 3 Hours.
A research course focusing on selected topics in history. LEC.

HIST 975. Seminar in the History of United States Foreign Relations. 3 Hours.
An intensive study of United States foreign policy during a selected period. LEC.

HIST 980. Seminar in the Trans-Mississippi West. 1-5 Hours. LEC.

HIST 981. Seminar in Environment and History. 3 Hours.
An inquiry into major issues and methods in environmental history, viewed from both an American and modern world perspective. LEC.

HIST 982. Colloquium in the History of the American West. 3 Hours.
Study of issues and interpretations in the history of the American West from prehistory to the present, including attention to new approaches and techniques in research. LEC.

HIST 986. Seminar in Historiography of Science. 3 Hours.
Examines the various patterns of interpretation influencing current historiography of science: the substance and impact of "internalist" history, which deals with the evolution of scientific ideas; the diversity of "externalist" history, which stresses interaction between the scientist’s activity and social environment. Readings and discussions will assess intellectual, chronological, socio-economic, theological, philosophical, national, institutional and literary aesthetic influences on the history of science. LEC.

HIST 998. Portfolio Preparation. 1-6 Hours.
Writing and editing of materials in the student’s professional portfolio. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Permission of the instructor. RSH.

HIST 999. Doctoral Dissertation. 1-12 Hours.
An inquiry into the source material upon a specific subject. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Consent of instructor. THE.

Honors Program Courses

HNRS 177. First Year Seminar: ___. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Honors. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

HNRS 190. Freshman Honors Seminar. 1 Hour. U.
This seminar serves as an introduction to the Honors Program, to the research opportunities and other academic resources available at the University of Kansas and to specific disciplinary perspectives on an overarching theme. While closely examining a topic germane to the instructor, students develop skills in research, reading, writing and in-depth discussion. The instructor of the student’s seminar also serves as the academic honors advisor for the enrolled students. Required of all freshman Honors students; open only to freshmen in the University Honors Program. LEC.

HNRS 195. Transfer Honors Seminar. 1 Hour. U.
This seminar serves as an introduction to the Honors Program, and to the research opportunities and other academic resources available at the University of Kansas. This seminar is open only to transfer students in the University Honors Program. LEC.

HNRS 200. Honors Commons Course. 3 Hours. H.
An opportunity to investigate a broad topic across various subjects and disciplines. In the Honors Commons Core, this course examines a problem or topic from perspectives of several disciplines across the arts, sciences, social sciences and humanities. The course is complemented by a dedicated annual university lecture series germane to the course’s topic. Prerequisite: Membership in the University Honors Program. LEC.

HNRS 310. University Scholars Seminar. 3 Hours. U.
An interdisciplinary survey to acquaint students with some of the main ideas, methods, and outstanding problems in various areas of scholarship. The organization of human knowledge inside and outside the university, as well as the implications of this organization for scholarship and society, are emphasized. Ideas and methods in various disciplines are contrasted and compared. Required of and open only to newly admitted students in the University Scholars Program. LEC.

HNRS 320. Global Scholars Seminar. 3 Hours. H.
The Global Scholars Seminar is designed to foster academically talented and motivated undergraduate students’ interest in global studies. Through interdisciplinary coursework, mentorship and research experience in global studies, the seminar provides cohorts of students with opportunities to develop their intellectual capabilities and interests to the fullest and better prepares them for careers, further study, and leadership roles in today’s complex international arena. Required of and open only to newly admitted students in the Global Scholars Program. LEC.

HNRS 430. Honors Interdisciplinary Seminar. 3 Hours. U.
An opportunity to synthesize topic across various subjects and disciplines. This course examines a problem or topic from the perspectives of several disciplines. Open to qualified sophomores, juniors, and seniors in the University Honors Program. LEC.

HNRS 492. Topics and Problems on: ___. 1-6 Hours. U.
An interdisciplinary study of different topics. Designed especially for juniors and seniors. LEC.

HNRS 495. Honors Directed Study. 1-3 Hours. U.
Individual and supervised study of an interdisciplinary topic or topics. May be repeated for a total of up to 6 hours. Up to one 3-hour enrollment will count as one course toward completion of the University Honors Program. Prerequisite: Membership in the University Honors Program and consent of the instructor. IND.

HNRS 496. Honors Internship. 1-3 Hours. U.
Students participate in an internship in an organization related to their professional/career goals. An internship plan is developed by the student in conjunction with the student’s academic adviser and an authorized agent of the internship site. Prerequisite: Instructor permission required. LEC.
HNRS 497. Honors Freshman Seminar Assistantship. 0 Hours.
Open to all Honors students selected to be Honors Freshman Seminar Assistants, regardless of major field. These students assist Seminar instructors in the teaching of an Honors seminar in various ways, including but not limited to: leading group discussion; engaging students in the learning process; developing classroom material; encouraging and guiding students to solve problems themselves and helping students prepare for their advising assignments. Offered fall semester only. May be repeated. LEC.

HNRS 520. University Scholars Junior/Senior Seminar. 2-3 Hours. U.
An interdisciplinary seminar course designed for advanced-level students in the University Scholars Program. Faculty mentors are invited to attend. Will count toward completion of the University Honors Program. Prerequisite: HNRS 310 or concurrently. LEC.

Humanities Western Civ Courses

HWC 110. Introduction to Humanities. 3 Hours. HL GE21/GE3H / H.
An introduction to the humanities as a division of learning and to interdisciplinary study in the humanities. Topics include the history and role of the humanities in a liberal education, perspectives and methods in the humanities, the humanities and human diversity, and interdisciplinary approaches to understanding and interpreting texts. LEC.

HWC 111. Introduction to Humanities, Honors. 3 Hours. HL GE21/GE3H / H.
An introduction to the humanities as a division of learning and to interdisciplinary study in the humanities. Topics include the history and role of the humanities in a liberal education; perspectives and methods in the humanities; the humanities and human diversity; and interdisciplinary approaches to understanding and interpreting texts. Prerequisite: Membership in the University Honors Program. LEC.

HWC 114. Western Civilization I Honors. 3 Hours. AE42/GE11/GE21 / H.
A program of study emphasizing the reading and discussion of some of the influential writings and ideas that have shaped the intellectual and cultural heritage of the Western world. Western Civilization I includes readings from the ancient, medieval, and early modern periods. Prerequisite: Membership in the University Honors Program or permission of department. LEC.

HWC 115. Western Civilization II Honors. 3 Hours. AE42/GE11 / H.
A program of study emphasizing the reading and discussion of some of the influential writings and ideas that have shaped the intellectual and cultural heritage of the Western world. Western Civilization II includes readings from the modern period. Prerequisite: Membership in the University Honors Program or permission of department. LEC.

HWC 150. Civilizations and the Individual. 3 Hours. HL GE3H / H.
Introduction to perennial themes that define human experience through reading and discussion of primary texts. Topics may include the nature of humanity; nature and the supernatural; the individual and the state. LEC.

HWC 151. Civilizations and Individual, Honors. 3 Hours. HL GE3H / H.
Honors version of HWC 150. Introduction to perennial themes that define human experience through reading and discussion of primary texts. Topics may include the nature of humanity; nature and the supernatural; the individual and the state. Prerequisite: Membership in the University Honors Program, or permission of instructor LEC.

HWC 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Humanities and Western Civilization. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

HWC 204. Western Civilization I. 3 Hours. AE42/GE11/GE21 / H.
A program of study emphasizing the reading and discussion of some of the influential writings and ideas that have shaped the intellectual and cultural heritage of the Western world. Western Civilization I includes readings from the ancient, medieval, and early modern periods. Prerequisite: Not open to freshmen except members of the University Honors Program. LEC.

HWC 205. Western Civilization II. 3 Hours. AE42/GE11 / H.
A program of study emphasizing the reading and discussion of some of the influential writings and ideas that have shaped the intellectual and cultural heritage of the Western world. Western Civilization II includes readings from the modern period. LEC.

HWC 206. Contemporary Western Civilization. 3 Hours. HL GE11/GE3H / H.
A sequel to the two Western Civilization courses which offers the opportunity to examine influential works of literature, philosophy, history, and political thought written since the end of World War II. In keeping with the decline of colonialism and the growth of global and multicultural civilization since 1945, the readings of the course are selected from both Western and non-Western writers. LEC.

HWC 300. Studies In: ______. 3 Hours. H.
An interdisciplinary course, focusing on different topics and drawing on diverse media, cultures, and historical periods. Humanities-based, this course, depending on its topic, may include the arts, the social sciences, and the natural sciences. May be repeated for credit with different topics. LEC.

HWC 302. European Culture and Society 1945 to Present. 3 Hours. HT AE42 / H.
The course provides historical, cultural, and political overviews of Europe since 1945 with particular emphasis on the contribution of French and Italian culture and society. The course emphasizes Europe's contribution to Western intellectual thought, social movements, arts and literature, and global society. (Same as EURS 302.) LEC.

HWC 304. World Literature I. 3 Hours. HL GE3H / H.
The study of great books in English translation from antiquity through the fifteenth century from two or more national literatures. LEC.

HWC 308. World Literature II. 3 Hours. HL GE3H / H.
The study of great books in English translation from the sixteenth, seventeenth, eighteenth, and early nineteenth centuries from two or more national literatures. LEC.

HWC 312. World Literature III. 3 Hours. HL GE3H / H.
The study of great books in English translation in the modern period (late nineteenth and twentieth centuries) from two or more national literatures. LEC.

HWC 317. Greek and Roman Art. 3 Hours. H/W.
A survey of the art of ancient Greece and Rome (ca. 1000 B.C.E. -500 C.E.). Emphasis on major sites, architecture, sculpture, and painting. Illustrated lectures and discussion; use of the Wilcox Classical Museum. No knowledge of Greek or Latin is required. Not open to students who have taken both CLSX 526/HA526 and CLSX 527/HA 537, except with permission of the instructor. (Same as CLSX 317, HA 317.) LEC.

HWC 324. Undergraduate Writing & Research Methods. 1 Hour. H.
Preparation for senior thesis project required of HWC majors. Introduction to writing strategies, library investigation, and time management skills. Open to HWC majors and others engaged in research and writing at the undergraduate level. Class will proceed by discussion of skills, methods,
and examples, and will culminate in a written proposal from each student. LEC.

HWC 325. Theory and Method in Interdisciplinary Studies in the Humanities. 3 Hours. H.
An introduction to recent cultural theory and interdisciplinary methods used across the humanities and qualitative social sciences. Includes examination of traditional views of the humanities and its implicit cultures along with discussion of new methodologies of cultural analysis. LEC.

HWC 328. Law and the Legal Profession. 3 Hours. H.
An overview of Western Legal education, both in historical and modern contexts. Legal subjects such as constitutional law, contracts, property, the courts and ethics are also studied. Students gain perspective on law as a profession, and the legal environments in which we live. Note: this course does not guarantee admission to law school or constitute entry into the legal profession as a career. It is intended to provide information and help students identify interests in the field of legal study. LEC.

HWC 335. Introduction to Indigenous Studies. 3 Hours. NW / H.
This course is an introduction to the study of modern and historic indigenous peoples. It surveys the concepts, methods and content relevant to Indigenous Studies, using case studies drawn from the diverse indigenous cultures. Special attention is paid to the various ways in which standard academic disciplines --history, anthropology, literature, law, political science, among others--contribute to the study of Indigenous cultures and current issues. The course illustrates that the social, political, religious, and economic aspects of indigenous life are interconnected and tribal histories and cultures cannot be understood without an awareness of these fields. (Same as ISP 335.) LEC.

HWC 348. American Indian and White Relations to 1865. 3 Hours. H.
This course provides an intensive survey of the Indians of North America from Prehistory to 1865, and focuses on ancient indigenous cultures, early European-Indian relations and the impact of European culture upon the indigenous peoples of North America. (Same as HIST 351, ISP 348.) LEC.

HWC 350. American Indians Since 1865. 3 Hours. H.
This course examines American Indian/White relations from reconstruction to the present. It surveys the impact of westward expansion and cultural changes brought about by the Civil War, forced education, intermarriage, the Dawes Act, the New Deal, the World Wars, termination, relocation and stereotypical literature and movies. The class also addresses the Red Power and AIM movements, as well as indigenous efforts to decolonize and to recover and retain indigenous knowledge. After learning about the past from both Native and non-Native source materials, students will multiple perspectives about historical events and gain understandings of diverse world views, values, and responses to adversity. (Same as HIST 352 and ISP 350.) LEC.

HWC 370. The Twentieth Century. 3 Hours. H.
An integrated study of several disciplines such as history, philosophy, art, music, and literature as they relate to the twentieth century in one country, or one historical or aesthetic movement occurring during this time. LEC.

HWC 374. Gender and Sexuality, Ancient and Modern. 3 Hours. H.
Classical Greek and Roman attitudes to gender and sexuality compared and contrasted with modern nations and behaviors. Attention is paid to literature (dramatic, philosophical, medical, and legal texts) and archaeological evidence (vase painting, sculpture, and domestic architecture). The course may include the following topics: age divisions and rites of passage from childhood to maturity; marriage; conception, birth, and infanticide; the family; love; homoeroticism; property and economics; and sexuality and the law, politics, and religion. No knowledge of Greek or Latin is required. (Same as CLSX 374.) LEC.

HWC 380. Modern Themes, Ancient Models: ______. 3 Hours. H.
The study of the evolution of a cultural or literary tradition from the Graeco-Roman world into modern times. The theme of the course will normally vary from semester to semester; topics such as these may be examined: the analysis of a literary genre (e.g. drama, satire, lyric), the transformation of the ancient mythical heritage, the reception of ancient astronomy. Students should consult the Schedule of Classes for the theme of the course in a given semester. With departmental permission, may be repeated for credit as topic varies. (Same as CLSX 350.) LEC.

HWC 390. Comparative Literary Theory. 3 Hours. H.
A study of selected works in literary theory and of selected problems in literary interpretation and comparative literary methodology, designed to examine and apply systematically basic critical principles and approaches. Study of approaches such as feminism, Marxism, deconstruction, psychoanalysis, and cultural studies are carried out through discussion and writing. Prerequisite: Completion of the freshman-sophomore English requirement or its equivalent. LEC.

HWC 410. Dante’s Comedy. 3 Hours. H.
The complete Divine Comedy will be read in English translation, with equal stress on each of its three parts—the Inferno, the Purgatory, and the Paradise. The poem will be explained for the general reader by specialists having a variety of perspectives. (Same as HIST 420.) LEC.

HWC 420. The Interrelations of the Humanities and the Arts. 3 Hours. H.
An interdisciplinary seminar on the relations of several of the humanities and the arts. Topics will vary, but the interrelation of the humanities and arts will be the central focus. Not open to freshmen and sophomores; recommended in the junior year. Required of students majoring in humanities. LEC.

HWC 424. Senior Seminar in Humanities. 3 Hours. AE61 / H.
A seminar to result in the student’s integration of knowledge within the Humanities major. Students undertake a project that reflects and utilizes the interdisciplinary perspectives of the humanities. Options for the final project include a portfolio, web page, or significant writing project. Not open to freshmen and sophomores; recommended in the senior year. Prerequisite: Completion of at least 9 hours of upper division courses in the major. IND.

HWC 430. European Civilization in World Context: ______. 3 Hours. HL AE42/GE3H / H.
An introduction to the literature of encounters between European and non-European civilizations, drawing on both Western and non-Western sources. The course may include European interactions with areas such as the Mediterranean Basin, Sub-saharan Africa, South and East Asia, and the Americas. World areas and historical periods chosen for study will vary from semester to semester according to the interest and field of the instructor. Not open to freshmen. (Same as EURS 430.) Prerequisite: HWC 114 or HWC 204 and HWC 115 or HWC 205. LEC.

HWC 435. Islam in Europe. 3 Hours. AE42 / H.
Investigation of Muslim migration into Europe and day-to-day interactions of Muslims with other European populations. This is an integrated study of historical, political, religious and economic influences that determine Muslim experience in contemporary European culture. (Same as EURS 435.) LEC.

HWC 436. Islam in Europe, Honors. 3 Hours. H.
Investigation of Muslim migration into Europe and day-to-day interactions of Muslims with other European populations. This is an integrated study of historical, political, religious and economic influences that determine Muslim experience in contemporary European culture. Prerequisite: Membership in the University Honors Program or permission
HWC 460. Animals in Art and Literature. 3 Hours. H.
A study of the role of animals (especially mammals), both wild and domesticated, in defining the nature of human beings and human culture through the disciplines of religious studies, philosophy, history, art and literature. Both western and non-western courses are examined. LEC.

HWC 464. Visions in Art and Literature. 3 Hours. H.
A study of the phenomenon of visions, their expression in various media, and theories of visionary experience from the humanities and social sciences, with a particular emphasis on critically evaluating the relationship between the visionary experience and its expression. (Same as REL 464). LEC.

HWC 468. Illness in Art and Literature. 3 Hours. H.
An examination of how illness and health have been conceptualized, expressed, and explored in Western literature and art, as well as a consideration of issues and health from the perspectives of philosophy and religious studies. (Same as REL 468). LEC.

HWC 470. American Health Care: From Origins to Modern Models. 3 Hours. H.
An interdisciplinary analysis of the historical origins and present currents within American medicine. This is an integrated study of basic historical, political, economic and professional influences that underlie the character and practice of health care in our century. LEC.

HWC 477. Gender and Religion. 3 Hours. H.
Examination of the symbols, images, scriptures, rites and teachings that define gender in various religious traditions. (Same as REL 477.) LEC.

HWC 490. Roots of Federal Indian Policy. 3 Hours. H.
This course introduces students to the basic concepts and ideologies of US Federal Indian policy. It surveys European intellectual trends that were influential in creating policies applied to colonized native peoples. The course explores the origins of such policies, including removals, “civilization programs,” the reservation period, the Dawes (Allotment) Act, the New deal, termination, relocation, NAGPRA and tribal rights, in addition to issues surrounding American Indian identity, tribal membership and demographics. This course serves as a foundation for more in-depth study of Federal Indian Law pertinent to the Indigenous peoples of the United States. (Same as ISP 490.) LEC.

HWC 494. Humanities Directed Study: _____, 1-3 Hours. AE61 / H.
Investigation of a subject in fields or on topics not covered in regularly scheduled courses. May be repeated for a total of 6 hours. Does not replace or satisfy specific course requirements for the HWC major. May be counted as part of the total junior-senior credit hours required. LEC.

HWC 500. Studies in: ______, 3 Hours. H.
A study of significant themes, topics, or problems in the humanities. May also relate an issue in the humanities to the social sciences or natural sciences. May be repeated for credit when the topic varies. LEC.

HWC 505. Europe Today. 3 Hours. AE42 / H.
An exploration of major social, political and economic developments post World War II including the rise of the European Union, the integration of Eastern and Western Europe, the growing role of Islam, attitudes towards the United States, and Europe’s role in the world economy. Topics may vary based on current events. LEC.

HWC 510. Science, Technology, and Society. 2-3 Hours. H.
The objective of this course is to provide members of the university community with information that enables them to judge the humanistic, moral, and ethical implications of scientific and technological developments. Formal presentations by guest lecturers, followed by question-and-answer periods, will alternate with panel discussions, symposia, etc., prepared by faculty members drawn from the various departments, schools, and organizational units of K.U. LEC.

HWC 514. Totalitarianism and Literature in Central Europe. 3 Hours. H.
This course asks how fiction written in Central Europe engaged and grappled with the totalitarian experience imposed by Nazi and Soviet forms of government. The course focuses on the works by 20th-century Polish, Czech, and Hungarian writers that deal with totalitarianism. (Same as SLAV 514.) LEC.

HWC 520. Literature in Translation: ______ 3 Hours. H.
Studies in one or more national literatures. Discussion and frequent critical papers. Prerequisite: Completion of one junior-senior level course in a language and literature department. LEC.

HWC 524. Chinese Thought. 3 Hours. NW / H/W.
A survey of the principal modes of Chinese thought from their origins through the imperial period. Not open to students with credit in EALC 132. (Same as EALC 642 and PHIL 506.) Prerequisite: Eastern civilization course or a course in Asian history or a distribution course in philosophy. LEC.

HWC 530. Study of a Culture: ______, 3 Hours. H/W.
An interdisciplinary study of elements that have contributed to the development of a particular civilization, such as Irish, Scottish, or Scandinavian. LEC.

HWC 538. Pompeii and Herculaneum. 3 Hours. H.
An interdisciplinary treatment of the art and archaeology of the ancient Roman cities of Pompeii and Herculaneum in Italy. Emphasis on the structures and decorations of major public spaces and houses and on aspects of cultural, social, political, commercial and religious life from the period of the second century B.C.E. to 79 C.E.; when Pompeii and Herculaneum were buried by the eruption of Mt. Vesuvius. Slide lectures and discussion. (Same as CLSX 538, HA 538) Prerequisite: Graduate status, or 6 credit hours in Classics, Greek, Latin, History of Art, or permission of the instructor. LEC.

HWC 540. Translation. 3 Hours. H.
Students will undertake substantial work in the translation of technical writing, e.g., poems, short stories, novels, essays, from any foreign language to English, and examine the practical and theoretical problems encountered in or raised by translation. Prerequisite: Satisfactory completion of at least third-year foreign language work. LEC.

HWC 552. Foodways: Latin America. 3 Hours. H.
This course explores the traditional foods, ways of eating, and cultural significance of food among peoples of Latin America. The course surveys the vast array of flora in Central and South America and the Caribbean, and focuses on issues of environmental protection, bioethics, food security, and the growth of farming and ranching. The class studies the impact that foods such as maize, potatoes and cacao have had globally, and includes African, Asian, and European influences on Latin cuisine, as well as health problems associated with dietary changes. (Same as HIST 512, ISP 552, and LAA 552.) Prerequisite: Upper division course on Latin America, or permission of the instructor. LEC.

HWC 566. The Devil in Russian Literature. 3 Hours. H.
This course traces the various manifestations of the Devil through Russian and European folklore, myth, theology, culture, and literature. Although the focus is on Russian literature, classic European works are discussed, as they had a powerful impact on the modern Russian conception of the Evil One. Readings in English. (Same as SLAV 566.) LEC.
HWC 570. Men and Masculinities. 3 Hours. H.
An intensive examination of the history and theory of masculinities in the Western world. Students become acquainted with some of the key theories of men and masculinities, and develop research projects on a topic negotiated with the instructor. (Same as HIST 625, WGSS 575.) Prerequisite: An upper-division course in History, Humanities and Western Civilization, or Women Gender and Sexuality Studies; or permission of instructor. LEC.

HWC 575. The Body, Self and Society. 3 Hours. H.
An intensive examination of the role of the human body in the creation of personal and social identities in the Western world. Students become acquainted with contemporary theories of embodiment and senses as they are applied to a variety of historical themes, and develop research projects on a topic negotiated with the instructor. (Same as HIST 625, WGSS 575.) Prerequisite: An upper-division course in History, Humanities and Western Civilization, or Women Gender and Sexuality Studies; or permission of instructor. LEC.

HWC 600. Biography of a City: _____ . 3 Hours. AE42 / H/W.
Examination in depth of the historical, social, and artistic growth and development of one major urban center. LEC.

HWC 620. Study of a Culture: _____ . 3 Hours. H/W.
An interdisciplinary study of elements that have contributed to the development of a particular civilization, such as Irish, Scottish, or Scandinavian. LEC.

HWC 770. Research in Men and Masculinities. 3 Hours.
An intensive examination of the history and theory of masculinities in the Western World since the sixteenth century. Students will become acquainted with some of the key theories of men and masculinities, examine in depth the interplay between manhood and modernity, and develop research projects on a topic negotiated with the instructor. May be repeated if content varies sufficiently. LEC.

HWC 775. Advanced Study in the Body and Senses. 3 Hours.
An intensive examination of the role of the human body in the creation of personal and social identities in the West since the sixteenth century. Emphasis is on understanding how contemporary theories of embodiment are applied to concrete historical or contemporary problems. May be repeated if course content varies sufficiently. LEC.

PCS 120. Introduction to Peace and Conflict Studies. 3 Hours. HT GE11/GE3H / H.
An introduction to the content and methods of peace studies. Peace studies is a multidisciplinary and interdisciplinary approach to the study of war and peace. Building on and integrating the work of various fields of study, the course examines the causes of structural and direct violence within and among societies and the diverse ways in which humans have sought peace, from conquest and balance of power to international organizations and nonviolent strategies. LEC.

PCS 121. Introduction to Peace and Conflict Studies, Honors. 3 Hours. H.
An introduction to the content and methods of peace studies. Peace studies is a multidisciplinary and interdisciplinary approach to the study of war and peace. Building on and integrating the work of various fields of study, the course examines the causes of structural and direct violence within and among societies and the diverse ways in which humans have sought peace, from conquest and balance of power to international organizations and nonviolent strategies. Open only to students admitted to the University Honors Program or by permission of instructor. Not open to students who have completed PCS 120. LEC.

PCS 292. History of War and Peace. 3 Hours. HL / H.
A study of the changing nature of warfare and the struggle to bring about peace. Topics include pacifism, the "military revolution" that created the first professional armies; the development of diplomatic immunity, truces, and international law; the peace settlements of Westphalia, Utrecht, Vienna, Versailles, San Francisco; the creation of peace movements and peace prizes; the evolution of total war, civil war; and guerrilla warfare involving civilians in the twentieth century; the history of the League of Nations and United Nations; and the rise of intergovernmental and non-governmental organizations. (Same as HIST 329 and EURS 329.) LEC.

PCS 550. Classics of Peace Literature. 3 Hours. HL AE51/AE61 / H.
A study of influential proposals for world peace from Erasmus’ The Complaint of Peace (1515) to the 1995 Hague Appeal for World Peace. Selected writings by such authors as Erasmus, Hugo Grotius, Jean-Jacques Rousseau, Immanuel Kant, Henry Thoreau, Henri Dunant, Berthe von Suttner, Woodrow Wilson, Mahatma Gandhi, and Martin Luther King, Jr., are considered. (Same as EURS 550.) Prerequisite: HWC 204 or HWC 205. LEC.

PCS 555. Topics in Peace and Conflict Studies: _____ . 3 Hours. H.
This course offers specialized or interdisciplinary perspectives on historical, political, social, and religious movements, institutions, societies, agencies, or texts dealing with conflict resolution. May be repeated for credit with different topics. LEC.

PCS 556. Education for Peace and Non-Violence. 3 Hours. H.
This course reviews the history, aims and methodology of peace education. Topics include examination of the roots and causes of social violence; educational initiatives that seek to reduce structural and direct violence; and teaching methodologies in the field of multicultural education and pedagogy. LEC.

PCS 560. Directed Study in Peace and Conflict Studies. 1-3 Hours. AE61 / H.
PRACTICUM or research under the supervision of a faculty member and with the approval of the Peace and Conflict Studies Minor. Individual conferences, reports, and papers, and, in the case of practicum, supervised experience with an approved organization or agency. Prerequisite: Completion of three core courses in the minor. IND.

PCS 565. The Literature of Human Rights. 3 Hours. H.
Examines in literature, art, and film from about 1800 to the present, both sides of the ongoing debate surrounding the idea that all human persons possess inalienable rights because all persons possess intrinsic value as persons, value independent of race, gender, caste or class, wealth, age, sexual preference, etc. Anti- and pro-rights proponents are paired and studied with equal care. (Same as EURS 565.) LEC.

PCS 650. Senior Seminar in Peace and Conflict Studies. 3 Hours. AE61 / H.
This capstone seminar provides a sustained and in-depth study of a particular topic in Peace and Conflict Studies, to be chosen by the instructor. Each student is required to carry out a substantive research project to produce a term paper or comparable work. Required for completion of minor. Prerequisite: Students must have completed at least nine hours in the minor before enrolling. LEC.

PCS 760. Investigation and Conference in Peace and Conflict Studies. 3 Hours.
Research under the supervision of a faculty member and approved for the Peace and Conflict Studies program. Individual conferences, reports, and papers; may be combined with classwork. Open only to graduate students. LEC.
PCS 801. Peace and Conflict Studies: Texts and Methods. 3 Hours.
An interdisciplinary study of the historic literature on human conflict and peacemaking and the methods used to analyze and interpret the literature. Peace literature encompasses a range of genres that include religious teachings, philosophical essays, political proposals, treaties and conventions, fiction, poetry, and drama. Approaches to solutions to human conflict cover a spectrum including political revolution, diplomacy and treaties, international law and organizations, and world government. Students produce a substantial graduate-level research project. PCS 801 is required for the Graduate Certificate in Peace Conflict Studies, and to be taken as early as possible in the students program of study. Open only to graduate students. LEC.

PCS 850. Peace and Conflict Studies Research Seminar. 3 Hours.
The capstone of the Graduate Certificate program, providing a sustained and in-depth study of a particular topic in Peace Conflict Studies, to be chosen by the instructor. The members of the seminar have the option of doing a research project or supervised practicum resulting in a substantial paper that integrates their work in the program. Required for the Graduate Certificate and open only to graduate students. Prerequisite: At least six hours of course work toward the Graduate Certificate including PCS 801. SEM.

Information Processing Studies Courses
IPS 101. Elements of the Theory of Computation. 3 Hours. NM / N.
An introduction to the theoretical areas of computer science and their applications. Emphasis will be placed on the methods and standards by which computer science makes judgments and on what computers can and cannot accomplish. Among major topics covered are: how to read and to implement algorithms; what is memory and how much of it is required for various tasks; why computers cannot multiply; how finite-state machines compute; applications of finite-state machines to programming; recognizing languages; formal grammars. "Can machines think?" and other contemporary topics in the philosophy of computer science will be covered as time permits. Prerequisite: MATH 101 or MATH 104. LEC.

IPS 302. Journey Through Genius, Honors. 3 Hours. N.
The course explores some of the most significant and enduring ideas in mathematics: the great theorems, discoveries of beauty and insight that stand today as monuments to the human intellect. Emphasis will be placed on the methods and standards by which mathematics makes judgments. Among the major topics covered are: Euclid and the infinitude of primes, Archimedes determination of circular area, Cardano and the solution of the cubic, the Bernoullis and the harmonic series, a sample of Euler’s number theory, Cantor and the transfinite realm. Along with the essential mathematics, the humanity of these great mathematicians is captured. Prerequisite: Membership in the University Honors Program, high school algebra and geometry, and permission of the instructor. LEC.

IPS 400. Topics in the Theory of Computing, 1-3 Hours.
This course is designated to allow students to do further readings in the theory of computing beyond the material presented in IPS 101. Topics, scope, and meeting times to be arranged for the individual student. Prerequisite: IPS 101 and consent of instructor. LEC.

Liberal Arts Sciences Courses
LA&S 101. Learning Communities Seminar in: ____. 1-2 Hours. U.
This course is designed to expand student’s knowledge of the University community by exploring an academic theme and the connections between courses. Through the study of different topics students explore the inherent relationships among fields of study. Designed especially for freshmen and sophomores. Enrollment is limited to students participating in designated learning community. Concurrent enrollment in specified learning community courses is required. May be repeated for credit up to 4 hours if topic varies. SEM.

LA&S 110. Cherokee Language I. 5 Hours. U.
Emphasizes the vocabulary of and fundamentals of reading and writing the Cherokee language. Students will have an opportunity to learn the language, beliefs, and religious practices of the Cherokee. Taught at Haskell Indian Nations University. LEC.

LA&S 120. Cherokee Language II. 5 Hours. U.
Continuation of Cherokee Language I. Includes an intermediate level of vocabulary skill with increased emphasis on reading and writing. Taught at Haskell Indian Nations University. Prerequisite: LAS 110. LEC.

LA&S 160. Dean’s Scholars Program Seminar. 0.5-3 Hours. U.
An enhancement of communication, time management, and leadership skills. The students will explore resources and determine goals pertinent to their objectives regarding graduate school. Restricted to students in the Dean’s Scholars Program. LEC.

LA&S 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in liberal arts and sciences. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

LA&S 200. Topics at HINU: ____. 1-6 Hours. U.
Special topics at the undergraduate level. Taught at Haskell Indian Nations University. Special permission from the Provost’s Office required. LEC.

LA&S 202. History of North American Indian Tribes. 3 Hours. NW / H.
Introductory survey of the origin, evolution, and distribution of Indians throughout North America, location of tribes in historic times, their relationships to one another, and their responses to white penetration of the continent. Emphasis on American Indian leadership and major contributions of American Indian people to American society. Taught at Haskell Indian Nations University. LEC.

LA&S 204. Contemporary Issues of the American Indian. 3 Hours. H.
An overview of current and historical issues which have resulted in policies and regulations affecting American Indians and Alaska Natives. The issues include: education, treaties, sovereignty and self-determination, religions, natural resources, legislation, jurisdiction, reservation and/or urban status, federal trust relationship, tribal economics and enterprises, American Indian policy, federal recognition, and current issues both regional and local. Taught at Haskell Indian Nations University. LEC.

LA&S 206. Indian Law and Legislation. 3 Hours. S.
An introduction and general overview of federal Indian law and processes and its relationship to tribal governments. Focus will be on sovereignty and its relationship to the internal and domestic laws of the United States government, tribal governments, and the international community. Taught at Haskell Indian Nations University. LEC.

LA&S 208. Tribal/Federal Government Relations. 3 Hours. S.
An introductory study of the special relationship that exists between the federal government and tribal governments. Included will be a general overview of specific programs, laws, and court decisions that address the unique relationship that exists between two sovereign nations; the United States Government and tribal governments. Taught at Haskell Indian Nations University. LEC.

LA&S 210. Tribal Resources and Economic Development. 3 Hours. S.
Inventory and identify the resources currently available to tribal governments to include natural and human resources and those financial resources available to tribal governments from federal, state, and
private resources. Included will be an economic analysis on how to best optimize available resources while recognizing the economic concept of constrained maximization. Taught at Haskell Indian Nations University. LEC.

LA&S 212. Chemical Dependency and the Native American. 3 Hours.
Examines the continuum of chemical abuse and dependency and the emotional, physical, intellectual, and spiritual effects of addictions on individuals, families, and communities. In addition, treatment approaches and relapse prevention efforts are discussed. Special emphasis is placed on integrating Native American understandings and responses to chemical addictions. Taught at Haskell Indian Nations University. LEC.

LA&S 220. Cherokee Language III. 5 Hours. U.
Continuation of Cherokee language II. Taught at Haskell Indian Nations University. Prerequisite: LAS 120. LEC.

LA&S 240. Cherokee Language IV. 5 Hours. U.
This course is a continuation of LAS 230, Cherokee Language III, and includes the study of grammar, with particular attention to speaking fluency and continued practice in reading and writing. Taught at Haskell Indian Nations University. Prerequisite: LAS 230. LEC.

LA&S 250. Western Civilization I. 3 Hours. H.
The beliefs and values of Western civilization from the eighth century BC to the close of the eighteenth century are compared with the ideas central to American Indian cultural traditions. Fulfills the Western Civilization I requirement for CLAS. Taught at Haskell Indian Nations University. LEC.

LA&S 252. Western Civilization II. 3 Hours. H.
The beliefs and values of Western Civilization since the close of the eighteenth century are compared with the ideas central to American Indian cultural traditions. Fulfills the Western Civilization II requirement for CLAS. Taught at Haskell Indian Nations University. LEC.

LA&S 290. Approaches to Teaching Science and Mathematics I. 1 Hour. U.
Science and Mathematics students explore teaching as a career by teaching lessons in elementary classrooms in order to obtain first hand experience planning and implementing inquiry-based curriculum. This course is open to any student who has completed or is concurrently enrolled in a science or mathematics course at KU. LEC.

LA&S 291. Approaches to Teaching Science and Mathematics II. 1 Hour. U.
Science and Mathematics students continue to explore secondary teaching as a possible career choice by teaching several lessons in a middle school classroom. The students build upon and practice lesson design skills that were developed in LAS 290, in which they taught in elementary classrooms. Prerequisite: LAS 290. LEC.

LA&S 292. Topics and Problems on: ____. 1-6 Hours. U.
An interdisciplinary study of different topics. Designed especially for freshmen and sophomores. LEC.

LA&S 301. Learning Communities Seminar in: ____. 1-2 Hours. U.
This course is designed to expand student’s knowledge of the University community by exploring an academic theme and the connections between courses. Through the study of different topics students will explore the inherent interdisciplinarity of fields of study. Designed especially for juniors and seniors. Enrollment is limited to students participating in designated learning community. Concurrent enrollment in specified learning community courses is required. May be repeated for credit up to 4 hours. LEC.

LA&S 340. Computers for the Classroom. 1-3 Hours. U.
"The Art and Science of Computer Presentation." An inter-disciplinary course designed to explore current technology in "Computer Presentations" (various equipment and programs), research the field of information processing, and develop applications for interactive multimedia communications. Not open to students who have received credit for LAS 740. Prerequisite: Consent of instructor. LEC.

LA&S 400. Teaching and Tutoring Writing. 3 Hours. U.
Students explore theories and strategies of teaching and tutoring writing across academic disciplines. They learn more about themselves as writers as they build a repertoire of writing techniques useful in their studies, in the workplace, and in their personal lives. By observing and consulting in the writing center, they understand how reflection leads to responsible/responsive and engaged practice. (Same as ENGL 400.) LEC.

LA&S 414. Ethnobiology. 5 Hours. N.
Integrates Native American traditional knowledge of ecology and biology with modern, western science. One purpose of the course is to preserve the unique knowledge and varied cultural traditions relating to the life sciences that are possessed by indigenous people. Taught at Haskell Indian Nations University. Prerequisite: BIOL 100 or BIOL 150. LEC.

LA&S 450. Topics at Haskell Indian Nations University: ____. 1-6 Hours.
Special topics at the junior/senior undergraduate level. Taught at Haskell Indian Nations University. Special permission from the Provost’s office required. LEC.

LA&S 490. Internship Exploration. 1-5 Hours. AE61 / U.
This course provides credit for supervised practical experiences in an occupational area of interest. In addition to the work-related activity, students complete reading and writing assignments, participate in an online discussion and create a final portfolio of internship accomplishments. Hours of credit recorded (1-5) are based on number of hours at internship site and agreement of instructor. Credit hours will be assigned a letter grade. Prerequisite: Consent of Instructor. LEC.

LA&S 492. Topics and Problems on: ____. 1-6 Hours. U.
An interdisciplinary study of different topics. Topics include Sanskrit. Designed especially for Juniors and Seniors. LEC.

LA&S 700. Writing Center Theory and Administration. 3 Hours.
This course explores theories motivating writing center administration and practice. Students will investigate the multiple functions of writing centers, from writing labs associated with college composition instruction, to decentralized resources for writing faculty teaching writing across the disciplines, to elementary, secondary, and community support centers for writers, to online consultation services. Students will choose a special interest or problem, and, from an administrative perspective, design a research study and propose actions such as creating policy, developing curricula, designing materials, or conducting assessments. (Same as ENGL 885.) Prerequisite: LAS 400, ENGL 400, or consent of instructor. LEC.

LA&S 710. Computer Assisted Language Learning. 1 Hour.
An introduction to the use of computer-based technologies in language learning and teaching. A project-based approach will combine discussions of current research with hands-on technical training. Prerequisite: Consent of instructor LEC.

LA&S 740. Computers for the Classroom. 1-3 Hours.
"The Art and Science of Computer Presentation." An inter-disciplinary course designed to explore current technology in "Computer Presentations" (various equipment and programs), research the field of information processing, and develop applications for interactive multi-
media communications. Not open to students who have received credit for LAS 340. Prerequisite: Consent of instructor. LEC.

LA&S 792. Topics in: ____. 1-3 Hours.
An interdisciplinary study of a variety of topics from the Liberal Arts and Sciences. Usually intended for graduate students, but may also be taken by qualified upper level undergraduates. May be repeated for credit when topic differs. LEC.

Latin American Caribbean Std Courses

KICH 110. Elementary Quichua I. 3 Hours. U.
An orientation to Ecuadorian Quichua language and culture for beginning students. Includes elements of grammar, conversation, and composition. Quichua (a.k.a. Kechwa, Quechua, Kecheua, Ketchua, Kichwa, Khetcheua, or Runa Ximi) in its various forms is an indigenous language spoken by over six million people in Ecuador, Peru and Bolivia combined. LEC.

KICH 114. Elementary Quichua II. 3 Hours. U.
Continuation of KICH 110. Prerequisite: KICH 110 or equivalent LEC.

KICH 230. Intermediate Quichua I. 3 Hours. U.
Continuation of KICH 114. Prerequisite: KICH 114 or equivalent. LEC.

KICH 234. Intermediate Quichua II. 3 Hours. U.
Continuation of KICH 230. Prerequisite: KICH 230 or equivalent. LEC.

KQKL 110. Elementary Kaqchikel Maya I. 3 Hours. U.
An orientation to Kaqchikel Maya language and culture for beginning students. Includes elements of grammar, conversation, and composition. Kaqchikel is the first language of approximately 500,000 people of highland Guatemala and one of roughly 30 Mayan languages. LEC.

KQKL 114. Elementary Kaqchikel Maya II. 3 Hours. U.
Continuation of KQKL 110. Prerequisite: Completion of KQKL 110 or equivalent. LEC.

KQKL 230. Intermediate Kaqchikel Maya I. 3 Hours. U.
Continuation of KQKL 114. Prerequisite: Completion of KQKL 114 or equivalent. LEC.

KQKL 234. Intermediate Kaqchikel Maya II. 3 Hours. U.
Continuation of KQKL 230. Prerequisite: Completion of KQKL 230 or equivalent LEC.

LAA 100. Latin American Culture and Society. 3 Hours. SC AE42 / S.
An introduction to the interdisciplinary study of Latin America, as manifest in the arts and literature, history, and in environmental, political, economic, and social realities. Explores and critiques the principal themes and methodologies of Latin American Studies, with an aim towards synthesizing contributions from several different disciplines. Emphasizes the unique insights and perspectives made possible by interdisciplinary collaboration and provides students with a basic knowledge base for understanding Latin America today. (Same as HIST 124.) LEC.

LAA 102. Orientation Seminar in Latin American and Caribbean Studies. 1 Hour. U.
LAA 102 is an online orientation seminar designed to introduce students to the Latin American and Caribbean Studies major at KU and help students place the major in the context of their overall undergraduate experience and career plans. The course provides students with introductory information about Latin America and the Caribbean and the nature of interdisciplinary inquiry, and an interdisciplinary major, and about resources available at KU and beyond for research and study related to the region. During the course, students also learn about typical careers pursued by Latin American and Caribbean Studies majors, reflect on their own educational and career goals, and determine whether the major matches those goals. Finally, the course provides students with information about requirements for the major, along with information about when required courses are offered and when they should be taken. LEC.

LAA 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Latin Area and Caribbean Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

LAA 300. Interdisciplinary Themes in Latin American Studies. 3 Hours. AE51 / U.
This course offers an in-depth examination of several key themes in Latin American Studies. Emphasis is placed on exploring the utility of interdisciplinary methods and on becoming familiar with the theoretical framework that underpins the field. Prior completion of LAA 100 recommended. LEC.

LAA 302. Topics in Latin American Area Studies: ____. 3 Hours. U.
Investigation of special topics on Latin America at the undergraduate level. LEC.

LAA 332. Language and Society in Latin America. 3 Hours. NW AE42 / S.
This course will examine the cultural and social significance of Amerindian languages in Latin America. Spanish and Portuguese will be related in language situations to Amerindian languages, such as Quechua, Aymara, the Mayan languages, Nahuatl, and Guarani. Some African-substratum Creole languages will be used to illustrate the multifaceted relations between language and ethnic group, sex, nation, geography, social class, context, and social interaction. LEC.

LAA 333. Language and Society in Latin America, Honors. 3 Hours. NW AE42 / S.
This course will examine the cultural and social significance of Amerindian languages in Latin America. Spanish and Portuguese will be related in language situations to Amerindian languages, such as Quechua, Aymara, the Mayan languages, Nahuatl, and Guarani. Some African-substratum Creole languages will be used to illustrate the multifaceted relations between language and ethnic group, sex, nation, geography, social class, context, and social interaction. Prerequisite: Membership in the University Honors Program. LEC.

LAA 334. Indigenous Traditions of Latin America. 3 Hours. NW AE42 / S.W.
A survey of the major indigenous traditions of Mesoamerica, the Andes, and lowland tropical Latin America. Coverage emphasizes how indigenous cultural traditions and societies have both continued and changed since the European Invasion and addresses such current issues as language rights, territorial rights, sovereignty, and state violence. Students enrolled in the 600-level section will be required to complete additional research and class leadership tasks. Not open to students who have taken LAA 634. (Same as ANTH 379.) LEC.

LAA 335. The Politics of Language in Latin America. 3 Hours. NW / S.
Although approximately 600 indigenous languages are spoken by 30 million people in Latin America, public life is conducted in Spanish. The class provides a comprehensive survey of language issues in Latin America by analyzing the situation of minority language groups, language rights, language policies, and language planning, as well as by considering the questions that arise regarding bilingual education, literacy, and the role of minority languages in educational systems. LEC.

LAA 402. Topics in Latin American Area Studies. 3 Hours. U.
Investigation of special topics on Latin America at the undergraduate level. LEC.
LAA 450. Capstone Course in Latin American Studies. 3 Hours. AE61 / U.
The interdisciplinary focus of this class allows students to connect what they have learned about major issues in the field of Latin American Studies with a thematic focus of the professor's choosing. By the end of the class and culminating their study of the field at KU, they will be able to discuss these issues from a variety of theoretical, methodological, and disciplinary perspectives as demonstrated in the portfolio of written work maintained throughout the semester. Prerequisite: Completion of 3 courses at the 300 level and above with Latin American content in the Humanities and 3 at the 300 level and above in the Social Sciences (that is, at least 18 credits toward the major); or permission of instructor. LEC.

LAA 499. Honors Course in Latin American Studies. 3 Hours. AE61 / H.
Intensive study and research under faculty direction. Open to students wishing to graduate with honors in Latin American Studies and having a grade point average of at least 3.5 in Latin American Studies and at least 3.25 overall. Requires an interdisciplinary project concerning a specific topic involving at least two disciplines. Must be directed by a faculty member in Latin American Studies, approved by the Center Associate Director, and defended before a committee of at least three faculty members. To earn departmental honors, a student must take the course for two semesters (with a minimum grade of B the first semester, and an A the second). LEC.

LAA 500. Directed Study in Latin American Area Studies. 1-3 Hours. AE61 / U.
Independent study and directed reading on special topics. IND.

LAA 501. Multilingualism and Multiculturalism in Latin America. 3 Hours. H.
Examines the sociolinguistic issues of multilingual countries in Latin America from an interdisciplinary perspective. Topics include but are not limited to linguistic inequality, the language of politics, language and education, urban and rural linguistic interaction, and indigenous and creole languages. Prerequisite: A liberal arts course with Latin American content. LEC.

LAA 503. Race, Gender, Ethnicity, and Nationalism in Latin America. 3 Hours. NW AE42 / H.
The development of cultural identity in Latin America is traced through the study of major narrative trends including Amerindian languages and the analysis of "indigenista" literature. The African substratum of Latin American culture and its relation to concepts such as "marvelous realism" is explored. The importance of "race," "gender," and "ethnicity" are investigated as tools to define national identity in Latin America. The influence of modernization, industrialization, and nationalistic and populist thought on their emergence of distinctive writing and themes is also assessed. Prerequisite: A liberal arts course with Latin American content. LEC.

LAA 504. Politics of Culture in Modern Latin America. 3 Hours. H.
This course explores the relationship between political development and cultural phenomena of Latin America from 1800 to the present, with special emphasis on gender, popular culture, and ideology. The influences of 20th-century ideologies and technology on cultural development in Latin America will also be examined. LEC.

LAA 505. U.S. Latino and Latin American Film and Literature. 3 Hours. H.
This course follows the development of U.S. Latino and Latin American cinema from its origins to the present and its relationship with literary discourse. U.S. Latino/Latin American cinema can be seen as a specific practice that cannot be reduced in all its manifestations to the institutional mode of production of the dominant Hollywood model. The course examines the creation of a national cinema that seems to be more dependent on a literary canon. Knowledge of Spanish is not required. LEC.

LAA 506. Race, Gender, Ethnicity, and Nationalism in Latin America, Honors. 3 Hours. NW AE42 / H.
The development of cultural identity in Latin America is traced through the study of major literary works of the nineteenth and twentieth centuries. The importance of "race," "gender," and "ethnicity" are explored as tools to define national identity in Latin America. The impact of modernization, industrialization, and nationalistic and populist thought on the emergence of distinctive writing and themes is also assessed. Prerequisite: Membership in the University Honors Program. LEC.

LAA 552. Foodways: Latin America. 3 Hours. H.
This course explores traditional foods, ways of eating, and cultural significance of food among peoples of Latin America. The course surveys the vast array of flora in Central and South America and the Caribbean, and focuses on issues of environmental protection, bioethics, food security, and the growth of farming and ranching. The class studies the impact that foods such as maize, potatoes and cacao have had globally, and includes African, Asian, and European influences on Latin cuisine, as well as health problems associated with dietary changes. (Same as HIST 512, HWC 552, and ISP 552.) Prerequisite: Upper division course on Latin America or permission of the instructor. LEC.

LAA 556. Indigenous Development in Latin America. 3 Hours. AE42 / S.
Surveys the history of the development enterprise since WWII, examines the marginalization and impoverishment of Latin America's indigenous peoples, and provides training to carry out projects for and with them to enhance their quality of life. Development is understood as not merely technological or economic, but also social, emotional, and educational. Students work in teams to design their own mock development project. A 3-credit non-obligatory companion course, Applied Anthropological Field School among the Ch'orti' Maya, will follow in the intersession after each version of this course. (Same as ANTH 561.) Prerequisite: ANTH 100, ANTH 108, ANTH 160 or LAA 100; or consent of instructor. LEC.

LAA 558. Multidisciplinary Field School in Partnership with the Chorti Maya. 3 Hours. S.
Teams of interdisciplinary students partner with the Chorti Maya of Guatemala and Honduras to share information and experiences. One third of the course consists of readings and 4-5 orientation sessions on campus, and two thirds entails two weeks in Central America. Examples of activities might include historical research, water testing and improvement, photography, art, music, tourism consultation, marketing of crafts, human rights advocacy, web design, computer training, and museum work, among others. There are no prerequisites, but students with a working knowledge of Spanish will receive preference for admission. (Same as ANTH 587.) LEC.

LAA 602. Topics in Latin American Studies: ______. 3 Hours. U.
Investigation of special topics on Latin America. LEC.

LAA 634. Indigenous Traditions of Latin America. 3 Hours. NW AE42 / S/W.
A survey of the major indigenous traditions of Mesoamerica, the Andes, and lowland tropical Latin America. Coverage emphasizes how indigenous cultural traditions and societies have both continued and changed since the European Invasion and addresses such current issues as language rights, territorial rights, sovereignty, and state violence. Students enrolled in the 600-level section will be required to complete additional research and class leadership tasks. Not open to students who have taken ANTH 379 or LAA 334. LEC.
LAA 665. Women, Health, and Healing in Latin America. 3 Hours. S.
This seminar uses a life-cycle approach to examine women’s health (physical, mental, and spiritual) and their roles as healers. Special consideration is given to the effects of development programs on well-being, access to health care, and changing roles for women as healers. Cases will be drawn from a variety of Latin American contexts. (Same as ANTH 665 and WGS 665.) Prerequisite: 6 hours coursework in Anthropology and/or Women’s Studies and/or Latin American Studies. LEC.

LAA 700. Introduction to Latin American Library Resources. 3 Hours.
A survey of bibliographic and reference sources for research on Latin America in the humanities and social sciences. Designed to prepare students for library research at the seminar, thesis, or dissertation level. Prerequisite: Junior standing, reading knowledge of Spanish or Portuguese. LEC.

LAA 701. Interdisciplinary Seminar in Latin American Culture and Problems. 3 Hours.
An interdisciplinary seminar incorporating significant and pertinent materials from the fields of anthropology, economics, geography, history, political science, sociology, and Spanish and Portuguese literature. Required of all graduate students enrolled in the Master of Arts program in Latin American Area Studies. Prerequisite: LAA 700 (may be taken simultaneously with LAA 701 if both courses offered during same semester). LEC.

LAA 703. Research Colloquium on Brazil. 3 Hours.
An interdisciplinary research seminar on historical and contemporary issues in Brazil, incorporating information and analysis from such fields as anthropology, economics, geography, history, political science, sociology, and Spanish and Portuguese literature and culture. Required for the Brazilian Graduate Certificate. Prerequisite: Recommended reading proficiency in Portuguese. LEC.

LAA 704. Research Colloquium on Central America and Mexico. 3 Hours.
An interdisciplinary research seminar on historical and contemporary issues in Central America and Mexico, incorporating information and analysis from such fields as anthropology, economics, geography, history, political science, sociology, and Spanish and Portuguese literature and culture. Required for the Central America Mexico Graduate Certificate. Prerequisite: Recommended reading proficiency in Spanish. LEC.

LAA 800. Investigation and Conference. 1-2 Hours.
Investigation and research of interdisciplinary topics in Latin American Studies. RSH.

LAA 899. Thesis/Non-Thesis. 1-6 Hours.
Prerequisite: Consent of instructor. THE.

Linguistics Courses

LING 105. Introductory Linguistics. 3 Hours. SC AE41/AE42/GE11/GE3S / S.
Introduction to the fundamentals of linguistics, with emphasis on the description of the sound system, grammatical structure and semantic structure of languages. The course includes a survey of language in culture and society, language change, computational linguistics and psycholinguistics, and introduces students to techniques of linguistic analysis in a variety of languages including English. Open only to students admitted to the University Honors Program or by consent of instructor. (Same as ANTH 107.) LEC.

LING 110. Language and Mind. 3 Hours. SI AE41/AE42/GE11/GE3S / S.
A study of the relation between language and the human mind, focusing on language as a fundamental aspect of human cognition. Topics include what is innate and what is learned during first and second language acquisition, how we process language, and whether there are areas of the brain specialized for language. LEC.

LING 111. Language and Mind, Honors. 3 Hours. SI AE41/AE42/GE11/GE3S / S.
A study of the relation between language and the human mind, focusing on language as a fundamental aspect of human cognition. Topics include what is innate and what is learned during first and second language acquisition, how we process language, and whether there are areas of the brain specialized for language. Open only to students admitted to the University Honors Program, or by consent of instructor. LEC.

LING 120. The Physics of Speech. 4 Hours. N.
An introduction to the acoustic structure of speech intended for nonscience majors. Emphasis will be placed on the methods and standards by which scientists measure and evaluate the physical characteristics of speech. Topics will include: simple harmonic motion, the propagation of sound waves, aerodynamic aspects of vocal fold vibration, resonance, digital speech processing, frequency analysis, and speech synthesis. Three class hours and one laboratory per week. (Same as SPLH 120.) Prerequisite: MATH 101 or 104 or equivalent. LEC.

LING 177. First Year Seminar: _____, 3 Hours. SC GE11.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in linguistics. May not contribute to major requirements in linguistics. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

LING 180. Study Abroad Topics in Linguistics: _____, 1-3 Hours. U.
This course is designed for the study of special topics in Linguistics. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

LING 300. Empirical Approaches to Languages. 3 Hours. S.
This course provides students with a current overview of experimental data and up-to-date theories addressing empirical approaches to the study of language. A hands-on approach is used to facilitate understanding variation in language comprehension and production, the biological bases of language, and the acquisition of first and second languages. LEC.

LING 305. Phonetics I. 3 Hours. S.
This course provides a basic introduction to the study of human speech sounds. Topics to be covered include anatomy and physiology of the speech production apparatus, transcription and production of the world’s sounds, basic acoustics, computerized methods for speech analysis, acoustic characteristics of speech sounds, stress, and intonation. A hands on laboratory project is part of the course. Prerequisite: An introductory course in Linguistics. LEC.

LING 307. Phonetics II. 3 Hours. AE61 / S.
This course is a continuation of Phonetics I (LING 305/705) and provides a more detailed survey of acoustic and auditory phonetics. Topics to be covered include vocal tract acoustics, quantal theory, speaker
normalization, theories of speech perception, prosody, the phonetics of second language acquisition, and the production and perception of cues to gender, talker, region, and socio-economic status. In addition, a number of laboratory projects are required. Prerequisite: LING 305. LEC.

LING 308. Linguistic Analysis. 3 Hours. GE11 / H.
Practice in applying the techniques of phonological, grammatical, and syntactic analysis learned in introductory linguistics to data taken from a variety of languages of different structural types. Prerequisite: LING 106. LEC.

LING 312. Introduction to Phonology. 3 Hours. S.
This is an introductory course in phonology. It focuses on crucial phonological concepts such as the underlying and surface representations, phoneme and allophone, contrast, alternation, neutralization, distinctive features, and the syllable. It provides the basic skill set for phonological analysis, including how to discover phonological patterns, select underlying representations, and write phonological rules to capture the patterns. Common phonological universals in the world’s languages will also be discussed. Prerequisite: LING 305. LEC.

LING 314. Phonological Theory I. 3 Hours. AE61 / S.
This is a survey course on modern phonological theory. It starts with the discussion of the conspiracy and duplication problems in rule-based phonology and works its way to Optimality Theory (OT). Topics in OT include its conceptual and empirical advantages over rule-based phonology, its potential problems and their possible remedies, the relevance of phonetics in OT constraints, correspondence theory, and how OT can be applied to prosodic phenomena such as stress and tone. It also focuses on theory-building in phonology, with discussions on the external motivations for phonological grammar, how to lay out the predictions of a theoretical proposal, and how phonological predictions can be empirically tested. Prerequisite: LING 312 or instructor consent. LEC.

LING 320. Language in Culture and Society. 3 Hours. SC AE41/AE61 / S.
Language is an integral part of culture and an essential means by which people carry out their social interactions with the members of their society. The course explores the role of language in everyday life of peoples in various parts of the world and the nature of the relationship between language and culture. Topics include world-view as reflected in language, formal vs. informal language, word taboo, and ethnography of speaking. (Same as ANTH 320.) LEC.

LING 321. Language in Culture and Society, Honors. 3 Hours. SC AE41/AE61 / S.
An honors section of LING 320 for students with superior academic records. Not open to students who have had ANTH 320 or LING 320. (Same as ANTH 321.) Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

LING 325. Syntax I. 3 Hours. H.
An introduction to generative syntax with special attention to theory and method. The course covers such topics as phrase structure, the lexicon, transformations and derivation. Prerequisite: LING 106. LEC.

LING 326. Syntax II. 3 Hours. AE61 / S.
An advanced course covering one or more current theories of syntax. The course provides in-depth reading and discussion on the major areas of syntactic theory including universal grammar, phrase structure theory; lexicon and argument structure; binding, control, locality conditions; constraints on representation and derivation; and the relation between syntax and the semantic module. Prerequisite: LING 325. LEC.

LING 327. Morphology. 3 Hours. S.
An exploration of several topics in word structure and formation. Covers three broad areas: traditional morphology, morpho-phonology, and morpho-syntax. Traditional morphology includes a survey of several kinds of word formation processes, the internal structure of words, morpheme types, inflection, paradigms, derivation, and compounding. Morpho-phonology deals with phonological constraints on morphological processes and prosodic morphology. Morpho- syntax concentrates on the syntactic properties of morphological phenomena and interaction of syntactic processes and morphology. The course has a strong emphasis on cross-linguistic comparative morphology. Prerequisite: LING 312 and LING 325, or permission of instructor. LEC.

LING 331. Semantics. 3 Hours. S.
A study of meaning in natural language usage. Emphasis on referential semantics. Set theory, propositional and first-order logic, and intentional and modal logic as they relate to natural language sentences in a formalized language. Prerequisite: A course in syntax. LEC.

LING 338. Languages of the Jews. 3 Hours. H.
From the beginning, Jewish history and culture is closely tied to language, from Hebrew and Aramaic to the languages of diaspora such as Yiddish and Ladino. Focusing on issues of language in society, this course will survey the languages spoken by the Jews throughout their long history in diverse communities around the world. We will learn about Hebrew as a spoken and a sacred language, examine how Jewish languages are born and die, and discuss the resurrection of Modern Hebrew in the state of Israel. All readings are in English. No prior knowledge of languages or linguistics is required. (Same as JWSH 338.) LEC.

LING 339. Languages of the Jews, Honors. 3 Hours. H.
Honors version of LING 338 or JWSH 338, Languages of the Jews. (Same as JWSH 339.) Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

LING 340. Sociolinguistics. 3 Hours. S.
The formal features of language reflect a broad range of social factors, including age, context, culture, occupation, sex and social class. This course will introduce students to the ways social variables affect the forms of spoken and written language. Prerequisite: An introductory linguistics course or consent of instructor. LEC.

LING 343. Bilingualism. 3 Hours. S.
This course provides an introduction to bilingualism and bilingual education exploring the linguistic, sociolinguistic, and psycholinguistic aspects of bilingualism. We read about and discuss bilingualism in the world and in the U.S.; language maintenance and language loss; effects of languages in contact; bilingual acquisition; the cognitive advantages of bilingualism; and the processing of language in the multilingual mind. Students are guided in conducting a small research project on one of these areas, learning how to read scientific studies about bilingualism and developing an understanding of the relationship between primary research sources and the popular press. LEC.

LING 345. Language and Gender. 3 Hours. S.
This course explores the relationship between language use and gender. The course will specifically focus on how gender affects the ways we use spoken language as well as how we interpret the speech of others. Topics to be discussed will include the function of language in social relationships and language variation in different social contexts. LEC.

LING 350. Comparative and Historical Linguistics. 3 Hours. S.
Human language may be characterized as possessing flexibility, which causes languages to be different from one another in different degrees. This course explores the way languages undergo change in time (historical linguistics), and the ways two or more languages are similar
or different (comparative linguistics). The course teaches students how to establish whether languages are genetically related or belong to totally different language families. Prerequisite: An introductory course in linguistics. LEC.

LING 370. Introduction to the Languages of Africa. 3 Hours. NW AE42/GE3H / H/W.
A survey of the indigenous languages of Africa from a linguistic perspective, covering the main language families and their geographic distribution, and focusing on the features and structure of the more widely spoken and representative languages in each family (e.g. Fula, Hausa, Maninka, Swahili, Yoruba). (Same as AAAS 370.) LEC.

LING 415. Second Language Acquisition. 3 Hours. H.
Introduction to the study of second language acquisition: The application of theoretical linguistics to the description of the language that a learner acquires, and to the process of acquisition. Prerequisite: An introductory course in linguistics. LEC.

LING 416. Second Language Acquisition II. 3 Hours. AE61 / S.
This advanced course provides in-depth reading and discussion of several current topics including second language acquisition within a generative framework, processing approaches to second language acquisition, and the role of input and learnability principles in second language acquisition. Both theoretical and methodological issues are discussed. Prerequisite: LING 415 and LING 325; or permission of instructor. LEC.

LING 418. Introduction to Cognitive Science. 3 Hours. S.
Examines the data and methodologies of the disciplines that comprise Cognitive Science, an interdisciplinary approach to studying the mind and brain. Topics may include: consciousness, artificial intelligence, linguistics, education and instruction, neural networks, philosophy, psychology, anthropology, evolutionary theory, cognitive neuroscience, human-computer interaction, and robotics. (Same as PHIL 418, PSYC 418, and SPLH 418.) Prerequisite: Consent of instructor. LEC.

LING 420. Capstone: Research in Language Science. 3 Hours. AE61 / S.
This course provides a foundation for designing, conducting, and critically evaluating quantitative and qualitative research in the language sciences. Topics include formulating a research hypothesis, participant selection, ethical considerations, the scientific method, dependent and independent variables, data collection, descriptive and inferential statistics. Students apply their knowledge of linguistics to formulate a research hypothesis and design an experiment to evaluate this hypothesis. Prerequisite: LING 305, LING 312, LING 325, and either LING 415, LING 425, LING 435, or LING 438. LEC.

LING 421. Capstone: Typology-Unity and Diversity of Human Language. 3 Hours. H.
This course explores the similarities and differences among the worlds' languages. Students apply their knowledge of phonetics, phonology, morphology, and syntax in describing and analyzing phenomena from a number of languages. The typological perspective that students develop is applied to topics such as word order, morphological typology, case, lexical categories, and valency. In addition to lecture style instruction, students get hands on practice in collecting, transcribing, and analyzing data from different languages through face to face elicitation with native speakers. Prerequisite: LING 305, LING 312, and LING 325. LEC.

LING 425. First Language Acquisition. 3 Hours. S.
An introductory course in the acquisition of child language. The course will cover relevant historical studies of child language but will focus primarily on recent psycholinguistic approaches toward the description of the process by which a child acquires his native language. Phonological, syntactic, semantic, cognitive, pragmatic, sociolinguistic, and anthropological aspects of the acquisition process are covered. Prerequisite: An introductory course in linguistics. LEC.

LING 430. Linguistics in Anthropology. 3 Hours. S.
The study of language as a symbolic system. Exploration into the interrelatedness of linguistic systems, of nonlinguistic communicative systems, and of other cultural systems. (Same as ANTH 430.) LEC.

LING 435. Psycholinguistics. 3 Hours. S.
A detailed examination of issues in the processing of language. The course provides a survey of research and theory in psycholinguistics, reflecting the influence of linguistic theory and experimental psychology. Spoken and written language comprehension and language production processes are examined. Prerequisite: An introductory course in linguistics or permission of instructor. LEC.

LING 437. Topics in Psycholinguistics. 3 Hours. AE61 / S.
An in-depth examination of selected topics in psycholinguistics. Topics may include spoken language processing, written language processing, neurolinguistics, prosody, and syntactic processing. Prerequisite: LING 435 or consent of instructor. LEC.

LING 438. Neurolinguistics I. 3 Hours. S.
The course explores how language is represented and processed in the human brain. This includes a critical survey of the foundations and the current research in the cognitive neuroscience of language, focusing on the techniques of functional brain imaging (fMRI, PET, EEG, MEG, and related methods), and research on aphasia and other language disorders. This course also includes a component providing laboratory experience with brain imaging research on language. Prerequisite: At least one course in linguistics or permission of the instructor. LEC.

LING 440. Linguistic Data Processing. 3 Hours. H.
This course introduces the tools and techniques necessary to analyze fieldwork data, including research design, recording and elicitation techniques, computational data processing and analysis, and field ethics. The course also covers field recording and data analysis technology, along with methods of phonetic transcription, grammatical annotation and analysis of language context. Practice of techniques is provided via short studies of at least one language. Prerequisite: LING 305 or permission of instructor. LEC.

LING 441. Field Methods in Linguistic Description. 3 Hours. AE61 / H.
The elicitation and analysis of phonological, grammatical, and discourse data from a language consultant. In-depth research on one language. Techniques of research design, methods of phonetic transcription, grammatical annotation, and analysis of language context. Prerequisite: LING 305, LING 312, and LING 325 or permission of instructor. LEC.

LING 442. Neurolinguistics II. 3 Hours. S.
An in-depth discussion of the representation and processing of language from a cognitive neuroscience perspective. This course involves critical discussion of selected topics of current research interest in neurolinguistics. The course also includes a significant hands-on component, in which students receive training in research on the cognitive neuroscience of language by developing and implementing a new EEG study on an aspect of language, as well by completing as a series of mini-labs introducing neuroimaging methods and analyses. Prerequisite: LING 438 or permission of the instructor. LEC.

LING 447. North American Indian Languages. 3 Hours. AE41 / S.
This course introduces students to the indigenous languages of North America. Students critically examine the structures and status of these languages, which have greatly expanded our knowledge of human language and linguistic theory. Topics include the history and future of North American languages and indigenous speech communities, the history of the field of Americanist linguistics, as well as important linguistic
questions raised by phenomena from American languages in phonology, morphology, syntax, semantics, and historical linguistics. Prerequisite: An introductory course in linguistics. Not open to students enrolled in 747 LEC.

LING 451. Topics in Research in Acquisition and Processing: ____. 3 Hours. H.
This course is primarily intended for students actively engaged in linguistic research on language acquisition, language processing, and neurolinguistics. Students in this course present and discuss study design, methods, data analysis and interpretation of results for their research projects. Professional development topics such as CV development, applications for fellowships, grants and jobs, and the dissemination of research findings are also discussed. May be repeated. Prerequisite: Permission of instructor. LEC.

LING 470. Language and Society in Africa. 3 Hours. NW AE42/GE3H / H/W.
Examines issues and problems associated with language use in sub-Saharan Africa from a sociological perspective. Topics covered include an overview of the types of languages spoken on the continent: indigenous languages, colonial languages, pidgins and creoles, and Arabic as a religious language; problems associated with the politics of literacy and language planning; writing and standardization of indigenous languages; and the cultural and ideological dilemmas of language choice. (Same as AAAS 470.) Prerequisite: AAAS 103, AAAS 305, or LING 106; or consent of instructor. LEC.

LING 483. Computational Linguistics. 3 Hours. S.
A survey of computer-based approaches to the study of morphology and syntax. In addition to its relevance for basic linguistic research, computer-based syntactic analysis in the form of parsers and syntactic/string generators, provide model testers for the linguistic and analytical tools for the computer scientist concerned with language applications. When taught with LING 783, students at the 700 level will have different course requirements. Prerequisite: An introductory course in linguistics. LEC.

LING 490. Independent Study. 1-3 Hours. AE61 / U.
A special research project or directed readings in an area of linguistics not covered in other courses. No more than 3 hours of LING 490 may be applied toward the requirements for the major. Prerequisite: Consent of instructor. IND.

LING 491. Topics in Linguistics: ____. 1-3 Hours. H.
The content, prerequisites, and credits of this course will vary. May be repeated. IND.

LING 492. Topics in Linguistics: ____. 1-3 Hours. S.
The content, prerequisites, and credits of this course will vary. May be repeated. (Distribution credit given for two or three hours only.) Prerequisite: Consent of instructor. IND.

LING 496. Honors Essay in Linguistics. 1-3 Hours. AE61 / H.
Individual directed research and preparation of an essay on a linguistic topic. Prerequisite: A grade-point average of 3.5 in linguistics and 3.25 in all courses, and consent of the major adviser. IND.

LING 539. First Language Acquisition II. 3 Hours.
A second semester course in child language that explores the acquisition of morphology, syntax, and the ways in which morphology and syntax interact in linguistic theory and language development. Topics covered in the course include agreement, case, null subjects, question formation, pronoun binding, quantification, and control. Prerequisite: LING 325 or LING 425 or consent of instructor. LEC.

LING 543. Language and Culture in Arabic-Speaking Communities. 3 Hours. NW AE42/GE3H / H.
The course examines the links between structure, patterns of use, language choice, and language attitudes in the diglossic and bi-lingual Arabic-speaking communities. It also explores language as a reflector and creator of Arab culture (e.g., linguistic encoding of politeness, the role of tropes in Arabic rhetoric). The topics for discussion range from the micro-level language choice to the macro-level issues of national language policies and planning in the domain of government and education across the Arab world. (Same as AAAS 543) LEC.

LING 555. Native Mesoamerican Writing. 3 Hours. H.
An introduction to the Indigenous writing of Mesoamerica, primarily Epi-Olmec and Mayan hieroglyphic writing. The course will survey the languages of the cultures that originated writing in the New World, and demonstrate the methods being used to decipher Mesoamerican hieroglyphic writing. The connections between language, culture, and writing will be highlighted. Prerequisite: An introductory linguistics course. LEC.

LING 570. The Structure of Japanese. 3 Hours. H.
A detailed study of the phonological and grammatical structure of Japanese and the use of the language in social/cultural contexts. Primarily for students who want a linguistic knowledge of the language rather than a practical command of it. (Same as EALC 570.) LEC.

LING 572. The Structure of Chinese. 3 Hours. H.
A detailed study of the phonological and grammatical structure of Chinese and the interactions between language and culture. Depending on student interests, a unit on the pedagogy of teaching Chinese as a foreign language may also be included. Primarily for students who want a linguistic knowledge of the language rather than a practical command of it. (Same as EALC 572.) LEC.

LING 575. The Structure of: ____. 3 Hours. S.
A detailed study of a language, including its phonological, morphological, syntactic and semantic characteristics. The course provides students with a linguistic knowledge of the language rather than a practical command of it. Prerequisite: A course in linguistics. LEC.

LING 700. Introduction to Linguistic Science. 3 Hours.
An introduction to the theory and techniques of linguistic science for majors and others intending to do advanced work in linguistics and linguistic anthropology. Emphasis on the sound system, grammatical structure, and semantic structure of languages. Lectures and laboratory sessions. (Same as ANTH 725.) Not open to students who have taken ANTH/LING 106 or ANTH/LING 107. Prerequisite: Graduate standing. LEC.

LING 705. Phonetics I. 3 Hours.
This course provides a basic introduction to the study of human speech sounds. Topics to be covered include anatomy and physiology of the speech production apparatus, transcription and production of the world's sounds, basic acoustics, computerized methods for speech analysis, acoustic characteristics of speech sounds, stress, and intonation. A "hands on" laboratory project is part of the course. Prerequisite: LING 700 or equivalent course. LEC.

LING 706. Current Linguistic Anthropology. 3 Hours.
The fundamental issues, methods, and theories in contemporary linguistic anthropology. (Same as ANTH 706.) Prerequisite: Graduate standing or consent of the instructor. LEC.

LING 707. Phonetics II. 3 Hours.
This course is a continuation of Phonetics I (LING 705) and provides a more detailed survey of acoustic and auditory phonetics. Topics
to be covered include vocal tract acoustics, quantal theory, speaker normalization, theories of speech perception, prosody, the phonetics of second language acquisition, and the production and perception of cues to gender, talker, region, and socio-economic status. In addition, a number of laboratory projects will be required. Prerequisite: LING 705. LEC.

LING 708. Linguistic Analysis. 3 Hours.
Practice in applying the techniques of phonological, grammatical, and syntactic analysis learned in introductory linguistics to data taken from a variety of languages of different structural type. (Same as ANTH 736.) Prerequisite: An introductory course in linguistics. Not open to students who have taken LING 308. LEC.

LING 709. First Language Acquisition. 3 Hours.
Introduction to the study of language acquisition: the significant findings, the basic methodological procedures, and some of the more recent theoretical accounts. Not open to students who have taken LING 425. Prerequisite: LING 700 or equivalent course. LEC.

LING 712. Phonological Theory I. 3 Hours.
This is a survey course on modern phonological theory. It starts with the discussion of the conspiracy and duplication problems in rule-based phonology and works its way to Optimality Theory (OT). Topics in OT include its conceptual and empirical advantages over rule-based phonology, its potential problems and their possible remedies, the relevance of phonetics in OT constraints, correspondence theory, and how OT can be applied to prosodic phenomena such as stress and tone. It also focuses on theory-building in phonology, with discussions on the external motivations for phonological grammar, how to lay out the predictions of a theoretical proposal, and how phonological predictions can be empirically tested. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. Prerequisite: LING 705. LEC.

LING 714. Phonological Theory II. 3 Hours.
This is an advanced course on modern phonological theory. It discusses phonology as an interdisciplinary and experimental discipline and presents current development in both experimental techniques that shed light on speakers' phonological knowledge and the formal modeling of speakers' phonological grammar. Issues of learnability and how phonological acquisition can be modeled will also be touched upon. Prerequisite: LING 712. LEC.

LING 715. Linguistics and Second Language Acquisition. 3 Hours.
Introduction to the study of second language acquisition: The application of theoretical linguistics to the description of the language a learner acquires, and to the process of acquisition. Prerequisite: LING 700 or equivalent course. LEC.

LING 716. Second Language Acquisition II. 3 Hours.
This advanced course will provide in-depth reading and discussion of several current topics including second language acquisition within a generative framework, processing approaches to second language acquisition, and the role of input and learnability principles in second language acquisition. Both theoretical and methodological issues will be discussed. Prerequisite: LING 715; LING 725, which may be taken concurrently, or permission of instructor. LEC.

LING 720. Research Methods in Linguistics. 3 Hours.
This course provides a foundation for designing, conducting, and critically evaluating quantitative and qualitative research in the language sciences. Topics include formulating a research hypothesis, participant selection, ethical considerations, the scientific method, validity, reliability, data collection, dependent and independent variables, descriptive and inferential statistics. This course will serve students who are interested in the basics of research design and statistics for the study of language. Prerequisite: LING 700 or equivalent course. LEC.

LING 722. Linguistic Typology. 3 Hours. H.
Different languages use different linguistic mechanisms to encode meanings. This course surveys grammatical concepts and categories found in the world's languages including tense, aspect, mood, voice, person, and number as well as case relations such as nominative, accusative, ergative, and absolutive. Basic word order typology and discourse functions such as topic, focus, and cohesion are introduced. Examples will be drawn from a wide variety of languages to illustrate how the same concept may be encoded differently, i.e., morphologically, syntactically, or lexically, in different languages. Prerequisite: LING 700 or equivalent course. LEC.

LING 725. Syntax I. 3 Hours.
The basics of theoretical syntax, examining the principles of universal grammar. Topics include phrase structure, relations among syntactic constituents, and the nature of syntactic rules and lexical categories. Prerequisite: LING 700 or equivalent course. LEC.

LING 726. Syntax II. 3 Hours.
An advanced course covering one or more current theories of syntax. The course will provide in-depth reading and discussion on the major areas of syntactic theory including universal grammar, phrase structure theory, lexical projections of argument structure, binding, control, locality condition, constraints on representation, and the relation between syntax and the semantic module. Prerequisite: LING 725. LEC.

LING 727. Morphology. 3 Hours.
An exploration of several topics in word structure and formation. Covers three broad areas: traditional morphology, morpho-phonology, and morpho-syntax. Traditional morphology includes a survey of several kinds of word formation processes, the internal structure of words, morpheme types, inflection, paradigms, derivation, and compounding. Morpho-phonology deals with phonological constraints on morphological processes and prosodic morphology. Morpho syntax concentrates on the syntactic properties of morphological phenomena and interaction of syntactic processes and morphology. The course has a strong emphasis on cross-linguistic comparative morphology. Prerequisite: LING 712, LING 725, or permission of instructor. LEC.

LING 730. Linguistics in Anthropology. 3 Hours.
The study of language as it concerns anthropology. Language systems in relation to culture, language taxonomy, semantics, linguistic analysis as an ethnographic tool. (Same as ANTH 730.) LEC.

LING 731. Semantics. 3 Hours.
A study of meaning in natural language usage. Emphasis on referential semantics. Set theory, propositional and first-order logic, and intensional and modal logic as they relate to nature. Questions that arise in representing the meanings of natural language sentences in a formalized language. Prerequisite: LING 725. LEC.

LING 732. Discourse Analysis. 3 Hours.
This course focuses on linguistic frameworks for the analysis of discourse. Discourse is a linguistic system larger than the sentence (utterance), which connects and contextualizes speech and written text. This course focuses on current issues and theoretical frameworks in the analysis of discourse. Using oral and written data, students will examine how contexts influence and shape linguistic form. Topics covered include transcription systems, the structure and organization of different genres of language, and the performance of social actions, including stance-taking, framing, and the construction of identity. Students will also have an opportunity to perform discourse analytic research on the data of their
choice. (Same as ANTH 732.) Prerequisite: ANTH 706 or permission of the instructor. LEC.

LING 733. Language, Gender, and Sexuality. 3 Hours.
This course focuses on the complex relationship between language use and the social construction of gender and sexuality i.e. how language is used in the construction of gender and sexuality, and how gender and sexuality are performed and enacted through language. Examines theoretical notions of language, gender, and sexuality from linguistics, linguistic anthropology, and sociology. Among the topics covered are cross-cultural definitions of masculinity and femininity, construction of gendered and sexual identities through language use, language and power, ideologies, style, and performativity. The course will consider research on language, gender, and sexuality from a variety of cultures within the last 50 years. (Same as ANTH 733.) Prerequisite: ANTH 706 or permission of the instructor. LEC.

LING 734. Language Evolution. 3 Hours.
Human language demonstrates a level of complexity not found in the communicative systems of other species. This course focuses on the development of human language, so as to obtain a better understanding of the origin and development of human language. Questions addressed include: what features of language are distinct from other communicative system, when did human language originate, in what stages did human language evolve, and how does language relate to properties of the human brain and mind? Data from a variety of disciplines will be considered, including primatology, human development, cognition, evolutionary biology, archaeology, and linguistics. (Same as ANTH 734.) Prerequisite: ANTH 106 or LING 106 or ANTH 107 or LING 107 or ANTH 736 or LING 708 or ANTH 725. LEC.

LING 735. Psycholinguistics I. 3 Hours.
A detailed examination of issues in the processing of language. The course will provide a survey of research and theory in psycholinguistics, reflecting the influence of linguistic theory and experimental psychology. Spoken and written language comprehension and language production processes will be examined. (Same as PSYC 735.) LEC.

LING 737. Psycholinguistics II. 3 Hours.
An in-depth examination of selected topics in psycholinguistics. Topics may include spoken language processing, written language processing, neurolinguistics, prosody, and syntactic processing. (Same as PSYC 737.) Prerequisite: PSYC 735/LING 735 or consent of instructor. LEC.

LING 738. Neurolinguistics I. 3 Hours.
We will explore how language is represented and processed in the human brain. This will include a critical survey of the foundations and the newest state-of-the-art research in the cognitive neuroscience of language, focusing on the techniques of functional brain imaging (fMRI, PET, EEG, MEG, and related methods), and research on aphasia and other language disorders. This course will also include a laboratory component providing hands-on experience with brain imaging research on language. Prerequisite: LING 700 or equivalent course. LEC.

LING 739. First Language Acquisition II. 3 Hours.
A second semester course in child language which explores the acquisition of morphology, syntax and the ways in which morphology and syntax interact in linguistic theory and language development. Topics covered in the course include agreement, Case, null subjects, question formation, pronoun binding, quantification, and control. Prerequisite: LING 709 and LING 725 or permission of the instructor. LEC.

LING 740. Linguistic Data Processing. 3 Hours.
The tools and techniques necessary to analyze linguistic fieldwork data, including research design, recording and elicitation techniques, computational data processing and analysis, and field ethics. Techniques of research, field recording, and data analysis technology. Methods of phonetic transcription, grammatical annotation, and analysis of language context. Practice of techniques via short studies of at least one language. (Same as ANTH 740.) Prerequisite: LING 700 or permission of instructor. LEC.

LING 741. Field Methods in Linguistic Description. 3 Hours.
The elicitation and analysis of phonological, grammatical, and discourse data from a language consultant. In-depth research on one language. Techniques of research design, methods of phonetic transcription, grammatical annotation, and analysis of language context. (Same as ANTH 741.) Prerequisite: LING 705 or permission of instructor. LEC.

LING 742. Neurolinguistics II. 3 Hours.
An in-depth discussion of the representation and processing of language from a cognitive neuroscience perspective. This course involves critical discussion of selected topics of current research interest in neurolinguistics. The course also includes a significant hands-on component, in which students receive training in research on the cognitive neuroscience of language by developing and implementing a new EEG study on an aspect of language, as well as by completing a series of mini-labs introducing neuroimaging methods and analyses. Prerequisite: LING 738 or permission of the instructor. SEM.

LING 747. North American Indian Languages. 3 Hours.
This course introduces student to the indigenous languages of North America. Students will critically examine the structures and status of these languages, which have greatly expanded our knowledge of human language and linguistic theory. Topics include the history and future of North American languages and indigenous speech communities, the history of the field of Americanist linguistics, as well as important linguistic questions raised by phenomena from American languages in phonology, morphology, syntax, semantics, and historical linguistics. Prerequisite: An introductory course in linguistics. LEC.

LING 748. Language Contact. 3 Hours.
Theories and case studies of languages in contact. Areal and genetic linguistics, genesis of pidgins and creoles, multilingualism. Social, political, economic, and geographic factors in language change. (Same as ANTH 748.) Prerequisite: A course in Linguistics. LEC.

LING 749. Linguistics and Ethnolinguistics of China and Central Asia: _____. 3 Hours.
Selected topics in Linguistics and Linguistic Anthropology, focusing on dominant and/or minority languages of China, Central Asia, or a particular region of Central and Eastern Eurasia. Topics may include any subfield of linguistics, including language contact, typology, dialectology, and sociolinguistics. Topic for semester to be announced. (Same as ANTH 749.) Prerequisite: A course in Linguistics. LEC.

LING 782. Research Methods in Child Language. 3 Hours.
A survey of methods for studying phonological, morphological, syntactic, and semantic change during language development. Methods include: diary interpretation, language sample analysis, probe elicitation tasks, and clinical assessment. (Same as PSYC 782.) LEC.

LING 783. Computational Linguistics. 3 Hours.
A survey of computer-based approaches to the study of phonology, morphology, and syntax. In addition to its relevance for basic linguistic research, computer-based work on phonology is central to current research in speech analysis, speech synthesis, and the major artificial intelligence effort described as speech understanding. Computer-based morphological analysis is of theoretical interest to the linguist as well as a major component in content analysis, information retrieval, and other related application areas. Computer-based parsers and syntactic/string generators provide model testes for the linguist and analytical tools for
the computer scientist concerned with language applications. Prerequisite: An introductory linguistics course. LEC.

LING 791. Topics in Linguistics: _____, 1-3 Hours.
The content and prerequisites of this course will vary. May be repeated. Prerequisite: Consent of instructor. LEC.

LING 794. Proseminar, 3 Hours.
Introduction to the field of linguistics. Topics include research literature and research methods, thesis and grant writing, and ethics in linguistic research. Required for all first-year graduate students in linguistics. Graded on satisfactory/unsatisfactory basis. LEC.

LING 799. Proseminar in Child Language, 2 Hours.
A review and discussion of current issues in children's language acquisition. May be repeated for credit. Students are graded S/F. (Same as ABSC 797, PSYC 799 and SPLH 799.) (Formerly HDFL 797.) LEC.

LING 810. Seminar in Ethnolinguistics: _____, 2-3 Hours.
An advanced study of the relations between language and culture. Subject will vary each semester. Students may repeat the course more than once. (Same as ANTH 810.) LEC.

LING 822. Seminar on Acquisition of Language, 3 Hours.
An analysis of recent theoretical issues and research problems in the study of children's acquisition of language. Prerequisite: LING 709 or consent of instructor. LEC.

LING 850. Topics in Research in Experimental Linguistics: _____, 3 Hours.
This course is primarily for students actively engaged in experimental linguistic research. The course provides students with the opportunity to focus on their current research projects and involves critical analysis, presentation, and discussion of research design, methods, statistical analysis, and data interpretation. May be repeated. Prerequisite: An advanced course in Linguistics or permission of instructor. SEM.

LING 851. Research in Language Acquisition and Processing, 3 Hours.
This course is primarily intended for students actively engaged in linguistic research on language acquisition, language processing, and neurolinguistics. Students in this course present and discuss study design, methods, data analysis and interpretation of results for their research projects. Professional development topics such as CV development, applications for fellowships, grants and jobs, and the dissemination of research findings are also discussed. May be repeated. Prerequisite: Permission of instructor. SEM.

LING 852. Research in Field Linguistics, 3 Hours.
This course is intended for students who are conducting field work on syntax or morphology, typically of an understudied language. The course is structured around a set of topics (variable by semester) which each student will investigate in a particular language. The focus of the course is on data collection and analysis and students will present and discuss the results of their research projects. May be repeated. Prerequisite: Permission of instructor. SEM.

LING 860. Seminar in Second Language Acquisition, 3 Hours.
Analysis of recent theoretical and methodological issues in the study of second language acquisition. Prerequisite: LING 716 or permission of instructor. LEC.

LING 899. Master's Research Project, 1-3 Hours.
A course for students working on their M.A. Research Project. Normally to be taken during the semester in which the student is submitting the M.A. Research Project. Students must enroll for at least one credit hour. Up to three credits will count toward the minimum number of credits required for the M.A. degree in linguistics. RSH.

LING 910. Linguistic Seminar: _____, 1-3 Hours.
The content and prerequisites of this course will vary. May be repeated. LEC.

LING 947. Seminar in Amerindian Linguistics, 1-3 Hours.
The aim of the seminar is to provide opportunity for interaction among faculty and students sharing an interest in North American Native languages and linguistics. Activities include reading, discussion, and criticism of literature on Amerindian languages and linguistics, and reports on current research of the participants. May be repeated. Prerequisite: LING 747. LEC.

LING 980. Linguistics Field Work, 3-6 Hours.
Independent field work with an informant on a language not normally offered at the University of Kansas, or on a non-standard dialect of one of the more accessible languages. Student must show evidence (file slips for grammatical and phonological analysis, dictionary slips, etc.) of having done the required amount of work without necessarily being able to turn in a completed analysis. Normally for three credits; six credits would be available under certain circumstances such as intensive summer work on location away from the university. Graded on satisfactory/unsatisfactory basis. Prerequisite: LING 712 and LING 725. FLD.

LING 997. Ph.D. Examinations, 1-12 Hours.
A course for students writing answers to the preliminary Ph.D. examination and/or preparing to take the Oral Comprehensive Examination. Normally to be taken during the semester in which the student is submitting answers to the written preliminary examination. May be taken for a maximum of two semesters or twelve credits, whichever comes first. Does not count toward the minimum number of credits required for a graduate degree in linguistics. Graded satisfactory/unsatisfactory on the results of the examination. RSH.

LING 998. Independent Study, 1-12 Hours.
Prerequisite: Written consent of instructor. RSH.

LING 999. Doctoral Dissertation, 1-12 Hours.
THE.

Mathematics Courses

MATH 2. Intermediate Mathematics, 3 Hours. U.
Mathematics (primarily algebra) preparatory to MATH 101. Qualification: Two years of high school college preparatory mathematics, algebra and geometry, and a score of 16 or more on ACT mathematics; or a qualifying score on the mathematics placement test. MATH 002 is the lowest level mathematics course offered at the University of Kansas. Students not prepared for MATH 101 will be permitted to enroll in MATH 002. However, before enrolling in MATH 002, such students are encouraged to prepare by self-study or by completing a beginning algebra course in high school, community college, or correspondence study. LEC.

MATH 101. College Algebra, 3 Hours. GE12 / U.
Coordinate systems, functions and their graphs; linear, quadratic, general polynomial, rational, exponential, and logarithmic functions; equations and inequalities; linear and non-linear systems and matrices. Not open to students with credit in MATH 104. Prerequisite: MATH 002, or two years of high school algebra and a score of 22 or higher on ACT mathematics, or a qualifying score on the mathematics placement test. LEC.

MATH 103. Trigonometry, 2 Hours. U.
The circular functions and their applications. Not open to students with credit in MATH 104. May not be used to fulfill the College mathematics requirement. Prerequisite: MATH 101, or two years of high school algebra and a score of 26 or higher on enhanced ACT mathematics, or a qualifying score on the mathematics placement test. LEC.
MATH 104. Precalculus Mathematics. 5 Hours. GE12 / U.
An introduction to the elementary functions (polynomial, rational, exponential, logarithmic, and trigonometric) and their properties. Intended primarily for students intending to enroll in MATH 121. Open for only two hours credit for students with credit in MATH 101. Not open to students with credit in MATH 103. Prerequisite: MATH 002, or two years of high school algebra and a score of 22 or higher on ACT mathematics, or a qualifying score on the mathematics placement test. LEC.

MATH 105. Introduction to Topics in Mathematics. 3 Hours. GE12 / N.
This course has two purposes. First, to provide the student with some experience and insight into several areas of mathematics not normally covered in elementary courses. Typical topics which may be covered are number theory, geometries, introductory calculus, introductory probability and statistics. Second, to provide the student with some skill in handling abstract mathematical concepts. The material will develop dually the intuitive and axiomatic approach. A high degree of manipulative skill is not required for this course. Prerequisite: MATH 101 or MATH 104, or two years of high school algebra and a score of 26 or higher on ACT mathematics, or a qualifying score on the mathematics placement test. LEC.

MATH 109. Mathematics for Elementary School Teachers I. 3 Hours. U.
This course is designed to give the prospective elementary school teacher an overview of several components of the elementary school mathematics curriculum, including number systems, estimation, inequalities and order, sequences and patterns, sets, and relations and functions. The class meets each week for three one-hour instruction sessions and one two-hour laboratory session. This course may not be used to satisfy the College mathematics requirement. Prerequisite: MATH 101 or equivalent placement. LEC.

MATH 110. Mathematics for Elementary School Teachers II. 3 Hours. U.
Continuation of MATH 109, including geometry (including transformations) and elementary probability and statistics. Class meets each week for three one-hour instruction sessions and one two-hour laboratory session. This course does not serve as a prerequisite for any mathematics course. It may not be used to satisfy the College mathematics requirement. Prerequisite: MATH 109. LEC.

MATH 111. Matrix Algebra, Probability, and Statistics. 3 Hours. N.
Introduction to topics in matrix algebra, probability, and statistics. Topics will include matrix operations, the use of matrices to solve systems of linear equations, elementary data analysis, elementary statistical procedures, sample spaces and probability measures, random variables, probability models, links between probability and statistics, and applications. Prerequisite: MATH 101 or MATH 104, or two years of high school algebra and a score of 26 or higher on the ACT mathematics, or a qualifying score on the mathematics placement test. LEC.

MATH 115. Calculus I. 3 Hours. GE12 / N.
Elementary differential and integral calculus, with applications in management and the biological sciences. Not open to students with credit in MATH 121. Prerequisite: MATH 101 or MATH 104, or two years of high school algebra and a score of 26 or higher on ACT mathematics, or a qualifying score on the mathematics placement test. LEC.

MATH 116. Calculus II. 3 Hours. NM / N.
Continuation of MATH 115 including exponential, logarithmic, and trigonometric functions, techniques of integration, and the calculus of functions of several variables. Not open to students with credit in MATH 122 or MATH 118. Prerequisite: MATH 115, plus a course in trigonometry, or MATH 121. MATH 103 may be taken concurrently. LEC.

MATH 118. Trigonometry and Calculus. 3-5 Hours. N.
A course combining the material of MATH 103 and MATH 116. Open for only three hours credit to students with credit in MATH 103 or MATH 104, or five hours credit for students who do not have credit in MATH 103 or MATH 104. Not open for credit for students with credit in MATH 116. Prerequisite: MATH 115. LEC.

MATH 119. Differential Calculus. 4 Hours. N.
Study of limits and derivatives of algebraic, trigonometric, exponential and logarithmic functions. Curve sketching, optimization and other applications of the derivative. Antiderivatives, Riemann sums, the definite integral, and the fundamental theorem of calculus. Intended to facilitate appropriate transfer credit and course placement. Open for only 1 hour credit to students with credit in MATH 115. Not open for credit to students with credit in MATH 116 or 121. Prerequisite: MATH 103 or MATH 104, or 3 years of college preparatory mathematics including trigonometry, with a score of 28 or higher on the enhanced ACT Mathematics exam. LEC.

MATH 120. Integration Techniques and Applications. 1 Hour. U.
A study of techniques and applications of integration. Techniques include integration by parts, integration by trigonometric substitution, integration by partial fractions and improper integrals. Applications of integration include area, volume, arc length, average value, and physical applications such as work and hydrostatic force. Not open for credit to students with credit in MATH 116 or MATH 121. Prerequisite: MATH 119. LEC.

MATH 121. Calculus I. 5 Hours. GE12 / N.
Differentiation and integration of algebraic and trigonometric functions. Applications to physical sciences and engineering. Open for only two hours credit to students with credit in MATH 115. Prerequisite: MATH 104, or MATH 103; or three years of college preparatory mathematics including trigonometry and a score of 28 or higher on ACT mathematics, or a qualifying score on the mathematics placement test. LEC.

MATH 122. Calculus II. 5 Hours. NM / N.
Sequences and series. Calculus of functions in polar and spherical coordinates. Three-dimensional vector geometry and vector-valued functions. Multivariable calculus: partial derivatives and multiple integration. Open only for three hours credit to students with credit in both MATH 121 and MATH 116. Prerequisite: MATH 121, MATH 141, MATH 116, or MATH 120. LEC.

MATH 141. Calculus I: Honors. 5 Hours. GE12 / N.
Differential and integral calculus and applications. Prerequisite: Three years of college preparatory mathematics including trigonometry, plus either (1) a score of 34 or more on ACT mathematics and a cumulative high school grade-point average of at least 3.5, or (2) a score of 32 or more on ACT mathematics and a cumulative high school grade-point average of at least 3.7. LEC.

MATH 142. Calculus II: Honors. 5 Hours. NM / N.
Transcendental functions, methods of integration, parametric equations, vector algebra and its applications to analytic geometry. Introduction to partial derivatives and multiple integration. Prerequisite: MATH 121, or equivalent, and invitation of the Department of Mathematics. LEC.

MATH 143. Linear Algebra and Multivariable Calculus: Honors. 5 Hours. N.
Linear spaces, linear transformations and matrices, determinants, eigenvalues and eigenvectors, differential calculus of vector-valued functions, multiple integrals, line integrals and surface integrals. Infinite series. Prerequisite: MATH 122 or MATH 142, or equivalent, and invitation of the Department of Mathematics. LEC.

MATH 177. First Year Seminar: ______. 3 Hours. NM GE11.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in math. May not contribute to major requirements.
in math. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

MATH 197. Mathematical Workshops: _______. 1-3 Hours. U.
Offered to provide opportunities for deeper understanding of freshman-sophomore mathematics through interactive learning. Topics will vary. May be repeated for additional credit. Prerequisite: Variable. LAB.

MATH 220. Applied Differential Equations. 3 Hours. N.
Linear ordinary differential equations, laplace transforms, systems of equations, and applications. Not open to those who have taken MATH 320. Prerequisite: MATH 122 or MATH 142 or equivalent. LEC.

MATH 221. Applied Differential Equations, Honors. 3 Hours. N.
Linear Ordinary Differential Equations, Laplace Transforms, Systems of Equations, Enrichment Applications. Prerequisite: Math 122 or Math 142 or equivalent, and invitation from the Department of Mathematics. Not open to students with credit in Math 320. LEC.

MATH 223. Vector Calculus. 3 Hours. N.
Multivariable calculus, multiple integration, and vector calculus. Prerequisite: MATH 122 or MATH 142 or equivalent. LEC.

MATH 243. Vector Calculus, Honors. 3 Hours. N.
Multivariable Calculus, Multiple Integration, Vector Calculus, Enrichment Applications. Prerequisite: Math 122 or Math 142 or equivalent, and invitation from the Department of Mathematics. LEC.

MATH 290. Elementary Linear Algebra. 2 Hours. N.
Systems of linear equations, matrices, vector spaces, linear transformations, and applications. Not open to those who have taken MATH 590. Prerequisite: MATH 122 or MATH 142 or equivalent. LEC.

MATH 291. Elementary Linear Algebra, Honors. 2 Hours. N.
Systems of Linear Equations, Matrices, Vector Spaces, Linear Transformations, Enrichment Applications. Prerequisite: Math 122 or Math 142 or equivalent, and invitation from the Department of Mathematics. Not open to students who have taken MATH 590. LEC.

MATH 296. Special Topics: _______. 1-3 Hours. N.
Designed for the study of special topics in mathematics at the freshman/sophomore level. May be repeated for additional credit; does not count toward the major or minor in mathematics. Prerequisite: Variable. LEC.

MATH 299. Directed Reading. 1-5 Hours. N.
Directed reading on a topic chosen by the student with the advice of an instructor. May be repeated for additional credit. Consent of the department required for enrollment. IND.

MATH 320. Elementary Differential Equations. 3 Hours. N.
Linear ordinary differential equations, series solutions. Systems of equations. Not open to those who have taken MATH 220. Prerequisite: MATH 223 and MATH 290, or MATH 143. LEC.

MATH 321. Differential Equations: Honors. 3 Hours. N.
Linear differential equations with applications, Wronskian, power series solution, systems of differential equations. Prerequisite: MATH 223 and MATH 290 or MATH 143, or equivalent and invitation of the Department of Mathematics. LEC.

MATH 365. Elementary Statistics. 3 Hours. GE12 / N.
Elementary descriptive statistics of a sample of measurements; probability; the binomial, Poisson, and normal distributions, populations and sampling from populations; simple problems of statistical inference. May not be counted for junior-senior credit toward a major in mathematics. Not open to students with credit in BUS 368, BIOL 570, MATH 465, MATH 526, or MATH 628. Prerequisite: MATH 101, MATH 104, or MATH 111. LEC.

MATH 409. Topics in Geometry for Secondary and Middle School Teachers. 2 Hours. N.
Study of selected topics from Euclidean, non-Euclidean, and transformation geometry chosen to give breadth to the mathematical background of secondary and middle school teachers. May not be counted for junior-senior credit towards a major in mathematics. Prerequisite: MATH 122. Students enrolled in MATH 409 must concurrently enroll in MATH 410. LEC.

MATH 410. Topics in History of Mathematics for Secondary and Middle School Teachers. 1 Hour. N.
Study of selected topics from mathematical history chosen to provide students with knowledge of major historical developments in mathematics including individual contributions and contributions from different cultures. These topics will include a historical development of Euclidean and non-Euclidean geometry. May not be counted for junior-senior credit towards a major in mathematics. Prerequisite: Math 122. Students enrolled in MATH 410 must concurrently enroll in MATH 409. LEC.

MATH 450. Discrete Mathematics. 3 Hours. N.
Basic topics in discrete mathematics including sets, logic, relations and functions, graphs and combinatorics. Advanced topics chosen from partially ordered sets and lattices, Boolean algebras, automata, game theory, coding theory, cryptography, optimization and enumeration. Prerequisite: MATH 290. LEC.

MATH 470. Problem Solving. 3 Hours. N.
An introduction to the general methods of solving mathematical problems. Particular techniques such as specialization, generalization, contradiction, and induction will be presented. Topics presented may vary from semester to semester. Prerequisite: MATH 122 or equivalent or concurrent enrollment in MATH 122. LEC.

MATH 500. Intermediate Analysis. 3 Hours. N.
A careful formulation of convergence and limits of sequences and functions; continuity and properties of continuous functions; differentiation; the Riemann integral; mean-value theorems and the fundamental theorem of calculus. Not open to students with credit in MATH 765. Prerequisite: MATH 223 and MATH 290, or MATH 143. LEC.

MATH 510. Introduction to the Theory of Computing, 3 Hours. N.
Finite state automata and regular expressions. Context-free grammars and push-down automata. Turing machines. Models of computable functions and undecidable problems. The course emphasis is on the theory of computability, especially on showing limits of computation. (Same as EECS 510.) Prerequisite: EECS 210 and upper-level EECS eligibility. LEC.

MATH 520. Intermediate Logic. 3 Hours. N.
Formal systems, propositional and predicate logic, completeness theorem, effective procedures, definability in number theory, Godel's incompleteness theorem. Prerequisite: MATH 450, or MATH 588, or MATH 590. LEC.

MATH 526. Applied Mathematical Statistics I. 3 Hours. NM / N.
A first course in statistics for students with the techniques of calculus at their disposal. The following topics are studied with illustrations and problems drawn from various fields of applications: basic notions of probability and probability distributions; classical estimation and testing procedures for one and two sample problems; chi-square test. Not open to those with credit in MATH 628 or DSCI 301. Prerequisite: MATH 122 or MATH 116. LEC.

MATH 530. Mathematical Models I. 3 Hours. N.
An introduction to mathematical models useful in a large variety of scientific and technical endeavors. Topics include: model construction, Markov chain models, models for linear optimization, graphs as models,
and game theory. Prerequisite: MATH 223 and MATH 290, or MATH 143. LEC.

MATH 531. Mathematical Models II. 3 Hours. N.
A continuation of MATH 530. Topics include: deterministic and stochastic models of growth processes, growth models for epidemics, rumors and queues; parameter estimation; and methods of comparing models. Prerequisite: MATH 530 and some probability. LEC.

MATH 540. Elementary Number Theory. 3 Hours. N.
Divisibility, primes and their distribution, the Euclidean algorithm, perfect numbers, Fermat’s theorem, Diophantine equations, applications to cryptography. Prerequisite: MATH 122 or consent of instructor. LEC.

MATH 542. Vector Analysis. 2 Hours. N.
Vector algebra; vector and scalar fields; line and surface integrals; theorems of Gauss, Green, and Stokes. Curvilinear coordinates. Applications. Introduction to tensor analysis. Not open to those with credit in MATH 143. Prerequisite: MATH 223 and MATH 290. LEC.

MATH 558. Introductory Modern Algebra. 3 Hours. N.
Development of the number systems. Polynomials. Introduction to abstract number systems such as groups and fields. Not open to students with credit in MATH 791. Prerequisite: MATH 290. LEC.

MATH 559. Modern Geometries. 3 Hours. N.
Selected topics in Euclidean geometry. Synthetic and analytic projective geometry; duality, Desargues’ theorem, perspectives, conics. Non-Euclidean and metric projective geometries. Prerequisite: MATH 122. LEC.

MATH 562. Evolution of Mathematical Thought. 3 Hours. N.
Development of selected topics from the mainstream of mathematics. Prerequisite: Senior standing and at least nine hours credit in mathematics courses numbered 450 or above. LEC.

MATH 570. Undergraduate Honor Seminar. 3 Hours. AE61 / N.
A seminar for undergraduate students with a strong record in mathematics. Topics may vary. May not be taken twice for credit towards a major in mathematics. Prerequisite: MATH 143 or MATH 321 or permission of instructor. LEC.

MATH 581. Numerical Methods. 3 Hours. N.
An introduction to numerical methods and their application to engineering and science problems. Applied treatment of elementary algorithms selected from the subject areas: finding roots of a single nonlinear equation, numerical differentiation and integration, numerical solution of ordinary differential equations. Emphasis on implementing numerical algorithms using the computer. Not open to students with credit in MATH 781 or MATH 782. Prerequisite: MATH 220 and MATH 290, or MATH 320. LEC.

MATH 590. Linear Algebra. 3 Hours. N.
Vector spaces, linear transformations, and matrices. Canonical forms, Determinants. Hermitian, unitary and normal transformations. Not open to students with credit in MATH 792. Prerequisite: MATH 223 and MATH 290 or equivalent, or MATH 143. LEC.

MATH 591. Applied Numerical Linear Algebra. 3 Hours. N.
An introduction to numerical linear algebra. Possible topics include: applied canonical forms, matrix factorizations, perturbation theory, systems of linear equations, linear least squares, singular value decomposition, algebraic eigenvalue problems, matrix functions, and the use of computational software. Not open to students with credit in MATH 780 or MATH 782. Prerequisite: MATH 290. Recommended: EECS 138 or equivalent experience. LEC.

MATH 596. Special Topics: ______. 1-3 Hours. N.
Arranged as needed to present appropriate material to groups of students. May be repeated for additional credit. Prerequisite: Variable. LEC.

MATH 601. Algebraic Coding Theory. 3 Hours. N.
An introduction to error correcting codes. Included are: linear codes, cyclic codes, BCH codes, and convolutional codes. Prerequisite: MATH 290. LEC.

MATH 605. Applied Regression Analysis. 3 Hours. N.
The matrix approach to regression. Weighted least squares, transformations, examination of residuals, model selection, and analysis of variance. Prerequisite: One calculus-based statistics course. LEC.

MATH 611. Time Series Analysis. 3 Hours. N.
An introduction to the theory and computational techniques in time series analysis. Descriptive techniques: trends, seasonality, autocorrelations. Time series models: autoregressive, moving average, ARIMA models; model specification and fitting, estimation, testing, residual analysis, forecasting. Stationary processes in the frequency domain: Fourier methods and the spectral density, periodograms, smoothing, spectral window. Prerequisite: MATH 122 and a calculus based statistics course. LEC.

MATH 624. Discrete Probability. 3 Hours. N.
Theory and applications of discrete probability models. Elementary combinatorial analysis, random walks, urn models, occupancy problems, and the binomial and Poisson distributions. Prerequisite: MATH 223 and MATH 290, or MATH 143. LEC.

MATH 627. Probability. 3 Hours. N.
Introduction to mathematical probability; combinatorial analysis; the binomial, Poisson, and normal distributions; limit theorems; laws of large numbers. Prerequisite: MATH 223 and MATH 290 or equivalent, or MATH 143. LEC.

MATH 628. Mathematical Theory of Statistics. 3 Hours. N.
An introduction to sampling theory and statistical inference; special distributions; and other topics. Prerequisite: MATH 627. LEC.

MATH 630. Actuarial Mathematics. 3 Hours. N.
This course is an introduction to some of the notions and computations in actuarial mathematics. Many computations are associated with compound interest with applications to bank accounts, mortgages, pensions, bonds, and annuities. Life contingencies are considered for annuities and insurance. Some introduction to option pricing is given, particularly the Black-Scholes formula. This course provides the background material needed for some of the initial examinations given by the society for actuaries, including the Financial Mathematics Exam. Prerequisite: MATH 526 or MATH 627 or a comparable course in probability. LEC.

MATH 631. Operations Research. 3 Hours. N.
An introduction to commonly applied techniques. Topics include linear programming, duality and sensitivity analysis, the transportation problem, networks, decision and game theory, inventory models and queuing systems. Prerequisite: A calculus-based statistics course or permission of instructor. LEC.

MATH 646. Complex Variable and Applications. 3 Hours. N.
Analytic functions of a complex variable, infinite series in the complex plane, theory of residues, conformal mapping and applications. Prerequisite: MATH 223. LEC.

MATH 647. Applied Partial Differential Equations. 3 Hours. N.
Boundary value problems; topics on partial differentiation; theory of characteristic curves; partial differential equations of mathematical
MATH 648. Calculus of Variations and Integral Equations. 3 Hours. N.
Topics in the calculus of variations, integral equations, and applications. Prerequisite: MATH 220, MATH 223 and MATH 290; or MATH 320. LEC.

MATH 660. Geometry I. 3 Hours. N.
An introduction to modern geometry. Differential geometry of curves and surfaces, the topological classification of closed surfaces, dynamical systems, and knots and their polynomials. Other topics as time permits. Prerequisite: MATH 223 and MATH 290, or equivalent, or MATH 143. LEC.

MATH 661. Geometry II. 3 Hours. N.
Continuation of Math 660. Prerequisite: MATH 660 or permission of instructor. LEC.

MATH 696. Special Topics: ______. 1-3 Hours. N.
Arranged as needed to present appropriate material to groups of students. May be repeated for additional credit. Prerequisite: Variable. LEC.

MATH 699. Directed Reading. 1-3 Hours. AE61 / N.
Directed reading on a topic chosen by the student with the advice of an instructor. May be repeated for additional credit. Consent of the department required for enrollment. IND.

MATH 701. Topics in Mathematics for Teachers: ______. 1-6 Hours.
Material, including both mathematical content and teaching methodology, related to classroom use at various levels, elementary through secondary. Topics may vary. May not be counted for junior-senior credit towards a major in mathematics, nor for graduate credit towards a graduate degree in mathematics. Prerequisite: Permission of instructor. RSH.

MATH 715. Sampling Techniques. 3 Hours.
Statistical methodology of survey sampling. Data analysis and estimation methods for various experimental designs; fixed or random sample sizes, pre- and/or post-stratified samples, and multistage sampling. Estimates of totals, means, ratios and proportions with methods of estimating variances of such estimates. Prerequisite: A post-calculus probability or statistics course. LEC.

MATH 717. Nonparametric Statistics. 3 Hours.
Methods requiring few assumptions about the populations sampled. Topics include quantile tests, tolerance limits, the sign test, contingency tables, rank-sum tests, and rank correlation. Prerequisite: MATH 628 or permission of instructor. LEC.

MATH 722. Mathematical Logic. 3 Hours.
Propositional calculus. First order theories and model theory. Elementary arithmetic and Godel's incompleteness theorems. (Same as EECS 722.) Prerequisite: MATH 665 or MATH 691, or equivalent evidence of mathematical maturity. LEC.

MATH 724. Combinatorial Mathematics. 3 Hours.
Counting problems, with an introduction to Polya's theorem; Mobius functions; transversal theory; Ramsey's theorem; Sperner's theorem and related results. Prerequisite: MATH 290 and a math course numbered 450 or higher. LEC.

MATH 725. Graph Theory. 3 Hours.
Graphs; trees; connectivity; Menger's theorem; eulerian and hamiltonian graphs; planarity; coloring of graphs; factorization of graphs; matching theory; alternating chain methods; introduction to matroids with applications to graph theory. Prerequisite: MATH 290 and a math course numbered 450 or higher. LEC.

MATH 727. Probability Theory. 3 Hours.
A mathematical introduction to premeasure-theoretic probability. Topics include probability spaces, conditional probabilities and independent events, random variables and probability distributions, special discrete and continuous distributions with emphasis on parametric families used in applications, the distribution problem for functions of random variables, sequences of independent random variables, laws of large numbers, and the central limit theorem. Prerequisite: MATH 223 and MATH 290, or equivalent. LEC.

MATH 728. Statistical Theory. 3 Hours. N.
Theory of point estimation and hypothesis testing with applications. Confidence region methodologies and relations to estimation and testing. Prerequisite: MATH 727 or equivalent. LEC.

MATH 735. Optimal Control Theory. 3 Hours.
An examination of the mathematical methods of deterministic control theory given by considering some specific examples and the general theory. The methods include dynamic programming, the calculus of variations, and Pontryagin's maximum principle. Various problems of linear control systems, e.g., the linear regulator problem, are solved. Prerequisite: MATH 320 or equivalent. LEC.

MATH 740. Number Theory. 3 Hours.
Divisibility, the theory of congruences, primitive roots and indices, the quadratic reciprocity law, arithmetical functions and miscellaneous additional topics. Prerequisite: MATH 223 and MATH 290, or equivalent. LEC.

MATH 750. Stochastic Adaptive Control. 3 Hours.
Stochastic adaptive control methods. Stochastic processes such as Markov chains and Brownian motion, stochastic integral, differential rule, stochastic differential equations, martingales and estimation techniques. Identification and control of discrete and continuous time linear stochastic systems. Specific applications and simulation results of stochastic adaptive control theory. Prerequisite: MATH 627 and some knowledge of control. LEC.

MATH 765. Mathematical Analysis I. 3 Hours.
Math 765 and MATH 766 are theoretical courses on the fundamental concepts of analysis and the methods of proof. These two courses include the concept of a real number; limits, continuity, and uniform convergence; derivatives and integrals of functions of one and of several real variables. Prerequisite: MATH 223 and MATH 290, or equivalent. LEC.

MATH 766. Mathematical Analysis II. 3 Hours.
A continuation of MATH 765. Prerequisite: MATH 765. LEC.

MATH 780. Numerical Analysis of Linear Systems. 3 Hours.
Computational aspects of linear algebra, linear equations and matrices, direct and indirect methods, eigenvalues and eigenvectors of matrices, error analysis. Prerequisite: MATH 590 and MATH 781. LEC.

MATH 781. Numerical Analysis I. 3 Hours.
Finite and divided differences. Interpolation, numerical differentiation, and integration. Gaussian quadrature. Numerical integration of ordinary differential equations. Curve fitting. (Same as EECS 781.) Prerequisite: MATH 320 and knowledge of a programming language. LEC.

MATH 782. Numerical Analysis II. 3 Hours.
Direct and iterative methods for solving systems of linear equations. Numerical solution of partial differential equations. Numerical determination of eigenvectors and eigenvalues. Solution of nonlinear equations. (Same as EECS 782.) Prerequisite: MATH 781. LEC.
MATH 783. Applied Numerical Methods for Partial Differential Equations. 3 Hours.
Finite difference methods applied to particular initial-value problems (both parabolic and hyperbolic), to illustrate the concepts of convergence and stability and to provide a background for treating more complicated problems arising in engineering and physics. Finite difference methods for elliptic boundary-value problems, with a discussion of convergence and methods for solving the resulting algebraic system. Variational methods for elliptic problems. Prerequisite: MATH 647 or equivalent. LEC.

MATH 790. Linear Algebra II. 3 Hours.
A theoretical course on the fundamental concepts and theorems of linear algebra. Topics covered are: vector space, basis, dimension, subspace, norm, inner product, Banach space, Hilbert space, orthonormal basis, positive definite matrix, minimal polynomial, diagonalization and other canonical forms, Cayley-Hamilton, spectral radius, dual space, quotient space. Prerequisite: MATH 590. LEC.

MATH 791. Modern Algebra. 3 Hours.
This course includes the following topics: multiplicative properties of the integers and introductions to group theory, ring theory and field theory. Prerequisite: MATH 223 and MATH 290, or equivalent. LEC.

MATH 796. Special Topics: ____. 1-3 Hours.
Arranged as needed to present appropriate material for groups of students. May be repeated for credit. Prerequisite: Variable. LEC.

MATH 799. Directed Readings. 1-3 Hours.
Directed readings on a topic chosen by the student with the advice of an instructor. May be repeated for additional credit. Consent of the department required for enrollment. RSH.

MATH 800. Complex Analysis I. 3 Hours.
Cauchy’s theorem and contour integration; the argument principle; maximum modulus principle; Schwarz symmetry principle; analytic continuation; monodromy theorem; applications to the gamma function and Riemann’s zeta function; entire and meromorphic functions; conformal mapping; Riemann mapping theorem; univalent functions. Prerequisite: MATH 766 or concurrently with MATH 766. LEC.

MATH 801. Complex Analysis II. 3 Hours.
Continuation of MATH 800. Prerequisite: MATH 800. LEC.

MATH 802. Set Theory. 3 Hours.
Axiomatic set theory; transfinite induction; regularity and choice; ordinal and cardinal arithmetic; miscellaneous additional topics (e.g., extra axioms such as GCH or MA; infinite combinatorics; large cardinals). Prerequisite: MATH 765 or MATH 791, or concurrent enrollment in MATH 765 or MATH 791, or equivalent evidence of mathematical maturity. LEC.

Finite difference methods applied to particular initial-value problems (both parabolic and hyperbolic), to illustrate the concepts of convergence and stability and to provide a background for treating more complicated problems arising in engineering and physics. Finite difference methods for elliptic boundary-value problems, with a discussion of convergence and methods for solving the resulting algebraic system. Variational methods for elliptic problems. Prerequisite: MATH 790 and MATH 791 or permission of instructor. LEC.

MATH 822. Algebraic Topology II. 3 Hours.
Review of simplicial homology; Lefschetz fixed point theorem and degree theory; singular, cellular, and axiomatic homology; Jordan Brouwer separation theorems; universal coefficient theorems, products in cohomology, homotopy groups, and the Hurewicz Theorem. Prerequisite: MATH 821. LEC.

MATH 824. Algebraic Combinatorics. 3 Hours.
An introduction to the fundamental structures and methods of modern algebraic combinatorics. Topics include partially ordered sets and lattices, matroids, simplicial complexes, polytopes, hyperplane arrangements, partitions and tableaux, and symmetric functions. Prerequisite: MATH 724 and MATH 791, or permission of the instructor. LEC.

MATH 830. Abstract Algebra. 3 Hours.
A study of some structures, theorems, and techniques in algebra whose use has become common in many branches of mathematics. Prerequisite: MATH 790 and MATH 791. LEC.

MATH 831. Abstract Algebra. 3 Hours.
Continuation of MATH 830. Prerequisite: MATH 830. LEC.

MATH 840. Differentiable Manifolds. 3 Hours.
Multilinear algebra of finite dimensional vector spaces over fields; differentiable structures and tangent and tensor bundles; differentiable mappings and differentials; exterior differential forms; curves and surfaces as differentiable manifolds; affine connections and covariant differentiation; Riemannian manifolds. Prerequisite: MATH 765 and MATH 790. LEC.

MATH 850. Differential Equations and Dynamical Systems. 3 Hours.
Discrete and differentiable dynamical systems with an emphasis on the qualitative theory. Topics to be covered include review of linear systems, existence and uniqueness theorems, flows and discrete dynamical systems, linearization (Hartman-Grobman theorem), stable and unstable manifolds, Poincare sections, normal forms, Hamiltonian systems, and an introduction to bifurcation theory and chaos. Prerequisite: MATH 320 and MATH 766, or permission of instructor. LEC.

MATH 851. Topics in Dynamical Systems. 3 Hours.
Topics to be covered include complex dynamical systems, perturbation theory, nonlinear analysis of time series, chaotic dynamical systems, and numerical methods as dynamical systems. This course may be repeated for credit. Prerequisite: MATH 850 or permission of instructor. LEC.

MATH 856. Stochastic Processes I. 3 Hours.
Markov chains; Markov processes; diffusion processes; stationary processes. Emphasis is placed on applications: random walks; branching theory; Brownian motion; Poisson process; birth and death processes. Prerequisite: MATH 627 and MATH 765. LEC.

MATH 866. Stochastic Processes II. 3 Hours.
This is a second course in stochastic processes, focused on stochastic calculus with respect to a large class of semi-martingales and its applications to topics selected from classical analysis (linear PDE), finance, engineering, and statistics. The course will start with basic properties of martingales and random walks and then develop into the core program on Ito’ stochastic calculus and stochastic differential equations. These techniques provide useful and important tools and models in many pure and applied areas. Prerequisite: MATH 727 and MATH 865. LEC.
MATH 870. The Analysis of Variance. 3 Hours.
The general linear hypothesis with fixed effects; the Gauss-Markov theorem, confidence ellipsoids, and tests under normal theory; multiple comparisons and the effect of departures from the underlying assumptions; analysis of variance for various experimental designs and analysis of covariance. Prerequisite: MATH 628 or MATH 728, and either MATH 590 or MATH 790. LEC.

MATH 872. Multivariate Statistical Analysis. 3 Hours.
The multivariate normal distribution; tests of hypotheses on means and covariance matrices; estimation; correlation; multivariate analysis of variance; principal components; canonical correlation. Prerequisite: MATH 628 or MATH 728, and either MATH 590 or MATH 790. LEC.

MATH 874. Statistical Decision Theory. 3 Hours.
Game theory, admissible decision functions and complete class theorems; Bayes and minimax solutions; sufficiency; invariance; multiple decision problems; sequential decision problems. Prerequisite: MATH 628 and MATH 766. LEC.

MATH 881. Advanced Numerical Linear Algebra. 3 Hours. N.
Advanced topics in numerical linear algebra including pseudo-spectra, rounding error analysis and perturbation theory, numerical methods for problems with special structure, and numerical methods for large scale problems. Prerequisite: Math 781, 782, 790, or permission of the instructor. LEC.

MATH 882. Advanced Numerical Differential Equations. 3 Hours. N.
Advanced course in the numerical solution of ordinary and partial differential equations including modern numerical methods and the associated analysis. Prerequisite: MATH 781, 782, 783, or permission of the instructor. LEC.

MATH 890. Fourier Analysis. 3 Hours.
Introduction to modern techniques in Fourier Analysis in the Euclidean setting with emphasis in the study of functions spaces and operators acting on them. Topics may vary from year to year and include, among others, distribution theory, Sobolev spaces, estimates for fractional integrals and fractional derivatives, wavelets, and some elements of Calderón-Zygmund theory. Applications in other areas of mathematics, in particular partial differential equations and signal analysis, will be presented based on the instructor’s and the students’ interests. Prerequisite: Math 810 and Math 800, or instructor’s permission. LEC.

MATH 896. Master’s Research Component. 1-6 Hours.
RSH.

MATH 899. Master’s Thesis. 1-10 Hours.
THE.

MATH 905. Several Complex Variables. 3 Hours.
Holomorphic functions in several complex variables, Cauchy’s integral for poly-discs, multivariable Taylor series, maximum modulus theorem. Further topics may include: removable singularities, extension theorems, Cauchy-Riemann operator, domains of holomorphy, special domains and algebraic properties of rings of analytic functions. Prerequisite: MATH 800. LEC.

MATH 910. Algebraic Curves. 3 Hours.
Algebraic sets, varieties, plane curves, morphisms and rational maps, resolution of singularities, Riemann-Roch theorem. Prerequisite: MATH 790 and MATH 791. LEC.

MATH 915. Homological Algebra. 3 Hours.
Injective and projective resolutions, homological dimension, chain complexes and derived functors (including Tor and Ext). Prerequisite: MATH 830 and MATH 831, or consent of instructor. LEC.

MATH 920. Lie Groups and Lie Algebras. 3 Hours.
General properties of Lie groups, closed subgroups, one-parameter subgroups, homogeneous spaces, Lie bracket, Lie algebras, exponential map, structure of semi-simple Lie algebras, invariant forms, Maurer-Cartan equation, covering groups, spinor groups. Prerequisite: MATH 766 and MATH 790 and MATH 791. LEC.

MATH 930. Topics in General Topology. 3 Hours.
Paracompact spaces, uniform spaces, topology of continua, Peano spaces, Hahn-Mazurkiewicz theorem, dimension theory, and theory of retracts. Prerequisite: MATH 820. LEC.

MATH 940. Advanced Probability. 3 Hours.
Probability measures, random variables, distribution functions, characteristic functions, types of convergence, central limit theorem. Laws of large numbers and other limit theorems. Conditional probability, Markov processes, and other topics in the theory of stochastic processes. Prerequisite: MATH 811. LEC.

MATH 950. Partial Differential Equations. 3 Hours.
Introduction; equations of mathematical physics; classification of linear equations and systems. Existence and uniqueness problems for elliptic, parabolic, and hyperbolic equations. Eigenvalue problems for elliptic operators; numerical methods. Prerequisite: MATH 766. LEC.

MATH 951. Advanced Partial Differential Equations II. 3 Hours.
The course uses functional analytic techniques to further develop various aspects of the modern framework of linear and nonlinear partial differential equations. Sobolev spaces, distributions and operator theory are used in the treatment of linear second-order elliptic, parabolic, and hyperbolic equations. In particular we discuss the kind of potential, diffusion and wave equations that arise in inhomogeneous media, with an emphasis on the solvability of equations with different initial/boundary conditions. Then, we will survey the theory of semigroup of operators, which is one of the main tools in the study of the long-time behavior of solutions to nonlinear PDE. The theories and applications encountered in this course will create a strong foundation for studying nonlinear equations and nonlinear science in general. Prerequisite: MATH 950 or permission of the instructor. LEC.

MATH 960. Functional Analysis. 3 Hours.
Topological vector spaces, Banach spaces, basic principles of functional analysis. Weak and weak-topologies, operators and adjoints. Hilbert spaces, elements of spectral theory. Locally convex spaces. Duality and related topics. Applications. Prerequisite: MATH 810 and MATH 820 or concurrent with MATH 820. LEC.

MATH 961. Functional Analysis. 3 Hours.
Continuation of MATH 960. LEC.

MATH 963. C*-Algebras. 3 Hours.
The basics of C*-algebras, approximately finite dimensional C*-algebras, irrational rotation algebras, C*-algebras of isometries, group C*-algebras, crossed products C*-algebras, extensions of C*-algebras and the BDF theory. Prerequisite: MATH 811 or MATH 960, or consent of instructor. LEC.

MATH 970. Analytic K-Theory. 3 Hours.
K0 for rings, spectral theory in Banach algebras, K1 for Banach algebras, Bott periodicity and six-term cyclic exact sequence. Prerequisite: MATH 790 and MATH 791 and MATH 960. LEC.

MATH 990. Seminar: 1-10 Hours.
LEC.

MATH 993. Readings in Mathematics. 1-10 Hours.
RSH.
MUSE 701. Museum Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museums as organizations; accounting, budget cycles, personnel management, and related topics will be presented using, as appropriate, case studies and a simulated museum organization model. (Same as AMS 731, BIOL 785, GEOL 783, and HIST 728.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

MUSE 702. The Nature of Museums. 3 Hours.
The purpose of this course is to provide an overview of the kinds of museums, their various missions, and their characteristics and potentials as research, education, and public service institutions responsible for collections of natural and cultural objects. (Same as AMS 720, BIOL 788, GEOL 782, and HIST 720.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

MUSE 703. Introduction to Museum Exhibits. 3 Hours.
Presentation of principles and practices of exhibit management, design, and production. Topics will include developing a master plan for museum exhibits; concept development; design, installation, and maintenance of exhibits; design theory; design process; label writing and editing; selection of materials architectural requirements and building codes; cost estimating; publicity; security; and exhibit evaluation. Consideration will be given to exhibition problems in public and private museums in the areas of anthropology, art, history, natural history, and technology. (Same as AMS 700, BIOL 787, GEOL 781, and HIST 723.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

MUSE 704. Principles and Practices of Museum Collection Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museum collections, their associated data, and their use in scholarly research; cataloging, storage, fumigation, automated information management and related topics will be presented for museums of art, history, natural history and anthropology. (Same as AMS 730, BIOL 798, GEOL 785, and HIST 725.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

MUSE 705. Introduction to Museum Public Education. 3 Hours.
Consideration of the goals of an institution's public education services, developing programs, identifying potential audiences, developing audiences, and funding. Workshops and demonstrations are designed for students to gain practical experience working with various programs and developing model programs. (Same as AMS 797, BIOL 784, GEOL 784, and HIST 721.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

MUSE 706. Conservation Principles and Practices. 3 Hours.
This course will acquaint the future museum professional with problems in conserving all types of collections. Philosophical and ethical approaches will be discussed, as well as the changing practices regarding conservation techniques. Emphasis will be placed on detection and identification of causes of deterioration in objects made of organic and inorganic materials, and how these problems can be remedied. Storage and care of objects will also be considered. (Same as AMS 714, BIOL 700, GEOL 780, and HIST 722.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

MUSE 707. Practical Archival Principles. 3 Hours.
Study of the principles and practices applicable to the preservation, care, and administration of archives and manuscripts. Practical experience will be an integral part of this course. (Same as HIST 727.) LEC.

MUSE 710. Current Trends in Curation and Collection Management. 2 Hours.
Seminar course to provide students with a working knowledge of the primary issues and current trends in building, administration, and care of scientific collections. Topics include permits, collecting, accessioning, cataloging, preservation, preventive conservation, and access to collections and data. The course format consists of readings, lectures, guest speakers, discussions, and visits to scientific collections on campus. (Same as BIOL 706.) LEC.

MUSE 730. Preventive Conservation. 3 Hours.
Preservation and collection conservation theory and principles, including condition reporting, conservation of furniture and wooden objects, inorganic-based materials, metal objects, organic-based materials, paintings, photographic materials, textiles, three-dimensional objects, and works on paper. LEC.

MUSE 740. Conservation Assessment. 3 Hours.
Understanding the conservator-curator relationship; principles of conservation assessment, documentation, conservation research, environmental monitoring, handling objects, photographic documentation, and development of a publishable preservation research project. LEC.
MUSE 980. Advanced Conservation. 3 Hours. Application of conservation theory and practice to exhibition development, planning, and preparation; conservation bookbinding; health and safety in conservation; integrated pest management; ethics of conservation; parameters of professional conservation practice. LEC.

Philosophy Courses

PHIL 140. Introduction to Philosophy. 3 Hours. HR GE11/GE3H / H. An introductory examination, based primarily on writings of major philosophers, of such central philosophical problems as religious belief, the mind and its place in nature, freedom and determinism, morality, and the nature and kinds of human knowledge. LEC.

PHIL 141. Introduction to Philosophy Honors. 3 Hours. HR GE11/GE3H / H. An introductory examination, based primarily on writings of major philosophers, of such central philosophical problems as religious belief, the mind and its place in nature, freedom and determinism, morality, and the nature and kinds of human knowledge. Prerequisite: Open only to students in the University Honors Program or by consent of department. LEC.

PHIL 148. Reason and Argument. 3 Hours. GE11/GE3H / H. An introduction to the theory and practice of logical analysis. Special emphasis is placed upon the logical appraisal of everyday arguments. LEC.

PHIL 160. Introduction to Ethics. 3 Hours. HR AE51/GE11/GE3H / H. An introductory study of the nature of morality and of philosophical bases for the assessment of actions, agents, and institutions. Special emphasis will be placed upon the views of such important philosophers as Aristotle, Hume, Kant, and Mill. Some attention will be paid to applications of moral theory to practice. LEC.

PHIL 161. Introduction to Ethics Honors. 3 Hours. HR AE51/GE11/GE3H / H. An introductory study of the nature of morality and of philosophical bases for the assessment of actions, agents, and institutions. Special emphasis will be placed upon the views of such important philosophers as Aristotle, Hume, Kant, and Mill. Some attention will be paid to applications of moral theory to practice. Prerequisite: Open only to students in the University Honors Program or by consent of department. LEC.

PHIL 177. First Year Seminar: ______. 3 Hours. GE11 / U. A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Philosophy. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LAB.

PHIL 180. Introduction to Social and Political Philosophy. 3 Hours. HR AE51/GE3H / H. An introductory study, based primarily on classic philosophical texts, of such central issues as the justification of governmental authority, the social sources of power, the nature of a just distribution of social resources, competing conceptions of human nature, and the proper limits of governmental interference with individual liberty. Prerequisite: Open only to students in the University Honors Program or by consent of department. LEC.

PHIL 200. Study Abroad Topics in Philosophy: ______. 1-6 Hours. H. This course is designed for the study of special topics in Philosophy. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

PHIL 310. Introduction to Symbolic Logic. 3 Hours. GE11/GE3H / H. An introduction to the theory and practice of elementary symbolic logic. Special emphasis will be placed upon the logical analysis of mathematical proof and upon a proof of the consistency of elementary logic. LEC.

PHIL 320. Philosophical Issues in the Life Sciences. 3 Hours. HR AE51/GE3H / H. A philosophical analysis of theoretical and ethical issues that arise in the practice of the life sciences. Discusses the conceptual foundation of the life sciences—evolutionary theory and genetics. Critically explores the use of statistical and non-human-animal models. Examines ethical issues including problems that arise in human and other animal experimentation, obligations to the environment, proper use of patents, and conflicts in professional duties. LEC.

PHIL 350. Philosophical Issues in Religion. 3 Hours. GE3H / H. This course will consider, from a philosophical perspective, some of the problems in religion which arise in the development of "Natural Theology" broadly conceived. (Same as REL 380.) LEC.

PHIL 360. Moral Issues in Business. 3 Hours. AE51 / H. After a brief survey of techniques of moral argument and analysis, particular moral issues related to business will be discussed. These will include such topics as advertising, conflict of interest, personal and corporate responsibility, codes of conduct, private property, strikes, just wage, and the tension between moral ideals and business pressures. LEC.

PHIL 365. Moral Issues in the Professions. 3 Hours. H. An analysis of the nature and justification of standards of professional conduct. Issues of professional behavior that concern more than one profession such as fidelity to a client’s interests, candor, confidentiality, obligations to human research subjects, obligations to uphold professional standards, professional strikes, and affirmative action will be discussed. LEC.

PHIL 366. Moral Issues in Sports. 3 Hours. H. This course is a philosophical investigation of the nature and value of sports. Provides students with an overview of ethical theory and considers principled answers to questions about the values of sports and about how those values can be sustained or demeaned. Students debate a variety of live controversies in sports today such as drugs, cheating, sexism, racism, the role of sports in educational institutions, Title IX, commercialization, and violence. LEC.

PHIL 370. Moral Issues in Medicine. 3 Hours. H. After a brief survey of techniques of moral argument and analysis, particular moral issues related to medicine will be discussed. The justification and limits of some rules of professional conduct that deal with such matters as confidentiality, truth-telling, and protection of medical research subjects will be considered. Issues relating to death and dying in medicine such as abortion, euthanasia, and the refusal of life-saving medical therapy also will be discussed. LEC.

PHIL 375. Moral Issues in Computer Technology. 3 Hours. AE51 / H. After surveying the nature of ethics and morality and learning some standard techniques of moral argumentation, we shall examine such topics as: property and ownership rights in computer programs and software; privacy in computer entry and records; responsibility for
computer use and failure; the "big brother" syndrome made possible by extensive personal data banks; censorship and the world-wide web; computer illiteracy and social displacement; and ethical limits to computer research. Prerequisite: EECS 168 or permission of instructor. LEC.

PHIL 380. Environmental Ethics. 3 Hours. AE51 / H.
A survey of techniques of moral argument and analysis, particular moral issues related to the environment will be discussed. These will include such topics (one of which may be dealt with in depth) as animal rights, rights of future generations, wilderness preservation, population control, endangered species, and economics and public policy. Prerequisite: EVRN 148 or consent of instructor. LEC.

PHIL 381. Feminism and Philosophy. 3 Hours. AE41/GE3H / H.
An examination of topics of philosophical interest that are important in the feminist movement such as the nature of sexism, the concept of sexual equality, the ethics of sexual behavior, the nature of love, feminist analyses of the value of marriage and family, the ethics of abortion, and justifications for preferential treatment of women. (Same as WGSS 381.) LEC.

PHIL 384. Ancient Philosophy. 3 Hours. HR GE3H / H.
A survey of the thought of the principal philosophers of ancient Greece, with emphasis on the pre-Socratics, Plato, and Aristotle. LEC.

PHIL 386. Modern Philosophy from Descartes to Kant. 3 Hours. HR GE3H / H.
A survey of the writings of such principal philosophers of the modern period as Descartes, Spinoza, Leibniz, Hobbes, Locke, Berkeley, Hume, and Kant. LEC.

PHIL 388. Analytic Philosophy: Frege to Quine. 3 Hours. H.
An introduction to the principal figures in the philosophical tradition that forms the background to contemporary investigations in analytic philosophy of language. Particular attention will be paid to Frege, Russell, Wittgenstein, and Quine. Prerequisite: PHIL 310 or equivalent, or PHIL 310 may be taken concurrently. LEC.

PHIL 418. Introduction to Cognitive Science. 3 Hours. S.
Examines the data and methodologies of the disciplines that comprise Cognitive Science, an inter-disciplinary approach to studying the mind and brain. Topics may include: consciousness, artificial intelligence, linguistics, education and instruction, neural networks, philosophy, psychology, anthropology, evolutionary theory, cognitive neuroscience, human-computer interaction, and robotics. (Same as LING 418, PSYC 418, and SPLH 418.) Prerequisite: Consent of instructor. LEC.

PHIL 499. Senior Essay. 3 Hours. AE61 / H.
This course is required, in addition to regular major requirements, of those students wishing to work for departmental honors in Philosophy. Students wishing to enroll should first speak with the departmental adviser for majors. Prerequisite: Open to senior majors in Philosophy by consent of instructor. IND.

PHIL 500. Studies in Philosophy: ____. 1-6 Hours. H.
(Topic, instructor, and specific prerequisite to be announced in Schedule of Classes.) A study of particular philosophical problems or thinkers not covered by other courses. The course may be offered concurrently by different instructors under different subtitles, and may, with the consent of the chair, be taken more than once if content varies. LEC.

PHIL 504. Philosophy of Sex and Love. 3 Hours. H.
A discussion of philosophical issues such as the relation between love, autonomy, and friendship; heterosexual and homosexual relationships; marriage and adultery; rape and sexual harassment; prostitution; and pornography. LEC.

PHIL 506. Chinese Thought. 3 Hours. NW AE42/GE3H / H/W.
A survey of the principal modes of Chinese thought from their origins through the imperial period. Not open to students with credit in EALC 132. (Same as EALC 642 and HWC 524.) Prerequisite: Eastern Civilization course, or a course in Asian history, or a distribution course in Philosophy. LEC.

PHIL 508. Early Greek Philosophy. 3 Hours. H/W.
A study of the doctrines of Greek philosophy before Plato. Emphasis on the Pre-Socratic philosophers, with some attention paid to the Sophists and the Hippocratic corpus. (Same as GRK 508.) Prerequisite: PHIL 384, or GRK 301, or GRK 302, or GRK 303, or GRK 310, or GRK 312, or permission of instructor. LEC.

PHIL 555. Justice and Economic Systems. 3 Hours. H.
An examination of important representative theories of the justness of an economic system, with particular attention paid to such institutions as private property, a market economy, means and relationships of production, and principles of distribution to individuals. The theorists under consideration include Locke, Adam Smith, Marx and Engels, contemporary utilitarians, Rawls, and Nozick. Prerequisite: A course in ethics or an introductory course in economics or in business. LEC.

PHIL 557. Kant. 3 Hours. H.
A survey of the major works of Immanuel Kant, with attention to his critical method and its application to issues in theoretical philosophy, practical philosophy, aesthetics, or the philosophy of history. Prerequisite: PHIL 386. LEC.

PHIL 560. Nineteenth Century Philosophy. 3 Hours. H.
The development of philosophy in the 19th century. Special attention will be paid to such major figures as Hegel, Kierkegaard, Marx, Nietzsche, and Mill. Prerequisite: PHIL 386. LEC.

PHIL 562. Kierkegaard. 3 Hours. H.
A study of the thought of Soren Kierkegaard through examination of some of his major writings. Some attention is given to his influence on the development of existentialist philosophies. Prerequisite: PHIL 384 or PHIL 386. LEC.

PHIL 570. Nietzsche. 3 Hours. H.
A study of Nietzsche’s major writings and ideas, with some attention to his philosophical influence. Prerequisite: PHIL 384 or PHIL 386 or permission of instructor. LEC.

PHIL 580. Marxism. 3 Hours. H/W.
A philosophical study of the classical texts of Marxism and of their contemporary development. Prerequisite: A course in philosophy or a course in political science. LEC.

PHIL 582. Existentialism. 3 Hours. H/W.
A study of the main themes and leading philosophers of the existentialist movement. Prerequisite: Two courses in philosophy. LEC.

PHIL 590. Phenomenology. 3 Hours. H.
A study of the main themes and leading philosophers of the phenomenological movement. Prerequisite: PHIL 386. LEC.

PHIL 592. Contemporary Continental Philosophy. 3 Hours. H.
A study of selected topics in 20th century European philosophy, such as hermeneutics, critical theory, and poststructuralism. Figures to be studied could include Heidegger, Gadamer, Adorno, Habermas, and Foucault. Prerequisite: PHIL 386. LEC.

PHIL 600. Readings in Philosophy: ____. 1-6 Hours. H.
Individual reading on topics not covered in course work. Prerequisite: Consent of instructor. IND.
PHIL 605. The Philosophy of Plato. 3 Hours. H.
A survey of the major works of Plato, with attention both to Plato's distinctive arguments and positions in the major areas of philosophy and to the distinctive literary form in which Plato presents his thinking. Prerequisite: PHIL 384. LEC.

PHIL 607. The Philosophy of Aristotle. 3 Hours. H.
A survey of the major works of Aristotle, with the aim of understanding Aristotle's distinctive formulations of central philosophical questions, the arguments he presents for his answers to those questions, and the systematic interconnections between his positions in the different areas of philosophy. Prerequisite: PHIL 384. LEC.

PHIL 608. Hellenistic Philosophy. 3 Hours. H.
Survey of Stoicism, Epicureanism, and Scepticism from their beginnings through the second century AD. Prerequisite: PHIL 384 and another course in philosophy. LEC.

PHIL 610. Symbolic Logic. 3 Hours. H.
Propositional calculus, predicate calculus, consistency, decidability of formal systems, the paradoxes and number concept will be covered. LEC.

PHIL 611. Topics in Symbolic Logic: _____, 1-3 Hours. H.
This course is a workshop in any of a variety of topics in symbolic logic of special importance to contemporary analytic philosophy, such as modal logic, tense logic, axiomatic set theory, Goedel's theorems, model theory, etc. May be repeated for credit as topics vary. Prerequisite: PHIL 310. LEC.

PHIL 620. Philosophy of Natural Science. 3 Hours. H.
An examination of conceptual and foundational issues in the natural sciences. Topics may include the methodology of science (the nature and status of laws, the precise way in which experiment contributes to theory) and puzzles concerning the content of science (the status of space and time, the problematic nature of quantum mechanics). Prerequisite: PHIL 310 or PHIL 610, or permission of instructor. LEC.

PHIL 622. Philosophy of Social Science. 3 Hours. H.
A critical examination of the methods, concepts, and practices of the social sciences. Topics to be considered may include: theories of explanation, methodological individualism vs. holism, objectivity, the role of rationality, myth and the unconscious in the explanation of behavior, and the value neutrality of science. Prerequisite: One previous course in philosophy, or permission of instructor. LEC.

PHIL 628. Philosophy of Logic. 3 Hours. H.
A systematic treatment of logical theory. Different types of logic will be studied along with their philosophical assumptions, motivations, implications, and uses. Prerequisite: PHIL 310 or PHIL 610. LEC.

PHIL 630. Philosophy of Mathematics. 3 Hours. H.
An examination of varying conceptions of the role and status of mathematical arguments. Topics may include realism/anti-realism, the consequences of Goedel's Incompleteness Theorems, the role of mathematics in the sciences, and an examination of such historical thinkers as Plato, Frege, Russell, Wittgenstein, Goedel, and Hilbert. Prerequisite: PHIL 310 or PHIL 610, or permission of instructor. LEC.

PHIL 638. Philosophy of Language. 3 Hours. AE61 / H.
An examination of the nature of language using the methods of analytic philosophy. Topics may include meaning, truth, reference, language and thought, and the nature of linguistic rules. Prerequisite: PHIL 388 or permission of instructor. LEC.

PHIL 648. Theory of Knowledge. 3 Hours. AE61 / H.
An examination of the nature of knowledge. Topics may include the concept of knowledge, knowledge of the external world, induction, theories of justification, and scientific knowledge. Prerequisite: PHIL 384 and PHIL 386, PHIL 388 (which may be taken concurrently), or permission of instructor. LEC.

PHIL 650. Metaphysics. 3 Hours. AE61 / H.
An examination of some of the central issues in metaphysics. Topics may include causation, the mind-body problem, free will and determinism, modality, natural kinds, the nature of properties, and personal identity. Prerequisite: PHIL 384 and PHIL 386, PHIL 388 (which may be taken concurrently), or permission of instructor. LEC.

PHIL 654. Philosophy of Mind. 3 Hours. AE61 / H.
An examination of the nature of mind using the methods of analytic philosophy. Topics may include consciousness, perception, propositional attitudes, thought and language, action and intention, mind and body, the prospects for scientific psychology, and personal identity. Prerequisite: PHIL 388 or permission of instructor. LEC.

PHIL 662. Aesthetics. 3 Hours. H.
A study of some of the central themes and problems in aesthetics, such as the beautiful and the sublime in nature and the arts. Prerequisite: Two courses in philosophy or graduate standing. LEC.

PHIL 666. Rational Choice Theory. 3 Hours. H.
This course is an introduction to the philosophical issues surrounding individual decision theory, game theory, and social choice theory. This includes issues of scientific theory selection, the nature of preference, the uses of games to model social interaction, and the ethical and political implications of Arrow's impossibility theorem. Formal techniques of modeling and proof, akin to those used in logic and mathematics, will be used in much of the course. Prerequisite: Two courses in economics, a philosophy course numbered 500 or above, or consent of instructor. LEC.

PHIL 668. Political Philosophy. 3 Hours. H.
A systematic analysis of the concepts of politics, with reference to representative political theories. Prerequisite: A course in philosophy and a course in political science. LEC.

PHIL 670. Contemporary Ethical Theory. 3 Hours. AE51 / H.
An examination of some major moral philosophers and some important issues in ethical theory since the beginning of the twentieth century. Topics covered typically include intuitionism, emotivism, utilitarianism, virtue ethics, and the relationship between morality and rationality. Prerequisite: PHIL 160 or PHIL 161 or two courses in philosophy. LEC.

PHIL 671. Feminist Theories in Ethics. 3 Hours. H.
This course addresses the role (if any) that gender plays in constructing ethical theories. Topics include the impact of culture, affect, and the body on our understanding of gender differences and the importance of these differences for ethics. Prerequisite: PHIL 160 or PHIL 161, or two previous philosophy courses. LEC.

PHIL 672. History of Ethics. 3 Hours. AE51 / H.
An interpretive and critical examination of central texts in the history of moral philosophy, which may include works by Aristotle, Hume, Kant, and J.S. Mill. Prerequisite: PHIL 160 or PHIL 161 or two previous philosophy courses. LEC.

PHIL 674. Philosophy of Law. 3 Hours. H.
An examination of the concept of law and of legal reasoning. In addition, the course may consider such topics as natural law, legal excuses, the relations between law and morality, civil disobedience, civil liberties, the concept of property. Prerequisite: Two courses in philosophy or one course in philosophy and one course in law or consent of instructor. LEC.

PHIL 676. Medical Ethics: Life and Death Issues. 3 Hours. AE51 / H.
After a brief survey of techniques of moral argument and analysis especially as they pertain to the moral impermissibility of murder, particular moral and conceptual issues relating to death and dying in
medical contexts will be addressed. Topics such as abortion, infanticide, suicide, euthanasia, the definition of death, and the right to refuse life-saving medical therapy will be included. Prerequisite: Two courses in biology or consent of instructor. LEC.

PHIL 677. Medical Ethics: Professional Responsibilities. 3 Hours. H.
After a brief survey of techniques of moral argument and analysis, particular moral issues related to the obligations of health care professionals and the rights of patients will be discussed. These will include such matters as confidentiality, truth-telling, informed consent, the ethics of research on human subjects, psychosurgery, the rights of the mentally ill, and the rights of the mentally retarded. Prerequisite: Two courses in biology or consent of instructor. LEC.

PHIL 684. Main Currents of Russian Thought I. 3 Hours. H/W.
A study of philosophical, theological and literary monuments designed to acquaint the student with the main cultural forces that have shaped Russian thought and manners. From the origins to Napoleonic times. (Same as SLAV 684.) LEC.

PHIL 685. Davidson. 3 Hours.
An examination of Donald Davidson's seminal work in philosophy of language and philosophy of mind. Among the topics to be considered will be meaning, truth, interpretation, action, and propositional attitudes. Prerequisite: PHIL 638 or PHIL 654 or permission of instructor. LEC.

PHIL 686. Main Currents of Russian Thought II. 3 Hours. H/W.
A continuation of SLAV 684 from the age of Pushkin to the present. (Same as SLAV 686.) LEC.

PHIL 800. Tutorial. 3 Hours.
Intensive supervised training in and application of the techniques of research. Required of every graduate student seeking an advanced degree in the first or second semester of enrollment. Passing this tutorial constitutes partial fulfillment of the Ph.D. RSRS requirements. Consent of instructor required for repeating the course. Prerequisite: Graduate standing. RSH.

PHIL 805. Plato. 3 Hours.
Prerequisite: PHIL 508 or PHIL 605 or PHIL 607 or PHIL 608 or permission of instructor. LEC.

PHIL 807. Aristotle. 3 Hours.
Prerequisite: PHIL 508 or PHIL 605 or PHIL 607 or PHIL 608 or permission of instructor. LEC.

PHIL 820. Topics in the History of Philosophy: _____. 3 Hours.
This course may be offered by different instructors under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic, instructor, and specific prerequisite to be announced in the Schedule of Classes. Prerequisite: 500-600 level course as specified or permission of instructor. LEC.

PHIL 824. Hume. 3 Hours.
Prerequisite: PHIL 648 or PHIL 650 or PHIL 654 or permission of instructor. LEC.

PHIL 828. Kant. 3 Hours.
Prerequisite: PHIL 648 or PHIL 650 or PHIL 654 or permission of instructor. LEC.

PHIL 831. Hegel. 3 Hours.
Prerequisite: PHIL 560 or 500-600 level course as specified or permission of instructor. LEC.

PHIL 833. Nietzsche. 3 Hours.
A study of the philosophy of Friedrich Nietzsche. Prerequisite: PHIL 560 or PHIL 570 or permission of instructor. LEC.

PHIL 835. Frege. 3 Hours.
Gottlob Frege was the founder of the analytic movement in philosophy, having done seminal work in logic, the philosophy of language, and the philosophy of mathematics. This course will focus on his primary texts as well as his influence on present-day studies. Prerequisite: PHIL 628 or PHIL 630 or PHIL 638 or permission of instructor. LEC.

PHIL 843. Heidegger. 3 Hours.
Prerequisite: PHIL 560 or PHIL 562 or PHIL 570 or PHIL 582 or PHIL 590 or PHIL 592 or permission of instructor. LEC.

PHIL 848. Wittgenstein. 3 Hours.
Prerequisite: PHIL 638 or PHIL 650 or PHIL 654 or permission of instructor. LEC.

PHIL 850. Topics in Recent Philosophy: _____. 3 Hours.
This course may be offered by different instructors under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic, instructor, and specific prerequisite to be announced in the Schedule of Classes. Prerequisite: 500-600 level as specified or permission of instructor. LEC.

PHIL 852. Quine. 3 Hours.
A systematic study of the major work of W. V. Quine and its influence on subsequent analytic philosophy. Topics will include Quine’s theory of meaning, philosophical logic, and philosophy of science. Prerequisite: PHIL 638 or PHIL 648 or PHIL 650 or PHIL 654 or permission of instructor. LEC.

PHIL 855. Davidson. 3 Hours.
An examination of Donald Davidson’s seminal work in philosophy of language and philosophy of mind. Among the topics to be considered will be meaning, truth, interpretation, action, and propositional attitudes. Prerequisite: PHIL 638 or PHIL 654 or permission of instructor. LEC.

PHIL 860. Topics in Philosophy of Science: _____. 3 Hours.
This course may be offered under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic and instructor and specific prerequisite to be announced in the Schedule of Classes. Prerequisite: PHIL 620 or PHIL 622 or PHIL 648 or PHIL 650 or permission of instructor. LEC.

PHIL 862. Topics in Logic: _____. 3 Hours.
This course may be offered under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic and instructor and specific prerequisite to be announced in the Schedule of Classes. Prerequisite: PHIL 620 or PHIL 622 or PHIL 648 or PHIL 650 or permission of instructor. LEC.

PHIL 868. Topics in Philosophy of Language: _____. 3 Hours.
This course may be offered under different subtitles and may be taken more than once if the subject matter varies sufficiently. Prerequisite: PHIL 638 or permission of instructor. LEC.

PHIL 870. Topics in Metaphysics: _____. 3 Hours.
This course may be offered under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic and instructor and specific prerequisite to be announced in the Schedule of Classes. Prerequisite: PHIL 650 or permission of instructor. LEC.

PHIL 872. Topics in Theory of Knowledge: _____. 3 Hours.
This course may be offered under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic and instructor and specific prerequisite to be announced in the Schedule of Classes. Prerequisite: PHIL 648 or permission of instructor. LEC.

PHIL 877. Topics in Philosophy of Mind: _____. 3 Hours.
This course may be offered under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic and instructor and specific prerequisite to be announced in the Schedule of Classes. Prerequisite: PHIL 654 or permission of instructor. LEC.

PHIL 880. Topics in Ethics: _____. 3 Hours.
This course may be offered under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic and instructor and specific prerequisite to be announced in the Schedule of
Classes. Prerequisite: PHIL 670 or PHIL 672 or permission of instructor. LEC.

PHIL 884. Topics in Social and Political Philosophy: ____. 3 Hours. This course may be offered under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic and instructor and specific prerequisite to be announced in the Schedule of Classes. Prerequisite: PHIL 555 or PHIL 666 or PHIL 668 or PHIL 674 or permission of instructor. LEC.

PHIL 885. Topics in Law and Philosophy. 3 Hours. Explores various topics at the intersection of law and philosophy. Content varies but may include: What is freedom and what role should government play in a free society? What is equality and what is the best way to achieve it? What is the relationship between law and social justice? What is the source and value of human rights? Should social and economic rights be legally guaranteed? How should government redress historical injustices such as slavery, apartheid, and the Holocaust? Students must complete a substantial seminar paper. (Same as LAW 962.) LEC.

PHIL 886. Topics in Applied Ethics: ____. 3 Hours. This course may be offered under different subtitles, such as professional ethics or some issue in business ethics (e.g., corporate responsibility) or in medical ethics (e.g., the definition of death); it may be taken more than once if the subject matter varies sufficiently. Topic, instructor, and specific prerequisite to be announced in Schedule of Classes. Prerequisite: PHIL 670 or PHIL 672 or 500-600 level course as specified or permission of instructor. LEC.

PHIL 888. Topics in the Philosophy of the Social Sciences: ____. 3 Hours. This course may be offered under different subtitles, such as philosophy of a particular social science (e.g., economics, psychology) or a particular issue in the social sciences (e.g., ideology, reductionism), and may be taken more than once if the subject matter varies sufficiently. Topic, instructor, and specific prerequisite to be announced in the Schedule of Classes. Prerequisite: PHIL 622 or permission of instructor. LEC.

PHIL 890. Topics in Continental Philosophy: ____. 3 Hours. This course may be offered under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic, instructor, and specific prerequisites to be announced in the Schedule of Classes. LEC.

PHIL 899. Master’s Thesis. 1-6 Hours. Six hours of credit will be awarded upon completion of the master’s thesis, but no more than six hours of credit may be obtained in this course altogether. Graded on a satisfactory/unsatisfactory basis. THE.

PHIL 900. Research in Philosophy: ____. 1-3 Hours. Intensive research in philosophy. This course may be taken through individual arrangement, or in connection with small research seminars which are offered occasionally. Students may only enroll for three hours in any given semester. May be repeated if content varies significantly. Prerequisite: Twelve hours of graduate work. RSH.

PHIL 901. Ph.D. Tutorial. 3 Hours. Independent research on any topic that a graduate student and a faculty member shall agree on. It shall result in a tightly focused 20-30 page paper. The student’s written work will be repeatedly evaluated over the semester by the director, and the final product must be defended in an oral examination conducted by a three-member faculty committee (including the director). Prerequisite: Students must be admitted to the Ph.D. program and have successfully completed the Ph.D. core courses requirement. RSH.

PHIL 999. Dissertation. 1-12 Hours. This course may be taken more than once, but not for more than twelve hours of credit in any one semester. Graded on a satisfactory/unsatisfactory basis. THE.

Physics Astronomy Courses

ASTR 177. First Year Seminar: ____. 3 Hours. GE11 / U. A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Astronomy. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

ASTR 190. Astronomy and Civilization. 3 Hours. N. A survey course that describes the interplay between the science of astronomy and cultural beliefs. It uses, among others, examples of how religious and philosophical tenets have enhanced or conflicted with scientific principles. Not for astronomy majors. LEC.

ASTR 191. Contemporary Astronomy. 3 Hours. NP GE3N / N. The structure and evolution of the universe, from nearby planets to distant quasars, are examined. Topics include recent discoveries concerning planets, stars, galaxies, pulsars and black holes as well as their evolution, the structure of the universe today and how it will be in the future. The emphasis is descriptive rather than mathematical. Concurrent enrollment in ASTR 196 suggested, but not required. Prerequisite: One year each of high school algebra and geometry. LEC.

ASTR 196. Introductory Astronomy Laboratory. 1 Hour. U. An introduction to astronomical observations and methods. Students have the opportunity to use the telescopes at the K.U. observatory. The course includes constellation recognition, finding celestial objects, and interpreting astronomical data. A companion course to ASTR 191 or ASTR 391. Counts as a laboratory science when preceded or accompanied by ASTR 191 or ASTR 391. Prerequisite or corequisite: ASTR 191 or ASTR 391. LAB.

ASTR 293. Astronomy Bizarre. 3 Hours. GE3N / N. An exploration of physical phenomena found in astrophysical extremes. Topics may include the following: the most violent explosions in the Universe (supernovae and gamma ray bursts); the biggest collisions in nature (galaxy interactions; the densest and most bizarre forms of matter (white dwarfs, neutron stars); the strongest magnetic fields (magnetars, pulsars); the amazing range of exo-planetary properties; and the mysteries of black holes. Prerequisite: Eligibility for MATH 101. LEC.

ASTR 390. Undergraduate Problems. 1-3 Hours. AE61 / N. Undergraduate observational or theoretical problems in astronomy. Maximum credit, six hours. Prerequisite: Permission of department. IND.

ASTR 391. Physical Astronomy, Honors. 3 Hours. NP GE12/GE3N / N. An honors, calculus-based introduction to astronomy and astrophysics, required for astronomy majors. Components of the Universe - from planetary systems, stellar systems, large scale structure and cosmology - are examined to illuminate the physics principles which govern their evolution. Prerequisite: MATH 121, and either permission of instructor, or participation in the University Honors Program. LEC.

ASTR 394. The Quest for Extraterrestrial Life. 3 Hours. NP GE11 / N. An introduction to the search for planets around other stars and for life in the universe beyond the earth. A discussion of the astronomical conditions under which life might form and the biological conditions of life formation and evolution. Methods of searching for extraterrestrial life. Prerequisite: An introductory course in biology, astronomy or geology. LEC.
ASTR 400. Topics in Astronomy: _____, 1-3 Hours. N.
A course on special topics in astronomy. Course may be repeated for different topics. Each section may have additional prerequisites to be determined by the instructor. LEC.

ASTR 503. Undergraduate Research, 1-4 Hours. AE61 / N.
This course is for students seeking to fulfill the undergraduate research requirement. Students are expected to participate in some area of ongoing research in the department, chosen with the help of their advisor. At the end of the term, students will present their results in a seminar to other students and faculty. (Same as EPHX 503 and PHSX 503.) Prerequisite: Junior/Senior standing in Astronomy, Engineering Physics, or Physics, or permission of instructor. IND.

ASTR 591. Stellar Astronomy, 3 Hours. N.
Fundamentals of stellar astronomy including astronomical optics and techniques, coordinate and time systems, stellar spectroscopy, properties of normal, binary and variable stars. Prerequisite: PHSX 212 and PHSX 236. An introductory astronomy course is desirable. LEC.

ASTR 592. Galactic and Extragalactic Astronomy, 3 Hours. N.
A study of stellar groups, the interstellar medium, galactic structure and dynamics, galaxies, and cosmology. Prerequisite: ASTR 591 or consent of instructor. LEC.

ASTR 596. Observational Astrophysics, 2 Hours. AE61 / N.
Students acquire practical experience with astronomical equipment and data reduction techniques used in research and educational contexts. ASTR 596, combined with an independent research experience, provides a pathway for students to demonstrate creativity and integration of background knowledge. Prerequisite or corequisite: ASTR 591. LEC.

ASTR 597. Analysis in Astrophysics, 1-3 Hours. AE61 / N.
Individual students work on specialized research problems in the field of observational or theoretical astrophysics. Maximum credit, six hours. Prerequisite: ASTR 592. IND.

ASTR 691. Astrophysics I, 3 Hours. N.
An introduction to radiation processes, thermal processes, and radiative transfer in stellar atmospheres and the interstellar medium. (Same as EPHX 691 and PHSX 691.) Prerequisite: PHSX 313 or consent of instructor. LEC.

ASTR 692. Astrophysics II, 3 Hours. N.
The formation and evolution of stars, nucleosynthesis of the elements, and the physical processes of high energy physics. Prerequisite: ASTR 691 or consent of instructor. LEC.

ASTR 791. Seminar in Astrophysics, 1-3 Hours.
Seminar designed to cover current topics in the physics of the Universe beyond the solar system. Content will vary. Graduate students engaged in or preparing for research may repeat enrollments in this course. Open to undergraduates with twelve hours of physics/astronomy courses numbered 500 or above, or consent of instructor. LEC.

ASTR 792. Topics in Advanced Astrophysics, 3 Hours.
This course will address one or more of the following advanced topics in astrophysics: high energy astrophysics, nuclear astrophysics, galactic and extragalactic astrophysics, space physics, cosmology, astrobiology, and the interstellar and intergalactic media. (ISM/IGM.) This course may be repeated for credit if topical content differs. (Same as PHSX 792.) Prerequisite: ASTR 692 or permission of instructor. LEC.

ASTR 795. Space Plasma Physics, 3 Hours.
The physics of fully ionized gases in magnetic fields and their application to interplanetary processes, planetary radiation belts, and the surface of the sun. The motion of charged particles in magnetic fields, magnetohydrodynamic waves, the solar wind and the magnetosphere. (Same as PHSX 795.) Prerequisite: PHSX 621. Corequisite: PHSX 631. LEC.

ASTR 815. Computational Physics and Astronomy, 3 Hours.
Advanced computer applications in physics and astronomy. General discussion and illustration of problem organization and solution by numerical and other methods with examples from plasma, space, solid state, elementary particle, and nuclear physics and astronomy. Students will design, write, validate, and document a computer program to solve a physical problem. (Same as PHSX 815 and CHEM 914.) Prerequisite: Six hours of computer science courses numbered 300 or above, and six hours of physics and/or astronomy courses numbered 300 or above. LEC.

ASTR 897. Seminar in Plasma and Space Physics, 1-3 Hours.
Graduate students engaged in or preparing for research may repeat enrollments in this course. The content will vary. (Same as PHSX 897.) LEC.

PHSX 111. Introductory Physics. 3 Hours. NP GE11/GE3N / N.
A one-semester survey of classical and modern physics, designed primarily for liberal arts students. Typical subjects include the laws of motion, gravity, electricity and magnetism, sound, light, quantum mechanics, atomic and subatomic physics. Subjects are treated mainly conceptually with some use of basic data. Prerequisite: Eligibility for MATH 104. LEC.

PHSX 112. Concepts in Physics, Honors. 3 Hours. NP GE3N / N.
A discussion of important concepts in physics. While basic concepts such as force, energy, and mass will be introduced as needed, the emphasis will be on an understanding and appreciation of contemporary science. Prerequisite: Eligibility for MATH 104 and participation in the University Honors Program or permission of instructor. LEC.

PHSX 114. College Physics I, 1-4 Hours. NP GE11/GE12/GE3N / N.
Principles and applications of mechanics, fluids, heat, thermodynamics, and sound waves. Three class hours and one laboratory per week. This course emphasizes the development of quantitative concepts and problem solving skills for students needing a broad background in physics as part of their preparation in other major programs, and for those who wish to meet the laboratory science requirement of the College. In special circumstances, permission to enroll in less than four hours may be obtained from the department. Not open to students with credit in PHSX 211 or PHSX 216 or PHSX 212 or PHSX 236. Prerequisite: MATH 104, or three and one-half years of college-preparatory mathematics including trigonometry and a score of 25 or higher on ACT mathematics. LEC.

PHSX 115. College Physics II, 1-4 Hours. N.
A continuation of PHSX 114. Principles and applications of electricity, magnetism, light, atomic physics, and nuclear physics. Three class hours and one laboratory per week. In special circumstances, permission to enroll in less than four hours may be obtained from the department. Not open to students with credit in PHSX 212 or PHSX 236. Prerequisite: PHSX 114. LEC.

PHSX 116. Introductory Physics Laboratory, 1 Hour. U.
A laboratory exploring classical and modern physics, designed primarily for liberal arts students. Experiments in motion gravity, electricity and magnetism, sound, light, atomic and subatomic physics are designed to teach physics concepts and basic laboratory techniques. One two-hour lab period per week. Counts as a laboratory science when preceded or accompanied by PHSX 111. Prerequisite: Eligibility for MATH 104. Corequisite: PHSX 111. LAB.
PHSX 150. Seminar in Physics, Astronomy and Engineering Physics. 0.5 Hours. N. This course is intended for all students in physics, astronomy and engineering physics. Course content includes topics of current interest in all fields of physics and astronomy. LEC.

PHSX 177. First Year Seminar: ______. 3 Hours. GE11 / U. A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Physics. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

PHSX 201. Transition to General Physics. 1 Hour. N. Classical mechanics and thermodynamics with calculus for students who have had a prior algebra-based course. Prerequisite: PHSX 114, either MATH 116 or 121, and permission of the department. LEC.

PHSX 210. General Physics I for Engineers. 3 Hours. GE11 / N. Introduction to classical mechanics and thermodynamics designed for students in the School of Engineering. Students not admitted to the School of Engineering must receive permission from instructor. PHSX 210 and PHSX 211 cannot both be taken for credit. Students with credit in PHSX 114 can obtain only one hour of credit. Prerequisite: MATH 121 with a grade of C or better; courses in high school physics and/or chemistry recommended. LEC.

PHSX 211. General Physics I. 1-4 Hours. NP GE11/GE12/GE3N / N. Introduction to classical mechanics and thermodynamics. Designed for students in engineering and physical science majors. In special circumstances, permission to enroll for fewer than four hours credit may be obtained from the department. Students with credit in PHSX 114 can obtain only one hour of credit. Prerequisite: MATH 116 or MATH 121; courses in high school physics and/or chemistry are recommended. LEC.

PHSX 212. General Physics II. 1-3 Hours. GE3N / N. Study of electricity and magnetism, waves and sound. In special circumstances, permission to enroll for fewer than three hours credit may be obtained from the department. Students with credit in PHSX 115 can obtain only one hour of credit. Prerequisite: PHSX 211, PHSX 210 or PHSX 213. Corequisite: MATH 122. LEC.

PHSX 213. General Physics I Honors. 1-5 Hours. NP GE11/GE12/GE3N / N. An honors section of PHSX 211 and PHSX 216. Credit for fewer than five hours requires permission of the department. Recommended for students with a strong math background who are either in the University Honors Program or intending to major in a physical science. Courses in high school physics and chemistry are strongly recommended. Prerequisite: MATH 121 and permission of instructor. LEC.

PHSX 214. General Physics II Honors. 1-4 Hours. N. An honors section of PHSX 212 and PHSX 236. Credit for fewer than four hours requires permission of the department. Recommended for students with a strong math background who are either in the University Honors Program or intending to major in a physical science. Prerequisite: PHSX 216 together with either PHSX 211 or PHSX 210; or PHSX 213, and permission of instructor. Corequisite: MATH 122. LEC.

PHSX 216. General Physics I Laboratory. 1 Hour. GE11 / N. Experiments in classical mechanics and thermodynamics. Counts as a laboratory science when accompanied by PHSX 210 or PHSX 211. Pre-or Corequisite: PHSX 210 or PHSX 211. LAB.

PHSX 236. General Physics II Laboratory. 1 Hour. N. Experiments in electricity and magnetism, waves and sound. Pre-or Corequisite: PHSX 212. LAB.

PHSX 313. General Physics III. 3 Hours. GE3N / N. Introduction to modern physics. Topics include special relativity, optics, and introductions to quantum mechanics and solid state physics. Prerequisite: PHSX 212 and PHSX 236 or PHSX 214 or EECS 220. Corequisite: MATH 320 or MATH 220. LEC.

PHSX 316. Intermediate Physics Laboratory I. 1 Hour. U. Experiments in optics and modern physics. Development of experimental skills, data reduction, error analysis, and technical writing. One lab meeting per week and one lecture per week on topics including error analysis and experimental design. Pre-or corequisite: PHSX 313. LAB.

PHSX 400. Topics in Physics and Astronomy: ______. 1-3 Hours. N. A course on special topics in physics and astronomy, given as the need arises. Course may be repeated for different topics. Each section may have prerequisites to be determined by the instructor. LEC.

PHSX 500. Special Problems. 1-5 Hours. AE61 / N. Work in some area of physics beyond the topics or material covered in other courses. For some problems, continued enrollment in consecutive semesters may be appropriate. Prerequisite: One junior-senior course in science in an area related to the problem and consent of instructor. IND.

PHSX 501. Honors Research. 1-4 Hours. AE61 / N. This course is to enable students seeking departmental Honors in Astronomy, Engineering Physics, or Physics to fulfill the undergraduate research requirement. At the completion of the required 4 hours of total enrollment, a written and oral report of the research is required. (Same as EPHX 501.) Prerequisite: Junior/Senior standing in Astronomy, Engineering Physics, or Physics, or permission of instructor. IND.

PHSX 502. Seminar in Physics and Astronomy Instruction. 1-3 Hours. N. One meeting per week to plan and report progress on projects which may include tutoring of students in personalized modes of study; developing, administering, and scoring test items; designing and improving demonstration and laboratory experiments. Amount of credit depends on projects contracted for and completed. (Distribution credit given for two-three hours only.) Prerequisite: Evidence of prior academic experience relevant to the student’s proposed activities in the seminar and permission of instructor. LEC.

PHSX 503. Undergraduate Research. 1-4 Hours. AE61 / N. This course is for students seeking to fulfill the undergraduate research requirement. Students are expected to participate in some area of ongoing research in the department, chosen with the help of their advisor. At the end of the term, students will present their results in a seminar to other students and faculty. (Same as ASTR 503 and EPHX 503.) Prerequisite: Junior/Senior standing in Astronomy, Engineering Physics, or Physics, or permission of instructor. IND.

PHSX 511. Introductory Quantum Mechanics. 3 Hours. N. An introduction to quantum mechanics, emphasizing a physical overview. Topics should include the formalisms of non-relativistic quantum mechanics, the 3-dimensional Schrodinger equation with applications to the hydrogen atom; spin and angular momentum; multi-particle systems of Fermi-Dirac and Bose-Einstein particles; time-independent perturbation theory. (Same as EPHX 511.) Prerequisite: PHSX 313 and MATH 290. LEC.

PHSX 516. Physical Measurements. 4 Hours. N. A laboratory course emphasizing experimental techniques and data analysis, as well as scientific writing and presentation skills. Experiments will explore a range of classical and modern physics topics. (Same as EPHX 516.) Prerequisite: PHSX 313, PHSX 316 and PHSX 521. (PHSX 521 may be taken concurrently.) LAB.
PHSX 518. Mathematical Physics. 3 Hours. N.
Applications of modern mathematical methods to problems in mechanics and modern physics. Techniques include application of partial differential equations and complex variables to classical field problems in continuous mechanics, unstable and chaotic systems, electrodynamics, hydrodynamics, and heat flow. Applications of elementary transformation theory and group theory, probability and statistics, and nonlinear analysis to selected problems in modern physics as well as to graphical representation of experimental data. Prerequisite: PHSX 313 and MATH 320 or permission of instructor. (Same as EPHX 518.) LEC.

PHSX 521. Mechanics I. 3 Hours. N.
Newton's laws of motion. Motions of a particle in one, two, and three dimensions. Motion of a system of particles. Moving coordinate systems. (Same as EPHX 521.) Prerequisite: PHSX 211 and PHSX 216, or PHSX 213; MATH 223; MATH 290; and MATH 220 or MATH 320. LEC.

PHSX 528. Geodynamics and Plate Tectonics. 3 Hours. N.
Study of physical processes in the solid Earth and of geophysical approaches to studying Earth systems at regional and global scales. Topics include global potential fields, thermal regime, rheology and Earth deformation, earthquakes and seismic structure, plate motions and global tectonics. (Same as GEOL 573) Prerequisite: An introductory course in geology; MATH 116 or MATH 122; and PHSX 115, PHSX 214, or PHSX 212 and PHSX 236. LEC.

PHSX 531. Electricity and Magnetism. 3 Hours. N.
The properties of electric and magnetic fields, including electrostatics, Gauss' Law, boundary value methods, electric fields in matter, electromagnetic induction, magnetic fields in matter, the properties of electric and magnetic dipoles, and of dielectric and magnetic materials. (Same as EPHX 531.) Prerequisite: PHSX 214, or PHSX 212 and PHSX 236; PHSX 521 or special permission; MATH 223; MATH 290; and MATH 220 or MATH 320. LEC.

PHSX 536. Electronic Circuit Measurement and Design. 4 Hours. N.
A laboratory course that explores the theory and experimental techniques of analog and digital electronic circuit design and measurements. Topics include transient response, transmission lines, transistors, operational amplifiers, and digital logic. (Same as EPHX 536.) Prerequisite: PHSX 214 or PHSX 212 and PHSX 236; PHSX 521 or special permission; MATH 223; MATH 290; and MATH 220 or MATH 320. LEC.

PHSX 557. Topics in Mechanics, Properties of Materials, Thermodynamics. 1-3 Hours.
This course covers the principles and applications of classical mechanics, fluids, heat, thermodynamics and sound. Teaching of these topics is strongly emphasized. Some laboratory work is included. This course is intended for students accepted to the BS Education major in Physics. This course does not count towards Physics or Astronomy major requirements in the College of Liberal Arts and Sciences. Prerequisite: MATH 115 and 116, and either PHSX 114 or PHSX 211. LEC.

PHSX 558. Topics in Electricity and Magnetism and Optics. 1-3 Hours.
This course covers the principles and applications of electricity, magnetism and optics. Teaching of these topics is strongly emphasized. Some laboratory work is included. This course is intended for students accepted to the BS Education major in physics. This course does not count towards Physics or Astronomy major requirements in the College of Liberal Arts and Sciences. Prerequisite: MATH 115 and 116, and either PHSX 115 or PHSX 212. LEC.

PHSX 559. Topics in Modern Physics. 1-3 Hours.
This course covers the principles and applications of quantum mechanics, atomic and nuclear physics. Teaching of these topics is strongly emphasized. Some laboratory work is included. This course is intended for students accepted to the BS Education major in physics. This course does not count towards Physics or Astronomy major requirements in the College of Liberal Arts and Sciences. Prerequisite: MATH 115 and 116, and either PHSX 115 or PHSX 313. LEC.

PHSX 594. Cosmology and Culture. 3 Hours. AE42 / N.
A survey of modern physical cosmology, its recent historical roots, and creation myths from many world cultures. An examination of the effects of these stories on their parent cultures. LEC.

PHSX 600. Special Topics in Physics and Astrophysics: ______. 3 Hours. N.
Different topics will be covered as needed. This course will address topics in physics and astrophysics not covered in regularly offered courses. May be repeated if topic differs. (Same as EPHX 600.) Prerequisite: Permission of instructor. LEC.

PHSX 601. Design of Physical and Electronic Systems. 4 Hours. AE61 / N.
A laboratory course emphasizing the application of physical principles to the design of systems for research, monitoring, or control. Topics include the use of microcomputers as controllers, interfacing microcomputers with measurement devices, and use of approximations and/or computer simulation to optimize design parameters, control systems, and noise. (Same as EPHX 601.) Prerequisite: Twelve hours of junior-senior credit in physics or engineering, including one laboratory course. LAB.

PHSX 615. Numerical and Computational Methods in Physics. 3 Hours. N.
An introduction to the use of numerical methods in the solution of problems in physics for which simplifications allowing closed-form solutions are not applicable. Examples are drawn from mechanics, electricity, magnetism, thermodynamics, and optics. (Same as EPHX 615.) Prerequisite: PHSX 313, MATH 320 or equivalent, and EECS 138 or equivalent. LEC.

PHSX 621. Mechanics II. 3 Hours. N.
Continuation of PHSX 521. Lagrange's equations and generalized coordinates. Mechanics of continuous media. Tensor algebra and rotation of a rigid body. Special relativity and relativistic dynamics. (Same as EPHX 621.) Prerequisite: PHSX 521. LEC.

PHSX 623. Physics of Fluids. 3 Hours. N.
An introduction to basic fluid mechanics in which fundamental concepts and equations are covered. Topics include hydrostatics, hydromechanics, wave propagation in fluids, and applications in the areas such as astrophysics, atmospheric physics, and geophysics. (Same as EPHX 623.) Prerequisite: MATH 223; MATH 290; PHSX 212 and PHSX 236 (or PHSX 214 can replace PHSX 212 and PHSX 236.) LEC.

PHSX 631. Electromagnetic Theory. 3 Hours. N.
Maxwell's equations, wave propagation, optics and waveguides, radiation, relativistic transformations of fields and sources, use of covariance and invariance in relativity. Normally a continuation of PHSX 531. (Same as EPHX 631.) Prerequisite: PHSX 531. LEC.

PHSX 641. Introduction to Nuclear Physics. 3 Hours. N.
Experimental methods and elementary concepts in nuclear physics, including nuclear forces, alpha and beta decay, gamma radiation, nuclear structure, and reaction systematics. (Same as EPHX 641.) Prerequisite: PHSX 313 and PHSX 511. LEC.

PHSX 655. Optics. 3 Hours. N.
optics, e.g., lasers, fibers. (Same as EPHX 655.) Prerequisite: PHSX 313 and PHSX 316. LEC.

PHSX 661. Introduction to Elementary Particle Physics. 3 Hours. N.
Properties and interactions of quarks, leptons, and other elementary particles; symmetry principles and conservation laws; broken symmetry; gauge bosons; the fundamental interactions, grand unified theories of strong, electromagnetic, and weak interactions; the cosmological implications of elementary particle physics. (Same as EPHX 661.) Prerequisite: PHSX 313 and MATH 320. LEC.

PHSX 671. Thermal Physics. 3 Hours. N.
Development of thermodynamics from statistical considerations. Techniques of calculating thermodynamic properties of systems. Application to classical problems of thermodynamics. Elementary kinetic theory of transport processes. Fermi-Dirac and Bose-Einstein systems. (Same as EPHX 670.) Prerequisite: PHSX 511. LEC.

PHSX 681. Concepts in Solids. 3 Hours. N.
Properties of common types of crystals and amorphous solids. Lattice vibrations and thermal properties of solids. Electrons and holes in energy bands of metals, semi-conductors, superconductors, and insulators. (Same as EPHX 681.) Prerequisite: PHSX 313 and PHSX 511. LEC.

PHSX 691. Astrophysics I. 3 Hours. N.
An introduction to radiation processes, thermal processes, and radiative transfer in stellar atmospheres and the interstellar medium. (Same as ASTR 691 and EPHX 691.) Prerequisite: PHSX 313 or consent of instructor. LEC.

PHSX 693. Gravitation and Cosmology. 3 Hours. N.
An overview of topics relevant to gravitation and modern cosmology: special relativity, tensor notation, the equivalence principle, the Schwarzschild solution, black holes, and Friedmann models. Cosmic black body radiation, dark matter, and the formation of large-scale structure. The idea of quantum gravity and an introduction to the current literature in cosmology. (Same as EPHX 693.) Prerequisite: PHSX 313 and MATH 320. LEC.

PHSX 700. Colloquium. 1 Hour.
Topics of current interest in physics, astronomy, and atmospheric science. Repeated enrollments are permitted. LEC.

PHSX 701. Major Experiments and Observations in Classical and Contemporary Physics. 1-3 Hours.
Critique, discussions, and interpretation of the most important discoveries and observations in physics. LEC.

PHSX 702. Introductory Physics Pedagogy. 1 Hour.
This course will address basic elements of pedagogy in specific relation to the teaching of physics and astronomy labs. It contains such elements as: peer and instructor evaluations of teaching, reading and discussion of pedagogical materials, development of online course material, and discussion of teaching methods. This course may be repeated for credit. Prerequisite: Permission of instructor. LEC.

PHSX 711. Quantum Mechanics I. 3 Hours.

PHSX 717. Graduate Seminar. 1 Hour.
First year graduate students meet to survey research opportunities in the department and develop skills in giving oral presentations in physics and related areas. Students will also learn about topics in responsible scholarship that may include: the origin of ideas and the allocation of credit, the treatment of data, scientific misconduct, intellectual property and entrepreneurship, the researcher in society, collaborative research, mentor/trainee responsibilities, and safe practices. LEC.

PHSX 718. Mathematical Methods in Physical Sciences. 3 Hours.
Review of complex variable theory; introduction to the partial differential equations of physical systems; Fourier analysis; special functions of mathematical physics; and chemistry. (Same as CHEM 718.) Prerequisite: Two semesters of junior-senior mathematics. LEC.

PHSX 721. Chaotic Dynamics. 3 Hours.
Topics covered may include the following: dynamical systems, attractors, sensitive dependence on initial conditions, chaos, one-dimensional maps, strange attractors and fractal dimensions, fat fractals, the horseshoe map, symbolic dynamics, linear stability of periodic orbits, stable and unstable manifolds, Lyapunov exponents, topological entropy, quasiperiodicity, strange nonchaotic attractors, nonattracting chaotic sets, fractal basin boundaries, renormalization group analysis, intermittency, crisis and chaotic transients. Prerequisite: Mechanics (PHSX 521, or its equivalent), ordinary differential equations (MATH 320, or its equivalent), and some computer programming knowledge. LEC.

PHSX 722. Geophysical Data Analysis. 3 Hours.
Fourier analysis, sampling theory, prediction and interpolation of geophysical data, filtering theory, correlation techniques, deconvolution. Examples will be chosen from various fields of geophysics. (Same as GEOL 772.) Prerequisite: MATH 250/AE 250/ARCE 250/CE 250/CPE 250/EECS 250/EPHX 250/ME 250 and either GEOL 572 or GEOL 573 or PHSX 528. LEC.

PHSX 723. Seismology. 3 Hours.
General theory of seismic waves, wave field extrapolation (migration) by finite difference methods, construction of travel-time curves, reflection and attenuation coefficients, earthquake source mechanism, distribution and forecasting of earthquakes. (Same as GEOL 773.) Prerequisite: MATH 250/AE 250/ARCE 250/CE 250/CPE 250/EECS 250/EPHX 250/ME 250 and either GEOL 572 or GEOL 573 or PHSX 528. LEC.

PHSX 724. Potential Fields in Geophysics. 3 Hours.
Reduction and interpretation of gravity and magnetic data with emphasis on exploration techniques. Spectral, analytical and modeling methods of analysis of gravity and magnetic anomalies are emphasized. Prerequisite: MATH 250/AE 250/ARCE 250/CE 250/CPE 250/EECS 250/EPHX 250/ME 250 and either GEOL 572 or GEOL 573 or PHSX 528 or consent of instructor. LEC.

PHSX 727. Advanced Geophysics: _____, 1-3 Hours.
Topics to vary with demand and include heat flow, wave propagation, synthetic seismograms, groundwater exploration, geothermal exploration, electrical methods in exploration, rock mechanics-tectonophysics, rock magnetism, geomagnetism, paleomagnetism, geophysical inverse theory, and others upon sufficient demand. May be repeated for different topics. (Same as GEOL 771.) Prerequisite: GEOL 572 or GEOL 573 or PHSX 528 or consent of instructor. LEC.

PHSX 731. Molecular Biophysics. 3 Hours.
Methods and concepts in contemporary molecular biophysics are discussed. Particular emphasis is placed on the thermodynamics of macromolecular interactions and quantitative methods of data analysis. Basic enzymology and biophysical spectroscopy will also be reviewed. Prerequisite: PHSX 212, MATH 122, and CHEM 188. LEC.

PHSX 741. Nuclear Physics I. 3 Hours.
Experimental methods in nuclear physics, elementary concepts and simple considerations about nuclear forces, alpha and beta
decay, gamma radiation, nuclear structure, and reaction systematics. Prerequisite: PHSX 611. LEC.

**PHSX 761. Elementary Particles I. 3 Hours.**
Particle accelerators and detectors; quarks and leptons; invariance principles and conservation laws; strong, electromagnetic, and weak interactions of elementary particles; unification of electroweak and other interactions. Prerequisite: PHSX 711. LEC.

**PHSX 781. Solid State Physics I. 3 Hours.**
Classification of solids, structure and symmetry of crystals; lattice vibrations and thermal properties of solids; electric and magnetic properties; electron theory of metals and semiconductors; electronic and atomic transport processes; theory of ionic crystals. Prerequisite: PHSX 611 (or CHEM 648) and PHSX 671 (or CHEM 646). LEC.

**PHSX 791. Seminar in Astrophysics. 1-3 Hours.**
Seminar designed to cover current topics in the physics of the Universe beyond the solar system. Content will vary. Graduate students engaged in or preparing for research may repeat enrollments in this course. Open to undergraduates with twelve hours of physics/astronomy courses numbered 500 or above, or consent of instructor. LEC.

**PHSX 792. Topics in Advanced Astrophysics. 3 Hours.**
This course will address one or more of the following advanced topics in astrophysics: high energy astrophysics, nuclear astrophysics, galactic and extragalactic astrophysics, space physics, cosmology, astrophysics, and the interstellar and intergalactic media (ISM/IGM). This course may be repeated for credit if topical content differs. (Same as ASTR 792.) Prerequisite: ASTR 692 or permission of instructor. LEC.

**PHSX 793. Physical Cosmology. 3 Hours.**
Discussion of how fundamental laws of physics govern the evolution of the universe as a whole along with its structure. Survey of cosmogenic clues in the observable universe, including observed structures, cosmic background radiation and evidence for dark matter. Development of the universe, including theories of initial conditions; cosmological phase transitions; generation of possible relics and dark matter; symmetry breaking; baryon asymmetry; nucleosynthesis; recombination, gravitational instability and the formation of structure; current experimental techniques. Prerequisite: PHSX 718. Recommended: PHSX 593. LEC.

**PHSX 795. Space Plasma Physics. 3 Hours.**
The physics of fully ionized gases in magnetic fields and their application to interplanetary processes, planetary radiation belts, and the sun. The motion of charged particles in magnetic fields, magnetohydrodynamic waves, the solar wind, the ionosphere, and the magnetosphere. (Same as ASTR 795.) Prerequisite: PHSX 621. Corequisite: PHSX 631. LEC.

**PHSX 800. Graduate Problems. 1-5 Hours.**
Advanced laboratory problems, special research problems, or library reading problems. Repeated enrollments are permitted. RSH.

**PHSX 801. Advanced Topics. 1-3 Hours.**
Lectures on advanced material not covered by regular courses. The topics are not limited but generally address recent experimental or theoretical developments in subjects such as superconductivity, nuclear physics, elementary particle physics, quantum field theory, gauge and unified theories, nonlinear or chaotic systems, space plasma physics, and astrophysics and cosmology. Repeated enrollments are permitted. LEC.

**PHSX 811. Quantum Mechanics II. 3 Hours.**
Time dependent perturbation theory. Gauge invariance and electromagnetic interactions. Quantization of the electromagnetic field and applications. The Dirac equation, its transformation properties and applications to relativistic problems. Scattering theory, elementary applications, and formal properties. Prerequisite: PHSX 711. LEC.

**PHSX 815. Computational Methods in Physical Sciences. 3 Hours.**
Advanced computer applications in physical science. General discussion and illustration of problem organization and solution by numerical and other methods with examples from physics, astronomy, and other physical sciences. Students will design, write, validate, and document a computer program to solve a physical problem. (Same as ASTR 815 and CHEM 914.) Prerequisite: Six hours of computer science courses numbered 300 or above, and six hours of physics and/or astronomy courses numbered 300 or above. LEC.

**PHSX 817. Graduate Seminar. 1 Hour.**
First year graduate students meet to survey research opportunities in the department and develop skills in giving oral presentations in physics and related areas. Prerequisite: Only one hour of 817 can count toward required hours for degree. LEC.

**PHSX 821. Classical Mechanics. 3 Hours.**
Vector and tensor notation; review of Newtonian mechanics; Lagrangian mechanics; linear vector spaces and matrix theory with applications to the theory of small oscillations; rigid bodies; Hamiltonian formalism. Special relativity. Prerequisite: Twelve hours of junior-senior courses in physics. LEC.

**PHSX 831. Electrodynamics I. 3 Hours.**
Classical and magnetostatics; Maxwell’s equations; plane waves; waveguides. Prerequisite: PHSX 718 and PHSX 821. LEC.

**PHSX 841. Nuclear Physics II. 3 Hours.**
Nuclear forces and the two-body problem; nuclear models; phenomenological treatment of nuclear reactions and decay processes. Prerequisite: PHSX 741 and PHSX 811. LEC.

**PHSX 861. Elementary Particles II. 3 Hours.**
Theoretical analysis of the standard model of strong and electroweak interactions. Applications to decay and scattering processes with comparison to experiments. Selected topics in non-perturbative physics. Examples of tests to probe beyond the standard model. Prerequisite: PHSX 761. Corequisite: PHSX 911. LEC.

**PHSX 871. Statistical Physics I. 3 Hours.**
Review of and advanced topics in thermodynamics; the Maxwell relations; the third law; phase transitions. Kinetic theory: the Boltzmann equation; transport phenomena. Statistical mechanics: ideal Maxwell-Boltzmann, Fermi-Dirac and Bose-Einstein gases; ensemble theory; derivation of the laws of thermodynamics. Prerequisite: PHSX 711 and PHSX 821. PHSX 671 is recommended. LEC.

**PHSX 881. Solid State Physics II. 3 Hours.**
More advanced topics in solid state physics that may include: diamagnetism, paramagnetism, ferromagnetism, and antiferromagnetism; electron and nuclear spin magnetic resonance; dielectric properties and ferroelectricity; photoconductivity and luminescence. Prerequisite: PHSX 631 and PHSX 711 (or CHEM 915). LEC.

**PHSX 895. Plasma Physics. 3 Hours.**
Magnetohydrodynamics, including discussion of shocks, waves, and stability theory; statistical mechanical foundations; kinetic theory; microstability; non-linear phenomena. Prerequisite: PHSX 795. LEC.

**PHSX 897. Seminar in Plasma and Space Physics. 1-3 Hours.**
Graduate students engaged in or preparing for research may repeat enrollments in this course. The content will vary. (Same as ASTR 897.) LEC.

**PHSX 899. Master’s Research/Thesis. 1-10 Hours.**
Research work (either experimental or theoretical) in physics for students working toward the master’s degree. Repeated enrollments are permitted. THE.
PHSX 911. Quantum Mechanics III. 3 Hours.
Path integral formulation of quantum mechanics. Introduction to quantum field theory using the canonical approach and using the path integral approach. Application of perturbation theory in quantum electrodynamics. Selected applications in condensed matter, nuclear, and particle physics. Prerequisite: PHSX 811. LEC.

PHSX 912. Quantum Field Theory. 3 Hours.
Survey of problems in quantum field theory. Functional methods. Renormalization and renormalization group. Role of symmetries. Gauge field theories. Symmetry breaking. Prerequisite: PHSX 911. LEC.

PHSX 915. Relativity. 3 Hours.
Reviews of special relativity, manifolds, tensors, and geometry. General coordinate covariance and general relativity. Applications to classical theory of gravitation: weak field tests, isotropic, homogeneous cosmology, Schwarzschild solution. Selected advanced topics. Prerequisite: A total of 10 hours of junior/senior work in physics and mathematics, including at least concurrent enrollment in MATH 646. LEC.

PHSX 917. Seminar in Theoretical Physics. 1-3 Hours.
Graduate students engaged in or preparing for research may repeat enrollments in this course. Content will vary. LEC.

PHSX 931. Electrodynamics II. 3 Hours.
Inhomogenous Maxwell's equations and multipole radiation fields; special theory of relativity; radiation from accelerated charges: scattering and dispersion. Prerequisite: PHSX 831. LEC.

PHSX 947. Seminar in Nuclear Physics. 1-3 Hours.
Graduate students engaged in or preparing for research may repeat enrollments in this course. The content will vary. LEC.

PHSX 957. Seminar in Particle Physics. 1-3 Hours.
Graduate students engaged in or preparing for research may repeat enrollments in this course. The content will vary. LEC.

PHSX 971. Advanced Statistical Mechanics. 3 Hours.
Advanced equilibrium statistical mechanics and introduction to nonequilibrium statistical mechanics. Topics include: the theory of liquids, critical phenomena, linear response theory and time correlation functions, Langevin dynamics, and molecular hydrodynamics. (Same as CHEM 950.) Prerequisite: PHSX 871 or CHEM 917. LEC.

PHSX 987. Seminar in Solid State Physics. 1-3 Hours.
Graduate students engaged in or preparing for research may repeat enrollments in this course. The content will vary. LEC.

PHSX 999. Ph.D. Dissertation Research. 1-10 Hours.
Research work (either experimental or theoretical) in physics for students working toward the Ph.D. degree. Repeated enrollments are permitted. THE.

Political Science Courses

POLS 100. Introduction to U.S. Politics. 3 Hours. SF GE3S / S.
An introduction to basic American governmental institutions, political processes, and policy. LEC.

POLS 111. Introduction to U.S. Politics Honors. 3 Hours. SF GE3S / S.
Open only to students in the College Honors Program or by consent of instructor. LEC.

POLS 150. Introduction to Comparative Politics. 3 Hours. SF AE42/GE3S / S.
An introduction to the comparative study of political systems emphasizing governmental structures, parties, electoral techniques, and recent trends in the field. The course also considers major differences between (1) representative and autocratic systems, and (2) developed and underdeveloped nations. LEC.

POLS 151. Introduction to Comparative Politics Honors. 3 Hours. SF AE42/GE3S / S.
Open only to students in the College Honors Program or by consent of instructor. LEC.

POLS 170. Introduction to International Politics. 3 Hours. SF AE42/GE3S / S.
A study of the nation-state system including the role of nationalism, sovereignty, and power. Patterns of state action including neutralism, collective security, war, and cooperation through international organizations are stressed. Specific examples of contemporary international problems are also analyzed and discussed. LEC.

POLS 171. Introduction to International Politics Honors. 3 Hours. SF AE42/GE3S / S.
Open only to students in the College Honors Program or by consent of instructor. LEC.

POLS 177. First Year Seminar: _______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Political Science. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

POLS 249. Study Abroad Topics in Political Science: _______. 1-6 Hours. S.
This course is designed for the study of special topics in Political Science at the freshman/sophomore level. Course work must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

POLS 301. Introduction to Political Theory. 3 Hours. GE3S / S.
An examination of the perennial issues and major concepts in political philosophy. Ideas such as community, liberty, equality, justice, and democracy will be examined in order to understand the various meanings given to these concepts in political discourse and to understand the role these ideas in various political theories. Prerequisite: Either POLS 110 or POLS 150 or POLS 170, or their honors equivalents. LEC.

POLS 302. Introduction to Political Theory, Honors. 3 Hours. S.
Prerequisite: Either POLS 110, POLS 150, or POLS 170, or their honors equivalents and open only to students in the College Honors Program, or by consent of instructor. LEC.

POLS 306. Political Science Methods of Inquiry. 3 Hours. GE12 / S.
An introduction to the social science methods of investigation and analysis that are used in political science as a discipline and, in many cases, in public and private sector analytical work as well. The nature of political science data sources and methods of data collection, the logic of social scientific inquiry, and key methods of data analysis are emphasized. Prerequisite: POLS 110 and POLS 150 and POLS 170 (or their Honors equivalents), or consent of instructor. LEC.

POLS 310. Contemporary Issues in U.S. Politics. 3 Hours. S.
An examination of issues and problems concerning government and politics in American society. This course is intended primarily for non-majors, and does not meet the junior/senior level course field distribution requirement. LEC.

POLS 320. Introduction to Public Policy. 3 Hours. GE3S / S.
Offers an introduction to the policy-making process covering policy formulation, adoption, and implementation. Overview of major theories of the policy-making process, the actors involved in the process, and the constraints and enhancements offered by the broader political.
environment. The theoretical frameworks are applied to several substantive policy areas. Prerequisite: POLS 110. LEC.

POLS 330. Introduction to Public Administration. 3 Hours. S.
Introduction to administration, public policy and policy making is the study of government workers, the organizations in which they work, how they are financed, and how government engages citizens to help form and maintain community. In various ways, the class sessions explore the three important issues of public administration: discretion, authority, and accountability. (Same as PUAD 330.) Prerequisite: POLS 110. LEC.

POLS 331. Introduction to Public Administration, Honors. 3 Hours. S.
Introduction to administration, public policy and policy making, for honors students, is the study of government workers, the organizations in which they work, how they are financed, and how government engages citizens to help form and maintain community. In various ways, the class sessions explore the three important issues of public administration: discretion, authority, and accountability. (Same as PUAD 331.) Prerequisite: POLS 110. LEC.

POLS 350. Contemporary Issues in Comparative Politics. 3 Hours.
This course will survey selected current political issues around the globe. The focus of the course will be on understanding and analyzing the wide diversity of political phenomena that mark countries around the world. Topics may include such things as elections and electoral politics; political parties; government stability; democratization; ethnic, racial, caste, or religious conflict; protest and revolutionary movements; social movements (environmental, feminist, and others); and the politics of economic reform. This course is intended primarily for non-majors, and does not meet the junior/senior level course field distribution requirement. LEC.

POLS 370. Contemporary Issues in International Politics. 3 Hours. S.
A survey of selected issues in current international relations. Topics include global economic interdependence, regional conflicts and nationalism, United States military and economic policy in the post-Cold War era, the role of international organizations such as the United Nations and the European community, global environmental problems and the contemporary role of international law. This course is intended primarily for non-majors and does not meet the junior/senior level course field distribution requirement. LEC.

POLS 492. Field Work in Politics and Policy-Making. 3-6 Hours. AE61 / S.
This offering provides course credit for field work in politics and policy-making that takes place outside the department’s Spring Semester internship programs in Washington, D.C. and Topeka. Consent of Instructor is required prior to enrollment. FLD.

POLS 493. Directed Readings. 1-3 Hours. AE61 / U.
Individual and supervised readings in selected areas of political science. Course is repeatable for different areas; however, only 3 hours of directed readings can be applied to the major. Prerequisite: Six hours of political science, 2.5 overall grade-point average, and prior consent of department. IND.

POLS 494. Washington Semester Intern Seminar. 3 Hours. AE61 / S.
Intern seminar in Washington, D.C. Students meet weekly during Washington Semester program, in speaker/seminar format. Participation is expected, and a term paper is a requirement. Prerequisite: Consent of instructor. FLD.

POLS 495. Topeka Semester Intern Seminar. 3 Hours. AE61 / S.
Intern seminar at statehouse in Topeka. Students meet weekly during this program, in speaker/seminar format. Participation is expected, and a term paper is a requirement. Prerequisite: Consent of instructor. FLD.

POLS 496. Washington Semester Field Work. 3-6 Hours. AE61 / S.
Supervised internships in public and private agency offices in the Washington, D.C. area. This course is open only to students who are participating in the department’s organized, supervised, semester-long Washington internship program. In order to be eligible for the program, students must have junior or senior standing, an overall grade-point average of 2.75, must have completed POLS 110 and have a 3.0 grade-point average in all political science courses. Course will be graded satisfactory/unsatisfactory. Prerequisite: Consent of instructor is required prior to enrollment. FLD.

POLS 497. Topeka Semester Field Work. 3-6 Hours. AE61 / S.
Supervised internships in public and private agency offices in the Topeka area. This course is open only to students who are participating in the department’s organized, supervised, semester-long Topeka internship program. In order to be eligible for the program, students must have junior or senior standing, an overall grade-point average of 2.75, must have completed POLS 110 and have a 3.0 grade-point average in all political science courses. Course will be graded satisfactory/unsatisfactory. Prerequisite: Consent of instructor is required prior to enrollment. FLD.

POLS 500. Contemporary Political Thought. 3 Hours. S.
An examination of the major theoretical questions concerning citizenship and government in modern society. Major ideologies and important contemporary philosophers are examined to determine how they address such issues as the meaning of the public interest, the just distribution of power and privilege, the proper role of government in society, and legitimate methods for making collective decisions. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of instructor. LEC.

POLS 501. History of Political Thought. 3 Hours. S.
A survey of major concepts and theories in political philosophy from Plato to Marx. The emphasis is on understanding major classics in Western political thought. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of instructor. LEC.

POLS 502. Politics in Literature. 3 Hours. S.
An examination and analysis of the portrayal of politics and political problems in literature. Classical and modern texts will be considered, including dramas, poems, and novels. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of instructor. LEC.

POLS 503. Millenarian Movements. 3 Hours. S.
A historical survey of millenarian movements (the belief in imminent, total, ultimate, this-worldly, collective salvation), with particular attention to their psychological, sociological, and political dimensions. (Same as REL 504.) Prerequisite: POLS 301 or honors equivalent or for non-majors completion of Western Civilization requirement, or consent of instructor. LEC.

POLS 506. Honors Seminar in Political Research. 3 Hours. S.
Students will be exposed to a variety of topics related to the conduct of political science research. Emphasis will be on how one discerns what is known and what remains to be discovered about a research topic, the development of theories and the hypotheses about the unknown, and the collection of information for testing theories. Students will be expected to begin independent research on a topic that might eventually
culminate in an honors thesis. This seminar is intended for political science majors who are in the honors or deans programs, who hold departmental scholarships, and/or who intend to write honors theses. Prerequisite: POLS 306. IND.

POLS 511. The Judicial Process. 3 Hours. S.
Covers judicial functions, organizations, personnel, and processes. Examines the goals of the law and the operations of the legal system in meeting these objectives. Focuses on norm enforcement, conflict resolution, and judicial policy-making. Prerequisite: POLS 110. LEC.

POLS 512. Latino Politics. 3 Hours. S.
An overview of the political position of Latinas/os in the United States. The focus is on the three largest Latino groups in the U.S.: Mexican-Americans, Cuban-Americans, and Puerto Ricans; as well as an examination of other South American and Central American populations in the U.S. The main topics include identity formation, the political circumstances of Latinos, relationship to the electoral process, political behavior, and the policy process. LEC.

POLS 515. American Political Parties. 3 Hours. S.
Survey of the development of the American political party system, stressing party organization, nominating systems, campaigns, elections, role of mass media, and party finances. Prerequisite: POLS 110. LEC.

POLS 516. Public Opinion and American Democracy. 3 Hours. S.
This course examines the construction, administration, and interpretation of public opinion polls. The course will also examine the role of public opinion in the democratic process and the formation of public opinion. LEC.

POLS 520. Political Communication. 3 Hours. H.
This course will focus on contemporary political communication theory and illustrate how such theories are exemplified in modern political contexts: political arguments and developing consensus, constitutional issues and hearings, the rhetorical presidency, the dissemination of political information, and political uses of definition. (Same as COMS 607.) Prerequisite: COMS 130 or COMS 150. LEC.

POLS 521. Rhetoric, Politics and the Mass Media. 3 Hours. H.
This course investigates the ways in which rhetorical strategies (persuasive and linguistic usage) permeate the relationship between politicians and the mass media. We will analyze media coverage of political debates, the presidential use of radio, television and press conferences, and the network evening news coverage of political events to see how political decisions are influenced by and influence the media. (Same as COMS 335.) Prerequisite: COMS 130 or COMS 150. LEC.

POLS 528. Environmental Justice and Public Policy. 3 Hours. S.
This course provides an overview of environmental justice, both as a social movement and as a public policy initiative. Environmental justice examines the distribution of environmental externalities across different socio-economic and racial groups. We will discuss several different public policy areas that have been impacted by the environmental justice movement: hazardous waste facility siting, urban redevelopment and Brownfields, transportation policy, and Native American sovereignty. We will also touch upon international environmental policy in an environmental justice context. Throughout the course we will evaluate empirical issues in studying environmental justice. (Same as EVRN 528.) Prerequisite: POLS 306 or a statistics class or consent of instructor. LEC.

POLS 553. Comparative Environmental Politics. 3 Hours. S.
This course compares environmental politics and policies across a number of countries, including those in North America, Western Europe, East Asia, and Latin America. (Same as EVRN 553.) LEC.

POLS 561. Liberation in Southern Africa. 3 Hours. NW AE42 / S.
This course examines struggles for freedom in southern Africa and the consequences of political, economic, and social changes in the region. The end of colonial rule, the demise of white-settler domination, and the fall of the apartheid regime is discussed. As a major political event of the twentieth century, the liberation of southern Africa had both local and global consequences. The course analyzes transnational issues of liberation and resistance to consider broader regional and international perspectives. Course themes pay particular attention to gender and ethnicity and include a focus on democratization and contemporary meanings of liberation. Prior coursework in African Studies is strongly recommended, but not required. (Same as AAAS 561 and HIST 561.) LEC.

POLS 562. Women and Politics. 3 Hours. S.
This course exposes students to contemporary research on women and politics by surveying the sub-fields of political science. Topics include women’s representation in the U.S., women and U.S. public policy, gender and legal theory, international women’s movements, women and revolution, and women as political elites. We will examine the ways in which feminist theory and women’s activism have challenged the narrow focus of the discipline as well as redefined women’s place in society. (Same as WGSS 562.) Prerequisite: A 100-level POLS course or WGSS 201 or permission of instructor. LEC.

POLS 563. Comparative Political Economy. 3 Hours. S.
This course studies fiscal, monetarist, and trade policies to assess the usefulness and problems posed by these policy instruments across countries. This includes examining exchange rates, interest rates, budget deficit, trade deficit, and debt, to understand their composition and relevance to domestic economy, employment, investment, development, and international trade, the problems they pose, and how these may be overcome. We then examine when, how, and why government enacts these instruments across countries and regions. Prerequisite: POLS 150 or POLS 151. LEC.

POLS 564. Elections and Political Parties Around the World. 3 Hours. S.
An examination of the diverse forms of election rules and their consequences for political parties, politicians, and voters. The course will survey election rules in theory and practice; the design and re-design of election rules in new and established democracies; and how elections affect party strategies or governance and representation, and the types of party systems that emerge. The course will also incorporate intensive studies of election campaigns occurring during the semester that the course meets. Prerequisite: POLS 150. LEC.

POLS 565. Political Change in Asia. 3 Hours. S.
This course focuses on three periods of major political changes in Asia since 1945: independence from colonization; adoption of governance; and steps toward democratization. The focus on political change is to help students see that a) many countries initiate political reforms domestically; b) the ability to implement changes is correlated to ability to win support; c) the constitutional process may favor some groups over others; d) the ability to mediate political stability depends on (a), (b), and (c). Prerequisite: POLS 150 or equivalent. LEC.

POLS 566. Social Welfare, Taxation, and the Citizen. 3 Hours. S.
Most developed countries provide for the basic needs of their citizens. Many provide health care, free education, and even retirement funding in exchange for taxes. The U.S. is an exception. The course presents taxation systems in most developed countries, then explores the dimensions of social welfare, and the differential roles of citizens in each country. The final section of the course outlines legislative and legal possibilities for U.S. citizens. Prerequisite: POLS 150. LEC.
POLS 600. Contemporary Feminist Political Theory. 3 Hours. S.
A detailed introduction to feminist thought post-1960. Examines feminism in relation to the categories of political theory: liberal feminism, socialist feminism, radical feminism, and postmodern feminism. Within these categories and separately, we will also consider feminism as it is influenced by women traditionally excluded from mainstream feminist thought, namely U.S. woman of color and women of post-colonial societies. (Same as WGSS 600.) Prerequisite: WGSS 201 or a 100-level POLS course or permission of instructor. LEC.

POLS 601. Political Ideologies. 3 Hours. S.
A systematic survey of the major political ideologies of the 19th and 20th centuries such as anarchism, socialism, liberalism, fascism, communism, and participatory democracy. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of instructor. LEC.

POLS 602. American Political Ideas. 3 Hours. S.
A study of political movements and thinkers from the Puritan period to the present that have influenced the development of contemporary political ideas. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of instructor. LEC.

POLS 603. Democratic Theory. 3 Hours. S.
Detailed study of the typical and perennial dilemmas that arise in theories of democratic governance with an emphasis on contemporary analytical investigations of democratic systems. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of instructor. LEC.

POLS 604. Religion and Political Theory. 3 Hours. S.
An examination of the relationship between religious faith and politics in Western political thought and theory. The approach will be both historical and philosophical, beginning with Moses on the one hand, and the Greeks on the other. Texts will include biblical, Greek philosophical, Jewish and Christian philosophical and theological writings. (Same as REL 604.) Prerequisite: POLS 301, or for non-majors completion of Western Civilization requirement, or consent of instructor. LEC.

POLS 605. A Study of Political Thought in Antiquity. 3 Hours. S.
Possible authors for examination may include Homer, Hesiod, Plato, Aristotle, Cicero, and Augustine, among others. Central topics will include the problems of truth and knowledge, justice, power, human rule, and the relationship of the individual to the community. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of instructor. LEC.

POLS 607. Modern Political Theory. 3 Hours. S.
An analysis of works by various authors, with the intention of exploring the political ideas that emerge in conjunction with the appearance of modern science, the Enlightenment, the Industrial Revolution, and Romanticism. Topics will include the modern conceptions of the nature of being, truth, justice, and the relationship of the individual to the community. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of instructor. LEC.

POLS 608. Social Choice and Game Theory. 3 Hours. S.
A survey of the political economic approach to individual and collective choice behavior called “rational choice.” The course focuses on models of voting systems and other political institutions as seen from a game theoretic perspective. Prerequisite: Nine hours of political science and completion of the College of Liberal Arts and Sciences mathematics requirement for the B.A. degree. LEC.

POLS 609. Topics in Political Theory: ______. 3 Hours. S.
A study of selected theorists in relation to a topic in political theory. Sample topics include: revolution; authority and community; elements of political power; political elites: ideology, human nature in politics, political conflict, etc. Theorists will range from ancient to contemporary. Course is repeatable for different topics. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of instructor. LEC.

POLS 610. Constitutional Law: Governmental Powers. 3 Hours. S.
The Supreme Court viewed as a political branch of our government. Special emphasis on the Court’s role in determining powers of government and their relationships. Prerequisite: POLS 110. LEC.

POLS 611. Constitutional Law: Civil Liberties. 3 Hours. S.
The constitutional limits on governmental powers are studied with special emphasis on constitutional guarantees of individuals freedom. Prerequisite: POLS 110. POLS 610 is recommended. LEC.

POLS 612. Psychology in Politics. 3 Hours. S.
An examination of psychological perspectives on political phenomena. Topics include political personality, foreign policy decision making, international conflict and cooperation, voting behavior, and political participation and socialization. Prerequisite: Nine hours of political science, including POLS 110 and POLS 170. LEC.

POLS 613. Comparative U.S. State Politics. 3 Hours. S.
A systematic comparative analysis of structures, functions, and policies of state political systems. Prerequisite: POLS 110 or consent of instructor. LEC.

POLS 614. Urban Politics. 3 Hours. S.
A survey of the social, cultural, economic, and structural differences among cities and an investigation into how these factors affect urban politics and policies. Specific topics include leadership, governmental reform, citizen participation, inter-ethnic conflict, and economic development. Prerequisite: POLS 110. LEC.

POLS 615. Campaigns and Elections. 3 Hours. S.
This course examines the behavior of candidates, campaigns, and voters in the electoral process. Topics will include the role of media, the impact of money, the operations of political campaigns and the effect of campaign laws. LEC.

POLS 616. Interest Group Politics. 3 Hours. S.
Study of internal group organization and the politics of interests within the U.S. policy-making process. Prerequisite: POLS 110. LEC.

POLS 617. The Congress. 3 Hours. S.
Descriptive and comparative analysis of legislative institutions and processes in the United States, covering Congress and state legislatures. Prerequisite: POLS 110. LEC.

POLS 618. The Presidency. 3 Hours. S.
The office of the President of the United States, its place in the constitutional and political system. Emphasis is given to modern experience and current problems. Prerequisite: POLS 110. LEC.

POLS 619. Topics in American Politics: ______. 1-3 Hours. S.
A study of selected contemporary problems of policy or politics in the United States. Course is repeatable for different topics. Prerequisite: POLS 110. LEC.

POLS 620. Formulation of Public Policy. 3 Hours. S.
Analysis and evaluation of the structures and processes involved in the formulation of public policy at all levels of government. Prerequisite: POLS 110. LEC.

POLS 621. Public Policy Analysis. 3 Hours. S.
An introduction to the study and analysis of public policy with emphasis on the concepts and techniques of policy thinking. The methods of policy description, explanation, evaluation, and choice will be applied to a variety
of policy topics, e.g., health care, defense, environmental protection, education, etc. Prerequisite: POLS 110. LEC.

POLS 622. Government and the Economy. 3 Hours. S.
An examination of the formulation and execution of government policies in the economy and the business sector; the impact of the economy and business on government policies and the impact of government policies on the economy and business. Prerequisite: POLS 110 or consent of instructor. LEC.

POLS 623. The Politics of Social Policy. 3 Hours. S.
An examination of the formulation and execution of key social policies in the United States, such as welfare policy, crime and drug control policy, disability rights policy, education policy, and social regulatory policy concerning controversial social issues such as abortion and gun control. Prerequisite: POLS 110. LEC.

POLS 624. Environmental Politics and Policy. 3 Hours. S.
Analysis of environmental politics and the formulation and implementation of environmental policy. Examines the history and development of environmental politics as well as current trends. Themes include interest groups, business interests, political institutions, and specific environmental policy issues. (Same as EVRN 620.) LEC.

POLS 625. Extremist Groups and Government Response. 3 Hours. S.
Examines left- and right-wing extremist political groups in America and how the government has developed policies and respond to these groups. Special attention will be given to the process of policy adoption and implementation and how the government might respond to extremist groups in the future. Issues and themes will include groups such as the left-wing terrorists of the 1960s and 1970s, right-wing anticomunist groups of the 1950s and 1960s, international terrorists acting in the U.S., hate crime, ecoterrorism, citizen militia groups, and pro- and anti-abortion extremist groups. Prerequisite: POLS 110. LEC.

POLS 626. Introduction to Survey Research. 3 Hours. S.
This course introduces the theory and methods used in survey research. The topics include types of surveys, type of sampling methods, questionnaire and codebook construction and analysis. Prerequisite: POLS 306. LEC.

POLS 627. Advanced Issues in Survey Research. 3 Hours. S.
This course focuses on the problems encountered while implementing surveys in specific populations (in the United States and Europe) and in developing countries. The course identifies problem areas such as in sampling and questionnaire design; and addresses how researchers overcome these problems. Prerequisite: POLS 306 and POLS 626. LEC.

POLS 628. The Politics of Public Health. 3 Hours. S.
This course examines the social, institutional and political context of public health policy in the United States. We will examine factors that shape the nation’s public health, explore the role of government in reducing risk and promoting well being, and analyze the major institutions responsible for monitoring, protecting and promoting general public health. Themes include the social determinants of health, health disparities, emerging infectious diseases, food safety, transportation, and environmental health. (Same as EVRN 628.) Prerequisite: POLS 110 and POLS 306 are recommended. LEC.

POLS 629. Topics in Public Policy: _________. 1-3 Hours. S.
Examination of the U.S. political system and policy formulation and administration through intensive analysis of selected current public policy problems. Sample topics include the environment, education, and economic well-being. Course is repeatable for different topics. Prerequisite: POLS 110. LEC.

POLS 630. Politics of Identity. 3 Hours. AE41 / S.
This seminar explores the nature of identity and how identity is relevant to politics and policy with a focus on political attitudes and behavior, institutions, and public policy. Topics include individual and group identity, identities such as gender, racial, sexual orientation, and partisan, and the enduring importance of identity for understanding politics as well as the policy process. The approach is multidisciplinary but political science perspectives are relied on more heavily. (Same as WGSS 630.) Prerequisite: POLS 110 and POLS 306 are recommended. LEC.

POLS 634. Bureaucratic Politics. 3 Hours. S.
Examination of U.S. governmental agencies with special attention to their development and role in the American political system. Prerequisite: POLS 330. LEC.

POLS 640. Politics of Reproductive Policy. 3 Hours. S.
Reproductive policy has historically been a highly politicized policy arena, which has elicited attention from the political community as well as the public. This course moves beyond the popular rhetoric associated with reproductive issues, by critically investigating the history, development, implementation and the relative success of various reproductive policies in the United States. These policies are compared to, and assessed against, policies governing similar topics in various countries. (Same as WGSS 640.) Prerequisite: POLS 110 or consent of instructor. LEC.

POLS 644. Justice and Public Policy in Democratic Societies. 3 Hours. S.
Examines the ethical and philosophical choices that inform public policy in democratic societies. The guiding idea of the course is that public policies reflect underlying decisions about the nature of state authority and the just use of that authority. The theoretical focus is on modern European and American liberal democratic thought; the empirical focus is global. Among the policy issues examined in the course are public education, immigration, gender equality, same-sex marriage, and drugs. Prerequisite: POLS 150 or POLS 301. LEC.

POLS 645. Corruption, Crisis and Scandal. 3 Hours. S.
This course investigates political events and decisions that are considered illegal or illegitimate. Cases from the U.S. and around the world are considered. Issues discussed include the misuse of governmental power and funds, electoral fraud, and bribery. Conditions under which problems arise and reforms that address them are considered. Prerequisite: POLS 110 and POLS 150. LEC.

POLS 650. Palestinians and Israelis. 3 Hours. S.
Examines the international relations, political institutions, and social politics of these two ethnonational communities in relation to each other. Specific topics include the historical evolution of the Israeli-Palestinian conflict, prospects for conflict resolution, electoral systems and political parties in the two nations, state-society relations, social movements, and roles of gender and religion. Prerequisite: Nine hours of Political Science, including POLS 150/POLS 151 or POLS 170/POLS 171, or permission of instructor. LEC.

POLS 651. Women and Politics in Latin America. 3 Hours. S.
This course examines the ways in which Latin American women have engaged in politics in the past two decades. Cases will draw from a variety of countries in Latin America. Students are expected to develop insights, through comparative analysis, into why women “do politics” in certain ways, the role of the State in women’s politics, the (dis)advantages of various political strategies, and the ways in which political, economic, and social changes over time have affected women’s political opportunities and interests. (Same as WGSS 651.) Prerequisite: Six hours of course work in Political Science and/or Women’s Studies and/or Latin American Studies. LEC.
POLS 652. Politics in Europe. 3 Hours. S.
The study of the politics and government of Europe. Major countries are covered in depth, while smaller democracies are grouped according to political concepts. Prerequisite: POLS 150. LEC.

POLS 653. Gender, War, and Peace. 3 Hours. S.
This course explores ways in which militarization and warfare are gendered processes. We ask, what does war tell us about gender, and what does gender tell us about war? Though the majority of fighters are men, women are essential to war efforts. They also represent a high proportion of the casualties of war. Yet women are rarely examined in relation to war; thus we work to uncover women’s experiences of war. We also look to women’s contributions to the peace movement in terms of both theory and practice, asking: Is peace a feminist issue? Should feminists support women’s access to combat positions or oppose the military? What if women ruled the world—would that end wars? Does militarized masculinity harm men more than benefit them? How do states mobilize citizens to war and how is the process gendered? (Same as WGSS 653.) Prerequisite: One of the following: POLS 150, POLS 151, POLS 170, POLS 171, WGSS 201, WGSS 202. LEC.

POLS 654. Politics and Government of Russia and the Central Eurasian States. 3 Hours. S/W.
The collapse of the Soviet system and the problems of transforming a central planned authoritarian state into a free market democracy. The roles of ethnic and national tensions, economic decay, and cultural factors. Prerequisite: Eight hours in the social sciences and/or history, including POLS 150, or consent of instructor. LEC.

POLS 655. Politics of East-Central Europe. 3 Hours. S/W.
This course analyzes Communist political theory in its application to the countries of East-Central Europe with consideration of their traditional backgrounds and their patterns of political, social, and economic developments. It constructs a theoretical model of the communist state and discusses its variations by description and comparison of the governments and political processes of Albania, Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland, Rumania, and Yugoslavia. Prerequisite: POLS 150 and three hours in the social sciences or East European history, or consent of instructor. LEC.

POLS 656. Governments and Politics of East Asia. 3 Hours. NW AE42 / S/W.
A comparative examination of the contemporary political institutions, processes and ideas of China, Japan, and Korea. (Same as EALC 656.) Prerequisite: POLS 150 or a course in East Asian studies. LEC.

POLS 657. Government and Politics of Southeast Asia. 3 Hours. NW AE42 / S/W.
An evaluation of the traditional and contemporary political institutions, behavior and ideas of the countries of Southeast Asia. Prerequisite: POLS 150 or a course in Asian history or Southeast Asian history. LEC.

POLS 658. Theories of Politics in Latin America. 3 Hours. S/W.
This course examines how political science can be used to explain the political dynamics of Latin America. The course will be devoted to understanding different theories about politics -- many of which have been devised by political scientists whose primary focus of study is not Latin America -- and examining their uses and limitations in understanding Latin America. Among the themes we will be examining are the relationships between economic growth, political culture, and democracy, the role of the military in politics, the political impact of new social movements (such as the women’s movement and religious movements), theories of revolution, and understanding the prevalence of political corruption in the region. Along the way, we will analyze how political scientists attempt to develop hypotheses, gather data, and test theories. Prerequisite: POLS 150 or a social science course in Latin American topics. LEC.

POLS 659. Political Dynamics of Latin America. 3 Hours. S/W.
Study of the institutions, processes, and special problems of selected Latin American countries. Prerequisite: POLS 150 or a course concerning Latin America in the social sciences or history. LEC.

POLS 660. The Politics and Problems of Developing Countries. 3 Hours. NW AE42 / S/W.
A focus on topics pertinent to all of the underdeveloped areas such as the role of the military, styles of political leadership, land tenure systems, the role of the middle sectors, the nature of bureaucracy, the activity of the students, and foreign policy attitudes. Prerequisite: One of the following: POLS 652, POLS 653, POLS 654, POLS 655, POLS 656, POLS 657, POLS 658, POLS 659. LEC.

POLS 661. Politics of the Middle East. 3 Hours. NW AE42 / S/W.
Survey of domestic and international political developments in the Middle East. Topics include: emergence of the modern nation-state, the role of Islam, leadership patterns, competing political ideologies, prospects for democratization, foreign policy relations, and regional conflicts. Prerequisite: Nine hours in political science, including POLS 150 and POLS 170 or their honors equivalents, or permission of instructor. LEC.

POLS 663. Protest and Revolution. 3 Hours. S.
An exploration of what happens when protesters challenge a state. The course focuses on the interactions and outcomes of dissident and state conflict. Topics include the relation between coercion and protest, strategy, violence, terrorism as adaption, civil war and regime transition. Prerequisite: POLS 150. LEC.

POLS 664. Middle East Politics, Honors. 3 Hours. S.
Honors Version of POLS 661. Survey of domestic and international political developments in the Arab countries, Iran, Turkey, and Israel. Topics include state-society relations (e.g., forms of political organization, electoral politics, opposition movements, human rights, political Islam, gender), regional and international foreign relations, and the Arab-Israeli conflict. Prerequisite: Nine hours of Political Science, including POLS 150/151 and POLS 170/171, and membership in the University Honors Program; or by permission of instructor. LEC.

POLS 665. Politics in Africa. 3 Hours. NW AE42 / S.
A survey of politics in Africa, focused on the countries of sub-Saharan or Black Africa. The course includes a historical discussion of precolonial Africa, colonization and the creation of contemporary states, and the politics of independence, before examining contemporary political systems and the forces influencing patterns of politics on the continent. (Same as AAAS 600.) Prerequisite: POLS 150 or AAAS 105 or AAAS 305 or consent of instructor. LEC.

POLS 666. Political Economy of East Asia. 3 Hours. S.
This course provides basic understanding of fiscal, monetarist, and trade politics; how governments in East Asia use them to pursue growth; the extent to which these governments follow or controvert economics to pursue growth; and how the performances of economies in East Asia relate to the U.S. and global economies. (Same as EALC 666.) Prerequisite: POLS 150. LEC.

POLS 667. Islam and Politics. 3 Hours. NW AE42/AE51 / S.
This course gives students a basic understanding of Islam and Islamic movements, explores the economic, social, political, and cultural context in which these movements take place, and examines the impact of Islam on politics in select countries. Issues such as compatibility of political Islam and democratic politics, political economy in Muslim societies, fundamentalism in Islam, gender relations, identity politics and questions on clash of civilizations are explored. (Same as SOC 640.) Prerequisite: A principal course in sociology, POLS 150, or consent of instructor. LEC.
POLS 668. Reform in Contemporary China. 3 Hours. NW AE42 / H.W.
Examines the epochal changes that have occurred in China from Deng Xiaoping’s rise to power in 1978 to the present. Includes a focus on the historical background of the revolutionary period before examining the political and economic changes that spawned the 1989 “pro-democracy” movement at Tiananmen. The course includes an analysis of the events of the 1990s focusing on U.S.-China political and economic relations and the destabilizing effects of inflation, infrastructural reform, political and economic decentralization, and leadership succession. A previous course on China is helpful, but not mandatory. (Same as EALC 585.) LEC.

POLS 669. Topics in Comparative Politics: ______. 2-3 Hours. S.
A study of selected contemporary problems of policy or politics affecting several countries. Course is repeatable for different topics. Prerequisite: POLS 150. LEC.

POLS 670. United States Foreign Policy. 3 Hours. S.
An evaluation of the formulation of United States foreign policy in the post-World War II period. Economic, military, and diplomatic dimensions of policy; internal and external influences on policy; theories of foreign policy decision-making. Prerequisite: Nine hours of political science, including POLS 170. LEC.

POLS 671. International Cooperation. 3 Hours. S.
An examination of the gains possible from international cooperation and the barriers to achieving cooperation. Theoretical perspectives on international cooperation will be explored along with cases such as trade, the environment, arms control, and the European community. Prerequisite: POLS 170 or consent of instructor. LEC.

POLS 672. International Political Economy. 3 Hours. S.
Structural theories of the international political economy provide the framework for a consideration of the nature of hegemony, the management problem of multinational corporations, the role of international regimes and organizations, development, and dependency. Prerequisite: Nine hours of political science, including POLS 170. LEC.

POLS 673. International Organization. 3 Hours. S.
International organizations are examined with special emphasis devoted to the United Nations. A central theme of the course rests upon the question of whether strengthened international organization offers the only alternative to further world wars. Prerequisite: POLS 170 and three additional hours of political science. LEC.

POLS 674. International Ethics. 3 Hours. H.
This course reviews how philosophical perspectives elucidate the role ethics plays in foreign policy. It covers human rights doctrines, issues of economic and political justice, just war theory (jus ad bellum) and just conduct of war (jus in bello) and humanitarian intervention. Prerequisite: POLS 170 or POLS 171. LEC.

POLS 675. Russian Foreign Policy. 3 Hours. S/W.
Examination of the history of Soviet and Russian foreign policy and current issues of foreign policy in the Post-Soviet era. Analysis of foreign policy making in Russia and the other Post-Soviet states. Emphasis on the changed nature of international security problems after the cold war and on the role of foreign policy in economic development. Prerequisite: Eight hours in the social sciences or history, including either POLS 170 or a course in Russian history. LEC.

POLS 676. International Relations of Asia. 3 Hours. S/W.
An intensive study of the problems of ideological conflict, diplomatic relations, strategic arrangements, economic cooperation, and cultural exchange in East and Southeast Asia with special emphasis upon the roles of major world powers. (Same as EALC 676.) Prerequisite: POLS 170 or a course in East Asian studies. LEC.

POLS 677. U.S. National Security Policy. 3 Hours. S.
An investigation into (1) how security policy is made; (2) the evolution of changing assumptions, strategies and goals since 1945; and (3) the present policy and its alternatives. Prerequisite: Six hours of political science, including POLS 170. LEC.

POLS 678. Chinese Foreign Policy. 3 Hours. S/W.
In-depth examination of China’s changing policies toward other countries with special emphasis on policy-making process, negotiating behavior, military strategy, economic relations, and cultural diplomacy. (Same as EALC 678.) Prerequisite: POLS 170 or a course in East Asian studies. LEC.

POLS 679. International Conflict. 3 Hours. S.
Examination of the historical and theoretical issues surrounding the sources and control of international conflict. Topics will include political and anthropological theories of conflict, the role of force in the international system, international law and just war approaches, nuclear conflict, arms control, and nonviolent alternatives to conflict. Prerequisite: Nine hours of political science, including POLS 170; POLS 306 is recommended. LEC.

POLS 680. International Relations in Political Philosophy. 3 Hours. S.
A consideration of classical and modern theories of the international system, such as the writing of Thucydides, Machiavelli, twentieth-century realists, and others. Topics include, theories of the state, the role of ethics and normative judgments in the world order, the nature and use of power, the relationship between domestic and international politics. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of instructor. LEC.

POLS 681. Comparative Foreign Policy. 3 Hours. S.
An examination of theories that seek to explain the foreign policy behavior and decision making processes of states in international relations and a survey of past and present foreign policies of several states in Latin America, Western and Eastern Europe, Africa, the Middle East, and the Far East. Prerequisite: Nine hours of political science, including POLS 150 and POLS 170. LEC.

POLS 683. International Mediation, Honors. 3 Hours. S.
This seminar examines the theories about, research on, and the practice of international mediation and other forms of non-militarized third party intervention used to address interstate, intrastate, and nonstate disputes. Specific topics include how mediation differs from other forms of non-militarized peace-building and conflict resolution; the conditions for mediation success (and how ‘success’ is defined; third party involvement after protracted civil conflict; the role of third parties in the implementation of peace agreements; the relationship between mediation, peace-building, and international law; and proactive conflict management. Prerequisite: Nine hours of political science, including POLS 170/171 and membership in the University Honors Program, or by permission of instructor. LEC.

POLS 684. International Law: The State and the Individual. 3 Hours. S.
International law has assumed an increasingly significant role in international life. This course will examine major law including (but not limited to): the changing status and role of the state; rights of minorities and self-determination; the environment; and human rights. The course will examine the central questions and the relevant international legal principles associated with each issue. Prerequisite: Six hours of Political Science, including POLS 170. LEC.

POLS 685. International Law: Laws of Armed Conflicts. 3 Hours. S.
This course examines the principles, roles, and functions of international law in the conduct of war. As the course reviews the development and application of the basic rules of armed conflict, several current issues and
A seminar to be offered as occasion demands, dealing with, but not limited to special topics in the presidency, congress, and judicial processes. Prerequisite: Graduate standing or consent of instructor. LEC.

POLS 720. The Scope of Public Policy. 3 Hours.
Introductory graduate course in the examination of public policy making. Considers institutions, basic theoretical frameworks, and standard methods, and places policy-making within a broad political context. Emphasizes American examples, but relevant comparative material is employed. Prerequisite: Twelve hours of political science. LEC.

POLS 722. Intergovernmental Relations. 3 Hours.
A survey of characteristic legal, political, and administrative relationships among different units of American government, with particular emphasis upon the role of state agencies. Prerequisite: Nine hours of political science. LEC.
POLS 726. Public Policy in Comparative Perspective. 3 Hours.
This seminar examines the application of policy theory in regional and comparative contexts. Much of the research examined focuses on comparative public policy, but select weeks focus on specific regions of the world. A key goal is to help students understand which theories of policy may be best suited for universal application. LEC.

POLS 754. Politics and Government of Russia and the Central Eurasian States. 3 Hours.
The collapse of the Soviet system and the problems of transforming a central planned authoritarian state into a free market democracy. The roles of ethnic and national tensions, economic decay, and cultural factors. Prerequisite: Eight hours in the social sciences and/or history, including POLS 150, or consent of instructor. LEC.

POLS 758. Revolutionary Politics of Latin America. 3 Hours.
Primarily a comparative analysis of the Mexican, Bolivian, and Cuban revolutions within a framework of theories of revolutions. Some attention also to revolutionary political groupings and conditions in other Latin American countries. Prerequisite: POLS 150 or a course concerning Latin America in the social sciences or history. LEC.

POLS 774. International Law. 3 Hours.
Study of topics in international law, relating these closely to the dynamics of international relations. Special emphasis will be given to regulating force, resolving disputes, the law of the sea, human rights, and emerging problem areas such as the environment, outer space, the oceanic seabed, and genocide. Prerequisite: Six hours of courses in international relations including POLS 170 and/or relevant courses in the social sciences and modern history. LEC.

POLS 789. Topics in International Relations: ______. 2-3 Hours.
A study of selected problems in international relations. Prerequisite: Consent of instructor. RSH.

POLS 810. American Politics. 3 Hours.
A survey and critical examination of recent theoretical developments and research focusing on national institutions, electoral behavior, and policy-making processes. Emphasis is given to conceptualizing and analyzing the changing nature of the American political system. LEC.

POLS 812. Political Psychology. 3 Hours.
A critical examination of the principal areas in current literature in political psychology, including psychological perspectives on mass political behavior, elite decision making, and international relations. Attention will be given to articulating and evaluating theories, constructing research questions and programs, and comparing methodologies. LEC.

POLS 820. Policy Formulation and Adoption. 3 Hours.
Survey of the literature on the institutional, socioeconomic, and political forces influencing the formulation and adoption of public policy, as well as policy change, at all levels of government. Topics include problem definition, agenda setting, and the methods of decision-making. This is a research seminar so students will be required to conduct an original research project. LEC.

POLS 821. Policy Implementation and Analysis. 3 Hours.
An overview of the policy implementation process and the analysis of public policy. The course covers a variety of theories and methods related to the study of the implementation process, policy evaluation, policy analysis, and policy change and learning. Substantive policy areas covered include environmental regulation, education, criminal justice, public safety, and health care. LEC.

POLS 825. Public Policy and Urban Administration. 3 Hours.
An examination of policy development, implementation, and evaluation in the local government context. Various theories of the policy process and their application to municipal government are examined. (Same as PUAD 825.) LEC.

POLS 830. Advanced Research Methods for Public Policy. 3 Hours.
Research seminar organized around advanced quantitative and qualitative method skills for research on American and comparative politics and public policy. The course will combine advanced statistical estimation procedures (e.g., hazard analysis, event history analysis, hierarchical "contextual effects" models) with methods for the collection and integration of data. This course is intended to facilitate research efforts of students in the fields of American politics, comparative politics, and public policy. The course is open to Ph.D. students from other departments who have completed a course in intermediate regression analysis. Prerequisite: POLS 707 or similar graduate level course. LEC.

POLS 849. Law, Courts, and Public Policy. 3 Hours.
This course provides an overview of the role of law, litigation, and courts in the public policy process, with an emphasis on bureaucratic institutions. The course covers the main theories and empirical research on the policy effects of litigation and intervention, with a particular focus on civil rights in the areas of employment, policing, welfare, prisons, and environmental policy. (Same as PUAD 849.) Prerequisite: Graduate standing or consent of instructor. LEC.

POLS 850. Introduction to Comparative Politics. 3 Hours.
This course provides a graduate level introduction to the field of Comparative Politics. Among topics it will survey are: the history and development of the field; classic works and major founding concerns of the field; methodological and epistemological debates; competing paradigms which have characterized Comparative Politics (structural-functionalism, culturalists, state-centrists, institutionalists, rational choice, and other); theory building and the role of area studies. LEC.

POLS 851. Comparative Institutions and Government. 3 Hours.
This course provides a survey of the subfield of political institutions within Comparative Politics. Among the topics it will cover are: identifying regime types (democracy vs. non-democracy); comparative electoral systems; party systems; presidential vs. parliamentary systems; comparative legislatures; constitutional engineering and democratic transitions, and others. Prerequisite: POLS 850. LEC.

POLS 852. Comparative Political Economy. 3 Hours.
This course provides a survey of some of the major works, research traditions, and current debates in the subfield of comparative political economy. This includes such topics as: The political economy of development and underdevelopment; dependency and world systems theory; the relationship between economic development and democracy; capitalist development and democracy; the political economy of dual transitions; the political economy of privatization and structural adjustment; comparative welfare states; and comparative labor-business-government relations. Prerequisite: POLS 850. LEC.

POLS 853. Comparative Social Politics. 3 Hours.
This course provides a survey of some major research traditions and current debates in the subfield of political sociology. This includes such topics as: culture and politics; elites, social structures, and politics; the politics of cultural pluralism and ethnonationalism; social movements and protest; gender and politics; state-society relation; and religion and politics. Prerequisite: POLS 850. LEC.

POLS 870. International Relations. 3 Hours.
Critical evaluation of the major approaches to international relations and their application to conflict and conflict resolution, foreign policy, and international political economy. LEC.
POLS 878. Conducting and Analyzing Fieldwork in Developing Countries. 3 Hours.
An introduction to fieldwork and surveys conducted in developing and non-democratic countries. The course covers the challenges of conducting interviews and surveys in these countries. The intent is to develop the research skills necessary for data collection and fieldwork as well as evaluating an analyzing survey data collected by other researchers in developing countries. Prerequisite: POLS 705 or equivalent or consent of the instructor. SEM.

POLS 888. Contemporary China Studies. 3 Hours.
This course will review and analyze the current literature on China's social and political development, including a wide range of topics within political science. There is a rich body of literature within each topic such as civil society in China, legal reform, political culture, nationalism, gender issues, ethnicity, political behavior, elections, economic development, and inequality. This course will introduce key literature within each topic focusing on the debates among China scholars as well as how these debates fit in the general field of political science. (Same as EALC 888 and POLS 888.) Prerequisite: POLS 668 or permission of the instructor. LEC.

POLS 889. Non-Thesis Research. 1 Hour.
Research course used to fulfill continuous enrollment requirement for master's degree students. Hours cannot count toward degree. Must be graded Satisfactory/Unsatisfactory. RSH.

POLS 899. Thesis. 1-6 Hours.
Enrollment for writing thesis for master's degrees. THE. LEC.

POLS 904. Statistical Computing Foundations. 3 Hours.
This is an interdisciplinary course for social science researchers who need to develop routines to estimate and evaluate statistical models. It introduces tools for software development, primarily with the statistical programming language R (and related languages like C). Topics include code organization and optimization, concurrent version management, LaTeX document preparation, and high-performance computing on the KU Linux cluster. Examples from various fields are considered. Prerequisite: Two courses in graduate level statistics and familiarity with R. LEC.

POLS 905. Complex Adaptive Systems, Agent-Based Modeling and Computer Simulation. 3 Hours.
This seminar addresses the rapidly growing science of complex systems. Topics addressed include political, economic, ecological, and biological systems. Includes a survey of the theory of complexity and computer models that are used to study complex adaptive systems. The main focus is on agent-based models, but attention is also given to traditional cellular automata. Methods of designing, programming, and interpreting results of agent-based models are addressed. Students who have no formal training in computer programming are welcome in the course, but they should expect to do some extra work on fundamentals of programming. A preparatory course in Java, C++, Objective-C, or another object-oriented language would significantly facilitate the student's research effort. SEM.

POLS 906. Advanced Regression. 3 Hours.
Covers topics appropriate for a second course in regression analysis. The content will vary according to the interest of the instructor and students, but will generally include such topics as multiple imputation of missing data, the generalized linear model (GLM), and specialized models for longitudinal data. The course will include a review of the principles of maximum likelihood estimation and applications of matrix algebra and differential calculus in statistical applications. LEC.

POLS 907. Research Methods in International Studies. 3 Hours.
This course focuses on quantitative methods of research relevant to international relations and comparative politics. Topics will vary with the instructor and student interests, but may include time series analysis, classification algorithms, computer programming and computational modeling, simulation, event data and content analysis, and dynamic models. Prerequisite: POLS 707. LEC.

POLS 908. Individual and Collective Choice. 3 Hours.
This course surveys rational choice theories of politics as they are applied to decisions by individuals and groups. Models of individual behavior are drawn primarily from economics and decision theory. The primary approaches to collective choice are social choice theory and game theory. Prerequisite: POLS 707. LEC.

POLS 909. Topics in Methodology: ______. 3 Hours.
An intensive seminar in a method (or a variety of relevant methods) of theoretical or empirical research designed for Ph.D. students only. Emphasis is on deepening the understanding and ability to use advanced methods of analysis. Prerequisite: Admission to the Ph.D. program or consent of instructor. RSH.

POLS 910. Research Seminar in American Government. 2-3 Hours.
A faculty and advanced graduate student collegial research experience focusing on American politics, policy-making and administration, with faculty and students engaged in the production of scholarly research articles, books and conference papers. Topics will be chosen by individual students with consent of the seminar professor. LEC.

POLS 911. The U.S. Congress. 3 Hours.
This seminar employs various theoretical and methodological perspectives to explore the burgeoning post-1960 literature on Congress. Traditional subjects such as committees, parties, and elections are examined through applications of formal models, behavioral analyses, and participant observation. LEC.

POLS 912. Elections and Voting Behavior. 3 Hours.
A research seminar for students interested in theoretical and empirical approaches to the behavior of candidates, voters and contributors in campaigns and elections. The impact of campaign laws and other institutional influences will also be examined. LEC.

POLS 913. State and Local Politics. 3 Hours.
Research seminar on various aspects of state and local government, such as reformed institutions, fiscal stress, citizen participation, and various policy problems. LEC.

POLS 914. Political Behavior. 3 Hours.
Survey of various approaches to the analysis of political behavior, including an evaluation of each approach in terms of its utility in building empirically-based political theory. Examples of the application of the various approaches will focus upon the American political process. LEC.

POLS 915. American Political Parties. 3 Hours.
A survey of the theories and research findings dealing with political parties in American politics, including third and minor parties. Topics to be covered include the development and evolution of the party system, the nature of party organization and the recruitment of party activists, the role of parties in the electoral process, the impact of parties upon public policy, and party reform. LEC.

POLS 916. Group Politics. 3 Hours.
The focus of this course is upon the theories and research findings dealing with political groups in American politics, including protest groups, movements, as well as conventional interest groups. Topics to be covered include group mobilization and maintenance, group involvement in the
political party and electoral processes, methods and strengths of group influence, and the impact of political groups on the policy process. LEC.

POLS 917. The Presidency. 3 Hours.
An advanced research seminar for students interested in theoretical and empirical approaches to the American presidency. This seminar will examine the powers and organizations of the White House through a study of the literature. LEC.

POLS 919. Topics in U.S. Government and Politics: _____, 2-3 Hours.
A seminar to be offered as occasion demands, dealing with, but not limited to, bureaucracy, legislative policy, federalism, and special problems in U.S. politics. LEC.

POLS 920. Policy Analysis Research Seminar. 3 Hours.
Research seminar designed to apply public policy theory and policy analysis methods to evaluate the impact of public policies. Students will be required to design and conduct an original research project with the intention of presenting the work at a professional conference or publishing the work in a professional journal. LEC.

POLS 921. Public Law. 3 Hours.
This seminar is designed to initiate the advanced graduate student to research in judicial and jury behavior. Requirements include mastery of literature on the psychological foundations of legal judgment and research designed to test propositions derived from this literature. LEC.

POLS 929. Topics in Public Policy: _____, 1-3 Hours.
Study of selected topics in public policy. LEC.

POLS 940. Teaching Political Science. 1 Hour.
A discussion of teaching methods and approaches. Students are expected to develop a personal teaching portfolio that describes their outlook on teaching political science and provides sample teaching materials. This course must be taken by all graduate teaching assistants and assistant instructors during the first year of their appointment. Grades are issued on a pass/fail basis. LEC.

POLS 950. Research Seminar in International Studies. 2-3 Hours.
A faculty and advanced graduate student collegial research experience, focusing on comparative politics, area studies, and international relations, with faculty and students engaged in the production of scholarly research articles, books, and conference papers. Topics will be chosen by individual students with consent of the seminar professor. RSH.

POLS 951. Mobilization. 3 Hours.
A study of how politicians, interest group leaders, and dissident leaders exhort citizens to act in or preclude them from acting in politics. LEC.

POLS 952. Comparative Electoral and Party Systems. 3 Hours.
This research seminar addresses the major theoretical and empirical issues in the study of electoral and party systems. In addition to evaluating the classic works of Arrow, Duverger, Lipset and Rokkan, Rae, and Taagepera and Shugart, students will assess contemporary work on electoral and party systems that has evolved from this source material. The course will address the design and reform of electoral systems, institutional rules and the strategic environment they create for political actors, the role of institutional and social factors in the development of political party systems, and the role of election administration. Students will develop and present original research papers related to these topics. Prerequisite: POLS 850. LEC.

POLS 953. Comparative Legislatures. 3 Hours.
This research seminar addresses the major theoretical and empirical issues in the study of legislatures. Students will discuss the design of institutions, government formation, accountability, legislative process and role of committees, agenda setting, elections and parties, and representation. The course will familiarize students with the core debates in legislative studies, extend knowledge of regional variation in the design and function of representative institutions, develop skills in the analysis of legislative records, and enhance professional socialization. Prerequisite: POLS 810, POLS 850, or consent of instructor. SEM.

POLS 954. Politics in Post-Soviet States. 3 Hours.
In-depth study of the politics of Russia, Ukraine, and the other Post-Soviet states. Focus on the problems of transforming a centrally planned authoritarian system to a free market democracy. LEC.

POLS 955. Politics of Advanced Industrial Societies. 3 Hours.
Theory and research on the patterns of behavior that characterize the politics of North America, Europe, and developed regions of Asia. Topics include corporatism and alternative forms of interest intermediation, economic theories of socialization and electoral choice, and the role of the state; its finances, adaptation, and the problem of power and legitimacy. Prerequisite: POLS 850 or permission of instructor. LEC.

POLS 956. The Governments and Politics of Asia. 2-3 Hours.
A research seminar on selected subjects and issues in the governments and politics of selected Asian countries. The particular focus each year will depend upon the instructor. LEC.

POLS 957. Comparative Political Behavior. 3 Hours.
The course introduces students to the vast literature on comparative elections and comparative political parties. It pursues a twofold goal. First, the course surveys the large comparative electoral behavior literature. The themes covered in the first half include a discussion of why voters participate in elections, how voters form preferences, how psychological processes affect mass views, and how these, in turn, influence party preferences. Second, the course introduces students to the supply-side of politics and the role of political parties. This second part of the course, therefore, examines why parties form in the first place, what motives they have, what choices they offer in short, how and why parties compete. Together, the way voters form preferences and the logic of party formation illuminate a central element of the democratic process. LEC.

POLS 959. Topics in Comparative Politics: _____, 1-3 Hours.
Study of selected topics in comparative politics. LEC.

POLS 960. Politics of Developing Countries. 2-3 Hours.
LEC.

POLS 961. The Politics of Culturally Plural Societies. 3 Hours.
This is an advanced graduate seminar on the comparative study of politics countries characterized by sub-cultural cleavages, including ethnicity, language, religion, and race. The course will first survey and critique competing theoretical explanations for different patterns of conflict or peaceful cohabitation among such groups in a variety of world regions. Students will then examine the utility of these theories in individual in-depth research papers which will be presented in class and critiqued by seminar participants. LEC.

POLS 970. Foreign Policy Analysis. 3 Hours.
Designed to acquaint students with the principal theories, approaches and types of empirical analysis generally employed to explain and interpret the creation and implementation of foreign policy. Topics include rational actor models, collective and bureaucratic processes, societal influences, cognitive and psychological factors, and comparative foreign policy. Prerequisite: POLS 870. An undergraduate United States foreign policy class is recommended. LEC.

POLS 972. Theories of International Conflict. 3 Hours.
An in-depth survey of theories and research on international conflict. Topics will range from anthropological studies of conflict in primitive societies to contemporary theories of nuclear conflict. The course will also cover current empirical research methodology and results of research on
international conflict, as well as models of conflict processes. Prerequisite: POLS 870. LEC.

POLS 973. International Political Economy. 3 Hours.
Provides an eclectic survey of major developments in the field. Topics include the intellectual origins of IPE; the historical evolution of the international system; North-South and Western trade, investment, and monetary relations; foreign aid, debt technology transfer, development, international economic institutions (e.g., IMF, IBRD, MNCs, etc.). (Same as SOC 873.) Prerequisite: POLS 870 or consent of instructor. LEC.

POLS 974. International Mediation and Conflict Resolution. 3 Hours.
The course examines the theory and practice of international mediation and other forms of third party intervention used to resolve interstate and nonstate disputes. Topics include explanations of mediation success and failure, conditions of conflict escalation where mediation is likely to be counterproductive or resisted by recalcitrant disputants, the ethics of intervention, citizen diplomacy, and the role of international organizations such as the United Nations. Prerequisite: POLS 870. LEC.

POLS 977. Ethics in International Relations Theory. 3 Hours.
This course examines how issues of International Ethics have been treated in International Relations theory. This course begins by reviewing several theoretical perspectives of International Relations and how these perspectives have historically understood the role ethics plays in international politics. By the end of the semester, students should have a firm understanding of (1) the salient issues of international ethics in world politics and (2) whether and how IR scholars have (theoretically and methodologically) placed those issues in their research paradigms. The issue areas the course will cover include, but are not limited to, human rights doctrines, issues of economic and political justice, just war theory (jus ad bellum) and just conduct of war (jus en bello), and humanitarian intervention. The course will assess the role international law has played in stemming and/or punishing human rights abuses. Students will review several historical cases of genocide, as well as several cases of truth and reconciliation commissions. LEC.

POLS 978. Advanced Topics in International Relations Theory. 3 Hours.
Intensive examination of key theoretical debates in international relations. Topics covered will include Classical Realism and Liberalism, Neorealist/Neoliberal debate, and post-structural critiques of mainstream international relations theory. Prerequisite: POLS 870. LEC.

POLS 979. Topics in International Relations: ______. 3 Hours.
To be offered periodically when topics of special interest arise. LEC.

POLS 980. International Organizations. 3 Hours.
Considers theoretical and empirical work on international governmental and non-governmental organizations (IOs). Specifically highlights the evolving scholarly debates regarding the function, design, and delegation of authority to IOs as well as their behavior and change. Explores these questions in depth through a wide range of cases, including comprehensive coverage of the United Nations, Bretton Woods Institutions, and the European Union, and their activities in issue areas concerning international security, trade, finance, development, humanitarian aid, and the environment. LEC.

POLS 981. Global Development. 3 Hours.
Considers the nature and problems of development and underdevelopment from a cross-regional and interdisciplinary perspective. Deals with the historical origins of the enormous disparities in wealth that exist today, both between and within countries. Considers the explanations for those differences, prescriptions for how to narrow them, and specific cases (both successes and failures) from various regions of the globe. LEC.

POLS 993. Directed Readings. 1-5 Hours.
Designed to meet the needs of graduate students whose study in political science cannot be met with present course. Prerequisite: Consent of instructor. RSH.

POLS 995. Directed Research. 2 Hours.
Designed for advanced graduate students who are concurrently enrolled or who will be enrolled in a subsequent semester in one of the Research Seminars in American Government or International Studies. Students enrolling in this course should have the prior approval of the faculty member with whom they wish to conduct the research. RSH.

POLS 997. Preparation for the Comprehensive Examination. 1-6 Hours.
An independent reading course for students preparing to take the Ph.D. comprehensive examination. May be taken for two semesters or six credits, whichever comes first. Graded on A, B, C, D, or F depending on the results of the comprehensive examination. RSH.

POLS 999. Doctoral Dissertation. 1-15 Hours.
Enrollment for writing doctoral dissertations. THE.

Psychology Courses

PSYC 102. Orientation Seminar in Psychology. 1 Hour. S.
Provides an overview of the discipline of psychology. Emphasizes developing an understanding of opportunities in psychology at the University of Kansas, exploring service-learning options related to the major, and helping students plan goals for their education through an understanding of their personal values and options within and outside the discipline. Open to KU-degree-seeking students only. Contact the Psychology Department to enroll in the course. Non-degree-seeking and non-KU students may enroll in the course by signing up with KU Continuing Education. Graded on a satisfactory/unsatisfactory basis. LEC.

PSYC 104. General Psychology, Honors. 3 Hours. SI GE3S / S.
A basic introduction to the science of psychology. LEC.

PSYC 105. General Psychology, Honors. 3 Hours. SI GE3S / S.
Open to students in College or Departmental Honors programs or by permission of instructor. LEC.

PSYC 120. Personality. 3 Hours. SI GE3S / S.
An introductory survey of personality theories, development, assessment and current research. LEC.

PSYC 121. Personality, Honors. 3 Hours. SI GE3S / S.
Open to students in College or Departmental Honors programs or by permission of instructor. LEC.

PSYC 177. First Year Seminar: ______. 3 Hours. SI GE11.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in psychology. May not contribute to major requirements in psychology. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

PSYC 200. Research Methods in Psychology. 3 Hours. S.
An examination of the scientific "ways of knowing" employed by psychologists to discover the laws governing human behavior across a wide domain. The focus of the course is upon these methods and the statistical techniques that support them. Prerequisite: PSYC 104 and MATH 101 or equivalent placement. LEC.

PSYC 201. Research Methods in Psychology, Honors. 3 Hours. S.
An examination of the scientific "ways of knowing" employed by psychologists to discover the laws governing human behavior across a wide domain. The focus of the course is upon these methods and the statistical techniques that support them. Open to students in University
and Departmental Honors programs or by permission of instructor. Not open to students taking PSYC 200. Prerequisite: PSYC 104 and MATH 101.

PSYC 202. Study Abroad Topics in: ______. 1-4 Hours. S.

This course is designed for the study of special topics in Psychology. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

PSYC 210. Statistics in Psychological Research. 3 Hours. S.

An introduction to statistical concepts and methods as they relate to analysis and interpretation of psychological data. Prerequisite: PSYC 104 and MATH 101 or equivalent placement. LEC.

PSYC 211. Statistics in Psychological Research, Honors. 3 Hours. S.

An introduction to statistical concepts and methods as they relate to analysis and interpretation of psychological data. Open only to students in University and Departmental Honors programs or by permission of instructor. Not open to students who have taken PSYC 210. Prerequisite: PSYC 104 and MATH 101 or equivalent placement. LEC.

PSYC 318. Cognitive Psychology. 3 Hours. S.

An introduction to contemporary research and theory in human learning and memory, relevant perceptual processes, and higher functions such as language. Prerequisite: PSYC 104 and one of the following: PSYC 200, PSYC 201, PSYC 210, PSYC 211, MATH 101, MATH 104 or equivalent placement. LEC.

PSYC 319. Cognitive Psychology, Honors. 3 Hours. S.

Open to students in University or Departmental Honors programs or by permission of instructor. Prerequisite: PSYC 104 and one of the following: PSYC 200, PSYC 201, PSYC 210, PSYC 211, MATH 101, MATH 104 or exemption based on ACT or SAT score. LEC.

PSYC 333. Child Development. 3 Hours. S.

A survey course on the science and application of child and adolescent development; including physical, motoric, social, emotional, and cognitive changes from conception through adolescence. The course covers methods and theory, genetics, and may incorporate content on aggression, morality, parenting, media, and peers. Prerequisite: PSYC 104 and one of the following: PSYC 200, PSYC 201, PSYC 210, PSYC 211, MATH 101, MATH 104 or exemption based on ACT or SAT score. LEC.

PSYC 334. Child Development, Honors. 3 Hours. S.

A survey course on the science and application of child and adolescent development; including physical, motoric, social, emotional, and cognitive changes from conception through adolescence. The course covers methods and theory, genetics, and may incorporate content on aggression, morality, parenting, media, and peers. Open to students in University or Departmental Honors Programs or by permission of instructor. Prerequisite: PSYC 104 and one of the following: PSYC 200, PSYC 201, PSYC 210, PSYC 211, MATH 101, MATH 104 or exemption based on ACT or SAT score. LEC.

PSYC 350. Abnormal Psychology. 3 Hours. S.

An examination of psychopathology including anxiety disorders, psycho-physiological disorders, affective disorders, and schizophrenic disorders. Disorders are considered from psychodynamic, behavioral, cognitive, and biological perspectives. Prerequisite: PSYC 104. LEC.

PSYC 351. Abnormal Psychology, Honors. 3 Hours. S.

Open to students in College or Departmental Honors programs or by permission of instructor. Prerequisite: PSYC 104. LEC.

PSYC 360. Social Psychology. 3 Hours. S.

An introduction to the psychology of social behavior. Systematic consideration of such concepts as social influence, conformity and deviation, social attitudes and prejudice, socialization and personality, communication and propaganda, morale, and leadership. Prerequisite: PSYC 104 and one of the following: PSYC 200, PSYC 201, PSYC 210, PSYC 211, MATH 101, MATH 104 or exemption based on ACT or SAT score. LEC.

PSYC 361. Social Psychology, Honors. 3 Hours. S.

An introduction to the psychology of social behavior. Systematic consideration of such concepts as social influence, conformity and deviation, social attitudes and prejudice, socialization and personality, communication and propaganda, morale, and leadership. Open to students in University or Departmental Honors programs or by permission of instructor. Prerequisite: PSYC 104 and one of the following: PSYC 200, PSYC 201, PSYC 210, PSYC 211, MATH 101, MATH 104 or exemption based on ACT or SAT score. LEC.

PSYC 370. Behavioral Neuroscience. 3 Hours. N.

A survey of topics related to the biological processes underlying behavior in humans and in animals, including the physiology of neuronal and synaptic transmission, neurochemistry, and neuropharmacology. Selected topics within the area of behavioral neuroscience are also covered, such as motivation, appetite, reward, homeostasis, biological rhythms, addiction, aggression, stress, emotion, and sleep. Prerequisite: An introductory course in Psychology; an introductory course in Biology; and PSYC 200 or PSYC 201 and PSYC 210 or PSYC 211. LEC.

PSYC 371. Behavior Neuroscience, Honors. 3 Hours. N.

A survey of basic topics related to the biological processes underlying behavior in humans and in animals, including the physiology of neuronal and synaptic transmission, neurochemistry, and functional neuroanatomy. Selected topics within the area of cognitive neuroscience also covered, such as sensory processing, hearing, vision, learning and memory, attention, motor control, language, hemispheric asymmetry, executive function, and neuroplasticity. Prerequisite: An introductory course in Psychology; an introductory course in Biology; and PSYC 200 or PSYC 201 and PSYC 210 or PSYC 211. LEC.

PSYC 375. Cognitive Neuroscience. 3 Hours. N.

A survey of topics related to the biological processes underlying cognition in humans and in animals, including the physiology of neuronal and synaptic transmission, neurochemistry, and functional neuroanatomy. Selected topics within the area of cognitive neuroscience also covered, such as motivation, appetite, reward, homeostasis, biological rhythms, addiction, aggression, stress, emotion, and sleep. Open to students in University or Departmental Honors programs or by permission of instructor. Prerequisite: An introductory course in Psychology; an introductory course in Biology; and PSYC 200 or PSYC 201 and PSYC 210 or PSYC 211. LEC.

PSYC 380. Clinical Neuroscience. 3 Hours. N.

The organization and function of the nervous system as it relates to topics of interest to psychologists, including pain, anxiety, stress, sleep, depression, schizophrenia, akinetic and dyskinetic movement disorders, and senile dementia. Prerequisite: An introductory course in Psychology, an introductory course in Biology, and PSYC 200 or PSYC 201 and PSYC 210 or PSYC 211. LEC.

PSYC 381. Clinical Neuroscience, Honors. 3 Hours. N.

The organization and function of the nervous system as it relates to topics of interest to psychologists, including pain, anxiety, stress, sleep, depression, schizophrenia, akinetic and dyskinetic movement disorders, and senile dementia. Open to students in University or Departmental Honors programs or by permission of instructor. Prerequisite: An introductory course in Psychology, an introductory course in Biology, and PSYC 200 or PSYC 201 and PSYC 210 or PSYC 211. LEC.
PSYC 402. Study Abroad Topics in: _____. 1-4 Hours. S.
This course is designed for the study of special topics in Psychology equivalent to courses at the 300 to 600 level at KU. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

PSYC 405. Children and Media. 3 Hours. H.
The applied study of child development theories and research methods on the influences and effects of television and related visual media on childhood in the contexts of families, schools, and society. (Same as ABSC 405 and THR 405.) LEC.

PSYC 406. Individual Differences. 3 Hours. S.
A survey of the nature and sources of differences in human behavior and a consideration of the consequences of these differences for society. Prerequisite: PSYC 104. LEC.

PSYC 410. Intimate Relationships. 3 Hours. S.
A social psychological perspective on adult intimate relationships, examining friendship, dating, committed relationships, and the dissolution of committed relationships. Topics include romance, jealousy, self-disclosure, power, loneliness, and social support. Discussion of heterosexual and homosexual relationships, traditional forms (e.g., marriage) of relationships as well as alternative lifestyles (e.g., cohabitation) and gender-linked differences in relationships. Prerequisite: PSYC 104. LEC.

PSYC 415. Social and Cultural Sources of Self. 3 Hours. S.
An interdisciplinary exploration of the social and cultural sources of self-experience. The first part of the course emphasizes a general process: how the development and experience of self, though it might seem essentially personal, is shaped by social interaction. The second part of the course highlights particular cases: how self-experience may be constructed differently depending on the particular social and cultural settings a person inhabits. Cases include influences of gender, socioeconomic status, and age group on the construction of self-experience within societies from around the world, and ethnic-identity groups within the USA. Prerequisite: PSYC 104. LEC.

PSYC 418. Introduction to Cognitive Science. 3 Hours. S.
Examines the data and methodologies of the disciplines that comprise Cognitive Science, an inter-disciplinary approach to studying the mind and brain. Topics may include: consciousness, artificial intelligence, linguistics, education and instruction, neural networks, philosophy, psychology, anthropology, evolutionary theory, cognitive neuroscience, human-computer interaction, and robotics. (Same as LING 418, PHIL 418, and SPLH 418.) Prerequisite: Consent of instructor. LEC.

PSYC 420. Fundamentals of Personality. 3 Hours. S.
Clinical application of personality theories; personality development and assessment research. Prerequisite: PSYC 104. LEC.

PSYC 430. Cognitive Development. 3 Hours. S.
A basic survey course in the development of thinking and understanding in normal children. The course will cover Piaget’s theory and information processing theories at the advanced undergraduate level. Topics include perception, attention, learning, memory, language, problem solving, and individual differences from birth to the mid-teens. Prerequisite: PSYC 104 or ABSC/HDFL 160. LEC.

PSYC 432. Human Behavioral Genetics. 3 Hours. S.
A survey of human behavioral genetics for upper division undergraduates. Emphasis is on how the methods and theories of quantitative, population, medical, and molecular genetics can be applied to individual and group differences in humans. Both normal and abnormal behaviors are covered, including intelligence, mental retardation, language and language disorders, communication, learning, personality, and psychopathology. (Same as ANTH 447, BIOL 432, and SPLH 432.) Prerequisite: Introductory courses in biology/genetics or biological anthropology and psychology are recommended. LEC.

PSYC 435. Social and Personality Development. 3 Hours. S.
An introduction to social and personality development with consideration of both classic and contemporary theoretical viewpoints. The role of social contexts is considered (e.g., family, peers, communities), as well as biological influences (e.g., behavioral genetics). Topics include parent-infant attachment, peer relationships, aggression, etc. Prerequisite: PSYC 104. LEC.

PSYC 449. Laboratory/Field Work in Human Biology. 1-3 Hours. AE61 / N.
Faculty supervised laboratory or field research for Human Biology majors. Students design and complete a research project in collaboration with a Human Biology faculty member. (Same as ANTH 449, BIOL 449, and SPLH 449.) Prerequisite: Consent of instructor and Human Biology major. FLD.

PSYC 453. Psychological Foundations of Musical Behavior. 3 Hours. S.
Study of human musical behavior, including basic psychoacoustic phenomena, musical taste, functional music, musical ability, cultural organization of musical sounds, and the affective response. Prerequisite: General Psychology, MEMT 370, or consent of instructor. LEC.

PSYC 460. Honors in Psychology. 1-2 Hours. AE61 / S.
A seminar for juniors and seniors in the Honors Program in Psychology. Students who have been admitted to the Honors Program in Psychology may enroll for one credit for one or both semesters of their junior year and are required to enroll for two credits for both semesters in their senior year. IND.

PSYC 465. Stereotyping and Prejudice Across Cultures. 3 Hours. S.
This course covers a variety of theoretical views concerning the origins of stereotypes and the factors that maintain them, as well as how and when the revision of such beliefs take place. Analysis of various stereotypes (including gender and race) and the experience of prejudice across a variety of cultural contexts is examined. Many difficult social issues are discussed in depth. Prerequisite: PSYC 360 or PSYC 361; or consent of instructor. LEC.

PSYC 468. Psychology of Women. 3 Hours. S.
A survey of the psychological theories about women; similarities and differences in behavior of women and men; the effects of biological and social factors on the behavior of women and men; and issues of concern to women of different races, sexual orientations, ages, and so forth. (Same as WGSS 468.) Prerequisite: PSYC 104 or WGSS 201. LEC.

PSYC 470. Introduction to Contemporary Psychotherapies. 3 Hours. S.
Review of current psychotherapies with special references to their underlying philosophies, theories of personality, techniques, and effectiveness. Issues concerning the use of drugs in the treatment of mental disorders are also reviewed. Prerequisite: PSYC 104. LEC.

PSYC 472. Psychology of Sleep and Dreaming. 3 Hours. S.
This course reviews recent evidence on the roles of dreaming and dreamless sleep. Psychological, developmental, personality, and social psychological aspects are considered. Prerequisite: PSYC 104. LEC.

PSYC 475. Cognitive Neuroscience. 3 Hours. S.
The neurobiology of higher mental processes such as perception, attention, learning, memory, thinking, and language, as studied by techniques such as recording from individual neurons, electrical brain stimulation, brain damage, and brain scans and measurements of regional processes.
cerebral blood flow in conscious people. Emphasis will be placed on in-class analysis of original research articles. Prerequisite: One of the following courses - PSYC 318, 319, 370, 371, 380, or 381; or consent of instructor. LEC.

PSYC 480. Independent Study. 1-5 Hours. U.
Investigation of a special research problem or directed reading in an area not covered in regular courses. No more than 3 hours of PSYC 480 may be counted toward the minimum hours required for the major. Prerequisite: Consent of instructor. LEC.

PSYC 481. Research Practicum. 1-5 Hours. U.
Guided participation in ongoing research programs to augment quantitative skills through direct practicum experience. No more than 3 hours of PSYC 481 may be counted toward the Psychology minor or the Psychology, Developmental Psychology, and Behavioral Neuroscience major requirements. Prerequisite: PSYC 200 or PSYC 201 or PSYC 210 or PSYC 211 or consent of instructor. RSH.

PSYC 482. Sensation and Perception. 3 Hours. S.
Introduction to human sensory and perceptual capabilities. Topics include: sensory systems, perceptual development, and perceiving color, objects, space, movement, sound, speech, touch, smell, and taste as well as various perceptual illusions. Prerequisite: PSYC 104. LEC.

PSYC 483. Undergraduate Internship in Psychology. 1-3 Hours. U.
Students conduct psychology focused fieldwork in an organization related to their professional/career goals. Credit hours are determined on the basis of 120 clock hours for 3 credit hours, 80 clock hours for 2 credit hours, and 40 clock hours for 1 credit hour. An internship plan (contract) is developed by the student in conjunction with the student's academic adviser and signed off by the academic adviser and an authorized agent of the internship site. At the conclusion of the internship experience, the authorized agent of the internship site writes the academic adviser indicating that the student has met the goals of the internship plan and the hours required. No more than 3 hours of PSYC 483 may be counted toward the minimum hours required for the major. Prerequisite: Admission to the Psychology major. FLD.

PSYC 490. Theories and Concepts of Child Development. 3 Hours. S.
An advanced course in the theories and basic concepts of child development. Coverage includes: (a) analyses of the general logic, assumptions, and principles of the five major approaches: normative-maturational, psychoanalytic, social learning theory, cognitive-developmental, and behavior analysis; (b) historical background of developmental theory; (c) social-cultural influences on theory construction; and (d) some cross-cultural perspectives. Not open to students previously enrolled in HDFL 290. Prerequisite: PSYC 104, or HDFL 160, HDFL 161, HDFL 432, or consent of instructor. LEC.

PSYC 492. Psychology and Social Issues. 3 Hours. S.
A study of psychological aspects of selected social issues in contemporary American society. Race relations and the civil rights movement, Political extremism, Public opinion and social change. Social psychological approaches to a variety of social problems. Prerequisite: PSYC 360 or 361, or consent of instructor. LEC.

PSYC 499. Conceptual Issues in Psychology. 3 Hours. S.
This course examines classic issues in psychology--free-will and determinism, nature and nurture, the mind-body problem, approaches to human action, cultural influences on psychological theories, the evolution of intellectual paradigms, and inductive and deductive approaches to social scientific research--from multiple perspectives within psychology and related social sciences. Prerequisite: PSYC 104 or equivalent. LEC.

PSYC 500. Intermediate Statistics in Psychological Research. 3 Hours. U.
A second course in statistics with emphasis on applications. Analysis of variance, regression, analysis, analysis of contingency tables; possibly selected further topics. Prerequisite: Grade of B- or better in PSYC 210 or PSYC 211. LEC.

PSYC 502. Human Sexuality. 3 Hours. S.
An introduction to the field of human sexuality. Topics to be covered include sexual anatomy and physiology, fertilization, pregnancy, birth and lactation, contraception, human sexual response, sexuality across the life cycle, love, marriage, alternatives to marriage, sexual orientation, sex differences in behavior, parenthood, sexually transmitted diseases, sex and the law, and sex education. Prerequisite: PSYC 104. LEC.

PSYC 511. Laboratory Research in Infant Behavior. 3 Hours. S.
Optional course for students currently enrolled in PSYC 510 or may be taken after completion of PSYC 510. Will offer students practical experience in an infant research laboratory. Students must spend a minimum of nine hours a week (on three different half days) in laboratory. They will learn to observe and record infant behavior, to handle data from experiments and participate in the planning and discussion of laboratory research. Acquaintance with and involvement in the issues of obtaining informed consent and ethical aspects of infant research will be included. Prerequisite: Current enrollment or previous enrollment in PSYC 510 and consent of instructor. LAB.

PSYC 518. Human Memory. 3 Hours. S.
An in-depth coverage of human memory phenomena, including phenomena concerning acquisition, storage and retrieval, unconscious forms of memory, memory monitoring and control, and practical aspects of memory such as autobiographical memory, mnemonic techniques and eyewitness memory. Prerequisite: PSYC 104. LEC.

PSYC 520. Memory and Eyewitness Testimony in Children. 3 Hours. S.
A review of the literature on the development of memory in young children, and the implications of this research for understanding children's eyewitness testimony. The course will present current research on children's long-term memory abilities, the impact of stress on recall performance, the effectiveness of various types of interviewing techniques, and the suggestibility of children's recollections. Policy issues and potential guidelines for the elicitation and evaluation of children's memory reports in both clinical and legal arenas will be discussed. Prerequisite: PSYC 104 or ABSC/HDFL 160, or consent of instructor. LEC.

PSYC 521. Women and Violence. 3 Hours. S.
An examination of research on women and violence, including rape, domestic violence, sexual harassment, stalking, and child sexual abuse. The nature, prevalence, causes, and consequences of violence against women are discussed. (Same as WGSS 521.) Prerequisite: PSYC 104. LEC.

PSYC 531. Language Development. 3 Hours. S.
Introduction to the study of language development; emphasis on the psychological processes underlying syntactic, semantic, and pragmatic aspects of language development in children. Prerequisite: One of the following courses - PSYC 318, 319, 333, or 334; or consent of instructor. LEC.

PSYC 535. Developmental Psychopathology. 3 Hours. S.
A review of the literature on contemporary psychological and developmental disorders of children and youth. Course will present current models of psychopathology, classification systems, assessment methods, and treatment approaches designed for the individual, the
PSYC 536. The Psychology of Language. 3 Hours. S.
A survey of recent research on psycholinguistics covering the perception, production, and comprehension of language. Topics include: the biological basis for language, the nature of comprehension processes, and memory for the syntactic, semantic, and pragmatic components of language. Prerequisite: One of the following courses - PSYC 318, 319, 333, or 334; or consent of instructor. LEC.

PSYC 545. Culture and Psychology. 3 Hours. S.
The course considers the relationship between culture and psyche. One theme throughout the course involves revealing the cultural grounding of psychological functioning. The second and complementary theme involves identifying the psychological processes involved in the phenomenon of culture. Prerequisite: PSYC 333, 334, 360 or 361 or consent of instructor. LEC.

PSYC 555. Evolutionary Psychology. 3 Hours. S.
A review of evolutionary theory and its application to human personality, cognition, interpersonal relationships, family dynamics, and development. Prerequisite: PSYC 104 and at least 3 additional hours in Psychology, or consent of instructor. LEC.

PSYC 565. Applied Developmental Psychology. 3 Hours. S.
An advanced study of the application of theories and concepts of developmental and behavioral psychology to a range of specific issues and problems of childhood and adolescence. This course will rely heavily upon the empirical research literature. Topics include contemporary social issues and child development, research in applied settings, assessment, intervention, and prevention, as well as program evaluation. (Same as ABSC 565.) Prerequisite: ABSC 160 or PSYC 333, and ABSC/PSYC 535. LEC.

PSYC 566. Psychology and the Law. 3 Hours. S.
An application of psychological processes and concepts to the American legal system. Among the topics covered are the socialization of legal attitudes, opinions about the purposes of the criminal justice system and especially of prisons, the concept of "dangerousness," the nature of jury decision making, and the rights of prisoners, patients, and children. LEC.

PSYC 570. Group Dynamics. 3 Hours. S.
A study of the processes underlying the dynamics of the group, including the observation of group phenomena and a consideration of their relation to research findings. Prerequisite: PSYC 360 or 361, or consent of instructor. LEC.

PSYC 572. Psychology and International Conflict. 3 Hours. S.
A study of psychological approaches to analysis and intervention in the field of international conflict and peace-making. Focus on major contributions and important paradigms for explanation and action. Prerequisite: PSYC 360 or consent of instructor. Background study in international relations or recent world history desirable. LEC.

PSYC 578. Social Attitudes. 3 Hours. S.
An introduction to the study of attitudes focusing on problems of measurement and on empirical findings and theories of attitude acquisition and change. Prerequisite: PSYC 360, 361, or consent of instructor. LEC.

PSYC 580. Research Lab. 1-5 Hours. S.
Supervised research under the guidance of a faculty member in the Department of Psychology. Students will be part of a collaborative laboratory environment, and will be involved in research design, data collection, and data analysis, and will take part in regularly scheduled laboratory meetings. Prerequisite: Permission of instructor. LEC.

PSYC 581. Psychology of Religion. 3 Hours. S.
Consideration of the psychological antecedents of religious experience, the nature of religious experience, and the behavioral consequences of religion. Focus will be on psychological theory and research relevant to religious thought, feeling, belief, and behavior. (Same as REL 581.) Prerequisite: PSYC 104. LEC.

PSYC 590. Nonverbal Communication. 3 Hours. S.
Examination of non-linguistic behavior in human communication, including proxemics (spacing), kinesics (movement and expression), and paralinguistics (voice quality). Includes phylogenetic and developmental perspectives, methods of analysis, applications to interpersonal problems. (Same as COMS 590.) Prerequisite: COMS 356 or PSYC 210 or PSYC 211. LEC.

PSYC 592. Psychological Significance of Physical Illness and Disability. 3 Hours. S.
A lecture course to help students become more aware of and responsive to the psychological needs of persons with physical illnesses or disabilities. Emphasis is upon the meanings of such conditions in individuals' lives and the effects of treatment and rehabilitation settings on psychological adaptation. Prerequisite: PSYC 104. LEC.

PSYC 598. Positive Psychology. 3 Hours. S.
An introduction to the core assumptions and research findings associated with human strengths and positive emotions. Also an exploration of interventions and applications informed by positive psychology in counseling and psychotherapy, and its application to school, work, family, and other close relationships. (Same as COMS 590.) Prerequisite: PSYC 104 or consent of instructor. LEC.

PSYC 602. Basis and Nature of Individuality. 3 Hours. S.
Individuality in cognitive and personality attributes is surveyed, and analyzed by current psychological theory. The course includes topics on the structure of intellect and personality, cognitive theory, brain research and behavior genetics as relevant to the understanding of individuality. Prerequisite: An introductory course in psychology. LEC.

PSYC 605. Health Psychology. 3 Hours. S.
Review of research and theory concerning the role of psychological factors in the development of physical illness and the contribution of psychologists to the treatment and prevention of physical illness. Prerequisite: PSYC 104. LEC.

PSYC 608. Sex Role Development. 3 Hours. S.
An examination of the theory and literature on sex role development in childhood, adolescence, and adulthood. Particular attention is given to approaches stressing androgyny and variations on traditional roles. Processes of socialization into both traditional and non-traditional roles are stressed. Literature on females is emphasized, but male sex role development is also covered. Prerequisite: PSYC 104 or HDFL 160. LEC.

PSYC 610. Advanced Personality. 3 Hours. S.
A survey of selected topics in the area of personality (e.g., defense mechanisms, aggression, interpersonal relations). Prerequisite: PSYC 120 or PSYC 420 or consent of instructor. LEC.

PSYC 613. History and Systems in Psychology. 3 Hours. S.
A survey of the historical development of modern theoretical systems in psychology. Prerequisite: PSYC 104, plus twelve hours in psychology. LEC.
PSYC 616. Foundations of Learning. 3 Hours. S.
A consideration of experimental findings and theories concerning classical and instrumental conditioning. Prerequisite: PSYC 104. LEC.

PSYC 618. Experimental Psychology: Human Learning. 6 Hours. AE61 / S.
Lectures and laboratory research on human information processing as related to theories of word recognition, reading, and language comprehension. Major emphasis on experimental design, data analysis, interpretation, and scientific writing. Prerequisite: PSYC 104 and PSYC 210 or PSYC 211 or consent of instructor. LEC.

PSYC 620. Experimental Psychology: Sensation, Perception, and Cognition. 6 Hours. AE61 / S.
Lectures and laboratory work on human sensory processes and how they result in perceptions of the environment. Experience is provided in designing and implementing research as well as in the skills necessary for statistical analysis, interpretation of data, and scientific writing. Prerequisite: PSYC 104 and PSYC 210 or PSYC 211 or consent of instructor. LEC.

PSYC 622. Experimental Psychology: Social Behavior. 6 Hours. AE61 / S.
Lectures, laboratory and field work on various issues in research in social psychology (e.g., conformity, attitude change, social processes). Two two-hour periods a week and appointment for research. Prerequisite: PSYC 104, PSYC 360, and PSYC 210 or PSYC 211 or consent of instructor. LEC.

PSYC 624. Experimental Psychology: Clinical Psychology. 6 Hours. AE61 / S.
Lectures and laboratory research on contemporary issues in clinical psychology. Emphasis on experimental design, data analysis, interpretation of data, and scientific writing. Prerequisite: PSYC 104 and PSYC 210 or PSYC 211 or consent of instructor. LEC.

PSYC 625. Experimental Psychology: Methods in Neuropsychology and Psychophysiology. 6 Hours. AE61 / S.
Lectures and laboratory work on psychophysiology and neuropsychology research methods. Overview of psychophysiological tools to measure the central and peripheral nervous systems. Experience designing and implementing neuropsychology and psychophysiology research. Prerequisite: PSYC 104 and PSYC 210 or PSYC 211 or consent of instructor. LEC.

PSYC 626. Psychology of Adolescence. 3 Hours. S.
Impact of factors of social environment and physical growth upon psychological development from puberty to young adulthood. (Same as ABSC 626.) Prerequisite: PSYC 104, PSYC 333, or HDFL/ABSC 160. LEC.

PSYC 630. Clinical Psychology. 3 Hours. S.
The historical and empirical foundations of clinical psychology. Significant trends in theory, research, and social organization which have shaped clinical practice. A review of clinical practice. Prerequisite: PSYC 104. LEC.

PSYC 632. Advanced Child Behavior and Development. 3 Hours. S.
An advanced course in child development that includes a survey of the field's principles and theoretical approaches, and current issues in research and practice. Topics will include: prenatal development, cognition and language, social-emotional development, socialization influences in childhood, developmental psychopathology, and social policies. (Same as ABSC 632.) Prerequisite: ABSC/HDFL 160, PSYC 333, or instructor permission, and senior or graduate status. LEC.

PSYC 642. The Psychology of Families. 3 Hours. S.
Study of the family as a psychosocial system. Emphasis is placed on factors affecting contemporary families including family structures, development, communication patterns, disorders, and treatment approaches. Theory, empirical evidence, and practical principles that may lead to maximizing individual growth in the family unit are discussed. Prerequisite: PSYC 104. LEC.

PSYC 644. Behavioral Pharmacology. 3 Hours. S.
Addresses psychological and behavioral effects of drugs, including psychotropic medications. A central theme is that effects of drugs frequently cannot be characterized solely from a pharmacological perspective. Thus, emphasis is placed on examining the interaction of pharmacological and behavioral variables. For example, how do psychological factors moderate responses to drugs? The nature of this area assumes some knowledge of general psychology, research methods, biology, chemistry, neurophysiology, and the nervous system. Prerequisite: PSYC 104 or consent of instructor. LEC.

PSYC 646. Mental Health and Aging. 3 Hours. S.
Reviews recent research and application in the field of mental health and aging. Theoretical perspectives appropriate for understanding mental health issues with increased age are discussed. The epidemiology, assessment, diagnosis, and treatment methods associated with a variety of mental health conditions are surveyed. The community mental health resources available for older adults are discussed as well as practically-related issues such as evaluations of functional independence and competency among older adults. Prerequisite: PSYC 104 or consent of instructor. LEC.

PSYC 650. Statistical Methods in Behavioral and Social Science Research I. 4 Hours. S.
Elementary distribution theory; t-test; simple regression and correlation; multiple regression and multiple correlation; curvilinear regression; logistic regression; general linear model. Applications across the behavioral and social sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Students taking this course as PSYC 790 will have different course requirements. Prerequisite: A grade of B- or better in a beginning course in statistics (e.g., PSYC 210 or PSYC 211, MATH 365, POLS 306, COMS 356, SOC 510, or equivalent) is recommended, or consent of instructor. LEC.

PSYC 651. Anova and Other Factorial Designs. 4 Hours. S.
Course covers one-way analysis of variance, linear trends, contrasts, post hoc tests; multi-way analysis of variance for crossed, blocked, nested, and incomplete designs; analysis of covariance; repeated measures analysis of variance; general linear model. Applications across the social, educational, and behavior sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Students taking this course as PSYC 791 will have different course requirements. Prerequisite: PSYC 650 or equivalent, or consent of instructor. LEC.

PSYC 652. Behavior Therapy. 3 Hours. S.
A review of the principal techniques of behavior therapy, exclusive of operant-based therapies. Emphasis upon systematic desensitization, implosion, assertion training, and modeling techniques. Special attention given to outcome research relevant to the effectiveness of these techniques. Recommended: A course in abnormal psychology. Prerequisite: PSYC 104. LEC.

PSYC 678. Drugs and Behavior. 3 Hours. S.
A survey of the methods used to study the effects of drugs on behavior, and of the effect of selected drugs on behavior, particularly the narcotics,
hallucinogens, and drugs used in the treatment of mental illness. 
Prerequisite: PSYC 104. LEC.

PSYC 679. Applied Nonparametric Statistical Methods. 4 Hours. S.
This course covers nonparametric statistical methods for testing hypotheses. Topics include a review of parametric statistics, sampling distributions, hypothesis testing, and motivations for using nonparametric techniques. In-depth coverage is given to distribution-free procedures, goodness-of-fit tests, resampling methods, and theory underlying nonparametric methods. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Students taking this course as PSYC 679 will have different course requirements. Prerequisite: PSYC 650 or equivalent, or consent of instructor. LEC.

PSYC 685. Human Factors Psychology. 3 Hours. S.
Research techniques and methods useful in quantifying parameters of human performance that affect system functioning. Special emphasis is placed on modeling visual, auditory, and orienting systems and on human information processing. Prerequisite: PSYC 210 or PSYC 211 or consent of instructor. LEC.

PSYC 687. Factor Analysis. 4 Hours. S.
This course covers the theory behind, and application of, exploratory factor analysis. Topics include a review of multiple linear regression and matrix algebra. In-depth coverage is devoted to diagrams, model specification, goodness of fit, model selection, parameter estimation, rotation methods, scale development, and sample size and power issues. Extensions to confirmatory settings are elaborated. Both the theory underlying factor analytic techniques and hands-on application using software are emphasized. Applications across the social and behavioral sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Students taking this course as PSYC 887 will have different course requirements. Prerequisite: PSYC 650 or equivalent, or consent of instructor. LEC.

PSYC 689. Conceptual Issues in Human Sexuality. 3 Hours. S.
An examination of the social construction of sexuality and research methods and issues relevant to sexuality. These concepts are applied to various topics, such as defining and conceptualizing sex and gender, sexual dysfunction, sexual orientation, the social control of sexuality, sexual coercion and abuse, and abstinence-only sex education. The course does not cover anatomical or physiological aspects of sexuality. (Same as WGSS 689.) Prerequisite: PSYC 104 or WGSS 201. LEC.

PSYC 690. Seminar: ______. 1-5 Hours. U.
Discussion of current problems in psychological theory and research. Prerequisite: PSYC 104 and sophomore status. LEC.

PSYC 691. The Psychology of Aging. 3 Hours. S.
Social, psychological, and economic adjustments required by aging; changes in cognition, role and personality necessitated by advancing age. Prerequisite: PSYC 210 or PSYC 211 and one of the following: PSYC 318, PSYC 319, PSYC 350, PSYC 351, PSYC 360, PSYC 361, PSYC 370, PSYC 371, PSYC 380, or PSYC 381; or graduate standing; or consent of instructor. LEC.

PSYC 692. Test Theory. 4 Hours. S.
This course begins with recommendations for how to write a test, covers basics of classical test theory, and then emphasizes modern statistical methods for analyzing item data. Methods include factor analysis of categorical responses, methods for identifying measurement invariance (differential item functioning), and item response theory. Approximately one-half of the meetings are labs (primarily consisting of data analysis). The course is offered at the 600 and 800 levels with additional assignments at the 800 level. Prerequisite: PSYC 790/650 or equivalent, or consent of the instructor. LEC.

PSYC 693. Multivariate Analysis. 4 Hours. S.
Introduction to the central methods used in the analysis of multivariate data. Includes linear transformations, multivariate analysis of variance, multivariate multiple regression, discriminant analysis, canonical correlation, factor analysis, and an introduction to methods for clustering and classification. Applications across the behavior and social sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Students taking this course as PSYC 893 will have different course requirements. Prerequisite: PSYC 650 or equivalent, or consent of instructor. LEC.

PSYC 694. Multilevel Modeling I. 4 Hours. S.
Introduction to statistical methods for modeling multilevel (hierarchically structured) data. Topics include a review of ordinary least squares regression analysis, random effects ANOVA, intraclass correlation, multilevel regression, testing and probing interactions, maximum likelihood estimation, model assumptions, model evaluation, and the analysis of longitudinal data. Emphasis will be on the theory underlying multilevel modeling techniques and hands-on application using software. Applications across the behavioral and social sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Students taking this course as PSYC 894 will have different course requirements. Prerequisite: PSYC 650 or equivalent, or consent of instructor. LEC.

PSYC 695. Categorical Data Analysis. 4 Hours. S.
Introduction to multivariate analyses of count data, including error models, statistical inference, loglinear models, logit models, logistic regression, homogeneity, symmetry, and selected other topics. Applications across the behavioral and social sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Students taking this course as PSYC 895 will have different course requirements. Prerequisite: PSYC 650 or equivalent, or consent of instructor. LEC.

PSYC 696. Structural Equation Modeling I. 4 Hours. S.
Introduction to statistical methods for modeling latent variables. Topics include a review of latent variables, covariance structures analysis, mean structures analysis, confirmatory factor analysis (CFA), structural equation modeling (SEM), multiple group CFA, longitudinal CFA, longitudinal SEM, and hierarchical CFA. Applications across the behavioral and social sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Students taking this course as PSYC 896 will have different course requirements. Prerequisite: PSYC 650 or equivalent, or consent of instructor. LEC.

PSYC 697. Longitudinal Data Analysis. 3 Hours. S.
Reviews and contrasts various statistical models for the analysis of change. Course focuses on techniques to analyze longitudinal (repeated measures) data beyond the repeated-measures ANOVA framework. Applications across the behavioral and social sciences are emphasized. Students taking this course as PSYC 991 will have different course requirements. Prerequisite: PSYC 696 or equivalent, or consent of instructor. LEC.

PSYC 704. Research Practicum in Clinical Child Psychology. 3 Hours.
This course provides students in the Clinical Child Psychology Program with the opportunity to enhance and consolidate their research activities by fulfilling one of the elective cluster course requirements. This practicum involves a contract with a research advisor and the program director. The contract includes definable products and dates for completion to prepare
research for submission for publication, develop a grant proposal, or conduct additional research project independent of other requirements in the program. The course is not to be taken as an overload, but is to be part of a full-time course schedule. May be repeated. (Same as ABSC 704, formerly HDFL 704.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. LEC.

PSYC 706. Special Topics in Clinical Child Psychology: _____. 3 Hours.
A course offering detailed discussion of the literature and research methods of a special topic within clinical child and pediatric psychology. Topic and instructor may change by semester and will be announced in the Schedule of Classes. May be repeated. (Same as ABSC 706, formerly HDFL 706.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. LEC.

PSYC 710. Feminist Issues in Psychology. 3 Hours.
Detailed examination and discussion of psychological theory and research from a feminist perspective. Specific topics will vary. The goal of the course is to facilitate students' ability to develop feminist critiques of existing research and theory as well as to generate nonsexist alternative approaches. Open to advanced undergraduates with consent of instructor. Prerequisite: Some familiarity with research methods in the social sciences. LEC.

PSYC 723. Advanced Cognitive Psychology. 3 Hours.
Advanced cognitive psychology reviewing theories of pattern recognition, attention, working memory, language comprehension and problem solving. Emphasis will be placed upon the application of these theories to real-life situations. Prerequisite: PSYC 104 and six additional credit hours in psychology, or permission of the instructor. LEC.

PSYC 725. Cognitive Neuroscience. 3 Hours.
A survey of the critical issues within cognitive and behavioral neuroscience. The course will provide information about neuronal physiology, functional neuroanatomy, and psychophysiological research methods. Human cognition and the neurophysiology that subserves the primary cognitive functions will be discussed. LEC.

PSYC 735. Psycholinguistics I. 3 Hours.
A detailed examination of issues in the processing of language. The course will provide a survey of research and theory in psycholinguistics, reflecting the influence of linguistic theory and experimental psychology. Spoken and written language comprehension and language production processing will be examined. (Same as LING 735.) LEC.

PSYC 737. Psycholinguistics II. 3 Hours.
An in-depth examination of selected topics in psycholinguistics. Topics may include spoken language processing, written language processing, neurolinguistics, prosody, and syntactic processing. (Same as LING 737.) Prerequisite: PSYC 735/LING 735 or consent of instructor. LEC.

PSYC 750. Advanced Seminar in Gender Identity and Sexual Orientation. 3 Hours.
Design and execution of research on the causes and consequences of variations in gender identity, sexual orientation or affectional preference, sex roles, and sex-linked behaviors. Prerequisite: Consent of instructor. LEC.

PSYC 757. Theories of Perception. 3 Hours.
A consideration of the facts and theories of human perception. The emphasis will be on vision, although hearing, smell, pain, and other senses will also be discussed. Of particular concern is the question of perceptual modifiability and the response of the human observer to unusual sensory environments. Prerequisite: PSYC 104. LEC.

PSYC 774. Advanced Social Psychology I. 3 Hours.
First semester of a two-semester course. Designed to provide a thorough background in social psychology and to motivate a continuing exploration of theoretical problems and issues in the field. Combines examination of historical development of theories and methods in social psychology with analysis of theoretical and methodological approaches to a variety of contemporary topics. LEC.

PSYC 775. Advanced Social Psychology II. 3 Hours.
A continuation of PSYC 774. LEC.

PSYC 777. Social Psychology: Theory, Research, and Clinical Applications. 3 Hours.
Basic theories in social psychology, as well as their applications to the process of coping with life events. The focus is on the nature of each theory, including the history and more recent developments; however, where clinical applications have been made of a particular theory, these will be discussed. LEC.

PSYC 780. Research Lab. 1-5 Hours. S.
Supervised research under the guidance of a faculty member in the Department of Psychology. Students will be part of a collaborative laboratory environment, and will be involved in research design, data collection, and data analysis, and will take part in regularly scheduled laboratory meetings. Prerequisite: Permission of instructor. LEC.

PSYC 782. Research Methods in Child Language. 3 Hours.
A survey of methods for studying phonological, morphological, syntactic, and semantic change during language development. Methods include: diary interpretation, language sample analysis, probe elicitation tasks, and clinical assessment. (Same as LING 782.) LEC.

PSYC 784. Proseminar in Communication and Aging. 1 Hour.
A weekly forum for students and faculty to discuss professional issues and interdisciplinary research in communication and aging. May be repeated for credit. (Same as COMS 784.) (Same as SPLH 784.) Prerequisite: Consent of instructor. LEC.

PSYC 787. Gerontology Proseminar. 3 Hours.
A proseminar coordinated by the Gerontology Center. The proseminar explores essential areas of gerontology for researchers and practitioners, providing a multidisciplinary (psychology, biology, sociology, and communication) perspective on aging. The proseminar surveys contemporary basic and applied research, service programs, and policy and management issues in gerontology. (Same as ABSC 787, AMS 767, COMS 787, and SOC 767.) (Formerly HDFL 787.) LEC.

A course emphasizing the practical application of inferential statistics to a variety of research designs and outcome variables. Topics will include both parametric and nonparametric statistical procedures, and various applications of both ANOVA and multiple regressions. Prerequisite: Graduate standing in the Department of Psychology or consent of instructor. LEC.

PSYC 790. Statistical Methods in Psychology I. 4 Hours.
Elementary distribution theory; t-test; simple regression and correlation; multiple regression and multiple correlation; curvilinear regression; logistic regression; general linear model. Applications across the behavioral and social sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Prerequisite: A beginning course in statistics and graduate standing, or consent of instructor. LEC.
PSYC 791. Statistical Methods in Psychology II. 4 Hours.
Continuation of PSYC 790. One-way analysis of variance, linear trends, contrasts, post hoc tests; multi-way analysis of variance for crossed, blocked, nested, and incomplete designs; analysis of covariance; repeated measures analysis of variance; general linear model. Applications across the social, educational, and behavior sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Prerequisite: PSYC 790 or equivalent, or consent of instructor. LEC.

PSYC 795. Computing and Psychology. 3 Hours.
Introduction to the use of personal computers to facilitate and standardize administration of research protocols and to automate data collection. Lectures and projects emphasize direct application to research in the behavioral sciences. Prerequisite: Graduate standing in the Department of Psychology and consent of instructor. LEC.

PSYC 796. Computer Models of Brain and Behavior. 3 Hours.
An introduction to the techniques of computer modeling with applications in the study of brain-behavior mechanisms. Early and contemporary efforts to simulate the neuron, neural networks, and neural processes which regulate behavior, are reviewed. Application of modeling techniques in sample brain-behavior problem areas are used to illustrate the operation of thresholds, feedback, dynamic equilibrium, redundancy, plasticity, network structure, and similar constructs. Programming skill in a high-level language available on personal computers or mainframe is required. Prerequisite: EECS 128 or EECS 138 or PSYC 795, and PSYC 370, or equivalent courses or experience. LEC.

PSYC 798. Introduction to Mathematical Methods in Psychology. 3 Hours.
A first course in scaling and modeling psychological processes. Substantive areas treated selected from sensation, perception, learning, memory, preference, choice and decision processes, problem solving, games, social interaction, and individual differences. May be repeated with permission. Prerequisite: Previous course work beyond the introductory level in psychology or a closely related area, a course in statistics, and a course in calculus. LEC.

PSYC 799. Proseminar in Child Language. 2 Hours.
A review and discussion of current issues in children's language acquisition. May be repeated for credit. Students are graded S/F. (Same as ABSC 797, LING 799, and SPLH 799.) (Formerly HDFL 797.) LEC.

PSYC 800. Experimental Psychology: ______. 3 Hours.
An advanced survey of theory and research in a selected area of experimental psychology. Continual enrollment for four semesters is required of entering graduate students in experimental psychology. Open to other students with graduate standing in psychology or a closely related field. May be repeated with permission. LEC.

PSYC 802. Social-Psychological Aspects of Health, Disability, and Associated Life Stress. 3 Hours.
Disabling myths; perception of causes and effects of disease and disability; attitudes and interpersonal relations; hoping, coping, and reality issues; values; professional-client relations; public media and societal rehabilitation. A departmental core course for graduate students. LEC.

PSYC 803. Fundamentals of Psychological Assessment and Intervention with Children. 3 Hours.
Lecture and supervised experience covering the theoretical and empirical literature on assessment and intervention methods for children, adolescents, and families. Students will learn and demonstrate evidence-based clinical interviewing skills, behavioral observation techniques, risk assessment techniques, therapeutic communication approaches, strategies for providing assessment feedback to families, and ethical principles related to the provision of assessment and psychotherapy (including client file and resource management.) The course requires interaction with clinical populations and communication with referral sources. (Same as ABSC 803.) Prerequisite: Graduate student in clinical child psychology program. LEC.

PSYC 805. History of Psychology. 3 Hours.
A historical survey of basic concepts and theories in psychology with emphasis on their relationship to contemporary problems in therapy. LEC.

PSYC 809. Professional Issues: Clinical Child Psychology. 1 Hour.
Consideration of special problems confronting the child and family oriented scientist-practitioner, and in the development of a professional identity. Topics include critical issues including ethical, legal, cultural, empirical, and clinical aspects of research and practice. May be repeated. (Same as ABSC 809, formerly HDFL 809.) Prerequisite: Graduate standing in clinical child psychology. LEC.

PSYC 811. Achievement and Intellectual Assessment in Clinical Child Psychology. 3 Hours.
Course covers the basic theory, research, administration, and reporting of psychological assessment of development, intelligence, and achievement for children, adolescents, and adults within cultural and developmental contexts. The range of psychological instruments examined includes, for example, WIAT, K-ABC, W-J, S-B, WISC, WAIS, and WPPSI. (Same as ABSC 811.) Prerequisite: Graduate student in clinical child psychology. LEC.

PSYC 812. Behavioral and Personality Assessment of Children. 3 Hours.
Lecture, laboratory, field work, and supervision appointment. Theory and applications in the psychological evaluation of children with standardized assessment techniques. The administration, scoring, interpretation, and reporting of behavioral and personality functioning in children. (Same as ABSC 812, formerly HDFL 812.) Prerequisite: Graduate standing in clinical child psychology. LEC.

PSYC 814. Advanced Child and Family Assessment. 3 Hours.
Lecture, laboratory, field work, and supervision appointment. Supervised experience in specialized psychological assessment approaches for children and families. Emphasis on interviewing, observation, psychometric scales, and consultation; Rationale, administration, analysis, and reporting of mental health functioning of children and families. Experience with clinical populations, and communication with referral sources. (Same as ABSC 814, formerly HDFL 814.) Prerequisite: Graduate student in clinical child psychology. LEC.

PSYC 815. Design and Analysis for Developmental Research. 3 Hours.
Coverage of the philosophy and basic principles of group-design research, with a special emphasis on designs that are appropriate for developmental studies. Designs for both experimental and quasi-experimental research are covered, and appropriate statistical procedures are presented concomitantly with the designs. Individual-difference analyses and statistical control issues are also addressed. LEC.

PSYC 816. Design and Analysis for Neuroimaging Research. 3 Hours.
Course covers research design and analysis issues for event-related potential (ERP) and functional magnetic resonance imaging (fMRI) studies. Repeated measures, statistical parametric mapping, principal components analysis, and independent components analysis techniques are covered. Both practical and theoretical aspects of these statistical techniques will be explored in Matlab environment. Matrix algebra recommended but not required. Prerequisite: PSYC 790 and 791 or equivalent are required. LEC.
PSYC 818. Experimental Research Methods in Social Psychology. 3 Hours.
Systematic discussion of the techniques of research in social psychology, with practice in the utilization of selected methods. Prerequisite: One course in social psychology in addition to introductory social psychology. LEC.

PSYC 819. Field and Evaluation Research Methods in Social Psychology. 3 Hours.
Basic principles and practices of field methods in basic and applied research in social psychology and related fields; relationships between field and laboratory studies; special emphasis on survey and evaluation research methods and study designs; client and respondent relationships; research and public policy. LEC.

PSYC 820. Advanced Child Development. 3 Hours.
A survey of the basic empirical research in the field of child development, covering intelligence, cognition, perception, attention, personality, social behavior, and socialization processes. These literatures are integrated and their implications for social application are addressed. (Same as ABSC 820, formerly HDFL 820.) Prerequisite: A course in child development or equivalent. LEC.

PSYC 821. Women and Violence. 3 Hours.
An examination of research on women and violence, including rape, domestic violence, sexual harassment, stalking, and child sexual abuse. Research on the nature, prevalence, causes, and consequences of violence against women is discussed. (Same as WGSS 821.) Prerequisite: Six hours in WGSS and/or PSYC, or permission of instructor. LEC.

PSYC 825. Social Development. 3 Hours.
A lecture and discussion course in social development. It includes such topics as theoretical approaches to the study of social development, as well as the literature on family processes, peer relations, aggression and prosocial behavior, child abuse and neglect, family violence, child care, and the media. (Formerly PSYC 880.) (Same as ABSC 825.) Prerequisite: A course in child psychology or development. LEC.

PSYC 831. Advanced Human Learning and Memory. 3 Hours.
An in-depth analysis of current research and theory. Focus will be on experimental methodology in these areas. LEC.

PSYC 832. Clinical Health Psychology I: Health Promotion and Disease Prevention. 3 Hours.
An overview of the field of health psychology as applied to health promotion and disease prevention. Content areas include history and current research regarding behavioral and psychosocial risk factors for disease, as well as empirically supported assessment and therapeutic techniques for risk factor reduction and health promotion. Prerequisite: Graduate student in psychology or health-related fields, or permission of instructor. LEC.

PSYC 833. Clinical Health Psychology II: Acute and Chronic Illness. 3 Hours.
An overview of the field of health psychology as applied to acute and chronic illness in adult, adolescent, and child populations. Content areas include psychosocial aspects of acute and chronic illness, including relevant empirically supported assessment and intervention strategies, adherence to medical regimens, pain, and enhancement of the psychologist’s role in medical settings. Prerequisite: Graduate student in psychology or health-related fields, or by permission of instructor. LEC.

PSYC 834. Clinical Health Psychology III: Physical Aspects of Health and Disease. 3 Hours.
An overview of physical manifestations of health and disease. Content areas include overview of anatomy and physiology of each body system, description of how deviations from normal anatomical development and physiological function result in common disorders, methods for distinguishing psychological from organic etiologies, indications of side effects of medications for common disorders, and description of roles of key members of health care team members. Prerequisite: Graduate student in psychology or health-related fields, or by permission of instructor. LEC.

PSYC 835. Clinical Practicum IV: Health. 3 Hours.
Supervised assessment and treatment of individuals and families within a medical setting, as well as multidisciplinary consultation. Inpatient and outpatient clinical health psychology rotations may include pediatrics, oncology, pain, rehabilitation, and other health psychology related fields. Emphasis in selection of and training in psychological intervention strategies is on the use of empirically supported treatments where possible. Grading on Satisfactory/Fail basis. Prerequisite: PSYC 970 and graduate student in clinical health psychology specialty. FLD.

PSYC 836. Clinical Practicum V: Health. 3 Hours.
Continuation of PSYC 835. Prerequisite: Graduate student in clinical health psychology specialty. FLD.

PSYC 838. Pain and Its Management. 3 Hours.
Focuses on biological, cognitive/affective, and social causes and effects of pain. Emphasis on basic research methods in pain, origins of pain, and how the experience of pain alters many aspects of the individual’s life. Topics include anatomy and physiology of pain, impact of pain on a variety of aspects of individuals’ lives, treatments for pain, and the role of various health care professionals in treating pain. Discussions also will include basic research methods in pain, tools for assessing pain, barriers to adequate pain management, and ethical/legal/public policy issues in working with pain patients. Prerequisite: Graduate student in psychology or health-related fields, or by permission of instructor. LEC.

PSYC 839. Palliative Care in Health Psychology. 3 Hours.
Based on the biopsychosocial model, this course focuses on the current practice of palliative care in community and hospital settings by health care professionals. Classes will be discussion based, centered on current issues and controversies in care of the chronically ill and dying. Recent research will be highlighted, as will cultural perspectives on death. Students will be expected to identify applicable literature for presentation and class discussion, along with assigned readings. Prerequisite: Graduate student in psychology or health-related fields, or by permission of instructor. LEC.

PSYC 840. Psychology of Women’s Health. 3 Hours.
A seminar devoted to examination of psychosocial and behavioral factors in women’s health. Content areas include women and the health care system, social roles and health, gender differences, and similarities in morbidity and mortality, gynecologic health, chronic diseases, and health-related behaviors. Prerequisite: Graduate student in psychology or health-related field, or by permission of instructor. LEC.

PSYC 841. Stress and Coping. 3 Hours.
Theories and research on conceptualization, assessment, and effects of stress. Focus on coping processes and other determinants of adjustment to stressful conditions. Discussion of psychological interventions for managing stress and trauma. Prerequisite: Graduate student in psychology or related fields. LEC.

PSYC 842. Specialized Health Psychology Practicum. 1-3 Hours.
Specialized advanced practicum in clinical health psychology, with an area of emphasis mutually defined by student and instructor. Prerequisite: Consent of instructor. FLD.
PSYC 843. Behavioral Pharmacology. 3 Hours.
Addresses psychological and behavioral effects of drugs, including psychotropic medications. A central theme is that effects of drugs are not fully characterized solely from a pharmacological perspective. Thus, emphasis will be placed on examining the interaction of pharmacological and behavioral variables. For example, how do psychological factors moderate responses to drugs? The nature of this area assumes some knowledge of general psychology, research methods, biology, chemistry, neurophysiology, and the nervous system. Specific course structure will be modified to suit student interests. Prerequisite: Graduate student in psychology or health-related fields, or by permission of instructor. LEC.

PSYC 844. Mental Health and Aging. 3 Hours.
Reviews recent research and application in the field of mental health and aging. Theoretical perspectives appropriate for understanding mental health issues with increased age are discussed. The epidemiology, assessment, diagnosis, and treatment methods associated with a variety of mental health conditions are surveyed. The community mental health resources available for older adults are discussed as well as practically-related issues such as evaluations of functional independence and competency among older adults. Prerequisite: Graduate student in psychology or related health field, or permission of instructor. LEC.

PSYC 845. Impression Formation and Interpersonal Behavior. 3 Hours.
Intensive investigations of the processes involved in impression formation and of the effects of established impressions upon interpersonal communications. (Same as COMS 835.) Prerequisite: PSYC 670 or COMS 535. LEC.

PSYC 846. Practicum in Clinical Child Psychology I. 1-3 Hours.
Lecture, laboratory, field work, and supervision appointment. Psychological evaluation and treatment of children and their families; supervised, progressive experience in psychological interventions in clinical child psychology. (Same as ABSC 846, formerly HDFL 846.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. FLD.

PSYC 847. Practicum in Clinical Child Psychology II. 1-3 Hours.
A continuation of ABSC 846/PSYC 846. (Same as ABSC 847, formerly HDFL 847.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. FLD.

PSYC 850. Assessment I: Foundations of Psychological Assessment. 3 Hours.
Introduction to the history, methods and theory underlying psychological assessment techniques and methods. Students learn to administer, score, and interpret mental status exams and intelligence tests for children, adolescents and adults. Structured diagnostic assessments are introduced and practiced. Psychological report writing is introduced and practiced. The psychometric theory underlying the construction and validation of personality assessment instruments is reviewed. Prerequisite: Graduate student in clinical psychology or consent of instructor. FLD.

PSYC 853. Advanced Acoustical and Psychological Aspects of Musical Behavior. 3 Hours.
Study and experimental investigation of acoustic, psychoacoustic, and psychological phenomena as they influence music. Attention will be given to physical parameters; perception of pitch, loudness, and timbre; magnitude estimation; theories of consonance; experimental aesthetics; and measurement and prediction of musical ability. Each student will be expected to complete an experiment or quasi-experiment related to human musical behavior. (Same as MGMT 953.) Prerequisite: PSYC 453 or equivalent; or consent of instructor. LEC.

PSYC 855. Assessment II: Integrative Psychological Assessment. 3 Hours.
Lecture, laboratory and field work. Students learn to administer, score and interpret various personality assessment instruments. Students apply skills acquired in previous coursework to write integrated psychological assessment reports based on anamnesis, structured interview data, intelligence tests, and both objective and projective personality assessment instruments. Prerequisite: PSYC 850 or consent of instructor. FLD.

PSYC 863. Clinical Neuropsychology Across the Lifespan. 3 Hours.
Reviews neural development and the brain-behavior relationships in intact, injured, and diseased brain systems. Details basic issues in clinical assessment and reporting of cognitive impairment resulting from developmental disorders, stroke, traumatic brain injury, and brain-disease. Selected topics include perception, speech, memory/dementia, judgment, and attention. Prerequisite: Graduate status and PSYC 961 or consent of instructor. LEC.

PSYC 864. Clinical Neuropsychology. 3 Hours.
Brain-behavior relationships in humans; structure and function of the brain; evaluation of function; the interpretation of neuropsychological data. Lecture and laboratory. LEC.

PSYC 865. Advanced Psychological Assessment: Interview Based Techniques. 3 Hours.
Lecture and fieldwork. Advanced clinical interviewing. Structured diagnostic interviewing. Coverage of specialized areas of clinical interviewing (e.g., motivational interviewing). Report writing focused on documentation of clinical and structured interviewing. Prerequisite: PSYC 855 or consent of instructor. FLD.

PSYC 870. Cognitive Development. 3 Hours.
A lecture/discussion course in cognitive development. The course will contrast the theory and research of Jean Piaget and his followers, with an information processing or cognitive psychology approach to issues. Topics include development of perception, attention and information getting; memory and metamemory; problem solving; discrimination learning and concept formation; and individual differences in cognitive styles and strategies. Prerequisite: A course in child psychology or development, a course in cognitive psychology, or consent of instructor. LEC.

PSYC 872. Attention, Perception, and Learning in Infancy. 3 Hours.
Coverage of the basic literatures on perceptual-cognitive behavior during the first three years of life, as assessed by measures of attention, perception, learning, and memory. Course material is approached from an information-processing framework. LEC.

PSYC 875. Advanced Assessment: Integration of Assessment Techniques. 3 Hours.
Lecture and fieldwork on selection, administration, scoring and interpretation and integration of data from personality and abilities tests. Focus on assessments includes history, theory and application in psychological assessment batteries. Emphasis on advanced training in objective personality assessment, projective personality assessment, psychometric theory and integrated report writing. Prerequisite: PSYC 855 or consent of instructor. FLD.

PSYC 879. Applied Nonparametric Statistical Methods. 4 Hours.
This course covers nonparametric statistical methods for testing hypotheses when the assumptions of ordinary parametric statistics are not met. Topics include a review of parametric statistics, sampling distributions, the logic of hypothesis testing, and motivations for using nonparametric techniques. In-depth coverage will be given to distribution-free procedures, sign tests, contingency tables, median tests, chi-square
PSYC 881. Proseminar in Quantitative Behavioral and Social Sciences. 1 Hour.
This course is an open forum discussion of issues, topics, and presentations in quantitative behavioral and social sciences. The course can be repeated for credit and is open to any graduate student in any discipline across the behavioral and social sciences. SEM.

PSYC 882. Theory and Method for Research of Human Environments. 3 Hours.
Conceptual and technical methods for analysis of behavioral environments; theory and research utilization of behavior settings and other ecobehavioral units. Prerequisite: Nine hours of social science including at least one course dealing with research methods and consent of instructor. LEC.

PSYC 885. Altruism and Helping Behavior. 3 Hours.
Review of contemporary research of prosocial behavior. Topics to be covered include the existence of altruism, why people do and do not help others, and the effect of institutional roles on the behavior of service professionals such as therapists, counselors, and social workers. LEC.

PSYC 886. Item Response Theory. 4 Hours.
This course covers the basic concepts and methods of item response models. Focal topics include the theory underlying IRT models and their general properties. Also covered are methods for checking model assumptions and interpreting IRT estimates. The course uses examples from the social and behavioral sciences to demonstrate how IRT methods can be used to inform and refine survey development, to assess measurement equivalence, link survey scores, and build item banks for short forms or computer-adaptive testing (CAT). Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Prerequisite: PSYC 790 and 791 or equivalent, or consent of instructor. LEC.

PSYC 887. Factor Analysis. 4 Hours.
This course covers the theory behind, and application of, exploratory factor analysis. Topics include a review of multiple linear regression and matrix algebra. In-depth coverage is devoted to diagrams, model specification, goodness of fit, model selection, parameter estimation, rotation methods, scale development, and sample size and power issues. Extensions to confirmatory settings are elaborated. Both the theory underlying factor analytic techniques and hands-on application using software are emphasized. Applications across the social and behavioral sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Prerequisite: PSYC 790 or equivalent, or consent of instructor. LEC.

PSYC 888. Diversity Issues in Clinical Psychology. 3 Hours.
Review of individual differences pertaining to culture, ethnicity, race, gender, sexual orientation, age, etc., as these have an impact upon theory, research, assessment, and treatment issues in clinical psychology. (Same as ABSC 888.) Prerequisite: Graduate status in clinical psychology, or instructor permission. LEC.

PSYC 889. Conceptual Issues in Human Sexuality. 3 Hours.
An examination of the social construction of sexuality and research methods and issues relevant to sexuality. These concepts are applied to various topics, such as defining and conceptualizing sex and gender, sexual dysfunction, sexual orientation, the social control of sexuality, sexual coercion and abuse, and abstinence-only sex education. The course does not cover anatomical or physiological aspects of sexuality. (Same as WGSS 889.) Prerequisite: Six hours in WGSS and/or PSYC, or permission of instructor. LEC.

PSYC 891. Intelligence and Cognition. 3 Hours.
This course concerns the nature of intelligence. Theory and research on cognitive abilities, reasoning, and complex problem solving are surveyed. Special emphasis is given to contemporary cognitive ability research that applies both experimental and correlation methods to understand the nature of intelligence. LEC.

PSYC 892. Test Theory. 4 Hours.
This course begins with recommendations for how to write a test (with or without correct answers, for assessing a wide variety of constructs of interest in social and behavioral sciences), covers basics of classical test theory, and then emphasizes modern statistical methods for analyzing item data. Methods include factor analysis of categorical responses, methods for identifying measurement invariance (differential item functioning), and item response theory. Lectures and Laboratory. This course is offered at the 600 and 800 levels, with additional assignments at the 800 level. Prerequisite: PSYC 790/650 or equivalent, or consent of instructor. LEC.

PSYC 893. Multivariate Analysis. 4 Hours.
Introduction to the central methods used in the analysis of multivariate data. Includes linear transformations, multivariate analysis of variance, multivariate multiple regression, discriminant analysis, canonical correlation, factor analysis, and an introduction to methods for clustering and classification. Applications across the behavior and social sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Prerequisite: PSYC 790 or equivalent, or consent of instructor. LEC.

PSYC 894. Multilevel Modeling. 4 Hours.
Statistical methods for modeling multilevel (hierarchically structured) data. Topics include a review of ordinary least squares regression analysis, random effects ANOVA, intraclass correlation, multilevel regression, testing and probing interactions, maximum likelihood estimation, model assumptions, model evaluation, and the analysis of longitudinal data. There will be a heavy emphasis on the theory underlying multilevel modeling techniques and hands-on application using software. Applications across the social, educational, and behavioral sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Prerequisite: PSYC 790 or equivalent, or consent of instructor. LEC.

PSYC 895. Categorical Data Analysis. 4 Hours.
Multivariate analyses of count data. Error models, statistical inference, loglinear models, logit models, logistic regression. Homogeneity, symmetry, and selected other topics. Applications across the behavioral and social sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Prerequisite: PSYC 790 or equivalent, or consent of instructor. LEC.

PSYC 896. Structural Equation Modeling I. 4 Hours.
Introduction to statistical methods for modeling latent variables. Topics include a review latent variables, covariance structures analysis, measurement models, confirmatory factor analysis (CFA), structural equation modeling (SEM), multiple group CFA, longitudinal CFA, longitudinal SEM,
Hierarchical CFA, and Multi-trait Multi-Method SEM. Applications across
the behavioral and social sciences are emphasized. Course consists
of three hours of lecture and a required one-hour lab session where
computing applications are taught. Prerequisite: PSYC 790 or equivalent,
or consent of instructor. LEC.

PSYC 897. Master’s Thesis in Clinical Child Psychology. 1-10 Hours.
Supervised research experience completing thesis leading to master’s
degree. (Same as ABSC 897.) RSH.

PSYC 898. Proseminar: Professional Issues in Clinical and Health
Psychology. 1 Hour.
Discussion of current theoretical, empirical, and applied issues in clinical
and clinical health psychology involving students, faculty, guest speakers.
Prerequisite: Graduate student in clinical psychology. RSH.

PSYC 899. Thesis. 1-10 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

PSYC 902. Proseminar in Experimental Psychology. 1 Hour.
Seminar in experimental psychology to be conducted in rotation by
the experimental psychologists on the staff and a monthly visiting
experimental psychologist. LEC.

PSYC 903. Proseminar in Social Psychology. 1 Hour.
A series of research talks on topics relevant to social and personality
psychology featuring different weekly speakers from inside and outside
the university. SEM.

PSYC 905. Psychopathology in Children. 3 Hours.
Diagnosis and treatment of psychological problems in childhood and
adolescence. (Same as ABSC 905.) Preference given to graduate
students in child clinical psychology, school psychology, and counseling
psychology. Prerequisite: Fifteen hours of graduate credit in psychology
or consent of instructor. LEC.

PSYC 921. Seminar in Early Development. 3 Hours.
A seminar devoted to factors affecting early human development with
some attention to theoretical formulations and the relevant animal
literature. LEC.

PSYC 923. History and Systems of Developmental Psychology: Developmental Theory. 3 Hours.
An intensive study of traditional and recent developmental theories with
an emphasis upon the role of heredity, early stimulation, reinforcement,
and modification as each affects the course of the development of
children. LEC.

PSYC 927. Seminar in Psychobiology. 3 Hours.
A detailed study of a specific research area dealing with the biological
foundations of behavior. Each week articles will be assigned from the
journal literature. LEC.

PSYC 930. Research Seminar on Intimate Relationships. 3 Hours.
Consideration of current psychological theory and research on adult
intimate relationships: friendship, dating, committed relationships,
dissolution of committed relationships. Students will be expected to
be involved in on-going empirical research in the area. Prerequisite:
Graduate level courses in research design and statistics. LEC.

PSYC 933. Seminar: The Measurement of Attitudes. 3 Hours.
An examination of the concept of attitude and the methods developed
to assess the various aspects of attitudes. Prerequisite: PSYC 578 or
consent of instructor. LEC.

PSYC 935. Seminar in Group Dynamics. 3 Hours.
Intensive examination of selected problems in the functioning of small
groups. May be taken for two semesters. LEC.

PSYC 936. Group Therapeutic Techniques. 3 Hours.
LEC.

PSYC 943. Advanced Practicum in Clinical Child Psychology III. 1-3 Hours.
Lecture, laboratory, field work, and supervision appointment. Advanced
psychological intervention techniques for children, youth, and families;
supervised progressive experience in application of behavioral and
psycho-therapeutic methods to behavioral and emotional problems.
(Same as ABSC 943, formerly HDFL 943.) Prerequisite: Graduate
standing in clinical child psychology and instructor permission. FLD.

PSYC 944. Advanced Practicum in Clinical Child Psychology IV. 1-3 Hours.
A continuation of ABSC/HDFL 943 and PSYC 943. (Same as ABSC 944,
formerly HDFL 944.) Prerequisite: Graduate standing in clinical child
psychology and instructor permission. FLD.

PSYC 946. Theories and Methods of Psychotherapy. 3 Hours.
Comparative examination and analysis of major theories and approaches
to psychotherapeutic interventions, core principles of therapeutic
change, scientific approaches to establishing treatment efficacy,
current intervention issues. Prerequisite: Nine hours in graduate clinical
psychology or consent of instructor. LEC.

PSYC 947. Advanced Practicum in Clinical Child Psychology V. 1-5 Hours.
A continuation of ABSC/HDFL 944 and PSYC 944. May be taken in
more than one semester. (Same as ABSC 947.) Prerequisite: Graduate
standing in clinical child psychology and instructor permission. FLD.

PSYC 949. Empirically Supported Treatment. 3 Hours.
This course provides an overview of theoretical and applied issues
germane to the contemporary empirically supported treatments movement
in clinical psychology. The course will include an in-depth examination of
several psychotherapy protocols (e.g., cognitive therapy for depression)
which have been identified as “empirically supported,” with considerable
attention accorded to implementation of the characteristic techniques of
such interventions. LEC.

PSYC 950. Clinical Supervision and Consultation: Theory & Research. 1 Hour.
Lecture, readings, and discussion of theory and research related to
the practices of clinical supervision and consultation. Developmental
and competency based approaches to supervision with exposure to
other approaches. Professional issues, ethics, and multicultural aspects
of supervision and consultation. Prerequisite: Previous or concurrent
enrollment in PSYC 969 or consent of instructor. LEC.

PSYC 951. Clinical Supervision Practicum. 1-3 Hours.
Fieldwork in supervision under direction of instructor. Practice
in supervision of clinical work, assessment, psychotherapy, and
documentation. Prerequisite: Previous or concurrent enrollment in PSYC
950 and PSYC 969, or consent of instructor. FLD.

PSYC 955. Close Relationships and Adult Attachment: Theory, Research, and Current Controversies. 3 Hours.
Review of attachment theory literature and the research it has generated
in clinical developmental, personality, and social psychology. The course
will allow discussion of a wide range of issues including the evolution
of behavioral systems that underlie close human relationships, the
developmental roots of relational styles and affect-regulation processes,
the role of mental representations in interpersonal behavior, and some
of the attachment and close relationship processes involved in good
and poor mental health. Prerequisite: Graduate standing or consent of
instructor. LEC.
PSYC 956. Social Neuroscience. 3 Hours.
Acquaint students with the Social Neuroscience approach as well as recent findings using this approach. The course will focus on particular social phenomena and (a) evaluate the utility of current social neuroscience research examining these phenomena and (b) consider future experimental designs using the Social Neuroscience approach to further inform our understanding of each phenomenon. After being acquainted with foundational concepts, students will analyze findings in a number of core content domains (including emotions, emotion regulation, self, stereotyping, attitudes and beliefs, social decision making, cooperation, close relationships), focusing on neuroscience’s contribution beyond traditional methods. Prerequisite: Graduate student status in clinical psychology, clinical child psychology, or counseling psychology. LEC.

PSYC 960. Advanced Psychopathology. 3 Hours.
Review of current nosology of adult psychopathological syndromes emphasizing development of diagnostic skills. Critical survey of recent research and theory related to the etiology, course, prognosis, and treatment of adult psychopathological conditions. Prerequisite: Graduate student status in clinical psychology, clinical child psychology, or counseling psychology. LEC.

PSYC 961. Biological Foundations of Psychopathology. 3 Hours.
A review of fundamental topics in the neurosciences and their relevance to selected psychopathological disorders. The fundamental topics are taken from genetics, neuroanatomy, neurophysiology, and neurochemistry. The disorders include schizophrenia, depression, anxiety disorders, Alzheimer’s disease, Parkinson’s disease, and Huntington’s disease. Prerequisite: Graduate student status in clinical psychology, clinical child psychology, or counseling psychology. LEC.

PSYC 962. Advanced Personality. 3 Hours.
A survey of selected advanced topics in the area of personality. Includes review of theoretical and research issues in the area of personality. Prerequisite: Consent of instructor. LEC.

PSYC 963. Clinical Child Psychology Internship. 1 Hour.
Three consecutive enrollments covering a minimum of eleven months of experience in an approved clinical psychology field setting; supervision by qualified clinical child psychology faculty and field staff clinicians. Required of all clinical child psychology program students. An intensive guided experience in application of clinical child psychology theory, methods, and practices. Integrates scientific and clinical aspects of field. (Same as ABSC 963, formerly HDFL 963.) Prerequisite: Completion of Ph.D. comprehensive examinations and permission of clinical child psychology faculty. FLD.

PSYC 964. Clinical Practicum I. 3 Hours.
Lecture, laboratory and field work, and supervision appointment. Psychological evaluation and treatment of individuals, couples, families, and groups; supervised, progressive experience in psychological treatment and in the clinical evaluation of intellectual, personality, and social functioning. Emphasis in selection of and training in psychological intervention strategies is on the use of empirically supported treatments where possible. Grading on Satisfactory/Fail basis. Prerequisite: PSYC 964 or permission of instructor. FLD.

PSYC 965. Clinical Practicum II. 3 Hours.
A continuation of PSYC 964. Grading on Satisfactory/Fail basis. Prerequisite: PSYC 964 or permission of instructor. FLD.

PSYC 966. Clinical Practicum III. 3 Hours.
A continuation of PSYC 964. Grading on Satisfactory/Fail basis. Prerequisite: PSYC 964 or permission of instructor. FLD.

PSYC 967. Psychotherapy with Families. 3 Hours.
Clinical approaches to marriage and family therapy. Intensive consideration of the theoretical positions, research findings, clinical methods, and technical problems in marriage and family therapy. Prerequisite: PSYC 946. LEC.

PSYC 968. Research Methods in Clinical Psychology. 3 Hours.
Systematic consideration of research methods in clinical psychology including identification of a research problem, selection of the research design and assessment strategies, and methods of evaluating the results. The principles, pitfalls, artifacts, biases, and sources of controversy in research in this area are also covered. Prerequisite: Graduate standing in clinical or counseling psychology. LEC.

PSYC 969. Clinical Practicum V. 3 Hours.
A continuation of PSYC 969. Grading on Satisfactory/Fail basis. Prerequisite: PSYC 969 or consent of instructor. FLD.

PSYC 970. Clinical Practicum V. 3 Hours.
Lecture, laboratory, field work, and supervision appointment. Advanced psychological treatment of the individual, couple, family, and group client; supervised, progressive experience in the clinical application of psychotherapeutic treatment methods with emphasis on the use of empirically supported interventions where possible. Grading on Satisfactory/Fail basis. Prerequisite: PSYC 966 or consent of instructor. FLD.

PSYC 974. Clinical Psychology Internship. 1-3 Hours.
Three consecutive enrollments, covering a minimum of eleven months of experience in an approved clinical psychology field setting; supervision by clinical psychology faculty and field staff clinical psychologists. Required of all clinical psychology program students. An intensive guided experience in the application of clinical psychology theory, methods, and practices. An emphasis upon the relationships between scientific and clinical functions. Integrations between research and clinical practice. Prerequisite: Completion of Ph.D. comprehensive examinations and consent of clinical psychology faculty. FLD.

PSYC 975. Professional and Ethical Problems in Clinical Psychology. 3 Hours.
Interprofessional relationships, case security, legal aspects, ethical codes of practice, clinic administration, and problems in the clinical practice of psychology. Issues involving ethics in research will also be explored. Prerequisite: Consent of instructor. LEC.

PSYC 976. Therapeutic Interventions with Children. 3-5 Hours.
Clinical approaches to the therapeutic treatment of children with special emphasis on research findings and laboratory (practicum) experience. A survey of relationship therapies, operant strategies, system approaches, parent education and play therapy by the right therapist for a specific child with a particular problem. (Same as ABSC 976.) Prerequisite: Instructor permission. FLD.

PSYC 977. Specialized Clinical Practicum. 1-4 Hours.
Lecture; laboratory and field work, and supervision appointment. Specialized psychological services for the evaluation and/or treatment of the individual client or the group or the institution. Investigation of and experience in a special practicum area not covered in regular courses. Prerequisite: Students must consult with members of the clinical faculty and propose an acceptable project in advance of enrollment. FLD.

PSYC 980. Special Problems in Psychology. 1-5 Hours.
Investigation of a special research problem or directed reading in an area not covered in regular courses. Prerequisite: Consent of instructor. RSH.
PSYC 981. Teaching Psychology. 1 Hour.
Discussion of the problems and techniques of teaching psychology at the undergraduate level. A minimum of one credit of this course must be taken by all assistant instructors during the two semesters of the first year of their appointment in the department. Only three hours may count toward the Ph.D. degree. LEC.

PSYC 982. Issues in Scientific Conduct. 3 Hours.
Lectures and discussion on issues in the conduct of a scientific career, with emphasis on practical topics of special importance in behavioral science. Topics will include the academic and scientific roles of behavioral scientists, establishing a research lab, communicating research findings, tenure processes, gender equity, ethical conduct, and good scientific citizenship. Discussions will highlight important case studies. (Same as SPLH 982.) LEC.

PSYC 983. Methodology. 3 Hours.
Inferential problems in experimental psychology. Prerequisite: PSYC 790 and PSYC 791 or consent of instructor, LEC.

PSYC 990. Methods for Clustering and Classification. 3 Hours.
Statistical methods for identifying classes, clusters, and taxa. Topics include k-means, discriminant analysis, hierarchical clustering algorithms, additive trees, neural network models for clustering, latent class models, finite mixture models, and models for skills/cognitive diagnosis. Applications across the social and behavior sciences are emphasized. Prerequisite: PSYC 790 and PSYC 791 or equivalent, or consent of instructor. LEC.

PSYC 991. Longitudinal Data Analysis. 3 Hours.
Reviews and contrasts various statistical methods for the analysis of change. Course focuses on various techniques to analyze longitudinal (repeated-measures) data beyond the repeated-measures ANOVA framework. Techniques covered included latent change scores, latent difference scores, individual-differences modeling of latent residual and change scores, intra-individual differences modeling (e.g., growth curve, mixed modeling) and growth mixture modeling. Applications across the behavioral and social sciences are emphasized. Prerequisite: PSYC 790 or equivalent, or consent of instructor. LEC.

PSYC 993. Seminar: ____. 1-5 Hours.
LEC.

PSYC 996. Structural Equation Modeling II. 3 Hours.
Continuation of PSYC 896. Advanced applications of modern methods for testing hypotheses on multivariate correlational data in the behavioral and social sciences. Topics include advanced confirmatory factor analysis, mediation and moderation among latent variables, latent growth curve modeling, and other latent variable mean and covariance structures analysis techniques. Applications across the behavioral and social sciences are emphasized. Prerequisite: PSYC 896 or equivalent, or consent of instructor. LEC.

PSYC 998. Doctoral Dissertation in Clinical Child Psychology. 1-10 Hours.
Research experience making original contribution to literature in clinical child psychology. (Same as ABSC 998, formerly HDFL 998.) THE.

PSYC 999. Dissertation. 1-12 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

Public Affairs Adm, School Courses

PUAD 177. First Year Seminar: ____. 3 Hours. SF GE11.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in public administration. May not contribute to major requirements in public administration. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

PUAD 330. Introduction to Public Administration. 3 Hours. S.
Introduction to administration, public policy and policy makings is the study of government workers, the organizations in which they work, how they are financed, and how government engages citizens to help form and maintain community. In various ways, the class sessions explore the three important issues of public administration: discretion, authority, and accountability. (Same as POLS 330.) Prerequisite: POLS 110. LEC.

PUAD 331. Introduction to Public Administration, Honors. 3 Hours. S.
Introduction to administration, public policy, and policy making, for honors students is the study of government workers, the organizations in which they work, how they are financed, and how government engages citizens to help form and maintain community. In various ways, the class sessions explore the three important issues of public administration: discretion, authority, and accountability. (Same as POLS 331.) Prerequisite: POLS 110. LEC.

PUAD 332. Quantitative Methods for Public Administration. 3 Hours. S.
Focuses on building the quantitative analysis skills of students in public administration. Students learn basic and intermediate statistics, and methods of data analysis and interpretation. Students gain exposure to the uses of data in public organizational settings. Prerequisite: Math 101 or equivalent placement. LEC.

PUAD 333. Hard Choices in Public Administration: ____. 3 Hours. S.
Focuses on some of America’s most vexing public policy challenges and emphasizes the political context of difficult choices. Course examines models of decision-making and the process of policy analysis. Students learn how to apply the tools of policy analysis to make policy judgments. Prerequisite: PUAD 330 or PUAD 331. LEC.

PUAD 431. Bureaucracy, Public Administration, and the Private Sector. 3 Hours. S.
Examines the problems posed by behaviors within and by bureaucracies. Provides students with a set of conceptual tools for understanding the organizational environment in which policy analysts play their profession and the role of a manager within such organizations. Offers strategies for the policy professional seeking to navigate large bureaucracies. Readings and class discussions integrate theoretical analyses of organizations with detailed case studies. Prerequisite: PUAD 330 or PUAD 331. LEC.

PUAD 432. Conducting the People’s Business Ethically. 3 Hours. AE51 / S.
Addresses the moral challenges facing leaders in the public and nonprofit sectors. Examines the values and virtues important to sustained ethical leadership, as well as strategies to build strong institutional cultures and support ethical practices in institutions. Considers moral and political theory by focusing on contemporary cases and issues. Students learn how to identify moral issues in public life and public management. There is a special focus on the integration of moral concerns into public discussion in a manner that contributes to good policy and does not polarize issues. This course considers moral and political theory by focusing on contemporary cases and issues. Prerequisite: PUAD 330 or PUAD 331. LEC.

PUAD 433. Metropolitics and Macroproblems: The American City in Local and Global Context. 3 Hours. S.
An interdisciplinary study of American cities, focusing on the rapidly changing demographic, physical, political, social, and economic changes. Sunbelt cities, edge cities, the rustbelt cities, planned and unplanned suburban communities, as well as declining center cities and newly revitalized downtowns are considered. The role of immigration and
migration in reshaping the urban environment, and the effects of globalization are also examined. Prerequisite: PUAD 330 or PUAD 331. LEC.

PUAD 435. Generating, Allocating and Managing Public Resources. 3 Hours. U.
This course is devoted to topics in public budgeting, finance and financial management. These activities play a central role in public management. The intent of this course is to understand the role these activities play in local, state, and federal governments and to see how policy and management are shaped and influenced by budgets, financial reports, and tax policy. Prerequisite: PUAD 330 or PUAD 331. LEC.

PUAD 436. Managing People in Public Organizations. 3 Hours. U.
Effective human resources management is one of the key goals of organizations in both the public and private sectors. This course focuses on human resources management in a public sector context with particular emphasis placed upon past, current, and future challenges in the field. The course covers topics such as the recruitment, selection, and compensation of public sector employees, as well as more contemporary issues such as diversity management and public sector personnel reform. Prerequisite: PUAD 330 or PUAD 331. LEC.

PUAD 494. Topics in Public Administration: ____. 3 Hours. S.
An introductory study of selected topics in public affairs and administration. Course may be repeated for credit if content varies. Course may be offered in lecture or online format. Prerequisite: PUAD 330 or PUAD 331. LEC.

PUAD 601. Crime and Punishment. 3 Hours. S.
Examines the administration of justice and focuses on differential and discriminatory treatment in policing, criminal prosecutions, trials, sentencing, or imprisonment. Also considered are the basis and impact of racial profiling, harassment, arbitrary detention, and abusive treatment of members of racial and ethnic groups, immigrants, and/or other vulnerable groups by law enforcement, and disparate treatment by prosecutors and the courts. Prerequisite: PUAD 330 or PUAD 331. LEC.

PUAD 602. Diversity in Public Administration. 3 Hours. AE41 / S.
Analyzes diversity and leadership in public and private institutions along ethnic, racial, and gender lines and the challenges of the facilitation of open dialogue on diversity. Examines the political, historical, social, and economic reasons why Americans of different ethnic, racial, and gender groups hold divergent views about major public policy areas, as well as fundamental views about democratic participation. Prerequisite: PUAD 330 or PUAD 331. LEC.

PUAD 603. Foundations of the Nonprofit Sector. 3 Hours. H/S.
This course provides an overview of the U.S. nonprofit sector, its history, scope, diversity and its positioning among and between the private and public sectors of the U.S. economy. The course explores the legal framework under which nonprofit organizations operate and are regulated. Economic, political, social, organizational and giving theories of the sector are reviewed in order to understand the sectors existence, roles and activities with particular attention to philanthropy and voluntarism. Distinct contributions to society as well as contemporary challenges faced by the sector are examined. Prerequisite: PUAD 330, or POLS 110, or MGMT 305, or a PUAD master’s core course, or consent of instructor. Junior status or above is also required. LEC.

PUAD 604. Resource Development and Management in Nonprofit Organizations. 3 Hours. H.
This course provides an overview of the broad range of activities relevant to acquisition, management and utilization of resources in nonprofit organizations. The course identifies the primary strategies through which resources are generated with emphases on grantwriting, fundraising, social entrepreneurship, and public/private partnerships. Development of organizational identity and management of public relations is examined in relation to resource and relationship development. Strategies for management of resources to ensure long-term benefit and sustainability are explored. Prerequisite: PUAD 603. LEC.

PUAD 605. Managing Nonprofit Relationships. 3 Hours. H.
This course considers the set of relationships that nonprofit leaders must balance within the organization and beyond organizational boundaries. Both internal relationships (with staff, volunteers, and board members) and external relationships (with stakeholders, other organizations, and the community at large) are critical to mission accomplishment. This course provides students with the resources necessary to understand the challenges and opportunities related to building and LEC.

PUAD 606. Nonprofit Accountability: Public Needs and Public Values. 3 Hours. H.
This course examines the role of the nonprofit sector in society by posing broad questions about why nonprofit organizations are held accountable, to whom they are accountable, and detailing how organizations can satisfy accountability demands. The course investigates the public role of the nonprofit sector in society, identifies the stakeholders that are integral to an organization’s mission, and describes and critiques the financial and evaluation tools that nonprofits can use to ensure their social viability. Prerequisite: PUAD 603. LEC.

PUAD 639. Concepts of Civil Society. 3 Hours. U.
Concepts of community, social capital, and civil capacity building, and their relations to effective community functioning, democratic politics, and administrative expertise. LEC.

PUAD 641. Public Service Leadership. 3 Hours. U.
Concepts of leadership in community, political, and administrative settings. These settings include government and all non-business organizations (e.g. certain for-profit organizations). LEC.

PUAD 660. Organizations and Management I. 3 Hours. U.
An exploration of management in the context of public organizations. Management is explored at the individual, group and organizational level including conflict resolution, problem-solving, planning and legal aspects of organizations. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Permission of instructor. LEC.

PUAD 661. Organizations and Management II. 3 Hours. U.
A continuation of PUAD 660. The context for leading public organizations is explored through knowledge management, collaboration, innovation, process improvement and leadership succession. Graded on a satisfactory/unsatisfactory basis. Prerequisite: PUAD 660, and permission of instructor. LEC.

PUAD 691. Internship in Public Service. 1-6 Hours. U.
Designed to provide public administration students an applied learning experience in either a public or nonprofit organization. Open to majors in Public Administration only. Prerequisite: One of the following: PUAD 330, 331, PUAD 332, PUAD 333, and consent of instructor required. FLD.

PUAD 692. Research Experience in Public Administration. 1-6 Hours. U.
Designed for advanced public administration students. Students learn research skills by working one-on-one with a faculty member to assist in his/her program of research. Open to majors in Public Administration only. Students are required to complete a final project or presentation, through advising and consultation with the designated faculty member. Prerequisite: One of the following: PUAD 330, 331, PUAD 332, PUAD 333 and consent of instructor required. LEC.
PUAD 693. Directed Readings. 1-3 Hours. U.
For advanced undergraduate students who wish to study a specific topic of interest that is not covered in the curriculum. Each student must complete a proposal outlining his or her topic request and submit to the Undergraduate Advisor. Intended for students majoring in Public Administration. Prerequisite: One of the following: PUAD 330, 331, PUAD 332, PUAD 333, and consent of instructor. IND.

PUAD 694. Topics in Public Administration: ____. 3 Hours. U.
Study of selected topics in public administration. Course may be repeated for credit if content varies. Course may be offered in lecture or online format. Prerequisite: PUAD 330 or PUAD 331. LEC.

PUAD 824. Public Policy and Administration. 3 Hours.
An exploration of the ways in which public policy is made in the United States, focusing on the role of the administrator at each stage of the policy process: formulation, implementation, and evaluation. Various theories of policy-making with application to specific areas of public policy will be examined. LEC.

PUAD 825. Public Policy and Urban Administration. 3 Hours.
An exploration of policy development, implementation, and evaluation in the local government context. Various theories of the policy process and their application to municipal government are examined. (Same as POLS 825.) LEC.

PUAD 826. Public Policy and Administration of State Government. 3 Hours.
An examination of political and administrative aspects of state government focusing on legislative and executive branches of government. LEC.

PUAD 827. Health Care Policy and Administration. 3 Hours.
A seminar designed to explore the development of public health policy in the United States. Particular attention will be given to (1) the development of public institutions and policy goals; (2) current policy problems such as expenditure-cost controls, prospective reimbursement, utilization review, access, and public and private investment planning; and (3) administrative problems in the current health care system. (Same as HPM 837.) LEC.

PUAD 828. Nonprofit Management and Policy. 3 Hours.
This course focuses on the economic, social, and legal foundations of the nonprofit sector. Nonprofits are examined in the context of a three-sector economy, with emphasis on the ways in which nonprofits compensate for market failures and government failures. The course examines government-nonprofit relations in the modern welfare and offers an in-depth examination of the health, education, and welfare functions as performed by nonprofits. This course also provides exposure to selected topics in nonprofit management such as grant writing, board relations, advocacy, fundraising and volunteer management. LEC.

PUAD 830. Administrative Ethics. 3 Hours.
A survey of ethical issues faced by public administrators. Special attention will be given to ethical problems arising within hierarchical organizations and to the ethical implications of particular public policies. LEC.

PUAD 831. Public Administration Practicum. 1 Hour.
Exposes students to day-to-day operational facets of public management through workshops, speakers, exercises. LEC.

PUAD 832. Organizational Theory. 3 Hours.
An introductory course designed to develop an understanding about organizations, their environments, and the political subsystems in which they exist. LEC.

PUAD 833. Administrative Behavior. 3 Hours.
An examination of individual and group behavior within organizations, focusing on motivation, leadership, conflict and conflict resolution, group dynamics and communication. LEC.

PUAD 834. Human Resource Management. 3 Hours.
This course presents the context and practice of effective human resource management, with emphasis on the political, legal, historical, and ethical dimensions of public employment. This course considers the functions of workforce management, including: 1) planning of work and the allocation of labor to that work, 2) acquisition of employees and their competencies, knowledge, skills, and abilities, 3) development of employees to channel, improve and create new knowledge, skills, and abilities, and 4) maintaining the working relationship between employee and employer. Students will apply workforce management theories and techniques to contemporary organizational challenges and investigate the tensions inherent to balancing competing values (such as: responsiveness/neutrality and efficiency/equity) and meeting conflicting demands of organizational stakeholders and society. LEC.

PUAD 835. State and Local Public Finance. 3 Hours.
Focuses on the tax, spending, and debt practices of state and local governments. Drawing on the tools of positive and normative economic analysis, the course explores the implications of these activities on broader economic outcomes, including private allocation of resources and the distribution of wealth. LEC.

PUAD 836. Introduction to Quantitative Methods. 4 Hours.
Introduces quantitative approaches to examine public management and public policy decisions. Concepts of research design, probability, and inferential statistics are covered. LEC.

PUAD 837. Budgeting and Resource Allocation. 3 Hours.
Examines the practices and the political, economic, and organizational contexts of public and nonprofit budgeting, tools of financial analysis, and ethics of financial management. LEC.

PUAD 838. Urban Service Delivery. 3 Hours.
Focuses on organizational arrangements for the provision of basic urban services and the character of service delivery politics. Methods for evaluating the efficiency and responsiveness of alternative organizational arrangements are treated. LEC.

PUAD 839. Topics in Public Administration: ____. 3 Hours.
Study of selected topics in public administration. LEC.

PUAD 840. Theory of Public Administration. 3 Hours.
Survey of the development of ideas about public administration among public officials and research investigators. Emphasis on basic concepts, research reports, and theoretical treatises on the nature of public administration. LEC.

PUAD 841. The Role, Context, and Ethics of Public Administration in American Society. 3 Hours.
Provides students with an overview of the social context of public administration with an emphasis on political issues, intellectual history, ethics, and the tensions between democracy and bureaucracy. LEC.

PUAD 842. Law and Public Management. 3 Hours.
Course investigates major concepts that make up the legal environment of public administration. The accepted uses and procedures of the field, relationships among courts, agencies, the legislature, and basic legal research are examined. LEC.

PUAD 843. Constitutional Foundations of Public Administration. 3 Hours.
This course provides a grounding in the constitutional premises of public administration including executive, legislative, and judicial powers, and federalism, and those issues associated with the development of economic institutions and processes such as taxation, employment regulation, and commerce controls. LEC.
PUAD 844. Advanced Seminar in State and Local Budgeting. 3 Hours.
This course studies the theories behind selected topics in public budgeting and compares the theories with the actual practice of budgeting in the State of Kansas and its communities. LEC.

PUAD 845. Organizational Analysis and Public Management. 3 Hours.
Explores concepts and practices in organization behavior and management theory as they apply to public organizations. Emphasis is placed on understanding the dynamics of individuals, groups, and teams within organizations, dynamics associated with organizational structures, accountability, and culture and dynamics of risk in leadership, collaboration, and contracting. LEC.

PUAD 846. Kansas and Its Government. 3 Hours.
This course is designed to offer students the opportunity to obtain a comprehensive overview of the culture, history, economy, and geography of Kansas along with the review of state and local government infrastructure. The review of governments will include the financing of governments in Kansas. LEC.

PUAD 847. Legislative Process. 3 Hours.
This course is designed to acquaint students with the workings of the policy process at the level of state government. Its focus will give students an understanding of the political process to enable them to function more effectively in state policy development and implementation. Prerequisite: PUAD 824, PUAD 825, PUAD 826 or PUAD 827. LEC.

PUAD 848. Advanced Management Practices in State Government. 3 Hours.
This course offers the student an opportunity to enhance skills developed in PUAD 826 in an experiential learning environment that simulates actual management practice. Complex cases will be rank ordered and resolved on a work schedule developed by each work group. Groups will work simultaneously on two or more cases at all times. Prerequisite: PUAD 826. LEC.

PUAD 849. Law, Courts, and Public Policy. 3 Hours.
This course provides an overview of the role of law, litigation, and courts in the public policy process, with an emphasis on bureaucratic institutions. The course covers the main theories and empirical research on the policy effects of litigation and intervention, with a particular focus on civil rights in the areas of employment, policing, welfare, prisons, and environmental policy. (Same as POLS 849.) Prerequisite: Graduate standing or consent of instructor. LEC.

PUAD 850. Intergovernmental Relations. 3 Hours.
This course focuses on the fiscal and administrative relationships among the three levels of government - federal, state, and local - in the United States. A number of topics will be examined, including a history of intergovernmental relations, the political, constitutional, and legal foundations of the intergovernmental system, and intergovernmental fiscal policy. The impact of the intergovernmental system will be assessed from the perspective of specific areas and intergovernmental programs. LEC.

PUAD 851. Infra-Structure Management. 3 Hours.
A survey of land-use, infra-structure, and technology issues in municipalities. LEC.

PUAD 852. Comparative Public Policy and Administration. 3 Hours.
This seminar examines the application of theories in public administration, public management, and public policy in international and comparative contexts. Particular attention is given to how governments and publics are connected by way of intergovernmental strategies, governance, and differing political and administrative arrangements. LEC.

PUAD 853. Policy Analysis and Evaluation. 3 Hours.
This course will introduce students to the conceptual foundations and applied techniques associated with identifying, describing, and seeking solutions to public policy problems (policy analysis) and evaluating the performance of public programs and organizations (program evaluation). Basic microeconomic theory is introduced. LEC.

PUAD 854. Innovation and Organizational Change. 3 Hours.
This course will examine theories of innovation and organizational change as applied to public organizations. Particular emphasis will be placed on the concepts of innovation in bureaucratic organizations, on the process of successful change in organizations, and on leadership and employees’ roles. LEC.

PUAD 855. Financial Management for Public and Not-for-Profit Organizations. 3 Hours.
Financial management focuses on the use of financial information for decision making and evaluation. This course will rely on fundamental accounting concepts as they relate to the basic financial statements of government and not-for-profit organizations. Time will also be spent on financial management practices (e.g. cash management, debt management, etc.) and financial condition analysis. Material presented in this course expands on the foundational material covered in PUAD 837. Prerequisite: PUAD 837 or permission from the instructor. LEC.

PUAD 856. Management and Information Technology. 3 Hours.
An introduction to the concepts of information policy and management of technology within governmental organizations. The course covers the effects of technology on government and society as well as information policy (privacy, security and access) and their importance to democracy. The course also includes a leadership perspective on planning, funding, and implementation of technology systems in governmental organizations as well as the role of Chief Information Officer. LEC.

PUAD 857. Performance Management and Governance. 3 Hours.
This course examines the practice and governance challenges of performance management and budgeting in the public sector. Topics covered in this course include: a) the governance context of performance measurement and management; b) the historical and theoretical foundation of performance measurement and management; c) the global trend of performance-oriented reforms; d) the practice and politics of performance measurement and management; and e) governance and ethical issues in managing for results. LEC.

PUAD 858. Performance Audit. 3 Hours.
This course examines the practice of performance audit at the national, state, and local levels. Topics covered in the course include: a) the concept of performance audit and the roles of auditors in performance management; b) performance audit systems and standards at the national, state and local levels; c) performance audit methodologies and techniques; d) the establishment of audit criteria; e) the concept and practice of risk and vulnerability analysis; f) the reporting and communication of performance audit results. LEC.

PUAD 859. Service Management. 3 Hours.
This course provides an introduction to service management in the public sector and will focus on providing students with the conceptual understanding and skills to design, promote, manage, and deliver public services. The course will integrate concepts of service management with quality assurance, business process analysis, and project management. Through this course, students will develop a better understanding of methods for improving responsiveness and accountability to organizational goals and mission. LEC.
PUAD 892. Public Administration Internship. 3 Hours.
A part-time supervised professional work experience designed to provide students the knowledge, background, and practical experience in public service. A written summary of the experience including a job description, projects the student, and a reflective statement on integrating the internship with theoretical issues regarding public administration. This course brings theory and practice together. Graded on a satisfactory/unsatisfactory basis. FLD.

PUAD 893. Directed Readings. 1-3 Hours.
Designed to meet the needs of advanced students whose study in public administration cannot be met with current course work. RSH.

PUAD 894. Professional Development Seminar I. 3 Hours.
Open only to precareer students with internships, this intensive seminar is designed around issues interns confront in their working relationships. Emphasis is placed on the transition of the student from an academic environment to a professional work relationship. Class sessions deal with issues like employee socialization, power and trust, and administrative change. Graded on a satisfactory/unsatisfactory basis. FLD.

PUAD 895. Professional Development Seminar II. 3 Hours.
Continuation of PUAD 894. Graded on a satisfactory/unsatisfactory basis. FLD.

PUAD 897. Public Administration Contemporary Issues and Competency Assessment. 3 Hours.
This course exposes students to the contemporary issues in public management and analysis of competencies for public management in four theme areas. Students will participate in discussions of issues and in three assessments of their preparation to lead public organizations. Students will complete the MPA Final Essay which focuses on integration of course and work experience in relation to the values theme of the MPA program. Graded on a satisfactory/unsatisfactory basis. LAB.

PUAD 898. Leadership, Professionalism, and Citizen Engagement. 3 Hours.
This course explores connections between facilitative political and administrative leadership, professional expertise, and citizen engagement. It will explore politics and the political arena; administrative/technical expertise and the relationship between the arenas of politics and administration. It will present the concept of citizen engagement and adaptive work, complicating as well as enriching public policy making and implementation. LEC.

PUAD 930. Research Seminar in Public Administration and Democracy. 3 Hours.
This course focuses on the democratic context of public administration. Topics could include how democracy shapes the practice of public administration; the functioning of public administration in a constitutional democracy; issues relating to control and discretion of public administrators; citizenship and representative bureaucracy; theories of bureaucratic values such as equity, justice and efficiency, ethics and accountability; theories of institutions. SEM.

PUAD 931. Research Seminar in Public Management. 3 Hours.
This course, on the topic which increasingly is approached as an interdisciplinary field, focuses on the management of public and non-profit agencies. Topics could include: the nature of public agencies and the roles of public executives, managers, and professionals; distinctions between public, private, and non-profit agencies in America and internationally; creating and managing organizational networks; leadership; work motivation; and the ethics of decision-making. SEM.

PUAD 932. Seminar in the Intellectual History of Public Administration. 3 Hours.
This course will analyze the intellectual currents that undergird the theories and concepts in public administration. There are three primary perspectives crosscutting the topics. They are historical, cultural and analytical. SEM.

PUAD 934. Research Methods in Public Administration. 3 Hours.
The course examines issues of research and epistemology with an emphasis on connecting theory and research and doing research in field settings. RSH.

PUAD 935. Advanced Quantitative Methods for Public Administration. 3 Hours.
This seminar will assist students to develop a thorough competence in both theory and application of multivariate statistical models of the types that are commonly used to study questions of organization and policy in the public sector. These will include inference for the general linear regression model under a wide variety of specifications, as well as a consideration of path models and systems of simultaneous equations. The principal goal of this course is to strengthen the ability of doctoral students in public administration to work methodologically as independent scholars using relatively advanced designs and technique in their work. SEM.

PUAD 936. Policy Analysis and Program Evaluation. 3 Hours.
This course examines the theoretical foundations and analytical components of policy analysis and program evaluation, common tools for assessing alternative courses of public action and program effectiveness. This examination will include a review and critique of common quantitative and qualitative approaches, including cost-benefit analysis, cost-effectiveness analysis, and quasi-experimental design. LEC.

PUAD 937. Qualitative Methods in Public Administration. 3 Hours.
This course examines the concepts and practices of qualitative research. The focus will be on field research and the collection of "textual data" through observation, interviewing, and documents. The course will also examine the interpretation and analysis of qualitative data and how to present qualitative findings. RSH.

PUAD 939. Topics in Public Administration: ______. 1-3 Hours.
A study of selective topics in public administration. Course may be taken more than once. LEC.

PUAD 943. Constitutional Foundations of Public Administration. 3 Hours.
This course provides grounding in the constitutional premises of public administration including executive, legislative, and judicial powers, and federalism, and those issues associated with the development of economic institutions and processes such as taxation, employment regulation, and commerce controls. LEC.

PUAD 949. Law, Courts, and Public Policy. 3 Hours.
This course provides an in-depth analysis of the role of law, litigation, and courts in the public policy process, with an emphasis on bureaucratic institutions. The course covers the main theories and empirical research on the policy effects of litigation and intervention, with a particular focus on civil rights in the areas of employment, policing, welfare, prisons, and environmental policy. As part of the course requirements, students will conduct original empirical research. LEC.

PUAD 990. Research Practicum in Public Policy and Administration. 3 Hours.
This course will provide students with an opportunity to conduct applied research in a field setting with faculty guidance. May be pursued as an independent study or as a regularly scheduled class with a group of students. Prerequisite: PUAD 934 and PUAD 935. RSH.
**Russian East European St Courses**

**REES 110. Understanding Russia and Eastern Europe.** 3 Hours. SC AE42 / S.
A multidisciplinary introduction to the former communist states of Russia, the western Newly Independent States, Central Europe, and the Balkans. The course addresses the geography and history of the region, as well as the cultures of its peoples, as presented in literature, film, and music. Special attention is devoted to the current political, economic, and social situations, as they are reflected by the transition from communism and the rise of nationalism. Prerequisite: Open only to students admitted to the University Honors Program or by permission of instructor. LEC.

**REES 111. Understanding Russia and Eastern Europe, Honors.** 3 Hours. SC AE42 / S.
A multidisciplinary introduction to the former communist states of Russia, the western Newly Independent States, Central Europe, and the Balkans. The course addresses the geography and history of the region, as well as the cultures of its peoples, as presented in literature, film, and music. Special attention is devoted to the current political, economic, and social situations, as they are affected by the transition from communism and the rise of nationalism. Prerequisite: Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

**REES 177. First Year Seminar: _____.** 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Russian, East European, and Eurasian Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**REES 220. Societies and Cultures of Eurasia.** 3 Hours. NW AE42 / S.
A broad, survey-type course that examines all the former Soviet republics—Ukraine, Belarus, Moldova, Lithuania, Latvia, Estonia, Georgia, Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan—with additional coverage of neighboring regions. The course addresses the history of the region, literature, culture, geography, religion, and the building of post-Soviet states and societies. LEC.

**REES 221. Societies and Cultures of Eurasia, Honors.** 3 Hours. NW AE42 / S.
Examines the unique cultures and societies of the Eurasian region (Georgia, Azerbaijan, Armenia, Kazakhstan, Uzbekistan, Kyrgyzstan, Turkmenistan, Tajikistan and to a lesser degree, Russia, Mongolia and Afghanistan). For the better part of the 20th Century, this distinct region of the world was hidden beneath the communist veneer of the Soviet Union. With the collapse of the USSR, the countries of this region are returning to their historic roots, and this course introduces students to the history, politics, economics, literature and general culture of these countries. Open only to students admitted to the University Honors Program or by permission of instructor. LEC.

**REES 480. Topics in Russian and East European Studies: _____.** 1-3 Hours. H.
Interdisciplinary examination of topics involving two or more disciplines in Russian, East European, and Eurasian studies. LEC.

**REES 485. War and Peace in Russian Culture.** 3 Hours. H/W.
Lectures, readings, oral discussion, and written analyses of selected major works of Russian writing and other modes of creative expression and discourse that treat the subject of war and peace, such as imaginative literature, works of history, memoirs, cinema, music, and painting. Reading examples are The Song of Igor’s Campaign, Alexander Pushkin’s The Captain’s Daughter and A History of Pugachev, Leo Tolstoy’s War and Peace, Nadezhda Durova’s The Notes of a Girl-Cavalryman, Boris Pasternak’s Doctor Zhivago, and George Kennan’s Russia Leaves the War. Not open to students who have taken REES 685. LEC.

**REES 492. Research Methods in Russian, East European, and Eurasian Studies.** 3 Hours. AE61 / H.
Development of interdisciplinary research skills and familiarity with resources and issues in the study of Russian, East European, and Eurasian Studies. Preparation for REES 498. LEC.

**REES 496. Capstone Research Seminar in Russian and East European, and Eurasian Studies.** 3 Hours. AE61 / H.
Interdisciplinary original research conducted using at least one REES language and resulting in a research paper. Prerequisite: REES 492. LEC.

**REES 498. Directed Readings.** 1-3 Hours. H.
Individual and supervised readings in selected areas of Russian, East European, and Eurasian Studies. Prerequisite: Prior permission of instructor and either CRÉES director or associate director. LEC.

**REES 499. Capstone Research Seminar in Russian, East European, and Eurasian Studies, Honors.** 3 Hours. AE61 / H.
Research and writing of a substantial paper, involving interdisciplinary original research and use of sources in at least one REES language, and presentation of this paper to an Honors committee of three REES faculty members. This thesis must be substantially different from any other Honors thesis. Prerequisite: REES 492. LEC.

**REES 510. Understanding Central Asia.** 3 Hours. NW AE42 / S/W.
An intensive, multidisciplinary survey of Central Asia, focusing on the former Soviet republics-Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan—with additional coverage of neighboring regions (the Caucasus and the Caspian basin, Afghanistan, and western China). The course addresses the history of the region (from the Silk Road to Soviet rule), geography, religion, and the building of post-Soviet states and societies. (Same as GEOG 590.) LEC.

**REES 512. Siberia: Yesterday and Today.** 3 Hours. NW AE42 / H/W.
An interdisciplinary course examining the development of Siberia from its beginnings to the present day. Topics to be covered are selected from the following list: topography and natural resources; conquest and exploitation by Russian and other European settlers; Siberia’s role as a place of imprisonment and exile; the development of towns and transportation systems; Siberian historiography; Siberian Russian literature; and Siberia’s place in Russia’s economy and national defense. LEC.

**REES 513. Siberia: Russia’s Eastern Frontier.** 3 Hours. NW AE42 / H/W.
An interdisciplinary course examining the terrain, peoples, and cultures of the vast expanse in northern Asia known as Siberia. Areas of inquiry include geology, archeology, ethnography, religions, folk culture, the arts, science and education, politics, and environmental problems. With an emphasis on the natural and social sciences, and exploration of the relationship between Siberia and its neighbors in all directions, including the United States (Alaska, “Russian America”), this course can be taken without duplication by students who have already taken REES 512 (or SLAV 512) Siberia Yesterday and Today. LEC.
REES 532. Russian Strategy and Military Power. 3 Hours. H.
Examines the central role the Russian military has played in its country’s politics, society, and culture in the modern period. Treats Russia’s victories and defeats in war, the course highlights the continuities in Russian strategic practices and illuminates the current and future strategic policies and military developments of the contemporary Russian state. LEC.

REES 573. Borderland Between Russia & Europe. 3 Hours. H/W.
Examines the history of relations between the governments, emerging national elites, and populations of Russia, Ukraine, Poland, and other East European countries, and the different regional perceptions and stereotypes, including the new post-Soviet states and their European neighbors. LEC.

REES 574. Ethnicity and Nationalism in Eastern Europe. 3 Hours. H/W.
Examines the emergence and evolution of regional ethno-cultural and national identities in Eastern Europe. Discusses the theories and definitions of ethnicity, nationality, and nationalism, and offers a practical approach to understanding nationalism’s and nationalist movements in Eastern Europe. LEC.

REES 646. Translation in Theory and Practice. 3 Hours. H.
Students undertake substantial work in the translation of non-technical writing, (e.g. poems, short stories, novels, essays, works of history, scientific treatises), from any REES language into English, and examine the practical and theoretical problems encountered in translation from the source to the target language. Prerequisite: BCRS 508, PLSH 508, RUSS 508, or permission of instructor. LEC.

REES 685. War and Peace in Russian Culture (in Russian). 3 Hours. H/W.
This course is taught in Russian. Lectures, readings, oral discussion, and written analyses of selected major works of Russian writing and other modes of creative expression and discourse that treat the subject of war and peace, such as imaginative literature, works of history, memoirs, cinema, music, and painting. Reading examples are Slovo o polku Igoreve, Pushkin’s Kapitanskaia docha and Istoriia Pugacheva, Tolstoy’s Voina i mir, Evgenii Tarle’s Napoleon, Pasternak’s Doktor Zhivago and Andrei Petukhov’s Pamiat’ o službhe. Not open to students who have taken REES 485. Prerequisite: 3 years of Russian at the college level. LEC.

REES 687. Biography of a City: St. Petersburg. 3 Hours. AE42 / H.
Examination in depth of the historical, social, intellectual, and artistic development of St. Petersburg as a major urban center. LEC.

REES 704. Russian Orthodoxy in Historical Perspective. 3 Hours.
This course examines Russian Orthodoxy as a religious system and the institution of the Russian Orthodox Church from its first appearance in Russia to the present. It focuses on beliefs and practices of the clergy and laity; institutional structures; the relationships between Church and State; interactions with non-Orthodox religious communities; responses to Soviet atheist policies; Orthodox influences on political theory, philosophy, literature, and the fine arts. (Same as REL 704.) LEC.

REES 715. Seminar in the History of Russian Thought. 3 Hours.
Topics in the development of social radicalism and of philosophical positivism and materialism from Radishchev through the Russian Marxists. A reading knowledge of Russian is desirable but not required. Prerequisite: REES 723 or PHIL 580. LEC.

REES 799. Directed Readings in Russian and East European Studies. 1-5 Hours.
RSH.

REES 895. Special Problems in Area Studies: _____. 3 Hours.
Interdisciplinary examination of topics involving two or more of the cooperating disciplines in Russian and East European studies. LEC.

REES 897. Research. 1 Hour.
Enrollment to fulfill Masters continuous enrollment rule. Prerequisite: Completion of all degree requirements except submission of seminar paper or comprehensive examination. RSH.

REES 898. Seminar in Russian and East European Studies. 3 Hours.
Mastery of interdisciplinary research skills, and knowledge of resources and scholarship on the study of Russian, east European, and Eurasian Studies. LEC.

REES 899. Capstone Research Seminar in Russian, East European, and Eurasian Studies. 3 Hours.
Research, write, and present a professional-quality paper, involving interdisciplinary original research, consultation with REES faculty, and substantial use of sources in at least one REES language. Prerequisite: REES 898. SEM.

TAJ 110. Elementary Tajik I. 5 Hours. U.
Vocabulary acquisition, pronunciation, grammar, and writing. Course includes reading of simple texts. Five hours of class per week. LEC.

TAJ 120. Elementary Tajik II. 5 Hours. U.
Continuation of TAJ 110. Vocabulary acquisition, pronunciation, grammar, and writing. Course includes reading of simple texts. Five hours of class per week. Prerequisite: TAJ 110 or departmental permission. LEC.

TAJ 210. Intermediate Tajik I. 3 Hours. U.
A continuation of TAJ 120. Course emphasizes oral and written work in Tajik. Systematic review of grammar and introduction to reading in cultural texts. Prerequisite: TAJ 120 or departmental permission. LEC.

TAJ 220. Intermediate Tajik II. 3 Hours. U.
A continuation of TAJ 210. Course emphasizes oral and written work in Tajik. Systematic review of grammar and introduction to reading in cultural texts. Prerequisite: TAJ 210 or departmental permission. LEC.

TAJ 310. Advanced Tajik I. 3 Hours. U.
Enhancement of speaking, comprehension, and writing abilities in Tajik. Readings from Tajik literature introduced. Prerequisite: TAJ 220 or placement exam that establishes a level of proficiency in Tajik suited to Advanced Tajik I. LEC.

TAJ 320. Advanced Tajik II. 3 Hours. U.
Enhancement of speaking, comprehension, and writing abilities in Tajik. Readings from Tajik literature introduced. Prerequisite: TAJ 220 or placement exam that establishes a level of proficiency in Tajik suited to Advanced Tajik II. LEC.

TAJ 510. Tajik for Geographers. 1 Hour. H.
The course is designed to facilitate the use of primary sources in Tajik for carrying out research in human geography of Tajikistan. TAJ 510 compliments REES 510. Prerequisite: TAJ 220, or consent of instructor. LEC.

TAJ 532. Tajik For Sociologists. 1 Hour. H.
The course is designed to facilitate the use of primary sources in Tajik for carrying out research in sociology of Tajikistan. TAJ 532 compliments SOC 532. Prerequisite: TAJ 220, or consent of instructor. LEC.

Religious Studies Courses

REL 104. Introduction to Religious Studies. 3 Hours. HR AE42/GE3H / H.
This course introduces students to the academic study of religions. It acquaints students with key methods and issues in religious studies, and
provides an introductory survey of selected religions. Not open to students who have taken REL 105. LEC.

REL 105. Introduction to Religious Studies, Honors. 3 Hours. HR AE42/GE3H / H.
This course introduces students to the academic study of religions. It acquaints students with key methods and issues in religious studies, and provides an introductory survey of selected religions. Open only to students in the University Honors Program or by permission of instructor. Not open to students who have taken REL 104. LEC.

REL 106. Living Religions of the East. 3 Hours. HR/NW AE42/GE3H / H/W.
A basic introduction to religion in India, China, and Japan with emphasis upon religions that affect the modern period. Not open to students who have taken REL 108/EALC 108. (Same as EALC 105.) LEC.

REL 107. Living Religions of the West. 3 Hours. HR AE41/AE42/GE3H / H.
A basic introduction to the major religious traditions of the Near East, Europe, and the Americas, with an emphasis on their development through the modern period and their expressions in contemporary life. Not open to students who have taken REL 108. (Same as JWSH 107.) LEC.

REL 108. Living Religions of the East, Honors. 3 Hours. HR/NW AE42/GE3H / H.
A basic introduction to religion in India, China, and Japan, with emphasis upon religions that affect the modern period. Open only to students in the University Honors Program or by permission of instructor. Not open to students who have taken REL 108/EALC 105. (Same as EALC 108.) LEC.

REL 109. Living Religions of the West, Honors. 3 Hours. HR AE41/AE42/GE3H / H.
A basic introduction to the major religious traditions in the Near East, Europe, and the Americas, with an emphasis on their development through the modern period and their expressions in contemporary life. Open only to students in the University Honors Program or by permission of instructor. Not open to students who have taken REL 107. LEC.

REL 124. Understanding the Bible. 3 Hours. HR AE42/GE3H / H.
An introduction to the literature of the Bible, exploring the relationships among the various types of literature present and the function of each type in the history and religious life of the people who produced and used them. Cannot be taken concurrently with REL 311 or JWSH 321 or REL 315. Not open to students who have taken REL 125 or JWSH 125. (Same as JWSH 124.) LEC.

REL 125. Understanding the Bible, Honors. 3 Hours. HR AE42/GE3H / H.
An introduction to the literature of the Bible, exploring the relationships among the various types of literature present and the function of each type in history and religious life of the people who produced and used them. Open only to students in the University Honors Program or by permission of instructor. Not open to students who have taken REL 124 or JWSH 124. (Same as JWSH 125.) LEC.

REL 130. Myth, Legend, and Folk Belief in East Asia. 3 Hours. NW / H/W.
A survey of the commonly held ideas about the beginning of the world, the role of gods and spirits in daily life, and the celebrations and rituals proper to each season of the year. The purpose of the course is to present the world view of the ordinary peoples of East Asia. (Same as ANTH 293, EALC 130.) LEC.

REL 171. Religion in American Society. 3 Hours. HR AE41/GE3H / H.
A broad introduction to religion in American culture. This class emphasizes the well-established religions with large followings (viz. Judaism, Catholicism, Eastern Orthodoxy, and Protestantism). Some attention is also given to other religions active in America. Other topics covered include the relationship of church and state, religion in ethnic and racial minority groups, and women and religion. Not open to students who have taken REL 172. (Same as AMS 290.) LEC.

REL 172. Religion in American Society, Honors. 3 Hours. HR AE41/GE3H / H.
Honors version of REL 171. A broad introduction to religion in American culture. This class emphasizes the well-established religions with large followings (viz. Judaism, Catholicism, Eastern Orthodoxy, and Protestantism). Some attention is also given to other religions active in America. Other topics covered include the relationship of church and state, religion in ethnic and racial minority groups, and women and religion. Not open to students who have taken AMS 290. Open only to students in the University Honors Program or by permission of instructor. LEC.

REL 177. First Year Seminar: _____ 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Religious Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

REL 200. Study Abroad Introductions to: _____, 1-4 Hours. H.
This course is designed for the study of special topics in Religious Studies. Credit for coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

REL 311. Religion of Ancient Israel. 3 Hours. H/W.
A study of the development of the Hebrew Bible from its earliest stages of oral tradition to its canonization with an emphasis on the relationship of the historical, intellectual, and cultural contexts shaping that development. (Same as JWSH 321.) Prerequisite: REL 124 or JWSH 124 or permission of instructor. LEC.

REL 315. History and Literature of Early Christianity. 3 Hours. H/W.
An examination of the literature produced by early Christians. In addition to New Testament texts, the course includes a broad range of diverse texts produced by early Christians, Jews, and others. Prerequisite: REL 124 or permission of instructor. LEC.

REL 325. Introduction to Judaism. 3 Hours. H.
An introduction to Judaism, its origins, beliefs, and practices. (Same as JWSH 325.) LEC.

REL 326. Introduction to the Talmud and Interpretation. 3 Hours. H.
A study of the Talmud and the main lines of its reception and interpretation from Late Antiquity through Modernity in Rabbinic literature and the broader context of Western religion and philosophy. Prerequisite: REL 104, REL107, or REL124/125, or permission of the instructor. LEC.

REL 330. Native American Religions. 3 Hours. NW AE41 / H.
A survey of religious traditions among selected Native American peoples. Topics include religious freedom, ritual activity, cultural narrative (myth) kinship, healing practices, ecology, government relations, impact of colonization, impact of missionization, contact between cultures, and secularization. Not open to students who have completed REL 331. (Same as ISP 330.) LEC.

REL 331. Native American Religions, Honors. 3 Hours. NW AE41 / H.
A survey of religious traditions among selected Native American peoples. Topics include religious freedom, ritual activity, cultural narrative (myth) kinship, healing practices, ecology, government relations, impact of colonization, impact of missionization, contact between cultures, and
secularization. Open only to students in the University Honors Program or by permission of instructor. Not open to students who have completed REL 330. (Same as ISP 331.) LEC.

REL 339. History of Religion in America. 3 Hours. H.
Survey of the development of religious institutions and ideas in America from colonial times to the present. Emphasis is given to the mainstream religious traditions (Protestant, Catholic, Jewish), but attention is also paid to other phenomena, including nonwestern and native American religions. LEC.

REL 341. Mysticism. 3 Hours. H.
The nature of mystical experience and reflection as expressed in selected mystical literature of the world's religions. LEC.

REL 342. Religion and Literature. 3 Hours. H.
An examination of contemporary writings to explore the authors' presuppositions concerning the nature of God, the nature of human beings, the meaning of good and evil, the significance of human existence, and the means of attaining fulfillment or salvation. LEC.

REL 345. Christianity. 3 Hours. H.
An introductory examination of the history, doctrines, and practices of Christianity. Selected readings from the creeds, papal decrees, and major Christian theologians. LEC.

REL 350. Islam. 3 Hours. NW AE42/GE3H / H/W.
Origins of Islam; the Prophet Muhammad; the Holy Koran; religious symbols and moral mandates; historical developments. (Same as AAAS 349.) LEC.

REL 355. Muslim Societies. 3 Hours. H.
In this class we study Muslim societies throughout the world. We examine variation between regions by looking at Muslim history and culture in different countries, such as Pakistan, Indonesia, Mali, Bosnia, Egypt, Yemen, and others. LEC.

REL 360. The Buddhist Tradition in Asia. 3 Hours. NW AE42/GE3H / H.
A historical and geographical survey of the Buddhist tradition from its origins in India to modern day developments in the three major regional Buddhist cultures of Southeast Asia, Tibet, and East Asia (China, Korea, and Japan). Prerequisite: Prior coursework in Asian studies or permission of instructor. LEC.

REL 365. Hinduism. 3 Hours. H.
An introduction to the diversity and richness of Hinduism from the Vedic period to the present; explores Hindu practices, beliefs, and communities using primary texts and extensive audio-visual resources. LEC.

REL 371. Religion and Society in Tension. 3 Hours. H.
Specific issues of conflict between the values of certain religious groups and those of the larger society. Includes problems of church and state, birth control and abortion, civil disobedience and dissent, education, war and peace, and "civil religion. LEC.

REL 373. The Supreme Court and Religious Issues in the United States. 3 Hours. H.
Historical study of the interpretation of the religion clauses of the First Amendment with special reference to the questions of establishment, the free exercise of religion, freedom of religious belief, worship, and action, and religion and the public schools. Not open to freshmen. (Same as HIST 373.) LEC.

REL 374. Religious Perspectives on Selfhood and Sexuality. 3 Hours. H.
The nature of the self in its individual and social dimensions. Self experienced and expressed in sexuality. Survey of viewpoints in religious literature. LEC.

REL 375. The Supreme Court and Religious Issues in the United States, Honors. 3 Hours. H.
Historical study of the interpretation of the religion clauses of the First Amendment with special reference to the questions of establishment, the free exercise of religion, freedom of religious belief, worship, and action, and religion and the public schools. Open only to students in the University Honors Program or by permission of the instructor. (Same as HIST 375.) LEC.

REL 376. American Judaism: Life and Thought. 3 Hours. H.
A study of the conflicts between secularists and religiousists, between Zionists and synagogue representatives, and the patterns of compromise in American Jewish life. Questions of Americanism and Jewish survival, support for the State of Israel, and the bureaucratic structure of rabbinical training and philanthropy in America will be raised. LEC.

REL 377. Religious Ethics and Moral Decisions. 3 Hours. AE51 / H.
When faced with ethical dilemmas how do we decide what is the right course of action? In what ways are our decisions affected by religious ideas about morality? In this class we examine the ethical problems we encounter every day in light of the solutions offered from various religious traditions. Cases to be examined include issues of life and death, war and peace, sexual morals, torture, the treatment of animals and the environment. LEC.

REL 378. Religion and Moral Decisions, Honors. 3 Hours. H.
Honors version of REL 377. Introduction to religious viewpoints on individual and social ethics. Influence of religious thought on the making of moral decisions, and on value development. Examined in relation to specific moral issues. Open only to students who have been admitted to the University Honors Program or by permission of instructor. LEC.

REL 380. Philosophical Issues in Religion. 3 Hours. GE3H / H.
This course will consider, from a philosophical perspective, some of the problems in religion which arise in the development of "Natural Theology" broadly conceived. (Same as PHIL 350.) LEC.

REL 400. Study Abroad Special Topics: _____. 1-4 Hours. H.
This course is designed for the study of special topics in Religious Studies equivalent to courses at the 300 to 600 level at KU. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

REL 404. Undergraduate Seminar in Religion: _____. 1-3 Hours. H.
Topic, instructor, prerequisite and hours of credit to be announced in Schedule of Classes. Particular subject matter any given semester responding to student interest and taking advantage of special faculty competence. Class discussion, readings, and individual projects. LEC.

REL 405. Directed Study in Religion. 1-4 Hours. AE61 / H.
Investigation of a special topic or project selected by the student with advice, approval, and supervision of an instructor. May be repeated with maximum cumulative credit of four hours. Course taken for one hour of credit may not be used to fulfill College distribution requirement. Prerequisite: One previous course in religious studies at the University of Kansas and permission of instructor. IND.

REL 406. Reading Asian Religious Classics. 3 Hours. H.
A close reading of classic texts of Asian religions in English translation, with emphasis on their construction and reception as sacred "scripture" in both their indigenous Asian contexts and in the post-colonial West. No prior knowledge of Asia is required, although some background is desirable. LEC.
REL 425. Religion and Film. 3 Hours. H.
An examination of the treatment of religious themes through the medium of film and an examination of the attitudes of religious organizations toward films and film production. Selected films will be viewed and analyzed from the perspectives taken within religious studies. LEC.

REL 440. Muslim Women in Religion and Society. 3 Hours. NW / H.
This course consists of a spring break study in a Muslim country, meeting with women's NGOs and other women's groups and visiting sites of significance to women. Preparatory class sessions focusing on assigned readings precede the study abroad trip and a concluding class session follows it. A research paper is required. LEC.

REL 447. Islamic Law in the Digital Age. 3 Hours. H.
In this class we trace how Islamic law has changed in the modern era, beginning with an overview of shari'a and its traditional function in Muslim society, and then examine how the practice of Islamic law was altered by colonialism and the rise of the nation state. We mark these transformations by studying how Islamic law is used in the online environment today. LEC.

REL 450. Popular Culture in the Muslim World. 3 Hours. NW / H.
A study of pop songs, television, comics, and other idioms of popular culture from different parts of the Muslim world, with attention to Muslims' sense of humor, tragedy, aesthetics, and pertinent issues of the day. (Same as AAAS 450.) LEC.

REL 464. Visions in Art and Literature. 3 Hours. H.
A study of the phenomenon of visions, their expression in various media, and theories of visionary experience from the humanities and social sciences, with a particular emphasis on critically evaluating the relationship between the visionary experience and its expression. (Same as HWC 464). LEC.

REL 468. Illness in Art and Literature. 3 Hours. H.
An examination of how illness and health have been conceptualized, expressed, and explored in Western literature and art, as well as a consideration of issues of illness and health from the perspectives of philosophy and religious studies. (Same as HWC 468). LEC.

REL 475. Loving Relationships. 3 Hours. H.
Theories and elements of love in a variety of types of relationships, with attention to religious ethical traditions and social and behavioral sciences. Includes small group discussions and application to personal experience. Prerequisite: Junior standing or above. LEC.

REL 477. Gender and Religion. 3 Hours. H.
Examination of symbols, images, scriptures, rites and teachings that define gender in various religious traditions. (Same as HWC 477.) LEC.

REL 478. Women and Religion, Honors. 3 Hours.
Examination of symbols, images, scriptures, rites, and teachings defining women's roles in various religious traditions. Prerequisite: Open only to students in the University Honors Program, or by permission of instructor. LEC.

REL 490. Senior Seminar in Theories and Methods. 3 Hours. AE61 / H.
A capstone course for religious studies majors to survey methods and theories in religious studies. Prerequisite: Religious Studies major or permission of the instructor. LEC.

REL 499. Undergraduate Honors Research. 1-3 Hours. AE61 / H.
Required for Departmental Honors. May be taken more than once; total credit not to exceed 6 hours. Prerequisite: Open only to candidates for degree with departmental honors and with consent of the student's research supervisor. IND.

REL 500. Readings in Non-English Religious Texts. 1-4 Hours.
This course provides directed readings for students in either primary or secondary texts related to religious studies utilizing material in languages other than English. IND.

REL 502. Special Topics in Religion: _______. 1-4 Hours. H.
Topic and instructor to be announced in Schedule of Classes. Enables qualified students to participate in current research interests of faculty and/or pursue specific current topics. May be offered by different instructors under different subtitles, and may be taken more than once if subject matter varies sufficiently. Prerequisite: Consent of instructor. LEC.

REL 504. Millenarian Movements. 3 Hours. S.
A historical survey of millenarian movements (the belief in imminent, total, ultimate, this-worldly, collective salvation), with particular attention to their psychological, sociological, and political dimensions. (Same as POLS 504.) Prerequisite: POLS 301 or honors equivalent or for non-majors completion of Western Civilization requirement, or consent of instructor. LEC.

REL 507. Religion in India. 3 Hours. NW AE42/GE3H / H/W.
Survey of religious thought and practice in India from the Vedic period to the present. LEC.

REL 508. Religion in China. 3 Hours. NW AE42/GE3H / H/W.
Survey of religious thought and practice in China from the Shang to the People's Republic. (Same as EALC 508.) LEC.

REL 509. Religion in Japan. 3 Hours. NW AE42/GE3H / H/W.
Survey of religious thought and practice in Japan from the Jomon period to the present. (Same as EALC 509.) LEC.

REL 510. Religion in Korea. 3 Hours. NW AE42/GE3H / H.
Survey of religious thought and practice in Korea from the Three Kingdoms period to the present. Prerequisite: REL 106/EALC 105; EALC 104; or permission of instructor. LEC.

REL 515. Studies in Early Christian Literature and History. 3 Hours. H.
Contemporary research in the history and literature of earliest Christianity including most of the following: (1) the use of critical method, (2) philosophical and theological contexts, (3) sociological analyses, (4) interpretation of archaeological data (5) papyrology and the medieval manuscript tradition, (6) relations between Christians and the Roman government, (7) relations between Christians and Jews, (8) development of diverse literary genres, and (9) the origins of gnosticism and Christian gnosticism. Prerequisite: REL 124 or permission of instructor. LEC.

REL 523. The Dead Sea Scrolls. 3 Hours. H.
A study of the archeological evidence and texts from the Dead Sea area that provide primary evidence for Jewish religious belief and practice in the Greek and Roman periods (ca. 250 B.C.E. - 135 C.E.). (Same as JWSH 523.) Prerequisite: REL 124 or JWSH 124 or consent of instructor LEC.

REL 524. Studies in Ancient Egyptian Culture and Religion. 3 Hours. H.
A study of the basic features of Egyptian history, culture, and religion from the beginning of the Pharaonic period (ca. 3500 B.C.E.) to the rise of Greek rule in Egypt (ca. 350 B.C.E.). Prerequisite: A principal course in Religious Studies or consent of instructor LEC.

REL 525. Jews and Christians. 3 Hours. H/W.
This course examines the ways Jews and Christians have interacted with and characterized one another at various points in their histories. Special emphasis is placed on the gradual separation of the two religious traditions in the 1st-4th centuries. (Same as JWSH 325.) Prerequisite:
A previous course in Religious Studies or Jewish Studies; or consent of instructor. LEC.

REL 526. Jewish History and Literature in the Greek and Roman Periods. 3 Hours. H/W.
The history and literature of the Jewish people from the hellenistic period (late fourth century B.C.E. to the codification of the Mishnah 210 C.E.). Select texts from the Hebrew Bible, the so-called apocrypha and pseudepigrapha, the Qumran scrolls, Philo, Josephus, related early Christian texts, and Rabbinitic texts will be studied. (Same as JWSH 526.) Prerequisite: REL 124 or JWSH 124 or permission of instructor. LEC.

REL 527. Ancient Mesopotamian Culture and Religion. 3 Hours. H.
A study of the basic features of Mesopotamian history, culture and religion from the origins of writing (ca. 3500 B.C.E.) to the rise of Greek rule in the region (ca. 350 B.C.E.). Prerequisite: A principal course in religious studies or consent of instructor. LEC.

REL 528. The Apostle Paul and Early Christian Paulinism. 3 Hours. H.
Biographical issues related to the Apostle Paul, his teachings in relation to Greek and Jewish thought as exemplified in his letters, and his reception by later diverse Paulinists. Prerequisite: REL124/125, or REL 315. LEC.

REL 530. Christian Origins: from the Beginnings to Augustine. 3 Hours. H/W.
This course covers the major political, literary, and theological developments in Christianity from the first century through Augustine in the early fifth century, including: (1) the development and significance of the New Testament canon, (2) relations between Christians, Jews, and the Roman government, (3) the nature of orthodoxy and heresy, and the rise of the major gnostic systems, (4) the growth of the orthodox network, (5) theological debates and councils, and (6) the biography and theology of Augustine and his influence on the medieval church. Prerequisite: Junior standing or above. LEC.

REL 531. Studies in Christianity. 3 Hours. H.
Study of religious thought, practice, and institutions of Christianity with an emphasis on the examination of primary documents. LEC.

REL 532. Studies in Islam. 3 Hours. H.
Study of religious thought, practice, and institutions of Islam with an emphasis on the examination of primary documents. (Same as AAAS 532.) LEC.

REL 534. Studies in Ritual: ______. 3 Hours. H.
A study of ritual theory and a comparative study of ritual activity among selected religious traditions. May be taken more than once if content differs sufficiently. LEC.

REL 535. The History of Islam in Africa. 3 Hours. H/W.
A study of the history and institutions of Islam in Africa. Emphasis will be placed on the impact of Islam on African traditional religions and African civilization in general; the historiographical traditions of Islam in Africa. (Same as AAAS 542.) LEC.

REL 541. Gods and Goddesses of South Asia. 3 Hours. H.
This course explores the dynamic diversity of gods and goddesses in South Asian religious life through examination of their basic iconography, religious narratives and devotional poetry, temple images and architecture, ritual practices, performance traditions, and film. Prerequisite: An introductory course in religious studies or consent of instructor. LEC.

REL 543. Hindu Epics, Past and Present. 3 Hours. H.
This interdisciplinary course considers the roles that the two great Indian epics, the Mahabharata and the Ramayana, have played in the history of religion, literature, art, and politics in South Asia (and beyond). Prerequisite: An introductory course in religious studies or consent of instructor. LEC.

REL 545. Yoga in Theory, Practice, and History. 3 Hours. H.
Historical and thematic investigation into Yoga, including classical formulations, esoteric practices, and contemporary developments and debates. LEC.

REL 550. Gender Issues in Islam. 3 Hours. H.
Focusing on issues of gender, this course follows major religious developments in the Islamic tradition. Also examines how Muslim women have impacted those developments. LEC.

REL 551. Shari'a, Democracy, and Society. 3 Hours. H.
In this class we examine the question of whether or not democracy and shari'a can coexist. Is there a necessary opposition between democratic visions of society and the institutionalization of Islamic law? As a case study we look at changes in the modern Egyptian political system and the role religious ideals have played in these changes, especially the push for democracy. Prerequisite: An introductory course in religious studies or consent of instructor. LEC.

REL 552. Classical Islamic Literature. 3 Hours. NW / H.
An examination of major developments in classical Islamic literature in the Middle East and beyond, with attention to the poetic and prose works (in translation) that emerged from them. (Same as AAAS 552.) LEC.

REL 555. Buddhists and Buddhism in China. 3 Hours. NW AE42 / H.
A reading and media-rich survey of institutional, ritual, literary, educational, and exegetical practices that have shaped the lives of Buddhists in China, past and present. Alterities within the Buddhist tradition, and interactions with other religious options, are considered. (Same as EALC 555.) LEC.

REL 557. Modern Islamic Reform Movements. 3 Hours. H.
This course examines movements of renewal and reform in the Islamic world today. Also studies the conditions that gave rise to calls for reform throughout the Muslim majority world, as well as the impact reform movements have had on the practices and beliefs of Muslims today. LEC.

REL 558. Religion in Britain Since the Reformation: A Survey. 3 Hours. H.
This course deals analytically and synoptically with religion in Britain from the Reformation to the present with special reference to the Church of England, and focuses on the themes of ecclesiology, ecclesiastical polity, and political theology. It is essentially examination of religious history from a perspective of history of ideas. (Same as HIST 558.) LEC.

REL 559. Religion in Britain Since the Reformation: A Survey, Honors. 3 Hours. H.
This course deals analytically and synoptically with religion in Britain from the Reformation to the present with special reference to the Church of England, and focuses on the themes of ecclesiology, ecclesiastical polity, and political theology. It is essentially an examination of religious history from a perspective of history of ideas. Open only to students in the University Honors Program or by permission of instructor. (Same as HIST 559.) LEC.

REL 560. Classical and Contemporary Jewish Thought. 3 Hours. H.
An introduction to individual Jewish thinkers and collective projects from Philo to the present, including The Talmud and Midrash, Middle Age and Early Modern Jewish philosophical and Talmudic rationalism and mysticism. Considers such thinkers as Spinoza, Cohen, Soloveitchik, Rosenzweig, and Levinas. (Same as JWSH 560.) Prerequisite: A previous course in Religious Studies or Jewish Studies; or consent of instructor. LEC.
REL 570. Studies in Judaism. 3 Hours. H.
A study of the major intellectual sources of the Jewish tradition from the Mishna, Talmud, Midrash, prayerbook, philosophers, the Zohar, and the Shulchan Aruch. (Same as JWSH 570.) Prerequisite: A course in Religious Studies or Jewish Studies numbered 300 or above. LEC.

REL 571. Religion in Kansas. 3 Hours. H.
A survey of religions active in Kansas in the past or present. The course has a strong fieldwork component in which students, after receiving training in fieldwork methods, conduct interviews and gather information to contribute to a public archive of religion in Kansas. FLD.

REL 580. Religious Perspectives on Illness, Health, and Healing. 3 Hours. H.
An examination of the perspectives of selected religious traditions on the meaning of illness and health, methods of diagnosis and treatment, and the place of these themes and experiences within each tradition. LEC.

REL 581. Psychology of Religion. 3 Hours. S.
Consideration of the psychological antecedents of religious experience, the nature of religious experience, and the behavioral consequences of religion. Focus will be on psychological theory and research relevant to religious thought, feeling, belief, and behavior. (Same as PSYC 581.) Prerequisite: PSYC 104. LEC.

REL 585. New Religious Movements (Western). 3 Hours. H.
A survey of the beliefs, practices, and social impact of religious minorities in the United States, both contemporary and historical, rooted primarily in Christianity and Judaism. LEC.

A survey of the beliefs, practices, and social impact of religious minorities in the United States, both contemporary and historical, which have developed primarily from sources other than Christianity and Judaism. LEC.

REL 601. Approaches to the Study of Religion. 3 Hours. H.
An introduction to the various methods by which social scientists, historians, philosophers, and theologians study the meaning, influence, and significance of religion as an integral part of society and its cultural heritage. Prerequisite: REL 104 required for undergraduate students. No prerequisite for graduate students. LEC.

REL 604. Religion and Political Theory. 3 Hours. S.
An examination of the relationship between religious faith and politics in Western political thought and theory. The approach will be both historical and philosophical, beginning with Moses on the one hand, and the Greeks on the other. Texts will include biblical, Greek philosophical, Jewish and Christian philosophical and theological writings. (Same as POLS 604.) Prerequisite: POLS 201, or for non-POLS majors completion of Western Civilization requirements, or consent of instructor. LEC.

REL 650. Sufism. 3 Hours. NW / H.
A survey of developments in Sufi (Islamic Mystical) thought, poetry, and ritual throughout Muslim history and across the Muslim world. (Same as AAAS 650.) Prerequisite: AAAS 349/REL 350 or permission of instructor. LEC.

REL 657. Gender in Islam and Society. 3 Hours. NW / H.
An investigation of the relationship between Islam, and gender roles and status in religious texts (Quran and Hadith) and in societies across the Muslim world, past and present. (Same as AAAS 657.) Prerequisite: AAAS349/REL 350 or permission of instructor. LEC.

REL 665. Religious Ethics. 3 Hours. H.
Main themes and traditions in ethical thought. Religious thought as basis of systems of ethics. Contemporary approaches to methods of value organization and moral choices. Prerequisite: A basic course in religious studies. LEC.

REL 667. Religious Perspectives on War and Peace. 3 Hours. H.
Views of war and peace in various faith traditions throughout the world. Examination of teachings and action of religious groups and selected individuals, including use of war rhetoric and differing theological and social understandings of peace. Lecture, seminar discussion, and research assignment require preparation and participation by students. Prerequisite: Junior standing or above. LEC.

REL 669. Human Conflict and Peace. 3 Hours. H.
Study of religious, cultural, and social traditions toward understanding the nature and purposes of human conflict. Analysis of various meanings of peace, with emphasis on study of nonviolent approaches to management of conflict. Class discussion, readings, and individual research projects. (Same as COMS 669.) Prerequisite: Junior standing or above. LEC.

REL 671. American Communes. 3 Hours. H.
An examination of utopian communities in North America from the seventeenth century to the present. The course will survey the history, literature, and social dynamics of representative communal societies and movements including the Shakers, the Hutterites, the Oneida Community, Catholic religious communities, egalitarian communities, and other religious and secular communities. LEC.

REL 677. Women in Christianity. 3 Hours. H.
An examination of the roles, images, and status of women in Christianity from its origin to the contemporary period and in its missionary expansion from the ancient Near East through Europe, North and South America, Africa, and Asia. LEC.

REL 704. Russian Orthodoxy in Historical Perspective. 3 Hours.
This course examines Russian Orthodoxy as a religious system and the institution of the Russian Orthodox Church from its first appearance in Russia to the present. It focuses on beliefs and practices of the clergy and the laity; institutional structures; the relationships between Church and State; interaction with non-Orthodox religious communities; responses to Soviet atheist policies; Orthodox influences on political theory, philosophy, literature, and the fine arts. (Same as REES 704.) LEC.

REL 727. Seminar in Religion, Text and Textuality. 3 Hours.
This seminar explores issues surrounding the production and use of authoritative religious texts (sacred texts) in religious traditions, including such topics as scripturality and canon, scriptural hermeneutics, and material and ritual dimensions of scriptural practice. Specific case studies and content to be selected by the instructor. SEM.

REL 732. Seminar in Western Religious Texts: ____. 3 Hours.
An analysis of selected religious text or texts from Judaism, Islam, or Christianity in translation. May be taken more than once if subject matter varies sufficiently. Prerequisite: REL 512, REL 515, REL 526, REL 530, REL 532, REL 539, or REL 570 or permission of the instructor. LEC.

REL 733. Seminar in Eastern Religious Texts: ____. 3 Hours.
Analysis of a selected religious text or texts from India, China, or Japan, in translation. May be taken more than once if subject matter varies sufficiently. (Same as EALC 733.) Prerequisite: REL 507, REL 508, REL 509, or permission of instructor. LEC.

REL 737. Seminar in Religion, Media and Performance. 3 Hours.
This seminar explores aspects of performance and the media of performance in lived religion, which might include such topics as ritual, the body, mass media and the internet, and visual and material culture. Specific case studies and content to be selected by the instructor. SEM.
REL 747. Seminar in Religion, Society and Social Change. 3 Hours.
This seminar explores issues regarding the social dimensions of religiosity/lived religion, ranging from aspects of religious institutionalization, authority, and normativity to alternative religiosities and alterity. Specific case studies and content to be selected by the instructor. SEM.

REL 757. Seminar in Religious Subjectivity, Experience, and Narrative. 3 Hours.
This seminar explores issues regarding the subjective and experiential dimension of lived religiosity, including such things as religious experience and mysticism, modes of personal religious expression and embodiment, and dynamics of personal and collective religious narrative and identity. Specific case studies and content to be selected by the instructor. SEM.

REL 761. Seminar in Western Religious Thought: ____. 3 Hours.
An analysis of the thought of selected thinkers of the Christian, Jewish, and/or Islamic traditions. May be taken more than once if subject matter varies sufficiently. Prerequisite: REL 512, REL 515, REL 526, REL 530, REL 532, REL 539, or REL 570 or permission of the instructor. LEC.

REL 762. Seminar in Eastern Religious Thought: ____. 3 Hours.
Analysis of the religious thought of selected thinkers of India, China, and/or Japan, traditional and modern. May be taken more than once if subject matter varies sufficiently. (Same as EALC 732.) Prerequisite: REL 507, REL 508, REL 509, or permission of the instructor. LEC.

REL 767. Seminar in Theory, Method, and History in Religious Studies. 3 Hours.
This seminar explores theoretical, methodological, and historical issues that are instrumental to our notions of religion as an analytic category and foundational to the study of religion as a field of academic enquiry. Specific case studies and content to be selected by the instructor. SEM.

REL 771. Seminar in Religious Movements and Social Change: ____. 3 Hours.
Relationship of religious groups to movements for social change; influence of religious groups on social change, and the impact of efforts toward social change in religious groups. Prerequisite: REL 171, REL 371, REL 377, or equivalent. LEC.

REL 772. Seminar in Religion and Modern Social Criticism: ____. 3 Hours.
Seminar focusing on religious issues in some important texts of modern social criticism from the French Revolution to the present day. Prerequisite: An introductory course in religion. LEC.

REL 773. Seminar in Religion and National Identity: ____. 3 Hours.
Analysis of selected issues wherein religion and the formation and definition of a selected nation or nations intersect. LEC.

REL 775. Seminar in Religion and Society in the West: ____. 3 Hours.
Analysis of selected Western religions and their relationships to selected Western societies. May be taken more than once if subject matter varies sufficiently. Prerequisite: REL 512, REL 515, REL 526, REL 530, REL 532, REL 539, or REL 570 or permission of the instructor. LEC.

REL 776. Seminar in Religion and Society in Asia: ____. 3 Hours.
Analysis of selected Asian religions and their relationships to selected Asian societies. May be taken more than once if subject matter varies sufficiently. (Same as EALC 776.) Prerequisite: REL 507, REL 508, REL 509, or permission of the instructor. LEC.

REL 777. Seminar in Religion and Gender. 3 Hours.
Examination of symbols, images, scriptures, rites, teachings and scholarship regarding gender definitions and performance in various religious traditions. LEC.

REL 787. Seminar in Ethical Issues in Health Care: ____. 3 Hours.
Interdisciplinary seminar, drawing on the literature of social, medical, and professional ethics, with special attention to religious perspectives on meanings of health and the delivery of health care. Of particular interest to health-related professions. Prerequisite: Permission of instructor. LEC.

REL 800. Readings. 1-4 Hours.
RSH.

REL 839. Topics in the History and Literature of Religion: ____. 3 Hours.
Selected studies, as announced in Schedule of Classes, in the history and religious literature of Judaism, Christianity, religion in America, Islam, and Asian religions. Course may be taken more than once if subject matter varies sufficiently. Prerequisite: Permission of instructor. LEC.

REL 864. Topics in Religious Thought and Symbol: ____. 3 Hours.
Selected studies, as announced in Schedule of Classes, in Asian, Middle Eastern, and Western religious thought, mysticism, and religious ethics. Course may be taken more than once if subject matter varies sufficiently. Prerequisite: Permission of instructor. LEC.

REL 875. Topics in Religion and Society: ____. 3 Hours.
Special topics to be announced in Schedule of Classes, according to research interests of faculty and students. A particular aspect of the study of religion and culture will be emphasized. Course may be taken more than once if the subject matter varies. Prerequisite: Permission of instructor. LEC.

REL 877. Topics in Women and Religion: ____. 3 Hours.
Selected studies, as announced in Schedule of Classes, in the history and analysis of symbols, images, scriptures, rites, and teachings defining women’s roles in various religious traditions. Course may be taken more than once if the subject matter varies sufficiently. Prerequisite: Permission of instructor. LEC.

REL 899. Thesis. 1-3 Hours.
THE.

System Analysis and Design Courses
SA&D 401. Introduction to Systems Analysis and Design. 3 Hours. U.
An introduction to the Systems Development Life Cycle (SDLC) and alternatives to SDLC uses in information studies projects and applications. Case studies will be used to illustrate methods of successful analysis of entire projects, including problem definition and analysis, design processes, testing, and implementation. Prerequisite: One year of programming experience or classes. Restricted to students admitted to the Systems Analysis and Design Certificate program. LEC.

SA&D 402. Introduction to Project Management. 3 Hours. U.
An introduction to the Project Management Body of Knowledge (PMBOK) including the need for project management, phases of the project life cycle, tools and techniques for planning (PERT, CPM), and the role of team work and communication. Not open to students with credit for BBA 410 Project Management. LEC.

SA&D 404. Software Development Methods. 3 Hours. U.
This course will focus on the specifications through implementation phase of the Systems Development Life Cycle (SDLC) at an advanced level including technical design, coding and testing, problem management, systems testing, implementation and post-implementation. Prerequisite: SAD 401. Restricted to students admitted to the Systems Analysis and Design Certificate program. LEC.

SA&D 405. Object Oriented Analysis and Design. 3 Hours. U.
Introduces the student to the basic Object Oriented (OO) terminology and how OO differs from a procedural approach. It details the deliverables that
are created in the analysis and design phase using the Unified Modeling Language (UML). Students will also learn to use a CASE tool to document the analysis and design deliverables. Prerequisite: SAD 401. Restricted to students admitted to the Systems Analysis and Design Certificate program. LEC.

SA&D 406. Systems Architecture. 3 Hours. U.
Survey of elements of systems architecture including types of architecture, quality attributes, design patterns and frameworks, deployment issues, and developing architecture plans. Prerequisite: SAD 401. Restricted to students admitted to the Systems Analysis and Design Certificate program. LEC.

Slavic Languages Literatures Courses

BCRS 104. Elementary Bosnian/Croatian/Serbian I. 5 Hours. U.
First Semester. Five hours of recitation and drill in the spoken language per week. Essentials of grammar, practice in reading, writing and speaking Bosnian/Croatian/Serbian. LEC.

BCRS 105. Elementary Bosnian/Croatian/Serbian I, Honors. 5 Hours. U.
Similar to BCRS 104 but with additional work aimed at accelerating the student’s progress to proficiency and widening understanding of cultural context. Prerequisite: Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

BCRS 108. Elementary Bosnian/Croatian/Serbian II. 5 Hours. U.
Second Semester. A continuation of BCRS 104. Prerequisite: BCRS 104. LEC.

BCRS 109. Elementary Bosnian/Croatian/Serbian II, Honors. 5 Hours. U.
Continues BCRS 105. Similar to BCRS 108 but with additional work aimed at accelerating the student’s progress to proficiency and widening understanding of cultural context. Prerequisite: BCRS 104 or 105. Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

BCRS 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Bosnian/Croatian/Serbian. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

BCRS 204. Intermediate Bosnian/Croatian/Serbian I. 3 Hours. U.
Second-year course in the language with emphasis on reading, composition, and conversation. Prerequisite: BCRS 108. LEC.

BCRS 205. Intermediate Bosnian/Croatian/Serbian I, Honors. 3 Hours. U.
Similar to BCRS 204 but with additional work aimed at accelerating the student’s progress to proficiency and widening understanding of cultural context. Prerequisite: Open only to students who have received an A in BCRS 108 or an A or B in BCRS 109, and who are admitted to the University Honors Program, or by permission of instructor. LEC.

BCRS 208. Intermediate Bosnian/Croatian/Serbian II. 3 Hours. AE42 / U.
A continuation of BCRS 204. Prerequisite: BCRS 204. LEC.

BCRS 209. Intermediate Bosnian/Croatian/Serbian II, Honors. 3 Hours. AE42 / U.
Similar to BCRS 208 but with additional work aimed at accelerating the student’s progress to proficiency and widening understanding of cultural context. Prerequisite: BCRS 204 or 205. Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

BCRS 308. Intensive Croatian. 6 Hours. U.
This program consists of a six-week intensive language course in intermediate and advanced Croatian phonetics, conversation, and grammar, and is offered each summer in Croatia. In addition to the practical language work, there is a program of lectures on modern Croatian history, literature, and other cultural topics. Various excursions and tours bring the students into first-hand contact with the people, natural beauty and culture of Croatia. This program is a cooperative effort between the University of Kansas and faculty of the University of Zadar. Prerequisite: BCRS 208, or equivalent. LEC.

BCRS 504. Advanced Bosnian/Croatian/Serbian I. 3 Hours. H/W.
A practical Bosnian/Croatian/Serbian course involving the advanced study of the grammar, reading of texts on a variety of subjects, conversation and composition. Taught in Bosnian/Croatian/Serbian. Designed for students who have had two or more years of Bosnian/Croatian/Serbian language. Prerequisite: BCRS 208, or equivalent. LEC.

BCRS 508. Advanced Bosnian/Croatian/Serbian II. 3 Hours. H/W.
A practical Bosnian/Croatian/Serbian course involving the advanced study of the grammar, reading of texts on a variety of subjects, conversation and composition. Taught in Bosnian/Croatian/Serbian. Designed for students who have had two and one-half or or more years of Bosnian/Croatian/ Serbian language. Prerequisite: BCRS 504, or equivalent. LEC.

BCRS 675. Readings in Bosnian/Croatian/Serbian. 1-6 Hours. H/W.
Individually tailored readings and independent work in Bosnian/Croatian/Serbian language and culture. Prerequisite: Two years of Bosnian/Croatian/Serbian, and consent of instructor. IND.

CZCH 104. Elementary Czech I. 5 Hours. U.
First semester. Essentials of grammar, practice in speaking and writing Czech. Simple readings from selected texts. LEC.

CZCH 108. Elementary Czech II. 5 Hours. U.
Second semester. A continuation of CZCH 104. Prerequisite: CZCH 104. LEC.

CZCH 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Czech. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

CZCH 204. Intermediate Czech I. 3 Hours. U.
Second-year course in the language with emphasis on reading, composition, and conversation. Prerequisite: CZCH 108. LEC.

CZCH 208. Intermediate Czech II. 3 Hours. U.
A continuation of CZCH 204. Prerequisite: CZCH 204. LEC.

CZCH 675. Readings in Czech. 1-6 Hours. H/W.
Prerequisite: Reading knowledge of Czech language, and consent of instructor. IND.

PLSH 104. Elementary Polish I. 5 Hours. U.
First Semester. Essentials of grammar, practice in reading, writing, and speaking Polish. LEC.

PLSH 108. Elementary Polish II. 5 Hours. U.
Second semester. A continuation of PLSH 104. Prerequisite: PLSH 104. LEC.

PLSH 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Polish. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are
coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**PLSH 204. Intermediate Polish I. 3 Hours. U.**
Second-year course in the language with emphasis on reading, composition, and conversation. Prerequisite: PLSH 108. LEC.

**PLSH 208. Intermediate Polish II. 3 Hours. U.**
A continuation of PLSH 204. Prerequisite: PLSH 204. LEC.

**PLSH 312. Polish Language and Civilization in Poland: Summer Program. 8 Hours. H/W.**
Polish grammar, conversation, and composition with select aspects of Polish civilization. Available only to participants in Polonicum, Warsaw University. LEC.

**PLSH 504. Advanced Polish I. 3 Hours. H/W.**
A practical Polish language course involving advanced study of the grammar, reading of texts on a variety of subjects, conversation, and composition. Taught in Polish. Designed for students who have had two or more years of Polish language. Prerequisite: PLSH 208 or equivalent. LEC.

**PLSH 508. Advanced Polish II. 3 Hours. H/W.**
A practical Polish language course involving advanced study of the grammar, reading of texts on a variety of subjects, conversation, and composition. Taught in Polish. Designed for students who have had two and one-half or more years of Polish. Prerequisite: PLSH 504 or equivalent. LEC.

**PLSH 675. Readings in Polish Language and Literature. 1-6 Hours. H/W.**
Directed individual readings on various topics concerning Polish literature and/or language. Prerequisite: Two years or four semesters of Polish, and consent of instructor. IND.

**RUSS 100. Russian Reading Course I. 3 Hours. U.**
A special reading course for candidates for advanced degrees, faculty members, and graduate or undergraduate students from other schools or departments, designed to aid them in obtaining a reading knowledge for purposes of research. An intensive study of the fundamentals of grammar proceeding to the reading of material of medium difficulty. The course does not satisfy any part of the undergraduate language requirement. Presupposes no previous study of Russian. LEC.

**RUSS 101. Russian Reading Course II. 3 Hours. U.**
A continuation of RUSS 100. Completion and review of the fundamentals of grammar, with emphasis on reading and translation of learned, scientific, or technical writing and other material of an advanced nature. Each student will also have special assignments in his or her particular field. This course does not satisfy any part of the undergraduate language requirement. Prerequisite: RUSS 100. LEC.

**RUSS 104. Elementary Russian I. 5 Hours. U.**
First semester. Five hours of basic language acquisition and two hours of oral practice per week. Essentials of grammar, practice in comprehending, speaking, reading, and writing Russian. LEC.

**RUSS 108. Elementary Russian II. 5 Hours. U.**
Second semester. Five hours of basic language acquisition and two hours of oral practice per week. A continuation of RUSS 104. Prerequisite: RUSS 104. LEC.

**RUSS 110. Intensive Elementary Russian. 10 Hours. U.**
Intensive course in elementary Russian providing the student with a complete survey of Russian grammar, and proficiency in understanding, reading, and speaking basic Russian. Twenty contact hours per week. Same content as RUSS 104 and RUSS 108 combined. LEC.

**RUSS 150. Beginning Russian I. 3 Hours. U.**
Fundamentals of Russian grammar, reading, speaking, and writing. Course designed to accommodate the needs of students regardless of age, educational background, or occupation. No previous knowledge of Russian or other foreign languages required. LEC.

**RUSS 152. Beginning Russian II. 3 Hours. U.**
Continuation of RUSS 150. Does not fulfill BA foreign language requirement. Prerequisite: RUSS 150 or equivalent. LEC.

**RUSS 177. First Year Seminar: _____. 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Russian. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**RUSS 204. Intermediate Russian I. 6 Hours. U.**
This course is designed to develop speaking, reading, and listening proficiency within the context of detailed grammatical review. The course meets five hours a week for six hours credit. It is especially recommended for potential majors in Russian, for area-studies students, and for students intending to apply for study abroad in Russia. Prerequisite: RUSS 108, RUSS 110, or equivalent. LEC.

**RUSS 208. Intermediate Russian II. 6 Hours. U.**
Continuation of RUSS 204. Completes the undergraduate foreign language requirement. The course is designed to develop speaking, reading, and listening proficiency within the context of detailed grammatical review. It is especially recommended for potential majors in Russian, for area-studies students, and for students intending to apply for study abroad in Russia. Students who have completed only RUSS 212 may enroll with the permission of the instructor. Prerequisite: RUSS 204 or equivalent. LEC.

**RUSS 212. Second Year Russian I. 3 Hours. U.**
A review of Russian and further development of all four language skills. This course is intended for non-specialists and for students fulfilling the language requirement. Prerequisite: RUSS 108 or RUSS 110. LEC.

**RUSS 216. Second Year Russian II. 3 Hours. U.**
Continuation of RUSS 212. More focused development of students' oral skills and reading abilities. This course fulfills the college foreign language requirement. Prerequisite: RUSS 204 or RUSS 212. LEC.

**RUSS 250. Continuing Russian I. 3 Hours. U.**
Fundamentals of Russian grammar, reading, speaking, and writing. Course designed to accommodate the needs of students regardless of age, educational background, or occupation. Does not count towards the fulfillment of the undergraduate language requirement. Does not count towards the undergraduate major in Slavic. Prerequisite: RUSS 152 or equivalent. LEC.

**RUSS 252. Continuing Russian II. 3 Hours. U.**
A continuation of RUSS 250. Does not count towards the fulfillment of the undergraduate language requirement. Does not count towards the undergraduate major in Slavic. Prerequisite: RUSS 250 or equivalent. LEC.

**RUSS 504. Advanced Russian I. 3 Hours. H/W.**
A practical Russian language course involving advanced study of the grammar, reading of texts on a variety of subjects, conversation, and composition. Taught in Russian. Designed for students who have had four semesters of Russian. Prerequisite: RUSS 208 or RUSS 216. LEC.

**RUSS 508. Advanced Russian II. 3 Hours. H/W.**
A practical Russian language course involving advanced study of the grammar, reading of texts on a variety of subjects, conversation, and composition. Taught in Russian. Designed for students who have had four semesters of Russian. Prerequisite: RUSS 208 or RUSS 216. LEC.
computation. Taught in Russian. Designed for students who have had two and one-half or more years of Russian language. Prerequisite: RUSS 504. LEC.

RUSS 512. Russian for the Professions I. 3 Hours. U.
This course focuses on the active mastery of language structures and vocabulary needed for people using Russian in professional capacities, particularly such as business and journalism. Materials will be drawn from the current Russian press and electronic media. Designed for students who have had basic language training and want to develop specialized language skills. Prerequisite: RUSS 208 or RUSS 216. LEC.

RUSS 516. Russian for the Professions II. 3 Hours. U.
A continuation of RUSS 512. Prerequisite: RUSS 504, RUSS 512, or RUSS 522. LEC.

RUSS 522. Problems in Translating Russian into English I. 3 Hours. H/W.
Preparation of hitherto untranslated works, possibly with the intention of submitting for publication. Training and practice in the skills of oral interpretation. Prerequisite: Two years minimum of Russian language courses. LEC.

RUSS 526. Problems in Translating Russian into English II. 3 Hours. H/W.
A continuation of RUSS 522. LEC.

RUSS 550. Advanced Conversation, Composition, and Grammar in Russia: Summer Program. 6 Hours. H/W.
Held in Russia. Twenty-four hours of class work weekly, plus lectures and excursions, for six weeks at St. Petersburg University. Prerequisite: RUSS 208 or the equivalent of twenty-two hours of Russian language courses. LEC.

RUSS 552. Advanced Russian Language at Saint Petersburg University: Semester Program. 14 Hours. H/W.
Sixteen weeks of intensive Russian language and literature classes held at Saint Petersburg University, Russia. Classes in advanced phonetics, conversation, and grammar as well as lectures on literary and other cultural topics. Prerequisite: Minimum of five semesters of Russian language study at the college level or its equivalent. LEC.

RUSS 552. Advanced Russian Language at Saint Petersburg University: Semester Program. 14 Hours. H/W.
Sixteen weeks of intensive Russian language and literature classes held at Saint Petersburg University, Russia. Classes in advanced phonetics, conversation, and grammar as well as lectures on literary and other cultural topics. Prerequisite: Minimum of five semesters of Russian language study at the college level or its equivalent. LEC.

RUSS 555. Advanced Conversation, Composition, and Grammar in Russia: Summer Program. 6 Hours. H/W.
Held in Russia. Twenty-four hours of class work weekly, plus lectures and excursions, for six weeks at St. Petersburg University. Prerequisite: RUSS 208 or the equivalent of twenty-two hours of Russian language courses. LEC.

RUSS 556. Advanced Russian Language at Saint Petersburg University: Semester Program. 14 Hours. H/W.
Sixteen weeks of intensive Russian language and literature classes held at Saint Petersburg University, Russia. Classes in advanced phonetics, conversation, and grammar as well as lectures on literary and other cultural topics. Prerequisite: Minimum of five semesters of Russian language study at the college level or its equivalent. LEC.

RUSS 600. Classics of Russian Culture. 3 Hours. H.
This advanced Russian language class explores the monuments of Russian culture (1700-1980) in the context of the country’s history, customs, artistic traditions and literary trends. It is designed to develop reading, writing, and speaking skills of advanced language students and includes the preparation of written and oral reports in Russian. Discussion format; conducted entirely in Russian. Prerequisite: RUSS 508 or equivalent. LEC.

RUSS 604. Contemporary Russian Culture. 3 Hours. H/W.
This advanced Russian language class explores issues in contemporary Russian culture (literature and the arts, societal trends and issues, politics, and national life) based on Russian film, television, and print materials. It is designed to develop reading, writing, and speaking skills of advanced language students who wish to develop high levels of fluency, accuracy, and idiomatic expressiveness. Includes the preparation of both written and oral reports. Discussion format; conducted entirely in Russian. Prerequisite: RUSS 508 or equivalent. LEC.

RUSS 608. Russian Phonetics and Grammar. 3 Hours. H/W.
A survey of fundamental issues in Russian phonetics, morphology, and syntax. The course will develop reading, writing, and speaking skills necessary for discussing and analyzing the major linguistic categories of Russian. Includes the preparation of both written and oral reports. Discussion format; conducted entirely in Russian. Prerequisite: RUSS 508 or equivalent. LEC.

RUSS 612. Introduction to Russian Literature. 3 Hours. H/W.
Readings for this advanced Russian language class will be drawn from representative prose, poetry, and drama of 19th or 20th century authors. The course will develop reading, writing, and speaking skills necessary for discussing and analyzing the major texts and literary trends of the Russian tradition. Includes the preparation of both written and oral reports. Discussion format; conducted entirely in Russian. Prerequisite: RUSS 508 or equivalent. LEC.

RUSS 616. Stylistics. 3 Hours. H/W.
Practical examination of the features of stylistic registers available in contemporary Russian, ranging from slang to colloquial speech to educated journalistic, scientific, and literary styles. The course will develop reading, writing, and speaking skills necessary for discussing and analyzing stylistic registers. Includes the preparation of both written and oral reports. Discussion format; conducted entirely in Russian. Prerequisite: RUSS 508 or equivalent. LEC.

RUSS 675. Readings in Russian. 1-6 Hours. H/W.
Prerequisite: Two years of Russian, and consent of instructor. IND.

SLAV 104. Elementary Slavic Language I: _____, 5 Hours. U.
First semester. Essentials of grammar, practice in speaking and writing a Slavic language. Simple readings from selected texts. Course may be used to teach the fundamentals of any Slavic language, for example, Slovenian, Macedonian, Slovak, etc. LEC.

SLAV 108. Elementary Slavic Language II: _____, 5 Hours. U.
Second semester. Essentials of grammar, practice in speaking and writing a Slavic language. A continuation of SLAV 104 in those languages whose fundamentals were being taught in SLAV 104. Prerequisite: SLAV 104 or equivalent (in same language). LEC.

SLAV 140. Introduction to Russian Culture. 3 Hours. HT AE42/GE3H / H/W.
An introduction to the principal achievements of Russian cultural history, with particular emphasis on literature, folklore, spirituality, and the visual arts. LEC.

SLAV 141. Introduction to Russian Culture, Honors. 3 Hours. HT AE42/GE3H / H/W.
An introduction to the principal achievements of Russian cultural history, with particular emphasis on literature, folklore, spirituality, and the visual arts. LEC.

SLAV 144. Survey of Russian Literature in Translation. 3 Hours. HL AE42/GE3H / H/W.
A survey of the principal works of Russian literature including such authors as Pushkin, Gogol, Dostoevsky, Tolstoy, Chekhov, Pasternak, Solzhenitsyn, and others. LEC.

SLAV 145. Survey of Russian Literature in Translation, Honors. 3 Hours. HL AE42/GE3H / H/W.
A survey of the principal works of Russian literature including such authors as Pushkin, Gogol, Dostoevsky, Tolstoy, Chekhov, Pasternak, Solzhenitsyn, and others. LEC.

SLAV 148. Introduction to Slavic Folklore. 3 Hours. HL AE42/GE3H / H/W.
An introduction to the various forms of folklore among the Slavic peoples, with particular emphasis on the folk literature, customs, and artifacts of Russia, Poland, and the South Slavic countries. LEC.
SLAV 149. Introduction to Slavic Folklore, Honors. 3 Hours. HL AE42/GE3H / H/W.
An introduction to the various forms of folklore among the Slavic peoples, with particular emphasis on the folk literature, customs, and artifacts of Russia, Poland, and the South Slavic countries. LEC.

SLAV 177. First Year Seminar: _____, 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Slavic. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

SLAV 204. Intermediate Slavic Language I: _____, 3 Hours. U.
Second-year level course in a Slavic language, for example, Slovenian, Macedonian, Slovak, with emphasis on reading, composition, and conversation. Prerequisite: SLAV 108 (in same language). LEC.

SLAV 208. Intermediate Slavic Language II: _____, 3 Hours. U.
Second-year level course in a Slavic language, for example, Slovenian, Macedonian, Slovak, with emphasis on reading, composition, and conversation. Prerequisite: SLAV 204 or equivalent (in same language). LEC.

SLAV 316. The Peoples and Cultures of Southeastern Europe Through Film. 3 Hours. HL AE42/GE3H / H.
This course presents an introduction to the study of the culture of the South Slavs and other peoples of Southeastern Europe, combining background modules in geography, linguistic culture, history, folklore and contemporary cultural criticism with critical viewings of artistic films. The course serves as an introduction to humanistic inquiry about the peoples and cultures of Southeastern Europe. LEC.

SLAV 317. The Peoples and Cultures of Southeastern Europe Through Film, Honors. 3 Hours. HL AE42/GE3H / H.
This course is similar in content to SLAV 316, but with an additional honors project. Prerequisite: Eligibility for or admission to the university Honors Program. LEC.

SLAV 318. Jews and Slavs in Eastern Europe. 3 Hours. H.
Jews and Slavs have shared territory from the Middle Ages to the present day. The contact between these culturally and linguistically distinct groups have shaped many centuries of Eastern European history - from the extreme violence of the pogroms to long periods of peaceful coexistence and cooperation. "Jews and Slavs" examines the history and cultural geography of Slavic-Jewish contact from the perspectives of both groups. Through literature, film, journalism, and folklore, students learn about the profound influence Jews and Slavs have had on each other, the uneasy feelings that accompanied their interactions, and the creative and fascinating impact their interaction had on both cultures. (Same as JWSH 318.) LEC.

SLAV 340. Introduction to the Languages and Peoples of Russia and East-Central Europe. 3 Hours. HT AE42/GE3H / H.
An overview of the languages and peoples of Russia and East-Central Europe, including the Slavic and Baltic languages, Romanian, and Albanian. Topics addressed include language prehistory, writing systems, and the relationship between language and national identity. Emphasis on language issues as a background to current events in order to impart an appreciation of the area, its uniqueness and complexity. Prerequisite: Membership in the College Honors Program or consent of instructor. LEC.

SLAV 370. War and Violence Russian Literature and Film. 3 Hours. S.
This course focuses on artistic representations of violence resulting from historical events such as World War II, Soviet collectivization, the Gulag, and political purges. We consider Soviet literature and film, including works by Isaac Babel, Andrei Platonov, Anna Akhmatova, and Alexander Solzhenitsyn. Readings in English. The course is offered at the 300 and 500 levels, with additional assignments at the 500 level. LEC.

SLAV 390. Slavic Folk Culture: _____, 3 Hours. H/W.
A broad exposure, both theoretical and practical, to various aspects of the traditional native culture of a particular Slavic country or ethnic group, including folk dance, song and musicianship, as well as forms of the material culture such as folk architecture, costumes and art in everyday life. Taught in the pertinent Slavic country in conjunction with the appropriate language course. LEC.

SLAV 499. Honors Thesis. 3 Hours. H/W.
Independent study and preparation of honors thesis. Required of all students working for a degree with honors in Slavic languages and literatures. IND.

SLAV 500. Russia Today. 3 Hours. H/W.
Study and discussion of contemporary problems in Russia and the former Soviet Union; readings in Russian, based on articles in newspapers, journals, etc. Conducted in Russian. Prerequisite: RUSS 208 or equivalent. LEC.

SLAV 502. Introduction to Russian Culture and Society: _____, 3 Hours. H/W.
An interdisciplinary course introducing the student to the principal features of Russian cultural and societal development in the modern era. Readings in English, no prerequisite for non-Russian majors. Majors and graduate students in Slavic languages and literatures will be required to do readings in Russian. LEC.

SLAV 503. Post-Soviet Communication. 3 Hours. H.
The course is designed to acquaint students with the shifting manner of public discourse in Post-Soviet Russia and help them to explore in some depth cross-cultural communication between America and Russia. In addition to contemporary and historical background on Russian communicative practices, students examine discourse in business development, mass media, marketing, and advertising. All readings in English. (Same as COMS 503). LEC.

SLAV 504. Introduction to East-Central European Culture and Society: _____, 3 Hours. H/W.
An interdisciplinary course introducing the student to the principal features of East-Central European cultural and societal development in the modern era. Countries that may be considered are: Poland, the Czech Republic, Slovakia, Hungary, Romania, Bulgaria, the South Slavic countries, Latvia, Lithuania, Estonia, Belorussia, and Ukraine. LEC.

SLAV 505. Introduction to Czech Culture. 3 Hours. H.
This study-abroad trip offers a survey of Czech art, architecture, literature, theater, and film from the medieval period to the present with emphasis on the late 19th and 20th centuries. Combines 18 hours of lectures on campus and a ten-day trip to Prague. LEC.

SLAV 506. West Slavic Literature and Civilization (Polish and Czech). 3 Hours. H/W.
A survey of West Slavic Literature and Civilization (Polish and Czech) from its beginnings to the present with emphasis on the most important trends: Renaissance, Romanticism, Positivism/Realism, Modernism
and Avant-guard; Socialist realism, and Post-modernism. The course combines lecture, discussion and small group activities. Movie clips, recordings, and slides are used to reflect various cultural dimensions of West Slavic Civilization. No knowledge of Polish or Czech is required. LEC.

SLAV 508. South Slavic Literature and Civilization. 3 Hours. NW AE42 / H/W.
An introductory survey of the literature and culture of the South Slavic peoples: the Slovenes, Croats, Bosniacs, Serbs, Montenegrins, Macedonians and Bulgarians. No language required. LEC.

SLAV 510. The Russian Literary Genius. 3 Hours. H/W.
Topics and problems in Russian cultural history as treated in the masterworks of Russian literature. Readings selected from the works of Pushkin, Tolstoy, Dostoevsky, Pasternak, Bulgakov, Solzhenitsyn, and other great Russian writers. Readings in English, no prerequisite for non-Russian majors. Russian majors will do some of the readings in Russian. LEC.

SLAV 514. Totalitarianism and Literature in Central Europe. 3 Hours. H.
This course asks how fiction written in Central Europe engaged and grappled with the totalitarian experience imposed by Nazi and Soviet forms of government. The course focuses on the works by 20th-century Polish, Czech, and Hungarian writers that deal with totalitarianism. (Same as HWC 514.) LEC.

SLAV 516. Film Adaptations of Polish and Czech Literature. 3 Hours.
A comparative study of several most representative and best works of 19th- and 20th-century Polish and Czech fiction and drama and their film adaptations. By providing a broad cultural and historical background of the works, the course offers a thorough introduction to modern culture of Poland and the Czech Republic. Readings and discussions are in English, and no knowledge of Polish or Czech is required. LEC.

SLAV 520. Russian Phonetics, Phonology, and Inflectional Morphology. 3 Hours. H/W.
An analysis of the phonological and morphological systems of contemporary standard Russian, including normative and dialectal pronunciation of speech sounds, phonemics, morphophonemic alterations, and nominal and verbal inflections. Graduate students enrolled in this course will be held to a more stringent curriculum and grading system. Prerequisite: Two years of Russian language study or the equivalent. LEC.

SLAV 522. The Grammatical Categories of Russian: Linguistic Units, Functions and Meanings. 3 Hours. H/W.
This course covers the main grammatical categories of Russian, including word formation, case, animacy, voice and reflexive verbs, imperatives, aspect, and word order. It is intended not only for linguists but anyone seeking a better understanding of the grammatical systems of Russian. Designed as a continuation of SLAV 520. Prerequisite: Two years of Russian language study or the equivalent. LEC.

SLAV 524. Russian Since the Revolution. 3 Hours. H/W.
An examination of changes in the Russian language during the course of this century. Topics covered include changes in pronunciation, morphological and syntactic variation, and the impact of foreign borrowings, particularly from English. Graduate students enrolled in this course will be held to a more stringent curriculum and grading system. Prerequisite: Two years of Russian language study or the equivalent. LEC.

SLAV 528. Comparative Study of Slavic Literatures. 3 Hours. H/W.
The course is intended as an introduction to the most significant writers and works in Slavic literatures. The emphasis will be on some of the themes and ideological concepts that have shaped the literatures of the Slavic world. Representative works of Turgenev, Dostoevsky, Mrozek, Rozewicz, Capek, Hasek, Dijlas, Havel, Ivo Andric and others, will be studied. The diversity of expression and, at the same time, homogeneity of spirit in the works of these writers will be stressed. No knowledge of Slavic languages is required. LEC.

SLAV 530. Introduction to Russian Poetry. 3 Hours. H/W.
An introduction to the principles of Russian versification and to masterpieces of Russian poetry selected from the 18th, 19th, and 20th centuries. Students will learn to read, translate, and analyze poems in terms of rhyme, meter, euphony, metaphor, and other prosodic features. Emphasis will be placed upon preparing students for independent study and appreciation of Russian poetry in the original. Prerequisite: Language proficiency. LEC.

SLAV 532. Dostoevsky. 3 Hours. H/W.
A study of the life and works of Fyodor Dostoevsky. In translation. No prerequisite. LEC.

SLAV 534. Tolstoy. 3 Hours. H/W.
A study of the life and works of Leo Tolstoy. In translation. LEC.

SLAV 536. Turgenev. 3 Hours. H/W.
A study of the life and works of Ivan Turgenev. In translation; however, note that Russian majors will be required to read selected works in Russian. LEC.

SLAV 538. The Modern Polish Short Story. 3 Hours. H/W.
A study of the development of the Polish short story from Positivism to the present. Readings of major Polish writers including Prus, Sienkiewicz, Schulz. Borowski, Andrzejewski, and others. Emphasis on trends in the Polish short story within the context of West European literatures. No prerequisites. Readings in English. Students with knowledge of Polish will read some works in Polish. LEC.

SLAV 540. Language and Identity in East-Central Europe and the Former Soviet Union. 3 Hours. H.
The course treats the formation of modern nation states as defined by language, where the history of the linguistic community played a central, if mythic role. Focus is on sociolinguistic case studies of the connection between language and identity in the former USSR and Yugoslavia, as well as transnational groups defined by common language and culture. The impact of global English, EU membership, and migration on language and identity issues are also discussed. LEC.

SLAV 558. Readings in Slovene. 1-6 Hours. H.
Individually tailored coursework in Slovene, from beginning to advanced level. Can include development of all four skills depending on the needs of the student. Prerequisite: Consent of instructor. IND.

SLAV 560. Introduction to Slavic Language: _____. 3 Hours. H/W.
Basic introduction to the language, with emphasis on grammar and reading skills. Prerequisite: Two years of a different Slavic language at the college level. LEC.

SLAV 561. Readings in Slavic Language: _____. 1-6 Hours. H/W.
A course of readings and discussion of grammar in a Slavic language as a continuation of SLAV 560, for example, in Bulgarian, Macedonian, etc. Prerequisite: SLAV 560 or the equivalent. LEC.

SLAV 562. Russian Theatre and Drama from Stanislavski and Chekhov to the Present. 3 Hours. H/W.
A study of the development of Russian theatre and dramatic literature from 1898 to the present. Lectures and readings in English. (Same as THR 725.) LEC.
SLAV 564. The "Woman Question" in Nineteenth-Century Russian Literature. 3 Hours. H.
An exploration of the "woman question" in nineteenth-century Russia as treated in literary texts. Authors to be included are: Tolstoy, Turgenev, Dostoevsky, Chekhov, as well as women writers such as Karolina Pavlova and Evgenia Tur, and prominent literary and social critics. Readings in English. LEC.

SLAV 566. The Devil in Russian Literature. 3 Hours. H.
This course traces the various manifestations of the Devil through Russian and European folklore, myth, theology, culture, and literature. Although the focus is on Russian literature, classic European works are discussed, as they had a powerful impact on the modern Russian Conception of the Evil One. Readings in English. (Same as HWC 566.) LEC.

SLAV 568. Biblical Themes in Modern Russian Literature. 3 Hours. H.
An exploration of the creative process of modern Russian literature (1700 to present) through the ways in which Russian writers have responded to the Bible, the cornerstone of both Western and Eastern Christianity. LEC.

SLAV 570. War and Violence Russian Literature and Film. 3 Hours. S.
This course focuses on artistic representations of violence resulting from historical events such as World War II, Soviet collectivization, the Gulag, and political purges. We consider Soviet literature and film, including works by Isaac Babel, Andrei Platonov, Anna Akhmatova, and Alexander Solzhenitsyn. Readings in English. The course is offered at the 300 and 500 levels, with additional assignments at the 500 level. LEC.

SLAV 600. Biography of a City: ______ 3 Hours. H/W.
Examination in depth of the historical, social, intellectual, and artistic development of one or more major Slavic urban centers. LEC.

SLAV 612. Introduction to Russian Literature of the Nineteenth Century. 3 Hours. H/W.
Pushkin, Dostoevsky, Tolstoy, and others with an introduction to Russian culture. Lectures and readings in Russian. Prerequisite: Three years of Russian language study or its equivalent. LEC.

SLAV 614. Russian Literature in Translation: ______ 3 Hours. H/W.
A survey of the principal Russian authors and literary works of the 19th and/or 20th century. Readings in English, no prerequisites for non-Russian majors. Students with a sound knowledge of Russian will be expected to do some of the readings in Russian. LEC.

SLAV 616. Introduction to Russian Literature of the Twentieth Century. 3 Hours. H/W.
A survey of recent Russian and Soviet literature. Lectures and readings in Russian. Prerequisite: Three years of Russian language study or its equivalent. LEC.

SLAV 626. The Cultural Impact of Ottoman Empire on the South Slavs. 3 Hours. H.
An examination of the cultural development of the South Slavs in the context of the Ottoman invasions and subsequent rule (14th-19th century), focusing on the frontier aspects of the Balkans, military culture, religion, economics and banditry, as well as other aspects of material and folk culture. No language requirement. Prerequisite: SLAV 316 or SLAV 508; or consent of instructor. LEC.

SLAV 630. Slavic Folklore. 3 Hours. H/W.
Introduction to the phenomena and problems of Slavic folklore. Prerequisite: Two years of Russian on the college level. LEC.

SLAV 635. Language, Culture and Ethnicity in Prehistoric Eastern Europe. 3 Hours. S.
The course is for students who wish to understand the prehistory of Eastern Europe with special attention to the Slavs. The interdisciplinary course examines East European prehistory from the perspectives of archaeology and linguistics, considering also how ideologies have influenced the interpretation of results. No language prerequisite. (Same as ANTH 696) LEC.

SLAV 642. Pushkin and Evgenij Onegin. 3 Hours. H/W.
Lectures, reading, and analysis of Pushkin’s "novel in verse." Prerequisite: Three years of Russian language courses or the equivalent. LEC.

SLAV 650. The Russian Short Story. 3 Hours. H/W.
Readings from the short stories of major Russian writers of the 19th and/or 20th centuries, e.g., Pushkin, Gogol, Dostoevsky, Turgenev, Tolstoy, Chekhov; readings and discussion in English for non-Russian majors. Russian majors will be expected to read most stories in Russian. Prerequisite: None for non-majors in the department; two years of college-level Russian for majors. LEC.

SLAV 656. Russian Literature of the Eighteenth Century. 3 Hours. H/W.
Readings from Kantemir, Trediakovskiy, Lomonosov, Derzhavin, Karamzin, and others in their literary and intellectual contexts. Readings in Russian. Prerequisite: Three years of Russian language study or its equivalent. LEC.

SLAV 660. Nineteenth Century Russian Prose and Fiction. 3 Hours. H/W.
Readings from the prose works of Pushkin, Lermontov, Gogol, Turgenev, Goncharov, Dostoevsky, and Tolstoy. In translation. No prerequisite for non-Russian majors. Russian majors will be required to have achieved senior standing and will read most works in Russian. LEC.

SLAV 662. Russian Literary Modernism: 1880-1930. 3 Hours. H/W.
Readings from late Tolstoy through the period of the 1920’s. In translation; no prerequisites for non-Russian majors. Russian majors will be required to have achieved senior standing and will read most works in Russian. LEC.

SLAV 664. Soviet Russian Literature: 1930-1990. 3 Hours. H/W.
Readings in the period, in all genres. In translation; no prerequisite for non-Russian majors. Russian majors are required to have senior standing and read most works in Russian. LEC.

SLAV 666. Nabokov. 3 Hours. H/W.
A study of the life and works of Vladimir Nabokov. In translation. No prerequisite. LEC.

SLAV 675. Readings in Slavic Studies (English). 1-3 Hours. H.
Directed readings on Slavic culture in English. For non-majors. Prerequisite: Instructor permission. LEC.

SLAV 678. Readings in Slavic Linguistics. 1-6 Hours. H/W.
Directed individual readings on various topics concerning Slavic linguistics. Prerequisite: Proficiency in at least one Slavic language, and consent of instructor. IND.

SLAV 679. Topics in: ______ 1-6 Hours. H.
Intensive study of a selected topic from Slavic languages, literatures, linguistics, or pedagogy. IND.

SLAV 684. Main Currents of Russian Thought I. 3 Hours. H/W.
A study of philosophical, theological, and literary monuments designed to acquaint the student with main cultural forces that have shaped Russian
thought and manners. From the origins to Peter the Great. (Same as PHIL 684.) LEC.

SLAV 686. Main Currents of Russian Thought II. 3 Hours. H/W.
A continuation of SLAV 684. From the age of Peter the Great to revolutions of 1917. (Same as PHIL 686.) LEC.

SLAV 710. Introduction to Slavic Languages and Linguistics. 3 Hours.
The Slavic languages and peoples, including briefly: their origin, prehistory, and early culture. Basic linguistic methodology as applied to Slavic material from the beginnings of Slavic linguistics to the present. LEC.

SLAV 711. Russian Poetry: Nineteenth Century. 3 Hours.
Readings from the works of the major poets, in Russian. Prerequisite: Three years of Russian language study or the equivalent. LEC.

SLAV 712. Russian Poetry: Twentieth Century. 3 Hours.
Readings from the works of the major poets, in Russian. Prerequisite: Language proficiency. LEC.

SLAV 714. Russian Theatre and Drama to 1900. 3 Hours.
A study of the development of Russian theatre and dramatic literature from their beginnings to 1900. Readings in English. Students with knowledge of Russian will read some works in Russian. LEC.

SLAV 715. Russian Drama and Theatre 1953 to the Present. 3 Hours.
A study of the development of Russian theatre and dramatic literature from 1953 to the present. Readings in English. Students with knowledge of Russian will read some works in Russian. LEC.

SLAV 716. History of Russian Literary Criticism: Late Eighteenth and Nineteenth Century. 3 Hours.
A study of the various literary periods, such as sentimentalism, romanticism, naturalism, realism, with particular reference to individual literary critics and critical journals. LEC.

SLAV 719. Philosophical and Aesthetic Thought of the Russian Silver Age. 3 Hours.
A survey of the works of Solovyov, Florensky, Berdyaev, Merezhkovsky, Ivanov, and others, and their relation to the literature and culture of the Silver Age. LEC.

SLAV 721. Pushkin. 3 Hours.
A study of the life and works of Alexander Pushkin. Readings in Russian, open to senior Russian majors and graduate students. Prerequisite: Three years of Russian or the equivalent. LEC.

SLAV 726. Chekhov. 3 Hours.
A study of the life and works of Anton Chekhov. Open to senior Russian majors and graduate students. Readings in Russian. Prerequisite: Three years of Russian or the equivalent. LEC.

SLAV 727. Bely and Blok. 3 Hours.
A study of the life and works of the Symbolist writers, Andrei Bely and Aleksandr Blok. Readings in Russian. LEC.

SLAV 728. 19th Century Russian Prose. 3 Hours.
Readings from the works of Turgenev, Chekhov, Leskov, Saltykov, and others. Readings and discussion in English. Russian majors will be expected to read some works in Russian. No prerequisite. LEC.

SLAV 730. Russian Emigre Literature. 3 Hours.
A study of representative works in all genres, by Russian emigre writers. Readings in English. LEC.

SLAV 740. Introduction to Graduate Studies in Slavic Languages and Literatures. 3 Hours.
This course is an introduction to the skills required of students doing graduate degrees in Slavic languages and literatures; areas covered include 1) introduction to literary theory and criticism, 2) bibliography and research methods, including database management software, 3) preparation and presentations of a research/conference paper, 4) technology training, including web design, on-line portfolio, and digital humanities, and 5) professional ethics and awareness of the academic market and alternative careers. We will also be working on practical, professionally useful goals, such as how to (better) make use of technology, how to create a CV and modify it for different positions, how to write an abstract, and how to produce a conference paper. Course requirements will include a variety of smaller assignments and two larger projects, a web-based professional portfolio and an 8 to 10-page conference paper. LEC.

SLAV 748. Old Church Slavic. 3 Hours.
A course in the first written language of the Slavs (9-12th centuries AD), with discussion of Indo-European, Baltic and Common Slavic background. Prerequisite: Two years of Russian or the study of another ancient Indo-European language. LEC.

SLAV 750. Introduction to Russian Historical Grammar. 3 Hours.
The linguistic history of Russian from the emergence of East Slavic dialects of Common Slavic to the modern period, with emphasis on fundamental structural changes and the introduction of skills necessary for the reading and analysis of Old and Middle Russian texts. Prerequisite: Three years of Russian or the equivalent. LEC.

SLAV 752. Old Russian Grammar and Texts. 3 Hours.
An examination of the Russian language from its beginnings to the 17th century through close reading of Old and Middle Russian texts and reading and discussion of the literature on issues in Russian historical linguistics. Prerequisite: SLAV 748, SLAV 750, or equivalent. LEC.

SLAV 756. Structure of Russian: ______. 3 Hours.
Synchronic study of the contemporary Russian language with special emphasis on problems of functional morphology and syntax. Prerequisite: Three years of Russian language study or its equivalent. LEC.

SLAV 759. M.A. Seminar in Slavic Linguistics. 3 Hours.
Topics in Slavic linguistics. Content will vary. May be repeated. LEC.

SLAV 802. Thesis. 1-6 Hours.
The.

SLAV 804. Comparative Slavic Linguistics. 3 Hours.
An examination of the development of the Slavic languages from the Common Slavic period to the present, proceeding from Indo-European. Prerequisite: Graduate standing in Russian. LEC.

SLAV 806. East Slavic Linguistics. 3 Hours.
An examination of the linguistic phenomena and historical development of the East Slavic languages (Russian, Belorussian, and Ukrainian). Prerequisite: Graduate standing in Russian. LEC.

SLAV 808. West Slavic Linguistics. 3 Hours.
An examination of linguistic phenomena and historical development of the West Slavic languages (Polish, Czech, Slovak, and Upper and Lower Sorbian). LEC.

SLAV 810. South Slavic Linguistics. 3 Hours.
An examination of linguistic phenomena and historical development of Bulgarian, Macedonian, Croatian-Serbian, Slovene. LEC.

SLAV 820. Old Russian Literature: Beginnings to 1700. 3 Hours.
Readings of selected texts in Russian. Prerequisite: SLAV 752. LEC.
SLAV 822. Seminar in Russian Literature: Eighteenth Century. 3 Hours.
An investigation of specific themes or authors in the literature, culture, and thought of the 18th century. All readings in Russian. Prerequisite: Graduate standing and advanced Russian language. SEM.

SLAV 824. Proseminar in Methods of Teaching Slavic Languages I. 1-3 Hours.
Required for all teaching assistants, assistant instructors engaged in the teaching of Slavic languages and persons planning for careers in teaching Slavic languages. Combines discussion of theoretical teaching concepts with practical solution of problems arising concurrently in Slavic language courses. Students enrolled for two or three hours will study advanced Slavic grammar topics and stylistics as they apply to the teaching of Slavic languages. LEC.

SLAV 825. Investigation and Conference. 1-3 Hours.
Individual work in language or literature of the teaching of Slavic languages by qualified students under direction of members of the department. RSH.

SLAV 826. Proseminar in Methods of Teaching Slavic Languages II. 1-3 Hours.
Required for all teaching assistants, assistant instructors engaged in the teaching of Slavic languages and persons planning for careers in teaching Slavic languages. Combines discussion of theoretical teaching concepts with practical solution of problems arising currently in Slavic language courses. Students enrolled for two or three hours will study advanced Slavic grammar topics and stylistics as they apply to the teaching of Slavic languages. LEC.

SLAV 850. Seminar in Russian Literature: Nineteenth Century: ______. 3 Hours.
A regular seminar for graduate students, devoted to special problems in Russian literature. (Ancient Russian literature, Classicism, Romanticism, Realism, Symbolism, etc.) Designed to introduce the student to the more advanced methods in criticism, literary analysis, and research. Prerequisite: Graduate standing in Slavic Languages and Literatures, or permission of instructor. LEC.

SLAV 852. Seminar in Russian Literature: Twentieth Century. 3 Hours.
Various topics including pre- and post-Revolutionary poetry, the prose of the 1920s, the development of Socialist Realism, individual authors, etc. LEC.

SLAV 899. Ph.D. Seminar Slavic Linguistics. 3 Hours.
Topics in Slavic linguistics. Content will vary. May be repeated. Prerequisite: Ph.D. student in Slavic Languages and Literatures. LEC.

SLAV 912. Seminar: Topics in Contemporary Slavic Linguistics. 3 Hours.
Synchronic examination of specific topics, i.e., phonology, morphology, syntax, and lexicology of several Slavic languages. LEC.

SLAV 914. Seminar: Topics in Historical Slavic Linguistics. 3 Hours.
Diachronic examination of selected topics, i.e., phonology, morphology, syntax, or lexicology, of one or more Slavic languages. LEC.

SLAV 917. Seminar in Russian Culture and Society. 3 Hours.
Examination of selected topics in Russian cultural history, especially as treated in the works of Russian literature and intellectual history. Prerequisite: At least one course in Russian history, or one of the following courses—SLAV 502, SLAV 510, SLAV 684, SLAV 686, plus graduate standing. LEC.

SLAV 922. Seminar: Topics in Slavic Folklore. 3 Hours.
Investigation and concentrated study of one or more themes (e.g., mythology, demonology, life rituals, folklore and literature), figures (e.g., Baba Yaga), or genres (e.g., magic tales, byliny, riddles) of Slavic folklore. All readings in Russian. Prerequisite: SLAV 630. SEM.

SLAV 940. Seminar: Topics in Comparative Slavic Literature. 3 Hours.
Prerequisite: Graduate standing in Slavic Languages and Literatures. LEC.

SLAV 999. Dissertation. 1-6 Hours.

TURK 104. Elementary Turkish I. 5 Hours. U.
Basic language acquisition, including essentials of grammar, speaking, and writing standard (Osmanli) Turkish. LEC.

TURK 108. Elementary Turkish II. 5 Hours. U.
Continuation of TURK 104. Prerequisite: TURK 104. LEC.

TURK 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Turkish. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

TURK 204.Intermediate Turkish I. 3 Hours. U.
Second-year course in Turkish language with emphasis on reading, composition, and conversation. Prerequisite: TURK 108. LEC.

TURK 208. Intermediate Turkish II. 3 Hours. U.
Continuation of TURK 204. Prerequisite: TURK 204. LEC.

TURK 314. Turkish Culture Through Film and Literature. 3 Hours. H.
This course introduces the student to Turkish culture, with a focus on the 20th and 21st centuries, mainly through films and literature. Among the topics are Turkey’s geography, politics, history, religion, feminism, poetry, music and cuisine. This interdisciplinary course does not require any previous knowledge of Turkey or the Turkish Language; it is open to both undergraduate and graduate students. Representative works of major authors and film directors will be discussed and analyzed in their historical, political and theoretical contexts. The course is offered at the 300 and 500 levels, with additional assignments at the 500-level. LEC.

TURK 514. Turkish Culture Through Film and Literature. 3 Hours. H.
This course introduces the student to Turkish culture, with a focus on the 20th and 21st centuries, mainly through films and literature. Among the topics are Turkey’s geography, politics, history, religion, feminism, poetry, music and cuisine. This interdisciplinary course does not require any previous knowledge of Turkey or the Turkish Language; it is open to both undergraduate and graduate students. Representative works of major authors and film directors will be discussed and analyzed in their historical, political and theoretical contexts. The course is offered at the 300 and 500 levels, with additional assignments at the 500-level. Prerequisite: REES 550 or permission of instructor. LEC.

TURK 675. Readings in Turkish: ______. 3 Hours. U.
Prerequisite: Two years of college-level Turkish and consent of instructor. May be repeated for credit if content varies. IND.

UKRA 104. Elementary Ukrainian I. 5 Hours. U.
First semester. Five hours per week of recitation and drill in the spoken language. Essentials of grammar, practice reading, writing and speaking Ukrainian. LEC.
UKRA 108. Elementary Ukrainian II. 5 Hours. U.
Second semester. Continuation of UKRA 104. Prerequisite: UKRA 104. LEC.

UKRA 177. First Year Seminar: _____, 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Ukrainian. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

UKRA 204. Intermediate Ukrainian I. 3 Hours. U.
Second year course in Ukrainian language with emphasis on reading, composition, and conversation. Prerequisite: UKRA 108. LEC.

UKRA 208. Intermediate Ukrainian II. 3 Hours. U.
Second semester. Continuation of UKRA 204. Prerequisite: UKRA 204. LEC.

UKRA 512. Intensive Ukrainian Language and Culture I. 3 Hours. U.
A practical Ukrainian language course involving advanced study of the grammar, conversation, composition. Reading of texts on a variety of subjects (culture, literature, history, folklore etc.), taught in Ukrainian. Prerequisite: Three years of a Slavic language or permission of instructor. LEC.

UKRA 516. Intensive Ukrainian Language and Culture II. 3 Hours. U.
A practical Ukrainian language course involving advanced study of the grammar, conversation, composition. Reading of texts on a variety of subjects (culture, literature, history, folklore etc.), taught in Ukrainian. Prerequisite: Three years of a Slavic language or permission of instructor. LEC.

UKRA 675. Readings in Ukrainian Language. 1-6 Hours. H.
Directed individual readings on various topics concerning the Ukrainian language. Prerequisite: Two years of Ukrainian. IND.

YDSH 104. Elementary Yiddish I. 5 Hours. U.
Essentials of grammar, practice in speaking, reading, and writing Yiddish. Not open to native speakers of Yiddish. LEC.

YDSH 108. Elementary Yiddish II. 5 Hours. U.
Continuation of grammar, practice in conversation, composition, and reading. Not open to native speakers of Yiddish. Prerequisite: YDSH 104 or equivalent. LEC.

YDSH 177. First Year Seminar: _____, 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Yiddish. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

YDSH 212. Intermediate Yiddish I. 3 Hours. U.
Structured grammar review, composition, conversation, with readings of literary and cultural texts. Not open to native speakers of Yiddish. Prerequisite: YDSH 108 or equivalent. LEC.

YDSH 216. Intermediate Yiddish II. 3 Hours. U.
A continuation of YDSH 212. Structured grammar review, composition, conversation, with readings of literary and cultural texts. Not open to native speakers of Yiddish. Prerequisite: YDSH 212 or equivalent. LEC.

YDSH 300. Studies in Yiddish: _____, 3 Hours. H.
Examination of special topics in Yiddish. May be repeated if topic varies. LEC.

YDSH 395. Study Abroad Topics in Yiddish: _____, 3-6 Hours. H.
This course is designed for the study abroad of special topics in Yiddish at the junior/senior level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

YDSH 490. Independent Study. 1-3 Hours. U.
Intensive reading or research under faculty supervision. IND.

Sociology Courses

SOC 104. Elements of Sociology. 3 Hours. SC AE41/GE11/GE3S / S.
The study of social life, including how human groups are organized, how they change, and how they influence individuals. Consideration is given to a variety of human organizations and social institutions and how these groups and institutions both determine, and are determined by, human beings. This course may not be taken for credit by those who have taken SOC 304. LEC.

SOC 105. Elements of Sociology, Honors. 3 Hours. SC AE41/GE11/ GE3S / S.
The study of social life, including how human groups are organized, how they change, and how they influence individuals. Consideration is given to a variety of human organizations and social institutions and how these groups and institutions both determine, and are determined by, human beings. Open only to students on dean’s honor roll or enrolled in Honors Program, or consent of instructor. May not be taken by those who also have credit for SOC 304. LEC.

SOC 110. American Identities. 3 Hours. SC AE41/GE3S / S.
An interdisciplinary introduction to individual and group identities over time. Students explore theories and methods relating to identity from various perspectives, such as race, class, gender, sexuality, age, religion, and region. Not open to students who have taken AMS 112 or SOC 112. (Same as AMS 110.) LEC.

SOC 112. American Identities, Honors. 3 Hours. SC AE41/GE3S / S.
An interdisciplinary introduction to individual and group identities over time. Students explore theories and methods relating to identity from various perspectives, such as race, class, gender, sexuality, age, religion, and region. Not open to students who have taken AMS 110 or SOC 110. (Same as AMS 112.) Prerequisite: Membership in the University Honors Program or approval by the American Studies Program. LEC.

SOC 130. Comparative Societies. 3 Hours. NW AE42 / S/W.
Description and analysis of the culture, structure, and development of societies that are historically unrelated to the traditions of Western civilization. LEC.

SOC 131. Comparative Societies, Honors. 3 Hours. NW AE42 / S.
Description and analysis of the culture, structure, and development of societies that are historically unrelated to the traditions of Western Civilization. Open only to students enrolled in the University Honors program or by consent of instructor. May not be taken by students who have credit in SOC 130. LEC.

SOC 132. American Society, Honors. 3 Hours. SC / S.
The social structure and organization of American society with special reference to long-term and recent social changes. Not open to students who have credit for AMS 330 or SOC 330. Open to College honors students, students on the dean’s honor roll, and by permission of the department. LEC.

SOC 150. Self and Society. 3 Hours. SI AE51/GE11 / S.
Discusses the way our identities, values, and behavior have been and continue to be shaped by social and situational factors. Attention is paid to the influence of factors like language, culture, social roles, specific social institutions, and broad structures of inequality and power on how we see
ourselves and others. May not be taken by anyone who has completed SOC 305 or its equivalent. LEC.

SOC 151. Self and Society, Honors. 3 Hours. SI / S.
Discusses the way our identities, values, and behavior have been and continue to be shaped by social and situational factors. Attention will be paid to the influence of factors like language and culture, social roles, specific social institutions, and broad structures of inequality and power on how we see ourselves and others. This course may not be taken for credit by those who have taken SOC 305. Open only to students admitted to the University Honors Program or by consent of instructor. LEC.

SOC 160. Social Problems and American Values. 3 Hours. SF AE41/AE51/GE11 / S.
This course is designed to explore competing explanations for the causes of, and cures for, the enduring problems of American society. The course critically analyzes dominant definitions of social problems, the political and economic roots of these problems, and the public policies aimed at reducing them. May not be taken by anyone who has already completed SOC 306 or its equivalent. LEC.

SOC 161. Social Problems and American Values, Honors. 3 Hours. SF / S.
Explores competing explanations for the causes of, and cures for, the enduring problems of American society. Critically analyzes dominant definitions of social problems, the political and economic roots of these problems, and the public policies aimed at reducing them. This course may not be taken for credit by those who have taken SOC 160 or SOC 306. Open only to students admitted to the University Honors Program or by consent of instructor. LEC.

SOC 177. First Year Seminar: _____ 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Sociology. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

SOC 220. Sociology of Families. 3 Hours. SC AE41/GE3S / S.
Analysis of the family as a social institution primarily in the U.S. context. Topics considered are: current and historical changes in how the family is constituted, contrasting sociological theories of family relationships, sexuality in relation to family life, the coexistence of love and hate in families, family dissolution and reformation, and the care of children. A key theme is diversity: social class, gender, race/ethnicity, and age. May not be taken by anyone who has already taken SOC 308 or its equivalent. LEC.

SOC 230. Introduction to Social Inequality in the U.S.. 3 Hours. S.
By the end of this course, students will be able to describe the major dimensions of inequality in the U.S. (including race, class, and gender), understand the structural basis of inequality, critically assess how inequality exists in major social institutions, and understand how inequalities in race, class, and gender shape social interaction. LEC.

SOC 260. America's Latinos/Latinas. 3 Hours. U.
An introduction to the Latino/a population (Mexican-Americans, Puerto Ricans, Cuban-Americans, Dominican-Americans, and Central and South Americans) in the US. Students discuss how US and Latin American societies have shaped Latino incorporation into the United States. We also discuss contemporary political, cultural and social issues that pertain to Latinos/as in the US. (Same as AMS 260) LEC.

SOC 273. Women in Society. 3 Hours. S.
A sociological exploration of the image and status of women in society, including family, work, and politics. Socialization, education, and the women's movement are also analyzed. Includes an introduction to feminist theories in sociology. LEC.

SOC 295. Study Abroad Topics in: _____ 1-6 Hours. S.
This course is designed for the study of special topics in Sociology at the freshman/sophomore level. Course work must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. No more than 6 hours of SOC 295 or SOC 495 may count towards the Sociology major or minor. LEC.

SOC 304. Principles of Sociology. 3 Hours. SC AE41/GE11/GE3S / S.
An introduction to sociological concepts, methods, and substantive findings more intensive than that provided in SOC 104. Students may take this course in lieu of SOC 104 to satisfy requirements for the major and the minor. This course may not be taken for credit by those who have taken SOC 104. LEC.

SOC 305. Principles of Self and Society. 3 Hours. SI GE11 / S.
Discusses the way our identities, values, and behavior have been and continue to be shaped by social and situational factors. Attention is paid to the influence of factors like language, culture, social roles, specific social institutions, and broad structures of inequality and power on how we see ourselves and others. This course provides a more intensive coverage of the subject matter than that provided in SOC 150. May not be taken by anyone who has already taken SOC 150 or its equivalent. LEC.

SOC 306. Principles of Social Problems. 3 Hours. SF / S.
This course is designed to explore competing explanations for the causes of, and cures for, the enduring problems of American society. The course critically analyzes dominant definitions of social problems, the political and economic roots of these problems, and the public policies aimed at reducing them. This course provides a more intensive coverage of the subject matter than that provided in SOC 160. May not be taken by anyone who has already completed SOC 160 or its equivalent. LEC.

SOC 308. Principles of Family Sociology. 3 Hours. SC / S.
Analysis of the family as a social institution primarily in the U.S. context. Topics considered are: current and historical changes in how the family is constituted, contrasting sociological theories of family relationships, sexuality in relation to family life, the coexistence of love and hate in families, family dissolution and reformation, and the care of children. A key theme is diversity: social class, gender, race/ethnicity, and age. This course provides a more intensive coverage of the subject matter than that provided in SOC 220. May not be taken by anyone who has already taken SOC 220 or its equivalent. LEC.

SOC 310. Introduction to Social Research. 3 Hours. S.
An introduction to the nature and methods of social research. Topics may include: hypothesis formulation and testing; how to design a research project, collect and analyze data; elementary statistical procedures; and ethical issues. Prerequisite: Six hours of Sociology credit, including Sociology 104. A minimum GPA of 2.3 in all SOC courses is strongly recommended for students planning to enroll in this course. LEC.

SOC 312. Population and Society. 3 Hours. AE41 / S.
An examination of the causes and consequences of population change in the United States and around the world with special focus on the impact of changes in populations on social institutions. We use social demographic perspectives to explore patterns of birth, illness, death, population concentration, population migration and immigration, and changes in these over time. Prerequisite: One of the following: SOC 104, SOC 110, SOC 150, SOC 160, or SOC 220. LEC.

SOC 320. Organizations in Society. 3 Hours. S.
An analysis of complex organizations in modern societies. Attention is given to the rise of bureaucracy in business and government; the way organizations influence and respond to their social cultural environments;
and the various roles that individuals play in organizations. Prerequisite: A principal course in sociology. LEC.

**SOC 326. Health, Gender, and Society. 3 Hours. S.**
Comparative examination of the health status of men and women in relation to key elements of contemporary societies, including not only medicine and health care services, but also systems of social inequality and stratification, cultural constructions of gender, and social policies. Emphasis will be placed on the U.S.; however, the course also will provide international comparisons and an overall global context. LEC.

**SOC 330. American Society. 3 Hours. AE41 / S.**
The social structure and organization of American society with special reference to long-term and recent social changes. (Same as AMS 330.) Not open to students with credit for SOC 132. Prerequisite: A principal course in sociology. LEC.

**SOC 332. The United States in Global Context. 3 Hours. AE42 / S.**
Examines the influence abroad of US culture, policies and practices and the impact of other countries on US culture, society, and politics. Among the topics that may be examined are race, ethnicity, colonialism, imperialism, migration, technology, communications and media, popular culture, language, health, domestic and transnational organizations, as well as economic, political, religious, military and educational institutions. (Same as AMS 332.) LEC.

**SOC 340. The Community. 3 Hours. S.**
Structures, functions, and processes of change in local communities; interrelations of towns and small cities with rural areas and metropolitan centers with their hinterlands. Prerequisite: A principal course in sociology or ANTH 108 or ANTH 308. LEC.

**SOC 341. Urban Sociology. 3 Hours. S.**
Examination of the process of urbanization in modern societies, including the size, growth, functions, and ecology of cities and systems of cities; such urban social institutions as the economy, politics, and the family; and major contemporary urban policies and problems. Each topic will be analyzed from several sociological perspectives. Prerequisite: A principal course in sociology. LEC.

**SOC 342. Sociology of Immigration. 3 Hours. S.**
International migration reshapes politics, economics, social relations, and racial/ethnic identities. Using the United States and other countries as case studies, we explore the variations among immigrant groups and their experiences in social institutions such as the family, religion, education, labor market, and government. We consider the influence of national origin, gender, class, and culture on immigration and reception experiences, as well as issues of assimilation, transnationalism and identity. Prerequisite: SOC 104. LEC.

**SOC 351. Africa Today. 3 Hours. U.**
An examination of Africa’s social dynamics. Topics considered include: the origins of modern African societies, nations, and states; family structures and values; ethnicity, gender relations and patriarchy; social, political, economic and cultural institutions; African exceptionalism; contemporary African social dynamics; transnational migration; HIV/AIDS; political transitions; and Africa’s place in the emerging global order. Prerequisite: SOC 104. LEC.

**SOC 352. Sociology of Sex Roles. 3 Hours. S.**
An examination of sex roles, sex stereotypes, and major issues involved in sex-role research. Emphasizes explanations of inequality between American males and females in the family and at work. The course is designed around lectures, panels, workshops, and films. LEC.

**SOC 360. Sociology of Social Control. 3 Hours. S.**
This course examines changing methods of social control in society. Social control can be formal (e.g., law and criminal justice system) or informal (e.g., families, peer groups). This course examines the ways that we, as a society, attempt to respond to matters such as deviance, illness, crime, and poverty. This course will survey the many varieties of formal and informal social control faced by individuals in society, and the ways in which individuals resist and conform to various disciplinary and control regimes. Prerequisite: a principal course in Sociology. LEC.

**SOC 364. Society, Popular Culture, and the Media. 3 Hours. S.**
An overview of sociological theory and research on culture created and distributed through the mass media and its role in shaping our common sense interpretations of our daily lives. Topics include the social organization of the media, the relation between popular culture and the media, themes communicated in various elements of popular culture, and how various groups interpret cultural messages and incorporate them in their lives. LEC.

**SOC 365. Society, Popular Culture, and the Media, Honors. 3 Hours. S.**
Similar in content to SOC 364. An overview of sociological theory and research on culture created and distributed through the mass media and its role in shaping our common sense interpretations of our daily lives. Topics include the social organization of the media, the relation between popular culture and the media, themes communicated in various elements of popular culture, and how various groups interpret cultural messages and incorporate them in their lives. Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

**SOC 370. Conflict Resolution. 3 Hours. S.**
This course is an introduction to the field of conflict resolution. Collaborative approaches to dealing with conflict will be examined from the micro, interpersonal group level to the macro, organizational level. The causes and consequences of conflict will be presented as well as problem solving techniques for the resolution of conflict in social groups. LEC.

**SOC 371. Marginal Groups and Subcultures. 3 Hours. S.**
The sociological study of groups that differ from the mainstream practices of their societies and of conditions affecting their careers. The primary objectives are to introduce and analytically apply sociological conceptualizations of groups, group careers, group mainstream interactions, and participant orientations. The principal cases examined are the Hutterites, the Shakers, and the Oneida Community, supplemented by brief analyses of a variety of other groups. Questions concerning the formation, organization, processes, participants, and transformations of groups are emphasized. LEC.

**SOC 385. Environmental Sociology. 3 Hours. S.**
This course invites students to study society and its impact on the environment. Environmental problems are social problems. This course will address such items as social paradigms, theories, inequalities, movements, and research. (Same as EVRN 385.) LEC.

**SOC 410. Sociology of Death and Dying. 3 Hours. S.**
This course covers theoretical, practical, cross-cultural and historical aspects of death and dying. Social, psychological, biomedical, economic and legal issues surrounding death and dying are explored. Students examine their own ideas, feelings, and attitudes towards death and dying, and reflect on the origins and significance of those beliefs. Prerequisite: Junior or Senior Standing. LEC.

**SOC 420. Armed Forces and Society. 3 Hours. U.**
Examines the military as a social institution. Students analyze both the internal organization and practices of the armed forces and the relationships between the military and other social institutions. It considers
the historical forces that have shaped the present. Thus, past events and policies as well as current ones are covered in the course. The primary focus of this course is on the American military and its relationship to American society, but considers the armed forces of other societies. Prerequisite: SOC 104 or permission of instructor. LEC.

**SOC 424. Sociology of Health and Medicine. 3 Hours. S.**
This introductory course in medical sociology examines how social factors influence health and the organization of medical services. Students explore the distribution and experiences of illnesses across key social categories (e.g., gender, social class, etc.) The course also addresses contemporary issues in health and medicine, such as how health care systems vary cross-nationally, the training of health care workers, patient-physician relationships, and the use of medical technologies. LEC.

**SOC 427. School and Society. 3 Hours. S.**
This course examines education as a social institution and the reciprocal relationship between schools and society. It focuses particularly on the relationship between education and inequality and on education in the U.S., but also includes international comparisons. LEC.

**SOC 450. Gender and Society. 3 Hours. AE41 / S.**
An overview of sociological theory and research on the social practices constructing men and women as "opposites" and creating systematic inequality between them in class-, race-, and nation-specific ways. We consider arguments and evidence that gender is something we are, something we do, a part of every social institution, and a major aspect of how we are organized as a society. LEC.

**SOC 454. Women and Work. 3 Hours. S.**
Sociological investigation of women's changing relationship to paid and unpaid labor in the economy and the family. Several theories are compared in these contexts: Characteristics of employed women, including occupational distribution and pay; women's experiences in "traditional" and "nontraditional" occupations, including professions and management; socialization and education for employment; integration of marriage, housework, and child care; anti-discriminatory laws and policies. Prerequisite: A principal course in Sociology. LEC.

**SOC 490. Internship in Sociology. 3 Hours. AE61 / S.**
The purpose of this course is to encourage students to think sociologically about social issues by working as volunteer interns for non-profit community or campus organizations. Enrollment must be approved by a faculty mentor and the departmental Undergraduate Studies Committee. For additional information go to the Sociology department website. Prerequisite: 21 credits in sociology with a 3.0 GPA and permission of the instructor. FLD.

**SOC 495. Study Abroad Advanced Topics in: _____. 1-6 Hours. S.**
This course is designed for the study of special topics in Sociology at the junior/senior level. Course work must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. No more than 6 hours of SOC 295 or SOC 495 may count towards the Sociology major or minor. LEC.

**SOC 499. Honors Course. 3-6 Hours. AE61 / S.**
Intensive study and research under faculty direction including the writing of a thesis. Enrollment may be split between two semesters, but no grade will be given until completion of the thesis. Admission to honors candidacy is open only to majors who have shown a marked capability for independent study and have completed either SOC 310 or SOC 500. IND.

**SOC 500. Sociological Theory. 3 Hours. S.**
An introduction to the principal texts in sociological theory and the ideas that made them important. Primary materials are emphasized, ranging from medieval to the current age. The goal of the course is to show continuity and change in the theoretical tradition of sociology, and to demonstrate the continued importance of classical ideas. Prerequisite: SOC 104 or permission of instructor. LEC.

**SOC 510. Elementary Statistics and Data Analysis. 3 Hours. S.**
An introduction to social scientific data analysis, with an emphasis on descriptive and inferential statistics. Specific topics include sampling, measures of association and correlation, significance testing, the logic of causal inference, the use of computer programs for data analysis, multivariate analysis, and the critical evaluation of social science research findings. Prerequisite: SOC 310 and MATH 101, or instructor permission. LEC.

**SOC 519. Sociology of Global Food. 5 Hours. U.**
The Sociology of Global Food offers a critical examination of the global food system since the Industrial Revolution. Topics include the industrialization of agriculture, sustainable agriculture, and the role of food and agriculture in organizing society. This course discusses the emergence of current debates around food and agriculture including food activism, technological developments, human/environment relationships, and labor issues. There is a lab component to this course. (Same as EVRN 519.) Prerequisite: Junior standing. LEC.

**SOC 520. Groups and Associations. 3 Hours. S.**
A comparative study of groups, associations, and institutions as types of social systems with special attention to structural characteristics and organizational processes: the nature of membership and leadership, including recruitment, selection and training; the social position, relationship, and function of these groups in communities and societies. Prerequisite: A principal course in sociology. LEC.

**SOC 521. Wealth, Power, and Inequality. 3 Hours. AE41 / S.**
This class focuses on economic inequality and the political and social forces that create and sustain it in the United States and internationally. The variables of race, ethnicity, status, and gender are analyzed as they relate to the differences in the distribution of wealth and power, and attention is paid to how these multiple variables shape opportunities. LEC.

**SOC 522. American Racial and Ethnic Relations. 3 Hours. AE41 / S.**
Analysis of the basic sociological concepts that apply to majority/minority relations; with special emphasis on racial and ethnic interaction in the United States. (Same as AMS 522.) Prerequisite: A principal course in sociology. LEC.

**SOC 523. Sociology of Aging and the Life Course. 3 Hours. AE41 / S.**
An advanced survey of theory and research in social gerontology, giving primary attention to aging and the aged as affected by social organization, including such social institutions as familial, economic, political, and health care; organizational processes such as social stratification; and living environments including community and housing. In these contexts, certain demographic, cross-cultural, social-psychological, and physiological aspects of aging will also be considered. Prerequisite: A principal course in sociology. LEC.

**SOC 524. Sociology of the Economy. 3 Hours. S.**
An analysis of the social organization of production with attention being given to such topics as: world economic crises and their social bases, capitalist and socialist economies, primitive and advanced economic systems, multinational corporations, the nature of housework, and the transformation of economic systems. Prerequisite: A principal course in sociology. LEC.

**SOC 525. Sociology of Work. 3 Hours. S.**
A consideration of problems in the conceptual and empirical definition of occupations and professions. It will involve the examination of the process of professionalization, the differentiation and integration of labor, career patterns, the work situation, the study of leisure, and the social
consequences of changes in occupations and professions. Prerequisite: A principal course in sociology. LEC.

SOC 529. Globalization. 3 Hours. S.
Addresses sociological aspects of the growth of transnational economic, cultural, institutional, and political interconnections, the freer and faster movement of goods, images, ideas, people, and institutional forms across national borders, and the consequences and problems of these processes. The focus is on recent (later 20th century to the present) global restructuring in the context of historical shifts in capitalist development. Prerequisite: SOC 104. LEC.

SOC 530. Industrial Revolution and Capitalist Development. 3 Hours. S.
Focuses on the social forces that generated industrial capitalism. Emphasis will be on comparative social structures and their meaning for the nature and quality of life. The transformation from medieval to mercantilist to industrial capitalism will be analyzed in detail. Possibilities of post-industrial society will be discussed. This course will consider exclusively Western development. Prerequisite: A principal course in sociology. LEC.

SOC 531. Global Social Change. 3 Hours. S.
Comparative study of social, economic, political, and ideological factors influencing global social change, and analysis of different theoretical orientations related to social change in various societies. Prerequisite: A principal course in Sociology. LEC.

SOC 532. Sociology of the Middle East. 3 Hours. NW AE42/AE61 / S.
The sociological analysis of social, historical, and contemporary issues pertaining to the Middle East and to relations between the Middle East and other regions of the world. We use sociological theoretical perspectives to address such topics as nationalism and identity; religion, race and ethnicity; gender, socioeconomic development, and sociopolitical and economic relations with the United States. Prerequisite: One of the following: SOC 104, SOC 110, SOC 150, SOC 160, or SOC 220. LEC.

SOC 533. Industrialization in Developing Nations. 3 Hours. S.
Comparative study of problems associated with industrialization in developing nations, including population problems, unemployment, social and welfare problems, and various political issues. Prerequisite: A principal course in sociology. LEC.

SOC 534. Comparative Racial and Ethnic Relations. 3 Hours. NW AE42 / S.
An examination of constructions of race and ethnicity around the world. Emphasis is on the social, political, historical, cultural and economic factors that lead to the creation of ethnic and racial identities, ethnic conflict and accommodation, ethnic movements, and ethnic political organization. Racial and ethnic relations in the U.S. are compared with other countries. Major focus is placed on ethnicity in Africa, Asia, Latin America, the Caribbean and/or the Middle East. (Same as AAAS 510 and AMS 534.) LEC.

SOC 535. Gender in the Global Context. 3 Hours. S.
This course examines gender roles and identity in the global context and focuses specifically on historical comparative analysis of women's participation in--and impact on--social, political, economic, and cultural aspects of their communities and nations. Major emphasis will be placed on women in Africa, Asia, Latin America, and the Middle East. (Same as AAAS 510 and AMS 534.) LEC.

SOC 536. Ethnicity in the United States: ______. 3 Hours. AE41 / S.
An examination of the history, sociology, and culture of U.S. ethnic categories (e.g., American Indians, Latinos, Asian Americans, Jewish Americans, Irish Americans). The specific group studied varies from semester to semester. Course may be repeated for credit. (Same as AMS 536.) Prerequisite: A principal course in American Studies, Sociology, or Anthropology, or permission of instructor. LEC.

SOC 560. Law and Criminal Justice. 3 Hours. S.
An analysis of the sources and procedures of development of the criminal law and analysis of the practices of law enforcement, prosecution, and judicial action, principally in the United States. Prerequisite: A principal course in sociology. LEC.

SOC 561. Sociology of Deviance. 3 Hours. S.
General analysis of the ways in which individuals and actions come to be defined as deviant in a society, including the political, economic, social, and cultural processes of labeling, rulemaking, and rule breaking: Why are some acts and groups considered deviant at some points in time and in some places, but not in others? Prerequisite: A principal course in sociology. LEC.

SOC 562. Sociology of Law. 3 Hours. S.
A survey of the effects of social structure, societal values, and social change upon the creation and alteration of law. Various perspectives from the social sciences will be employed in the introductory examination of the general place of law in societies. The emphasis of the course will be on the sociological analysis of law in Western history as well as the present. Prerequisite: A principal course in sociology. LEC.

SOC 567. Collective Behavior. 3 Hours. S.
An analysis of such collective phenomena as crowd behavior, social epidemics, fads, fashions, popular crazes, and mass movements; the nature of the public; functional analysis of public opinion; the problems of democracy as viewed from the standpoint of organizing collective action. Prerequisite: A principal course in sociology. LEC.

SOC 568. Dispute Settlement. 3 Hours. S.
Processes of negotiation and mediation in settling disputes in communities and organizations over controversial issues, policies, and decisions. Knowledge of skills are developed through studying theories and research findings, and by case analysis, role playing, and simulation. LEC.

SOC 569. Sociology of Violence. 3 Hours. S.
This course will examine violence in social and political life. The causes and consequences of various types of violence will be examined in a variety of social settings. Examples include violence in the family, schools, the workplace, violence in cities, and violence as a part of the political process: assassination, revolution, coups, terrorism, and government repression. Prerequisite: A principal course in sociology. LEC.

SOC 570. Social Conflict. 3 Hours. S.
The nature of social conflict, with special emphasis on the more persistent conflict areas of modern social life such as industrial, racial, religious, and national conflicts. Prerequisite: A principal course in sociology. LEC.

SOC 571. Collective Behavior. 3 Hours. S.
An analysis of such collective phenomena as crowd behavior, social epidemics, fads, fashions, popular crazes, and mass movements; the nature of the public; functional analysis of public opinion; the problems of democracy as viewed from the standpoint of organizing collective action. Prerequisite: A principal course in sociology. LEC.

SOC 572. Dispute Settlement. 3 Hours. S.
Processes of negotiation and mediation in settling disputes in communities and organizations over controversial issues, policies, and decisions. Knowledge of skills are developed through studying theories and research findings, and by case analysis, role playing, and simulation. LEC.

SOC 573. Sociology of Deviance. 3 Hours. S.
The purpose of this course is to encourage students to develop their understanding of the relationship between individual biography and social organization while they contribute to their community by working as volunteers in non-profit community or campus organizations. Not open to students who have completed SOC 490. Prerequisite: SOC 310 and SOC 510. LEC.

SOC 598. Practicum in Crime and Delinquency Studies. 3-6 Hours. S.
A one- or two-semester course in which students are provided the opportunity, as interns, to gain practical experience working in the criminal justice system agency. A report in the format of a research paper is required at the conclusion of the practicum. Open only to Crime and Delinquency Studies majors. Prerequisite: Consent of the instructor. FLD.
SOC 600. Sociological Perspectives: _____. 3 Hours. S.
Analysis of various sociological perspectives and/or the application of various perspectives to a given social phenomenon. May be repeated as topics vary. Prerequisite: A principal course in sociology. LEC.

SOC 601. Introduction to Feminist Social Theory. 3 Hours. S.
Feminist theories accord a central role to gender and the oppression of women in developing an analysis of social life. This course will explore and evaluate accounts of social structure, social processes, and consciousness developed from a feminist perspective. A broad range of theoretical models will be presented, drawing on liberal, historical materialist, psychoanalytical, cultural, and Black feminist theories. Prerequisite: A principal course in Sociology and at least junior standing. LEC.

SOC 610. Survey Research. 3 Hours. S.
Methods and techniques of collecting and analyzing social data obtained by interviewing a sample of the population. Practice through field work and laboratory analysis. LEC.

SOC 615. Techniques of Demographic Analysis. 4 Hours. U.
Examines concepts of demographic measurement and analysis for the study of changes in size, composition and distribution of populations. Students learn to measure and analyze basic population components such as fertility, mortality, migration and health using rates, standardization, decomposition of differences and life tables. Provides an opportunity to develop quantitative skills in the context of human life course processes that might be extended to include the study of employment, incarceration, education and other phenomena. Involves some reliance on calculus, substantial use of statistical software and an extended research project. Course includes a laboratory component. Prerequisite: SOC 510 or equivalent, or permission of instructor. LEC.

SOC 617. Women and Health Care. 3 Hours. S.
Critical analysis of the current health status and health needs of women, exploring how lay, medical, and research assumptions have influenced both the clinical/scientific literature and the organization of health services. The course includes a focus on historical patterns in women's health issues and social change actions. (Same as HPM 620.) LEC.

SOC 619. Political Sociology. 3 Hours. S.
The study of politics and society in the United States and abroad, including power and authority-who has them, how are they acquired, when are they challenged; state formation, the expansion of central governments, and patterns of political domination; political and nationalist movements; the politics of gender, class, race, and ethnicity; political culture and ideology; ethnic and nationalist conflict; revolution and political change. Prerequisite: A principal course in sociology or consent of instructor. LEC.

SOC 620. Social Organization. 3 Hours. S.
Comparative analysis of social organization in simple and complex societies. Consideration of the process of differentiation, specialization, institutionalization, and change, with special attention given to the emergence of intergroup and interorganizational forms of social organization typical of complex societies. Prerequisite: A principal course in sociology. LEC.

SOC 621. Cross-Cultural Sociology. 3 Hours. NW AE42/GE3H/GE3S / S.
A systematic introduction to cross-cultural issues from the standpoint of sociology, designed to acquaint students with the full range of substantive and methodological issues that arise in comparative sociological inquiry, with a primary focus on non-western societies. Specific topics to be addressed may include war and peace, stratification and inequality, race and ethnicity, and political authority and power, all viewed in the light of cross-cultural research and theory. Prerequisite: A previous Sociology course or consent of instructor. LEC.

SOC 622. Sociology of Science. 3 Hours. S.
The social roles of science in relation to other institutions, to technology, and to social change; and, within the scientific community, enculturation, information-flow, creativity, decision-making, administration, and leadership. Prerequisite: A principal course in sociology. LEC.

SOC 625. Work Roles in Health and Medicine. 3 Hours. S.
A sociological examination of medical and health-care occupations and professions. The selection of careers, socialization processes, and the development of professional identities. Interactions among practitioners, health-care teams, consumers, and professional and community power structures. Control and coordination of work. The impact of increasing specialization and changes in the demographic makeup of client and professional populations. Coping with medical failure and other problems inherent in medical and health-care work. LEC.

SOC 626. Religion and Society. 3 Hours. S.
A comparative study of the nature of religion in human societies both primitive and civilized; the functioning of religion for the community and the individual; the analysis of belief, myths, rituals, sacred attitudes, cults, religious movements, and church organization. Prerequisite: A principal course in sociology or ANTH 108 or ANTH 308. LEC.

SOC 628. Families and Social Inequalities. 3 Hours. S.
This course examines families in the context of social inequalities based on race-ethnicity, social class, gender, and sexuality. It analyzes the link between family diversity and social inequalities in the U.S. and elsewhere and theorizes families using a critical lens that focuses on social policies and power relations that perpetuate social inequalities. We also explore the growing complexities of families and how they affect and are affected by other social institutions, especially the labor market. Prerequisite: SOC 220 or consent of instructor. LEC.

SOC 629. Sociology of Sport. 3 Hours. S.
Examination of organized sport as a social institution and its relation to other social institutions (e.g., political, economic, educational, and religious), with special emphasis on American society. Analysis of the social correlates of sports participation and a consideration of the role of sport in social change. (Same as AMS 629.) Prerequisite: A principal course in sociology. LEC.

SOC 630. Latin American Society. 3 Hours. S/W.
Aspects of the social organization of main Latin American nations, including, e.g., race/ethnicity, social class, gender, urbanization, socioeconomic development, revolution, and relations with the U.S. Emphasis on sociological theories of Latin American development. Prerequisite: A principal course in Sociology or ANTH 108 or ANTH 308, plus junior-senior or graduate standing. LEC.

SOC 634. The Sociology of Culture. 3 Hours. S.
An introduction to a branch of sociology, mainly European in origin, that considers the relation between social structure and “high” and “mass” culture. Specific theories of these relations will be applied to works of literature, the fine arts, or music. Some preliminary acquaintance with these subjects is desirable but not mandatory for admission to the course. LEC.

SOC 640. Political Islam. 3 Hours. NW AE42/AES1 / S.
This course gives students a basic understanding of Islam and Islamic movements, explores the economic, social, political, and cultural context in which these movements take place, and examines the impact of Islam on politics in select countries. Issues such as compatibility of political Islam and democratic politics, political economy in Muslim societies, fundamentalism in Islam, gender relations, identity politics and questions
on clash of civilizations are explored. (Same as POLS 667). Prerequisite: A principal course in sociology, POLS 150, or consent of instructor. LEC.

SOC 650. Transnational Migration. 3 Hours. S.
A historically-conscious, sociological exploration of political, cultural and health issues involved in transnational migration, this course invites the student to situate current transnational migration within specific historical social processes within both postcolonial Africa and the postcolonial West. The course examines parallels from the experience of migration in other parts of the world, specifically Asia and Latin America. The aim is an understanding and appreciation of both the interconnectedness of the world's peoples and, crucially, of the world's histories. Prerequisite: SOC 104. LEC.

SOC 660. Sociology of Mental Illness. 3 Hours. S.
The sociology of mental illness concerns itself with the study of mental disorders as social phenomena. The course will be concerned with (1) the social factors and social processes that contribute to mental disorders, (2) the social definitions of mental disorders as forms of social deviance, (3) the social facets in the treatment and care of disordered persons, and (4) the social aspects of the prevention of mental disorders. Prerequisite: A principal course in sociology. LEC.

SOC 661. Causation of Crime and Delinquency. 3 Hours. S.
The individual and social processes that produce violation of legal norms, dealing with society's responses to these violations only insofar as the responses influence the violators. Prerequisite: A principal course in sociology. LEC.

SOC 662. Corrections. 3 Hours. S.
Legal systems for handling offenders and the development of the laws creating these systems. Emphasis on the various parts (police, courts, probation, penal institutions, and parole) of the system will vary. Prerequisite: A principal course in sociology. LEC.

SOC 671. Social Movements. 3 Hours. S.
Social movements as collective action to establish forms of social organization; consideration of reform, revolutionary, sectarian and fashion movements; ideology, esprit de corps, morale and leadership as factors in development and organization. Prerequisite: A principal course in sociology. LEC.

SOC 672. Sociology of War and Peace. 3 Hours. S.
Descriptive and analytic account of cold and hot wars. The concept of enemy. Types of war. Emphasis on personal and collective action in warlike situations. War and international politics. The ideologies of war from the classics to the present. Prerequisite: A principal course in sociology. LEC.

SOC 698. Individual Undergraduate Research. 1-12 Hours. AE61 / S.
Library or field research either as part of an ongoing project or as an independent study project. One to twelve hours. May be taken from one or more faculty during one or more semesters, the total hours not to exceed 12. No more than 3 credits may be applied to satisfy requirements for the sociology major. Prerequisite: Two courses in sociology and consent of instructor. IND.

SOC 699. Capstone in Sociology. 3 Hours. AE61 / S.
In this capstone course, students synthesize the knowledge gained in their substantive courses and use the skills developed in their methodology courses to design and conduct a research project on a current social issue or meeting the research needs of a local community group. The outcome will be a professional quality research report. Prerequisite: SOC 510. LEC.

SOC 707. Seminar in Historical Sociology. 1-4 Hours.
Each seminar will explore problems at the intersection of sociology and history. Topic, instructors, and hours of credit will be announced in the Schedule of Classes. Seminars will be offered by different instructors on different topics and students may take more than one topic. No prerequisite. LEC.

SOC 722. Sociology of Gender. 3 Hours.
This course will offer a range of sociological perspectives on the role of gender in society. The particular substantive focus will vary each semester to allow flexibility for in-depth analysis of gender relationships in such areas as politics, health and aging, and work. LEC.

SOC 760. Social Inequality. 3 Hours.
A comprehensive review of the major theoretical and empirical approaches used in the study of institutionalized social inequality. Reference to the origins, forms, cultural and structural variations and their changes over time, consequences and ideologies of social inequality. Prerequisite: A distribution course in sociology. LEC.

SOC 762. Seminar in Social Deviation and Control: _____. 3 Hours.
Advanced study of theory and practice relating to deviation. May be repeated as topics vary. Prerequisite: SOC 662 or SOC 661. LEC.

SOC 767. Gerontology Proseminar. 3 Hours.
A proseminar coordinated by the Gerontology Center. The proseminar explores essential areas of gerontology for researchers and practitioners, providing a multidisciplinary (psychology, biology, sociology, and communication) perspective on aging. The proseminar surveys contemporary basic and applied research, service programs, and policy and management issues in gerontology. (Same as ABSC 787, AMS 767, COMS 787, and PSYC 787.) (Formerly HDFL 787.) LEC.

SOC 770. Social Systems and Social Change in the United States. 3 Hours.
Analysis of approaches to the study of sociocultural change in America, with special emphasis on a systems perspective. Seniors by consent of instructor. LEC.

SOC 771. Intergroup Relations and Conflict in American Society. 3 Hours.
Analysis of the dynamics of intergroup relations (e.g., class, religious, ethnic, racial, political) in America with special emphasis on the examination of major theoretical and empirical approaches employed in the study of societal conflict and consensus. LEC.

SOC 780. Advanced Topics in Sociology: _____. 3 Hours.
Topics will vary from semester to semester and instructor to instructor to allow flexibility for in-depth analysis of particular topics. LEC.

SOC 790. Proseminar. 3 Hours.
Introduction to major disciplinary issues, departmental research specialties, faculty research interests, interdisciplinary connections, funding sources, and professional writing. Required of M.A. students entering the graduate program in sociology. May not be taken by those who have credit for SOC 990. Graded on satisfactory/unsatisfactory basis. LEC.

SOC 801. The Rise of Social Theory. 3 Hours.
This is less a survey of intellectual history than an effort to trace the "preclassical" roots of sociological theory. We explore the rise of paradigmatic concerns in the writings of such key figures as Aristotle, Marsilius of Padua, Martin Luther, Etienne de la Boetie, Michel de Montaigne, Charles de Montesquieu, Jean-Jacques Rousseau, Immanuel Kant, G.W.F. Hegel, Flora Tristan, and Ludwig Feuerbach, among others. LEC.
SOC 802. Modern Social Theory. 3 Hours.
This seminar will focus on the later 19th and early 20th century “theories of society,” addressing the origins and developmental tendencies of Western modernity and their relationship to premodern social orders. Primary texts of the major theorists (e.g., Marx, Durkheim, Nietzsche, Weber, Simmel, and Mead) will be studied in historical context. The tradition's analytical and critical resources and problematic features will also be explored. Finally, the connections between this tradition and contemporary sociological approaches will be explored. LEC.

SOC 803. Issues in Contemporary Theory: ______. 3 Hours.
A critical examination of recent trends and debates in sociological theory. This is a thematically oriented course in which classical as well as contemporary views will be explored. Attention will be directed to theoretical issues under discussion in fields such as symbolic interactionism, semiotics, ethnomethodology, critical theory, macrosociology, and others. LEC.

SOC 804. Sociology of Knowledge. 3 Hours.
This course reviews the major sociological approaches to the study of the relationship between thought and the social context within which it arises. A central concern is an examination of the relationship between ideology and social structures, particularly as expressed in the construction of official knowledge. LEC.

SOC 808. Feminist Theories. 3 Hours.
This course will explore and evaluate accounts of social structure, social processes, and consciousness developed in the feminist literature. We will review a range of theoretical arguments, including liberal, historical, materialist, psychoanalytic, cultural, and Black feminist theories. Some of the readings will focus on limitations and distortions within mainstream social theory; others will center on the development of alternative social theory using the standpoint of women as a point of departure. LEC.

SOC 810. Sociological Inquiry. 3 Hours.
The goals of this course are to understand the characteristics of sociologically interesting and rigorous research and to design a research proposal that shares those characteristics. The focus of students’ proposals will be their M.A. thesis project. Students will read books and articles representing a variety of research approaches (ethnographies, surveys, interviews, document analyses, historical studies, comparative research, etc.), and will deconstruct them in order to understand their theoretical and methodological significance. Assignments will include a completed M.A. thesis proposal. LEC.

SOC 811. Sociological Research. 3 Hours.
The use of the scientific method to study social phenomena including: the formulation and testing of hypotheses; techniques for collecting data; measuring social variables; interpreting research findings; the relationship of theory and facts. Prerequisite: A distribution course in sociology. LEC.

SOC 812. Analytic Methods in Sociology. 3 Hours.
Consideration of quantitative methods of analysis including both parametric and non-parametric techniques. Prerequisite: A course in statistics. LEC.

SOC 813. Field Methods and Participant Observation. 3-5 Hours.
Will acquaint the student both theoretically and empirically with the procedures and logics of the research techniques employed by individuals or small research teams conducting qualitative fieldwork. Prerequisite: A distribution course in sociology. FLD.

SOC 814. Health Services Research: Epidemiology, Evaluation, and Survey Methods. 3 Hours.
Students learn the logic, assumptions, designs, and procedures involved in conducting the major types of research found in the health services field. Students develop an informed basis for critically evaluating the methodological adequacy of research studies in the areas of descriptive and analytic epidemiology, program evaluation, and health-related survey research as well as working knowledge of the research process itself. Emphasis is placed on examining basic health services issues such as measuring quality of care, understanding the role of social factors in the etiology of disease, determining the health status and health needs of populations, and incorporating health services research into organizational policy and decision-making. LEC.

SOC 820. Political Sociology. 3 Hours.
This course offers an overview of the different perspectives and key arguments comprising the field of political sociology, including both classical and contemporary readings. The issues studied in this field include the nature of power and the nature of the state, relations between state and society, and social movements, political organization and civic participation, political culture, voting behavior, comparative political systems, warfare, democracy and economic development, citizenship, nationalism, revolutions, and globalization. LEC.

SOC 824. Health and Social Behavior. 3 Hours.
This course provides students with an analytic understanding of the organization, professional, and interpersonal behavior that characterizes contemporary health and health care. Emphasis is placed on examination and integration of conceptual frameworks theories, and research findings bearing on basic behavioral/managerial issues such as authority relations in health care settings, models of illness behavior and health services utilization, the impact of organizational structure on employee and client attitudes and behavior, and the culture of professional medicine in relation to patient care. LEC.

SOC 830. Latin American Society. 3 Hours.
Aspects of the social organization of main Latin American nations, including, e.g., race/ethnicity, social class, gender, urbanization, socioeconomic development, revolution, and relations with the U.S. Emphasis on sociological theories of Latin American development. Prerequisite: A principal course in sociology or ANTH 108 or ANTH 308, plus junior-senior or graduate student standing. LEC.

SOC 873. International Political Economy. 3 Hours.
Provides a broad survey of major developments in the field. Topics include the intellectual origins of international political economy; the historical evolution of the international system; North-South and Western trade, investment, and monetary relations; foreign aid, debt technology transfer, development, international economic institutions (e.g., International Monetary Funds, World Bank, Multinational Corporations, etc.). (Same as POLS 973.) LEC.

SOC 875. The Political Economy of Globalization. 3 Hours.
The course will acquaint students with recent developments in the global economy, including its impact on politics and society. Topics include theories of globalization, the role of the nation-state and international agencies in socioeconomic development, inequality from a global perspective, immigration and citizenship, globalization and democracy, and the rise of transnational social movements. LEC.

SOC 891. Individual Master’s Readings. 1-6 Hours.
Individual study of special topics or problems by students working on a master’s degree. RSH.

SOC 892. Teaching Seminar. 1-3 Hours.
Seminar on sociology course design and development. Topics covered include syllabus design, exam strategies and design, course design, content of and approaches to teaching introductory and other sociology courses, student grading and evaluation. Required of all teaching assistants assigned to courses in sociology. May not be repeated for credit toward graduate degree. LEC.
SOC 899. Thesis. 1-8 Hours.

SOC 900. Seminar on Special Topics in Theory: _____, 1-4 Hours. Each seminar will explore problems of theory in sociology. Topic, instructor, and hours of credit will be announced in the Schedule of Classes. Seminars will be offered by different instructors on different topics, and a student may take more than one topic. LEC.

SOC 910. Seminar on Special Topics in Methods: _____, 1-4 Hours. Each seminar will explore problems of methods in sociology. Topic, instructor, and hours of credit will be announced in the Schedule of Classes. Seminars will be offered by different instructors on different topics, and a student may take more than one topic. LEC.

SOC 920. Seminar on Special Topics in Social Organizations: _____, 1-4 Hours. Each seminar will explore problems of social organization in sociology. Topic, instructor, and hours of credit will be announced in the Schedule of Classes. Seminars will be offered by different instructors on different topics, and a student may take more than one topic. LEC.

SOC 930. Seminar on Special Topics in Comparative Studies: _____, 1-4 Hours. Each seminar will explore problems of comparative studies in sociology. Topic, instructor, and hours of credit will be announced in the Schedule of Classes. Seminars will be offered by different instructors on different topics, and a student may take more than one topic. LEC.

SOC 940. Seminar on Topics in Demography, Ecology, and Community: _____, 1-4 Hours. Each seminar will explore problems of demography, ecology, and community in sociology. Topic, instructor, and credit hours will be announced in the Schedule of Classes. Seminars will be offered by different instructors on different topics, and a student may take more than one topic. LEC.

SOC 950. Seminar on Special Topics in Social Psychology: _____, 1-4 Hours. Each seminar will explore problems of social psychology in sociology. Topic, instructor, and hours of credit will be announced in the Schedule of Classes. Seminars will be offered by different instructors on different topics, and a student may take more than one topic. LEC.

SOC 960. Seminar on Special Topics in Deviance and Social Problems: _____, 1-4 Hours. Each seminar will explore problems of deviance and social problems in sociology. Topic, instructor, and hours of credit will be announced in the Schedule of Classes. Seminars will be offered by different instructors on different topics, and a student may take more than one topic. LEC.

SOC 970. Seminar on Special Topics in Social Conflict and Change: _____, 1-4 Hours. Each seminar will explore problems of social conflict and change in sociology. Topic, instructor, and hours of credit will be announced in the Schedule of Classes. Seminars will be offered by different instructors on different topics, and a student may take more than one topic. LEC.

SOC 980. Special Topics in Sociology: _____, 1-3 Hours. Topics will vary by semester and instructor to allow flexibility for in-depth analysis of particular topics that do not fit into one of the other 900 level seminars. LEC.

SOC 991. Individual Doctoral Readings. 1-6 Hours. Individual study of special topics or problems by students working on a doctorate. RSH.

SOC 999. Dissertation. 1-12 Hours.
PORT 347. Brazilian Studies: _____. 3 Hours. H.
A topics course dedicated to the study of special historical moments, topics, authors, or themes in literary and cultural history. The course may cover multiple genres and periods. Course conducted in Portuguese and may be repeated for credit as the topic varies. Not open to students who have taken PORT 547. Prerequisite: PORT 216 or consent of instructor. LEC.

PORT 348. Portuguese Language and Brazilian Culture for Business. 3 Hours. H.
Cultural studies approach to contemporary Brazilian society for students interested in business. Explores how Brazilians negotiate their place in a global cultural context and how they perceive business (negócios). Readings include selections from literature, history, journalism, social analysis, and popular culture. Exercises help English speakers develop analytical skills as well as vocabulary and communication skills related to business and professional life in Brazil. Conducted in Portuguese. Not open to students who have taken PORT 548. Prerequisite: PORT 216 or consent of instructor. LEC.

PORT 365. Studies in Brazilian Film: _____. 3 Hours. H.
A theoretical and historical approach to Brazilian film with particular attention to thematic concerns, such as cultural and national identity, and of literary discourse. Given in Portuguese or English. May be repeated for credit as topic varies. Students will be expected to attend film screenings in addition to regular class meetings. Not open to students who have taken PORT 565. Prerequisite: Consent of instructor. LEC.

PORT 388. Intermediate Brazilian Portuguese Conversation. 1 Hour. U.
Two recitations weekly. Prerequisite: PORT 104 or PORT 106. LEC.

PORT 394. Special Readings in Brazilian Studies. 1-3 Hours. H.
Direct readings in (a) fields not covered by student’s course work, and/or (b) field of student’s special interest approved by the department. May be repeated for credit if content varies. Prerequisite: PORT 216 and three-hours upper-division credit in Portuguese, or consent of instructor. LEC.

PORT 471. Studies in Brazilian Culture and Civilization: _____. 1-3 Hours. H.
A study of Brazilian culture with emphasis on one or more of the following aspects: history, politics, ethnology, anthropology, religious and secular traditions, issues of cultural identity, music, art, architecture, and popular culture. Available only to study-abroad participants. May be repeated for credit if content varies. LEC.

PORT 475. Studies in Brazilian Literature: _____. 1-3 Hours. H.
A study of the literature of a particular author, group of authors, period, genre, region, or theme. Available only to study-abroad participants. May be repeated for credit if content varies. LEC.

PORT 488. Advanced Brazilian Portuguese Conversation. 1 Hour. U.
Two recitations weekly. More advanced than PORT 388. Prerequisite: PORT 108, PORT 110, or PORT 388. LEC.

PORT 490. Intensive Advanced Portuguese. 3-6 Hours. H/W.
Advanced composition, conversation, and stylistics, plus an introduction to Brazilian culture. Offered only during the Summer Language Institute in Brazil. Prerequisite: Four semesters of Portuguese, or consent of instructor. Open only to members of the Summer Language Institute in Vitoria-Vila Velha, Brazil. LEC.

PORT 509. Portuguese Phonetics and Phonology. 3 Hours. H/W.
A study of the phonology of the carioca (Rio de Janeiro) dialect of Brazilian Portuguese, and an introduction to other major Brazilian and Portuguese dialects. Prerequisite: Nine hours of Portuguese, or consent of instructor. LEC.

PORT 540. Textual Analysis and Critical Reading. 3 Hours. HL / H.
A more intensive treatment of the content of PORT 340. Not open to students who have taken PORT 340. Prerequisite: Consent of instructor. LEC.

PORT 547. Brazilian Studies: _____. 3 Hours. H.
A more intensive treatment of the content of PORT 347. Not open to students who have taken PORT 347. Prerequisite: PORT 216 or consent of instructor. LEC.

PORT 548. Portuguese Language and Brazilian Culture for Business. 3 Hours. H.
A more intensive treatment of the content of PORT 348. Not open to students who have taken PORT 348. Prerequisite: Consent of instructor. LEC.

PORT 560. Survey of Portuguese Literature. 3 Hours. H/W.
Emphasis on Gil Vicente, Camoes, Eca de Queiroz, and Fernando Pessoa. Prerequisite: A fourth semester course in Portuguese or consent of instructor. LEC.

PORT 565. Studies in Brazilian Film: _____. 3 Hours. H.
A more intensive treatment of the content of PORT 365. Not open to students who have taken PORT 365. Prerequisite: Consent of instructor. LEC.

PORT 611. Accelerated Basic Portuguese for Spanish Speakers. 3 Hours. U.
Contrastive phonological and morphological analysis of standard Spanish and the major dialect of Brazilian Portuguese, followed by a presentation of major grammatical and phonological stumbling blocks for Spanish speakers. Drills on grammar, syntax, and pronunciation emphasize those areas in which Brazilian Portuguese differs most significantly from Spanish. Prerequisite: Graduate student status in Spanish. Undergraduates in Spanish may be admitted with consent of instructor. LEC.

PORT 612. Accelerated Basic Portuguese for Spanish Speakers II. 3 Hours. U.
A continuation of PORT 611, with special emphasis on reading and writing skills. Prerequisite: PORT 611. LEC.

PORT 740. Survey of Brazilian Literature. 3 Hours.
A survey of Brazilian literature from 1500 to present. Prerequisite: A fourth semester course in Portuguese or consent of instructor. LEC.

PORT 742. The Brazilian Novel. 3 Hours.
The development of the novel in Brazil and analysis of representative works of the nineteenth and twentieth centuries. Prerequisite: A fourth semester course in Portuguese or consent of instructor. LEC.

PORT 746. The Brazilian Short Story. 3 Hours.
The development of the short story in Brazil and analysis of representative works of the nineteenth and twentieth centuries. Prerequisite: A fourth semester course in Portuguese or consent of instructor. LEC.

PORT 750. Brazilian Poetry. 3 Hours.
A study of the principal movements and an analysis of representative works from the colonial period to the present. Emphasis on modernists and post-modernists. Prerequisite: A fourth semester course in Portuguese or consent of instructor. LEC.

PORT 760. Contemporary Brazilian Literature. 3 Hours.
A survey of Brazilian cultural expressions and literature in the Twentieth Century. Conducted in Portuguese. Prerequisite: PORT 216 or consent of instructor. LEC.
PORT 780. Special Readings in Portuguese and Brazilian Literature. 1-3 Hours.
May be taken more than once; total credit not to exceed five hours. Directed private readings with conferences with instructor. Prerequisite: Consent of department. RSH.

PORT 785. Special Topics in Brazilian Cultural and Literary Studies: _______. 3 Hours.
Topics vary by semester. The course may be taken more than once, with full credit, provided there is no duplication in the material covered. Conducted in Portuguese. LEC.

PORT 930. Seminar in Portuguese Literature: _______. 3 Hours. LEC.

PORT 970. Seminar in Brazilian Literature: _______. 3 Hours. LEC.

SPAN 100. Spanish Reading Course. 3 Hours. U.
A special course for candidates for advanced degrees designed to aid them in obtaining a reading knowledge of Spanish. Intensive study of the fundamentals of grammar, proceeding to the reading of material of medium difficulty. Open to graduate students and to seniors who are applying for entrance to a graduate school. The course does not satisfy any part of the undergraduate language requirement. This course is primarily for graduate students who are fulfilling their language requirement(s) for advanced degrees. LEC.

SPAN 101. Orientation Seminar in Spanish and Portuguese. 1 Hour. H.
Provides an overview of the field of Hispanic Studies. Emphasizes developing an understanding of opportunities in Spanish and Portuguese at KU and the Spanish and Portuguese program curricula, exploring service-learning and other extracurricular options available at KU and beyond, and helping students plan goals for their education through an understanding of their personal values and aspirations as they relate to the field. Graded on a satisfactory/unsatisfactory basis. LEC.

SPAN 104. Elementary Spanish I. 5 Hours. U.
For beginning students of Spanish. Not open to students who have had any previous study of Spanish. Active preparation and participation required. Classes conducted in Spanish. Not open to native speakers of Spanish. Offered in fall semester. LEC.

SPAN 107. Elementary Spanish Conversation. 1-4 Hours. U.
Activities to improve elementary level conversation skills. Does not fulfill any portion of the College of Liberal Arts and Sciences foreign language requirement. Available only to study abroad participants. LEC.

SPAN 108. Elementary Spanish II. 5 Hours. U.
Only for students who have completed SPAN 104 at the University of Kansas. This course prepares students for Intermediate level study of Spanish. Active preparation and participation is required. Classes conducted in Spanish. Not open to native speakers of Spanish. Offered in spring semester. Prerequisite: SPAN 104. LEC.

SPAN 111. Intensive Elementary Spanish. 5 Hours. AE41 / U.
For students who have had some previous study of Spanish, but who do not place into the Intermediate level. This course prepares students for Intermediate level study of Spanish. Active preparation and participation required. Classes conducted in Spanish. Not open to native speakers of Spanish. Prerequisite: At least one previous high school or college course in Spanish. LEC.

SPAN 170. Hispanic Language, Culture and Civilization I-A: _______. 1-3 Hours. U.
For students in their first year of language study or the equivalent. An intensive orientation to the culture of Spanish-speaking countries. Includes elements of grammar, conversation, and composition. Available only to study abroad participants. Will not count toward the Spanish major nor the language requirement. May be repeated for credit if content varies. LEC.

SPAN 171. Hispanic Language, Culture and Civilization I-B: _______. 1-3 Hours. U.
A continuation of SPAN 170. For students in their first year of language study or the equivalent. An intensive orientation of the culture of Spanish-speaking countries. Includes elements of grammar, conversation, and composition. Available only to study abroad participants. Will not count toward the Spanish major nor the language requirement. May be repeated for credit if content varies. LEC.

SPAN 177. First Year Seminar: _______. 3 Hours. HL GE11.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in Spanish. May not contribute to major requirements in Spanish. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

SPAN 212. Intermediate Spanish I. 3 Hours. AE42 / U.
A fully integrated content-based and form-focused approach to intermediate-level Spanish. Students process and practice a wide range of vocabulary and grammatical structures in order to complete tasks that promote critical exploration of the Spanish-speaking world and the development of listening, reading, speaking, writing, and intercultural competencies. Classes conducted in Spanish. Not open to native speakers of Spanish. Prerequisite: SPAN 108 or SPAN 111 or placement. See departmental guidelines. LEC.

SPAN 213. Honors Intermediate Spanish I. 3 Hours. U.
Not open to native speakers of Spanish. Prerequisite: SPAN 108 or SPAN 111 with grade of A, or permission of the department LEC.

SPAN 216. Intermediate Spanish II. 3 Hours. AE42 / U.
A continuation of SPAN 212. A fully integrated content-based and form-focused approach to intermediate-level Spanish. Students process and practice a wide range of vocabulary and grammatical structures in order to complete tasks that promote critical exploration of the Spanish-speaking world and the development of listening, reading, speaking, writing, and intercultural competencies. Emphasis on process writing. Classes conducted in Spanish. Not open to native speakers of Spanish. Prerequisite: SPAN 212 or placement. LEC.

SPAN 217. Honors Intermediate Spanish II. 3 Hours. AE42 / U.
Not open to native speakers of Spanish. Prerequisite: SPAN 212 or SPAN 213 with a grade of A, or permission of the department LEC.

SPAN 220. Intensive Intermediate Spanish. 6 Hours. U.
This course is designed for students who would like to acquire proficiency in Spanish more rapidly. The material covered in the course is the same as in SPAN 212 and 216. Not open to native speakers of Spanish. Available only to study abroad participants in KU’s Summer Language Institute in Barcelona, Spain. Prerequisite: SPAN 108 or SPAN 111, with a grade of A or B. LEC.

SPAN 270. Hispanic Language, Culture and Civilization II-A: _______. 1-3 Hours. U.
For students in their second year of language study or the equivalent. An intensive orientation to the culture of Spanish-speaking countries. Includes elements of grammar, conversation, and composition. Available only to study abroad participants. Will not count toward the Spanish major nor the language requirement. May be repeated for credit if content varies. LEC.
SPAN 271. Hispanic Language, Culture and Civilization II-B: ____. 1-3 Hours. U.
A continuation of SPAN 270. For students in their second year of language study or the equivalent. An intensive orientation to the culture of Spanish-speaking countries. Includes elements of grammar, conversation, and composition. Available only to study abroad participants. Will not count toward the Spanish major nor the language requirement. May be repeated for credit if content varies. LEC.

SPAN 300. Developments in Hispanic Cultures. 3 Hours. HL AE42 / H.
The development of social and cultural patterns in the Spanish-speaking world, including the intersection of those patterns with issues related to politics, economics and/or personal values. Assigned readings may be in English or in Spanish. Does not count toward the Spanish major. Prerequisite: SPAN 108, SPAN 109, or SPAN 111; or two years of high school Spanish. LEC.

SPAN 302. The Spanish Inquisition. 3 Hours. H.
A broad historical study of the Spanish Inquisition from 1478 to its afterlife in modern culture, including its use in political debates and its depiction in popular culture. Topics include anti-Semitism, the nature of the inquisitorial investigation, the use of torture, censorship and the relationship between the Inquisition, the Spanish monarchy and other religious and lay authorities. Taught in English. Will not count toward the Spanish major. (Same as HIST 325 and JWSH 315.) LEC.

SPAN 322. Spanish Grammar: Form and Meaning in Context. 3 Hours. U.
Analysis of the most important morphological and syntactic phenomena with an emphasis on their form and function through a review of salient grammatical points in preparation for advanced work in Spanish. Recommended for students who have completed SPAN 216, 217, or 220 with a grade of C or higher, or placement through examination. Course does not count toward the Major. Prerequisite: Four semesters of college-level Spanish or the equivalent. Students who have taken Spanish 324 may take this course with the permission of instructor. LEC.

SPAN 323. Spanish Composition and Cultural Analysis. 3 Hours. U.
Systematic review of writing in Spanish, intensive study of vocabulary and stylistics for formal written communication, and development of essential writing and analytical skills for advanced courses in Spanish. Prerequisite: SPAN 216, or SPAN 217, or SPAN 220, or consent of instructor. LEC.

SPAN 324. Grammar and Composition. 3 Hours. U.
Systematic grammar review and development of essential writing skills for advanced courses in Spanish. Concurrent enrollment in SPAN 328 required. Recommended for students with a grade of B or better in SPAN 216, SPAN 217, or SPAN 220. Prerequisite: SPAN 216 or SPAN 217 with a grade of "C" or higher, or SPAN 220, or SPAN 322, or consent of instructor. LEC.

SPAN 326. Spanish for Health Care Workers. 3 Hours.
This course is designed to provide students with the linguistic and cultural competencies necessary to communicate with and help treat Spanish speaking patients with limited English proficiency. Includes a general review of pertinent grammar, specific vocabulary groups relating to assessment and care of patients, vocabulary to establish rapport, and discussions leading to cultural competencies. Not open to students who have completed SPAN 424 or above. Prerequisite: Completion of Spanish 216 with a grade of C or better. LEC.

SPAN 328. Intermediate Spanish Conversation. 2 Hours. U.
Conversational reinforcement of topics presented in SPAN 324 with an emphasis on oral communication skills in a cultural context. Concurrent enrollment in SPAN 324 required. Two class meetings per week. Not available to study abroad participants. Prerequisite: SPAN 216 or SPAN 217 with a grade of C or higher; or SPAN 220; or SPAN 322; or consent of instructor. LEC.

SPAN 329. Intermediate Spanish Conversation II. 1 Hour. U.
Two class meetings per week. Continuation of SPAN 328. Not open to native speakers of Spanish. Prerequisite: SPAN 328 or consent of instructor. LEC.

SPAN 330. Service Learning Internship Spanish I. 3 Hours. U.
An opportunity for students to utilize and improve their Spanish language skills in an internship or volunteer work in business, schools, government, hospitals, churches, and various types of service organizations. Students must have approval of instructor to register and must provide written confirmation of acceptance for volunteer work in an agency that provides service to a Spanish-speaking public before the course begins. Periodic supervisor evaluations and a reflection journal in Spanish are required, in addition to other materials requested by the instructor. Class format may be an independent internship taken for variable credit under instructor supervision. Will not count toward Spanish major. Prerequisite: Students must have completed a minimum of 12 hours of Spanish in courses at the 200-level or above, and completion of SPAN 324 with a grade of B or better. LEC.

SPAN 340. Textual Analysis and Critical Reading. 3 Hours. HL GE3H / H/W.
Critical readings and interpretation of Hispanic literatures, with emphasis on acquiring the skills and vocabulary necessary for discussing and writing literary analyses. Prerequisite: SPAN 323 or SPAN 324, or consent of instructor. LEC.

SPAN 346. Transatlantic Hispanic Cultures. 3 Hours. H.
This course offers an introductory overview of Hispanic cultures, focusing on the political, economic, social, linguistic, and artistic development that shaped the historical and cultural bonds between Latin America and Spain. Enhances the cultural competence acquired in previous Spanish classes and prepare students for upper-level work in the major. Taught in Spanish. Prerequisite: Span 324. A grade of "C" or better in SPAN 324 is strongly recommended for students enrolling in this course. Not open to students who have already taken SPAN 370, SPAN 371, SPAN 446, SPAN 447, or SPAN 471. LEC.

SPAN 370. Hispanic Language, Culture and Civilization III-A: ____. 1-3 Hours. U.
An intensive orientation to the culture of Spanish-speaking countries. Also includes elements of grammar, conversation, and composition. Available only to study-abroad participants. Will not count toward the Spanish major. May be repeated for credit if content varies. LEC.

SPAN 371. Hispanic Language, Culture and Civilization III-B: ____. 1-3 Hours. U.
A continuation of SPAN 370. An intensive orientation to the culture of Spanish-speaking countries. Also includes elements of grammar, conversation, and composition. Available only to study abroad participants. Will not count toward the Spanish major. May be repeated for credit if content varies. LEC.

SPAN 390. Interpretation of Hispanic Literature. 3 Hours. H.
A study of selected works in literary theory that are pertinent to the field of Hispanism and of selected problems in literary interpretation and comparative literature methodology, designed to examine and apply systematically basic critical principles and approaches to the field of Hispanic literature. Discussion of these approaches is related to the previous study of literature and deepened through individual papers written by participants and presented to the group. Does not count toward the major in Spanish. Prerequisite: Completion of one junior-senior course in a language and literature department. LEC.
SPAN 424. Advanced Spanish Composition and Grammar. 3 Hours. H/W.
Extensive practice in writing, with attention to vocabulary, grammar usage, and discourse structure. Thorough review of syntax and grammar. Conducted in Spanish. Concurrent enrollment in SPAN 428 is strongly recommended. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 428. Advanced Spanish Conversation. 2 Hours. U.
Emphasis on developing fluid expression of opinions, ideas, and points of view through discussion of selected texts and cultural materials. Two class meetings per week. Concurrent enrollment in SPAN 424 recommended. Prerequisite: SPAN 340 or consent of instructor. A grade of C or higher in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 429. Spanish Phonetics. 3 Hours. H/W.
An analytical and practical study of contemporary Spanish phonetics. Prerequisite: SPAN 424 and SPAN 428, or consent of instructor. LEC.

SPAN 440. Hispanic Studies: _____ 3 Hours. H/W.
A topics course dedicated to the study of special historical moments, topics, authors, or themes in literary and cultural history. Readings may include selections from both Spain and the countries of Spanish America. The course may cover multiple genres, authors, periods, or regions. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 441. Special Topics in Spanish Literature and Culture: _____ 1-3 Hours. H.
A topics course dedicated to the study of special historical moments, topics, authors, or themes in Spanish literary and cultural history. The course may cover multiple genres, authors, periods, or regions. Course conducted in Spanish and may be repeated for credit as the topic varies. This course may be used to partially or fully fulfill 400-level peninsular Spanish literature requirement. Prerequisite: SPAN 340. LEC.

SPAN 442. Special Topics Latin American Literature and Cultures: _____ 1-3 Hours. H.
A topics course dedicated to the study of special historical moments, topics, authors, or themes in Latin American literary and cultural history. The course may cover multiple genres, authors, periods, or regions. Course conducted in Spanish and may be repeated for credit as the topic varies. Course may be used to partially or fully fulfill 400-level peninsular Latin American literature requirement. Prerequisite: SPAN 340. LEC.

SPAN 446. Spanish Culture. 3 Hours. H/W.
A study of the development of Spanish culture with particular emphasis on history, customs and traditions, and literary trends and artistic tendencies that constitute Spain's specific contribution to Western civilization. Conducted in Spanish. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 447. Latin American Cultures: _____ 3 Hours. H/W.
The description and interpretation of Latin American cultures, with particular attention to history, ethnology, folklore, and the arts. The course may focus on particular countries or geographical areas. Conducted in Spanish. May be repeated for credit as topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 448. Spanish Language and Culture for Business. 3 Hours. H.
Cultural studies approach to contemporary Spanish American societies for students with an interest in business. Explores how individuals from Spanish American countries negotiate their place in a new cultural context, and how different groups in Spanish America perceive business (negocios). Readings include selections from literature, history, journalism, social analysis, and popular culture. Exercises help non-native speakers develop analytical skills as well as vocabulary and communication skills related to international business and professional life. Conducted in Spanish. Prerequisite: SPAN 323 or SPAN 324, or consent of instructor. LEC.

SPAN 450. Medieval Spanish Studies: _____ 3 Hours. H.
Reading and analysis of Spanish literature and culture to 1500. The course may cover multiple genres, authors, periods, regions, or topics. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 451. Early Modern Spanish Studies: _____ 3 Hours. H.
Reading and analysis of Spanish literature and culture from 1500 to 1800. The course may cover multiple genres, authors, periods, regions, or topics. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 452. Nineteenth Century Spanish Studies: _____ 3 Hours. H.
Reading and analysis of the literature and culture of Spain of the 1800s. The course may cover multiple genres, authors, periods, regions, or topics. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 453. Twentieth Century Spanish Studies: _____ 3 Hours. H.
Reading and analysis of the literature and culture of Spain from 1900 to the present. The course may cover multiple genres, authors, periods, regions, or topics. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 456. Colonial Spanish-American Studies: _____ 3 Hours. H.
Reading and analysis of Spanish-American literature and culture from the Conquest to Independence, organized by topic. The course may cover multiple genres, authors, periods, regions, or topics. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 461. Nineteenth Century Spanish-American Studies: _____ 3 Hours. H.
Reading and analysis of Spanish-American literature and culture from Independence to 1900, organized by topic. The course may cover multiple genres, authors, periods, regions, or topics. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 462. Twentieth Century Spanish-American Studies: _____ 3 Hours. H.
Reading and analysis of Spanish-American literature and culture from 1900 to the present, organized by topic. The course may cover multiple genres, authors, periods, regions, or topics. Course conducted in Spanish
and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 463. National Traditions in Spanish America: ___. 3 Hours. H.
Reading and analysis of Spanish-American literature and cultural history from the perspective of a selected nation or nations. The course explores the role of literature and cultural expression in constructing the modern nation and local traditions. Readings may cover selections from multiple genres, authors, and periods. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 464. Reading and Analysis of U.S. Latino/a Literatures: ___. 3 Hours. H.
The course covers multiple genres, authors, periods, regions, or topics. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 470. Studies in Spanish Culture and Civilization: ___. 1-3 Hours. H.
A study of Spanish culture with emphasis on one or more of the following aspects: history, politics, ethnology, anthropology, religious and secular traditions, issues of cultural identity, music, art, architecture, and popular culture. Available only to study-abroad participants. Maybe repeated for credit if content varies. LEC.

SPAN 471. Studies in Spanish-American Culture and Civilization: ___. 1-3 Hours. H.
A study of Spanish American national or regional culture with emphasis on one or more of the following aspects: history, politics, ethnology, anthropology, religious and secular traditions, issues of cultural identity, music, art, architecture, and popular culture. Available only to study-abroad participants. May be repeated for credit if content varies. LEC.

SPAN 474. Studies in Spanish Literature and Culture: ___. 1-3 Hours. H.
A study of the literature and cultural production of a particular author, group of authors, period, genre, region, or theme. Available only to study-abroad participants. May be repeated for credit if content varies. LEC.

SPAN 475. Studies in Latin-American Literature and Culture: ___. 1-3 Hours. H.
A study of the literature and cultural production of a particular author, group of authors, period, genre, country, region, or theme. Available only to study-abroad participants. May be repeated for credit if content varies. LEC.

SPAN 494. Special Readings in Spanish. 1-3 Hours. H/W.
Directed reading in (a) fields not covered by student's course work, and/or (b) field of student's special interest approved by the department. Conferences. May be repeated for credit if content varies. Prerequisite: Twenty-five hours of Spanish. IND.

SPAN 496. Honors in Spanish. 3 Hours. AE61 / H/W.
Honors seminar. May be repeated for credit. Required of all students working for a degree with honors in Spanish. IND.

SPAN 500. Hispanic Literature in Translation: ___. 3 Hours. H.
A study of the literature in English translation of a particular author, period, genre, country, region, or theme. Discussion in English and frequent critical papers. May be repeated for credit as the topic varies. Will not count toward the Spanish major. Prerequisite: Completion of one junior-senior level literature course in any language. LEC.

SPAN 520. Structure of Spanish. 3 Hours. H/W.
A study of the Spanish language as it is spoken today, from perspectives of contemporary linguistics. Reading and analysis of recent publications in the field. Prerequisite: SPAN 424 and SPAN 428, or consent of the instructor. LEC.

SPAN 550. Colloquium on Latin American Film. 3 Hours. AE61 / H.
A theoretical and historical exploration of Latin American cinema from its origins to the present with particular attention devoted to the films of Berlanga, Bunuel, Gutierrez Aragon, Saura, Erice, and Almodovar. Students will be expected to attend film screenings in addition to regular class meetings. Prerequisite: SPAN 424 and six hours of 400-level Spanish literature courses. LEC.

SPAN 556. Latin American Folklore. 3 Hours. H.
An examination of Latin American folklore traditions, the ways they are used to give meaning to life and to define local and national identity. Folk literature, songs, music, dance, foods, fiestas, and material culture are looked at in the light of current folklorist theory. Lectures and discussion are in English, some readings may be in Spanish. Prerequisite: SPAN 424 and six hours of 400-level Spanish literature courses. LEC.

SPAN 568. Spanish Ballads. 3 Hours. H/W.
A study of the various types of ballads: traditional, artistic, and popular. Prerequisite: A survey of Spanish literature through the Golden Age. LEC.

SPAN 570. Studies in Hispanic Linguistics: ___. 3 Hours. U.
Theoretical and applied analysis of one or more of the following components of the Spanish language: phonology/phonetics, morphology, syntax, semantics, pragmatics. May be repeated for credit if content varies. Prerequisite: SPAN 424 and SPAN 428. LEC.

SPAN 681. Language Teaching for Oral Proficiency. 1 Hour. U.
A summer course designed principally for secondary school language teachers. Provides an orientation to proficiency-based models in foreign language instruction, national standards in the rating of foreign language proficiency, and curriculum development sessions which address issues of articulation in foreign language curricula. (Not applicable toward a
major or graduate degree in Spanish.) (Same as FREN 681 and GERM 681.) LEC.

SPAN 717. History of the Spanish Language. 3 Hours.
The phonological and lexical development of the Spanish language from spoken Latin to the present; major dialectal features. Prerequisite: A course in Spanish phonetics. LEC.

SPAN 720. Syntax and Composition. 3 Hours.
Syntactical analysis of modern Spanish usage; principles of expository writing. Prerequisite: A course in advanced composition or structure, or graduate standing. LEC.

SPAN 722. Special Topics in Spanish Literature: ____. 2-3 Hours.
The content of this course will vary, and the course may be taken more than once with full credit, provided there is no duplication in the material studied. Prerequisite: A survey course in Spanish peninsular literature taught in Spanish. LEC.

SPAN 730. Topics in the Literature of 13th- and 14th-Century Iberia: _____ 3 Hours.
A theoretically informed study of representative works from 13th- and 14th-century Iberia. Course may be repeated for credit provided that the topic changes. LEC.

SPAN 733. Print Culture in Early Modern Spain. 3 Hours.
A study of the literature produced during the period of early printed books with emphasis on the diffusion of new literary forms during the late 15th- and early 16th-centuries. LEC.

SPAN 735. Poetry and Sentimental Romance in Fifteenth-Century Castile. 3 Hours.
Survey of the poetry and prose of the fifteenth century with particular attention to the literature produced during the reign of Isabel de Castilla. LEC.

SPAN 739. Topics in Early Modern Spanish Drama: _____ 3 Hours.
Selected plays of such authors as Lope de Vega, Tirso de Molina, Calderón, and María de Zayas. Course may be repeated for credit provided that the topic changes. LEC.

SPAN 742. Topics in the Early Modern Spanish Prose: _____ 3 Hours.
From the Celestina to the middle of the seventeenth century. Course may be repeated for credit provided that the topic changes. LEC.

SPAN 744. Topics in Early Modern Spanish Poetry: _____ 3 Hours.
A theoretically informed study of selected works of poetry in Spanish from the 15th through 17th centuries. Course may be repeated for credit provided that the topic changes. LEC.

SPAN 745. Don Quixote. 3 Hours.
Linguistic and literary study. Examination of traditional interpretations. The life and thought of Cervantes. Theoretical readings. LEC.

SPAN 752. Spanish Literature of the 18th Century. 3 Hours.
The neo-classic movement; the traditionalist reaction; the beginnings of Romanticism. Prerequisite: A course in Spanish literature from the 18th century to the present. LEC.

SPAN 754. Romanticism. 3 Hours.
The development of the Romantic movement in Spain. Prerequisite: A survey course in Spanish literature from the 18th century to the present. LEC.

SPAN 755. 19th Century Spanish Novel. 3 Hours.
The rise and development of realism. Prerequisite: A survey course in Spanish literature from the 18th century to the present. LEC.

SPAN 760. 19th Century Spanish Drama. 3 Hours.
A survey of the main currents and aesthetics in the nineteenth-century Spanish theatre: NeoClassicism, Romanticism, Costumbrismo, Realismo (Alta Comedia), NeoRomanticism, and the innovations of Galdós and Benavente. Prerequisite: A survey course in Spanish literature from the 18th century to the present. LEC.

SPAN 761. 20th Century Spanish Drama. 3 Hours.
A survey of major plays and playwrights of 20th century Spain with reference to critical theory of text as literature and performance. LEC.

SPAN 762. The Spanish Novel Since the Civil War. 3 Hours.
A study of the major works and movements occurring since the Spanish Civil War. LEC.

SPAN 764. Modern Spanish Poetry. 3 Hours.
Modern poetry of Spain, beginning with Beccquer and ending with the "Generation of the 1920's." Close study of the works of the major poets; readings in poetic theory. Prerequisite: A general survey course of the literature of Spain of the 18th, 19th, and 20th centuries. LEC.

SPAN 765. Contemporary Spanish Poetry. 3 Hours.
Contemporary poetry of Spain, beginning with the "Generation of the 1920's" and including the post-Civil War period. Close study of the work of several poets; readings in poetic theory. Prerequisite: A general survey course in the literature of Spain since the Golden Age. LEC.

SPAN 766. The Spanish Modernist Novel. 3 Hours.
A diachronic study of the syntax and morphology of Spanish from the thirteenth century to the present; sound change and orthography; evolution of literary styles. Prerequisite: A course in Spanish phonetics. LEC.

SPAN 770. Spanish-American Drama. 3 Hours.
Study of several exceptional plays of 20th century Spanish America in light of critical methodologies, national theatre movements, and performance aspects. LEC.

SPAN 771. Spanish-American Literature: ____. 3 Hours.
A survey by region or country (Mexican literature, Cuban literature, Argentine literature, Caribbean literature, etc.) of Spanish American literature from the beginning to the present, with emphasis on the 19th and 20th centuries. Course title will vary by country or region. Prerequisite: A survey course in Spanish American literature. LEC.

SPAN 772. The Modern Spanish-American Novel, 1900-1950. 3 Hours.
A study of selected novels in Spanish America from the 1900 to 1950. Topics may vary. Prerequisite: A survey course in Spanish American literature. LEC.

SPAN 773. The Modern Spanish-American Novel Since 1950. 3 Hours.
A study of selected novels in Spanish America since 1950. Topics may vary. Prerequisite: A survey course in Spanish American literature. LEC.

SPAN 774. Spanish-American Poetry. 3 Hours.
A study of the twentieth century poetic tradition in Spanish America, including major movements and a range of poets who represent the variety of writing in the genre until the 21st century. LEC.

SPAN 776. Spanish-American Short Story. 3 Hours.
A study of aspects of the short story tradition in Spanish America from its origins to the present. Topics may vary. Prerequisite: A survey course in Spanish American literature. LEC.

SPAN 781. Colonial Identities. 3 Hours.
This course centers on the dynamics of identity of Creoles, Amerindians, Blacks and members of the castes in colonial Spanish America. It
concentrates on how members of these racial and ethnic groups relate to coloniality, space, place and gender. LEC.

SPAN 782. Spanish-American Prose Fiction: ______. 3 Hours.
A survey by region or country (Mexican Prose Fiction, Cuban Prose Fiction, Argentine Prose Fiction, Caribbean Prose Fiction, etc.) of Spanish American Prose Fiction from the beginning to the present, with emphasis on the 19th and 20th centuries. Course title will vary by country or region. Prerequisite: A survey course in Spanish American literature. LEC.

SPAN 784. Spanish-American Modernism and Vanguards. 3 Hours.
A study of the poetry and/or prose of modernismo and the vanguards in Spanish America. Prerequisite: One course in Spanish American literature or permission of instructor. LEC.

SPAN 785. Special Topics in Spanish-American Literature: ______. 2-3 Hours.
The content of this course will vary, and the course may be taken more than once, with full credit provided there is no duplication in the material covered. Prerequisite: A survey course in Spanish American literature. LEC.

SPAN 790. Spanish Linguistics: Theory and Application to Teaching. 3 Hours.
An introduction to linguistics and applied linguistics focused on the phonology, morphology, and syntax of Spanish, including work in tagmemics and transformational grammar. Part of the course deals with problems of language instruction, testing, and use of the language laboratory. LEC.

SPAN 792. Topics in the Picaresque Novel: ______. 3 Hours.
A theoretically informed study of the picaresque mode in Spanish and Spanish-American literature. Course may be repeated for credit provided that the topic changes. LEC.

SPAN 795. Literary Theory and Criticism. 3 Hours.
Systematic study of the development of theories of literature. Emphasis usually placed on twentieth century although scope may vary. Prerequisite: 700-level course in Spanish or concurrent enrollment. LEC.

SPAN 801. Teaching Spanish in Institutions of Higher Learning. 3 Hours.
Required of all teaching assistants who teach beginning Spanish at the University of Kansas for the first time. Instruction in classroom procedures for first year Spanish, demonstration of teaching techniques, and survey of current methodology. FLD.

SPAN 802. Colloquium in Methods of Teaching Spanish Language. 1-3 Hours.
Combines discussion of theoretical teaching concepts and development of pedagogical materials with practical solutions arising concurrently in Spanish languages courses. LEC.

SPAN 817. Spanish Historical Grammar. 3 Hours.
A diachronic study of the syntax and morphology of Spanish from the thirteenth century to the present; sound change and orthography; evolution of literary styles. Prerequisite: A course in Spanish phonetics. LEC.

SPAN 898. Investigation and Conference. 1-10 Hours.
Individually directed work to fill the student’s needs not met by available organized courses. One to three hours of credit in any semester. Maximum total credit for the M.A. degree is three hours. May be taken with full credit as often as recommended by department. THE.

SPAN 922. Seminar in Spanish Literature and Culture: ______. 3 Hours.
An intensive investigation of a particular topic in Spanish Literature and Culture; content will vary in terms of topics, genres, and time periods covered. The course may be taken more than once with full credit, provided there is no duplication. Prerequisite: Graduate standing. LEC.

SPAN 940. Seminar in Trans-Atlantic Literatures and Cultures: ______. 3 Hours.
An intensive investigation of a particular topic in Spanish and Latin American Literatures and Cultures; content will vary in terms of topics, genres, and time periods covered. The course may be taken more than once, with full credit provided there is no duplication. Prerequisite: Graduate standing. SEM.

SPAN 950. Seminar: Spanish Drama: ______. 3 Hours. LEC.

SPAN 952. Seminar: Spanish Novel: ______. 3 Hours. LEC.

SPAN 954. Seminar: Spanish Poetry: ______. 3 Hours. LEC.

SPAN 956. Seminar: Spanish Short Story: ______. 3 Hours. LEC.

SPAN 958. Seminar: Spanish Essay: ______. 3 Hours. LEC.

SPAN 961. Seminar: Medieval Literature: ______. 3 Hours. LEC.

SPAN 962. Seminar: Cervantes: ______. 3 Hours. LEC.

SPAN 970. Seminar: Spanish American Drama: ______. 3 Hours. LEC.

SPAN 972. Seminar: Spanish American Novel: ______. 3 Hours. LEC.

SPAN 974. Seminar: Spanish American Poetry: ______. 3 Hours. LEC.

SPAN 976. Seminar: Spanish American Short Story: ______. 3 Hours. LEC.

SPAN 978. Seminar: Spanish American Essay: ______. 3 Hours. LEC.

SPAN 985. Seminar in Spanish American Literature and Culture: ______. 3 Hours.
An intensive investigation of a particular topic in Spanish American Literatures and Cultures; content will vary in terms of topics, genres, and time periods covered. The course may be taken more than once, with full credit provided there is no duplication. Prerequisite: Graduate standing. SEM.

SPAN 999. Dissertation. 1-12 Hours. THE.

Speech-Language-Hearing Courses

SPLH 120. The Physics of Speech. 4 Hours. N.
An introduction to the acoustic structure of speech intended for nonscience majors. Emphasis will be placed on the methods and standards by which scientists measure and evaluate the physical characteristics of speech. Topics will include: simple harmonic motion, the propagation of sound waves, aerodynamic aspects of vocal fold vibration, resonance, digital speech processing, frequency analysis, and speech synthesis. Three class hours and one laboratory per week. (Same as LING 120.) Prerequisite: MATH 101 or 104 or equivalent. LEC.

SPLH 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Speech-Language and Hearing. Course is designed
to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

SPLH 250. Study Abroad Topics in: ______. 1-5 Hours. S.
A course designed to enhance international experience in topic areas related to speech-language-hearing at the freshman/sophomore level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if the content differs. Prerequisite: Department permission. LEC.

SPLH 261. Survey of Communication Disorders. 3 Hours. SI GESS / S.
Provides a general understanding of normal and deviant speech, language, and hearing in adults and children. This course considers the normal development of communication behavior, the nature of communication disorders, and the interaction of speech pathology and audiology with allied fields (e.g., education, medicine, psychology, special education). LEC.

SPLH 320. The Communicating Brain: The Ultimate Personal Computer. 3 Hours. U.
This course introduces the study of human neuroscience with a particular focus on human communication. The course provides an overview of the relevant anatomical structures and function along with an introduction to the basic methods used to investigate central nervous system function. Students are introduced to the study of perceptual, motor, and language function in the nervous system through a series of examples drawn from normal function and clinical cases. The examples are selected to highlight how these systems develop and are influenced by experience, implantable devices developed to interface with the nervous system, and how computers and animals are used as models to learn about nervous system function. LEC.

SPLH 418. Introduction to Cognitive Science. 3 Hours. S.
Examines the data and methodologies of the disciplines that comprise Cognitive Science, an inter-disciplinary approach to studying the mind and brain. Topics may include: consciousness, artificial intelligence, linguistics, education and instruction, neural networks, philosophy, psychology, anthropology, evolutionary theory, cognitive neuroscience, human-computer interaction, and robotics. (Same as LING 418, PHIL 418, and PSYC 418.) Prerequisite: Consent of instructor. LEC.

SPLH 432. Human Behavioral Genetics. 3 Hours. S.
A survey of human behavioral genetics for upper division undergraduates. Emphasis is on how the methods and theories of quantitative, population, medical, and molecular genetics can be applied to individual and group differences in humans. Both normal and abnormal behaviors are covered, including intelligence, mental retardation, language and language disorders, communication, learning, personality, and psychopathology. (Same as ANTH 447, BIOL 432, PSYC 432.) Prerequisite: Introductory courses in biology/genetics or biological anthropology and psychology are recommended. LEC.

SPLH 449. Laboratory/Field Work in Human Biology. 1-3 Hours. AE61 / N.
Faculty supervised laboratory or field research for Human Biology majors. Students design and complete a research project in collaboration with a Human Biology faculty member. (Same as ANTH 449, BIOL 449, and PSYC 449.) Prerequisite: Consent of instructor and Human Biology major. FLD.

SPLH 450. Study Abroad Topics in: ______. 1-5 Hours. S.
A course designed to enhance international experience in topic areas related to speech-language-hearing at the junior/senior level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if the content differs. Prerequisite: Department permission. LEC.

SPLH 451. Directed Study Abroad in Speech-Language-Hearing. 1-3 Hours. S.
An independent study designed to enhance international experience in topic areas related to speech-language hearing. Investigation of special topic or project selected by the student with advice, approval, and supervision by a KU SPLH instructor and an authorized agent of the study abroad site. Experience must be arranged through the Office of KU Study Abroad. Such study may take the form of directed reading and/or directed research/clinical observation. A daily journal and final report is required. A maximum of six hours of credit may be counted, with no more than three in a single area of study. Prerequisite: Consent of instructor IND.

SPLH 464. Undergraduate Seminar in: ______. 1-3 Hours. S.
Course organized any given semester to study particular subject matter or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. (Distribution credit given for two-three hours only.) LEC.

SPLH 465. Fundamentals of Clinical Phonetics. 1 Hour. S.
Introduction to classification of American English speech sounds based on articulatory phonetics. Practice in phonetic transcription and analysis of normal and abnormal speech. Laboratory exercises to give students hands-on experience with selected topics from lecture. Prerequisite or Corequisite: SPLH 120. LEC.

SPLH 466. Language Science. 3 Hours. S.
Introduction to structure/function of human languages as it relates to language development and disorders; processes involved in the expression and reception of language and the methodologies employed to study these processes. LEC.

SPLH 497. Mentored Research Experience. 2-8 Hours. AE61 / S.
Study may be directed toward either reading for integration of knowledge and insight in Speech-Language-Hearing, or original research in the field. Student creates a plan of activities at the beginning of each semester under the mentor’s guidance. Student and mentor review this plan at the end of each semester to evaluate progress. In the final semester of enrollment, student must complete a written report or a public oral presentation detailing the purpose, methods, results, and impact of the research. This final product partially meets the requirements for Research Experience Certification. (Eight hours maximum credit, which may be distributed through 4 semesters. No student may enroll for less than two hours credit or more than 4 hours of credit in a given semester). Prerequisite: Consent of Departmental Research Experience Coordinator. IND.

SPLH 498. Departmental Honors Research. 2-8 Hours. AE61 / S.
Study may be directed toward either reading for integration of knowledge and insight in Speech-Language-Hearing, or original research in the field. Student creates a plan of activities at the beginning of each semester under the mentor’s guidance. Student and mentor review this plan at the end of each semester to evaluate progress. In the final semester of enrollment, student must complete a written report or a public oral presentation detailing the purpose, methods, results, and impact of the research. This final product partially fulfills the requirements for Departmental Honors. (Eight hours maximum credit, which may be distributed through 4 semesters. No student may enroll for less than two hours credit or more than 4 hours of credit in a given semester). Prerequisite: Consent of Departmental Honors Coordinator. IND.
SPLH 499. Directed Study in Speech-Language-Hearing. 1-3 Hours. AE61 / S.
Investigation of special topic or project selected by the student with advice, approval, and supervision of an instructor. Such study may take the form of directed reading and/or directed research/clinical observation. Individual reports and conferences. (Distribution credit given for two-three hours only.) A maximum of six hours of credit may be counted, with not more than four in a single area of study.) Prerequisite: Consent of instructor. IND.

SPLH 565. Language Sample Analysis Lab. 1 Hour. S.
The study of the analysis of language produced by children with respect to its phonological, lexical, morphological, syntactic, and pragmatic characteristics. Prerequisite or corequisite: SPLH 566. LAB.

SPLH 566. Language Development. 3 Hours. SI GE3S / S.
Study of language acquisition in children, including phonologic, morphologic, syntactic, and semantic components. Methods of language measurement, the role of comprehension, and pragmatic aspects of language use are included. May be taught in lecture or online format. LEC.

Research Methods is about the methods used to conduct, describe and evaluate science in communication disorders. Goals for learner outcomes include: 1) evaluation of research including adequacy of research to address scientific and clinical problems, 2) reading, summarizing and describing research through a literature review, 3) describing a hypothetical research study that addresses a specific question or hypothesis identified by the student, and 4) providing constructive peer reviews of research paper drafts. Prerequisite: 9 credits of SPLH course work; English 101 and ENGL 102 (or course meeting core skill in written communication); or consent of instructor. LEC.

SPLH 662. Principles of Speech Science. 3 Hours. N.
Survey of the physiology of speech production, and the physics of sound. Emphasis upon methodologies in the laboratory study of normal speech. Prerequisite: SPLH 120 and SPLH 320, or concurrent enrollment in SPLH 120 and SPLH 320, or consent of instructor. LEC.

SPLH 663. Principles of Hearing Science. 3 Hours. N.
Concepts and principles relevant to the normal hearing processes: gross anatomy, psychophysical methods, and basic subjective correlates of the auditory system. Prerequisite: SPLH 120 and SPLH 320, or concurrent enrollment in SPLH 120 and SPLH 320, or consent of instructor. LEC.

SPLH 668. Introduction to Audiological Assessment and Rehabilitation. 4 Hours. U.
Introduction to methods for assessing and treating hearing disorders in adults and children, as well as conditions that result in hearing loss. Course includes clinical observation and extensive hands-on experience with clinical techniques. Prerequisite: SPLH 663. LEC.

SPLH 670. Beginning Clinical Practice in Audiology. 1-3 Hours. N.
Testing of hearing using pure tone air and bone conduction tests with both normal and hearing-impaired individuals. Prerequisite: Completion of or concurrent enrollment in SPLH 668. FLD.

SPLH 671. Introduction to Speech-Language Pathology. 4 Hours. U.
This course provides training in clinical management of communicative disorders in children and adults. Principles of evaluation, application of diagnostic information, intervention planning, intervention process, data collection and application, report writing, and interactions with parents and other professionals are examined. Participation in observation and laboratory activities is required. LEC.

SPLH 672. Clinical Practice in Speech-Language Pathology. 3 Hours. S.
Clinical practice with children and adults. Group and individual conferences with staff required. Repeatable once for credit. Prerequisite: SPLH 671 and consent of instructor. FLD.

SPLH 699. Speech-Language Pathology. 3 Hours. S.
Concepts and principles relevant to the perception of speech with emphasis on the auditory system; acoustics, psychophysical methods, and basic subjective correlates of speech perception. Prerequisite: SPLH 662 and SPLH 663, or consent of instructor. LEC.

SPLH 761. Aural Rehabilitation. 3 Hours.
Study of the communication problems associated with hearing loss. Introduction to aural habilitative intervention related to speech, language, and academic achievement in children with early hearing loss, as well as, communication strategies training for adults with acquired hearing loss. Prerequisite: SPLH 669 or equivalent. LEC.

SPLH 764. Seminar in: ____. 1-3 Hours.
The subject matter of this seminar will be special topics from speech pathology and audiology. Special prerequisite may be established for a given topic. LEC.

SPLH 784. Proseminar in Communication and Aging. 1 Hour.
A weekly forum for students and faculty to discuss professional issues and interdisciplinary research in communication and aging. May be repeated for credit. (Same as COMS 784.) (Same as PSYC 784.) Prerequisite: Consent of instructor. LEC.

SPLH 799. Proseminar in Child Language. 2 Hours.
A review and discussion of current issues in children's language acquisition. May be repeated for credit. Students are graded S/F. (Same as ABSC 797, LING 799 and PSYC 799.) (Formerly HDSF 797.) LEC.

SPLH 816. Language Development. 3 Hours.
Study of language acquisition in children, including the morphologic, syntactic, and semantic components. Methods of language measurement, the role of comprehension, and pragmatic aspects of language use will be included. Not open to students who have credit for SPLH 566. Laboratory by appointment. LEC.

SPLH 820. Developmental Phonological Disorders. 2 Hours.
Focuses on speech and non-speech characteristics of children with developmental phonological disorders. Emphasis placed on collection and phonetic transcription of speech samples, phonological analysis of transcribed data, and decision-making processes in assessment and intervention. LEC.

SPLH 822. Dysarthria/Apraxia. 2 Hours.
This course describes the neuroanatomic bases of motor-speech processes, the diagnosis, classification, assessment, prognosis, and treatment of dysarthria(s) and apraxia(s). LEC.

SPLH 824. Fluency Disorders. 2 Hours.
The nature of stuttering in children and adults is discussed. Theories regarding etiology, development, and maintenance of the disorder are presented. Emphasis is placed on various clinical approaches to assessment, measurement, and treatment. LEC.

SPLH 826. Phonatory Disorders. 2 Hours.
This course reviews the function of the laryngeal and respiratory mechanisms including the parameters and processes of phonation. Primary content addresses diagnosis, description, and treatment of organic and non-organic disorders of phonation. LEC.

SPLH 828. Speech Disorders in Special Populations. 2 Hours.
This course reviews anatomy and physiology of the velopharyngeal mechanism. Diagnosis and management of velopharyngeal dysfunction.
and associated problems considered. Anatomy, physiology, and rehabilitation associated with certain oral, pharyngeal, and laryngeal abnormalities discussed. Emphasis is on the speech problems of adults following medical management. Populations include individuals with laryngectomies, glossectomies, and tracheotomies. LEC.

SPLH 832. Dysphagia. 2 Hours.
This course covers normal and disordered swallowing. Evaluation and treatment of swallowing disorders, the dysphagia team, and dysphagia in special populations are considered. LEC.

SPLH 836. Genetics of Communication and Learning Disorders. 2 Hours.
This course focuses on the description, assessment, and treatment of communication problems associated with particular genetic syndromes (e.g., Down’s, Turner’s syndromes). Also covered are current data about the genetic factors involved in nonsyndromic communication and learning problems, such as those commonly seen in the schools. Ethical and practical issues in these areas are discussed. LEC.

SPLH 840. Language Disorders of Children: Infants and Toddlers. 2 Hours.
This course examines factors relating to language disorders in the birth to three population. At-risk populations, as well as those with known etiologies, are considered. Information on assessment, intervention, and service delivery models is addressed. Issues relating to Public Law 99-457 are also examined. LEC.

SPLH 842. Language Disorders of Children: Preschool. 2 Hours.
This course examines language disorders of preschool-age children in the late preschool years. The course includes information on incidence, characteristics, assessment, and intervention. Theoretical issues and their implication for language intervention are also examined. LEC.

SPLH 844. Language Disorders of Children: School Age. 2 Hours.
This course examines language development during the school years and how problems in this development interact with school performance. Emphasis is placed on the role of the speech-language pathologist in the early identification, assessment, and remediation of language-learning problems. LEC.

SPLH 846. Language Disorders of Adults. 2 Hours.
Neurological aspects of language processes, classification of aphasia, and assessment of language deficits are discussed. Management approaches including intervention strategies and rehabilitation are also considered. LEC.

SPLH 848. Language Disorders of Special Populations. 2 Hours.
This course focuses on the unique language impairments of individuals with mental retardation, autism, cerebral palsy, hearing impairments, dual sensory impairments, and other communication disorders (e.g., ADD). Language characteristics as well as assessment and intervention strategies are studied. LEC.

SPLH 850. Language Disorders Secondary to Closed Head Injury and Dementia. 2 Hours.
Neuroanatomy and physiology relevant to diffuse brain injury are discussed. Characteristics and intervention strategies relating to traumatic brain injury and dementia are studied. LEC.

SPLH 852. Augmentative and Alternative Communication. 2 Hours.
This course describes augmentative and alternative communication (AAC) assessment and intervention issues as they apply to children and adults with both congenital and acquired speech and/or language disabilities. Areas of study include AAC systems, assessment strategies and procedures, intervention strategies, and AAC information resources. LEC.

SPLH 854. Reading Disorders. 2 Hours.
This course addresses the perceptual, linguistic, and cognitive processes utilized in written communication. Acquired and developmental disorders of written language are examined in relation to issues concerning characteristics, etiology, early identification, assessment, and remediation. LEC.

SPLH 860. Evaluation of Speech and Language. 2 Hours.
Provides a general framework for speech and language evaluations. Issues related to initiation and termination of treatment are discussed. Practice is provided in evaluating norm- and criterion-referenced information used in diagnostic, referral, and treatment decisions. LEC.

SPLH 861. Seminar in Research Methodology in Speech Pathology and Audiology: ______. 3 Hours.
This seminar is concerned with the design, instrumentation, execution, and reporting of research in audiology and speech pathology. SPLH 760 or its equivalent and some statistics are recommended before entering this seminar. LEC.

SPLH 862. Clinical Processes. 1 Hour.
Orients student to clinical procedures, policies, requirements, and expectations of program. Therapy models, planning, and philosophies are discussed along with implementation and evaluation of therapy procedures. Professional issues are also considered. May be repeated for credit. LEC.

SPLH 864. Advanced Clinical Practice in Speech-Language Pathology. 1-6 Hours.
Students conduct supervised clinical work in a variety of settings. May be repeated for credit. Prerequisite: Department approval. Group and individual conferences with staff required. FLD.

SPLH 866. Field Study in Speech-Language Pathology. 5-12 Hours.
The field study provides work experiences in clinical and/or research activities. The student takes this course near the end of the degree program. Assignments include supervised work in a variety of approved settings. May be repeated for credit. Prerequisite: Advisor’s consent. FLD.

SPLH 868. Professional Seminar. 1 Hour.
Forum for the presentation and discussion of scientific and professional issues by faculty and advanced graduate students. May be repeated for credit. LEC.

SPLH 874. Research Practicum. 1-3 Hours.
Application of research methodology in a laboratory situation. Emphasis is on direct participation in designing and conducting an experimental investigation in speech, language, or hearing. May be repeated for up to a maximum of 3 credits. Prerequisite: SPLH 660 or equivalent research methods course. RSH.

Investigation of special topics by individual master’s level students. Paper required. Prerequisite: Consent of instructor. RSH.

SPLH 880. Seminar in Speech-Language Pathology: ______. 1-3 Hours.
May be repeated for credit. LEC.

SPLH 888. Investigation and Conference (For Master’s Candidates). 1-8 Hours.
(Limited to eight hours credit toward the M.A. degree.) Directed research and experimentation for M.A. students in some phase of speech science. RSH.

SPLH 899. Master’s Thesis. 1-6 Hours.
THE.
SPLH 900. Proseminar in Communicative Disorders. 1 Hour.
A weekly forum for students and faculty to discuss professional issues and interdisciplinary research in communicative disorders and related fields. May be repeated for credit. Limited to two hours credit counted toward an MA or AuD degree. Limited to four hours credit counted toward the PhD degree. Graded on satisfactory/unsatisfactory basis. SEM.

SPLH 961. Experimental Phonetics I. 3 Hours.
This course will provide a description of the acoustic properties of the major classes of speech sounds, and will describe how these properties are utilized perceptually. It will also provide an understanding of the acoustic theory of speech production, and will discuss the implications of that theory relative to the modification of impaired speech. LEC.

SPLH 962. Experimental Phonetics II. 3 Hours.
This course will examine the current methodologies utilized in speech physiology research, and will review the findings of recent research into the movement patterns of individual speech articulators. The course will emphasize the interpretation of individual research results in terms of an overall theory of speech motor timing and control. LEC.

SPLH 963. Seminar in Hearing Science. 3 Hours.
Considers more advanced research problems in hearing science including psychoacoustics, speech perception, physiology. Prerequisite: Consent of instructor. LEC.

SPLH 964. Seminar in: ______. 1-3 Hours.
The subject matter of this seminar will be special topics from speech pathology and audiology, including those related to research methodology and research or academic careers. Special prerequisites may be established for a given topic. LEC.

SPLH 966. Seminar in Language Development. 3 Hours.
The course pertains to relevant research regarding infant speech development, vocabulary development, linguistic development, articulation development, and language retardation. (Same as ABSC 920, formerly HDFL 920.) LEC.

SPLH 967. Seminar in Articulation. 3 Hours.
Research and important clinical procedures pertaining to discrimination, structural, and physiological considerations, causal factors in defective articulation, and principal therapeutic approaches are carefully examined. LEC.

SPLH 968. Seminar in Communication Disorders. 3 Hours.
Study in depth of the communication behavior associated with brain injury and/or oral anomalies. LEC.

SPLH 969. Laboratory Instrumentation for Speech and Hearing Research. 3 Hours.
Instruments for speech and hearing research, their design and application. Experimental projects using laboratory equipment. Designing equipment for special purposes. Prerequisite: SPLH 962. FLD.

SPLH 970. Independent Study in Problems of Speech and Hearing. 1-6 Hours.
Investigation of special topics by individual students. Paper required. RSH.

SPLH 972. Extensions of Clinical Management. 3 Hours.
This course is designed to provide didactic and practical experience in methods of obtaining diagnostic information and generalization of speech and language responses away from the clinical setting. Models for effecting behavioral change and data collection will be discussed and utilized. FLD.

SPLH 974. Research Practicum. 1-6 Hours.
Application of research methodology in a laboratory situation. Emphasis is on direct participation in designing and conducting an experimental investigation in speech or hearing. FLD.

SPLH 975. Directed Teaching: Speech Pathology and Audiology. 1-3 Hours.
Provides experiences in classroom and laboratory instruction under supervision of graduate faculty. Variable credit to reflect amount of instructional responsibility assumed. May be repeated up to a maximum of six semester hours. FLD.

SPLH 976. Independent Study in Grant Writing. 1-3 Hours.
Students will identify a funding agency appropriate for their research, learn the application procedures for that agency, and draft a grant application following the identified agency’s format. The faculty mentor will arrange for a review of the grant application following the agency’s review criteria and format. May be repeated up to a maximum of three credits. IND.

SPLH 982. Issues in Scientific Conduct. 3 Hours.
Lectures and discussion on issues in the conduct of a scientific career, with emphasis on practical topics of special importance in behavioral science. Topics will include the academic and scientific roles of behavioral scientists, establishing a research lab, communicating research findings, tenure processes, gender equity, ethical conduct, and good scientific citizenship. Discussions will highlight important case studies. (Same as PSYC 982.) LEC.

SPLH 998. Investigation and Conference (For Doctoral Candidates). 1-8 Hours.
(Limited to eight hours credit towards the Ph.D. degree.) Directed research and experimentation for Ph.D. students in some phase of speech science. RSH.

SPLH 999. Doctoral Dissertation. 1-12 Hours.
THE.

Women, Gender, Sexuality Std Courses

WGSS 101. Introduction to Women, Gender, and Sexuality Studies. 3 Hours. SC AE41/GE3S / S.
This course examines the extensive role of gender in human life and examines the ways that gender structures power relations among individuals and within economic, political, educational and other social structures, with special attention paid to women’s issues and movements in the United States and globally. Through readings drawn from the fields of women’s studies, gender studies, and sexuality studies, this course examines and explores alternatives to traditional and/or normative constructions of gender and sexuality, and also considers other markers of difference, such as disability, race, class, and religion, which intersect with gender identity and sexual identity. LEC.

WGSS 102. Introduction to Women, Gender, and Sexuality Studies, Honors. 3 Hours. SC AE41/GE3S / S.
This course examines the extensive role of gender in human life and examines the ways that gender structures power relations among individuals and within economic, political, educational and other social structures, with special attention paid to women’s issues and movements in the United States and globally. Through readings drawn from the fields of women’s studies, gender studies, and sexuality studies, this course examines and explores alternatives to traditional and/or normative constructions of gender and sexuality, and also considers other markers of difference, such as disability, race, class, and religion, which intersect with gender identity and sexual identity. Similar in content to WGSS 201.
Open only to students in the University Honors Program or by consent of the instructor. LEC.

WGSS 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Women, Gender and Sexuality Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

WGSS 196. Study Abroad Topics in: ______. 1-6 Hours. S.
This course is designed for the study of special topics in Women’s Studies. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

WGSS 317. African American Women: Colonial Era to the Present. 3 Hours. H.
This interdisciplinary course covers the history of African American women, beginning in West and Central Africa, extending across the Middle Passage into the Americas, and stretching through enslavement and freedom into the 21st century. The readings cover their experiences through secondary and tertiary source materials, as well as autobiographies and letters, plays and music, and poems, novels, and speeches. (Same as AAAS 317, AMS 317, and HIST 317.) LEC.

WGSS 320. From Goddesses to Witches: Women in Premodern Europe. 3 Hours. HT GE11/GE3H / H.
This course examines the social, cultural, and political contexts of women’s spirituality and their relations to gender relations in Europe from about 30,000 B.C.E. to the 16th century Protestant Reformation. Lectures move both chronologically and topically, covering such subjects as goddess-worshipping cultures, women’s roles in Christian and Jewish societies, symbols of women, and male attitudes toward women. Students will be able to participate in weekly discussions of primary and secondary source readings about women. (Same as HIST 320.) LEC.

WGSS 321. From Mystics to Feminists: Women’s History in Europe 1600 to the Present. 3 Hours. HT AE42/GE11/GE3H / H.
This survey of women’s history in Europe looks at changing patterns of women’s economic roles and family structures in preindustrial and industrial society, the importance of women in religious life, cultural assumptions underlying gender roles, and the relationship of women to political movements, including the rise of feminism. (Same as HIST 321.) LEC.

WGSS 324. History of Women and the Body. 3 Hours. H.
This course examines different notions about women and their bodies from a historical perspective. It discusses the arguments and circumstances that have shaped women’s lives in relation to their bodies, and women’s responses to those arguments and circumstances. This course covers a wide geographical and chronological spectrum, from Ancient societies to the present, from Latin America and the Middle East, to North America and Western Europe. (Same as HIST 324.) LEC.

WGSS 327. Perspectives in Lesbian, Gay, Bisexual, and Transgender Studies. 3 Hours. AE41 / S.
An exploration of the experiences and histories of people who identify as lesbian, gay, bisexual, and/or transgender (LGBT); of the influences on these experiences by individuals, the state, and artistic, legal and medical discourses; and of the intersections between sexual orientation, sexuality, ethnicity, class, and religion. LEC.

WGSS 330. Women in Contemporary African Literature. 3 Hours. NW AE42/GE3H / H.
A critical study of issues and questions raised about women in contemporary African literature and implications for the larger society through the analysis of theme, language, characterization, roles and functions of women in selected works. (Same as AAAS 340.) LEC.

WGSS 333. The Politics of Physical Appearance. 3 Hours. AE41 / S.
An interdisciplinary analysis of standards of physical attractiveness and cultural conceptions of women’s bodies. Includes analysis of how these standards change across time and cultural groups, and of the impact of these standards on women as individuals and on social and political outcomes. LEC.

WGSS 334. Popular Culture in Africa: Spiritual Thrills, Romance and Sexualities. 3 Hours. H.
This course examines how the different constituents of popular culture mobilize, construct and structure gender, and spiritual and sexual identities in select contemporary African countries. Discussions also focus on how popular culture mediates the contesting spaces of indigenous local constructs and the push and pull of global forces to create geographic and contemporary specificities. (Same as AAAS 345.) LEC.

WGSS 351. Women and Leadership: The Legislative Process. 3 Hours. S.
Examines current and historical roles and impacts of women involved in legislatures. Explores what difference women make when they are public officials. Students meet with local women legislators, lobbyists and political officials. Students learn how to analyze issues, access power, lobby, and organize at the grassroots. The course is designed to prepare students for an optional legislative internship during the subsequent semester. LEC.

WGSS 363. Gendered Modernity in East Asia. 3 Hours. S.
This course explores rapidly changing gender relationships and the sense of being “modern” in East Asia by examining marriage and family systems, work, education, consumer culture, and geopolitics. The class seeks to understand how uneven state control over men and women shapes desires, practices, and norms and how men and women act upon such forces. Avoiding biological or social determinism, this course treats gender as an analytical category and examines how modern nation-states and global geopolitics are constituted and operated. (Same as ANTH 363 and EALC 363.) LEC.

WGSS 381. Feminism and Philosophy. 3 Hours. AE41/GE3H / H.
An examination of topics of philosophical interest that are important in the feminist movement such as the nature of sexism, the concept of sexual equality, the ethics of sexual behavior, the nature of love, feminist analyses of the value of marriage and family, the ethics of abortion and justifications for preferential treatment of women. (Same as PHIL 381.) LEC.

WGSS 389. The Anthropology of Gender: Female, Male, and Beyond. 3 Hours. NW AE42/GE21/GE3H/GE3S / S.
This course will introduce students to cultural constructions and performances of masculinity, femininity, and alternative genders across time and space. Topics and cases will be drawn from primarily non-Western cultures, ranging from Japanese markets to Pacific Rim gardens, and from Haitian voudou to Maya royal politics. This course uses research by archeologists, linguists, biological anthropologists, and sociocultural anthropologists. (Same as ANTH 389.) LEC.

WGSS 396. Studies in: ______. 3 Hours. H.
The interdisciplinary study of selected and different aspects of women’s studies in different semesters. LEC.

WGSS 397. Study Abroad Topic in: ______. 1-6 Hours.
This course is designed for the study of special topics in Women’s Studies at the junior/senior level. Course work must be arranged through the
WGSS 440. Communication and Gender. 3 Hours. AE41 / S.
Focuses attention on the relationship between communication and gender, including both physical and psychological dimensions. Topics include: sex role orientations and stereotypes; perceived and actual differences in verbal and nonverbal communication behaviors; the influence of gender on communication in a variety of contexts. (Same as COMS 440.) Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

WGSS 468. Psychology of Women. 3 Hours. S.
A survey of the psychological theories about women; similarities and differences in the behavior of women and men; the effects of biological and social factors on the behavior of women and men; and issues of concern to women of different races, sexual orientations, ages, and so forth. (Same as PSYC 468.) Prerequisite: PSYC 104 or WGSS 201. LEC.

WGSS 498. Independent Study. 1-3 Hours. S.
Intensive reading or research under faculty supervision culminating in the writing of a paper or research report. IND.

WGSS 499. Honors in Women's Studies. 3 Hours. S.
An individual research project under the direction of a specialist in the area of the student's interest. May be counted towards the total hours required for the major. Prerequisite: Majors only, with approval of the project advisor and the Women's Studies honors coordinator. IND.

WGSS 510. History of American Women: Colonial Times to 1870. 3 Hours. H.
A survey of women's history in the United States, which will consider women's roles as housewives, mothers, consumers, workers, and citizens in pre-industrial, commercial and early industrial America. (Same as AMS 510 and HIST 530.) LEC.

WGSS 511. History of American Women: 1870 to Present. 3 Hours. AE41 / H.
A survey of women's history in the United States, which includes radical and reform movements, the impact of war and depression, professionalization, immigration, women's work, and the biographies of leading figures in women's history. (Same as AMS 511 and HIST 531.) LEC.

WGSS 512. History of Women and Work in Comparative Perspective. 3 Hours. H.
This course explores the connection between historical changes in the labor process and the occupational choices available to women in different countries. Through discussion and analyses of texts, students will evaluate the construction of a gendered division of work as shaped over time by economic, cultural, and political forces. The chronological and geographical focus may vary depending on the instructor. (Same as AMS 512 and HIST 532.) LEC.

WGSS 513. Modern American Women in Film and Literature. 3 Hours. S.
Exploration of the images both real and ideal found in twentieth century popular culture. By using popular culture as social history, it examines the connections between these images and the life experiences of women in the family, at work, in war, and in economic depression. LEC.

WGSS 515. Gender and Sexuality in Greek Culture. 3 Hours. H.
This course explores various approaches to the study of gender and sexuality in Greek antiquity. Contents will vary, and the course may focus on methodology and case studies, or on particular themes, historical periods, or artistic or literary genres. No knowledge of Greek or Latin is required. (Same as CLSX 515.) Prerequisite: Graduate status, or 6 credit hours in Classics, Greek, Latin, or Women, Gender and "Sexuality Studies"; or permission of instructor. LEC.

WGSS 516. Gender and Sexuality in Roman Culture. 3 Hours. H.
This course explores various approaches to the study of gender and sexuality in Roman antiquity. Contents vary, and the course may focus on methodology and case studies, or on particular themes, historical periods, or artistic or literary genres. No knowledge of Greek or Latin is required. (Same as CLSX 516.) Prerequisite: Graduate status, or 6 credit hours in Classics, Greek, Latin, or Women, Gender and "Sexuality Studies"; or permission of instructor. LEC.

WGSS 521. Women and Violence. 3 Hours. S.
An examination of research on women and violence, including rape, domestic violence, sexual harassment, stalking, and child sexual abuse. The nature, prevalence, causes, and consequences of violence against women are discussed. (Same as PSYC 521.) Prerequisite: PSYC 104. LEC.

WGSS 530. Gender and Sexuality in Cyberspace. 3 Hours. S.
Students examine the construction of cyberspace as a transnational space and how gender and various categories of sexuality have been constructed in this disembodied arena. Students learn how the Internet helps produce new and alternative modes of expressing and experiencing sexuality and how sexual desires, fantasies, and identities are articulated in this cyberspace. LEC.

WGSS 549. History of Feminist Theory. 3 Hours. H.
This discussion course will cover the development of feminist theories from the late Middle Ages to the 1970s. Reading will include Pisan, Wollstonecraft, Mill, Freud, Woolf, Beauvoir, Friedan, Daly, Kristeva, and others. (Same as HIST 649.) LEC.

WGSS 560. Race, Gender, and Post-Colonial Discourses. 3 Hours. H.
An examination of the ways in which the concept of race, gender, and post-colonialism frame African literatures from the Caribbean, North America, and the continent itself. The course will focus on discourses grounding them in critical frameworks within which they can be contextually analyzed and evaluated, at the same time examining their impact in literary praxis and theory. (Same as AAAS 560.) LEC.

WGSS 562. Women and Politics. 3 Hours. S.
This course exposes students to contemporary research on women and politics by surveying the sub-fields of political science. Topics include women's representation in the U.S., women and U.S. public policy, gender and legal theory, international women's movements, women and revolution, and women as political elites. We will examine the ways in which feminist theory and women's activism have challenged the narrow focus of the discipline as well as redefined women's place in society. (Same as POLS 562.) Prerequisite: A 100-level POLS course or WGSS 201 or permission of instructor. LEC.

WGSS 563. Gender, Sexuality and the Law. 3 Hours. AE41/GE11 / H.
This course provides a broad introduction to Western legal systems (especially the American legal system) and then focuses on how sex, gender, and sexuality operate in and are understood by those systems and how the law is a site of social and political struggle. Topics may include intimate relations, First Amendment law, sexual harassment and employment discrimination; reproduction policies and governance; rape and sexual assault; gender identity discrimination; and the legal understandings and constructions of equal protection and due process. No prior knowledge of legal concepts is necessary. LEC.

WGSS 565. Gender, Culture, and Migration. 3 Hours. H.
This course brings a human face to the 21st century manifestation of globalization by focusing on the issues of culture, gender and migration. How do these three aspects create the "global village" amongst both
the host and donor peoples? When people move from one place to another, what do they leave behind, what do they take with them? What is gained, or lost by the host community? What is the impact of migration on a specific group’s and individual’s sense of identity? How has migration affected the people’s construction, understanding, and practice of gender? Given their primary roles in the home and within the culture, these questions and more are posed with particular attention to women. Migration theories, interviews and personal testimonies as well as literary and dramatic works are critical to our analyses of the issues raised and enable us to hold conversations with, and listen to the stories of the ordinary people who make globalization happen and sustain it. (Same as WGSS 656 and AMS 656.) LEC.

WGSS 570. Men and Masculinities. 3 Hours. H.
An intensive examination of the history and theory of masculinities in the Western world. Students become acquainted with some of the key theories of men and masculinities, and develop research projects on a topic negotiated with the instructor. (Same as HIST 626, HWC 570.) Prerequisite: An upper-division course in HIST, HWC, or WGSS; or permission of instructor. LEC.

WGSS 575. Body, Self and Society. 3 Hours. H.
An intensive examination of the role of the human body in the creation of personal and social identities in the Western world. Students become acquainted with contemporary theories of embodiment and the senses as they are applied to a variety of historical themes, and develop research projects on a topic negotiated with the instructor. (Same as HIST 625, HWC 575.) Prerequisite: An upper-division course in HIST, HWC, or WGSS; or permission of instructor. LEC.

WGSS 580. Feminism and Anthropology. 3 Hours. S.
This seminar will introduce students to feminism in anthropology, including feminist theories, methodologies, ethnographic styles, and the history of women in the discipline since the late 1800s. Emphasis is on the social contexts for feminist theory-building since the 1960s and changing ideas about gender and power. (Same as ANTH 580.) Prerequisite: One of the following: ANTH 389, ANTH 460, WGSS 201; or permission of instructor. LEC.

WGSS 583. Love, Sex, and Globalization. 3 Hours. S.
Escalating transnational flows of information, commodities, and people have created innumerable kinds of “intimate” contacts on a global scale, such as mail order brides, child adoption, sex tourism, commodified romance, and emotional labor. Exploring the ways that cultural artifacts of intimacy are rendered, fetishized, and reified in a free market economy, this course examines how discourses on love and sex encounter, confront, and negotiate the logics of the capitalist market, the discrepant intimacies such as mail order brides, child adoption, sex tourism, commodified romance, and emotional labor. (Same as ANTH 583.) LEC.

WGSS 600. Contemporary Feminist Political Theory. 3 Hours. S.
A detailed introduction to feminist thought post-1960. Examines feminism in relation to the categories of political theory: liberal feminism, socialist feminism, radical feminism, and postmodern feminism. Within these categories and separately, we will also consider feminism as it is influenced by women traditionally excluded from mainstream feminist thought, namely U.S. women of color and women of post-colonial societies. (Same as POLS 600.) Prerequisite: WGSS 201 or a 100-level POLS course or permission of instructor. LEC.

WGSS 601. Seminar in Women's Studies. 3 Hours. AE61 / S.
Investigation of a topic related to women from an interdisciplinary perspective. Open only to women’s studies majors and required of them. Suggested for the senior year. LEC.

WGSS 630. Politics of Identity. 3 Hours. S.
This seminar explores the nature of identity and how identity is relevant to politics and policy with a focus on political attitudes and behavior, institutions, and public policy. Topics include individual and group identity, identities such as gender, racial, sexual orientation, and partisan, and the enduring importance of identity for understanding politics as well as the policy process. The approach is multidisciplinary but political science perspectives are relied on more heavily. (Same as POLS 630.) Prerequisite: POLS 110 and POLS 306 are recommended. LEC.

WGSS 640. Politics of Reproductive Policy. 3 Hours. S.
Reproductive policy has historically been a highly politicized policy arena, which has elicited attention from the political community as well as the public. This course moves beyond the popular rhetoric associated with reproductive issues, by critically investigating the history, development, implementation and the relative success of various reproductive policies in the United States. These policies are compared to, and assessed against, policies governing similar topics in various countries. (Same as POLS 640.) Prerequisite: POLS 110 or consent of instructor. LEC.

WGSS 646. Witches in European History and Historiography. 3 Hours. H.
This course examines witches, witchcraft, and magic in Europe in the late medieval and early modern period (approximately 1200-1700 C.E.). Particular emphasis will be on the variety of historical and anthropological approaches that have been used to study the subject and their meaning in the context of gender politics and gender theory. (Same as HIST 646.) LEC.

WGSS 650. Service Learning in Women's Studies. 3 Hours. S.
This course, to be taken in the senior year, is designed to give students the opportunity to apply women's studies knowledge and ideas gained through course work to real-life situations in various agencies and women's centers. Open to Women's Studies majors and others with significant Women’s Studies backgrounds. Permission of instructor is required. FLD.

WGSS 651. Women and Politics in Latin America. 3 Hours. S.
This course examines the ways in which Latin American women have engaged in politics in the past two decades. Cases will draw from a variety of countries in Latin America. Students are expected to develop insights, through comparative analysis, into why women “do politics” in certain ways, the role of the State in women’s politics, the (dis)advantages of various political strategies, and the ways in which political, economic, and social changes over time have affected women’s political opportunities and interests. (Same as POLS 651.) Prerequisite: Six hours of course work in Political Science and/or Women’s Studies and/or Latin American Studies. LEC.

WGSS 652. Jazz and American Culture. 3 Hours. H.
This course considers cultural and social histories of jazz, from the 1920s through the present day, as sites for exploring ideological struggles over such fields as race, class, gender, sexuality, democracy, capitalism, freedom, community, Americaness, and globalization in the U.S. The course will explore such questions as the following: What music was called jazz at what times and places? What did it mean to whom? Who played it? Who wrote about it? Who listened to it? Who danced to it? Who policed it? Who produced it? Who used it to rebel? Who used it to survive? What did all of these practices mean to participants? The course will examine struggles over social meanings in the U.S. through a study of jazz performance, labor, representation, marketing, consumption, censorship, and historiography. Prerequisite: A course in American studies, American history, or consent of instructor. (Same as AMS 652.) LEC.
WGSS 653. Gender, War, and Peace. 3 Hours. S.
This course explores ways in which militarization and warfare are gendered processes. We ask, what does war tell us about gender, and what does gender tell us about war? Though the majority of fighters are men, women are essential to war efforts. They also represent a high proportion of the casualties of war. Yet women are rarely examined in relation to war; thus we work to uncover women’s experiences of war. We also look to women’s contributions to the peace movement in terms of both theory and practice, asking: Is peace a feminist issue? Should feminists support women’s access to combat positions or oppose the military? What if women ruled the world—would that end wars? Does militarized masculinity harm men more than benefit them? How do states mobilize citizens to war and how is the process gendered? (Same as POLS 653.) Prerequisite: One of the following: POLS 150, POLS 151, POLS 170, POLS 171, WGSS 201, WGSS 202. LEC.

WGSS 660. Human Reproduction: Culture, Power, and Politics. 3 Hours. S.
This seminar analyzes and critiques the socially constructed nature of reproductive practices and their articulation with relations of power. Topics range from conception to menopause, infertility to population. Cases are drawn from a wide variety of cultural contexts. This course is the second part of a two-semester sequence (beginning with ANTH 650) that examines in detail biological and cultural determinants of human reproduction. (Same as ANTH 660.) Prerequisite: ANTH 650, or 6 hours in Women’s Studies, or permission of instructor. LEC.

WGSS 662. Gender and Politics in Africa. 3 Hours. S.
This course is designed to explore the field of gender and African politics. We begin by paying particular attention to African women’s political roles during the pre-colonial and colonial society. Next, we examine the impetus, methods, and path of liberation struggles and how gender roles were shaped, shifted, and changed during these struggles. The majority of the class focuses on current issues in African politics, including gender and development; HIV/AIDS and women’s health; gender and militarism. We also explore women’s roles in political institutions; civil society organizations; trade and labor unions; and transnational movements. We also examine contemporary constructions of masculinity and femininity in African states and explore how these constructions affect social policy and national political agendas. (Same as AAAS 662.) LEC.

WGSS 665. Women, Health, and Healing in Latin America. 3 Hours. S.
This seminar uses a life-cycle approach to examine women’s health (physical, mental, and spiritual) and their roles as healers. Special consideration is given to the effects of development programs on wellbeing, access to healthcare, and the roles of women as healers. Cases will be drawn from a variety of Latin American contexts. (Same as ANTH 665 and LAA 665.) Prerequisite: 6 hours coursework in Anthropology and/or Women’s Studies and/or Latin American Studies. LEC.

WGSS 689. Conceptual Issues in Human Sexuality. 3 Hours. S.
An examination of the social construction of sexuality and research methods and issues relevant to sexuality. These concepts are applied to various topics, such as defining and conceptualizing sex and gender, sexual dysfunction, sexual orientation, the social control of sexuality, sexual coercion and abuse, and abstinence-only sex education. The course does not cover anatomical or physiological aspects of sexuality. (Same as PSYC 689.) Prerequisite: PSYC 104 or WGSS 201. LEC.

WGSS 696. Studies in: ______. 3 Hours. S.
Interdisciplinary study of different aspects of women’s studies in different semesters. LEC.

WGSS 701. Seminar in: ______. 3 Hours.
A research seminar in women’s studies. Instructor and topic will vary. LEC.

WGSS 789. Anthropology of Gender: Advanced Seminar in the Four Fields. 3 Hours.
This seminar is intended primarily for graduate students in anthropology or other disciplines who share an interest in any of the subdisciplines of anthropology (archaeology, linguistics, biological anthropology, and sociocultural anthropology) and/or anthropological theories and methods. Undergraduates pursuing Honors or other major research projects are also encouraged to participate. Students will receive training in the contemporary theories, research, and pedagogies informing the anthropology of gender. Class participants will explore how these materials intersect with their current thesis or research projects and develop syllabi specific to their subdiscipline. (Same as ANTH 789.) Prerequisite: Permission of instructor. LEC.

WGSS 797. Directed Readings. 1-3 Hours.
Directed reading in an area of women’s studies in which there is no appropriate course in the offerings of the Women’s Studies Program, but in which there is a member of the cooperating graduate faculty competent and willing to direct the program of study. RSH.

WGSS 800. History of Women, Gender and Sexuality Studies. 3 Hours.
An introduction to the field of women, gender, and sexuality studies, paying particular attention to its development, its reception by and influence on academic disciplines, and its institutionalization. Prerequisite: Graduate standing and consent of the instructor. SEM.

WGSS 801. Feminist Theory. 3 Hours.
A survey of contemporary feminist theories produced within and across disciplines (including but not limited to, eco-feminism, and liberal, cultural, materialist, psychoanalytic, radical, and black feminist thought). Prerequisite: Graduate standing and consent of the instructor. LEC.

WGSS 802. Feminist Methodologies. 3 Hours.
An introduction to the methods used in feminist research in the humanities, social sciences, and natural sciences (e.g., quantitative and qualitative research methods, archival research, and oral histories). We will consider examples of applications of each method, the strengths and limitations of each method, and how each method relates to feminist theories and principles. Prerequisite: Graduate standing and consent of the instructor. SEM.

WGSS 803. Topics in Feminist Pedagogy: ______. 0.5 Hours.
The goal of the course is to teach students to teach. By reading core texts of feminist pedagogy, understanding critical theories, and attending seminars at the Center for Teaching Excellence selected by instructor and student, students will learn how to present knowledge and stimulate learning in the classroom, as well as some practical skills as leading discussion sections, preparing and presenting class sessions, developing syllabi, devising fair grading and helpful advising, and solving pedagogical problems like maintaining civility in the classroom and coping with academic misconduct. Must be repeated twice for a total of 1 credit hour while actively teaching. Prerequisite: Must be Women, Gender, and Sexuality Studies graduate students. SEM.

WGSS 804. Topics in Professional Development: ______. 1 Hour.
The goal of this course is to train students in the skills essential to becoming effective scholars and educators, and successful members of the profession. The material to be covered by these three iterations includes 1) the ethics and practice of feminist research (e.g., protection of human subjects, conflicts of interest, confidentiality, legal strictures); 2) the practical aspects of producing knowledge (e.g., writing research
papers, proper citation methods, conference presenting, responding to peer reviews); and 3) acquiring and securing a place in the work force (e.g., CV preparation, job interviews, grant writing, getting promotion [and, in the academy, tenure]). Must be repeated three times for a total of 3 credit hours. Prerequisite: Must be Women, Gender, and Sexuality Studies graduate students. SEM.

WGSS 810. Comparative Sexualities. 3 Hours.
Employing an interdisciplinary and comparative perspective, this course introduces the study of human sexuality in various disciplines. Students will also gain an understanding of the historical development and cross-cultural analysis of sexuality research, including the methodological, theoretical, and ethical issues involved in investigating sexual behavior and meanings. Prerequisite: Graduate standing and consent of the instructor. SEM.

WGSS 821. Woman and Violence. 3 Hours.
An examination of research on women and violence, including rape, domestic violence, sexual harassment, stalking, and child sexual abuse. Research on the nature, prevalence, causes, and consequences of violence against women is discussed. (Same as PSYC 821.) Prerequisite: Six hours in WGSS and/or PSYC, or permission of instructor. LEC.

WGSS 835. Colloquium in the History of Gender. 3 Hours.
This colloquium will cover theoretical and topical readings on the history of manhood, womanhood, and gender systems. (Same as AMS 835 and HIST 895.) LEC.

WGSS 836. Colloquium in United States Women’s History. 3 Hours.
This colloquium will cover theoretical and topical readings on the history of women in the United States from the pre-contact period to the present. It is designed to familiarize students with the most important and current historiography in the field. (Same as AMS 836 and HIST 896.) LEC.

WGSS 837. Comparative Colloquium in Women’s History. 3 Hours.
This colloquium will approach the history of women from a comparative perspective through theoretical and topical readings on women in at least two different cultures. (Same as AMS 837 and HIST 897.) LEC.

WGSS 873. Seminar in United States Women’s History. 3 Hours.
This research seminar will focus on the history of women in the United States from the pre-contact period to the present. Students will research and write a paper using primary sources, and present those papers to the seminar for evaluation. (Same as HIST 973 and AMS 973.) LEC.

WGSS 880. Advanced Feminist Anthropology: ____. 3-6 Hours.
Intensive consideration of special problems in feminist anthropology. Topics for the semester to be announced. May be repeated for a total of six hours credit. (Same as ANTH 880.) Prerequisite: Permission of instructor. LEC.

WGSS 889. Conceptual Issues in Human Sexuality. 3 Hours.
An examination of the social construction of sexuality and research methods and issues relevant to sexuality. These concepts are applied to various topics, such as defining and conceptualizing sex and gender, sexual dysfunction, sexual orientation, the social control of sexuality, sexual coercion and abuse, and abstinence-only sex education. The course does not cover anatomical or physiological aspects of sexuality. (Same as PSYC 889.) Prerequisite: Six hours in WGSS and/or PSYC, or permission of instructor. LEC.

WGSS 898. Research Colloquium. 3 Hours.
This course is the "capstone" to the Women’s Studies Graduate Certificate program. Members of the seminar will produce a major paper and will share their research. During the first part of the term a small number of visitors (professors at KU and/or visiting speakers from other universities) will be invited to assign readings and subsequently present their work on women and gender. Students will be expected to attend the Gender Seminar of the Hall Center for the Humanities. Prerequisite: WGSS 801 and at least 3 hours of other graduate work in the Women’s Studies graduate certificate program, or by special permission. LEC.

WGSS 999. Doctoral Dissertation. 1-12 Hours.
Original research that is to be incorporated into a PhD dissertation. THE.

Department of African and African-American Studies

Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU (see your advisor (http://www.advising.ku.edu) for details).

Other years’ catalogs

Why study African and African-American studies?
African and African-American studies reflects the human experience where Africa meets Europe, the Middle East, and the Americas.

Why study African and African-American studies?
African and African-American Studies is where Africa, the Americas, Europe and the Middle East meet.

Undergraduate Programs

The undergraduate academic program focuses mainly on Africa, Afro-America, and Arabic, but due attention is paid to the Caribbean and Latin America. The program deepens the knowledge and enriches understanding of the history and culture of African peoples in Africa, the Middle East, and the Americas as a necessary and desirable end in itself but also as a useful background for professionals whose careers may involve them in these geographical and cultural areas. Essentially interdisciplinary, the major gives students a basis for interpreting the historical and contemporary experiences of African peoples in Africa, the Middle East, and the Americas, both broadly and in relation to a particular region, historical period, or cultural manifestation. The major, with its flexibility and opportunity for fieldwork, encourages students to engage in independent study, if possible in a relevant community. Most undergraduate courses are also open to nonmajors.

Graduate Programs

Founded in 1970, the Department of African and African-American Studies seeks to educate students to function in a multicultural environment in a global community. The objective of the M.A. program in African and African-American Studies at the University of Kansas is to produce scholars, teachers, administrators, and other professionals who have the intellectual and scholarly capacity and skills to make ongoing contributions to the world in which they live. Our graduate program encourages students to adapt a critical perspective, requiring an integrative approach to the study of history, politics, economics, the arts, languages, culture, anthropology, and geography that does not abstract them from their political and social contexts, but rather relocates them within the social and political contexts from which they developed. Students are required to focus not only on the experiences of
Africans and African Americans, but also on the links of those experiences to the cultural, political, and economic forces of the larger world to which Africans and African Americans have been, and are, inextricably connected.

The Department of African and African-American Studies offers interdisciplinary, substantive, and language courses leading to the Master of Arts degree in two areas of concentration: (1) African, and (2) African-American studies.

The master’s degree in African and African-American Studies has two related objectives: (1) it fulfills the educational needs of persons who seek positions with organizations in both the public and private sectors, and (2) it prepares persons who desire to pursue the terminal degrees in their field. The program emphasizes broader concepts in the humanities and the social sciences, but provides an option for concentration in either African or African-American Studies.

The integrative focus of the curriculum is an important characteristic of the interdisciplinary nature of this program. In this regard, the candidate should develop the capacity to continue as a self-educator throughout his/her career. Broad background study in this field enables the graduate to assimilate newly acquired skills and methodologies quickly. Graduates should be prepared to cope with the rapid changes in Africa and the African diaspora. The program places considerable emphasis on both the internal and external forces which affect African and African-American societies. The continuity and change in Africa and its impact on world civilization are emphasized in both the required courses and through electives.

Kansas African Studies Center

The Kansas African Studies Center (http://www2.ku.edu/~lhcaas/Home.html) coordinates and develops the interdisciplinary interests of Africanists across the University of Kansas, and promotes the understanding and study of Africa in the university, the state, and the region. Its mission includes the enhancement of curriculum, the sponsorship of research, the organization of conferences, the promotion of special projects, the acquisition of library and related sources, the conduct of outreach programs, the seeking and acquisition of grants and special funding to make these activities possible and to assist the university in their realization.

Langston Hughes Center

The Langston Hughes Center (http://www2.ku.edu/~lhcaas/Home.html) (formerly the Langston Hughes Resource Center, founded in 1998) is an academic research and educational center that builds upon the legacy and creative and intellectual insight of African American author, poet, playwright, folklorist, and social critic, Langston Hughes. The center coordinates, strengthens, and develops teaching, research, and outreach activities in African American studies, and the study of race and culture in American society at the University of Kansas and throughout the region. The center is a hub of critical examination of black culture, history, literature, politics, and social relations. In addition, like Hughes himself, the center has a Diasporic focus, promoting research and discussions on Africans in the Americas, the Caribbean, and Africa. Toward these ends, the Langston Hughes Center, regularly sponsors conferences, lectures, seminars, and forums on a variety of topics; coordinating activities with, among other groups, the Kansas African Studies Center and the Center of Latin American Studies and Caribbean Studies at KU.

Courses

AAAS 102. Arabic and Islamic Studies. 3 Hours. NW/SC AE42/GE3H/GE3S / U.
An introduction to the study of Islam and the Arabic language in relation to Islamic cultures in Africa, the Mediterranean region, and beyond. Topics covered include the historical origins of Islam in relation to the Arabic language and its cultures of origin. This course is interdisciplinary, including attention to the topic from the perspectives of historical unfolding of both the language and religion, geographic and cultural perspectives, political and economic concerns, and aesthetic perspectives, including literature and the arts. LEC.

AAAS 103. Introduction to Africa. 3 Hours. NW/SC GE3H/GE3S / S/W.
An introduction to the interdisciplinary study of African cultures and societies focusing on contemporary life on the continent. Topics to be covered include the geography, history, politics, and economics of the continent, as well as the religion, languages and literatures, music, and the arts. The interdisciplinary perspective will provide students with a sound basis for understanding contemporary African societies. LEC.

AAAS 104. Introduction to African-American Studies. 3 Hours. SC AE41 / U.
Interdisciplinary introduction to the basic concepts and literature in the disciplines covered in African American Studies. Includes the social sciences, and humanities (including history, religion, and literature) as well as conceptual framework for investigation and analysis of Black history and culture and society. LEC.

AAAS 105. Introduction to African History. 3 Hours. NW GE11/GE3H / H/W.
An introduction to important historical developments in Africa, mainly south of the Sahara. Topics will include pre-history, empires, kingdoms and city-states, the slave trade, southern Africa, partition and colonialism, the independence era, military and civilian governments, and liberation movements. Approaches will include literature, the visual arts, politics, economics, and geography. (Same as HIST 104.) LEC.

AAAS 106. The Black Experience in the Americas. 3 Hours. HT AE41 / H/W.
An interdisciplinary study of the history of the African peoples of the New World, relating their cultures and institutions to the African background and to their peculiar New World experiences up to and including the nineteenth century. While the main emphasis will be on the U.S.A., attention will also be paid to the Caribbean and Latin America. Approaches will include demography, economics, social and political developments, literature, and music. LEC.

AAAS 115. Introduction to African History, Honors. 3 Hours. NW GE3H / H.
An intensive version of AAAS 105/HIST 104. An introduction to important historical developments in Africa, mainly south of the Sahara. Topics include early history, empires, kingdoms and city-states, the slave trade, southern Africa, partition and colonialism, the independence era, military and civilian governments, and liberation movements. Approaches include literature, the visual arts, politics, economics, and geography. Open only to students in the University Honors Program or by consent of instructor. (Same as HIST 111.) LEC.

AAAS 116. The Black Experience in the Americas, Honors. 3 Hours. HT AE41 / H.
An intensive version of AAAS 106. Open only to students on Dean’s Honor Roll or enrolled in Honors Program, or consent of instructor. LEC.
AAAS 160. Introduction to West African History. 3 Hours. NW AE42/GE3H / H.
This course treats West African history through the first part of the twentieth century. The student is provided with a perspective on the major historical patterns that gave rise to West Africa's development as an integral part of world history. Special attention is paid to anthropological, geographical, and technological developments that influenced West African political and socioeconomic changes. (Same as HIST 160.) LEC.

AAAS 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in African-American Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

AAAS 200. Directed Studies. 3 Hours. U.
This course is designed for the study of special topics related to Africana at the freshman/sophomore level. It prepares students for continued practice in cultural reading and writing and for the academic rigor that awaits them at the upper levels. Prerequisite: Consent of department. IND.

AAAS 300. African Traditional Religion and Thought. 3 Hours. NW / H/W.
A study of African traditional religious beliefs, systems and practices and how these have conditioned spiritual, moral and social values, attitudes, social relationships and institutions, art, literature and music. Topics covered include the African world-view, concepts of birth, life, marriage, death and reincarnation; the concurrent practice or monotheism, polytheism and the cult of the ancestors; and the extent of relevance to Black societies in the New World. Prerequisite: AAAS 103 or AAAS 105 or AAAS 106 or consent of instructor. LEC.

AAAS 301. Portrait of a Third-World Nation: Haiti. 3 Hours. NW / H/W.
Case study of Third-World problems and aspirations through the first Black nation to win independence from colonialism. Topics include: profile of the Third World; Caribbean diversity; the Columbian exchange; piracy; slavery and plantocracy; Revolution and the burden of freedom; U.S. occupation; Papa Doc, Baby Doc, and the Tontons Macoute; Liberation theology; peasant life; government and corruption; poverty and hunger; morality of foreign aid; Voodoo; folk medicine. No knowledge of Haitian or French required. Students may not receive credit for both HAIT 200 and AAAS 301. LEC.

AAAS 302. Contemporary Haiti. 3 Hours. NW.
Detailed analysis of recent Haitian history. The focus will include interactions between religion, social structure, politics, economics and international relations. (Same as HAIT 300.) Prerequisite: AAAS 301/HAIT 200, or consent of instructor. LEC.

AAAS 303. Peoples and Cultures of North Africa and the Middle East. 3 Hours. NW / S.
This course familiarizes students with the peoples and cultures of North Africa and the Middle East. It examines the cultural, demographic, and religious diversity of the region, as well as the development of the early Islamic community and the formation of Islamic institutions. Issues such as religion and politics, inter-religious relations, nation-building, Islamic response to colonialism, Palestinian-Israeli conflict, Islamic resurgence, secularism, democratization, and gender, are also explored. (Same as ANTH 303.) LEC.

AAAS 305. Modern African History. 3 Hours. NW AE42 / H/W.
A survey of social, political, and economic developments during the colonial era and independence struggles, followed by a closer examination of the contemporary experience in a selected country or region. (Same as HIST 300.) LEC.

AAAS 306. The Black Experience in the U.S. Since Emancipation. 3 Hours. H.
An interdisciplinary study of the history and culture of Black people in America from Reconstruction to the present. Topics covered include an analysis of Reconstruction, Black leaders, organizations and movements, the Harlem Renaissance, migration, and race relations. Demographic variables covered include socio-economic class, education, political persuasion, and influence by avant-garde cultural changes. LEC.

AAAS 307. Modern African History, Honors. 3 Hours. NW AE42 / H.
An intensive version of AAAS 305. A survey of social, political and economic developments during the colonial era and independence struggles, followed by a closer examination of the contemporary experience in a selected country or region. Open only to students admitted to the University Honors Program, or by consent of the instructor. (Same as HIST 307.) LEC.

AAAS 316. Ministers and Magicians: Black Religions from Slavery to the Present. 3 Hours. H.
This course examines the history and diversity of African American religious expression from slavery until the present, emphasizing both mainstream and alternative faiths. It covers the religious world views of enslaved Africans, and examines faiths inside and outside of Christianity. Topics may include: independent black churches, magical practices, the Holiness and Pentecostal movements, black Islam, religious freemasonry, and esoteric faiths. The class emphasizes the influence of gender, class, race, migration, and urbanization on black religion. (Same as AMS 316 and HIST 316.) LEC.

AAAS 317. African American Women: Colonial Era to the Present. 3 Hours. H.
This interdisciplinary course covers the history of African American women, beginning in West and Central Africa, extending across the Middle Passage into the Americas, and stretching through enslavement and freedom into the 21st century. The readings cover their experiences through secondary and tertiary source materials, as well as autobiographies and letters, plays and music, and poems, novels, and speeches. (Same as AMS 317, HIST 317, and WGSS 317.) LEC.

AAAS 320. African Studies In: ______. 3 Hours. NW AE42 / H/W.
Lecture and discussion course in African area of current interest. May be repeated for credit toward the major. Prerequisite: AAAS 103 or AAAS 105 or consent of instructor. LEC.

AAAS 321. African Studies In, Honors: ______. 3 Hours. H/W.
Lecture and discussion course in African area of current interest. May be repeated for credit toward the major. Only open to students admitted to the University Honors Program or with permission of the instructor. Prerequisite: AAAS 103 or AAAS 105 or consent of instructor. LEC.

AAAS 322. Legal Issues and the African American. 3 Hours. H.
This course examines civil issues in African-American communities and populations, and their legal ramifications. Topics such as the penal system, court sentencing, death penalty, cultural norms, law enforcement and civil liberties are critically examined within social and humanistic theories. LEC.

AAAS 323. African-American Studies In: ______. 3 Hours. H.
Lecture and discussion course in African-American area of current interest. May be repeated for credit toward the major. Prerequisite: AAAS 106 or consent of instructor. LEC.
AAAS 324. African-American Studies In, Honors: _____. 3 Hours. H.
Lecture and discussion course in African-American area of current interest. May be repeated for credit toward the major. Open to students admitted to the University Honors Program or with permission of the instructor. Prerequisite: AAAS 106 or AAAS 116 or consent of instructor LEC.

AAAS 325. Popular Black Music. 3 Hours. H.
This is a comparative study of popular music produced in Africa, and the African Diaspora. The praxis, theories, histories, forms, artists and audiences are discussed. LEC.

AAAS 327. African American Culture. 3 Hours.
This course defines African American culture and seeks to identify ways in which it is distinct, both in terms of its roots and ongoing evolution. LEC.

AAAS 328. African American Urban Community and Class in the Midwest. 3 Hours. H.
This course provides historical perspective on African Americans and the politics of economic class within black urban spaces from the end of Reconstruction to the post-World War II era. It focuses on the development of an upwardly mobile urban black middle class, and impoverished black urban "underclass," since the 1960s. Students are encouraged to successfully complete one of three courses: AAAS 104, AAAS 106, or AAAS 306. (Same as HIST 338.) LEC.

AAAS 330. Black Leadership. 3 Hours. H.
The course focuses on the concept of leadership and on Black leadership in the United States. An in-depth analysis of selected case studies of Black leaders both historical and contemporary. Some attention will be given to the dispersion of Africans into the Americas and the leadership that emerged, conditioned both by environmental factors and the psychology engendered by the system of slavery. Selected successful Black leaders will be invited to visit the class from time to time. (Same as AMS 340.) LEC.

AAAS 332. Introduction to African Literature. 3 Hours. NW AE42 / H/W.
Reading, analysis, and discussion of contemporary fiction, poetry, and drama from sub-Saharan Africa. Brief attention is paid to historical development and to traditional literature. (Same as ENGL 326.) Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

AAAS 333. Introduction to Caribbean Literature. 3 Hours. AE42 / H/W.
Reading, analysis and discussion of fiction, poetry, and drama from the Caribbean, including a small selection of Spanish, French, and Dutch Antillean works in translation. (Same as ENGL 339.) Prerequisite: ENGL 102 and one 200-level English course or consent of instructor. LEC.

AAAS 334. Introduction to African Dance Theatre. 2 Hours. NW / U.
Introduction to the general techniques of non-verbal theatrical conventions in African cultures. Practical training in movement vocabulary supplemented by lectures on the "text" of performance. There will be an end of semester "studio performance." (Same as DANC 230 and THR 226.) LEC.

AAAS 335. Introduction to Southern African Literature. 3 Hours. NW / H/W.
This course deals with the literatures of the southern Africa region, including works by both women and men from South Africa, Botswana, Lesotho, Zaire, Zimbabwe, and Mauritius. Course includes close attention to the political and cultural bases of social conflict in the region. LEC.

AAAS 336. Introduction to African Literature, Honors. 3 Hours. NW / H/W.
Reading, analysis and discussion of contemporary fiction, poetry, and drama from Africa. Brief attention is paid to historical development and to traditional literature. Prerequisite: Open only to students admitted to the University Honors Program or with consent of instructor. Not open to students who have taken AAAS 332. LEC.

AAAS 340. Women in Contemporary African Literature. 3 Hours. NW AE42/GE3S / H.
A critical study of issues and questions raised about women in contemporary African literature and implications for the larger society through the analysis of theme, language, characterization, roles and functions of women in selected works. (Same as WGSS 330.) LEC.

AAAS 345. Popular Culture in Africa: Spiritual Thrills, Romance and Sexualities. 3 Hours. H.
This course examines how the different constituents of popular culture mobilize, construct and structure gender, and spiritual and sexual identities in select contemporary African countries. Discussions also focus on how popular culture mediates the contesting spaces of indigenous local constructs and the pull and push of global forces to create geographic and contemporary specificities. (Same as WGSS 345.) LEC.

AAAS 349. Islam. 3 Hours. NW AE42/GE3S / H/W.
Islam's Origins, the prophet Muhammed, the Holy Koran, religious symbols and moral mandates, and historical developments. (Same as REL 350.) LEC.

AAAS 350. Physical Geography of Africa. 3 Hours. N.
This course is a survey of the basic physical features of the African continent including structure and relief, rivers and lakes, soils and mineral resources. It includes characteristics and processes of African climates, and the ecology of Africa's four major biomes: tropical rain forest, savanna, steppe, and desert. Climatic and environmental variations of the past, emergence of humankind, and development of pastoral and farming systems are discussed. Contemporary environmental concerns also include deforestation and desertification, the impacts of drought, methods for monitoring African environments, and Africa's prospects in a 21st century suffering from global warming. (Same as GEOG 350.) LEC.

AAAS 351. Africa's Human Geographies. 3 Hours. NW AE42/GE3S / S/W.
An introduction to historical, cultural, social, political, and economic issues in Africa from a geographic perspective. The course begins with the historical geography of humanity in Africa, from ancient times through to the present. Other topics include cultural dynamics, demography, health, rural development, urbanization, gender issues, and political geography. Case studies from Eastern and Southern Africa will be used to illustrate major themes. (Same as GEOG 351.) LEC.

AAAS 353. Modern and Contemporary African Art. 3 Hours. H.
In this course, we examine the development of artistic modernisms in Africa in historical context. We also study the content, production, patronage, and display of modern and contemporary African art. In doing so, we consider African artists' engagement with modernity, globalization, and contemporary issues, as well as interrogate influential myths and assumptions regarding African artists and the work they produce. Course themes include the workshop as a critical site, independence movements and the creation of national art forms, art as global commodity, and art in resistance, remembrance, and revolution. (Same as HA 353.) LEC.

AAAS 355. African Theatre and Drama. 3 Hours. NW / H/W.
A study of the origin and development of continental African theatre and its affinity to the Levant. Traditional, colonial and contemporary dramatic
A historical study of Black theatre in the U.S.A. from its African genesis to its contemporary Americanness. Epochs in African-American dramaturgy will be critically examined. (Same as THR 327) LEC.

AAAS 370. Introduction to the Languages of Africa. 3 Hours. NW AE42/GE3S / H/W.
A survey of the indigenous languages of Africa from a linguistic perspective, covering the main language families and their geographic distribution, and focusing on the features and structure of the more widely spoken and representative languages in each family (e.g., Fula, Hausa, Maninka, Swahili, Yoruba). (Same as LING 370.) LEC.

AAAS 372. Religion, Power, and Sexuality in Arab Societies. 3 Hours. NW / S.
This course examines theories of religion, discourse, power, gender and sexuality in their application to Arab societies. The course introduces different aspects of Arab cultures. Through canonical works, we study political domination, tribal social organization, honor, tribe, shame, social loyalty, ritual initiations and discuss how these issues speak generally to anthropological inquiry. Regionally specific works are then framed by an additional set of readings drawn from anthropological, linguistics, and social theories. (Same as ANTH 372.) LEC.

AAAS 376. West African Art. 3 Hours. NW / H/W.
Introduction to the rich visual art traditions of West Africa. Emphasis is given to the major art-producing cultures of the Western Sudan and the Guinea Coast, including the pre-historic cultures of Nigeria, Mali, and Ghana. The diverse forms of figure sculptures and masquerade performance and meanings of these arts in historical and cultural contexts are examined. (Same as HA 376.) LEC.

AAAS 388. The Black Woman. 3 Hours. S/W.
An interdisciplinary study of the role of Black women in our society, from the African background through the plantation experience to the present. Prerequisite: One course in the social sciences and/or humanities or consent of instructor. LEC.

AAAS 400. Readings in: _____. 3 Hours. U.
Investigation of a subject selected by a student in consultation with a departmental adviser and conducted under supervision. Individual reports and conferences. Open only to students who have completed at least six credit hours in African and African-American studies. Cannot be repeated for credit. Prerequisite: Consent of instructor. IND.

AAAS 415. Women and Islam. 3 Hours. H/W.
Addresses the widely-held stereotype of Muslim women as pawns in a patriarchal socio-religious context. Investigating the Muslim cultures of certain regions, the course will examine the manner in which indigenous culture was influenced by the introduction of Islam and the historical impact of Islam on women’s social roles. Focusing principally on social change in the 20th century, the course will consider how socio-political change affects religious roles where religion is integrally involved in daily life. To what extent is individualism valued, and how are the pressures of late 20th century life mediated? The course will draw on texts from history, sociology, and literature. Prerequisite: REL 107 or AAAS 349/REL 350 or consent of instructor. LEC.

AAAS 420. Intercultural Communication: The Afro-American. 3 Hours. AE41 / H.
An examination of the barriers to effective communication between Black Americans and non-Black Americans. (Same as COMS 447.) Prerequisite: Skills in basic composition essential. LEC.

AAAS 429. Postcolonial Theatre and Drama. 3 Hours. NW AE42/GE3S / H.
The course develops an understanding of the postcolonial concept and its different manifestations in theatre and drama across nations and cultures. It approaches postcolonialism as a way of reading theatre, and as a genre within theatre by exploring how the “colonial project” has reconfigured the concept, content, and context of theatre in both colonized and colonizing cultures. In addition to the study of postcolonial playwrights and their works, the course is also an introduction to postcolonial theory and its critics. (Same as THR 429.) LEC.

AAAS 432. Francophone African Literature. 3 Hours. NW AE42/GE3S / H/W.
This course is an introduction to 20th century African literature written in French, covering selected works by major authors from both sub-Saharan Africa and the Maghreb. Attention will be given primarily to the novel, although some poetry will also be read. Topics and themes include negritude, African identity in the wake of colonialism, Islam, and women’s writing. Classes will be conducted in English. Students may read the texts in French or in translation. (Same as FREN 432.) Prerequisite: ENGL 102 and a 200-level English course. LEC.

AAAS 433. Islamic Literature. 3 Hours. NW / H/W.
This course focuses on literature that reflects Islamic culture from its inception to contemporary times. Beginning with attention to the importance of the spoken word in the establishment of Islam, course readings and lectures follow the place of literary works in confirming Islamic perspectives. Readings include selections from the Qur’an, classical works of poetry and narrative, and contemporary autobiography. Authors are from Africa and the region of the Golden Age of Islam, including the best known: al-Ghazali (d.1111 C.E.), Attar (d. circa 1193-1235), Ibn Arabi (d. 1240 C.E.), Rumi (d. 1273), Saadi (d.1291), Hafiz (d. 1389 C.E.), and Shah (contemporary), as well as readings by and about less well known Muslim women scholars and Sufis in all historical periods. Readings are all in English translations. LEC.

AAAS 434. African Women Writers. 3 Hours. NW / H/W.
This course focuses on four decades of African women’s writing from all regions of the continent. Works included deal with a wide variety of issues relevant to African women, as well as universal issues of conceptions of gender roles, and the struggle to attain personal rights and freedom within traditional cultural frameworks. LEC.

AAAS 435. Muslim Women’s Autobiography. 3 Hours. NW / N/W.
This course examines the realities of Muslim women’s experiences as conveyed in their own voices. Works are drawn from all over the world, from Africa and the Middle East to Europe and the U.S. and cover the nineteenth and twentieth centuries. LEC.

AAAS 440. The Afro-American Family: A Psychological Approach. 3 Hours. S.
The examination of the structure, values, and behavior patterns of the contemporary African-American family as influenced by African cultures and kinship systems and the institution of slavery in association with other factors. Social and psychological forces that have enhanced or blocked family survival, stability, and advancement will be explored. The orientation of Black family life will emphasize its strengths, weaknesses, adaptations, strong kinship bonds, and equilibrarian family roles. LEC.

AAAS 445. Arab Thought and Identity. 3 Hours. NW / N/W.
The intention of this course is to present a comprehensive portrait and a deeper understanding of the Arab society and its cultural background. We will focus on the debate that is still raging about traditionalism versus modernity, and authenticity (assala) and specificity (Khususiyah) versus westernization. Moreover, we will discuss the question of Arab identity which manifests itself through a sense of belonging and diversity of
affiliations, and relies as well on shared culture and its variations, and
shared place in history and common experiences. It is designed for any
student interested in this ethnic group. LEC.
AAAS 450. Popular Culture in the Muslim World. 3 Hours. NW / H.
A study of pop songs, television, comics, and other idioms of popular
culture from different parts of the Muslim world, with attention to Muslims’
sense of humor, tragedy, aesthetics, and pertinent issues of the day.
(Same as REL 450.) LEC.
AAAS 460. Topics and Problems in African and African-American
Studies. 1-3 Hours. H/W.
Individual investigation of special topics in African and African-American
studies. May not be repeated for credit toward the major. Prerequisite: Six
hours in African and African-American studies or consent of instructor.
IND.
AAAS 470. Language and Society in Africa. 3 Hours. NW AE42/
GE3S / H/W.
Examines issues and problems associated with language use in sub-
Saharan Africa from a sociological perspective. Topics covered include an
overview of the types of languages spoken on the continent: indigenous
languages, colonial languages, pidgins and creoles, and Arabic as a
religious language; problems associated with the politics of literacy and
language planning, writing and standardization of indigenous languages;
and the cultural and ideological dilemmas of language choice. (Same as
LING 470.) Prerequisite: AAAS 103, AAAS 305, or LING 106; or consent
of instructor. LEC.
AAAS 496. Field Experience. 3 Hours. AE61 / H/W.
A supervised placement in practical situations where students actively
participate in organized work within the community, to be completed with
an acceptable paper. The course may be taken in the United States,
Caribbean, or Africa to meet the B.A. degree requirement in African and
African-American Studies. Open only to junior and senior majors or by
consent of the department. FLD.
AAAS 501. Regional History: _____ 3 Hours. H/W.
A survey of the major political, social, economic and intellectual trends in
a region of Africa or the Americas. Prerequisite: Five hours of distribution
courses in history. LEC.
AAAS 502. Directed Language Study: _____ 5 Hours. U.
Study of an African language at Elementary I and Elementary II levels
under individual supervision and with the aid of self-instructional material.
Open to juniors and seniors in good standing and graduate students only
and with permission of the department. May be repeated for up to 10
credit hours. Cannot be used to fulfill BA foreign language requirement.
IND.
AAAS 503. Directed Language Study: _____ 3 Hours. U.
Study of an African language at Intermediate I and Intermediate II levels
under individual supervision and with the aid of self-instructional material.
Open to juniors and seniors in good standing and graduate students only
and with permission of the department. May be repeated for up to 6 credit
hours. Cannot be used to fulfill BA foreign language requirement. IND.
AAAS 504. Directed Language Study I: _____ 3 Hours. U.
Study of an African language at Advanced I and Advanced II levels under
individual supervision and with the aid of self-instructional material. Open
only to juniors and seniors in good standing, graduate students and with
permission of the department. May be repeated for up to 6 credit hours.
Cannot be used to fulfill BA language requirement. IND.
AAAS 505. Directed Language Study II: _____ 3 Hours. U.
Designed for native and near native speakers, this course involves
reading of materials published in an African language intended for
conversation, oral presentation, and writing by native speakers. May
be repeated for up to 6 credit hours. Prerequisite: Native or near native
speaker proficiency or consent of instructor. IND.
AAAS 510. Comparative Racial and Ethnic Relations. 3 Hours. NW
AE42 / S.
An examination of constructions of race and ethnicity around the world.
Emphasis is on the social, political, historical, cultural and economic
factors that lead to the creation of ethnic and racial identities, ethnic
conflict and accommodation, ethnic movements, and ethnic political
organization. Racial and ethnic relations in the U.S. are compared with
other countries. Major focus is placed on ethnicity in Africa, Asia, Latin
America, the Caribbean, and/or the Middle East. (Same as AMS 534 and
SOC 534.) LEC.
AAAS 511. The Civil Rights Movement. 3 Hours. H.
An examination of the Civil Rights Movement in American History.
Emphasis is placed on the activities of major Civil Rights organizations,
Civil Rights legislation and its impact on American life, and conflicts
between integrationist and separatist forces in politics, economics,
education, culture and race relations in the United States. LEC.
AAAS 512. African and Western Cosmologies. 3 Hours. H/W.
Ancient and modern Western world views will be compared to African
world views, with special attention paid to the way these are supported in
the underpinnings of sociocultural institutions. Prerequisite: A course in
African Studies and a course in the philosophy of science or consent of
instructor. LEC.
AAAS 520. African Studies in: _____ 3 Hours. NW AE42 / H/W.
Upper level lecture and discussion courses in African area of current
interest and/or taking advantage of faculty resources in topics relevant
to the major. May be repeated for credit toward the major. Prerequisite:
Junior/Senior in good standing. LEC.
AAAS 521. African Studies In, Honors: _____ 3 Hours. H/W.
Upper level lecture and discussion courses in African area of current
interest and/or taking advantage of faculty resources in topics relevant
to the major. May be repeated for credit toward the major. Only open to
students admitted to the University Honors Program or with permission of
the instructor. Prerequisite: Junior/senior in good standing LEC.
W.
Historical development, systematic ideas and rites of selected periods,
cultural settings, and movements. Prerequisite: Five hours of distribution
courses in the humanities or AAAS 512 and consent of instructor. LEC.
AAAS 523. African-American Studies In: _____ 3 Hours. H.
Upper level lecture and discussion courses in African-American area of
current interest and/or taking advantage of faculty resources in topics
relevant to the major. May be repeated for credit toward the major.
Prerequisite: Junior/Senior in good standing. LEC.
AAAS 524. African-American Studies In, Honors: _____ 3 Hours. H.
Upper level lecture and discussion courses in African-American area of
current interest and/or taking advantage of faculty resources in topics
relevant to the major. May be repeated for credit toward the major. Only
open to students admitted to the University Honors Program or with
permission of the instructor. Prerequisite: Junior/senior in good standing.
LEC.
AAAS 525. Social History of Black Aging in America. 3 Hours. H.
The purpose of this course is to provide a comprehensive historical
examination of American society’s changing attitudes and responses to
aging and older adults, with emphasis on the Black aged. Beginning with
the African background where older adults were highly valued, the course
explores the impact of slavery, the industrial Revolution, urbanization and the development of the youth-oriented culture prevalent in the United States today. Subsequently, the course focuses on the emergence of twentieth century social gerontological problems and the role of the modern Black movements, public agencies, and private organizations in addressing the issues. Film, essays, drama, and/or fiction are utilized to illustrate the cultural attitudes of each historical period. Prerequisite: AAAS 103 or AAAS 105 or AAAS 106 or a course in American history, or consent of instructor. LEC.

AAAS 527. Popular Culture in Africa. 3 Hours. S/W.
This course examines multiple expressions of popular culture in contemporary Africa, focusing on the aesthetics of forms such as music, theater, dress, street art, and popular literary genres, as well as the social themes they deal with and the societies that produce them. The approach will be based on a critical reconsideration of notions such as traditional versus modern culture, elite versus folk art, westernization, and cultural hybridity, in order to find better ways of discussing the cultural vibrancy of everyday life in contemporary Africa. LEC.

AAAS 532. Studies in Islam. 3 Hours. H.
Study of religious thought, practice, and institutions of Islam with an emphasis on the examination of primary documents. (Same as REL 532.) LEC.

AAAS 534. The Rhetoric of Black Americans. 3 Hours. H.
A study of the rhetoric of Black Americans, from their earliest protest efforts to the contemporary scene, with the focus on the methods and themes employed to alter their status in American society. (Same as COMS 551.) Prerequisite: COMS 130. Skills in basic composition essential. LEC.

AAAS 536. Islamic Art and Architecture in Africa. 3 Hours. N.
Study of Islamic art and architecture in various cultural and geographical settings, from the first mosques of North African and the Swahili coast to contemporary Islamized masquerades in West Africa. We consider art objects and architectural sites in terms of religious practice, trade and commerce, ritual and political power, and contemporary expression. (Same as HA 536.) Prerequisite: AAAS 102, AAAS 103, HA 100, or HA 150; or permission of instructor. LEC.

AAAS 542. The History of Islam in Africa. 3 Hours. NW / H/W.
A study of the history and institutions of Islam in Africa. Emphasis will be placed on the impact of Islam on African traditional religions and African civilizations in general; the historiographical traditions of Islam in Africa. (Same as REL 535.) Prerequisite: Five hours of distribution courses in the humanities. LEC.

AAAS 543. Language and Culture in Arabic-Speaking Communities. 3 Hours. NW AE42/GE3S / H.
The course examines the links between language structure, patterns of use, language choice, and language attitudes in the diglossic and bilingual Arabic-speaking communities. It also explores language as a reflector and creator of Arab culture (e.g., linguistic encoding of politeness, the Quranic text as the spoken and written word, the role of tropes in Arabic rhetoric). The topics for discussion range from the micro-level language choice to the macro-level issues of national language policies and planning within the domain of government and education across the Arab world. (Same as LING 543.) LEC.

AAAS 545. Unveiling the Veil. 3 Hours. NW / H.
This course seeks to unveil a complex cultural practice that has been misconstrued by many scholars. It explores the versatility of the meaning of the veil. It examines the ways in which the veil has become a symbol of privacy, cultural identity, religious assertion, resistance and liberation, besides being a symbol of constraint, oppression, backwardness, and sexual mystery. LEC.

AAAS 550. Senior Seminar in: ______. 3 Hours. AE61 / H/W.
Small discussion groups, each designed to consider a specific, clearly defined topic, using an interdisciplinary approach and requiring the demonstration of a comprehensive knowledge of the fundamentals in the field as appropriate to the topic. Class discussion based on student presentations. Prerequisite: Senior majors; special departmental permission for other seniors. LEC.

AAAS 551. Environmental Issues in Africa. 3 Hours. S.
Acquaints students with the complexities of debates on environmental problems in Sub-Saharan Africa. Topics addressed may include deforestation, desert expansion, wildlife conservation, soil erosion, climate change, coral reef destruction, water resources development, mangrove preservation, and the environmental effects of war, industrialization, and urbanization. Class presentations and projects synthesize the perspectives of both human and physical geography. (Same as GEOG 550.) Prerequisite: GEOG 104 or permission of instructor. LEC.

AAAS 552. Classical Islamic Literature. 3 Hours. NW / H.
An examination of major developments in classical Islamic literature in the Middle East and beyond, with attention to the poetic and prose works (in translation) that emerged from them. (Same as REL 552.) LEC.

AAAS 553. Geography of African Development. 3 Hours. NW AE42/GE3S / S.
Acquaints students with the values and social parameters of African agricultural and pastoral practice. Topics include customary land rights, African perspectives on the natural world, gender issues in African agriculture, and the urbanization of African cultures. The course also contrasts African views with those of Western development practitioners and donor agencies. Case studies from different countries are used to highlight the continent’s regional differences. (Same as GEOG 553.) LEC.

AAAS 554. Contemporary Health Issues in Africa. 3 Hours. S.
The course examines health and nutrition in African communities, using the methods of biological and medical anthropology. Fundamental to the approach taken in the course is the understanding that the health of human groups depends on interactions between biological and cultural phenomena in a particular ecological context. One topic will be selected per semester to examine in detail the full array of epidemiological factors contributing to patterns of specific diseases. AIDS, childhood diseases, and reproductive health of African women are among possible topics. Course material will be selected from scholarly and medical publications, as well as coverage in the popular media. The use of a variety of sources will enhance understanding of the biological and cultural issues involved, and will help students identify possible bias and misinformation in popular coverage of events such as famine or epidemic in African settings. (Same as ANTH 545.) Prerequisite: An introductory course in either Anthropology or African Studies. LEC.

AAAS 555. African Film. 3 Hours. NW / H.
A critical study of Africa and its peoples as depicted in films. The aesthetic, cultural, economic, political, historical, and ideological aspects of African films are examined. (Same as FMS 544.) LEC.

AAAS 557. Cities and Development. 3 Hours. S.
An intermediate level course in urban geography, with an emphasis on cities in the developing world. Example cities in Latin America and the Caribbean, Sub-Saharan Africa, the Middle East, South Asia, and/or Southeast Asia may be examined. The main focus is on the intersection between urbanization and economic development, but social, political, and cultural aspects of development in cities are considered. Other topics include the geographic impacts of European colonialism, urbanization
and industrialization, rural-to-urban migration, urban structure and spatial dynamics, urban planning, and environmental sustainability. (Same as GEOG 557.) LEC.

AAAS 560. Race, Gender, and Post-Colonial Discourses. 3 Hours. H.
An examination of the ways in which the concept of race, gender, and post-colonialism frame African literatures from the Caribbean, North America, and the continent itself. The course will focus on these discourses grounding them in critical frameworks within which they can be contextually analyzed and evaluated, at the same time examining their impact in literacy praxis and theory. (Same as WGSS 560.) LEC.

AAAS 561. Liberation in Southern Africa. 3 Hours. NW AE2 / U.
This course examines struggles for freedom in southern Africa and the consequences of political, economic, and social changes in the region. The end of colonial rule, the demise of white-settler domination, and the fall of the apartheid regime is discussed. As a major political event of the twentieth century, the liberation of southern Africa had both local and global consequences. The course analyzes transnational issues of liberation and resistance to consider broader regional and international perspectives. Course themes pay particular attention to gender and ethnicity and include a focus on democratization and contemporary meanings of liberation. Prior coursework in African Studies is strongly recommended, but not required. (Same as HIST 561 and POLS 561.) LEC.

AAAS 565. Gender, Culture, and Migration. 3 Hours. H.
This course brings a human face to the 21st century manifestation of globalization by focusing on the issues of culture, gender and migration. How do these three aspects create the “global village” amongst both the host and donor peoples? When people move from one place to another, what do they leave behind, what do they take with them? What is gained, or lost by the host community? What is the impact of migration on a specific group’s and individual’s sense of identity? How has migration affected the people’s construction, understanding, and practice of gender? Given their primary roles in the home and within the culture, these questions and more are posed with particular attention to women. Migration theories, interviews and personal testimonies as well as literary and dramatic works are critical to our analyses of the issues raised and enable us to hold conversations with, and listen to the stories of the ordinary people who make globalization happen and sustain it. (Same as AMS 565 and WGSS 565.) LEC.

AAAS 568. Kongo Trans-Atlantic. 3 Hours. S.
This seminar explores Kongo culture and history through a cross-section of the African-Atlantic World: Western Equatorial Africa and related New World societies in Jamaica, Brazil, Haiti, Cuba, and the Georgia and Carolina coasts, and New Orleans (thus in former British, Portuguese, French, Spanish, and U.S. colonial territories). The seminar will assess recent scholarship on patterns of slavery and resistance, cultural and linguistic change, creolization and hybridization. (Same as ANTH 568.) LEC.

AAAS 574. Slavery in the New World. 3 Hours. H/W.
Slavery, slave culture, and the slave trade in the U.S., Latin America, and the Caribbean will be examined comparatively. Attention will also be given to African cultures, the effects of the slave trade on Africa, and the effects of African cultures on institutions in the New World. (Same as HIST 574.) LEC.

AAAS 578. Central African Art. 3 Hours. NW / H/W.
Introduction to the arts and cultures of Central Africa. Emphasis is given to the major art-producing cultures of the Equatorial forest and the Southern Savanna regions of Cameroon, Gabon, Congo, Zaire, and Angola. The historical and cultural contexts for the visual arts associated with central leadership and non-centralized societies are explored. (Same as HA 578.) LEC.

AAAS 584. Black American Literature. 3 Hours. H.
A study of the literature written by Black Americans from the pre-Civil War period to the present. Emphasis upon specific historical periods in the development of Black literature as well as upon a critical analysis of major autobiographical, poetic, and fictional works. LEC.

AAAS 585. Race and the American Theatre. 3 Hours. U.
The representation(s) of race in significant texts and performance styles in American theatre analyzed according to political ideologies, dramatic movements and the impact of these factors on the representation of the “other” in the theatre. (Same as AMS 529 and THR 529.) LEC.

AAAS 590. The Rise and Fall of Apartheid. 3 Hours. H.
This course will deal with the last fifty years of South African history during which apartheid came to be formulated, supported, and perpetuated, and the forces that were responsible for its disintegration by 1990. Reference will also be made to the transformation process since April 1994. (Same as HIST 599.) LEC.

AAAS 598. Sexuality and Gender in African History. 3 Hours. NW AE2 / H.
An examination of the history of sexuality and gender in Africa with a focus on the 19th and 20th centuries. Major issues and methods in the historical scholarship on gender and sexuality will be covered. Topics of historical analysis include life histories, rites of passage, courtship, marriage, reproduction, education, masculinities, homosexuality, colonial control, and changing gender relations. Prior course work in African history is suggested. Graduate students will complete an additional project in consultation with the instructor. (Same as HIST 598.) LEC.

AAAS 600. Politics in Africa. 3 Hours. NW AE2 / S.
A survey of politics in Africa, focused on the countries of sub-Saharan or Black Africa. The course includes a historical discussion of precolonial Africa, colonization and the creation of contemporary states, and the politics of independence, before examining contemporary political systems and the forces influencing patterns of politics on the continent. (Same as POLS 665.) Prerequisite: POLS 150 or AAAS 105 or AAAS 305 or consent of instructor. LEC.

AAAS 611. History of the Black Power Movement. 3 Hours. H.
Examines the Black Power Movement in its many manifestations, beginning with a discussion of its political and cultural background: the transition from Civil Rights to Black Power in the African American Freedom Movement of the 1960s; the impact on African Americans of African decolonization and the spread of anti-colonial and anti-imperialist movements throughout other parts of the globe. The course also examines the Black Arts Movement and its influence on the Black Power Movement and vice versa. Therefore, some attention will also be paid to the music, literature, theater, and the graphic arts of the period, and the aesthetic and political critiques of these artistic forms. Prerequisite: AAAS 511 not required but recommended. LEC.

AAAS 630. The Life and Intellectual Thought of W.E.B. Du Bois. 3 Hours. H.
A critical examination of W. E. B. Du Bois, paramount black scholar and activist whose massive body of scholarly work spans the period from late 19th through the mid-20th centuries. Course covers the major works of Du Bois. Topics include Du Bois as sociologist, historian, propagandist, and creative writer. Moreover, the course deals with Du Bois as an intellectual in conversation with other black thinkers, including individuals such as, Booker T. Washington, Alexander Crummell, Anna Julia Copper, Ida B. Wells-Barnett, Marcus Garvey, E. Franklin Frazier, Walter White and Thurgood Marshall. LEC.
AAAS 659. Investigation and Conference. 1-3 Hours. AE61 / H/W.
Individual and supervised readings in selected areas of African and African-American studies which will be an investigation of a subject selected by the student with the advice and direction of an instructor. Individual reports and conferences. Prerequisite: Seniors and consent of department. IND.

AAAS 695. Honors Project in: _____. 3 Hours. AE61 / H.
An individual research project in African-American or African studies under the direction of a specialist in the area of the student's interest, the results of the project to be presented in written form and to be defended before a committee of three faculty members as provided for under the requirements for Honors. Majors only and permission of instructor. IND.

AAAS 700. Africa in World Politics. 3 Hours.
A 20th-century and 21st-century study of the combined internal and external forces that precipitated the rise of Africa, the major African issues in international relations, and Africa's impact on the modern world. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 701. Politics in Africa. 3 Hours.
A survey of politics in Africa, focused on the countries of sub-Saharan or Black Africa. The course includes a historical discussion of precolonial Africa, colonization and the creation of contemporary states, and the politics of independence, before examining contemporary political systems and the forces influencing patterns of politics on the continent. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 715. Seminar in African Art. 3 Hours.
A concentrated study of a special topic relating to African Art studies. Different topics are offered in different semesters. (Same as HA 715.) Prerequisite: Nine hours of Art History and/or consent of instructor. LEC.

AAAS 716. Women in Islam. 3 Hours.
Addresses the widely-held stereotype of Muslim women as pawns in a patriarchal socio-religious context. Investigating the Muslim cultures of certain regions, the course will examine the manner in which indigenous culture was influenced by the introduction of Islam and the historical impact of Islam on women’s social roles. Focusing principally on contemporary social change, the course will consider how socio-political change affects religious roles where religion is integrally involved in daily life. To what extent is individualism valued, and how are the pressures of late 20th-century and early 21st-century life mediated? The course will draw on texts from history, sociology, and literature. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 720. Intercultural Communication: The Afro-American. 3 Hours.
An examination of the barriers to effective communication between Black Americans and non-Black Americans. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.
AAAS 723. Special Topics in Africana Studies: ______. 3 Hours.
Seminar in an area of current interest in African and African-American Studies. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 727. African-American Culture. 3 Hours.
This course defines African American culture and identifies ways in which it is distinct. The course identifies the roots of African American culture, as well as the transformations occurring over time. The course covers identity issues and considers the possibility of complex, multi-identity structures. The course addresses the issues of whether there is a common narrative or a common root metaphor for African American culture, how this is known epistemologically, internally and externally, and how epistemological “knowledge” is appropriated. Course pedagogy includes text readings, case studies, performance events, and media events. LEC.

AAAS 730. Black Leadership. 3 Hours.
The course focuses on the concept of leadership and on Black leadership in the United States. An in-depth analysis of selected case studies of Black leaders both historical and contemporary. Some attention will be given to the dispersion of Africans into the Americas and the leadership that emerged, conditioned both by environmental factors and the psychology engendered by the system of slavery. Selected successful Black leaders will be invited to visit the class from time to time. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 731. African Literature. 3 Hours.
Introduction to African Literature. Reading, analysis, and discussion of contemporary fiction, poetry, and drama from sub-Saharan Africa. Brief attention will be paid to historical development and to traditional literature. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 732. Francophone African Literature. 3 Hours.
This course is an introduction to 20th-century and modern Francophone African literature covering selected works by major authors from both sub-Saharan Africa and the Maghreb. Attention will be given primarily to the novel, although some poetry will also be read. Topics and themes include negritude, African identity in the wake of colonialism, Islam, and women’s writing. Classes will be conducted in English. Students may read the texts in French or in translation. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 733. Islamic Culture. 3 Hours.
Contemporary literature that is set in the context of Muslim cultures provides for an examination of Muslim identity on its own terms. This course focuses on the literary examination of works by Muslim authors from Egypt, Sudan, Senegal, Guinea, Mali, Morocco, Nigeria, and Niger. From the perspective of both male and female authors, the issue of what it means to be a Muslim is considered through fictional accounts set in contemporary contexts. Some works will be read in translation from Arabic or French; others are written originally in English. Cultures considered in this course vary widely in their origins and customs, which allows for a focus on the one pervasive element they share in common: Islam as it shapes people’s lives. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 734. African Women Writers. 3 Hours.
This course focuses on African women’s writing from all regions of the continent. Works included deal with a wide variety of issues relevant to African women, as well as universal issues of conceptions of gender roles, and the struggle to attain personal rights and freedom within traditional cultural frameworks. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 735. Muslim Women’s Autobiography. 3 Hours.
This course examines the realities of Muslim women’s experiences as conveyed in their own voices. Works are drawn from all over the world, from Africa and the Middle East to Europe and the U.S. and cover from the 19th-century to the present. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 740. The Afro-American Family: A Psychological Approach. 3 Hours.
The examination of the structure, values, and behavior patterns of the contemporary African-American family as influenced by African cultures and kinship systems and the institution of slavery in association with other factors. Social and psychological forces that have enhanced or blocked family survival, stability, and advancement will be explored. The orientation of Black family life will emphasize its strengths, weaknesses, adaptations, strong kinship bonds, and equilibrant family roles. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 745. Arab Thought and Identity. 3 Hours.
The intention of this course is to present a comprehensive portrait and a deeper understanding of the Arab society and its cultural background. We will focus on the debate that is still raging about traditionalism versus modernity, and authenticity (assala) and specificity (Khususiyya) versus westernization. Moreover, we will discuss the question of Arab identity which manifests itself through a sense of belonging and diversity of affiliations, and relies as well on shared culture and its variations, and shared place in history and common experiences. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 749. Islam. 3 Hours.
Islam’s origins, the prophet Muhammed, the Holy Koran, religious symbols and moral mandates, and historical developments. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 750. Popular Culture in the Muslim World. 3 Hours.
A study of pop songs, television, comics, and other idioms of popular culture from different parts of the Muslim world, with attention to Muslims’ sense of humor, tragedy, aesthetics, and pertinent issues of the day. LEC.

AAAS 760. Topics and Problems in African and African-American Studies. 3 Hours.
Individual investigation of special topics in African and African-American studies. May not be repeated for credit. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 770. Language and Society in Africa. 3 Hours.
Examines issues and problems associated with language use in sub-Saharan Africa from a sociological perspective. Topics covered include an overview of the types of languages spoken on the continent: indigenous languages, colonial languages, pidgins and creoles, and Arabic as a religious language; problems associated with the politics of literacy and language planning, writing and standardization of indigenous languages; and the cultural and ideological dilemmas of language choice. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.
AAAS 774. Topics in Literatures of Africa and the African Diaspora: _____, 3 Hours.
An intensive study of the literatures of Africa and/or African diaspora (people of African descent dispersed around the world). This study will focus on the major characteristics of a particular period, genre, mode, and/or theme in literatures such as African, Caribbean, Afro-Brazilian, African American, African Canadian, Black British. Critical theories pertinent to writers and their work will be covered. Topics may include studies in drama, poetry, or the novel; migration narratives; literature of a particular era, such as the Harlem Renaissance, Negritude, or the Black Arts Movement; representations of gender, etc. As topics vary by semester, the course may be repeated for credit. (Same as ENGL 774.) LEC.

AAAS 788. The Black Woman, 3 Hours.
An interdisciplinary study of the role of Black women in our society, from the African background through the plantation experience to the present. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 801. Introduction to Africana Studies: African-American, 3 Hours.
An introduction to, and overview of, the historical, intellectual, and professional foundations of African-American Studies; a multidisciplinary examination of the key texts and issues in the field. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 802. Introduction to Africana Studies: African, 3 Hours.
An introduction to, and overview of, the historical, intellectual, and professional foundations of African Studies; a multidisciplinary examination of the key texts and issues in the field. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 803. Research Methods in Africana Studies, 3 Hours.
A multidisciplinary introduction to the range of research methods employed to examine African and African-American history, cultures, and societies. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 804. Seminar in Africana Studies, 3 Hours.
An interdisciplinary, comparative exploration of the histories, cultures, and societies of Africans and peoples of African descent. Students will be required to utilize the skills gained in AAAS 801 and AAAS 802 to design and implement a project that will be critically assessed in the seminar. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. Prerequisite: AAAS 801 and AAAS 802 or consent of instructor. LEC.

AAAS 810. Comparative Racial and Ethnic Relations, 3 Hours.
An examination of constructions of race and ethnicity around the world. Emphasis is on the social, political, historical, cultural and economic factors that lead to the creation of ethnic and racial identities, ethnic conflict and accommodation, ethnic movements, and ethnic political organization. Racial and ethnic relations in the U.S. are compared with other countries. Major focus is placed on ethnicity in Africa, Asia, Latin America, the Caribbean, and/or the Middle East. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 811. The Civil Rights Movement, 3 Hours.
An examination of the Civil Rights Movement in American History. Emphasis is placed on the activities of major Civil Rights organizations, Civil Rights legislation and its impact on American life, and conflicts between integrationist and separatist forces in politics, economics, education, culture and race relations in the United States. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 812. The Black Power Movement, 3 Hours.
This course will examine the Black Power Movement in its many manifestations, beginning with a discussion of its political and cultural background: the transition from Civil Rights to Black Power in the Afro-American freedom movement of 1960’s; the impact on African Americans of African decolonization and the spread of anti-colonial and anti-imperialist movements throughout other parts of the globe. There will also be some examination of the Black Arts Movement and its influence on the Black Power Movement and vice versa. Therefore, some attention will also be paid to the music, literature, theater, and the graphic arts of the period, and the aesthetic and political critiques of these artistic forms. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

Historical development, systematic ideas and rites of selected periods, cultural settings, and movements. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 825. Social History of Black Aging in America, 3 Hours.
The purpose of this course is to provide a comprehensive historical examination of American society’s changing attitudes and responses to aging and older adults, with emphasis on the Black aged. Beginning with the African background where older adults were highly valued, the course explores the impact of slavery, the industrial Revolution, urbanization and the development of the youth-oriented culture prevalent in the United States today. Subsequently, the course focuses on the emergence of twentieth-century social gerontological problems and the role of the modern Black movements, public agencies, and private organizations in addressing the issues. Film, essays, drama, and/or fiction are utilized to illustrate the cultural attitudes of each historical period. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 827. Popular Culture in Africa, 3 Hours.
This course examines multiple expressions of popular culture in contemporary Africa, focusing on the aesthetics of forms such as music, theatre, dress, street art, and popular literary genres, as well as the social themes they deal with and the societies that produce them. The approach will be based on a critical reconsideration of notions such as traditional versus modern culture, elite versus folk art, westernization, and cultural hybridity, in order to find better ways of discussing the cultural vibrancy of everyday life in contemporary Africa. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 830. The Life and Times of W.E.B. Du Bois, 3 Hours.
A critical examination of the life and thought of W. E. B. Du Bois, paramount black scholar and activist whose massive body of scholarly work spans the period from late 19th through the mid-20th centuries. Course covers the major works of Du Bois. Topics include Du Bois as sociologist, historian, propagandist, and creative writer, taking into account his often shifting views on art and culture, politics, leadership, civil rights and the color line, trade unionism, Pan-Africanism, socialism, internationalism, and, of course, double consciousness, among other issues. Moreover, the course will deal with Du Bois as an intellectual in conversation with other black thinkers, including individuals such as
AAAS 832. Comparative Black Literature. 3 Hours.
Reading, analysis, and discussion of contemporary fiction, poetry, and drama from Africa, the Caribbean, and the United States. Brief attention will be paid to historical development and to traditional literature. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 834. The Rhetoric of Black Americans. 3 Hours.
A study of the rhetoric of Black Americans, from their earliest protest efforts to the contemporary scene, with the focus on the methods and themes employed to alter their status in American society. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 843. Language and Culture in Arabic-Speaking Communities. 3 Hours.
The course examines the links between language structure, patterns of use, language choice, and language attitudes in the diglossic and bilingual Arabic-speaking communities. It also explores language as a reflector and creator of Arab culture (e.g. linguistic encoding of politeness, the Quranic text as the spoken and written word, the role of tropes in Arabic rhetoric). The topics for discussion range from the micro-level language choice to the macro-level issues of national language policies and planning within the domain of government and education across the Arab world. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 845. Unveiling the Veil. 3 Hours.
This course seeks to unveil a complex cultural practice that has been misconstrued by many scholars. It explores the versatility of the meaning of the veil. It examines the ways in which the veil has become a symbol of privacy, cultural identity, religious assertion, resistance and liberation, besides being a symbol of constraint, oppression, backwardness, and sexual mystery. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 851. Environmental Issues in Africa. 3 Hours.
Acquaints students with the complexities of debates on environmental problems in Sub-Saharan Africa. Topics addressed may include deforestation, desert expansion, wildlife conservation, soil erosion, climate change, coral reef destruction, water resources development, mangrove preservation, and the environmental effects of war, industrialization, and urbanization. Class presentations and projects synthesize the perspectives of both human and physical geography. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 852. Classical Islamic Literature. 3 Hours.
An examination of major developments in classical Islamic literature in the Middle East and beyond, with attention to the poetic and prose works (in translation) that emerged from them. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 853. Geography of African Development. 3 Hours.
Acquaints students with the values and social parameters of African agricultural and pastoral practice. Topics include customary land rights, African perspectives on the natural world, gender issues in African agriculture, and the urbanization of African cultures. The course also contrasts African views with those of Western development practitioners and donor agencies. Case studies from different countries are used to highlight the continent’s regional differences. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 855. African Film and Video. 3 Hours.
A critical study of Africa and its peoples as depicted in films and videos. The aesthetic, cultural, economic, political, historical, and ideological aspects of African films and videos will be examined. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 857. Cities and Development. 3 Hours.
An intermediate-level course in urban geography, with an emphasis on cities in the developing world. Example cities in Latin America and the Caribbean, Sub-Saharan Africa, the Middle East, South Asia, and/or Southeast Asia may be examined. The main focus is on the intersection between urbanization and economic development, but social, political, and cultural aspects of development in cities are considered. Other topics include the geographic impacts of European colonialism, urbanization and industrialization, rural-to-urban migration, urban structure and spatial dynamics, urban planning, and environmental sustainability. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 860. Race, Gender, and Post-Colonial Discourses. 3 Hours.
An examination of the ways in which the concept of race, gender, and post-colonialism frame African literatures from the Caribbean, North America, and the continent itself. The course will focus on these discourses grounding them in critical frameworks within which they can be contextually analyzed and evaluated, at the same time examining their impact in literacy praxis and theory. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 874. Slavery in the New World. 3 Hours.
Slavery, slave culture, and the slave trade in the U.S., Latin America, and the Caribbean will be examined comparatively. Attention will also be given to African cultures, the effects of the slave trade on Africa, and the effects of African cultures on institutions in the New World. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 880. Introduction to Modern Africa. 3 Hours.
An interdisciplinary approach to cross-cultural understanding of Africa’s place in the modern world. Specific emphasis will be given to the role of Africa in world history, African cultures, modern African history, and problems of development and nation building in Africa. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 884. Black American Literature. 3 Hours.
A study of the literature written by Black Americans from the pre-Civil War period to the present. Emphasis upon specific historical periods in the development of Black literature as well as on a critical analysis of major autobiographical, poetic, and fictional works. Additional advanced-level coursework is required for students in this course beyond lower-level courses of the same name and/or description. LEC.

AAAS 885. Race and the American Theatre. 3 Hours.
The representation(s) of race in significant texts and performance styles in American theatre analyzed according to political ideologies, dramatic
movements and the impact of these factors on the representation of the
"other" in the theatre. LEC.

**AAAS 890. The Rise and Fall of Apartheid. 3 Hours.**
This course will deal with the fifty years of South African history during
which apartheid came to be formulated, supported, and perpetuated,
and the forces that were responsible for its disintegration by 1990.
Reference will also be made to the transformation process since April
1994. Additional advanced-level coursework is required for students
in this course beyond lower-level courses of the same name and/or
description. LEC.

**AAAS 898. Sexuality and Gender in African History. 3 Hours.**
An examination of the history of sexuality and gender in Africa focused
on the 19th-century to the present. Major issues and methods in the
historical scholarship on gender and sexuality will be covered. Topics
of historical analysis include life histories, rites of passage, courtship,
mariage, reproduction, education, masculinities, homosexuality, colonial
control, and changing gender relations. Prior course work in African
history is suggested. Additional advanced-level coursework is required for
students in this course beyond lower-level courses of the same name and/or
description. LEC.

**AAAS 899. Thesis. 1-6 Hours.**
Investigation and research of a topic for a master’s thesis. A maximum
of 6 thesis hours may be counted toward the 33 hours required for the
degree. THE.

**AMHR 110. Elementary Amharic I. 5 Hours. U.**
Basic level of oral fluency and aural comprehension. Vocabulary
acquisition, pronunciation, grammar, and writing. Reading of simple texts.
Not open to native speakers of Amharic. LEC.

**AMHR 120. Elementary Amharic II. 5 Hours. U.**
A continuation of AMHR 110. Readings in cultural texts. Prerequisite: AMHR 110. LEC.

**AMHR 177. First Year Seminar: ______. 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing
current issues in Amharic. Course is designed to meet the critical
thinking learning outcome of the KU Core. First-Year Seminar topics
are coordinated and approved by the Office of First-Year Experience.
Prerequisite: First-time freshman status. LEC.

**AMHR 210. Intermediate Amharic I. 3 Hours. U.**
Intermediate oral proficiency and aural comprehension. Systematic review
of grammar. Writing skills beyond the basic level. Introduction to modern
Amharic texts and discussion in Amharic. Prerequisite: AMHR 120. LEC.

**AMHR 220. Intermediate Amharic II. 3 Hours. U.**
Continuation of AMHR 210. Discussion in Amharic of texts studies.
Prerequisite: AMHR 210. LEC.

**ARAB 110. Elementary Arabic I. 5 Hours. U.**
Five hours of class per week. Basic level of oral fluency and aural
comprehension. Vocabulary acquisition, pronunciation, grammar, and
writing. Reading of simple texts. Not open to native speakers of Arabic.
LEC.

**ARAB 120. Elementary Arabic II. 5 Hours. U.**
Five hours of class per week. A continuation of ARAB 110. Readings in
cultural texts. Prerequisite: ARAB 110. LEC.

**ARAB 177. First Year Seminar: ______. 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing
current issues in Arabic. Course is designed to meet the critical
thinking learning outcome of the KU Core. First-Year Seminar topics
are coordinated and approved by the Office of First-Year Experience.
Prerequisite: First-time freshman status. LEC.

**ARAB 210. Intermediate Arabic I. 3 Hours. U.**
Three hours of class conducted in Arabic. Intermediate oral proficiency
and aural comprehension. Systematic review of grammar. Writing skills
beyond the basic level. Introduction to modern Arabic texts and discussion
in Arabic. Prerequisite: ARAB 120. LEC.

**ARAB 220. Intermediate Arabic II. 3 Hours. U.**
Three hours of class conducted in Arabic. Continuation of ARAB 210.
Discussion in Arabic of texts studied. Prerequisite: ARAB 210. LEC.

**ARAB 310. Advanced Arabic I. 3 Hours. U.**
A practical Arabic language course involving advanced study of the
grammar, reading of texts on a variety of subjects, conversation, and
composition. Taught in Arabic. Designed for students who have had two
or more years of Arabic study. Open to native speakers. Prerequisite:
ARAB 220 or consent of instructor. LEC.

**ARAB 320. Advanced Arabic II. 3 Hours.**
A continuation of ARAB 310. Prerequisite: Satisfactory completion of
ARAB 310 or consent of instructor. LEC.

**ARAB 401. Readings in Arabic I. 3 Hours. U.**
Designed for native and near-native speakers, this course involves
reading newspapers and other publications in the language intended
for native speakers, conversation, oral presentations, and advanced
grammar. Prerequisite: Native or near-native speaker proficiency or
consent of instructor. LEC.

**ARAB 402. Readings in Arabic II. 3 Hours. U.**
Continuation of ARAB 401. LEC.

**HAIT 110. Elementary Haitian I. 3 Hours. U.**
Beginning course in the vernacular language of Haiti, Martinique,
Guadeloupe and other areas of the Caribbean and the Indian Ocean.
Conversational approach, with essentials of grammar. Reading of basic
texts. Special attention to folk culture as expressed by language. No
previous knowledge of another foreign language is required. LEC.

**HAIT 120. Elementary Haitian II. 3 Hours. U.**
Continuation of HAIT 110, with further readings in Haitian literature.
Prerequisite: HAIT 110 or consent of instructor. LEC.

**HAIT 177. First Year Seminar: ______. 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing
current issues in Haitian. Course is designed to meet the critical
thinking learning outcome of the KU Core. First-Year Seminar topics
are coordinated and approved by the Office of First-Year Experience.
Prerequisite: First-time freshman status. LEC.

**HAIT 230. Intermediate Haitian I. 3 Hours. U.**
Continued practice in conversation and composition; intensive and
extensive readings from contemporary press, short story, poetry, and folk
tales. Prerequisite: HAIT 120 or consent of instructor. LEC.

**HAIT 240. Intermediate Haitian II. 3 Hours. U.**
Continuation of HAIT 230, with additional readings from theatre, novel,
and historical texts. Prerequisite: HAIT 230 or consent of instructor. LEC.

**HAIT 300. Contemporary Haiti. 3 Hours. NW / H.**
Detailed analysis of recent Haitian history. The focus will include
interactions between religion, social structure, politics, economics and
international relations. (Same as AAAS 302.) Prerequisite: AAAS 301/
HAIT 200, or consent of instructor. LEC.

**HAIT 350. Advanced Haitian I. 3 Hours. U.**
Course objective is a sophisticated command of understanding, speaking,
reading, and writing Haitian. Texts include newspapers and other Haitian
publications as well as spoken material produced essentially for native
speakers. Conversation and oral presentations. Keeping of personal journal in Haitian. LEC.

HAIT 360. Advanced Haitian II. 3 Hours. U.
Continuation of HAIT 350, plus advanced readings from Haitian authors such as Carrie Paultry, Frank Etienne, Lyonel Desmaratres, and Michel-Rolph Trouillot. LEC.

May be taken more than once, total credit not to exceed fifteen hours. Material not covered by course work, and/or in field of student’s special interest. Conferences. Course taken for one hour of credit may not be used to fulfill College’s humanities distribution requirement. Prerequisite: Six hours of Haitian Creole and consent of instructor. IND.

Advanced work in either language or literature or both. May be taken more than once, total credit not to exceed fifteen hours. Conferences. As a three-credit-hour course, it may count toward a major in African and African-American studies. Prerequisite: Four semesters of Haitian Creole or equivalent and consent of instructor. IND.

Advanced work in Haitian culture. May be taken more than once, total credit not to exceed fifteen hours. Conferences. As a three-credit-hour course, it may count toward a major in African and African-American studies. No knowledge of Haitian or French is required. Prerequisite: AAAS 301 or HAIT 200, or consent of instructor. IND.

HAIT 700. Investigation and Conference. 1-6 Hours.
Supervised individual readings in selected areas of Haitian language, literature, and culture. Individual reports and conferences. Prerequisite: Consent of instructor. RSH.

HAUS 110. Elementary Hausa I. 5 Hours. U.
Five hours of class per week. Basic level of oral fluency and aural comprehension. Vocabulary acquisition, pronunciation, grammar, and writing. Reading of simple texts. Not open to native speakers of Hausa. LEC.

HAUS 120. Elementary Hausa II. 5 Hours. U.
Five hours of class per week. A continuation of HAUS 110. Readings in cultural texts. Prerequisite: HAUS 110. LEC.

HAUS 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Hausa. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

HAUS 210. Intermediate Hausa I. 3 Hours. U.
Three hours of class conducted in Hausa. Intermediate oral proficiency and aural comprehension. Systematic review of grammar. Writing skills beyond the basic level. Introduction to modern Hausa texts and discussion in Hausa. Prerequisite: HAUS 120. LEC.

HAUS 220. Intermediate Hausa II. 3 Hours. U.
Three hours of class conducted in Hausa. Discussion in Hausa of texts studied. Prerequisite: HAUS 210. LEC.

HAUS 310. Advanced Hausa I. 3 Hours. U.
A practical Hausa language course involving advanced study of the grammar, reading of texts on a variety of subjects, conversation, and composition. Taught in Hausa. Designed for students who have had two or more years of Hausa study. Open to native speakers. Prerequisite: HAUS 220 or consent of instructor. LEC.

HAUS 320. Advanced Hausa II. 3 Hours. U.
A continuation of HAUS 310. Prerequisite: Satisfactory completion of HAUS 310 or consent of instructor. LEC.

HAUS 401. Readings in Hausa I. 3 Hours. U.
Designed for native and near-native speakers, this course involves reading newspapers and other publications in the language intended for native speakers, conversation, oral presentation, and advanced grammar. Prerequisite: Native or near-native speaker proficiency or consent of instructor. LEC.

HAUS 402. Readings in Hausa II. 3 Hours. U.
Continuation of HAUS 401. LEC.

KISW 110. Elementary KiSwahili I. 5 Hours. U.
Five hours of class per week. Basic level or oral fluency and aural comprehension. Vocabulary acquisition, pronunciation, grammar, and writing. Reading of simple texts. Not open to native speakers of KiSwahili. LEC.

KISW 120. Elementary KiSwahili II. 5 Hours. U.
Five hours of class per week. A continuation of KISW 110. Readings in cultural texts. Prerequisite: KISW 110. LEC.

KISW 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in KiSwahili. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

KISW 210. Intermediate KiSwahili I. 3 Hours. U.
Three hours of class conducted in KiSwahili. Intermediate oral proficiency and aural comprehension. Systematic review of grammar. Writing skills beyond the basic level. Introduction to modern KiSwahili texts and discussion in KiSwahili. Prerequisite: KISW 120. LEC.

KISW 220. Intermediate KiSwahili II. 3 Hours. U.
Three hours of class conducted in KiSwahili. Discussion in KiSwahili of texts studied. Prerequisite: KISW 210. LEC.

KISW 310. Advanced KiSwahili I. 3 Hours. U.
A practical KiSwahili language course involving advanced study of the grammar, reading of texts on a variety of subjects, conversation, and composition. Taught in KiSwahili. Designed for students who have had two or more years of KiSwahili study. Open to native speakers. Prerequisite: KISW 220 or consent of instructor. LEC.

KISW 320. Advanced KiSwahili II. 3 Hours. U.
A continuation of KISW 310. Prerequisite: Satisfactory completion of KISW 310 or consent of instructor. LEC.

KISW 401. Readings in KiSwahili I. 3 Hours. U.
Designed for native and near-native speakers, this course involves reading newspapers and other publications in the language intended for native speakers, conversation, oral presentations, and advanced grammar. Prerequisite: Native or near-native speaker proficiency or consent of instructor. LEC.

KISW 402. Readings in KiSwahili II. 3 Hours. U.
Continuation of KISW 401. LEC.

KISW 410. Advanced KiSwahili. 3 Hours. U.
The course objective is a sophisticated command of speaking, listening, reading, and writing in KiSwahili. Texts used include newspapers and other KiSwahili publications not expressly for language learners, and spoken material intended for native speakers is introduced. Conversation and oral presentations. Advanced grammar. Available for elective credit in the major. Prerequisite: Native, near-native or second
language competence or satisfactory completion of fourth level language proficiency. LEC.

**WOLO 110. Elementary Wolof I. 5 Hours. H.**
Five hours of class per week. Basic level of oral fluency and aural comprehension. Vocabulary acquisition, pronunciation, grammar, and writing. Reading of simple texts. Not open to native speakers of Wolof. LEC.

**WOLO 120. Elementary Wolof II. 5 Hours. U.**
Five hours of class per week. A continuation of WOLO 110. Readings in cultural texts. Prerequisite: WOLO 110. LEC.

**WOLO 177. First Year Seminar: _____ 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Wolof. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**WOLO 210. Intermediate Wolof I. 3 Hours. U.**
Three hours of class conducted in Wolof. Intermediate oral proficiency and aural comprehension. Systematic review of grammar. Writing skills beyond the basic level. Introduction to modern Wolof texts and discussion in Wolof. Prerequisite: WOLO 120. LEC.

**WOLO 220. Intermediate Wolof II. 3 Hours. U.**
Three hours of class conducted in Wolof. Continuation of WOLO 210. Discussion in Wolof of texts studied. Prerequisite: WOLO 210. LEC.

**WOLO 310. Advanced Wolof I. 3 Hours. U.**
A practical Wolof language course involving advanced study of the grammar, reading of texts on a variety of subjects, conversation, and composition. Taught in Wolof. Designed for students who have had two or more years of Wolof study. Open to native speakers. Prerequisite: WOLO 220 or consent of instructor. LEC.

**WOLO 320. Advanced Wolof II. 3 Hours. U.**
A continuation of WOLO 310. Prerequisite: Satisfactory completion of WOLO 310 or consent of instructor. LEC.

**WOLO 401. Readings in Wolof I. 3 Hours. U.**
Designed for native and near-native speakers, this course involves reading newspapers and other publications in the language intended for native speakers, conversation, oral presentations, and advanced grammar. Prerequisite: Native or near-native speaker proficiency or consent of instructor. LEC.

**WOLO 402. Readings in Wolof II. 3 Hours. U.**
Continuation of WOLO 401. LEC.

**WOLO 420. Advanced Wolof II. 3 Hours. U.**
Aspects of Wolof literature are examined at an advanced level, including differences between oral and written narrative, oral and poetic modes, varieties of registers as determined by gender and socio-economic level, and the effect of medium on literary style. Prerequisite: Native, near-native or second language competence, or satisfactory completion of fourth level language proficiency. LEC.

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**Bachelor of Arts and Bachelor of General Studies in African and African-American Studies**

Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU (see your advisor (http://www.advising.ku.edu) for details). Other years' catalogs

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**First- and Second-Year Preparation**

Students in the African studies concentration should enroll in AAAS 103 and AAAS 105 in the first year and AAAS 305 in the sophomore year. Students in the African-American studies concentration should enroll in AAAS 104 and AAAS 106 in the first year and AAAS 306 in the sophomore year. Students in the Arabic and Islamic Studies concentration should enroll in AAAS 102 in the first year and AAAS 349 in the sophomore year. For the B.A. degree in all concentrations, enrollment in a second language should begin no later than the sophomore year.

For further advising, contact the main office, 9 Bailey Hall, 785-864-3054, afs@ku.edu, or Professor Clarence Lang, celang@ku.edu, 785-864-5569.

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**Requirements for the B.A. or B.G.S. Major African Studies Concentration**

Majors choosing this concentration must complete a course in each of the following areas:

**African Language Proficiency (0)**

Satisfied by one of the following. Required for BA only.

- AMHR 220 Intermediate Amharic II
- ARAB 220 Intermediate Arabic II
- HAIT 240 Intermediate Haitian II
- HAUS 220 Intermediate Hausa II
- KISW 220 Intermediate KiSwahili II
- WOLO 220 Intermediate Wolof II

or an approved African-related language

**African Studies Core Knowledge & Skills (12)**

Majors choosing this option must complete each of the following categories:

- **Introduction to Africa.** Satisfied by the following:
  - AAAS 103 Introduction to Africa
  - AAAS 105 Introduction to African History
- **African Traditional Religion & Thought.** Satisfied by the following:
  - AAAS 300 African Traditional Religion and Thought
- **Modern African History.** Satisfied by the following:
  - AAAS 305 Modern African History

**African Studies Required Electives (15)**

Select five of the following at the 300+ level:

- AAAS 301 Portrait of a Third-World Nation: Haiti
- AAAS 302 Contemporary Haiti
- AAAS 303 Peoples and Cultures of North Africa and the Middle East
- AAAS 320 African Studies In: ______
- AAAS 332 Introduction to African Literature
- AAAS 333 Introduction to Caribbean Literature
- AAAS 334/ DANC 230/ THR 226
- AAAS 335 Introduction to Southern African Literature

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**African Studies Required Electives (15)**

Select five of the following at the 300+ level:

- AAAS 301 Portrait of a Third-World Nation: Haiti
- AAAS 302 Contemporary Haiti
- AAAS 303 Peoples and Cultures of North Africa and the Middle East
- AAAS 320 African Studies In: ______
- AAAS 332 Introduction to African Literature
- AAAS 333 Introduction to Caribbean Literature
- AAAS 334/ DANC 230/ THR 226
- AAAS 335 Introduction to Southern African Literature

---

**African Studies Required Electives (15)**

Select five of the following at the 300+ level:

- AAAS 301 Portrait of a Third-World Nation: Haiti
- AAAS 302 Contemporary Haiti
- AAAS 303 Peoples and Cultures of North Africa and the Middle East
- AAAS 320 African Studies In: ______
- AAAS 332 Introduction to African Literature
- AAAS 333 Introduction to Caribbean Literature
- AAAS 334/ DANC 230/ THR 226
- AAAS 335 Introduction to Southern African Literature
AAAS 336  Introduction to African Literature, Honors
AAAS 340/ WGSS 330  Women in Contemporary African Literature
AAAS 345  Popular Culture in Africa: Spiritual Thrills, Romance, and Sexualities
AAAS 349/ REL 350  Islam
AAAS/GEOG 350  Physical Geography of Africa
AAAS/GEOG 351  Africa’s Human Geographies
AAAS 355/ THR 326  African Theatre and Drama
AAAS/LING 370  Introduction to the Languages of Africa
AAAS/ANTH 372  Religion, Power, and Sexuality in Arab Societies
AAAS/HA 376  West African Art
AAAS 400  Readings in:_____ 
AAAS 415  Women and Islam
AAAS 429  Postcolonial Theatre and Drama
AAAS/FREN 432  Francophone African Literature
AAAS 433/ ENGL 479/ AAAS 520  Islamic Literature
AAAS 434  African Women Writers
AAAS 435  Muslim Women’s Autobiography
AAAS 445  Arab Thought and Identity
AAAS/REL 450  Popular Culture in the Muslim World
AAAS 460  Topics and Problems in African and African-American Studies
AAAS 470  Language and Society in Africa
AAAS 501  Regional History:_____ 
AAAS 502  Directed Language Study:_____ 
AAAS 503  Directed Language Study:_____ 
AAAS 504  Directed Language Study I:_____ 
AAAS 505  Directed Language Study II:_____ 
AAAS 512  African and Western Cosmologies
AAAS 520  African Studies in:_____ 
AAAS 522  African and African-American Religion:_____ 
AAAS 527  Popular Culture in Africa
AAAS/REL 532  Studies in Islam
AAAS 542  The History of Islam in Africa
AAAS/LING 543  Language and Culture in Arabic-Speaking Communities
AAAS 545  Unveiling the Veil
AAAS 551/ GEOG 550  Environmental Issues in Africa
AAAS 552  Classical Islamic Literature
AAAS/GEOG 553  Geography of African Development
AAAS 554  Contemporary Health Issues in Africa

AAAS 555/ FMS 544  African Film
AAAS/WGSS 560  Race, Gender, and Post-Colonial Discourses
AAAS/HIST/ POLS 561  Liberation in Southern Africa
AAAS 565  Gender, Culture, and Migration
AAAS 568  Kongo Trans-Atlantic
AAAS/HIST 574  Slavery in the New World
AAAS/HA 578  Central African Art
AAAS 590  The Rise and Fall of Apartheid
AAAS/HIST 598  Sexuality and Fall of Apartheid
AAAS 600/ POLS 665  Politics in Africa
AAAS/REL 650  Sufism
AAAS/REL 657  Gender in Islam and Society
AAAS/ANTH 663  The Anthropology of Islam
AAAS 662  Gender and Politics in Africa
AAAS/HA 676  West African Art
AAAS/HA 677  African Design
AAAS 679  African Expressive Culture:_____ 
AAAS 680  Introduction to Modern Africa

Capstone Experience (6)
Major’s capstone experience must relate to the student’s elective emphasis and be so certified by the advisor.
AAAS 550  Senior Seminar in:_____  3
AAAS 496  Field Experience  3
or AAAS 690  Investigation and Conference

African and African-American Studies Major – African Studies Concentration Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 33 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior (300+) Hours
Satisfied by a minimum of 27 hours from junior/senior courses (300+) in the major.

Major Junior/Senior (300+) Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of
study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator.

**African-American Studies Concentration**

**African-American Studies Core Knowledge & Skills (18)**
- AAAS 104 Introduction to African-American Studies 3
- AAAS 106 The Black Experience in the Americas 3
- AAAS 300 African Traditional Religion and Thought 3
- AAAS 306 The Black Experience in the U.S. Since Emancipation 3
- AAAS 550 Senior Seminar in: _____ 3
- AAAS 496 Field Experience 1 3

or AAAS 690 Investigation and Conference

**African-American Studies Required Electives (15)**
Select five of the following at the 300+ level: 15
- AAAS 302 African-American Studies In: ______
- AAAS 317 African American Women: Colonial Era to the Present
- AAAS 320 African Studies In: ______
- AAAS 323 African-American Studies In: ______
- AAAS 330 Black Leadership
- AAAS 332 Introduction to African Literature
- AAAS 333 The Rhetoric of Black Americans
- AAAS 334 The Life and Intellectual Thought of W.E.B. Du Bois
- AAAS 335 Introduction to Southern African Literature
- AAAS 336 Introduction to African Literature, Honors
- AAAS 340 Women in Contemporary African Literature
- AAAS 340 Women in Contemporary African Literature

AAAS 496, AAAS 550, and AAAS 690 may not be taken until
AAAS 300, AAAS 305, and AAAS 306 (as appropriate) have been
passed, subject to other stipulations in the catalog.

B.A. majors with a Haitian emphasis also must take 16 hours of an African language.

**African and African-American Studies Major**

**African-American Studies Concentration Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 33 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior (300+) Hours**
Satisfied by a minimum of 27 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior (300+) Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator.

**African and African-American Studies Concentration**

**African and African-American Studies Core Knowledge & Skills (21)**
- AAAS 103 Introduction to Africa 3
- AAAS 105 Introduction to African History 3
- AAAS 106 The Black Experience in the Americas 3
- AAAS 300 African Traditional Religion and Thought 3
- AAAS 305 Modern African History 3
- AAAS 306 The Black Experience in the U.S. Since Emancipation 3
- AAAS 550 Senior Seminar in: _____ 3
- AAAS 496 Field Experience 3

or AAAS 690 Investigation and Conference

**African and African-American Studies Required Electives (18)**
Select five of the following at the 300+ level: 15
- AAAS 302 Contemporary Haiti
- AAAS 303 Peoples and Cultures of North Africa and the Middle East
- AAAS 317 African American Women: Colonial Era to the Present
- AAAS 320 African Studies In: ______
- AAAS 323 African-American Studies In: ______
- AAAS 330 Black Leadership
- AAAS 332 Introduction to African Literature
- AAAS 333 Introduction to Caribbean Literature
- AAAS 334 Introduction to African Dance Theatre
- AAAS 335 Introduction to Southern African Literature
- AAAS 336 Introduction to African Literature, Honors
- AAAS 340 Women in Contemporary African Literature

1 AAAS 496, AAAS 550, and AAAS 690 may not be taken until AAAS 300, AAAS 305, and AAAS 306 (as appropriate) have been passed, subject to other stipulations in the catalog.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS 345</td>
<td>Popular Culture in Africa: Spiritual Thrills, Romance and Sexualities</td>
</tr>
<tr>
<td>AAAS 349</td>
<td>Islam</td>
</tr>
<tr>
<td>AAAS 350</td>
<td>Physical Geography of Africa</td>
</tr>
<tr>
<td>AAAS 351</td>
<td>Africa's Human Geographies</td>
</tr>
<tr>
<td>AAAS 355</td>
<td>African Theatre and Drama</td>
</tr>
<tr>
<td>AAAS 370</td>
<td>Introduction to the Languages of Africa</td>
</tr>
<tr>
<td>AAAS 372</td>
<td>Religion, Power, and Sexuality in Arab Societies</td>
</tr>
<tr>
<td>AAAS 376</td>
<td>West African Art</td>
</tr>
<tr>
<td>AAAS 388</td>
<td>The Black Woman</td>
</tr>
<tr>
<td>AAAS 400</td>
<td>Readings in: _____</td>
</tr>
<tr>
<td>AAAS 415</td>
<td>Women and Islam</td>
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<tr>
<td>AAAS 420</td>
<td>Intercultural Communication: The Afro-American</td>
</tr>
<tr>
<td>AAAS 429</td>
<td>Postcolonial Theatre and Drama</td>
</tr>
<tr>
<td>AAAS 432</td>
<td>Francophone African Literature</td>
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<tr>
<td>AAAS 433</td>
<td>Islamic Literature</td>
</tr>
<tr>
<td>AAAS 434</td>
<td>African Women Writers</td>
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<td>AAAS 435</td>
<td>Muslim Women’s Autobiography</td>
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<td>AAAS 440</td>
<td>The Afro-American Family: A Psychological Approach</td>
</tr>
<tr>
<td>AAAS 445</td>
<td>Arab Thought and Identity</td>
</tr>
<tr>
<td>AAAS 450</td>
<td>Popular Culture in the Muslim World</td>
</tr>
<tr>
<td>AAAS 460</td>
<td>Topics and Problems in African and African-American Studies</td>
</tr>
<tr>
<td>AAAS 470</td>
<td>Language and Society in Africa</td>
</tr>
<tr>
<td>AAAS 501</td>
<td>Regional History: _____</td>
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<tr>
<td>AAAS 502</td>
<td>Directed Language Study: _____</td>
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<td>Directed Language Study I: _____</td>
</tr>
<tr>
<td>AAAS 505</td>
<td>Directed Language Study II: _____</td>
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<tr>
<td>AAAS 510</td>
<td>Comparative Racial and Ethnic Relations</td>
</tr>
<tr>
<td>AAAS 511</td>
<td>The Civil Rights Movement</td>
</tr>
<tr>
<td>AAAS 512</td>
<td>African and Western Cosmologies</td>
</tr>
<tr>
<td>AAAS 520</td>
<td>African Studies in: _____</td>
</tr>
<tr>
<td>AAAS 522</td>
<td>African and African-American Religion: _____</td>
</tr>
<tr>
<td>AAAS 523</td>
<td>African-American Studies in: _____</td>
</tr>
<tr>
<td>AAAS 525</td>
<td>Social History of Black Aging in America</td>
</tr>
<tr>
<td>AAAS 527</td>
<td>Popular Culture in Africa</td>
</tr>
<tr>
<td>AAAS 532</td>
<td>Studies in Islam</td>
</tr>
<tr>
<td>AAAS 534</td>
<td>The Rhetoric of Black Americans</td>
</tr>
<tr>
<td>AAAS 542</td>
<td>The History of Islam in Africa</td>
</tr>
<tr>
<td>AAAS 543</td>
<td>Language and Culture in Arabic-Speaking Communities</td>
</tr>
<tr>
<td>AAAS 545</td>
<td>Unveiling the Veil</td>
</tr>
<tr>
<td>AAAS 551</td>
<td>Environmental Issues in Africa</td>
</tr>
<tr>
<td>AAAS 552</td>
<td>Classic Islamic Literature</td>
</tr>
<tr>
<td>AAAS 553</td>
<td>Geography of African Development</td>
</tr>
<tr>
<td>AAAS 554</td>
<td>Contemporary Health Issues in Africa</td>
</tr>
<tr>
<td>AAAS 555</td>
<td>African Film</td>
</tr>
<tr>
<td>AAAS 560</td>
<td>Race, Gender, and Post-Colonial Discourses</td>
</tr>
<tr>
<td>AAAS 561</td>
<td>Liberation in Southern Africa</td>
</tr>
<tr>
<td>AAAS 565</td>
<td>Gender, Culture, and Migration</td>
</tr>
<tr>
<td>AAAS 568</td>
<td>Kongo Trans-Atlantic</td>
</tr>
<tr>
<td>AAAS 574</td>
<td>Slavery in the New World</td>
</tr>
<tr>
<td>AAAS 578</td>
<td>Central African Art</td>
</tr>
<tr>
<td>AAAS 584</td>
<td>Black American Literature</td>
</tr>
<tr>
<td>AAAS 585</td>
<td>Race and the American Theatre</td>
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<tr>
<td>AAAS 590</td>
<td>The Rise and Fall of Apartheid</td>
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<td>AAAS 598</td>
<td>Sexuality and Gender in African History</td>
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<td>AAAS 600</td>
<td>Politics in Africa</td>
</tr>
<tr>
<td>AAAS 611</td>
<td>History of the Black Power Movement</td>
</tr>
<tr>
<td>AAAS 630</td>
<td>The Life and Intellectual Thought of W.E.B. Du Bois</td>
</tr>
<tr>
<td>AAAS 650</td>
<td>Sufism</td>
</tr>
<tr>
<td>AAAS 657</td>
<td>Gender in Islam and Society</td>
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<tr>
<td>AAAS 662</td>
<td>Gender and Politics in Africa</td>
</tr>
<tr>
<td>AAAS 663</td>
<td>The Anthropology of Islam</td>
</tr>
<tr>
<td>AAAS 676</td>
<td>West African Art</td>
</tr>
<tr>
<td>AAAS 677</td>
<td>African Design</td>
</tr>
<tr>
<td>AAAS 679</td>
<td>African Expressive Culture: _____</td>
</tr>
<tr>
<td>AAAS 680</td>
<td>Introduction to Modern Africa</td>
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</tbody>
</table>

**Arabic and Islamic Studies Concentration**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>AAAS 102</td>
<td>Arabic and Islamic Studies</td>
<td>3</td>
</tr>
<tr>
<td>AAAS 349/REL 350</td>
<td>Islam</td>
<td>3</td>
</tr>
<tr>
<td>AAAS 433</td>
<td>Islamic Literature</td>
<td>3</td>
</tr>
<tr>
<td>AAAS 543</td>
<td>Language and Culture in Arabic-Speaking Communities</td>
<td>3</td>
</tr>
<tr>
<td>AAAS 550</td>
<td>Senior Seminar in: _____</td>
<td>3</td>
</tr>
<tr>
<td>AAAS 496</td>
<td>Field Experience</td>
<td>3</td>
</tr>
<tr>
<td>or AAAS 690</td>
<td>Investigation and Conference</td>
<td></td>
</tr>
</tbody>
</table>

Select five courses numbered above 300, including, but not limited to, the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS 320</td>
<td>African Studies in: _____</td>
</tr>
</tbody>
</table>
B.A. majors in this concentration also must take 16 hours of an African language (Amharic, Arabic, Hausa, Kiswahili, or Wolof).

### Fields of Emphasis

In each concentration, at least 3 elective courses and AAAS 496 and AAAS 690 must relate to the student’s emphasis and be so certified by the advisor. Examples are arts and culture; language and linguistics; social, political and economic development; women; Africa and the Diaspora, Caribbean and Haitian studies. The department keeps a list of fields and courses appropriate to them.

**Note:** Consult the major advisor during pre-enrollment advising each semester. Prospective majors should consult the department as early as possible. The department may require a student to take and pass a preparatory course not already taken before enrolling for a given elective. The department has guidelines for substitutions at all levels, pre-major and major. Each substitution must be approved.

### African and African-American Studies Major – Arabic and Islamic Studies Concentration

- **Hours & Major GPA**
  - While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:
    - **Major Hours**
      - Satisfied by 33 hours of major courses.
    - **Major Hours in Residence**
      - Satisfied by a minimum of 15 hours of KU resident credit in the major.
    - **Major Junior/Senior (300+) Hours**
      - Satisfied by a minimum of 30 hours from junior/senior courses (300+) in the major.

### Major Junior/Senior (300+) Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator.

**Note:** Consult the major advisor during pre-enrollment advising each semester. Prospective majors should consult the department as early as possible. The department may require a student to take and pass a preparatory course not already taken before enrolling for a given elective. The department has guidelines for substitutions at all levels, pre-major and major. Each substitution must be approved.

### Fieldwork

Field experience is a junior/senior option for majors. Fieldwork may be done anywhere in the U.S. or abroad. Careful arrangements must be made long in advance. Consult the department a full semester before enrollment.

### Double Majors

African and African-American studies majors are encouraged to take a second major in a related or compatible field. Because the major is interdisciplinary, a second major is relatively easy to achieve in the usual period of undergraduate study.

### Graduation Plan

With careful planning and commitment to a full-time course load, you can graduate in 4 years. See department for details.

### Departmental Honors

For graduation with honors, an undergraduate must maintain a minimum overall grade-point average of 3.25 and of 3.5 in the major and must complete 3 additional hours by enrolling in AAAS 695. AAAS 695 is evaluated by a committee composed of the instructor plus two other faculty members approved by the chair. An affirmative recommendation by this committee is essential to graduation with honors, provided that the other requirements have been met. A student who plans to graduate with honors must file a declaration of intent form with the departmental honors coordinator, preferably during his or her junior year, but no later than at enrollment for the final undergraduate semester.

The department encourages majors in the African studies and Arabic and Islamic studies concentrations to spend a semester or an academic year in Africa. Similarly, majors in the African-American studies concentration may spend a semester or an academic year in the Caribbean. Consult the department and the Office of Study Abroad (http://www.studyabroad.ku.edu).

### Minor in African and African-American Studies

Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you
entered KU (see your advisor (http://www.advising.ku.edu) for details).

**Undergraduate Admission**

**Admission to KU**

All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

**Admission to the College of Liberal Arts and Sciences**

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

**Requirements for the Minor**

For students whose programs make it attractive and feasible for them to focus on an African or American region, country, or topic, the department provides a minor in African and African-American studies. Minors must select 1 of the 4 tracks.

**African-American Studies Track**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS 106</td>
<td>The Black Experience in the Americas</td>
<td>3</td>
</tr>
<tr>
<td>or AAAS 104</td>
<td>Introduction to African-American Studies</td>
<td></td>
</tr>
<tr>
<td>AAAS 306</td>
<td>The Black Experience in the U.S. Since Emancipation</td>
<td>3</td>
</tr>
</tbody>
</table>

Select 12 additional hours of African-America (U.S.)-related AAAS courses at the 300 level or above 12

**African and African-American Studies Track**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS 105</td>
<td>Introduction to African History</td>
<td>3</td>
</tr>
<tr>
<td>or AAAS 103</td>
<td>Introduction to Africa</td>
<td></td>
</tr>
<tr>
<td>or AAAS 102</td>
<td>Arabic and Islamic Studies</td>
<td></td>
</tr>
</tbody>
</table>

AAAS 106 The Black Experience in the Americas 3
or AAAS 104 Introduction to African-American Studies

Select 12 additional hours of AAAS courses at the 300 level or above 12

**African Studies Track**

Students choosing this track must select 1 of 6 options.

### Option 1: Advanced African Language Study

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS 103</td>
<td>Introduction to Africa</td>
<td>3</td>
</tr>
<tr>
<td>or AAAS 105/</td>
<td>Introduction to African History</td>
<td></td>
</tr>
<tr>
<td>HIST 104</td>
<td>and Arabic and Islamic Studies</td>
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</table>

Select one of the following: 12

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARAB 310</td>
<td>Advanced Arabic I</td>
<td></td>
</tr>
<tr>
<td>&amp; ARAB 320</td>
<td>and Advanced Arabic II</td>
<td></td>
</tr>
<tr>
<td>&amp; ARAB 401</td>
<td>and Readings in Arabic I</td>
<td></td>
</tr>
<tr>
<td>&amp; ARAB 402</td>
<td>and Readings in Arabic II</td>
<td></td>
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<tr>
<td>KISW 310</td>
<td>Advanced Kiswahili I</td>
<td></td>
</tr>
<tr>
<td>&amp; KISW 320</td>
<td>and Advanced Kiswahili II</td>
<td></td>
</tr>
<tr>
<td>&amp; KISW 401</td>
<td>and Readings in Kiswahili I</td>
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<td>&amp; KISW 402</td>
<td>and Readings in Kiswahili II</td>
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<td>HAUS 310</td>
<td>Advanced Hausa I</td>
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</tr>
<tr>
<td>&amp; HAUS 320</td>
<td>and Advanced Hausa II</td>
<td></td>
</tr>
<tr>
<td>&amp; HAUS 401</td>
<td>and Readings in Hausa I</td>
<td></td>
</tr>
<tr>
<td>&amp; HAUS 402</td>
<td>and Readings in Hausa II</td>
<td></td>
</tr>
<tr>
<td>WOLO 310</td>
<td>Advanced Wolof I</td>
<td></td>
</tr>
<tr>
<td>&amp; WOLO 320</td>
<td>and Advanced Wolof II</td>
<td></td>
</tr>
<tr>
<td>&amp; WOLO 401</td>
<td>and Readings in Wolof I</td>
<td></td>
</tr>
<tr>
<td>&amp; WOLO 402</td>
<td>and Readings in Wolof II</td>
<td></td>
</tr>
</tbody>
</table>

OR two advanced language courses (AAAS 504 or AAAS 505) and a Language and Society course (LING 370/AAAS 370, LING 470/AAAS 470). Other languages may apply with consent of faculty.

Select one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS 550</td>
<td>Senior Seminar in: _____</td>
<td></td>
</tr>
<tr>
<td>AAAS 690</td>
<td>Investigation and Conference</td>
<td></td>
</tr>
<tr>
<td>AAAS 496</td>
<td>Field Experience</td>
<td></td>
</tr>
</tbody>
</table>

### Option 2: African Societies and Civilizations

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS 103</td>
<td>Introduction to Africa</td>
<td>3</td>
</tr>
<tr>
<td>or AAAS 105/</td>
<td>Introduction to African History</td>
<td></td>
</tr>
<tr>
<td>HIST 104</td>
<td>and African Studies in: _____</td>
<td></td>
</tr>
</tbody>
</table>

Select four of the following: 12

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS 300</td>
<td>African Traditional Religion and Thought</td>
<td></td>
</tr>
<tr>
<td>ANTH 564</td>
<td>The Peoples of Africa</td>
<td></td>
</tr>
<tr>
<td>AAAS 545</td>
<td>Unveiling the Veil</td>
<td></td>
</tr>
<tr>
<td>WGSS 330/AAAS 340</td>
<td>Women in Contemporary African Literature</td>
<td></td>
</tr>
<tr>
<td>AAAS 415</td>
<td>Women and Islam</td>
<td></td>
</tr>
<tr>
<td>WGSS/AAAS 560</td>
<td>Race, Gender, and Post-Colonial Discourses</td>
<td></td>
</tr>
<tr>
<td>AAAS 320</td>
<td>African Studies In: _____</td>
<td></td>
</tr>
<tr>
<td>AAAS/REL 532</td>
<td>Studies in Islam</td>
<td></td>
</tr>
<tr>
<td>AAAS 542/REL 535</td>
<td>The History of Islam in Africa</td>
<td></td>
</tr>
<tr>
<td>HIST 300/AAAS 305</td>
<td>Modern African History</td>
<td></td>
</tr>
<tr>
<td>HIST/AAAS 598</td>
<td>Sexuality and Gender in African History</td>
<td></td>
</tr>
<tr>
<td>HIST 599/AAAS 590</td>
<td>The Rise and Fall of Apartheid</td>
<td></td>
</tr>
</tbody>
</table>
HIST 600/AAAS 520  West African History
JOUR 500  Topics in Journalism: _____

Select one of the following:  
- AAAS 550  Senior Seminar in: _____
- AAAS 690  Investigation and Conference
- AAAS 496  Field Experience

**Option 3: African Arts and Literature**

AAAS 103  Introduction to Africa  
or AAAS 105/ HIST 104

Select four of the following:  
- THR 226/DANC 230/AAAS 334  Introduction to African Dance Theatre
- THR 302/AAAS 320  Undergraduate Seminar in: _____
- THR 326/AAAS 355  African Theatre and Drama
- FMS 544/AAAS 555  African Film
- ENGL 324/AAAS 320  Contemporary Authors: _____
- ENGL 326/AAAS 332  Introduction to African Literature
- ENGL 479/AAAS 433  The Literature of: _____
- ENGL 479/AAAS 434  The Literature of: _____
- ENGL 674  African Literature: _____
- FREN/AAAS 432  Francophone African Literature
- HA/AAAS 376  West African Art
- HA/AAAS 578  Central African Art

Select one of the following:  
- AAAS 550  Senior Seminar in: _____
- AAAS 690  Investigation and Conference
- AAAS 496  Field Experience

**Option 4: Political Economy of Health and Development in Africa**

AAAS 103  Introduction to Africa  
or AAAS 105/ HIST 104

Select four of the following:  
- ANTH 542  Biology of Human Nutrition
- ANTH 543  Anthropology of Food and Nutrition
- ANTH 650  Human Reproduction: Biology and Behavior
- ANTH 762  Human Growth and Development
- ANTH 461  Introduction to Medical Anthropology
- ANTH 540  Demographic Anthropology
- ANTH 783  Doing Ethnography
- ANTH 684  Anthropology and the Health Sciences

ECON 587  Economic Development of Africa
GEOG/AAAS 553  Geography of African Development
POLS 665/AAAS 600  Politics in Africa
POLS 667  Islam and Politics
HIST 599/AAAS 590  The Rise and Fall of Apartheid
AAAS 680  Introduction to Modern Africa
ANTH 545/AAAS 554  Contemporary Health Issues in Africa

Select one of the following:  
- AAAS 550  Senior Seminar in: _____
- AAAS 690  Investigation and Conference
- AAAS 496  Field Experience

**Option 5: People and Space in Africa**

AAAS 103  Introduction to Africa  
or AAAS 105/ HIST 104

Select four of the following:  
- GEOG/AAAS 350  Physical Geography of Africa
- GEOG/AAAS 351  Africa’s Human Geographies
- GEOG/AAAS 553  Geography of African Development
- ANTH 564  The Peoples of Africa
- ANTH 549  Human Paleontology: Fossil Apes to Australopithecus
- ANTH 501/AAAS 520  Topics in Sociocultural Anthropology: _____
- HIST 599/AAAS 590  The Rise and Fall of Apartheid
- AAAS/WGSS 560  Race, Gender, and Post-Colonial Discourses
- GEOG 550/AAAS 551/EVRN 420  Environmental Issues in Africa

Select one of the following:  
- AAAS 550  Senior Seminar in: _____
- AAAS 690  Investigation and Conference
- AAAS 496  Field Experience

**Option 6: Student-Designed Cluster**

AAAS 103  Introduction to Africa  
or AAAS 105/ HIST 104

Four courses created from a student’s academic concentration  

Select one of the following:  
- AAAS 550  Senior Seminar in: _____
- AAAS 690  Investigation and Conference
- AAAS 496  Field Experience
Haitian Studies Track

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAIT 110</td>
<td>Elementary Haitian I</td>
<td>3</td>
</tr>
<tr>
<td>HAIT 120</td>
<td>Elementary Haitian II</td>
<td>3</td>
</tr>
<tr>
<td>HAIT 230</td>
<td>Intermediate Haitian I</td>
<td>3</td>
</tr>
<tr>
<td>HAIT 240</td>
<td>Intermediate Haitian II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>12 additional hours of the language or related courses at the 300 level or above</td>
<td></td>
</tr>
</tbody>
</table>

Minor Hours & Minor GPA

While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

**Minor Hours**
Satisfied by a minimum of 18 hours of minor courses.

**Minor Hours in Residence**
Satisfied by a minimum of 9 hours of KU resident credit in the minor.

**Minor Junior/Senior (300+) Hours**
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

**Minor Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses in the minor. GPA calculations include all courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Master of Arts in African and African-American Studies

All the faculty members of the Department of African and African-American Studies hold graduate faculty appointments.

The Department of African and African-American Studies offers an interdisciplinary substantive and language courses leading to the Master of Arts degree in two areas of concentration: (1) African, and (2) African-American studies.

The master’s degree in African and African-American Studies has two related objectives: (1) it fulfills the educational needs of persons who seek positions with organizations in both the public and private sectors, and (2) it prepares persons who desire to pursue the terminal degrees in their field. The program emphasizes the broader concepts in the humanities and the social sciences, but provides an option for concentration in either African or African-American Studies.

The integrative focus of the curriculum is an important characteristic of the interdisciplinary nature of this program. In this regard, the candidate should develop the capacity to continue as a self-educator throughout his/her career. Broad background study in this field enables the graduate to assimilate newly-acquired skills and methodologies quickly. Graduates should be prepared to cope with the rapid changes in Africa and the African diaspora. The program places considerable emphasis on both the internal and external forces which affect African and African-American societies. The continuity and change in Africa and their impact on world civilizations are emphasized in both the required courses and through electives.

Required courses emphasize basic tool areas, such as research methods and languages. Through elective courses the student may obtain a concentration in an area of African or African-American Studies. All students, except those in the non-thesis option, must prepare and defend an M. A. thesis.

Accommodations are made under African Studies component for Arabic and Islamic Studies concentration, and under African-American Studies component for students who may be interested in an Haitian Studies concentration. Accommodation also exists for members of the Armed Forces to complete their studies on any and all regions of the African continent in less than two years if they are willing to study through summer.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

Prospective students are admitted to the M. A. program for the fall semester. The deadline to submit applications is MAY 1ST. Online applications can be completed and submitted through the KU Graduate Studies website (http://www.graduate.ku.edu). Send all other requested application materials to the department:

**Admission Requirements include:**

- Graduate Application
- All academic transcripts (transcripts can be uploaded and attached to the online application).
- GRE scores (KU Code: 6871)
- TOEFL required (if student’s native language is not English)
- Personal statement of purpose explaining your academic objectives
- 3 letters of recommendation from qualified individuals, preferring most recent professors.
- Sample of your writing. A paper from a previous course should be satisfactory.

Transcripts, statement of purpose and writing sample can be uploaded and attached to the online application. Letters of recommendation can also be submitted online.

M.A. Degree Requirements

The African and African-American studies M.A. program takes 2 years of full-time study. 9 upper-division and graduate courses, in addition to a thesis or additional course work for a nonthesis option, are required for the degree—a total of 33 credit hours. There are 4 core courses:

**Core courses (12)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS 801</td>
<td>Introduction to Africana Studies: African-American</td>
<td>3</td>
</tr>
<tr>
<td>AAAS 802</td>
<td>Introduction to Africana Studies: African</td>
<td>3</td>
</tr>
</tbody>
</table>
AAAS 803 Research Methods in Africana Studies 3
AAAS 804 Seminar in Africana Studies 3

Area of specialization (15)
Students are expected to choose 5 courses in their areas of specialization.

Credit hours outside the department (6)
Students can take 6 credit hours outside the department in related course offerings including among others American studies; anthropology; art; communication studies; economics; education; English; film and media studies; geography; history; philosophy; political science; religion; sociology; theatre; and women, gender, and sexuality studies.

Research Skills
Students will fulfill a language/research skills requirement in accordance with the concentration chosen. Language/research skills courses must be at the 500 level or above to be counted toward the 33 hours required for the degree.

1. A master’s degree in African and African-American studies with an African studies concentration requires proficiency in an African language. Proficiency may be fulfilled by 1 of the following:
   • Completing 2 years of college-level study at KU, at an equivalent institution, or through an intensive course. Language courses offered on a regular basis at KU that count toward proficiency are Amharic, Arabic, Hausa, KiSwahili, Wolof and any one of the number of African languages for which the Kansas African Studies Center has pedagogical materials and proficiency-testing capabilities.
   • The equivalent of 2 years of an approved language.
   • Proof that the student is a native speaker of an African language.

2. A master’s degree in African and African-American studies with an African-American Studies concentration requires that a student
   • Fulfill the African language requirement outlined above, or
   • Fulfill a non-African language requirement employing standards comparable to those governing the African language requirement outlined above, or
   • Demonstrate competence in a research skill relevant to the student’s specific concentration in African-American studies. Competence in a research skill is certified by the department’s graduate studies director.

In consultation with their advisors and to the satisfaction of the department, students must demonstrate that their choice of a language or research skill is appropriate for their specific research interest in the field of African-American studies.

Handbook for Graduate Students
Detailed information, application deadlines, and general information may be found in The M.A. Program in African and African-American Studies, available on request from the department (http://afs.ku.edu).

Plan of Study
Students are expected to discuss their plans of study with the graduate advisor. The information that follows is only a guide toward that discussion.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Hours</th>
<th>Semester</th>
<th>Hours</th>
<th>Semester</th>
<th>Hours</th>
<th>Semester</th>
<th>Hours</th>
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</thead>
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<tr>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
<td>3</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>AAAS 801 (required)</td>
<td>3</td>
<td>AAAS 802 (required)</td>
<td>3</td>
<td>AAAS 803 (required)</td>
<td>3</td>
<td>AAAS 804 (required)</td>
<td>3</td>
</tr>
<tr>
<td>2 credits</td>
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<td>6 credits</td>
<td></td>
<td>6 credits</td>
<td></td>
<td>3 credits</td>
<td></td>
</tr>
<tr>
<td>electives</td>
<td>2</td>
<td>electives</td>
<td>6</td>
<td>electives</td>
<td>1</td>
<td>Demonstrate research skill competence or begin work toward it</td>
<td>3</td>
</tr>
<tr>
<td>AAAS 803 (required)</td>
<td>3</td>
<td>AAAS 803 (required)</td>
<td>3</td>
<td>AAAS 804 (required)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 credit</td>
<td></td>
<td>3 credits</td>
<td></td>
<td>2 courses</td>
<td></td>
<td>Thesis or 2 courses</td>
<td>6</td>
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</tbody>
</table>

Total Hours: 33

Graduate Certificate in African Studies

Academic goals of the program
AAAS & KASC’s central objective in this certificate program is to formally recognize the expertise students in a range of disciplines already obtain in African Studies, in a manner that enhances students’ career opportunities. The Certificate in African Studies enables graduate students to formally claim expertise in an area of the field of African Studies, through completion of 12 hours of graduate coursework.

Why should I apply for the African Studies Graduate Certificate?
In any given year, KU regularly has more than 50 Africa-focused students in a variety of disciplines, across 7 professional schools and 17 College of Liberal Arts and Sciences departments. The Graduate Certificate in African Studies helps bring this wide-ranging body of graduate students into closer contact with the Center’s resource base. The Certificate also enhances graduate students’ future marketability. Many disciplines in which the AAAS & KASC graduate student community is concentrated advertise jobs for PhD candidates with African expertise. The Certificate in African Studies strengthens KU graduates’ opportunities in this specialist job market.

Admissions criteria
Current KU graduate students wishing to be admitted to the Graduate Certificate Program should write a letter to the AAAS Graduate Director stating their interests in African Studies, and send a current ARTS form. A graduate GPA of 3.0 or higher is required. Students applying for admission to another graduate program at KU should send a letter of application stating their interests in African Studies and request a letter stating that they have been admitted from the other department or school upon admission thereto. They may be admitted to the African Studies Graduate Certificate Program on the condition that they are admitted by the other program in regular status. If they are not admitted...
to the other program in regular status, they may use the following procedure for admission to the Graduate Certificate program. Non-KU graduate students (Non-degree C category students) should complete an application to the Graduate School and send an application fee of $35, two copies of official transcripts from all previous post-secondary educational institutions, a personal statement of interest in African Studies, and two letters of recommendation from persons familiar with their academic work or potential for graduate school. Minimum requirements will be a bachelor’s degree; a GPA of 3.0 or higher in undergraduate work is normally required for admission, but the GPA requirement may be waived at the discretion of the Graduate Director. An admissions committee consisting of the AAAS Graduate Program Committee will meet at least once each semester to make admissions decisions.

All inquiries should be directed to:

The University of Kansas
African and African-American Studies
Shawn Leigh Alexander, AAAS Graduate Director
Bailey Hall
1440 Jayhawk Blvd., Room 15
Lawrence, KS 66045
lalexan@ku.edu

or

The University of Kansas
KASC Director
Bailey Hall
1440 Jayhawk Blvd., Room 207
Lawrence, KS 66045

Requirements for the Graduate Certificate in African Studies

General requirements (12)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS 802</td>
<td>Introduction to Africana Studies: African</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Additional 9 hours or three courses</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

All courses, including language course work, must be at the 500-level or above. At least one of these courses (three credit hours) must be taken at the 700-level or above. Only courses with an Africa focus may count toward the required hours. No more than three hours of directed readings or independent study may be counted.

Department of American Studies

Why study American studies?

Because American studies offers a creative environment to learn, think, and reflect about American culture, history, and communities from both a national and global perspective.

Undergraduate Programs

American studies offers an interdisciplinary undergraduate program in which faculty and students think critically about the many institutional and cultural meanings of America, popular culture, society, and identity.

Through studying topics such as film, jazz, literature, visual culture, gender, race, and religion, American studies investigates America in the present and the past, beyond both disciplinary and national boundaries. Given our recognition of the critical impact of difference and power in American life, we insist that a student’s program consider the profound impact of diversity on society and address differential power structures in American life and social relations. Motivated advanced students have the opportunity to work independently on research and service projects.

Graduate Programs

American studies is an interdisciplinary program offering graduate work on society and culture in the United States — past, present, and in global context. It accommodates a variety of individual academic objectives. All students are asked to define 3 concentrations — such as historical periods, conceptual problems, or topical subjects — and to draw on appropriate university resources relating to those areas. Students must demonstrate coherence in their graduate work and be able to show relationships between their concentrations and the wider sociocultural system. To accomplish this, students must develop knowledge (including historical perspective) in the humanities and social sciences.

For a current list of participating faculty members, please visit the department’s website (http://americanstudies.ku.edu/faculty).

Courses

AMS HR. Philosophy and Religion. 3 Hours. HR / H. LEC.

AMS 100. Introduction to American Studies. 3 Hours. HT AE41/GE3H / H.
An introduction to the history and key concepts of American Studies. Students explore major changes in American culture through the critical reading and analysis of primary and secondary source material. Not open to students who have taken AMS 101. LEC.

AMS 101. Introduction to American Studies, Honors. 3 Hours. HT AE41/GE3H / H.
An introduction to the history and key concepts of American Studies. Students explore major changes in American culture through the critical reading and analysis of primary and secondary source material. Not open to students who have taken AMS 100. Prerequisite: Membership in the University Honors Program or approval by the American Studies Program. LEC.

AMS 110. American Identities. 3 Hours. SC AE41/GE3S / S.
An interdisciplinary introduction to individual and group identities over time. Students explore theories and methods relating to identity from various perspectives, such as race, class, gender, sexuality, age, religion, and region. Not open to students who have taken AMS 112 or SOC 112. (Same as SOC 110.) LEC.

AMS 112. American Identities, Honors. 3 Hours. SC AE41/GE3S / S.
An interdisciplinary introduction to individual and group identities over time. Students explore theories and methods relating to identity from various perspectives, such as race, class, gender, sexuality, age, religion, and region. Not open to students who have taken AMS 110 or SOC 110. (Same as SOC 112.) Prerequisite: Membership in the University Honors Program or approval by the American Studies Program. LEC.

AMS 177. First Year Seminar: _____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Americna Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar
topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

AMS 260. America’s Latinos/Latinas. 3 Hours. AE41/U.  
An introduction to the Latino/a population (Mexican-Americans, Puerto Ricans, Cuban-Americans, Dominican-Americans, and Central and South Americans) in the US. Students discuss how US and Latin American societies have shaped Latino incorporation into the United States. We also discuss contemporary political, cultural and social issues that pertain to Latinos/as in the US. (Same as SOC 260) LEC.

AMS 290. Religion in American Society. 3 Hours. HR AE41/GE3S/H.  
A broad introduction to religion in American culture. This class emphasizes the well-established religions with large followings (viz. Judaism, Catholicism, Eastern Orthodoxy, and Protestantism). Some attention is also given to other religions active in America. Other topics covered include the relationship of church and state, religion in ethnic and racial minority groups, and women and religion. Not open to students who have taken REL 172. (Same as REL 171.) LEC.

AMS 310. American Culture, 1600-1876. 3 Hours. H.  
An examination of the major historical shifts, trends, and conflicts that have shaped the multicultural nature of life in the United States from the initial European settlements to 1876. In addition to tracing developments in literature, architecture, drama, music, and the visual arts, this course will investigate patterns and changes in the popular, domestic, and material culture of everyday life in America. (Same as HIST 310.) Prerequisite: AMS 100 or AMS 110 or H IST 128. LEC.

AMS 312. American Culture, 1877 to the Present. 3 Hours. H.  
An examination of the major historical shifts, trends, and conflicts that have shaped the multicultural nature of life in the United States from 1877 to the present. In addition to tracing developments in literature, architecture, drama, music, and the visual arts, this course will investigate patterns and changes in the popular, domestic, and material culture of everyday life in America. (Same as HIST 312.) LEC.

AMS 316. Ministers and Magicians: Black Religions from Slavery to the Present. 3 Hours. AE41/H.  
This course examines the history and diversity of African American religious expression from slavery until the present, emphasizing both mainstream and alternative faiths. It covers the religious world views of enslaved Africans, and examines faiths inside and outside of Christianity. Topics may include: independent black churches, magical practices, the Holiness and Pentecostal movements, black Islam, religious freemasonry, and esoteric faiths. The class emphasizes the influence of gender, class, race, migration, and urbanization on black religion. (Same as AAAS 316 and HIST 316.) LEC.

AMS 317. African American Women: Colonial Era to the Present. 3 Hours. H.  
This interdisciplinary course covers the history of African American women, beginning in West and Central Africa, extending across the Middle Passage into the Americas, and stretching through enslavement and freedom into the 21st century. The readings cover their experiences through secondary and tertiary source materials, as well as autobiographies and letters, plays and music, and poems, novels, and speeches. (Same as AAAS 317, HIST 317, and WGSS 317.) LEC.

AMS 320. Border Patrolled States. 3 Hours. H.  
Examines the politics of immigrant, citizenship and space through official, intellectual and popular responses to the growth of Latino/a populations in the U.S. and to international migration to and from Mexico and Central America. Topics include consideration of how responses to immigration articulate racialized and culturally specific (including linguistic and religious) concepts of the nation, and how questions of citizenship and residency dovetail with issues of community “voice”, public space, and diverse notions of “security”. LEC.

AMS 322. Modernism. 3 Hours. H.  
Examines modernism as a transnational cultural movement primarily from the 1890s to the 1940s, but also considers the impact of modernism on later twentieth century cultural production. Provides an interdisciplinary exploration of art, architecture, film, literature and music. Topics include debates related to periodization, the nature of progress, the impact of colonialism and imperialism, the power of reason, and the relationship to previous “traditional” ideas. LEC.

AMS 330. American Society. 3 Hours. H.  
The social structure and organization of American society with special reference to recent social changes. (Same as SOC 330) Prerequisite: An introductory course in sociology or American studies. LEC.

AMS 332. The United States in Global Context. 3 Hours. AE42/S.  
Examines the influence abroad of US culture, policies and practices and the impact of other countries on US culture, society, and politics. Among the topics that may be examined are race, ethnicity, colonialism, imperialism, migration, technology, communications and media, popular culture, language, health, domestic and transnational organizations, as well as economic, political, religious, military and educational institutions. (Same as SOC 332.) LEC.

AMS 340. Black Leadership. 3 Hours. H/W.  
The course focuses on the concept of leadership and on black leadership in the United States; an in-depth analysis of selected case studies on black leaders, both historical and contemporary. Some attention will be given to the dispersion of Africans into the Americas and the leadership that emerged, conditioned both by environmental factors and the psychology engendered by the system of slavery. Selected successful black leaders will be invited to visit the class from time to time. (Same as AAAS 330.) LEC.

AMS 344. Case Study in American Studies: ______. 3 Hours.  
This course examines in depth a specific American studies or theme. LEC.

AMS 345. Cultural Studies. 3 Hours. H.  
Students gain awareness of major scholars and “schools” that have pursued critical, interdisciplinary research or cultural processes and products in the field of American Studies. Topics may include cultural materialism, semiotics, nationalism, ethnic/racial identity, gender and sexuality, cultural politics, mass media, public spheres, social space and place, commodity consumption, music, and popular culture. LEC.

AMS 350. Visual Culture and the Harlem Renaissance. 3 Hours. H.  
Examines the African American cultural movement through art; the artistic gaze in novels; representations of African Americans in film; as well as the influence of musical and dramatic performance on the African American image. Considers the impact of American, European, and other cultural influences on black artists of the time. LEC.

AMS 360. Theory and Method. 3 Hours. H.  
An introduction through a topical theme to theories and methods currently used in American Studies. Prerequisite: AMS 100, AMS 110 and AMS 332 or their equivalent, or consent of instructor. LEC.

AMS 390. Geography of the United States and Canada. 3 Hours. S.  
A study of the different physical, economic, and cultural settings in the United States and Canada which form the basis for the various forms of livelihood. Emphasis on the United States. (Same as GEOG 390.) Prerequisite: An introductory geography course, or background in United States or Canadian history, social science, or culture, or consent of instructor. LEC.
AMS 494. Topics in: ____. 1-4 Hours. H.
Interdisciplinary study of selected aspects of American society or culture or of the American experience. LEC.

AMS 510. History of American Women--Colonial Times to 1870. 3 Hours. H.
A survey of women's roles as housewives, mothers, consumers, workers, and citizens in pre-industrial, commercial, and early industrial America. (Same as HIST 530 and WGSS 510.) LEC.

AMS 511. History of American Women--1870 to Present. 3 Hours. AE41 / H.
A survey of women's history in the United States that will include radical and reform movements, the impact of war and depression, professionalization, immigration, women's work and the biographies of leading figures in women's history. (Same as HIST 531 and WGSS 511.) LEC.

AMS 512. History of Women and Work in Comparative Perspective. 3 Hours. H.
This course explores the connection between historical changes in the labor process and the occupational choices available to women in different countries. Through discussion and analyses of texts, students will evaluate the construction of a gendered division of work as shaped over time by economic, cultural, and political forces. The chronological and geographical focus may vary depending on the instructor. (Same as HIST 532 and WGSS 512.) LEC.

AMS 515. American Women and World War II. 3 Hours. H.
Examines histories of U.S. women during World War II through an interdisciplinary approach that draws on popular culture and oral history. Utilizes theories and methods of oral history and examines representations of women such as Rosie the Riveter, GI Jane and the Sweetheart at Home. Topics include the consumption of images, the function of images in war and the relationship between popular culture and war. LEC.

AMS 520. Topics in Latino Studies: ____. 3 Hours. U.
The study of special topics in Latino Studies. Students may repeat this course when different topics are offered. LEC.

AMS 522. American Racial and Ethnic Relations. 3 Hours. S.
Analysis of the basic sociological concepts that apply to majority-minority relations; with special emphasis on racial and ethnic interaction in the United States. (Same as SOC 522.) Prerequisite: A distribution course in sociology or American studies. LEC.

AMS 529. Race and the American Theatre. 3 Hours. U.
The representation(s) of race in significant texts and performance styles in American theatre analyzed according to political ideologies, dramatic movements and the impact of these factors on the representation of the "other" in the theatre. (Same as AAAS 585 and THR 529.) LEC.

AMS 534. Comparative Racial and Ethnic Relations. 3 Hours. NW / S.
An examination of constructions of race and ethnicity around the world. Emphasis is on the social, political, historical, cultural and economic factors that lead to the creation of ethnic and racial identities, ethnic conflict and accommodation, ethnic movements, and ethnic political organization. Racial and ethnic relations in the U.S. are compared with other countries. Major focus is placed on ethnicity in Africa, Asia, Latin America, the Caribbean, and/or the Middle East. (Same as AAAS 510 and SOC 534.) LEC.

AMS 536. Ethnicity in the United States: ____. 3 Hours. S.
An examination of the history, sociology, and culture of U.S. ethnic categories (e.g., American Indians, Latinos, Asian Americans, Jewish Americans, Irish Americans). The specific group studied varies from semester to semester. Course may be repeated for credit. (Same as SOC 536.) Prerequisite: A principal course in American Studies, Sociology, or Anthropology, or permission of instructor. LEC.

AMS 540. Culture, Space and Power in Urban America. 3 Hours. H.
Surveys scholarship on urban expressive culture as it illuminates the politics to identity and public space by African American and Latino/a urban communities. Explores how race, class and gender positionality affect and reflect access to public space and recognition in the public sphere through aesthetic practices such as hip-hop, graffiti writing and custom car cruising. LEC.

AMS 550. Research Seminar in: ____. 3 Hours. AE61 / H.
A seminar exploring a specific American studies theme. A research paper or equivalent project is required. Prerequisite: AMS 360 (a grade of C or better is recommended) or consent of instructor. Cannot be taken concurrently with AMS 551, AMS 552 or AMS 553. LEC.

AMS 551. Research Project in American Studies. 3 Hours. AE61 / H.
Independent research on a selected topic under the direction of a faculty member. Students write an original research paper or complete an equivalent project in another medium, grounded in primary as well as secondary sources. Prerequisite: AMS 550 or consent of instructor. LEC.

AMS 552. Public Service in American Studies. 3 Hours. AE61 / H.
Independent public service in a selected area undertaken in consultation with and under the direction of a faculty member. Students produce a final written project on the experience that integrates the public service experience and academic materials, or complete an equivalent project in another medium. Prerequisite: AMS 550 or consent of instructor. LEC.

AMS 553. Honors in American Studies. 3 Hours. AE61 / H.
Honors equivalent of AMS 551. May be taken twice for credit. Three hours of AMS 553 may be substituted for a course in an appropriate category in the American Studies major. Prerequisite: AMS 550, eligibility for departmental honors, or consent of instructor. LEC.

AMS 554. Advanced Topics in American Literature to 1865: ____. 3 Hours. H.
Study of American literary works before 1865. Topics may focus on a particular genre, theme, topic, historical period, author, or group of authors. May be repeated for credit as the topic changes. (Same as ENGL 576.) Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

AMS 555. Advanced Topics in American Literature Since 1865: ____. 3 Hours. H.
Study of American literary works after 1865. Topics may focus on a particular genre, theme, topic, historical period, author, or group of authors. May be repeated for credit as the topic changes. (Same as ENGL 577.) Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

AMS 556. Gender, Culture, and Migration. 3 Hours. H.
This course brings a human face to the 21st century manifestation of globalization by focusing on the issues of culture, gender and migration. How do these three aspects create the "global village" amongst both the host and donor peoples? When people move from one place to another, what do they leave behind, what do they take with them? What is gained, or lost by the host community? What is the impact of migration on a specific group's and individual's sense of identity? How has migration affected the people's construction, understanding, and practice of gender? Given their primary roles in the home and within the culture, these questions and more are posed with particular attention to women. Migration theories, interviews and personal testimonies as well as literary and dramatic works are critical to our analyses of the issues raised and enable us to hold conversations with, and listen to the stories of the
ordinary people who make globalization happen and sustain it. (Same as
AAAS 565 and WGSS 565.) LEC.

AMS 576. Cultural Geography of the United States. 3 Hours. S.
Distributions of major culture elements including folk architecture, religion,
dialect, foodways, and political behavior are systematically studied from a
predominantly historical perspective. These discussions are followed by
a survey of the major culture regions in America. Although not absolutely
necessary, familiarity with concepts treated in any of the following courses
would be helpful: AMS 100, AMS 110, ANTH 108, ANTH 308, GEOG 102,
or GEOG 390. (Same as GEOG 578.) LEC.

AMS 579. Geography of American Foodways. 3 Hours.
An interdisciplinary approach to food that explores the diversity of
eating habits across the United States and the role of food as an
indicator of cultural identity and change. Current regional and ethnic food
consumption patterns are stressed. Topics include multiculturalism and
regional identity, the symbiotic relationship between restaurant food and
home cooking, the recent interest in farmers' markets and organic foods,
and the importance of the food industry and the popular press in setting
trends. (Same as GEOG 579.) LEC.

AMS 580. American Art. 3 Hours. H.
A survey of American painting, sculpture, and architecture from colonial
to recent times. (Same as HA 570.) Prerequisite: HA 100, HA 151, or the
equivalent, or consent of instructor. LEC.

AMS 590. Transnational Asian Film. 3 Hours. H.
Examines the ways that contemporary East Asian films and the American
film industry appropriate cinematic techniques, styles and themes from
one another. Uses cultural studies theories to examine the construction
of cultural and historical narratives of transnational interaction among
East Asian countries. Explores the impact of economic globalization on
transnational film production. LEC.

AMS 629. Sociology of Sport. 3 Hours. S.
Examination of organized sport as a social institution and its relation
to other social institutions (e.g., political, economic, educational, and
religious), with special emphasis on American society. Analysis of the
social correlates of sports participation and a consideration of the role
of sport in social change. (Same as SOC 629). Prerequisite: A principal
course in American studies or sociology, or consent of instructor. LEC.

AMS 650. Jazz and American Culture. 3 Hours. H.
This course considers cultural and social histories of jazz, from the 1920s
through the present day, as sites for exploring ideological struggles over
such fields as race, class, gender, sexuality, democracy, capitalism,
freedom, community, Americanness, and globalization in the U.S. The
course will explore such questions as the following: What music was
called jazz at what times and places? What did it mean to whom? Who
played it? Who wrote about it? Who listened to it? Who danced to it?
Who policed it? Who produced it? Who used it to rebel? Who used it
to survive? What did all of these practices mean to participants? The
course will examine struggles over social meanings in the U.S. through a
study of jazz performance, labor, representation, marketing, consumption,
censorship, and historiography. Prerequisite: A course in American
studies, American history, or consent of instructor. (Same as WGSS 652.)
LEC.

AMS 652. Jazz I, Roots to 1955. 3 Hours. H.
Survey of jazz music, from ragtime and blues to jazz of the 1940s
and 50s. Covers various styles of jazz, including New Orleans, swing,
bebop and cool. Students are expected to have a basic understanding
of melody, harmony and rhythm, although ability to read scores is
not necessary. Graduate students will complete additional work to be
determined in consultation with the instructor. LEC.

AMS 653. Jazz II, 1955-Present. 3 Hours. H.
Survey of jazz music, from 1950s to the present. Covers various styles
of jazz, including free jazz, postmodern jazz and fusion. Students are
expected to have a basic understanding of melody, harmony and rhythm,
although ability to read scores is not necessary. Graduate students
will complete additional work to be determined in consultation with the
instructor. LEC.

AMS 680. Jazz Autobiography. 3 Hours. H.
Examines the literary and musical significance of jazz autobiographies
since the 1940s. Authors include Louis Armstrong, Jelly Roll Morton, Billie
Holiday, Charles Mingus, Nina Simone and others. Graduate students
will complete additional work to be determined in consultation with the
instructor. LEC.

AMS 682. Jazz Narratives in Novels and Films. 3 Hours. H.
Examines jazz and musicians' life stories in prose fiction and fictional or
biographical films. Novels may include works by John Cllelton Holmes
and Nathaniel Mackey. Films may include Lady Sings the Blues and
Space is the Place. Graduate students will complete additional work to be
determined in consultation with the instructor. LEC.

AMS 690. Black Cultural Studies. 3 Hours. H.
Examines critical approaches to the study of African American cultural
production. Uses literature, films, music, art and performance to explore
the development of interpretations of black culture. Covers major
developments in black aesthetics in the twentieth century, various
theoretical schools of thought, and significant writers such as bell hooks,
Stuart Hall, and Gina Dent. Graduate students will complete additional
course work to be determined in consultation with the instructor. LEC.

AMS 694. Directed Readings. 1-4 Hours. H.
Consent of instructor is required. IND.

AMS 696. Studies in: ____. 3 Hours. H.
Interdisciplinary study of different aspects of the American experience in
different semesters. LEC.

AMS 700. Introduction to Museum Exhibits. 3 Hours.
This course will consider the role of exhibits as an integrated part of
museum collection management, research, and public service. Lecture
and discussion will focus on issues involved in planning and producing
museum exhibits. Laboratory exercises will provide first hand experience
with basic preparation techniques. Emphasis will be placed on the
management of an exhibit program in both large and small museums in
the major disciplines. (Same as BIOL 787, GEOL 781, HIST 723, and
MUSE 703.) Prerequisite: Museum Studies student, Indigenous Nations
Studies student, or consent of instructor. LEC.

AMS 714. Conservation Principles and Practices. 3 Hours.
This course will acquaint the future museum professional with problems in
conserving all types of collections. Philosophical and ethical
approaches will be discussed, as well as the changing practices regarding
conservation techniques. Emphasis will be placed on detection and
identification of causes of deterioration in objects made of organic and
inorganic materials, and how these problems can be remedied. Storage
and care of objects will also be considered. (Same as BIOL 700, GEOL
780, HIST 722 and MUSE 706.) Prerequisite: Museum Studies student,
Indigenous Nations Studies student, or consent of instructor. LEC.

AMS 720. The Nature of Museums. 3 Hours.
The purpose of this course is to provide an overview of the kinds of
museums, their various missions, and their characteristics and potentials
as research, education, and public service institutions responsible for
collections of natural and cultural objects. (Same as BIOL 788, GEOL
782, HIST 720, and MUSE 702.) Prerequisite: Museum Studies student,
Indigenous Nations Studies student, or consent of instructor. LEC.
AMS 725. Museum Studies Workshop: ______. 1-3 Hours.
Short term, intensive workshops presented to provide specialized background in a variety of skills required in historical archives or museums. FLD.

AMS 730. Principles and Practices of Museum Collection Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museum collections, their associated data, and their use in scholarly research; cataloging, storage, fumigation, automated information management and related topics will be presented for museums of art, history, natural history and anthropology. (Same as BIOL 798, GEOL 785, HIST 725, and MUSE 704.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

AMS 731. Museum Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museums as organizations; accounting, budget cycles, personnel management, and related topics will be presented using, as appropriate, case studies and a simulated museum organization model. (Same as BIOL 785, GEOL 783, HIST 728, and MUSE 701.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

AMS 737. Music in America. 3 Hours.
A survey of historical developments from the Pilgrims to the present. (Same as MUSC 759.) Prerequisite: One course in the field of music history and literature or consent of instructor. LEC.

AMS 767. Gerontology Proseminar. 3 Hours.
A proseminar coordinated by the Gerontology Center. The proseminar explores essential areas of gerontology for researchers and practitioners, providing a multidisciplinary (psychology, biology, sociology, and communication) perspective on aging. The proseminar surveys contemporary basic and applied research, service programs, and policy and management issues in gerontology. (Same as ABSC 787, COMS 787, PSYC 787, and SOC 767.) (Formerly HDFL 787.) LEC.

AMS 787. Field Work. 1-12 Hours.
Supervised field research in aspects of American civilization. Prerequisite: Consent of instructor. FLD.

AMS 797. Introduction to Museum Public Education. 3 Hours.
Consideration of the goals of an institution’s public education services, developing programs, identifying potential audiences, developing audiences, and funding. Workshops and demonstrations are designed for students to gain practical experience working with various programs and developing model programs. (Same as BIOL 784, GEOL 784, HIST 721, and MUSE 705.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

AMS 799. American Studies Museum Apprenticeship. 1-6 Hours.
Provides directed, practical experience in research, collection care and management, public education, and exhibits with emphasis to suit the particular requirements of each student. (Same as ANTH 799, BIOL 799, GEOL 723, HIST 799, and MUSE 799.) FLD.

AMS 801. Introduction to American Studies. 3 Hours.
An introduction to the field of American Studies through an examination of some of the classic and innovative works, issues, debates, and controversies in the history and the literature of American Studies. LEC.

AMS 802. Theorizing America. 3 Hours.
Drawing from a broad range of perspectives (e.g., cultural theory, social theory, literary theory, etc.), this course will introduce students to current theoretical debates in American studies and the concepts that inform them. LEC.

AMS 803. Research Methods in American Studies. 3 Hours.
An introduction to the range of interdisciplinary research methods in American studies. Emphasis will be placed on an examination of the assumptions, logics, and procedures involved in various approaches to understanding American society and culture. LEC.

AMS 804. Research Seminar. 3 Hours.
An intensive application of theoretical and methodological issues to the development of specific substantive research problems. Students will be expected to design and implement a study that will be critically assessed in the seminar. LEC.

AMS 805. American Pluralism: Race, Ethnicity, and Religion in American Life. 3 Hours.
Analysis of the dynamics of intercultural and intergroup relations in America with special emphasis on the examination of major conceptual perspectives that have characterized the study of race, ethnicity, and religion in American life. LEC.

AMS 808. Studies in: ______. 3 Hours.
Interdisciplinary study of different aspects of the American experiences in different semesters. LEC.

AMS 809. Advanced Research Seminar. 3 Hours.
An intensive application of theoretical and methodological issues to the development of specific substantive research problems. Students will be expected to design and implement a study that will be critically assessed in the seminar. Prerequisite: AMS 804. Permission of the instructor required. LEC.

AMS 835. Colloquium in the History of Gender. 3 Hours.
This colloquium will cover theoretical and topical readings on the history of manhood, womanhood, and gender systems. (Same as HIST 895 and WGSS 835.) LEC.

AMS 836. Colloquium in United States Women’s History. 3 Hours.
This colloquium will cover theoretical and topical readings on the history of women in the United States from the pre-contact period to the present. It is designed to familiarize students with the most important and current historiography in the field. (Same as HIST 896 and WGSS 836.) LEC.

AMS 837. Comparative Colloquium in Women’s History. 3 Hours.
This colloquium will approach the history of women from a comparative perspective through theoretical and topical readings on women in at least two different cultures. (Same as HIST 897 and WGSS 837.) LEC.

AMS 838. Examination Preparation. 1-6 Hours.
Directed and independent study in preparation for the M.A. examination. May be repeated. RSH.

AMS 899. Thesis. 1-6 Hours.
Investigation of a topic for master’s thesis. Total enrollment in this course may not exceed six hours of credit. THE.

AMS 900. Teaching Seminar. 1-6 Hours.
This seminar is designed to assist students in the preparation, presentation, and evaluation of teaching in American Studies. Graded on a satisfactory/unsatisfactory basis. LEC.

AMS 973. Seminar in United States Women’s History. 3 Hours.
This research seminar will focus on the history of women in the United States from the pre-contact period to the present. Students will research and write a paper using primary sources, and present those papers to the seminar for evaluation. (Same as HIST 973 and WGSS 873.) LEC.

AMS 996. Examination Preparation. 1-9 Hours.
Directed and independent study in preparation for the doctoral comprehensive examinations. May be repeated. RSH.
AMS 997. Directed Readings. 1-4 Hours.
Directed reading in an area of American culture in which there is no appropriate course in the offerings of the American Studies program or of the cooperating departments, but in which there is a member of the graduate faculty competent and willing to direct a program of study. RSH.

AMS 998. Seminar in: ______. 3 Hours.
Topics vary from semester to semester. Graduate students are consulted in selecting topics. LEC.

AMS 999. Dissertation. 1-12 Hours.
THE.

Bachelor of Arts and Bachelor of General Studies in American Studies

Career Opportunities
Graduates have prepared for occupations in federal, state, and local government, law, medicine, politics, journalism, business, and education. Many have entered graduate work in American studies or disciplines in their concentrations. See an advisor for a list of American studies courses that may meet teacher licensure requirements in history and social sciences.

Undergraduate Admission

Admission to KU
All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences
Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

First- and Second-Year Preparation
Students planning to major in American studies should take AMS 100 and AMS 110 during their first and second years. Students should take AMS 360 no later than the first semester of the third year. As soon as a student decides that American studies is a possible major, he or she should schedule an appointment with the undergraduate director to declare the major and consider concentration options, ideally no later than the second year.

Admission to the Major

Admission Requirements

Course Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 105</td>
<td>Freshman Honors English</td>
<td></td>
</tr>
<tr>
<td>AMS 100</td>
<td>Introduction to American Studies</td>
<td>3</td>
</tr>
<tr>
<td>or AMS 101</td>
<td>Introduction to American Studies, Honors</td>
<td></td>
</tr>
<tr>
<td>AMS 110</td>
<td>American Identities</td>
<td>3</td>
</tr>
<tr>
<td>or AMS 112</td>
<td>American Identities, Honors</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours 9

1 Unless the student has received a waiver or, for transfer students, an equivalent course.

Grade-Point Average Requirements

Minimum Admission Grade-Point Average
Satisfied by a minimum GPA in required admission courses designated above. University Course Repeat Policy will apply.

Admission Grade-Point Average Calculation
The admission grade-point average includes all admission courses above. KU's course repeat policy (https://documents.ku.edu/policies/governance/USRR.htm#art2sect2) applies to grade-point average calculation.

Application Term
Semester in which admission requirements will be completed, normally no later than 60 hours, or for transfer students, normally during the initial term at KU. Application to this major after completion of 60 hours, or the initial term for transfer students, will likely delay graduation.

Requirements for the B.A. or B.G.S. Major

American Studies Core Knowledge and Skills
Majors must complete a course in each of the following areas:

Introduction to American Studies (3)
Satisfied by the following:
AMS 100 Introduction to American Studies 3
or AMS 101 Introduction to American Studies, Honors

American Identities (3)
Satisfied by the following:
AMS 110 American Identities 3
or AMS 112 American Identities, Honors

The United States in Global Context (3)
Satisfied by the following:
AMS 332 The United States in Global Context 3
or SOC 332 The United States in Global Context

Theory and Method (18-19)
Satisfied by the following:
AMS 360 Theory and Method 3
Select one additional course that explores methodological and theoretical approaches used in American studies. See your advisor for appropriate options or select from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS/WGSS</td>
<td>Race, Gender, and Post-Colonial Discourses</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 361</td>
<td>The Third World: Anthropological Approaches</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 460</td>
<td>Theory in Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>HIST 301</td>
<td>The Historian’s Craft</td>
<td>3</td>
</tr>
<tr>
<td>POLS 301</td>
<td>Introduction to Political Theory</td>
<td>3</td>
</tr>
<tr>
<td>POLS 306</td>
<td>Political Science Methods of Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>POLS 320</td>
<td>Introduction to Public Policy</td>
<td>3</td>
</tr>
<tr>
<td>POLS/WGSS</td>
<td>Contemporary Feminist Political Theory</td>
<td>3</td>
</tr>
<tr>
<td>HIST 649/</td>
<td>History of Feminist Theory</td>
<td>3</td>
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<tr>
<td>WGST 549</td>
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<tr>
<td>ENGL 508</td>
<td>Contemporary Literary Theory</td>
<td>3</td>
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<td>POLS 609</td>
<td>Topics in Political Theory</td>
<td>3</td>
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<tr>
<td>PSYC 210</td>
<td>Statistics in Psychological Research</td>
<td>3</td>
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<tr>
<td>PSYC 200</td>
<td>Research Methods in Psychology</td>
<td>3</td>
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<tr>
<td>SOC 310</td>
<td>Introduction to Social Research</td>
<td>3</td>
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<tr>
<td>SOC 500</td>
<td>Sociological Theory</td>
<td>3</td>
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<tr>
<td>SOC 510</td>
<td>Elementary Statistics and Data Analysis</td>
<td>3</td>
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<tr>
<td>SOC 601</td>
<td>Introduction to Feminist Social Theory</td>
<td>3</td>
</tr>
<tr>
<td>PSYC/WGSS</td>
<td>Psychology of Women</td>
<td>3</td>
</tr>
</tbody>
</table>

### American Studies Required Electives/Emphases

Majors must select 1 of 7 special emphases or design their own. Self-designed emphases must be approved in their entirety by an American studies advisor and the undergraduate studies director before implementation. Meet with your academic advisor to determine course options that best meet your interests in this option. Prepare for this advising session by completing a key word search in the Schedule of Classes (https://classes.ku.edu/Classes/ExternalDisplay.action).

#### American Cultural Studies

Satisfied by 4 courses, 3 of which are at 300+ level (possible key words: American culture).

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AMS 310</td>
<td>American Culture, 1600-1876</td>
<td>3</td>
</tr>
<tr>
<td>AMS 312</td>
<td>American Culture, 1877 to the Present</td>
<td>3</td>
</tr>
<tr>
<td>AMS 576</td>
<td>Cultural Geography of the United States</td>
<td>3</td>
</tr>
<tr>
<td>AMS 650</td>
<td>Jazz and American Culture</td>
<td>3</td>
</tr>
<tr>
<td>AMS 652</td>
<td>Jazz I, Roots to 1955</td>
<td>3</td>
</tr>
<tr>
<td>AMS 653</td>
<td>Jazz II, 1955-Present</td>
<td>3</td>
</tr>
<tr>
<td>AMS 680</td>
<td>Jazz Autobiography</td>
<td>3</td>
</tr>
<tr>
<td>AMS 682</td>
<td>Jazz Narratives in Novels and Films</td>
<td>3</td>
</tr>
<tr>
<td>AMS 690</td>
<td>Black Cultural Studies</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 316</td>
<td>Introduction to Major American Writers</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 320</td>
<td>American Literature I</td>
<td>3</td>
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<tr>
<td>ENGL 322</td>
<td>American Literature II</td>
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</tr>
<tr>
<td>ENGL 336</td>
<td>Jewish American Literature and Culture</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 337</td>
<td>Introduction to U.S. Latino/a Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 338</td>
<td>Introduction to African-American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 339</td>
<td>Introduction to Caribbean Literature</td>
<td>3</td>
</tr>
<tr>
<td>FMS 380</td>
<td>American Popular Culture of:</td>
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMS 621</td>
<td>American Film Criticism</td>
<td>3</td>
</tr>
<tr>
<td>HA 370</td>
<td>American Art</td>
<td>3</td>
</tr>
<tr>
<td>HA 582</td>
<td>American Art 1860-1900: Gilded Age</td>
<td>3</td>
</tr>
<tr>
<td>HIST 310</td>
<td>American Culture, 1600-1876</td>
<td>3</td>
</tr>
<tr>
<td>HIST 312</td>
<td>American Culture, 1877 to the Present</td>
<td>3</td>
</tr>
<tr>
<td>HIST 313</td>
<td>Conspiracies and Paranoia in American History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 347</td>
<td>Environmental History of North America</td>
<td>3</td>
</tr>
<tr>
<td>HIST 353</td>
<td>Indigenous Peoples of North America</td>
<td>3</td>
</tr>
<tr>
<td>HIST 360</td>
<td>Science and Religion</td>
<td>3</td>
</tr>
<tr>
<td>HIST 631</td>
<td>The Contemporary Afro-American Experience</td>
<td>3</td>
</tr>
<tr>
<td>LAA 505</td>
<td>U.S. Latino and Latin American Film and Literature</td>
<td>3</td>
</tr>
<tr>
<td>REL 339</td>
<td>History of Religion in America</td>
<td>3</td>
</tr>
<tr>
<td>THR 327</td>
<td>African-American Theatre and Drama</td>
<td>3</td>
</tr>
<tr>
<td>THR 380</td>
<td>Popular Culture:</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Race Ethnicity

Majors must complete the following (possible key words: race, ethnicity, stereotyping, cultural diversity, slavery, ethnic relations, black experience):

### Race and Ethnicity Group A (3)

Select one of the following from AAAS, AMS, ENGL, or HIST at the junior/senior level (300+):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS 306</td>
<td>The Black Experience in the U.S. Since Emancipation</td>
<td>3</td>
</tr>
<tr>
<td>AAAS 440</td>
<td>The Afro-American Family: A Psychological Approach</td>
<td>3</td>
</tr>
<tr>
<td>AAAS 460</td>
<td>Topics and Problems in African and African-American Studies</td>
<td>3</td>
</tr>
<tr>
<td>AMS 522</td>
<td>American Racial and Ethnic Relations</td>
<td>3</td>
</tr>
<tr>
<td>AMS 534</td>
<td>Comparative Racial and Ethnic Relations</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 336</td>
<td>Jewish American Literature and Culture</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 337</td>
<td>Introduction to U.S. Latino/a Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 338</td>
<td>Introduction to African-American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 339</td>
<td>Introduction to Caribbean Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 571</td>
<td>American Indian Literature:</td>
<td>3</td>
</tr>
<tr>
<td>HIST 353</td>
<td>Indigenous Peoples of North America</td>
<td>3</td>
</tr>
<tr>
<td>HIST 574</td>
<td>Slavery in the New World</td>
<td>3</td>
</tr>
<tr>
<td>HIST 631</td>
<td>The Contemporary Afro-American Experience</td>
<td>3</td>
</tr>
</tbody>
</table>

### Race and Ethnicity Group B (3)

Select one of the following from ANTH, PSYC, or SOC at the junior/senior level (300+):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 308</td>
<td>Introduction to Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 360</td>
<td>The Varieties of Human Experience</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 563</td>
<td>Cultural Diversity in the United States</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 465</td>
<td>Stereotyping and Prejudice Across Cultures</td>
<td>3</td>
</tr>
<tr>
<td>SOC 341</td>
<td>Urban Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 522</td>
<td>American Racial and Ethnic Relations</td>
<td>3</td>
</tr>
<tr>
<td>SOC 534</td>
<td>Comparative Racial and Ethnic Relations</td>
<td>3</td>
</tr>
<tr>
<td>SOC 536</td>
<td>Ethnicity in the United States:</td>
<td>3</td>
</tr>
</tbody>
</table>

### Race and Ethnicity Required Electives (0)

Satisfied by 2 electives, at least 1 at the 300+ level, from the following related to race and ethnicity: AAAS, AMS, ANTH, ENGL, HIST, POLS, SOC, WS.
• **Local and Global.** Majors must complete the following:

**Local and Global Group A (3)**
Satisfied by 1 of the following courses from AMS, ENGL, HIST, GEOG, SOC at the junior/senior level (300+):

- AMS 534 Comparative Racial and Ethnic Relations
- ENGL 339 Introduction to Caribbean Literature
- ENGL 536 Readings in the Holocaust
- GEOG 350 Physical Geography of Africa
- GEOG 396 East Asia
- GEOG 591 Geography of Latin America
- GEOG 593 Central American Peoples and Lands
- HIST 300 Modern African History
- HIST 331 Atlantic Societies, 1450-1800: A Comparative History of European Colonization
- HIST 343 The Holocaust in History
- HIST 350 The Korean War, 1950-1953
- HIST 365 Invention of the Tropics
- HIST 371 The Cultural History of Modern Latin America
- HIST 397 From Mao to Now: China’s Red Revolution
- HIST 398 Introduction to History of Japan: Anime to Zen
- HIST 574 Slavery in the New World
- SOC 536 Ethnicity in the United States: ______
- SOC 621 Cross-Cultural Sociology

**Local and Global Group B (3)**
Satisfied by 1 of the following courses from EALC, LAA, AAAS at the junior/senior level (300+):

- EALC 332 Asian Literature in Translation: ______
- EALC 527 Asian Theatre and Performance
- EALC 563 Cultural History of Korea
- EALC 590 Topics in East Asian Languages and Cultures: ______

• **Visual Culture.** Satisfied by 4 courses from at least 2 departments, 3 of which are at the 300+ level (possible key words: American documentary, American art, American theater, American film).

- AMS 580 American Art
- AAAS 585 Race and the American Theatre
- AAAS 611 History of the Black Power Movement
- ANTH 301 Anthropology Through Films
- HA 370 American Art
- HA 525 Aegean Archaeology and Art
- HA 581 American Art to 1860: Inventing a Nation
- HA 582 American Art 1860-1900: Gilded Age
- FMS 310 History of the Silent Film
- FMS 311 History of the American Sound Film
- FMS 314 History of African-American Images in Film
- FMS 317 Race and the American Documentary
- FMS 300 American Popular Culture of: ______
- FMS 414 American Art, History, and Popular Culture
- MUSC 303 The Film Musical
- THR 327 African-American Theatre and Drama
- THR 380 Popular Culture: ______
- THR 528 History of U.S. Theatre and Drama

• **Popular Culture.** Satisfied by 4 courses from at least 2 departments, 3 of which are at the 300+ level (possible key words: popular culture, American culture, popular literature, sport, conspiracies).

- AMS 344 Case Study in American Studies: ______
- EALC 365 Japanese People through Films
- EALC 565 Popular Images in Japanese Culture, Literatures, and Films
- ENGL 325 Recent Popular Literature
- ENGL 506 Science Fiction
- HIST 310 American Culture, 1600-1876
- HIST 312 American Culture, 1877 to the Present
- HIST 313 Conspiracies and Paranoia in American History
- HIST 470 Popular Culture in Latin America and Africa
- FMS 300 American Popular Culture of: ______
- MUSC 299 American Popular Song
- MUSC 303 The Film Musical
- SOC 364 Society, Popular Culture, and the Media
- SOC 365 Society, Popular Culture, and the Media, Honors
- SOC 629 Sociology of Sport
- SOC 634 The Sociology of Culture
- THR 327 African-American Theatre and Drama
- THR 380 Popular Culture: ______
- WGSS 513 Modern American Women in Film and Literature

• **Jazz Studies.** Satisfied by 4 courses from at least 2 departments, 3 of which are at the 300+ level (possible key words: jazz, music, American poetry, American pop culture):

- AMS 650 Jazz and American Culture
- AMS 652 Jazz I, Roots to 1955
- AMS 653 Jazz II, 1955-Present
- AMS 680 Jazz Autobiography
- AMS 682 Jazz Narratives in Novels and Films
- MUSC 298 Introduction to Jazz
- MUSC 299 American Popular Song
- MUSC 300 Jazz Styles, 1920-1980

• **Gender and Sexuality.** Satisfied by 4 courses from at least 2 departments, 3 of which are at the 300+ level (possible key words: gender, sexuality, body image, sex roles, intimate relationships):

- LAA 334 Indigenous Traditions of Latin America
- LAA 503 Race, Gender, Ethnicity, and Nationalism in Latin America
- LAA 505 U.S. Latino and Latin American Film and Literature
- AAAS 302 Contemporary Haiti
- AAAS 320 African Studies In: ______
- AAAS 433 Islamic Literature
- AAAS 349 Islam

**Local and Global Required Electives (0)**
Satisfied by 2 electives, at least 1 at the 300+ level, from the following courses related to race and ethnicity: AAAS, AMS, EALC, ENGL, GEOG, HA, HIST, LAA, POLS, SPAN.
AMS 511  History of American Women--1870 to Present  3
ANTH 359  Anthropology of Sex  3
HIST 531  History of American Women--1870 to Present  3
PHIL 504  Philosophy of Sex and Love  3
PSYC 410  Intimate Relationships  3
REL 374  Religious Perspectives on Selfhood and Sexuality  3
SOC 522  American Racial and Ethnic Relations  3
SOC 352  Sociology of Sex Roles  3
SOC 617  Women and Health Care  3
WGSS 333  The Politics of Physical Appearance  3
WGSS 440  Communication and Gender  3
WGSS 468  Psychology of Women  3
WGSS 562  Women and Politics  3
WGSS 563  Gender, Sexuality and the Law  3
WGSS 653  Gender, War, and Peace  3
WGSS 660  Human Reproduction: Culture, Power, and Politics  3

- Religion. Satisfied by 4 courses from at least 2 departments, 3 of which are at the 300+ level (possible key words: American religion):
  AAAS 300  African Traditional Religion and Thought  3
  AAAS 522  African and African-American Religion: ______  3
  AMS 290  Religion in American Society  3
  ANTH 484  Magic, Science, and Religion  3
  ANTH 666  Anthropology of Religion  3
  HIST 360  Science and Religion  3
  HIST 373  The Supreme Court and Religious Issues in the United States  3
  PHIL 350  Philosophical Issues in Religion  3
  PSYC 581  Psychology of Religion  3
  REL 330  Native American Religions  3
  REL 339  History of Religion in America  3
  REL 671  American Communes  3
  SOC 626  Religion and Society  3

Students considering graduate study should take at least 2 courses beyond major requirements. These should be selected in consultation with a faculty advisor.

Capstone experience

Majors must complete 1 of the following:

- By application, advanced students may pursue a focused project of research or service under the supervision of a faculty member. Satisfied by AMS 551, AMS 552, or AMS 553.

American Studies Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 30 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior (300+) Hours
Satisfied by a minimum of 18 hours from junior/senior courses (300+) in the major.

Major Junior/Senior (300+) Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Major Junior/Senior Major Attempts
Summary includes American Studies junior/senior (300+) hours attempted, including F’s and incompletes.

Graduation Plan

With careful planning and commitment to a full-time course load, you can graduate in 4 years (http://clas.ku.edu/undergrad). Download a sample 4-year plan (http://clas.ku.edu/undergrad/advising/plans) for American studies.

Double Majors

American studies majors are encouraged to take a second major in a related field, such as history, English, political science, sociology, anthropology, religious studies, African and African-American studies, economics, or art history. Because the major is interdisciplinary, a second major is relatively easy to achieve during the usual 4 years of undergraduate study.

Opportunities for Original Projects

By application, advanced students may pursue a focused project of research or service under the supervision of a faculty member. AMS 551, AMS 552, and AMS 553 function as independent research and service project electives.

Departmental Honors

An honors program allows seniors with overall grade-point averages of 3.25 to do independent work under faculty direction toward completion of an honors thesis. Enrollment in AMS 553 is required. By special arrangement, students may design independent study programs to meet concentration requirements. Graduation with honors is awarded to students who meet College honors requirements, which, in addition to the above overall KU GPA and course requirements includes a major GPA of 3.5.

Minor in Latino/a Studies

Why study American studies?

Because American studies offers a creative environment to learn, think, and reflect about American culture, history, and communities from both a national and global perspective.

Requirements for the Minor

Students selecting this minor must complete the following:
Core Courses (12)
Select by at least 4 courses (12 hours) of the following: 12
AMS/SOC 260 America’s Latinos/Latinas
AMS 520 Topics in Latino Studies: ______ (may be repeated for credit as the topic changes)
ANTH 562 Mexamerica
LAA 302 Topics in Latin American Area Studies: ______
LAA 602 Topics in Latin American Studies: ______
ENGL 337 Introduction to U.S. Latino/a Literature
ENGL 573 U.S. Latina/o Literature: ______ (may be repeated for credit as the topic changes)
POLS 619 Topics in American Politics: ______ (Latino Politics)
SPAN 464 Reading and Analysis of U.S. Latino/a Literatures: ______ (conducted in Spanish)
SW 455 Topics in Social Welfare: _____ (Social Work with Latinos)
The following topics courses also may count toward the minor, if the particular topic offered in a given semester focuses on U.S. Latino/as:
AMS 344 Case Study in American Studies: ______
AMS 536 Ethnicity in the United States: ______
AMS 494 Topics in: ______
AMS 551/553 Research Project in American Studies (if the research focuses on U.S. Latino/as)
SPAN 440 Hispanic Studies: ______ (conducted in Spanish)
SPAN 540 Colloquium on Hispanic Studies: ______ (conducted in Spanish)
SW 555 Diversity, Oppression, and Social Justice: Culturally Competent Social Work
A course with a service-learning component, such as one of the following, may also count in this category, with permission of the Latino/a studies advisor, if the service learning component is in a Latino/a community in the U.S.:
AMS 552 Public Service in American Studies
SPAN 330 Service Learning Internship Spanish I (variable credit)
SOC 490 Internship in Sociology
Other courses with at least 75 percent U.S. Latino/a content may count toward the minor with permission of the Latino/a studies advisor.

Latino/a Studies Required Electives (6)
Students selecting this minor must complete 2 additional courses (6 hours) from any course above not used to satisfy the requirement and any of the following:
AMS/SOC 110 American Identities
AMS/SOC 112 American Identities, Honors
AMS/GEOG 576 Cultural Geography of the United States
ANTH 563 Cultural Diversity in the United States
ENGL 340 Topics in U.S. Ethnic Literature: ______ (if the topic includes U.S. Latino/a literature)
GEOG 591 Geography of Latin America
GEOG 592 Middle American Geography
GEOG 593 Central American Peoples and Lands
HIST 573 Latin America in the 19th Century
HIST 574 Slavery in the New World
HIST 575 History of Mexico
HIST 576 History of the Caribbean and Central America
HIST 578 Social History of South America
HIST 580 Economic History of Latin America
LAA 100 Latin American Culture and Society
LAA 302/602 Topics in Latin American Area Studies: ______ (Sports and Politics in Latin America)
LAA 302/602 Topics in Latin American Area Studies: ______ (The Latin American Left)
LAA 332 Language and Society in Latin America
LAA 333 Language and Society in Latin America, Honors
LAA 335 The Politics of Language in Latin America
POLS/WGSS 651 Women and Politics in Latin America
POLS 658 Theories of Politics in Latin America
POLS 659 Political Dynamics of Latin America
POLS 670 United States Foreign Policy
SOC/AMS 332 The United States in Global Context
SOC/AMS 522 American Racial and Ethnic Relations
SOC/AMS 534 Comparative Racial and Ethnic Relations
SOC 630 Latin American Society
SPAN 447 Latin American Cultures: ______ (conducted in Spanish)
SPAN 460 Colonial Spanish-American Studies: ______ (conducted in Spanish)
SPAN 461 Nineteenth Century Spanish-American Studies: ______ (conducted in Spanish)
SPAN 462 Twentieth Century Spanish-American Studies: ______ (conducted in Spanish)
SPAN 463 National Traditions in Spanish America: ______ (conducted in Spanish)
SPAN 471 Studies in Spanish-American Culture and Civilization: ______ (conducted in Spanish)
SPAN 475 Studies in Latin-American Literature and Culture: ______ (conducted in Spanish)
SPAN 560 Colloquium on Latin American Film (conducted in Spanish)
SPAN 566 Latin American Folklore
SW 560 Topics in Social Welfare: ______ (Intercultural Community Social Service (when in Costa Rica))

Other appropriate courses on Latin America, its cultures, countries, geography, history, politics, economy, and/or people, or other relevant courses on the U.S., may also count toward this requirement, with the approval of the Latino/a studies advisor.

Latino/a Minor Discipline Breadth (0)
Satisfied by courses from at least 3 departments.

Latino/a Studies Minor Hours & Minor GPA
While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:
Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 hours of KU resident credit in the minor.

Minor Junior/Senior (300+) Hours
Satisfied by a minimum of 15 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses in the minor. GPA calculations include all courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Minor in American Studies
The minor in American Studies offers students an opportunity to incorporate American Studies as an interdisciplinary field of study along with their chosen major and degree. The minor is open to all students, and is a particularly complimentary field of study for those who are currently majoring in other fields within the humanities, social sciences, or natural sciences.

Requirements for the Minor
Students selecting this minor must complete the following:

Choose one introductory course from the following: (3)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMS 100</td>
<td>Introduction to American Studies</td>
</tr>
<tr>
<td>or SOC 110</td>
<td>American Identities</td>
</tr>
<tr>
<td>AMS 101</td>
<td>Introduction to American Studies, Honors</td>
</tr>
<tr>
<td>AMS 110</td>
<td>American Identities</td>
</tr>
<tr>
<td>AMS 112</td>
<td>American Identities, Honors</td>
</tr>
</tbody>
</table>

Choose one course from the following: (3)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMS 177</td>
<td>First Year Seminar: _____</td>
</tr>
<tr>
<td>AMS 260</td>
<td>America’s Latinos/Latinas</td>
</tr>
<tr>
<td>or SOC 260</td>
<td>America’s Latinos/Latinas</td>
</tr>
<tr>
<td>AMS 290</td>
<td>Religion in American Society</td>
</tr>
<tr>
<td>or REL 171</td>
<td>Religion in American Society</td>
</tr>
<tr>
<td>AMS 310</td>
<td>American Culture, 1600-1876</td>
</tr>
<tr>
<td>or HIST 310</td>
<td>American Culture, 1600-1876</td>
</tr>
<tr>
<td>AMS 312</td>
<td>American Culture, 1877 to the Present</td>
</tr>
<tr>
<td>or HIST 312</td>
<td>American Culture, 1877 to the Present</td>
</tr>
<tr>
<td>AMS 330</td>
<td>American Society</td>
</tr>
<tr>
<td>or SOC 330</td>
<td>American Society</td>
</tr>
<tr>
<td>AMS 332</td>
<td>The United States in Global Context</td>
</tr>
<tr>
<td>AMS 345</td>
<td>Cultural Studies</td>
</tr>
</tbody>
</table>

Choose four American Studies courses (any course with an AMS prefix or courses cross-listed with AMS courses) (12 hours) at the junior/senior level (12)

Note: Only 1 course in the minor may be shared with your major.

Minor Hours & GPA
While completing all required courses, minors must also meet each of the following hour and grade point average minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 hours of junior/senior (300+) hours of KU resident credit in the minor.

Minor Junior/Senior (300+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 GPA in all courses in the minor. GPA calculations include all courses in the field of study including Fs and repeated courses.

Master of Arts in American Studies
The Master of Arts in American Studies is a free-standing degree. Students admitted to the M.A. program may hold bachelor’s degrees in any field and will be considered for admission based on the merit of their application. Students nearing completion of the M.A. program may apply to a doctoral program, either at KU or another university.

Admission to Graduate Studies
An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Admission to the M.A. in American Studies
Completion of a bachelor’s degree is required of all applicants. Admission is based primarily on the applicant’s statement of academic objectives, record of prior studies at the undergraduate or graduate level, and references from persons familiar with the applicant’s work. Evidence of preparation for graduate study may include substantial work in American Studies or related fields, such as American history, literature, art, media, sociology, anthropology, political science, journalism, or interdisciplinary studies. Prospective students must take the Graduate
Record Examination and have the results forwarded to the Graduate Application Processing Center (http://www.graduate.ku.edu).

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the department:

The University of Kansas
American Studies Program
Graduate Applications
Bailey Hall
1440 Jayhawk Blvd., Room 213
Lawrence, KS 66045-7545

M.A. Degree Requirements
The Master of Arts in American Studies requires 30 credit hours, including courses and the completion of a research article or thesis.

<table>
<thead>
<tr>
<th>Core Courses (12)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AMS 801 Introduction to American Studies (offered every fall)</td>
<td>3</td>
</tr>
<tr>
<td>AMS 802 Theorizing America (offered every fall)</td>
<td>3</td>
</tr>
<tr>
<td>AMS 803 Research Methods in American Studies (offered every spring)</td>
<td>3</td>
</tr>
<tr>
<td>AMS 804 Research Seminar (offered every fall)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Methods (3)**
1 course selected by the student and advisor provides methodological support for the student’s research.

**Elective Topics (9)**
Three courses constitute a coherent concentration, including historical depth in a defined area that prepares the student for either the master’s thesis or publishable article.

**Thesis Hours (6)**
After completing required courses, the student enrolls in AMS 899 and continues enrolling in thesis hours until their article or thesis is accepted by their committee.

**Research Project and Defense (0)**
Students complete a project of original research, resulting in a thesis or scholarly article. A committee of three faculty members evaluates the project, and the student provides an oral defense.

Handbook for Graduate Students
The department has prepared a handbook that summarizes procedures that a graduate student follows in working toward any 1 of the 3 graduate degrees. It contains a summary of regulations and departmental procedures and the rationale behind these regulations. The handbook is available online via the department webpage (http://americanstudies.ku.edu/overview-graduate-phd).

Master of Urban Planning and Master of Arts in American Studies

**M.U.P. and M.A. in American Studies**
This joint degree combines in a 2½-year program the normal 2-year Master of Urban Planning degree offered through the School of Architecture, Design and Planning and the normal 2-year M.A. degree in American studies offered through the College of Liberal Arts and Sciences. It is designed for students interested in careers in policy planning and research involving the arts, social planning, cultural activities and facilities, and historic preservation. For more information, consult the respective program chairs. See also Urban Planning (p. 90) in the School of Architecture, Design and Planning section of the online catalog.

Doctor of Philosophy in American Studies
The Ph.D. is the terminal degree in American Studies. In the Ph.D. program, we seek to educate, mentor, and place scholars who will make innovative contributions to American Studies and related fields, both inside and outside of the academy. We do this by providing advanced training and practice in interdisciplinary research as well as by fostering an intellectual community of students and faculty within the department and across the wider University. We emphasize the development of independent programs of study while directing and enabling students’ professionalization as researchers and teachers.

Admission to Graduate Studies
An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Admission to the Ph.D. in American Studies
Completion of a bachelor’s degree is required of all applicants. Preference may be granted to students who hold a master’s degree in American Studies or a related field. Admission is based primarily on the applicant’s statement of academic objectives, record of prior studies at the undergraduate or graduate level, and references from persons familiar with the applicant’s work. Evidence of preparation for graduate study may include substantial work in American Studies or related fields, such as American history, literature, art, media, sociology, anthropology, political science, journalism, or interdisciplinary studies. Prospective students must take the Graduate Record Examination and have the results forwarded to the Graduate Application Processing Center (http://www.graduate.ku.edu).
Ph.D. Degree Requirements

The Doctor of Philosophy in American Studies usually requires at least 30 credit hours beyond the Master’s degree. Courses taken to fulfill requirements for the Master of Arts in American Studies at KU also fulfill the requirements listed below. In consultation with the advisor, the student develops a plan of work that will provide expertise in three defined fields of study. The comprehensive examination certifies the student’s preparation in the chosen fields, and readiness to conduct research at a professional level. The degree program culminates in the completion and defense of the dissertation.

Core Courses (12)

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AMS 801</td>
<td>Introduction to American Studies (offered every fall)</td>
<td>3</td>
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<tr>
<td>AMS 802</td>
<td>Theorizing America (offered every fall)</td>
<td>3</td>
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<tr>
<td>AMS 803</td>
<td>Research Methods in American Studies (offered every spring)</td>
<td>3</td>
</tr>
<tr>
<td>AMS 804</td>
<td>Research Seminar (offered every fall)</td>
<td>3</td>
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Graduate Seminars (9)

3 seminars with additional hours as needed for exam preparation. 9

Research Skills Course (3)

1 elective methods course selected by the student and advisor provides methodological support for the student’s program of research and fulfills the Research Skills requirement.

Doctoral Residency. The student spends at least 2 semesters (http://www.policy.ku.edu/graduate-studies/doctoral-program-time-contraints) enrolled full-time at the Lawrence campus.

Comprehensive Examination. A combined written and oral examination (http://policy.ku.edu/graduate/studies/doctoral-oral-exams) is evaluated by a committee of 5 faculty members, 1 of whom represents Graduate Studies. After completing required courses, the student prepares for the comprehensive examination by taking AMS 996 Exam Preparation hours.

Continuous Enrollment. Following the comprehensive examination, the student enrolls full-time every semester (http://policy.ku.edu/graduate-studies/doctoral-candidacy) (spring, summer, and fall) until completing 18 hours. Following the 18-hour mark, students enroll continuously every semester (spring, summer, and fall) in 1-9 hours of AMS 999 Dissertation until graduating.

Prospectus. The student writes a brief proposal of the dissertation (http://policy.ku.edu/graduate-studies/doctoral-dissertation) project, which is evaluated and accepted by a committee of 5 faculty members, including a representative of Graduate Studies.

Dissertation Defense. Having completed the dissertation, the student defends it in an oral examination (http://policy.ku.edu/graduate-studies/final-oral-exams) before the committee of 5 faculty members.

Filing. The student files copies of the dissertation with the university and the department, in compliance with all university policies and deadlines.

Comprehensive Examination

The comprehensive examination has written and oral components. Before sitting for the written component, the student develops preparation in the three concentration fields, including an understanding of the current state of scholarship in each; major prior research and scholarly controversies in the fields; the principal theoretical, conceptual, and methodological approaches informing that scholarship; and the directions that contemporary work is taking. When the advisor deems the student ready for examination, the examination committee presents questions covering these areas, and the student writes a time-limited response to each. After the written examination has been reviewed and accepted by the committee, the student may sit for the oral comprehensive examination, which covers issues raised in the written examination as well as any other aspect of the student’s work in the doctoral program to date.

Dissertation

An interdisciplinary dissertation is required. The department has established a detailed description of the procedures for completing a dissertation. The student’s dissertation committee is composed of at least 4 faculty members, who initially review and approve the student’s research proposal and direct the research to its completion, and a fifth faculty member that serves as a representative of Graduate Studies.

Final Examination

All students must pass a final oral defense of the dissertation.

Handbook for Graduate Students

The department has prepared a handbook that summarizes procedures that a graduate student follows in working toward any one of the three graduate degrees. It contains a summary of regulations and departmental procedures and the rationale behind these regulations. The handbook is available online (http://americanstudies.ku.edu).

Department of Anthropology

Why study anthropology?

Because anthropology explains the diversity of humanity.

Undergraduate Programs

Undergraduate course work in anthropology is designed for students majoring in anthropology as part of a liberal education, for students majoring in anthropology as preparation for professional training, and for students in other areas who wish to do supplementary work in anthropology.

Courses for Nonmajors

Most courses are open to nonmajors and, depending on the course, can be used to meet College principal course distribution requirements in natural sciences, social sciences, or humanities. The department offers many courses that fulfill the non-Western culture requirement. ANTH 100
General Anthropology and ANTH 160/ANTH 360 The Varieties of Human Experience are recommended for students interested in anthropology who do not intend to major in it.

Graduate Programs

The graduate program consists of 21 faculty members and about 80 students, giving a professor-student ratio of about one to four and allowing a great deal of direct interaction between faculty and students. The department awards M.A. and Ph.D. degrees and has successfully placed most recipients of graduate degrees in professional positions.

The department offers graduate training in archaeology, biological anthropology, linguistic anthropology, and social/cultural anthropology. It has expertise in applied anthropology, anthropological genetics, molecular genetics, evolutionary studies, language contact and endangerment, medical anthropology, paleoanthropology, symbolic anthropology, visual anthropology, New World and Old World prehistory, and geochronology. Geographic strengths include Asia, Europe, Latin America, Native North America, the Pacific, SubSaharan Africa, and the contemporary United States.

The department is closely associated with the Laboratory of Biological Anthropology and the Center for Archaeological Research.

Courses

ANTH 100. General Anthropology. 3-4 Hours. SC AE42/GE3S / S.
Lecture and discussion sections covering the four primary fields of Anthropology: Biological Anthropology, Linguistics, Social Anthropology, and Archaeology. Concepts and approaches to each field, using past and present examples from around the world, will be examined with an emphasis on the unity of the anthropological approach. Future directions of human experience are explored. Discussion sections will be used to examine material covered in lecture and in readings in specific cultural and evolutionary contexts. Discussion and application of fundamental concepts to contemporary events, examination of fossil collections, and viewing and discussion of relevant visual materials are among topics to be covered in sections. LEC.

ANTH 102. Succeeding in Anthropology. 1 Hour. SC.
This course is designed to enhance students’ chances for success in anthropology major and life after college. Students will learn how to maximize their possibilities for gaining academic assistance, grants, and career building, as well as design strategies for winning jobs, entry into graduate programs, and paid internships at home and abroad. LEC.

ANTH 104. Fundamentals of Physical Anthropology. 3-4 Hours. NB GE3N / N.
Lecture and discussion sections covering the mechanisms and principles of Darwinian evolution with special emphasis on human and primate data. Lecture topics include genetics, variation, primate ethology, and the fossil evidence for human evolution. Discussion sessions include topics in Mendelian and population genetics, blood group systems, quantitative morphological variation, and fossil human and primate skeletal material. LEC.

ANTH 105. Fundamentals of Physical Anthropology, Honors. 3-4 Hours. NB GE3N / N.
An honors section of ANTH 104 for students with superior academic records. LEC.

ANTH 106. Introductory Linguistics. 3 Hours. SC AE41/GE41/GE11/GE3S / S.
Introduction to the fundamentals of linguistics, with emphasis on the description of the sound system, grammatical structure and semantic structure of languages. The course will include a survey of language in culture and society, language change, computational linguistics and psycholinguistics, and will introduce students to techniques of linguistic analysis in a variety of languages including English. (Same as LING 106.) LEC.

ANTH 107. Introductory Linguistics, Honors. 3 Hours. SC AE41/GE41/GE11/GE3S / S.
Introduction to the fundamentals of linguistics, with emphasis on the description of the sound system, grammatical structure, and semantic structure of languages. The course includes a survey of language in culture and society, language change, computational linguistics and psycholinguistics, and introduces students to techniques of linguistic analysis in a variety of languages including English. Open only to students admitted to the University Honors Program or by consent of instructor. (Same as LING 107.) LEC.

ANTH 108. Introduction to Cultural Anthropology. 3-4 Hours. SC AE42/GE3S / S.
An introduction to the nature of culture, language, society, and personality. Included in this survey are some of the major principles, concerns, and themes of cultural anthropology. The variety of ways in which people structure their social, economic, political, and personal lives. Emphasized are the implications of overpopulation, procreative strategies, progress and growth of cultural complexity, developments in the Third World, and cultural dynamics in Western as well as in non-Western societies. LEC.

ANTH 109. Introduction to Cultural Anthropology, Honors. 3-4 Hours. SC / S.
An honors section of ANTH 108 for students with superior academic records. LEC.

ANTH 110. Introduction to Archaeology. 3-4 Hours. HT GE3H / H.
A general introduction to the study of archaeology. Evolution of prehistoric cultures in adaptive response to changing natural and social environments, from the early Paleolithic to the emergence of urban civilizations. LEC.

ANTH 111. Introduction to Archaeology, Honors. 3-4 Hours. HT GE3H / H.
An honors section of ANTH 110 for students with superior academic records. LEC.

ANTH 160. The Varieties of Human Experience. 3 Hours. NW AE42/GE3H/GE3S / S/W.
An introduction to basic concepts and themes in cultural anthropology by means of the comparative study of selected cultures from around the world, for the purpose of appreciating cultural diversity. Emphasis is on systems of belief and meaning. Not open to students who have taken ANTH 360. LEC.

ANTH 161. The Third World: Anthropological Approaches. 3-4 Hours. NW / S/W.
Violent change, revolution, planned change, and peaceful transition in non-Western cultures. A study of development, modernization, nationbuilding, rapid acculturation, and war. LEC.

ANTH 162. The Varieties of Human Experience, Honors. 3 Hours. NW AE42/GE3H/GE3S / S/W.
An honors section of ANTH 160 for students with superior academic records. Not open to students who have had ANTH 160 or ANTH 360. LEC.
ANTH 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Anthropology. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

ANTH 293. Myth, Legend, and Folk Beliefs in East Asia. 3 Hours. NW AE42 / H/W.
A survey of the commonly held ideas about the beginning of the world, the role of gods and spirits in daily life, and the celebrations and rituals proper to each season of the year. The purpose of the course is to present the traditional world view of the peoples of East Asia. (Same as EALC 130, REL 130.) LEC.

ANTH 300. General Anthropology. 3 Hours. AE42/GE3H/GE3S / S.
A more intensive treatment of the content of ANTH 100. Not open to students who have had ANTH 100. LEC.

ANTH 301. Anthropology Through Films. 3 Hours. AE42 / S.
An exploration of the human ways through films. Cross-cultural interpretations by filmed records of varieties of interpersonal relations seen through such aspects of culture as hunting, war, marriage, religion, sex, kinship, and death. Patterns of interactions are analyzed by examples from cultures around the world, primarily the non-Western world. LEC.

ANTH 303. Peoples and Cultures of North Africa and the Middle East. 3 Hours. NW / S.
This course familiarizes students with the peoples and cultures of North Africa and the Middle East. It examines the cultural, demographic, and religious diversity of the region, as well as the development of the early Islamic community and the formation of Islamic institutions. Issues such as religion and politics, inter-religious relations, nation-building, Islamic response to colonialism, Palestinian-Israeli conflict, Islamic resurgence, secularism, democratization, and gender, are also explored. (Same as AAAS 303.) LEC.

ANTH 304. Fundamentals of Physical Anthropology. 3-4 Hours. NB GE3N / N.
A more intensive treatment of the content of ANTH 104. Not open to students who have had ANTH 104 or ANTH 105. LEC.

ANTH 308. Introduction to Cultural Anthropology. 3-4 Hours. SC AE42/GE3S / S.
An introduction to the nature of culture, language, society, and personality. Included in this survey are some of the major principles, concerns, themes of cultural anthropology, and the variety of ways in which people structure their social, economic, political, and personal lives. Emphasized are the implications of overpopulation, procreative strategies, progress and growth of culture complexity, developments in the Third World, and cultural dynamics in Western as well as in non-Western societies. Not open to students who have taken ANTH 108 or ANTH 109. LEC.

ANTH 310. Introduction to Archaeology. 3-4 Hours. HT GE3H / H.
A more intensive treatment of the content of ANTH 110. Not open to students who have taken ANTH 110 or ANTH 111. LEC.

ANTH 313. New Discoveries in Archaeology. 3 Hours. S.
Recent discoveries in anthropological archaeology in various areas of the world and their impact on existing bodies of fact and theory, and on established methods of archaeological discovery. LEC.

ANTH 315. The Prehistory of Art. 3 Hours. S.
A survey of prehistoric art focusing on the material record and interpretations of rock art (paintings, engravings on rock surfaces in rock-shelters, caves and in open air sites) and portable art created by prehistoric people. The emphasis is on the small-scale societies (hunter-gatherer and early food producers) around the world before the appearance of written records in respective geographic areas. Environmental, social and cultural contexts in which these art forms were created are discussed along with a review of past scholarship and current interpretive approaches to this old and enduring expression of human creativity. Course may be offered in lecture or online format. (Same as HA 315.) LEC.

ANTH 317. Prehistory of Europe. 3 Hours. S.
A survey of one million years of prehistory from the peopling of the European continent to the Roman Empire. The course will focus on the growth of culture, considering economy and technology, art and architecture. Topics will include the Neanderthals, the big game hunters of the Ice Age, the megalith builders, the Celts. Prerequisite: An introductory course in anthropology, history, or cultural geography. LEC.

ANTH 318. Prehistory of Kansas. 3 Hours. S.
A survey of the changing lifeways of Native Americans in Kansas from the time of the earliest inhabitants of at least 12,000 years ago to the period of Euro-American contact. Extensive use will be made of Museum of Anthropology collections. LEC.

ANTH 320. Language in Culture and Society. 3 Hours. SC AE41/ AE61 / S.
Language is an integral part of culture and an essential means by which people carry out their social interactions with the members of their society. The course explores the role of language in everyday life of peoples in various parts of the world and the nature of the relationship between language and culture. Topics include world-view as reflected in language, formal vs. informal language, word taboo, and ethnography of speaking. (Same as LING 320.) LEC.

ANTH 321. Language in Culture and Society, Honors. 3 Hours. SC AE41/AE61 / S.
An honors section of ANTH 320 for students with superior academic records. Not open to students who have had ANTH 320 or LING 320. (Same as LING 321.) Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

ANTH 341. Human Variation and Evolution. 3 Hours. AE41 / N.
An examination of biochemical and physical variability in contemporary human populations. Topics include: genetic basis of human diversity, evolutionary theory, population genetics, blood groups, biochemical variations, body size and shape, pigmentation, and other morphological characteristics. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.

ANTH 343. Food, Nutrition and Culture. 3 Hours. U.
The course is a cross-cultural survey of human dietary practices (foodways). Students are introduced to the concepts of nutrition, diet and cuisine. Evolutionary and adaptive aspects of human diets and cuisines are considered. Nutritional, environmental/ technological, social and ideological aspects of regional and ethnic foodways are examined. Invited lecturers from different cultural traditions offer indigenous perspectives on their foodways. LEC.

ANTH 350. Human Adaptation. 3 Hours. S.
A survey and examination of present-day human populations focusing upon adaptations in different environments and the interaction of culture...
and biology. General evolutionary theory is treated with an emphasis on the mechanisms of evolutionary change. Genetic, physiological, and cultural adaptations to environmental stress are discussed from the standpoint of their past evolutionary significance and their influence on contemporary human variation. Prerequisite: ANTH 104 or ANTH 304. LEC.

ANTH 352. Controversies on the Living and the Dead. 3 Hours. N.
The pros and cons of conflicting theories on the past and present evolution are examined. Race and intelligence, evolution of skin color, and genetic future of humans are among the considered topics. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.

ANTH 359. Anthropology of Sex. 3 Hours. N.
An evolutionary perspective on the behavior and biology of males and females in human society. Topics will include the evolution of sexual dimorphism, social and biological issues in human reproduction, primate social patterns, human sexual behavior and taboos, sex and social structure, and the sociobiology of sex. LEC.

ANTH 360. The Varieties of Human Experience. 3 Hours. NW AE42/GE3H/GE3S / S/W.
A more intensive treatment of ANTH 160. An introduction to basic concepts and themes in cultural anthropology by means of the comparative study of selected cultures from around the world, for the purpose of appreciating cultural diversity. Emphasis is on systems of belief and meaning. Not open to students who have taken ANTH 160. LEC.

ANTH 361. The Third World: Anthropological Approaches. 3-4 Hours. NW / S/W.
A more intensive treatment of the content of ANTH 161. Not open to students who have had ANTH 161. LEC.

ANTH 362. Peoples of Southeast Asia. 3 Hours. NW / S/W.
An analysis of the cultural diversity and unity of the peoples of Burma, Thailand, Laos, Cambodia, Vietnam, Malaysia, Indonesia, and the Philippines. Emphasis on cultural-historical relationships and theories of cultural development and change. LEC.

ANTH 363. Gendered Modernity in East Asia. 3 Hours. S.
This course explores rapidly changing gender relationships and the sense of being "modern" in East Asia by examining marriage and family systems, work, education, consumer culture, and geopolitics. The class seeks to understand how uneven state control over men and women shapes desires, practices, and norms and how men and women act upon such forces. Avoiding biological or social deterministic, this course treats gender as an analytical category and examines how modern nation-states and global geopolitics are constituted and operated. (Same as EALC 363 and WGSS 363.) LEC.

ANTH 364. Peoples of Japan and Korea. 3 Hours. NW / S/W.
An analysis of the cultural diversity and unity of the peoples of Japan and Korea. Emphasis on historical and ethnological relationships, social structure, and ethics. (Same as EALC 364.) LEC.

ANTH 365. Japanese People through Film. 3 Hours. NW / S/W.
Japanese people's culture and society through an extensive examination of both documentary and feature films. Readings from social science fields and literature will be used--the former to supply a theoretical framework for the study of Japanese people and the latter to further the inquiry into the individual sentiment motivating actions. (Same as EALC 365.) LEC.

ANTH 366. The Life Cycle in Japanese Culture and Literature. 3 Hours. NW / H/W.
A study of the Japanese people from birth to death: what it means to be born in a Japanese family, to grow up Japanese, and to die Japanese. Anthropological works and selections from Japanese literature and film will be used to examine ways in which Japanese people live through the critical periods in their life cycle. (Same as EALC 366.) LEC.

ANTH 368. The Peoples of China. 3 Hours. NW / S/W.
An analysis of the cultural origin, diversity, and unity of the peoples of China. Emphasis on historical development, social structure, cultural continuity and change, and ethics. (Same as EALC 368.) LEC.

ANTH 370. Peoples and Cultures of the Pacific. 3 Hours. NW / S/W.
A survey of the native cultures of Australia, Melanesia, Micronesia, and Polynesia. Investigation of the origins and dispersal of Pacific peoples, their cultural adaptations to differing habitats, their forms of social, political, and religious organization. Consideration of the problems and cultural changes resulting from colonization and modernization. Prerequisite: ANTH 100, ANTH 108, ANTH 160, ANTH 308, ANTH 360, or consent of instructor. LEC.

ANTH 372. Religion, Power, and Sexuality in Arab Societies. 3 Hours. NW / S.
This course examines theories of religion, discourse, power, gender and sexuality in their application to Arab societies. The course introduces different aspects of Arab cultures. Through canonical works, we study political domination, tribal social organization, honor, tribe, shame, social loyalty, ritual initiations and discuss how these issues speak generally to anthropological inquiry. Regionally specific works are then framed by an additional set of readings drawn from anthropological, linguistic, and social theories. (Same as AAAS 372.) LEC.

ANTH 376. North American Indians. 3 Hours. NW AE41 / S/W.
A survey of American Indian cultures north of Mexico at the time of the first contact with Western civilization; detailed studies of selected Indian cultures. LEC.

ANTH 379. Indigenous Traditions of Latin America. 3 Hours. NW / S/W.
A survey of the major indigenous traditions of Mesoamerica, the Andes, and lowland tropical Latin America. Coverage emphasizes how indigenous cultural traditions and societies have both continued and changed since the European Invasion and addresses such current issues as language rights, territorial rights, sovereignty, and state violence. Students enrolled in the 600-level section will be required to complete additional research and class leadership tasks. Not open to students who have taken LAA 634. (Same as LAA 334.) LEC.

ANTH 380. Peoples of South America. 3 Hours. NW / S/W.
A survey of native peoples and cultures of South America from the time of initial Western contacts to the present day. LEC.

ANTH 382. People and the Rain Forest. 3 Hours. S.
An analysis of the cultural origin, diversity, and unity of the peoples of the neotropics. Emphasizing the peoples of Amazonia, the course introduces students to topics associated with the economic, political, and cultural dimensions of social life in rain forest communities. LEC.

ANTH 387. Field Research on Gender. 3 Hours. S.
This course examines gender roles and gender culture in Costa Rica, especially in the southern part of the country. Students will be introduced, both theoretically and practically, to feminist anthropology as well as gender ethnography. It covers academic literature about the topic, and literature written by women. The class will also discuss different types of machismo culture and the structures and functioning of families in southern Costa Rica. Class taught in Golfito, Costa Rica. Course taught in
Spanish. Contact the Department of Anthropology, or the Office of Study Abroad. LEC.

**ANTH 389. The Anthropology of Gender: Female, Male, and Beyond. 3 Hours. NW GE21.**
This course will introduce students to cultural constructions and performances of masculinity, femininity, and alternative genders across time and space. Topics and cases will be drawn primarily from non-Western cultures, ranging from Javanese markets to Pacific Rim gardens, and from Haitian voudou to Maya royal politics. This course uses research by archeologists, linguists, anthropologists, and sociocultural anthropologists. (Same as WGSS 389.) LEC.

**ANTH 397. Museum Anthropology. 3 Hours. S.**
An introduction to the historical background, practice, and ethical issues involved in the creation, presentation, and dissemination of anthropological information in a museum setting. Students participate in the study of a collection of material culture (artifacts) from the Museum of Anthropology, culminating in development of a script for an exhibit. FLD.

**ANTH 400. Topics in Anthropology, Honors: ______. 3 Hours. H.**
Selected issues and theories in contemporary anthropology (cultural, linguistic, biological, archaeological) for honors students. Topic for semester to be announced. May be repeated for credit if content varies. Prerequisite: Admission to the University Honors Program or consent of instructor. LEC.

**ANTH 401. Integrating Anthropology. 3 Hours. S.**
Capstone course that integrates the primary fields of anthropology. Students apply concepts and approaches from each field to a particular topic in preparation for and presentation of a cross-disciplinary and integrative final project. Prerequisite: Completion of all required introductory anthropology courses and two anthropology courses LEC.

**ANTH 406. Laboratory Techniques in Archaeology. 3 Hours. S.**
A survey of basic laboratory procedures associated with specimen preparation, analysis, classification, and measurement of archaeological materials, with emphasis on lithic and ceramic technology. Formal lectures and laboratory sections. LEC.

**ANTH 410. Archaeological Myths and Realities. 3 Hours. S.**
A more intensive treatment of the content of ANTH 210. Not open to students who have had ANTH 210. LEC.

**ANTH 415. The Rise of Civilization. 3 Hours. S.**
A study of evolutionary processes leading to the birth of the early great urban civilizations of the Old World and the New World. Patterns of growth and similarities and differences in the rise of urban complexes and states in Mesopotamia, Egypt, the Indus Valley, and in Mexico/Guatemala and Peru. LEC.

**ANTH 418. Summer Archaeological Field Work. 1-8 Hours. AE61 / S.**
Under the direction of a professional archaeologist, undergraduate and graduate students are taught proper procedures for the excavation and laboratory analysis of data from a prehistoric or historic archaeological site. Data gathered may be used for additional graduate research. Enrollment by application; limited to twenty students. A fee for subsistence costs will be charged. FLD.

**ANTH 419. Training in Archaeological Field Work. 1-6 Hours. S.**
Undergraduate and graduate students are taught techniques of archaeological field work, including survey and excavation, as well as laboratory procedures, including artifact classification and curation. FLD.

**ANTH 430. Linguistics in Anthropology. 3 Hours. S.**
The study of language as a symbolic system. Exploration into the interrelatedness of linguistic systems, of nonlinguistic communicative systems, and of other cultural systems. (Same as LING 430.) LEC.

**ANTH 440. Introduction to Primates. 3 Hours. N.**
A review of the evolution and behavior of nonhuman primates. The survey includes the stages of primate evolution, morphology of living primates, and descriptions and analyses of primate behavioral patterns. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.

**ANTH 442. Anthropological Genetics. 3 Hours. N.**
Principles of human genetics involved in biological anthropology. The genetics of non-Western populations considered within an evolutionary framework. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.

**ANTH 444. Topics in Biological Anthropology: ______. 3 Hours. N.**
Seminar concentrating on selected problems and issues in contemporary biological anthropology. Topic for semester to be announced. Course may be repeated for a maximum of nine hours of credit. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.

**ANTH 447. Human Behavioral Genetics. 3 Hours. S.**
A survey of human behavioral genetics for upper division undergraduates. Emphasis is on how the methods and theories of quantitative, population, medical, and molecular genetics can be applied to individual and group differences in humans. Both normal and abnormal behaviors are covered, including intelligence, mental retardation, language and language disorders, communication, learning, personality, and psychopathology. (Same as BIOL 432, PSYC 432, SPLH 432.) Prerequisite: Introductory courses in biology/genetics or biological anthropology and psychology are recommended. LEC.

**ANTH 449. Laboratory/Field Work in Human Biology. 1-3 Hours. AE61 / N.**
Faculty supervised laboratory or field research for Human Biology majors. Students design and complete a research project in collaboration with a Human Biology faculty member. (Same as BIOL 449, SPLH 449, and PSYC 449.) Prerequisite: Consent of instructor and Human Biology major. FLD.

**ANTH 459. Anthropology of Sex, Honors. 3 Hours. H.**
The course is an introduction to the evolutionary study of human sexual behavior. Using an explicitly Darwinian framework, it examines the biological basis for human mate selection, male and female mating strategies, child-birth and child-care practices, parental care, marriage, and family structure. The power of Darwinian theory to predict human sexual behavior is tested in anthropological field studies, designed and carried out by students in the class. Class time is allocated for discussion of students’ research as it progresses through each stage, and results are presented in the last weeks of the semester. Prerequisite: Introductory class in biology or biological anthropology. Open only to students in the University Honors Program, or by consent of instructor. LEC.

**ANTH 460. Theory in Anthropology. 3 Hours. GE3H / S.**
A critical examination of the main theories and concepts in cultural anthropology. Consideration of the philosophical presuppositions underlying past and current theoretical issues and trends. LEC.

**ANTH 461. Introduction to Medical Anthropology. 3 Hours. S.**
An introduction to the social and cultural practices that contribute to health and disease, including a survey of therapy systems in both Western and non-Western societies (e.g., Native American, African, Western allopathic medicine, etc.). This course should be of special interest to premedical students and majors in the allied health professions. LEC.

**ANTH 465. Genocide and Ethnocide. 3 Hours. S.**
Study of the killing of peoples and cultures. Case studies, focusing primarily on tribal South America. Examination of the implications of
these studies as regards our definition of culture and our evaluation of aid programs, missionary efforts, and international business expansion. LEC.

**ANTH 474. Applied Cultural Anthropology. 3 Hours. S.**
Applications of anthropological theory, methods, and findings in programs of community and national development, public health, international aid, and military assistance. Examination of the role of the anthropologist, of ethics and values in intervention schemes, and of the organization of planned change in applied programs. Intensive analysis of selected case studies. FLD.

**ANTH 480. Technology and Society in the Contemporary World. 3 Hours. AE61 / S.**
The impact of scientific and technological advances on social and personal life in contemporary society. A wide range of topics will be dealt with during the semester; examples include the internet and new modes of communication, developments in genetics and medicine, and testing for intelligence, drugs, lie detection, and other purposes. LEC.

**ANTH 482. Psychological Anthropology. 3 Hours. S.**
Introduction to the interrelationship of individual and society: processes of socialization, perception and cognition, personality and culture, with emphasis on the psychological interpretation of human behavior and the sociocultural contexts of psychological processes. Both ethnographic and cross-culturally comparative perspectives are introduced. LEC.

**ANTH 484. Magic, Science, and Religion. 3 Hours. NW / S/W.**
A comparative study of religion and systems of value and belief in non-Western cultures. LEC.

**ANTH 496. Reading and Research. 1-6 Hours. AE61 / S.**
Individual investigation of special problems in anthropology. Maximum of three credit hours in any one semester. Prerequisite: Consent of instructor. IND.

**ANTH 498. Seminar in Technology: _____ 3 Hours. S.**
Topic for semester to be announced. LEC.

**ANTH 499. Senior Honors Research. 1-6 Hours. AE61 / S.**
Individual research under the direction of one or more instructors in the department. Maximum of four credit hours in any one semester. Prerequisite: A grade-point average of 3.5 in anthropology and 3.0 in all courses, and consent of instructor. IND.

**ANTH 500. Topics in Archaeology: _____ 3 Hours. S.**
Seminar concentrating on selected problems and issues in contemporary archaeology. Topic for semester to be announced. Course may be repeated for a maximum of nine hours of credit. Prerequisite: Successful completion of a course in archaeology at any level, or by permission of instructor. LEC.

**ANTH 501. Topics in Sociocultural Anthropology: _____ 3 Hours. S.**
Course concentration on selected problems, theories, and issues in contemporary sociocultural anthropology. Topic for semester to be announced. LEC.

**ANTH 502. Topics in Anthropological Linguistics: _____ 3 Hours. S.**
Course concentrating on selected problems, theories, and issues in contemporary anthropological linguistics. Topic for semester to be announced. LEC.

**ANTH 503. Topics in Biological Anthropology: _____ 3 Hours. S.**
Course concentration on selected problems, theories, and issues in contemporary biological anthropology. Topic for semester to be announced. LEC.

**ANTH 504. North American Archaeology. 3 Hours. S.**
A general survey of the archaeology of North America. Detailed coverage of selected problems. LEC.

**ANTH 505. Prehistory of Eastern North America. 3 Hours. S.**
A survey of the archaeological record of eastern North America from the late Pleistocene to the time of European contact. The diverse environments of eastern North America are considered in conjunction with the dynamic climatic and ecological changes which have occurred during the past 20,000 years to provide a background for study of the prehistoric groups who occupied the region. Topics will include the change in economies, technologies, and organization from the earliest hunter-gatherers through the development of pre-Columbian complex societies. Prerequisite: ANTH 110 or ANTH 310. LEC.

**ANTH 506. Ancient American Civilizations: Mesoamerica. 3 Hours. NW / S/W.**
An archaeological survey of the Precolombian heritage of Mexico and Central America. The sites and cultures of the Olmecs, Teotihuacan, the Maya, the Zapotecs, the Toltecs, and the Aztecs will be considered in detail. Investigations of ancient art and architecture, crafts and technologies, trade and exchange, religious beliefs and practices, and writing and calendrical systems will be directed toward understanding the growth and the decline of these Native American civilizations. LEC.

**ANTH 507. The Ancient Maya. 3 Hours. S/W.**
An intensive examination of current scholarship on the ancient Maya civilization of Mexico and Central America. The course will consider Maya culture from its roots in early villages of the Preclassic period to the warring city-states of the Postclassic period. Topics will include settlement and subsistence systems, sociopolitical evolution, art and architecture, myth and symbolism, and Maya hieroglyphic writing. An important theme of the course will be the relevance of the Precolombian Maya for understanding complex societies and contemporary Latin American Culture. Prerequisite: Successful completion of one of the following: ANTH 110, ANTH 310, ANTH 415, ANTH 506, or ANTH 508. LEC.

**ANTH 508. Ancient American Civilizations: The Central Andes. 3 Hours. NW / S/W.**
An archaeological survey of the Precolombian heritage of Peru and neighboring countries in South America. The origins of complex societies on the coast and in the Andean highlands will be reviewed with special consideration of the role of "vertical" environments in the development of Andean social and economic systems. Cultures such as Chavin, Moche, Nazca, Huari, Tiahuanaco, Chimu, and the rise of the imperial Inca state will be examined through artifacts, architectural remains, and ethnohistoric documents. LEC.

**ANTH 510. An Introduction to Southwestern Archaeology. 3 Hours. NW / S.**
Consideration of the history and processes of cultural development from the evidence of humans’ first presence to the historic period in the Southwestern United States and Northern Mexico. Special attention will be devoted to the origins, changes within, and connections to modern Southwestern native peoples of three long-lived traditions known as Hohokam, Mogollon, and Anasazi. Prerequisite: ANTH 110 or ANTH 310. LEC.

**ANTH 512. Ethnohistory: _____ 3 Hours. S.**
A critical evaluation of the records (local traditions, written documents, maps, photographs, etc.) relevant to a reconstruction of the history of cultures. Topic for the semester to be announced. LEC.

**ANTH 514. The Near East in Prehistory. 3 Hours. S.**
A broad examination of the prehistory of the Near East, emphasizing selected regional and research themes. Discussion will include a consideration of cultural adaptation and environmental diversity, early history of archaeological work, and current research trends. While all
The diversity of hunter-gatherer cultures documented in the ethnographic and archaeological records is considered on a global scale, with particular attention given to the relationships between environment, technology, and organization. The evolution of hunter-gatherers from the earliest hominids until their interaction with more complex societies is considered, with emphasis given to the variation and nature of change in these societies. Prerequisite: ANTH 108 or ANTH 110, or ANTH 308 or ANTH 310. LEC.

ANTH 518. Environment and Archaeology. 3 Hours. N.
An investigation of the relationships between the biophysical world and the development of human cultures. Examination of archaeological methods employed in the study of these relationships. LEC.

ANTH 519. Lithic Technology. 3 Hours. S.
An introduction to the analysis and interpretation of prehistoric stone industries. Topics discussed include origins and development of lithic technology, principles of description and typology, use and function of stone tools; interpretation of flint knapping. Prerequisite: An introductory course in archaeology. LEC.

ANTH 520. Archaeological Ceramics. 3 Hours. S.
Practicum in the method and theory of pottery analysis in archaeology. Topics include manufacturing techniques, classification, and compositional analysis of pottery artifacts, as well as strategies for interpreting the role of ceramic vessels in food production, storage, and consumption; social and ritual activities; trade and exchange; and the communication of ideas. Prerequisite: ANTH 110 or ANTH 310. LEC.

ANTH 521. Zooarchaeology. 3 Hours. S.
This course is intended to complement faunal identification with practical involvement in analyses and interpretation of archaeological faunal assemblages using a variety of modern methods. Students will participate in the study of specific archaeological faunal remains, development of comparative zooarchaeological collections, and in middle-range research to document the variety of agents that affect faunal remains. Prerequisite: ANTH 110 or ANTH 310. LEC.

ANTH 522. Paleoenthobotany. 3 Hours. S.
This course discusses the relationship between past human groups and their plant environment, including the use of plants for food, fuel, shelter, and household articles. Topics include a review of the development of paleoethnobotanical research, methods and techniques of data recovery, basics in plant identification, methods of data quantification and interpretation, and current research topics. In addition to selected readings, students will participate with the development of comparative botanical collections and the interpretation of botanical remains recovered from archaeological contexts. Prerequisite: ANTH 110 or ANTH 310. LEC.

ANTH 523. Great Plains Archaeology. 3 Hours. S.
A survey is provided of the archaeological record and its interpretations for the Great Plains area of North America. The records from earliest human occupation, variation in hunter and gatherer societies, to horticultural and farming societies, and the historic period are reviewed. The history of archaeological research in the region, explanatory frameworks and models, and discussion of changes in economy, technology, mobility, social organization, and population movements are among the topics of concern. LEC.

ANTH 542. Biology of Human Nutrition. 4 Hours. N.
Lecture and discussion. A comprehensive introduction to human nutrition, focusing on the anatomical, biochemical, and physiological aspects of nutrition. The essential nutrients and their role in human metabolism are covered in detail, and the course’s systemic approach places a strong emphasis on integration of metabolism. Students also are introduced to human dietary evolution, the concept of nutritional adaptation, and cross-cultural differences in diet and nutritional physiology. Discussion sections focus on applied aspects of human nutrition, including dietary assessment. The course is a prerequisite for ANTH 543, which is recommended as the second course in a sequence on human nutrition. Prerequisite: ANTH 104 or ANTH 304, and BIOL 152. Students who have not had BIOL 152 should have taken a comparable introductory course in organismal physiology. LEC.

ANTH 544. Origins of Native Americans. 3 Hours. N.
A survey of the genetic, linguistic, historic, archaeological, and morphological evidence for the origins of indigenous populations of the Americas. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.

ANTH 545. Contemporary Health Issues in Africa. 3 Hours. S.
The course examines health and nutrition in African communities, using the methods of biological and medical anthropology. Fundamental to the approach taken in the course is the understanding that the health of human groups depends on interactions between biological and cultural phenomena in a particular ecological context. One topic will be selected per semester, to examine in detail the full array of epidemiological factors contributing to patterns of specific diseases. AIDS, childhood diseases, and reproductive health of African women are among possible topics. Course material will be selected from scholarly and medical publications, as well as coverage in the popular media. The use of a variety of sources will enhance understanding of the biological and cultural issues involved and will help students identify possible bias and misinformation in popular coverage of events such as famine or epidemic in African settings. (Same as AAAS 554.) Prerequisite: An introductory course in either anthropology or African studies. LEC.
ANTH 549. Human Paleontology: Fossil Apes to Australopithecus. 3 Hours. N.
This course is an intensive survey of the fossil evidence for hominoid evolution up to the emergence of the first hominins--Australopithecus. Topics include the origin and evolution of the great apes, gibbons, and extinct forms such as Ramapithecus and Gigantopithecus, as well as the appearance of Australopithecines. Functional morphology is stressed. This course may be taken either before or after ANTH 550. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.

ANTH 550. Human Paleontology: Homo Erectus to Homo Sapiens. 3 Hours. N.
The rise of genus Homo is the theme of this course. Fossils representing erectus, Neanderthal, Upper Paleolithic, and post-Pleistocene forms are discussed in detail with particular emphasis on the relationship between cultural and morphological change. The course is a continuation of ANTH 549, but may be taken out of sequence. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.

ANTH 555. Evolution of Human Diseases. 3 Hours. N.
This course traces the evolution of human diseases over the past 3 million years. Topics include paleopathology, epidemics/pandemics, genetic adaptations to diseases, and emerging/reemerging diseases. In addition, interrelationships between humans and diseases, coupled with interactions with other animals, vectors, and natural and cultural environments are discussed. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LEC.

ANTH 560. Introduction to Economic Anthropology. 3 Hours. S.
This course uses ethnographic case materials to explore the ways humans provision themselves under different social and environmental conditions. It introduces the basic theories, concepts, and debates of economic anthropology and provides a foundation for more advanced courses in this subdiscipline. Prerequisite: ANTH 108/308 or ANTH 160/360, or permission of instructor. LEC.

ANTH 561. Indigenous Development in Latin America. 3 Hours. AE42 / S.
Surveys the history of the development enterprise since WWII, examines the marginalization and impoverishment of Latin America's indigenous peoples, and provides training to carry out projects for and with them to enhance their quality of life. Development is understood as not merely technological or economic, but also social, emotional, and educational. Students work in teams to design their own mock development project. A 3-credit non-obligatory companion course, Applied Anthropological Field School among the Ch'orti' Maya, will follow in the intersession after each version of this course. (Same as LAA 561.) Prerequisite: ANTH 100, ANTH 108, ANTH 160 or LAA 100; or consent of instructor. LEC.

ANTH 562. Mexamérica. 3 Hours. AE41 / S.
This class surveys the relations between Mexico and the U.S. as nation-states, and among Mexicans, Mexican Americans, and Anglo Americans (to a lesser extent other U.S. citizens) in historical perspective. Issues of sovereignty, national and ethnic identity, immigration, labor relations, popular culture, media, and transnational economics are covered. Prerequisite: ANTH 108/308 or ANTH 160/360 or LAA 100. LEC.

ANTH 563. Cultural Diversity in the United States. 3 Hours. SC / S.
Anthropological approaches to racial, ethnic, religious, and localized communities in contemporary U.S. Surveys major theories from social science, considers case studies of immigrant indigenous peoples from historical and contemporary, local, national, and international perspectives, and addresses questions concerning the sources, conditioners, and consequences of in-group and out-group identities.

Prerequisite: Introductory cultural anthropology and one cultural course numbered 300 or above, or permission of instructor. LEC.

ANTH 564. The Peoples of Africa. 3 Hours. NW / S/W.
“Peoples of Africa” examines the anthropology of Sub-Saharan Africa through selected case studies of particular societies and issues that have wider comparative relevance. Normally two to four societies are selected for the semester and studied through ethnographic, historical, and literary monographs. These case studies are examined in their pre-colonial, colonial, and postcolonial histories. Lectures, readings, and exercises emphasize three kinds of reasoning -- geographical, historical, and cultural context -- required to grasp events and issues in unfamiliar societies. The course also features major anthropological ideas that emerged in the study of African society, and tracks how anthropology has been adapted by African scholars, policy makers, and activists. LEC.

ANTH 565. Popular Images in Japanese Culture, Literatures, and Films. 3 Hours. NW / S/W.
The course examines recurring themes and images in Japanese culture through films, literary works, and anthropological and other social science literature. These themes and images are studied in the contexts of both modern and traditional cultures. Although the popular deviates from the orthodox, nevertheless, the energy and pervasiveness of these bastard offspring endorse and sustain “proper” cultural values. As a result of exploration of both highways and backroads of cultural expression, a holistic picture of Japanese ethos will emerge. (Same as EALC 565.) LEC.

ANTH 567. Japanese Ghosts and Demons. 3 Hours. NW / S/W.
An investigation of deeply rooted Japanese beliefs about intimate relationships among humans, animals, and nature - beliefs which help to explain the mysterious and to lend order to the world. Anthropological works, selections from Japanese literature, historical documents, artworks, and films will be used to examine supernatural themes. (Same as EALC 567.) LEC.

ANTH 568. Kongo Trans-Atlantic. 3 Hours. S.
This seminar explores Kongo culture and history through a cross-section of the African-Atlantic World: Western Equatorial Africa and related New World societies in Jamaica, Brazil, Haiti, Cuba, and the Georgia and Carolina Coasts, and New Orleans (thus in former British, Portuguese, French, Spanish, and U.S. colonial territories). The seminar will assess recent scholarship on patterns of slavery and resistance, cultural and linguistic change, creolization and hybridization. (Same as AAAS 568). LEC.

ANTH 569. Contemporary Central America and Mexico. 3 Hours. S.
Mexico and Central America have formed a cultural interaction zone for thousands of years, and today share common challenges, particularly political, economic, and social ones related to the Spanish colonial legacy, U.S. involvement, and their place in the global economy. Some of the issues addressed include racism, civil war, migration, youth gangs, narcotics, trafficking, resource extraction, homeless children, the transition from local subsistence economies to low-income work, and struggles for indigenous rights. Prerequisite: ANTH 160 or ANTH 162, or ANTH 360, ANTH 108 or ANTH 308, or LAA 100. LEC.

ANTH 570. Anthropology of Violence. 3 Hours. S.
Introduces students to the comparative and cross-cultural study of violence. The course begins by surveying different anthropological approaches to the study of violence, with special attention paid to classical social theorists as well as ethnographic works. Topics may include (post) coloniality and identity politics, nationalism, race, religion, and political culture; geographic areas to be covered may include Africa, Europe, Latin America, the Middle East, and South Asia. LEC.
ANTH 571. Violence, Aggression, and Terrorism in the Modern World. 3-4 Hours. S.
A cultural and psychological analysis of the sources, dynamics, effects, and practices of modern patterns of violence. Variations in psycho/social reactions to violence will be examined with reference to personal, social, and cross-cultural characteristics. Particular attention will be given to the cultural and individual characteristics of people who successfully survive violence and terrorism targeted at them. Emphasis will be upon the psychological and cultural origins of terrorism and violence in modern societies. Prerequisite: Introductory course in anthropology or psychology. LEC.

ANTH 580. Feminism and Anthropology. 3 Hours. S.
This seminar will introduce students to feminism in anthropology, including feminist theories, methodologies, ethnographic styles, and the history of women in the discipline since the late 1800s. Emphasis is on the social contexts for feminist theory-building since the 1960s and changing ideas about gender and power. (Same as WGS 580.) Prerequisite: One of the following: ANTH 389, ANTH 460, WGS 201; or permission of instructor. LEC.

ANTH 582. Ethnobotany. 3 Hours. S.
Course will involve lectures and discussion of ethnobotany - the mutual relationship between plants and traditional people. Research from both the field of anthropology and botany will be incorporated in this course to study the cultural significance of plant materials. The course has 7 main areas of focus: 1) Methods in Ethnobotanical Study; 2) Traditional Botanical Knowledge - knowledge systems, ethnolinguistics; 3) Edible and Medicinal Plants of North America (focus on North American Indians); 4) Traditional Phytochemistry - how traditional people made use of chemical substances; 5) Understanding Traditional Plant Use and Management; 6) Applied Ethnobotany: commercialization and conversation (focus on traditional harvest of plant materials); 7) Ethnobotany in Sustainable Development (focus on medicinal plant exploration by pharmaceutical companies in Latin America). (Same as EVRN 542.) Prerequisite: ANTH 104, ANTH 108, EVRN 148, or consent of instructor. LEC.

ANTH 583. Love, Sex, and Globalization. 3 Hours. S.
Escalating transnational flows of information, commodities, and people have created innumerable kinds of "intimate" contacts on a global scale, such as mail order brides, child adoption, sex tourism, commodified romance, and emotional labor. Exploring the ways that cultural artifacts of intimacy are rendered, fetishized, and reified in a free market economy, this course examines how discourses on love and sex encounter, confront, and negotiate the logic of the capitalist market, the discrepant narratives of (colonial) modernity, and the ethics of pleasure. In so doing, this course navigates the treacherous interplay among emotions-specifically love, sex, and money, seeking the potential and limits of cultural politics of emotions. (Same as WGSS 583.) LEC.

ANTH 586. Visual Anthropology. 3 Hours. U.
This course takes a hands-on approach to the study of theory, ethics, and methods in visual ethnographic representation. Students also read and consider historical dimensions in this subdiscipline and complete individual and team projects in photographic and videographic media. Prerequisite: An introductory course in cultural anthropology or permission of the instructor. LEC.

ANTH 587. Multidisciplinary Field School in Partnership with the Chorti Maya. 3 Hours. S.
Teams of interdisciplinary students partner with the Chorti Maya of Guatemala and Honduras to share information and experiences. One third of the course consists of readings and 4-5 orientation sessions on campus, and two thirds entails two weeks in Central America. Examples of activities might include historical research, water testing and improvement, photography, art, music, tourism consultation, marketing of crafts, human rights advocacy, web design, computer training, and museum work, among others. There are no prerequisites, but students with a working knowledge of Spanish will receive preference for admission. (Same as LAA 587.) LEC.

ANTH 595. The Colonial Experience. 3 Hours. NW / S/W.
An anthropological and historical examination of the processes and dynamics of the colonial experience. Cross-cultural psychosocial phenomena that have profoundly affected the values and social organizations of both colonizers and colonized will be emphasized. Specific examples will be chosen from the former American, Japanese, and European colonial empires with emphasis on Asia. LEC.

ANTH 603. Shamanism Past and Present. 3 Hours. S.
This course explores shamanism, broadly defined as the practice of gaining insight through the use of ecstatic techniques (dance, drumming, trance, vision quests, and the use of psychotropic substances) for the purpose of interpreting existence and healing illnesses, through a consideration of theories and evidence for its practice from Upper Paleolithic times to the present day. Examples from the ancient cultures of Asia, Europe, Africa, Australia, and the Americas are used to explore current theoretical approaches in order to identify shamans and shamanism in the past. Issues of identifying shamans and shamanism in art and archaeological contexts are discussed. The course also explores the role that shamanism plays in a wide variety of cultures. The principal goal of the course is to provide a reasoned, critical interpretation of shamanism in the context of contemporary debates about its definition and active practice. Prerequisite: ANTH 108/308 or ANTH 110/310 or ANTH 160/360. LEC.

ANTH 605. Mortuary Practices in the Archaeological Record. 3 Hours. S.
Students study theories and methods of burial practices in the archaeological record. They learn about past communities; attitudes toward death and burial and how social organization, complexity, ideology, power, gender and age roles contribute to mortuary practices. The course examines a variety of Old and New World examples from different chronological periods through class presentations, debates and written assignments. The course focuses on comparisons and evaluation of traditional and current methods and approaches. Prerequisite: ANTH 100/300 or ANTH 110/310 or instructor's consent. LEC.

ANTH 619. Field Concepts and Methods in Geoarchaeology. 3 Hours. S.
A field course taught during the three week summer session. Examines all-day excursions to different regions in order to introduce students to a variety of archaeological landscapes and environments. Focuses on the application of geoscientific concepts and methods in archaeological field investigations, emphasizing natural processes such as erosion, deposition, weathering, and biological and human activity that create and modify the archaeological record, and on soil-stratigraphic and geophysical approaches to landscape and site investigations. LEC.

ANTH 648. Human Osteology. 4 Hours. N.
Techniques in bone identification, sex, race, age determination, stature reconstruction, paleopathology, and bone biology are reviewed. Prerequisite: An introductory course in physical anthropology, biology, or permission of instructor. LAB.

ANTH 650. Human Reproduction: Biology and Behavior. 3 Hours. N.
This is a comprehensive course in the biology of human reproduction (anatomy, physiology, and endocrinology). The implications of human reproductive biology for the evolution of human behavior are considered as well. Students also examine in detail the methods and theories underlying two interconnected approaches utilized by biological
anthropologists in the study of human reproduction: human reproductive ecology, which focuses on the biological determinants of human reproductive function and reproductive success, and human behavioral ecology, which focuses on evolutionary relationships between human reproductive strategies and human social behavior. The course is the first part of a two-semester sequence (ANTH 650 and ANTH 660) that examines in detail biological and cultural determinants of human reproductive strategies. Prerequisite: ANTH 359 or BIOL 152 or permission of instructor. LEC.

ANTH 652. Population Dynamics. 3 Hours. N.
Examination of possible interrelationships between the demographic structure of a population and the forces of evolution. Students are exposed to field methods and techniques of population studies. Prerequisite: An introductory course in anthropology, biology, or permission of instructor. LEC.

ANTH 660. Human Reproduction: Culture, Power, and Politics. 3 Hours. S.
This seminar analyzes and critiques the socially constructed nature of reproductive practices and their articulation with relations of power. Topics range from conception to menopause, infertility to population. Cases are drawn from a variety of Latin American contexts. This course is the second part of a two-semester sequence (beginning with ANTH 650) that examines in detail biological and cultural determinants of human reproduction. (Same as WGSS 665 and LAA 665.) Prerequisite: ANTH 650, or 6 hours in women's studies, or permission of instructor. LEC.

ANTH 661. Cultural Dynamics. 3 Hours. S.
A survey of representative studies of the processes of cultural stability and change, and of theories of innovation, diffusion, acculturation, growth, and planned intervention in cultural processes. LEC.

ANTH 663. The Anthropology of Islam. 3 Hours. NW / H.
This course uses critical readings of major anthropological works on Islam to: 1) analyze various interpretations of "Islamic cultures" through the development of regionally-grounded works, and 2) examine how the anthropological study of Islam also is informed by theoretical and philosophical approaches to major anthropological questions, such as religion, myth, kinship, social organization, and power. The course offers both a history of various interpretations of Islam as well as a history of theories of these interpretations. (Same as AAAS 663.) LEC.

ANTH 664. Women, Health, and Healing in Africa. 3 Hours. H.
The course explores the values, practices, cultural systems and social-economic conditions that influence the sickness and health of women in Africa. The focus is on theoretical and applied debates and issues including: contraception, infertility, and reproduction; HIV/AIDS and other sexually transmitted infections; spiritual suffering and mental illness; trauma and violence; chronic illness, disability, and aging; pharmaceuticals, biotechnologies, and clinical research. Prerequisite: 6 hours of coursework in Anthropology and/or Women's Studies and/or African American Studies. LEC.

ANTH 665. Women, Health, and Healing in Latin America. 3 Hours. S.
This seminar uses a life-cycle approach to examine women's health (physical, mental, and spiritual) and their roles as healers. Special consideration is given to the effects of development programs on well-being, access to health care, and changing roles for women as healers. Cases will be drawn from a variety of Latin American contexts. (Same as WGSS 665 and LAA 665.) Prerequisite: 6 hours of coursework in anthropology and/or women's studies and/or Latin American studies. LEC.

ANTH 666. Anthropology of Religion. 3 Hours. S.
An examination of the various approaches (individual, ritual, and cognitive) anthropologists have adopted in the study of religion, with emphasis on millenarian and prophetic movements as examples of radical change. LEC.

ANTH 667. Primitive Mythology. 3 Hours. S/W.
Methods of studying the mythology of nonliterate peoples; historical survey of theories of myth; consideration of worldwide myths and primitive mythologies from specific cultures. LEC.

ANTH 670. Contemporary American Culture. 3 Hours. S.
An anthropological investigation, in seminar format, of the social consequences of transformations in today's society. Specific topics may include: the information explosion; developments in science and technology; genetics and assisted reproduction; ethnic and cultural diversity; and changing views of the normal and abnormal, sexual and other forms of relationships, and of the self. Prerequisite: An introductory course in cultural anthropology, sociology, or American studies. LEC.

ANTH 671. The Culture of Consumption: (E.G. United States and Japan). 3 Hours. S.
Examines the ideologies of capitalism and consumerism as they influence social institutions and daily life. Topics for consideration grow out of instructors' interests and may include areas such as class, religion, advertising, politics, gender, medicine, environment, childhood, and education. Prerequisite: ANTH 560 or permission of instructor. LEC.

ANTH 672. Meat and Drink in America. 3 Hours. S.
This seminar examines food and beverage production and consumption in the United States. Organized metaphorically as a meal, the course explores where food and beverages come from, how they are produced and by whom, and what they mean to us as eaters and drinkers. Although the course surveys food and beverage production and consumption in general, special attention is given to meat and poultry, alcohol, coffee, carbonated drinks, regional foods, opposition to consumption of meat and alcohol, and tobacco. LEC.

ANTH 673. Neoliberalism and Globalization. 3 Hours. S.
Transnational processes profoundly shape the 21st century human experience. This course links theories of economic globalization with ethnographic case materials. It explores the spread of the dominant ideology driving these processes and the effects of neoliberal policies on the urgent and vital matters facing humanity today: war and peace, social justice, democracy, cultural pluralism, and ecologically sustainable development. The course thereby links macro-economic policies to the experiences of families, workers, communities, women, indigenous peoples, and other social groups. Prerequisite: ANTH 560 or permission of instructor. LEC.

ANTH 674. Political Anthropology. 3 Hours. S.
Analysis of political systems of tribal societies and of pre-industrial states. LEC.

ANTH 675. Anthropology of Law. 3 Hours. S.
Comparative analysis of the legal and political strategies used to achieve social control in both Western and non-Western cultures. Emphasis on the differential use of customary and legal sanctions, formalized procedures of negotiation or adjudication, and the role of legal specialists in society. LEC.

ANTH 676. Culture Wars. 3 Hours. S.
A seminar exploring the political, religious, cultural and ideological antagonisms that divide contemporary society. Topics of discussion to be treated may include Christianity vs. Islam, evolutionism vs. intelligent design, attitudes pertaining to sexual orientation, and the proper relation between church and state. LEC.
ANTH 680. Culture and Human Biology. 3 Hours. S.
A lecture course concerned with the relationship between culture and biological systems; the prohibition of incest; socialization and aggression in ethnological studies; disease and therapy; and other alterations of mind and body states. LEC.

ANTH 684. Anthropology and the Health Sciences. 3 Hours. S.
Ecology of human health; cultural and social factors in the etiology of human diseases; social and cultural variables involved in health practices, programs, the organization of healing systems and the diagnostic process; the consequences of health innovations and medicotechnical apparatus. LEC.

ANTH 690. The Social Construction of the Self. 3 Hours. AE42/GE3H / S.
A seminar exploring concepts of the self as the product of variable social and cultural conditions. Consideration of dominant anthropological and interdisciplinary theories of the self and how the self is construed in various societies from Asia, the Pacific, and elsewhere. LEC.

ANTH 695. Cultural Ecology. 3 Hours. S.
Investigation of the interrelations between sociocultural systems and the natural environment, including a survey of major theories and descriptive studies. (Same as GEOG 670.) LEC.

ANTH 696. Language, Culture and Ethnicity in Prehistoric Eastern Europe. 3 Hours. S.
The course is for students who wish to understand the prehistory of Eastern Europe with special attention to the Slavs. The interdisciplinary course examines East European prehistory from the perspectives of archaeology and linguistics, considering also how ideologies have influenced the interpretation of results. No language prerequisite. (Same as SLAV 635) LEC.

ANTH 699. Anthropology in Museums. 3 Hours. S.
The course reviews the history of archeological, ethnographic, physical anthropological and other types of collections. It also considers current issues facing anthropologists, such as: contested rights to collections and the stories that accompany them; representation and interpretation of cultures; art and artifact; conceptualization, design and building of exhibitions; and anthropological research and education in the museum. LEC.

ANTH 701. History of Anthropology. 3 Hours.
Development of the field of anthropology and its relation with intellectual history. Emphasis on method and theory in historical context. Required of all M.A.-level students in anthropology. Prerequisite: Consent of instructor or graduate standing. LEC.

ANTH 702. Current Archaeology. 3 Hours.
An introduction to fundamental theoretical orientations and methodological approaches in world archaeology. Case studies illustrate data acquisition, dating methods, culture history, paleoenvironmental models, and culture processes. Required of all M.A.-level students in anthropology. Prerequisite: Consent of instructor or graduate standing. LEC.

ANTH 703. Current Biological Anthropology. 3 Hours.
The fundamental issues, methods, and theories in contemporary biological anthropology. Required of all M.A.-level students in anthropology. Prerequisite: Consent of instructor or graduate standing. LEC.

ANTH 704. Current Cultural Anthropology. 3 Hours.
The fundamental issues, methods, and theories in contemporary cultural anthropology and anthropological linguistics. Required of all M.A.-level students in anthropology. Prerequisite: Consent of instructor or graduate standing. LEC.

ANTH 705. Technological Change: _____. 3 Hours.
Studies in technological change through invention, evolution, and diffusion. Topic for semester to be announced. LEC.

ANTH 706. Current Linguistic Anthropology. 3 Hours.
This course will cover fundamental issues, methods, and theories in contemporary linguistic anthropology. (Same as LING 706.) Prerequisite: Graduate standing or consent of the instructor. LEC.

ANTH 707. Responsible Research and Scholarship in Anthropology. 3 Hours.
This course examines a range of issues critical to responsible research, scholarship, and practice in anthropology. Required for all doctoral students in Anthropology. Prerequisite: Graduate standing in anthropology or consent of instructor. SEM.

ANTH 710. History of American Archaeology. 3 Hours.
A survey of the development of method and theory in American archaeology, with emphasis on North America. Prerequisite: Graduate standing or consent of instructor. LEC.

ANTH 715. Seminar in North American Archaeology. 2-4 Hours.
In-depth examination of specific problems and issues in the study of archaeology in North America including the Arctic. Prerequisite: Graduate standing in Archaeology or instructor's consent. SEM.

ANTH 718. Seminar in Latin American Archaeology: _____. 3 Hours.
In-depth examination of specific problems and issues in the study of Precolumbian societies of Mesoamerica, Central America, and South America. Topic for semester to be announced. Prerequisite: ANTH 506, ANTH 508, and/or consent of instructor. LEC.

ANTH 720. Seminar in Old World Prehistory: _____. 2-4 Hours.
Studies of prehistoric cultures and their natural environments. Topic for semester to be announced. Prerequisite: Graduate standing in anthropology or consent of instructor. LEC.

ANTH 725. Introduction to Linguistic Science. 3 Hours.
An introduction to the theory and techniques of linguistic science for majors and others intending to do advanced work in linguistics and linguistic anthropology. Emphasis on the sound system, grammatical structure, and semantic structure of languages. Lectures and laboratory sessions. (Same as LING 700.) Not open to students who have taken ANTH/LING 106 or ANTH/LING 107. Prerequisite: Graduate standing. LEC.

ANTH 730. Linguistics in Anthropology. 3 Hours.
The study of language as it concerns anthropology. Language systems in relation to culture, language taxonomy, semantics, and linguistic analysis as an ethnographic tool. (Same as LING 730.) Prerequisite: Graduate standing. LEC.

ANTH 732. Discourse Analysis. 3 Hours.
This course focuses on linguistic frameworks for the analysis of discourse. Discourse is a linguistic system larger than the sentence (utterance), which connects and contextualizes speech and written text. This course focuses on current issues and theoretical frameworks in the analysis of discourse. Using oral and written data, students will examine how contexts influence and shape linguistic form. Topics covered include transcription systems, the structure and organization of different genres of language, and the performance of social actions, including stance-taking, framing, and the construction of identity. Students will also have an opportunity to perform discourse analytic research on the data of their choice. (Same as LING 732.) Prerequisite: ANTH 706 or permission of the instructor. LEC.
ANTH 733. Language, Gender and Sexuality. 3 Hours.
This course focuses on the complex relationship between language use and the social construction of gender and sexuality (i.e., how language is used in the construction of gender and sexuality, and how gender and sexuality are performed and enacted through language. Examines theoretical notions of language, gender, and sexuality from linguistics, linguistic anthropology, and sociolinguistics. Among the topics covered are cross-cultural definitions of masculinity and femininity, construction of gender and sexual identities through language use, language and power, ideologies, style, and performativity. The course will consider research on language, gender, and sexuality from a variety of cultures within the last 50 years. (Same as LING 733.) Prerequisite: ANTH 706 or permission of the instructor. LEC.

ANTH 734. Language Evolution. 3 Hours.
Human language demonstrates a level of complexity not found in the communicative systems of other species. This course focuses on the development of human language, so as to obtain a better understanding of the origin and development of human language. Questions addressed include: what features of language are distinct from other communicative systems, when did human language originate, in what stages did human language evolve, and how does language relate to properties of the human brain and mind? Data from a variety of disciplines will be considered, including primatology, human development, cognition, evolutionary biology, archaeology, and linguistics. (Same as LING 734.) Prerequisite: ANTH 106 or ANTH 107 or LING 106 or LING 107 or ANTH 736 or LING 708 or ANTH 725. LEC.

ANTH 736. Linguistic Analysis. 3 Hours.
Practice in applying the techniques of phonological, grammatical, and syntactic analysis learned in introductory linguistics to data taken from a variety of languages of different structural types. (Same as LING 708.) Prerequisite: An introductory course in linguistics. Not open to students who have taken LING 308. LEC.

ANTH 740. Linguistic Data Processing. 3 Hours.
The tools and techniques necessary to analyze linguistic fieldwork data, including research design, recording and elicitation techniques, computational data processing and analysis, and field ethics. Techniques of research, field recording, and data analysis technology. Methods of phonetic transcription, grammatical annotation, and analysis of language context. Practice of techniques via short studies of at least one language. (Same as LING 740.) Prerequisite: LING 700 or permission of instructor. LEC.

ANTH 741. Field Methods in Linguistic Description. 3 Hours.
The elicitation and analysis of phonological, grammatical, and discourse data from a language consultant. In-depth research on one language. Techniques of research design, methods of phonetic transcription, grammatical annotation, and analysis of language context. (Same as LING 741.) Prerequisite: LING 706 or permission of instructor. LEC.

ANTH 743. Nutritional Anthropology: Methods and Theory. 3 Hours.
This is an intensive course aimed explicitly at graduate students whose research involves some aspect of human dietary behavior (foodways) and human nutrition. It examines the application of both biological and cultural theory to the study of human nutrition and cross-population variation in nutritional strategies and dietary practices. Topics include, among others, the evolution of human nutrition, environment and nutrition, nutritional epigenetics, effects of food scarcity, the cultural meanings of food, food as metaphor, and food and language. A second emphasis of the course is on field methods in nutritional anthropology, including dietary interviews, observation of dietary behaviors, nutritional and anthropometric assessment, nutrient analysis and ever-expanding field methods in nutritional ecology (nutritional endocrinology, physiology and genetics). Ethical issues in nutritional anthropology also are considered. Prerequisite: Graduate student status or permission from instructor. LEC.

ANTH 747. North American Indian Languages. 3 Hours.
Introduction to the nature and distribution of North American Indian languages. Prerequisite: ANTH 306 or ANTH 430 or ANTH 730. LEC.

ANTH 748. Language Contact. 3 Hours.
Theories and case studies of languages in contact. Areal and genetic linguistics, genesis of pidgins and creoles, multilingualism. Social, political, economic, and geographic factors in language change. (Same as LING 748.) Prerequisite: A course in linguistics. LEC.

ANTH 749. Linguistics and Ethnolinguistics of China and Central Asia: ____. 3 Hours.
Selected topics in linguistics and linguistic anthropology, focusing on dominant and/or minority languages of China, Central Asia, or a particular region of Central and Eastern Eurasia. Topics may include any subfield of linguistics, including language contact, typology, dialectology, and sociolinguistics. Topic for semester to be announced. (Same as LING 749.) Prerequisite: A course in linguistics. LEC.

ANTH 754. Biological Bases of Human Behavior. 3 Hours.
The role of behavioral genetics in normal behavior is examined in this seminar. There is special emphasis on the genetics of complex human behavior such as sensory perception, aggression, intelligence, proxemics, kinesics, and learning. Several abnormal conditions, such as schizophrenia, chromosomal aberrations, alcoholism, and brain dysfunction are discussed in terms of the genetic and environmental interactions. LEC.

ANTH 756. Genetics of Isolates. 3 Hours.
The evolutionary effects of finite population size and reproductive isolation are discussed in this seminar. Stochastic processes, genetic distances, approaches to population structure, and measures of inbreeding are considered. Prerequisite: ANTH 652 or consent of instructor. LEC.

ANTH 759. Dental Anthropology. 3 Hours.
An intensive study of human teeth. Principles of eruption, growth, genetics, anatomy, pathologies, measurements, casting, and cultural changes in teeth will be presented. Prerequisite: Consent of instructor. LEC.

ANTH 761. Introduction to Medical Anthropology. 3 Hours. SC.
An introduction to the social and cultural practices that contribute to health and disease, including a survey of therapy systems in both Western and non-Western societies (e.g., Native American, African, Western allopathic medicine, etc.). This course should be of special interest to premedical students and majors in the allied health professions. Graduate version of ANTH 461 with more advanced requirements. Prerequisite: Graduate standing or consent of instructor. LEC.

ANTH 762. Human Growth and Development. 3 Hours.
Consideration of comparative physical growth patterns throughout the human life cycle. Sex and population differences in skeletal, dental, and sexual maturation. Effect of genetic and environmental factors upon growth and maturation. Prerequisite: An introductory course in biological anthropology or consent of instructor. LEC.

ANTH 764. Selected Topics in Human Paleontology: ____. 3 Hours.
Intensive, high-level survey and critique of the application of modern biological theory of evolution and taxonomy to the problems of primate and human evolution. Prerequisite: Consent of instructor. LEC.

ANTH 766. Topics in Biological Anthropology: ____. 3 Hours.
Topic for semester to be announced. Students may repeat the course for different topics. Prerequisite: Consent of instructor. LEC.
ANTH 769. Seminar in Primate Studies. 3 Hours.
Survey of field and laboratory investigations of the comparative anatomy and behavior of nonhuman primates. LEC.

ANTH 770. Research Methods in Physical Anthropology. 3 Hours.
A practical course in the use of special laboratory techniques of biological anthropological research and methods of data presentation. Prerequisite: Consent of instructor. LAB.

ANTH 775. Seminar in Cultural Anthropology: ______. 3-9 Hours.
Intensive consideration of special problems in cultural anthropology. Topic for semester to be announced. LEC.

ANTH 778. Seminar in Applied Cultural Anthropology. 3 Hours. S.
Selected problems in applying anthropological theory, methods, and findings in programs of directed change. FLD.

ANTH 780. Social Organization. 3 Hours.
Comparative analysis of the structure, development, and function of human social groups. Emphasis on kinship, legal, economic, and political institutions. Prerequisite: Graduate standing or consent of instructor. LEC.

ANTH 781. Symbolic Anthropology. 3 Hours.
An examination of anthropological approaches to religion, world view, and other symbol systems in simple and complex societies. Prerequisite: Graduate standing or consent of instructor. LEC.

ANTH 783. Doing Ethnography. 3 Hours.
Ethnography is both process and product. The product, a representation of a culture (or selected aspects of a culture), is based on fieldwork, the common term for the ethnographic process. This course explores how ethnographers prepare for the field, do their fieldwork, then report it. LEC.

ANTH 785. Topics in Ethnology: ______. 3 Hours.
Topic for semester to be announced. Usually the course will focus on selected problems in the social and cultural life of a people in a particular geographic region of the world. Coverage will include both the classical ethnological literature as well as special issues of current concern. Students may repeat the course for different topics. Prerequisite: Graduate standing or consent of instructor. LEC.

ANTH 786. Ethnographic Documentary Production. 3 Hours.
This course combines classroom and fieldwork in applications of theories, ethics, and methods of visual representation. Students carry out team-based ethnographic fieldwork projects through which they learn about pre-production, video production, and nonlinear post-production of ethnographic video documentaries. Prerequisite: Successful completion of ANTH 564 or permission of instructor. LEC.

ANTH 788. Symbolic Systems: ______. 3 Hours.
Anthropological approaches to the study of worldview, religion, folklore, myth, art, and other expressive behavior. Topic for the semester to be announced. Prerequisite: Graduate standing or consent of instructor. LEC.

ANTH 789. Anthropology of Gender: Advanced Seminar in the Four Fields. 3 Hours.
This seminar is intended primarily for graduate students in anthropology or other disciplines that share an interest in any of the subdisciplines of anthropology (archaeology, linguistic anthropology, biological anthropology, and sociocultural anthropology) and/or anthropological theories and methods. Undergraduates pursuing Honors or other major research projects are also encouraged to participate. Students will receive training in the contemporary theories, research, and pedagogies informing the anthropology of gender. Class participants will explore how these materials interact with their current thesis or research projects and develop syllabi specific to their subdiscipline. (Same as WGSS 789.) Prerequisite: Permission of instructor. LEC.

ANTH 794. Material Culture. 3 Hours.
The historical and cross-cultural study of artifacts as embodiments of technological, social, organizational, and ideological aspects of culture. LEC.

ANTH 799. Anthropology Museum Apprenticeship. 1-6 Hours.
Provides directed, practical experience in research, collection care and management, public education, and exhibits, with emphasis to suit the particular requirements of each student. Limit of six hours of credit for the M.A. degree. (Same as AMS 799, BIOL 799, GEOL 723, HIST 799, and MUSE 799.) FLD.

ANTH 810. Seminar in Ethnolinguistics: ______. 2-3 Hours.
An advanced study of the relations between language and culture. Subject will vary each semester; students may repeat the course more than once. (Same as LING 810.) LEC.

ANTH 811. Quantitative Archaeology. 3 Hours.
Instruction in statistical methods for analyzing quantitative data in archaeological research. Topics will include techniques for handling nominal, ordinal, and radio-scale variables, the collection and presentation of quantitative information, and the use of computers. Prerequisite: Graduate standing and college-level algebra and/or consent of instructor. LEC.

ANTH 849. Seminar in Archaeology: ______. 2-4 Hours.
Subject matter of seminar to be announced for semester. LEC.

ANTH 851. Data Analysis in Archaeology: ______. 1-6 Hours.
A two-semester course designed to provide graduate students with basic principles in the analysis of archaeological data. Course content will include an introduction to archaeological systematics, analytical procedures, application of multivariate statistics, and computer applications. Topic for semester to be announced. FLD.

ANTH 853. Theory and Current Problems in Archaeology. 3 Hours.
Consideration of scientific methodology, basic assumptions of anthropological archaeology, relationship of archaeology and anthropology, and current theoretical and methodological trends in archaeology. LEC.

ANTH 876. Advanced Medical Anthropology: ______. 3-6 Hours.
This course provides advanced training in selected aspects of medical anthropology; the topic for a particular semester will reflect the current interests of the instructor. It is expected that the course content will alternate between theoretical and applied emphases. May be repeated for a total of six hours credit. Prerequisite: ANTH 461 or consent of instructor. LEC.

ANTH 880. Advanced Feminist Anthropology: ______. 3-6 Hours.
Intensive consideration of special problems in feminist anthropology. Topic for the semester to be announced. May be repeated for a total of six hours credit. (Same as WGSS 880.) Prerequisite: Permission of instructor. LEC.

ANTH 889. Summer Archaeological Field Work. 1-8 Hours.
Under the direction of a professional archaeologist, undergraduate and graduate students are taught proper procedures for the excavation and laboratory analysis of data from a prehistoric or historic archaeological site. Data gathered may be used for additional graduate research. Enrollment by application; limited to twenty students. A fee for subsistence costs will be charged. FLD.

ANTH 890. Training in Archaeological Field Work. 1-6 Hours.
Graduate students are taught techniques of archaeological field work, including survey and excavation, as well as laboratory procedures, including artifact classification and curation. FLD.
ANTH 896. Graduate Research. 1-9 Hours.
Individual investigation of special problems in anthropology. Limit of six hours credit for the M.A. degree. RSH.

ANTH 897. Internship Research. 4-6 Hours.
Experiential learning in the application of anthropology through placement in business, government, community, research, or social service organization or agency. Students design and implement an anthropological project under faculty supervision. Prerequisite: Graduate standing in Anthropology. RSH.

ANTH 898. Internship Analysis. 1-6 Hours.
Experiential learning in the application of anthropology through placement in business, government, community, research, or social service organization or agency. This course is a sequel to ANTH 897. Students finish up any remaining research and deliver their findings to the client. They also prepare a written report and a verbal presentation for the Department of Anthropology. Prerequisite: ANTH 897 and Graduate standing in Anthropology. RSH.

ANTH 899. Master’s Thesis. 1-12 Hours.
Limit of six hours credit for the M.A. degree. Graded on a satisfactory/unsatisfactory basis. THE.

ANTH 996. Graduate Research. 1-9 Hours.
Individual investigation of special problems in anthropology. RSH.

ANTH 999. Doctoral Dissertation. 1-12 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

Bachelor of Arts and Bachelor of General Studies in Anthropology

Why study anthropology?
Because anthropology explains the diversity of humanity.

Undergraduate Admission

Admission to KU
All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

First- and Second-Year Preparation
To complete the requirements for the degree in 4 years, the department recommends the following:

1. Prospective majors should have completed all general education and language requirements no later than the end of the fall semester of the junior year.
2. Prospective majors should meet with the undergraduate advisor upon declaration of the major
   a. to assess their progress toward completing the degree in 4 years, and
   b. to develop a plan for their course work in their remaining semesters.
3. Prospective majors are advised to take required courses in part 1 before the junior year.

Requirements for the B.A. or B.G.S. Major
A minimum of 31-34 hours is required. The major offers a systematic introduction to each of the subdisciplines along with advanced training in specific areas. These normally are taken before moving on to upper-level courses. Students should select courses listed in part 2 in consultation with faculty advisors.

Anthropology Core Knowledge and Skills

Majors must complete a course in each of the following areas. Two should be at the 300 level.

Succeeding in Anthropology. (1)
Satisfied by:
ANTH 102 Succeeding in Anthropology 1
Fundamentals of Physical Anthropology (3)
Satisfied by one of the following:
ANTH 104 Fundamentals of Physical Anthropology
ANTH 105 Fundamentals of Physical Anthropology, Honors
ANTH 304 Fundamentals of Physical Anthropology
Introduction to Linguistics or Language in Culture & Society (3)
Satisfied by one of the following:
ANTH 106 Introductory Linguistics
ANTH 107 Introductory Linguistics, Honors
ANTH 320 Language in Culture and Society
ANTH 321 Language in Culture and Society, Honors
Introduction to Cultural Anthropology or the Varieties of Human Experience (3)
Satisfied by one of the following:
ANTH 108 Introduction to Cultural Anthropology
ANTH 109 Introduction to Cultural Anthropology, Honors
ANTH 308 Introduction to Cultural Anthropology
ANTH 160 The Varieties of Human Experience
ANTH 162 The Varieties of Human Experience, Honors
ANTH 360 The Varieties of Human Experience
Introduction to Archaeology (3)
Satisfied by one of the following:
**Anthropology Subdiscipline Required Electives**

Majors must complete a course in the following areas. Majors should consult with their academic advisor to select courses that best meet their interests.

- **Archaeology.** Satisfied by completing at least 1 course in archaeology from ANTH 313-319, ANTH 406-419, ANTH 500, ANTH 504-526, ANTH 604-619.
  - ANTH 313 New Discoveries in Archaeology 3
  - ANTH 315 The Prehistory of Art 3
  - ANTH 317 Prehistory of Europe 3
  - ANTH 318 Prehistory of Kansas 3
  - ANTH 406 Laboratory Techniques in Archaeology 3
  - ANTH 410 Archaeological Myths and Realities 3
  - ANTH 415 The Rise of Civilization 3
  - ANTH 418 Summer Archaeological Field Work 1-8
  - ANTH 419 Training in Archaeological Field Work 1-6
  - ANTH 500 Topics in Archaeology: _______ 3
  - ANTH 504 North American Archaeology 3
  - ANTH 505 Prehistory of Eastern North America 3
  - ANTH 506 Ancient American Civilizations: Mesoamerica 3
  - ANTH 507 The Ancient Maya 3
  - ANTH 508 Ancient American Civilizations: The Central Andes 3
  - ANTH 510 An Introduction to Southwestern Archaeology 3
  - ANTH 512 Ethnohistory: _______ 3
  - ANTH 514 The Near East in Prehistory 3
  - ANTH 515 Topics in Old World Prehistory: _______ 3
  - ANTH 516 Hunters and Gatherers 3
  - ANTH 517 Geoarchaeology 3
  - ANTH 518 Environment and Archaeology 3
  - ANTH 519 Lithic Technology 3
  - ANTH 520 Archaeological Ceramics 3
  - ANTH 521 Zooarchaeology 3
  - ANTH 522 Paleoethnobotany 3
  - ANTH 523 Great Plains Archaeology 3
  - ANTH 605 Mortuary Practices in the Archaeological Record 3
  - ANTH 619 Field Concepts and Methods in Geoarchaeology 3
  - ANTH 705 Technological Change: _______ 3
  - ANTH 710 History of American Archaeology 3
  - ANTH 715 Seminar in North American Archaeology 2-4
  - ANTH 718 Seminar in Latin American Archaeology: _______ 3
  - ANTH 720 Seminar in Old World Prehistory: _______ 2-4
  - ANTH 799 Anthropology Museum Apprenticeship 1-6

- **Biological Anthropology.** Satisfied by completing at least 1 course in biological anthropology: ANTH 340-359, ANTH 440-459, ANTH 503, ANTH 540-559, ANTH 640-659.
  - ANTH 340 Human Variation and Evolution 3
  - ANTH 341 Human Evolution 3
  - ANTH 350 Human Adaptation 3
  - ANTH 352 Controversies on the Living and the Dead 3
  - ANTH 359 Anthropology of Sex 3
  - ANTH 459 Anthropology of Sex, Honors 3
  - ANTH 440 Introduction to Primates 3
  - ANTH 442 Anthropological Genetics 3
  - ANTH 445 Topics in Biological Anthropology: _______ 3
  - ANTH 447 Human Behavioral Genetics 3
  - ANTH 449 Laboratory/Field Work in Human Biology 1-3
  - ANTH 503 Topics in Biological Anthropology: _______ 3
  - ANTH 555 Evolution of Human Diseases 3
  - ANTH 540 Demographic Anthropology 3
  - ANTH 542 Biology of Human Nutrition 4
  - ANTH 543 Anthropology of Food and Nutrition 3
  - ANTH 544 Origins of Native Americans 3
  - ANTH 545 Contemporary Health Issues in Africa 3
  - ANTH 549 Human Paleontology: Fossil Apes to Australopithecus 3
  - ANTH 550 Human Paleontology: Homo Erectus to Homo Sapiens 3
  - ANTH 648 Human Osteology 4
  - ANTH 650 Human Reproduction: Biology and Behavior 3
  - ANTH 652 Population Dynamics 3
  - ANTH 754 Biological Bases of Human Behavior 3
  - ANTH 756 Genetics of Isolates 3
  - ANTH 762 Human Growth and Development 3
  - ANTH 764 Selected Topics in Human Paleontology: _______ 3
  - ANTH 766 Topics in Biological Anthropology: _______ 3
  - ANTH 769 Seminar in Primate Studies 3
  - ANTH 770 Research Methods in Physical Anthropology 3

- **Sociocultural Anthropology.** Satisfied by completing at least 1 course in sociocultural or linguistic anthropology that does not have a specific geographical focus from: ANTH 301, ANTH 322-339, ANTH 361-395, ANTH 420-439, ANTH 460-495, ANTH 501-ANTH 502, ANTH 527-539, ANTH 560-ANTH 595, ANTH 620-639, ANTH 660-ANTH 695.
  - ANTH 301 Anthropology Through Films 3
  - ANTH 320 Language in Culture and Society 3
  - ANTH 321 Language in Culture and Society, Honors 3
  - ANTH 361 The Third World: Anthropological Approaches 3-4
  - ANTH 389 The Anthropology of Gender: Female, Male, and Beyond 3
  - ANTH 415 The Rise of Civilization 3
  - ANTH 430 Linguistics in Anthropology 3
  - ANTH 460 Theory in Anthropology 3
  - ANTH 461 Introduction to Medical Anthropology 3
  - ANTH 465 Genocide and Ethnocide 3
  - ANTH 474 Applied Cultural Anthropology 3
  - ANTH 480 Technology and Society in the Contemporary World 3
ANTH 482 Psychological Anthropology 3
ANTH 484 Magic, Science, and Religion 3
ANTH 498 Seminar in Technology: ______ 3
ANTH 501 Topics in Sociocultural Anthropology: ______ 3
ANTH 502 Topics in Anthropological Linguistics: ______ 3
ANTH 545 Contemporary Health Issues in Africa 3
ANTH 560 Introduction to Economic Anthropology 3
ANTH 570 Anthropology of Violence 3
ANTH 571 Violence, Aggression, and Terrorism in the Modern World 3
ANTH 580 Feminism and Anthropology 3
ANTH 582 Ethnobotany 3
ANTH 583 Love, Sex, and Globalization 3
ANTH 586 Visual Anthropology 3
ANTH 595 The Colonial Experience 3
ANTH 603 Shamanism Past and Present 3
ANTH 660 Human Reproduction: Culture, Power, and Politics 3
ANTH 661 Cultural Dynamics 3
ANTH 663 The Anthropology of Islam 3
ANTH 664 Women, Health, and Healing in Africa 3
ANTH 665 Women, Health, and Healing in Latin America 3
ANTH 666 Anthropology of Religion 3
ANTH 667 Primitive Mythology 3
ANTH 673 Neoliberalism and Globalization 3
ANTH 674 Political Anthropology 3
ANTH 675 Anthropology of Law 3
ANTH 676 Culture Wars 3
ANTH 680 Culture and Human Biology 3
ANTH 684 Anthropology and the Health Sciences 3
ANTH 690 The Social Construction of the Self 3
ANTH 695 Cultural Ecology 3
ANTH 696 Language, Culture and Ethnicity in Prehistoric Eastern Europe 3

• Geographic Area. Satisfied by completing at least 1 course in any sub-discipline of anthropology that focuses on a specific geographic area.

ANTH 303 Peoples and Cultures of North Africa and the Middle East 3
ANTH 317 Prehistory of Europe 3
ANTH 318 Prehistory of Kansas 3
ANTH 362 Peoples of Southeast Asia 3
ANTH 363 Gendered Modernity in East Asia 3
ANTH 364 Peoples of Japan and Korea 3
ANTH 365 Japanese People through Film 3
ANTH 366 The Life Cycle in Japanese Culture and Literature 3
ANTH 368 The Peoples of China 3
ANTH 370 Peoples and Cultures of the Pacific 3
ANTH 372 Religion, Power, and Sexuality in Arab Societies 3
ANTH 376 North American Indians 3
ANTH 379 Indigenous Traditions of Latin America 3

ANTH 380 Peoples of South America 3
ANTH 382 People and the Rain Forest 3
ANTH 504 North American Archaeology 3
ANTH 505 Prehistory of Eastern North America 3
ANTH 506 Ancient American Civilizations: Mesoamerica 3
ANTH 507 The Ancient Maya 3
ANTH 508 Ancient American Civilizations: The Central Andes (NW / S / W) 3
ANTH 510 An Introduction to Southwestern Archaeology (NW / S) 3
ANTH 512 Ethnohistory: ______ 3
ANTH 514 The Near East in Prehistory 3
ANTH 544 Origins of Native Americans 3
ANTH 545 Contemporary Health Issues in Africa 3
ANTH 562 Mexamerica 3
ANTH 563 Cultural Diversity in the United States 3
ANTH 564 The Peoples of Africa 3
ANTH 565 Popular Images in Japanese Culture, Literatures, and Films 3
ANTH 567 Japanese Ghosts and Demons 3
ANTH 568 Kongo Trans-Atlantic 3
ANTH 665 Women, Health, and Healing in Latin America 3
ANTH 670 Contemporary American Culture 3
ANTH 671 The Culture of Consumption: (E.G. United States and Japan) 3
ANTH 672 Meat and Drink in America 3
ANTH 696 Language, Culture and Ethnicity in Prehistoric Eastern Europe 3
ANTH 707 Responsible Research and Scholarship in Anthropology 3
ANTH 715 Seminar in North American Archaeology 2-4
ANTH 718 Seminar in Latin American Archaeology: ______ 3
ANTH 720 Seminar in Old World Prehistory: ______ 2-4
ANTH 736 Linguistic Analysis 3
ANTH 740 Linguistic Data Processing 3
ANTH 741 Field Methods in Linguistic Description 3
ANTH 747 North American Indian Languages 3
ANTH 748 Language Contact 3
ANTH 749 Linguistics and Ethnolinguistics of China and Central Asia: ______ 3
ANTH 786 Ethnographic Documentary Production 3
ANTH 788 Symbol Systems: ______ 3
ANTH 789 Anthropology of Gender: Advanced Seminar in the Four Fields 3
ANTH 794 Material Culture 3
ANTH 797 North American Indian Languages 3
ANTH 799 Linguistics and Ethnolinguistics of China and Central Asia: ______ 3
ANTH 785 Topics in Ethnology: ______ 3

• Capstone Experience

ANTH 401 Integrating Anthropology 3
Students considering graduate school should take at least 2 courses beyond major requirements. These should be selected in consultation with a faculty advisor.

**Anthropology Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade point average minimum standards:

**Major Hours**
Satisfied by 31-34 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 12 hours of KU resident credit in the major.

**Major Junior/Senior (300+) Hours**
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior (300+) Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Graduation Plan**
With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please contact the Anthropology department for details.

**Departmental Honors**
To qualify for honors, an undergraduate must achieve an in-residence and combined minimum grade-point average of 3.25 overall and 3.5 in anthropology. Students must file a declaration of intent form with the instructor with whom they choose to work. In addition to the required hours, the student must enroll in 3 to 6 hours of ANTH 499 Senior Honors Research and complete a senior thesis based on this work. It is recommended that all candidates make an oral presentation of their research results. One copy of the thesis must be bound and placed in the departmental thesis library.

**Minor in Anthropology**

**Why study anthropology?**
Because anthropology explains the diversity of humanity.

**Requirements for the Minor**
Students pursuing an anthropology minor must complete one of the following options:

**Option I**
Students selecting this option must complete 2 of the following:

**Biological Anthropology (9-10)**
Satisfied by:
Select one of the following fundamentals courses: 3-4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 104</td>
<td>Fundamentals of Physical Anthropology</td>
</tr>
<tr>
<td>ANTH 105</td>
<td>Fundamentals of Physical Anthropology, Honors</td>
</tr>
<tr>
<td>ANTH 304</td>
<td>Fundamentals of Physical Anthropology</td>
</tr>
<tr>
<td>Two courses from ANTH 340-ANTH 359, ANTH 440-ANTH 459, ANTH 503, ANTH 540-ANTH 559, ANTH 640-ANTH 659</td>
<td>6</td>
</tr>
</tbody>
</table>

**Linguistics (9)**
Satisfied by:
Select one of the following introduction courses: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ANTH 106</td>
<td>Introductory Linguistics</td>
</tr>
<tr>
<td>ANTH 107</td>
<td>Introductory Linguistics, Honors</td>
</tr>
<tr>
<td>ANTH 320</td>
<td>Language in Culture and Society</td>
</tr>
<tr>
<td>ANTH 321</td>
<td>Language in Culture and Society, Honors</td>
</tr>
<tr>
<td>Two courses from ANTH 322-ANTH 339, ANTH 502, ANTH 420-ANTH 439, ANTH 527-ANTH 539, ANTH 620-ANTH 639</td>
<td>6</td>
</tr>
</tbody>
</table>

**Sociocultural Anthropology (9-10)**
Satisfied by:
Select one of the following: 3-4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ANTH 108</td>
<td>Introduction to Cultural Anthropology</td>
</tr>
<tr>
<td>ANTH 109</td>
<td>Introduction to Cultural Anthropology, Honors</td>
</tr>
<tr>
<td>ANTH 160</td>
<td>The Varieties of Human Experience</td>
</tr>
<tr>
<td>ANTH 162</td>
<td>The Varieties of Human Experience, Honors</td>
</tr>
<tr>
<td>ANTH 308</td>
<td>Introduction to Cultural Anthropology</td>
</tr>
<tr>
<td>ANTH 360</td>
<td>The Varieties of Human Experience</td>
</tr>
<tr>
<td>Two courses from ANTH 361-ANTH 395, ANTH 501, ANTH 460-ANTH 495, ANTH 560-ANTH 595, ANTH 660-ANTH 695</td>
<td>6</td>
</tr>
</tbody>
</table>

**Archaeology (9-10)**
Satisfied by:
Select one of the following introductory courses: 3-4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ANTH 110</td>
<td>Introduction to Archaeology</td>
</tr>
<tr>
<td>ANTH 111</td>
<td>Introduction to Archaeology, Honors</td>
</tr>
<tr>
<td>ANTH 310</td>
<td>Introduction to Archaeology</td>
</tr>
<tr>
<td>Two courses from ANTH 311-ANTH 319, ANTH 500, ANTH 406-ANTH 419, ANTH 504-ANTH 526, ANTH 604-ANTH 619</td>
<td>6</td>
</tr>
</tbody>
</table>

**Option II**
Students selecting this option must complete two of the following areas:

**General Anthropology (3)**
Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 100</td>
<td>General Anthropology</td>
</tr>
<tr>
<td>or ANTH 300</td>
<td>General Anthropology</td>
</tr>
</tbody>
</table>

**Anthropology Required Electives (15)**
Satisfied by at least four courses numbered from ANTH 313 to ANTH 695, excluding ANTH 360
One of the five may be any one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 104</td>
<td>Fundamentals of Physical Anthropology</td>
</tr>
<tr>
<td>ANTH 105</td>
<td>Fundamentals of Physical Anthropology, Honors</td>
</tr>
<tr>
<td>ANTH 106</td>
<td>Introductory Linguistics</td>
</tr>
<tr>
<td>ANTH 108</td>
<td>Introduction to Cultural Anthropology</td>
</tr>
<tr>
<td>ANTH 109</td>
<td>Introduction to Cultural Anthropology, Honors</td>
</tr>
<tr>
<td>ANTH 110</td>
<td>Introduction to Archaeology</td>
</tr>
<tr>
<td>ANTH 111</td>
<td>Introduction to Archaeology, Honors</td>
</tr>
<tr>
<td>ANTH 160</td>
<td>The Varieties of Human Experience</td>
</tr>
</tbody>
</table>


ANTH 162  The Varieties of Human Experience, Honors
ANTH 304  Fundamentals of Physical Anthropology
ANTH 308  Introduction to Cultural Anthropology
ANTH 310  Introduction to Archaeology
ANTH 360  The Varieties of Human Experience

Minor Hours & GPA
While completing all required courses, majors must also meet each of the following hour and grade point average minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 hours of junior/senior (300+) hours of KU resident credit in the minor.

Minor Junior/Senior Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 GPA in all departmental courses in the minor. GPA calculations include all departmental courses in the field of study including Fs and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Master of Arts in Anthropology
Why study anthropology?
Because anthropology explains the diversity of humanity.

Admission to Graduate Studies
An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission to the Anthropology Program
The Anthropology graduate program only admits ‘degree-seeking’ applicants. The Graduate Record Examination is recommended but not required for admission; however, to be considered for university fellowships (GTA appointment), GRE scores are required. The graduate program begins at an advanced level. Preparation for the program through completion of an undergraduate major in anthropology is encouraged but not required. Some undergraduate preparation in fields closely related to anthropology, such as biology, sociology, psychology, linguistics, economics, geography, or geology, is strongly recommended. Undergraduate courses in such subjects as biology, philosophy, genetics, computer science, and history are of considerable value to the graduate student in anthropology. Proficiency in a modern foreign language and in statistics is of special importance to candidates for graduate work in anthropology and should be acquired during the undergraduate years. All students entering the program with a bachelor’s degree must enroll in the M.A. program. Admission to the Ph.D. program is ordinarily contingent upon completion of the master’s degree in anthropology. A student with a master’s degree in anthropology from another institution may apply directly to the Ph.D. program.

Submit your graduate application online (http://www.graduate.ku.edu).

M.A. Degree Requirements
The M.A. program is a general curriculum for students who wish to enter the Ph.D. program in anthropology or who plan to pursue graduate studies only to the M.A. level. Formal requirements for the M.A. include

1. Completion of 30 credit hours of graduate work in anthropology and related disciplines including
Select three of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 701</td>
<td>History of Anthropology</td>
</tr>
<tr>
<td>ANTH 702</td>
<td>Current Archaeology</td>
</tr>
<tr>
<td>ANTH 703</td>
<td>Current Biological Anthropology</td>
</tr>
<tr>
<td>ANTH 704</td>
<td>Current Cultural Anthropology</td>
</tr>
<tr>
<td>ANTH 706</td>
<td>Current Linguistic Anthropology</td>
</tr>
</tbody>
</table>

2. Completion of the subdiscipline requirements;
3. Completion of the M.A. thesis, non-thesis (research paper accepted for publication or an internship report), or M.A. non-thesis coursework equivalent; and
4. Passing the final M.A. examination.

Handbook for Graduate Students
Detailed information, application deadlines, and general information may be found in the Graduate Student Handbook, available on the Anthropology Graduate website (http://anthropology.ku.edu/academics/grad.shtml).

Doctor of Philosophy in Anthropology
Why study anthropology?
Because anthropology explains the diversity of humanity.

For specific questions about our program, please contact us:
The University of Kansas
Department of Anthropology
Graduate Programs
1415 Jayhawk Blvd.,
622 Fraser Hall
Lawrence, KS 66045
E-mail: kuanthro@ku.edu
Phone: (785) 864-2630
Fax: (785) 864-5224
Admission to Graduate Studies

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Proficiency in a modern foreign language and in statistics is of special importance to candidates for graduate work in anthropology and should be acquired during the undergraduate years. All students entering the program with a bachelor’s degree must enroll in the M.A. program. Admission to the Ph.D. program is ordinarily contingent upon completion of the master’s degree in anthropology. A student with a master’s degree in anthropology from another institution may apply directly to the Ph.D. program.

Submit your graduate application online (http://www.graduate.ku.edu).

Ph.D. Degree Requirements

The Ph.D. in anthropology is awarded to candidates who have demonstrated specialized competence in one or more of the general fields and who have contributed to the body of knowledge and theory in the specialized field through independent, original research.

Research Skills & Responsible Scholarship Requirement (RSRS)

The Graduate Studies’ policy on Research Skills and Responsible Scholarship also requires the following:

1. Every doctoral student is required to have training in responsible scholarship pertinent to the field of research.
2. Every doctoral student is required to obtain research skills pertinent to the doctoral level of research in their field(s).

Languages or other research skills used to satisfy the RSRS requirement must be approved by the student’s committee. Since these are research skills, students are advised to master them early in the program, so they may be utilized in further course work, independent study, and research. The aspirant must satisfy 1 of the following options before taking the comprehensive exams:

- Demonstrate a comprehensive reading and speaking knowledge of one foreign language relevant to the student’s research interests, in which there exists a significant research literature in anthropology.
- Demonstrate proficiency in the reading of 1 foreign language relevant to the student’s research interests, in which there exists significant research literature in anthropology.

Foreign students may use their native language to fulfill this option only if the language is considered to be an adequate research tool for their program.

- Demonstrate proficiency in the reading of 2 foreign languages relevant to the student’s research interests, in which there exists significant research literature in anthropology.
- Demonstrate proficiency in the reading of 1 foreign language relevant to the student’s research interests, in which there exists significant research literature in anthropology, and competence in another research skill relevant to the student’s special research requirements in anthropology. This latter requirement may be satisfied by knowledge of a language in which there is no written research literature, but which the student will employ in fieldwork.

- Demonstrate competence in 2 research skills relevant to the student’s special research requirements in anthropology.

This policy is effective for all doctoral students admitted fall 2011 or later.

Doctoral students in anthropology must pass the following course. Master’s students are encouraged to take it as well.

ANTH 707 Responsible Research & Scholarship in Anthropology (3). This course examines a range of issues critical to responsible research, scholarship, and practice in anthropology. Topics include: anthropological codes of ethics; protection of human subjects, informed consent, and confidentiality; appropriate conduct in field and laboratory research; data management, curation, and dissemination; proper protocols for authorship, submission of publications, and peer review; classified and proprietary research; mentor-student relationships; professional collaborations. Prerequisite: Graduate standing in anthropology or consent of instructor. Required for all doctoral students in anthropology.

Upon completion of a RSRS requirement, the student and advisor must notify the graduate coordinator, who will enter it in the student’s permanent record and notify the College Office of Graduate Affairs.

Residence Requirement

2 semesters, normally consecutive, or 1 semester and 1 summer session must be spent in resident study at KU.

Field Statements

Students must become thoroughly familiar with the literature pertinent to their specializations and doctoral research problems. The student who submits field statements is asserting that he or she has achieved competence in limited areas defined by the subdiscipline, as demonstrated by bibliographies and written treatments of the research problems in those areas. The comprehensive examinations are based on the areas specified in the field statements.

Written and Oral Comprehensive Examinations

The student’s doctoral committee devises and judges the written comprehensive examinations, which may be taken either together or
at different times. If the committee is satisfied with the caliber of the student's field statements and written examinations, they may schedule the oral comprehensive examination, providing all other requirements have been fulfilled.

**Dissertation Proposal**

From the beginning of doctoral study, the student should plan to conduct a doctoral dissertation project. This is an independent piece of research, usually requiring fieldwork, and leading to a dissertation that contributes to anthropological knowledge.

**Defense of the Dissertation**

When the dissertation is accepted by the dissertation committee, a final oral examination is held.

**Handbook for Graduate Students**

Detailed information, application deadlines, and general information may be found in the Graduate Student Handbook, available on the Anthropology Graduate website (http://anthropology.ku.edu/academics/grad.shtml).

**Department of Applied Behavioral Science**

**Why study applied behavioral science?**

Because a science can solve relevant problems — individual and societal, local and global.

**Affiliated Research and Training Programs**

For information about the Schiefelbusch Institute for Life Span Studies, Juniper Gardens Children’s Project, the Research and Training Center for Independent Living, the KU Work Group for Health Promotion and Community Development, and the Kansas Intellectual and Developmental Disabilities Research Center, visit the KU Life Span Institute (http://www.lsi.ku.edu). For information about Clinical Child Psychology, visit the program’s website (http://clchild.ku.edu).

For information about the Center for Applied Behavioral Economics, Edna A. Hill Child Development Center, and the Performance Management Laboratory, visit the ABS department website (http://www.absc.ku.edu/graduate/research-groups.shtml).

**Undergraduate Programs**

The department teaches undergraduates to understand behavior and solve societal problems through evidence-based practice and critical thinking in applied behavioral science. Areas of application include early childhood education and intervention, developmental disabilities, delinquency and juvenile justice, independent living and rehabilitation, physical disabilities, health promotion and community development, organizational behavior management, and basic research and conceptual foundations.

Introductory and core courses provide a sequence of instruction in

1. The basic principles of behavior;
2. Applications of these principles for solving problems of individual and societal importance;
3. Rules of evidence for data-based decision-making in solving these problems; and
4. The conceptual, comparative, and historical foundations of modern behavioral science. Specialty courses instruct students further about the contexts of application at the individual, family, and community levels.

Recommended courses in other departments and schools provide students with an even broader appreciation for the diversity of society's problems and an interdisciplinary perspective on their solutions (e.g., biology, psychology, sociology, political science, social welfare, special education). A practicum in the senior year integrates course requirements with supervised training or research experience.

All 100-level ABSC courses are open to nonmajors. Each fulfills a College principal course distribution requirement in the social sciences for either individual behavior or public affairs; ABSC 310/ABSC 311 also fulfills the public affairs requirement. Courses numbered from 200 to 674 are open to nonmajors who have the prerequisites. Practicum courses numbered ABSC 675 and higher are restricted to majors unless students have the instructor’s permission.

**Graduate Programs**

The department’s graduate programs train scientist-practitioners and researchers in the discovery and production, translation and application, and communication of knowledge in the behavioral sciences for understanding and solving problems of individual and social importance, locally and globally. For this, the department offers a Master of Arts degree in applied behavioral science and a Doctor of Philosophy degree in behavioral psychology. In both degree programs, the department requires a sequence of courses that integrates the basic principles of behavior, experimental methods and research design, and conceptual foundations with training in basic, applied and intervention, and prevention research. Among the areas of application are adolescence, autism, community health and development, developmental disabilities, early childhood, family enhancement, organizational behavior management, and independent living. Other areas are described in the graduate application materials available from the department and on the website (http://www.absc.ku.edu).

Founded in 1964, the department has played a leading role in developing and advancing applications of behavioral science. In 1968, it founded the Journal of Applied Behavior Analysis (http://seab.envmed.rochester.edu/jaba). In 2000, it received the award for Enduring Programmatic Contributions to Behavior Analysis from the Society for the Advancement of Behavior Analysis (http://www.abainternational.org/saba). Our graduate programs are accredited by the Association for Behavior Analysis International (http://www.abainternational.org), and our graduate curriculum is approved by the Behavior Analysis Certification Board (http://www.bacb.com).

**Courses**

**ABSC 100. Introduction to Applied Behavioral Science. 3 Hours. SI GE11/GE33 / S.**

An introduction to the principles of behavioral science and their application to problems facing contemporary societies (e.g., autism, public health, education, juvenile delinquency, substance abuse). Students will learn
how behavioral scientists analyze human behavior and how these analyses are used to inform interventions. Students will also learn about careers in the behavioral sciences and how to pursue them. Course may be offered in lecture or online format. LEC.

**ABSC 101. Introduction to Applied Behavioral Science, Honors. 3 Hours. SI / S.**

This course introduces students to the principles of scientific inquiry in applied behavioral science: objectivity, definitions, observation, reliability, validity, correlation and its limitations, causation, experimental design and analysis, and the interpretation of data. These principles are presented in the context of solving individual and societal problems across the lifespan, for example, in early childhood education, public health, developmental disabilities (e.g., autism), delinquency, independent living for people with disabilities, educational systems, and gerontology. Open only to students in the University Honors Program. LEC.

**ABSC 140. Introduction to Principles of Behavior. 3 Hours. SI / S.**

An introduction to rationales, methods, and findings resulting from the empirical study of human behavior. Readings, lectures, videos, and classroom demonstrations are used to illustrate various principles of behavior and techniques of application. These principles are organized into a general theory of human conduct that is contrasted with alternative explanations of human behavior. Students learn basic principles of scientific method and their implications for behavioral science and human affairs. (Formerly HDFL 140.) LEC.

**ABSC 150. Community Leadership. 3 Hours. SF AE51 / S.**

An introduction to analysis, intervention, evaluation, and leadership in contemporary problems facing local communities. Readings, lectures, and service-learning activities enable students to understand community problems and how citizens and professionals can address them. (Formerly HDFL 150.) LEC.

**ABSC 151. Community Leadership, Honors. 3 Hours. SF AE51 / S.**

An introduction to analysis, intervention, evaluation, and leadership in contemporary problems facing local communities. Readings, lectures, and service-learning activities enable students to understand community problems and how citizens and professionals can address them. Open only to students in the University Honors Program. (Formerly HDFL 151.) LEC.

**ABSC 160. Introduction to Child Behavior and Development. 3 Hours. SI GE53 / S.**

An introduction to child behavior and development with an emphasis on the normal developmental range of growth, intelligence, cognition, emotion, language, and social skills from birth to adolescence. (Formerly HDFL 160.) LEC.

**ABSC 177. First Year Seminar: ______. 3 Hours. GE11 / U.**

A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Applied Behavioral Science. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**ABSC 268. Introduction to Marriage and Family Relations. 3 Hours. S.**

This course focuses on the family unit and the factors that affect its development. Topics include dating and cohabitation; family and lifestyle diversity; parental roles and child development; divorce and stepfamilies. The course emphasizes research related to these issues. (Formerly HDFL 288.) LEC.

**ABSC 279. Study Abroad Topics in: ______. 1-5 Hours. S.**

A course designed to enhance international experience in topic areas related to applied behavioral science at the freshman/sophomore level.

Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if the content differs. Prerequisite: Department permission. LEC.

**ABSC 304. The Principles and Procedures of Behavior Modification and Therapy. 3 Hours. GE3S / S.**

An advanced examination of the principles of applied behavior analysis as used to address problems in developmental disabilities, childhood autism, language development, early childhood education, with adolescent and family life, and in normal everyday adult behavior. Issues in measurement, design, and evaluation of the effects of applied behavior analysis procedures and ethical implications of the use of these procedures are examined. Procedures used to teach and maintain appropriate behaviors, eliminate inappropriate behaviors, and develop comprehensive behavioral intervention programs are described. (Formerly HDFL 304.) Prerequisite: ABSC 100/101 or ABSC/HDFL 140. LEC.

**ABSC 308. Research Methods and Application. 4 Hours. GE11 / S.**

Examines research methods used to identify, describe, understand, and intervene on socially important problems occurring across the life span (e.g., early childhood, adolescence, elders) and in varied settings (homes, classrooms, group-care facilities, and communities). Discusses research methods and concepts (e.g., prediction, experimental control, reliability, validity) within scientific, psychological, and behavior-analytic frameworks. Presents strategies and tactics regarding descriptive and experimental methods, direct and indirect measurement, graphical and statistical analysis, and single-subject and group experimental designs. Examines ethics and social responsibility in research. Provides opportunities to read primary and secondary sources, develop research questions, write and present research proposals, and assist in the conduct of research projects. (Formerly HDFL 308.) Prerequisite: ABSC/HDFL 140 or ABSC/HDFL 304. LEC.

**ABSC 310. Building Healthy Communities. 3 Hours. SF AE51 / S.**

This course teaches knowledge and skills for addressing issues in community health and development (e.g., substance abuse, adolescent pregnancy, child and youth development, prevention of violence). Students learn core competencies such as analyzing community problems and goals, strategic planning, intervention, and evaluation. In a service-learning component, students apply these skills to issues that matter to them and to the communities they serve. (Formerly HDFL 310.) LEC.

**ABSC 311. Building Healthy Communities, Honors. 3 Hours. SF AE51 / S.**

This course teaches knowledge and skills for addressing issues in community health and development (e.g., substance abuse, adolescent pregnancy, child and youth development, prevention of violence). Students learn core competencies such as analyzing community problems and goals, strategic planning, intervention, and evaluation. In a service-learning component, students apply these skills to issues that matter to them and to the communities they serve. (Formerly HDFL 311.) Prerequisite: Open only to students in the University Honors Program. LEC.

**ABSC 342. Adult Development and Aging. 3 Hours. S.**

An overview of environmental, cultural, and biological influences of adult development and aging. Course material is organized in terms of topics, rather than presenting a chronological account. (Formerly HDFL 342.) Prerequisite: ABSC 100/101, ABSC/HDFL 140, ABSC/HDFL 150/151, or ABSC/HDFL 160. LEC.

**ABSC 350. The Behavioral Treatment of Children with Autism. 3 Hours. S.**

Students learn about methods of teaching children with autism and about evaluating those methods. Topics include: basic methods of teaching as applied to imitation, productive and receptive language, self-help
skills, and engagement in community activities, as well as observation and measurement of behavior in community settings and evaluating consumer satisfaction. The course consists of classroom lectures, discussions, demonstrations, examinations, and completion of laboratory and observation assignments. Enrollment priority is given to majors who intend to do practicum work with children with autism. (Formerly HDFL 350.) Prerequisite: ABSC/HDFL 304 or instructor permission. LEC.

**ABSC 356. Foundations of Early Childhood Education. 3 Hours. S.**
This course introduces students to the field of early childhood education. Contemporary perspectives and professional practices are examined through an analysis of historical and philosophical ideologies. (Formerly HDFL 356.) Prerequisite: ABSC/HDFL 160 or instructor permission. LEC.

**ABSC 360. Drugs, Addiction, and Behavior. 3 Hours. S.**
This course offers an overview of the basic and applied research in behavioral pharmacology and addictions, as well as interventions. Among the topics it covers are a history of drugs, addiction, and behavior; basic principles of drug action (e.g., pharmacodynamics); behavioral pharmacology testing paradigms (e.g., self-administration); drug action and effects (e.g., alcohol, nicotine, designer drugs, anti-depressants); behavioral deficits associated with addictions (e.g., memory); addiction treatment and recovery (e.g., maturing out, contingency management); and drugs and society. Prerequisite: ABSC 100. PSYC 104 is also recommended. LEC.

**ABSC 405. Children and Media. 3 Hours. H.**
The applied study of child development theories and research methods on the influences and effects of television and related visual media on childhood in the contexts of families, schools, and society. (Same as PSYC 405 and THR 405) (Formerly HDFL 405.) LEC.

**ABSC 410. Behavioral Approaches in Working with Adolescents. 3 Hours. S.**
Addresses some of the basic behavioral techniques used with juveniles who have problems in school, at home, or in the community: readings and role-playing sessions covering assessment of problems, relationship development, observing and defining behavior, teaching and contracting techniques, and counseling. (Formerly HDFL 410.) Prerequisite: ABSC/HDFL 140; ABSC/HDFL 304 highly recommended. LEC.

**ABSC 425. Teaching Apprenticeship in Applied Behavioral Science. 3 Hours. S.**
Students read new materials, become more fluent with ABSC 100 content, and acquire tutoring skills. Course may not be repeated. Prerequisite: ABSC 100 and consent of the instructor and department chair. LEC.

**ABSC 433. Analysis of Cultural, Ethnic, and Gender Roles in Childhood and Adolescence. 3 Hours. S.**
This course examines aspects of different cultures and ethnic groups, and the definitions of gender role behavior found in them. The research literature in these areas is reviewed and the implications for early childhood education settings are studied. The course examines the literature in order to provide an increased understanding of effective approaches to educational practices directly related to the structure of society in the United States. (Formerly HDFL 433.) Prerequisite: ABSC/HDFL 160 or instructor permission. LEC.

**ABSC 437. Independent Living and People with Disabilities. 3 Hours. S.**
A multi-disciplinary seminar exploring theory, method, research, and practice in independent living. The course reviews personal and environmental factors as they relate to everyday problems affecting people with varying disabilities. It also contains service-learning activities in which students apply skills and knowledge gained in the classroom.

**ABSC 441. Ethical, Legal and Professional Issues in Applied Behavioral Science. 3 Hours. S.**
The course covers ethical and legal issues in the responsible conduct of behavior science. Course content addresses major topics and specialized issues in the field. May be repeated for credit if the content differs. Prerequisite: Instruction permission. LEC.

**ABSC 443. Organization, Behavior Management. 3 Hours. S.**
This course covers ethical and legal issues in the responsible conduct of basic, applied, intervention and prevention research (e.g., informed consent and assent with typical and atypical populations); inclusion of underrepresented groups, participatory action research; bias, fraud, and plagiarism, conflict of interest; reporting misconduct; authorship conflict. It also covers professional issues in behavioral consultation and training, review of the Behavior Analysis Certification Board task list on basic behavior-analytic skills, client-centered responsibilities, and foundational knowledge. This course satisfies the Behavior Analysis Certification Board requirement for 15 classroom contact hours of coursework related to Ethical Considerations in Behavior Analysis needed to take the BACB examination. This course is taught at the 400 and 800 levels, with additional assignments at the 800-level. Prerequisite ABSC 308. LEC.

**ABSC 445. Health, Safety, and Nutrition in Early Childhood Development. 3 Hours. S.**
This course addresses children’s health, safety, and nutritional needs and contemporary approaches to achieving wellness. Students develop analytical skills through reading, discussion, and application of theoretical and empirical concepts. Current research results are emphasized and applied to course problem sets and projects. (Formerly HDFL 455.) Prerequisite: ABSC/HDFL 160 or equivalent knowledge. LEC.

**ABSC 447. Organizational Behavior Management. 3 Hours. S.**
This course offers detailed discussion of the organizational behavior management (OBM) literature including performance management, behavioral systems analysis, and behavior-based safety. This course also addresses empirically supported staff training procedures and research in implementation science. Students assist with OBM-relevant research and develop skills in both translational and applied OBM research. Prerequisite: ABSC 100. LEC.

**ABSC 449. Special Topics in: _____ 1-3 Hours. S.**
A course designed for the study of special topics in applied behavioral science. Course content addresses major topics and specialized issues in the field. May be repeated for credit if the content differs. Prerequisite: Instructor permission. LEC.

**ABSC 470. Behavioral Science. 3 Hours. S.**
This course offers detailed discussion of the organizational behavior management (OBM) literature including performance management, behavioral systems analysis, and behavior-based safety. This course also addresses empirically supported staff training procedures and research in implementation science. Students assist with OBM-relevant research and develop skills in both translational and applied OBM research. Prerequisite: ABSC 100. LEC.

**ABSC 472. Study Abroad Topics in: _____ 1-5 Hours. S.**
A course designed to enhance international experience in topic areas related to topics in applied behavioral science at the junior/senior level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if the content differs. Prerequisite: Department permission. LEC.

**ABSC 486. Issues in Parenting. 3 Hours. S.**
Theoretical approaches to the study of parenting and parent-child relationships, techniques for analyzing common parenting problems, designing appropriate interventions, fostering effective communication skills, understanding issues of diversity, and promoting parent education programs. Professional collaboration and support of families and children
ABSC 489. Directed Readings in: ______. 1-3 Hours. S.
A course designed for directed readings in applied behavioral science. Readings address major topics and specialized issues in the field. May be repeated for credit if the content differs. (Formerly HDFL 484.) Prerequisite: Instructor permission. IND.

ABSC 499. Directed Research in: ______. 1-3 Hours. AE61 / S.
Basic and applied research experience. The course provides training in research methods, measures, and designs, and the conduct of research, in the behavioral sciences. May be repeated for credit if the content differs. Prerequisite: Instructor permission. RSH.

ABSC 509. Contemporary Behavioral Science: Historical, Conceptual, and Comparative Foundations. 3 Hours. AE61 / S.
This course provides a survey of modern behavioral science and its applications. It reviews the field's history; integrates its sub-disciplines; situates it within the natural sciences, social sciences, and humanities; and compares and contrasts it with other perspectives. It covers recent advances in research, their implications for understanding human behavior, and their application to solving societal problems. And, it addresses the ethical implications of applied behavioral science. (Formerly HDFL/PSYC 641.) Prerequisite: ABSC 100/101 or ABSC/HDFL 140, and ABSC/HDFL 304 or instructor permission. LEC.

ABSC 535. Developmental Psychopathology. 3 Hours. S.
A review of contemporary psychological and developmental disorders of children and youth. Course presents current models of psychopathology, classification systems, assessment methods, and treatment approaches designed for the individual, the family, and the community. Specific attention is given to age, gender, and cultural differences and similarities. Topics include: anxiety disorders, oppositional behavior disorders, physical/sexual abuse, learning disabilities, depression, chronic physical illness, and autism. (Same as PSYC 535.) (Formerly HDFL 535.) Prerequisite: ABSC/HDFL 160 or PSYC 333, or instructor permission. LEC.

ABSC 542. Applied Gerontology. 3 Hours. S.
This course will provide an overview of social and behavioral problems faced by older adults, people who provide for elders, and human service programs for elders. It also surveys empirically-derived intervention strategies designed to maintain abilities and reduce or eliminate problem behaviors experienced by elders or their caregivers. (Formerly HDFL 542.) Prerequisite: ABSC/HDFL 304 and ABSC/HDFL 308, or instructor permission. LEC.

ABSC 555. Issues in Administering Early Childhood Services. 2 Hours. S.
This course provides an overview of professional, social, legal, and economic issues associated with the administration of early childhood services and programs. Emphasis is placed on theoretical principles, empirical research, and professional responsibilities inherent in the provision of quality service, including needs assessment, organizational skills, delivery systems, human resource management, communication skills, grant writing, legal and ethical considerations, and advocacy. (Formerly HDFL 555.) Prerequisite: Senior standing in the early childhood specialty area or instructor permission. LEC.

ABSC 560. The Juvenile Justice System: A Behavioral and Legal Perspective. 3 Hours. S.
An overview of the juvenile justice system, including the history, development, and current controversy over children's rights in the legal system examined in light of relevant principles of behavioral science and behavioral systems of rehabilitation. Topics include delinquency, miscreancy, status offenses, dependent-neglected children, child abuse, and juvenile court procedures and personnel (e.g., probation officers), and rehabilitative programs. (Formerly HDFL 560.) Prerequisite: ABSC 100. LEC.

ABSC 562. Behavioral Community Psychology. 3 Hours. S.
A seminar that provides an overview of the history and origin of behavioral community psychology. The course examines the development and future of behavioral community psychology as an integration of two sub-disciplines, applied behavior analysis and community psychology. Provides an integrated review of empirically-based behavioral interventions applied in community-based settings. Prerequisite: ABSC 100, or ABSC 150, or ABSC 310, or instructor permission. Course is offered at the 500 and 800 levels with additional assignments at the 800-level. LEC.

ABSC 565. Applied Developmental Psychology. 3 Hours. S.
An advanced study of the application of theories and concepts of developmental and behavioral psychology to a range of specific issues and problems of childhood and adolescence. This course relies heavily on the empirical research literature. Topics include contemporary social issues and child development, research in applied settings, assessment, intervention, and prevention, as well as program evaluation. (Same as PSYC 565.) (Formerly HDFL 565.) Prerequisite: ABSC/HDFL 160 or PSYC 333, and ABSC/HDFL/PSYC 535, LEC.

ABSC 599. Honors and Thesis in Applied Behavioral Science. 1-5 Hours. AE61 / S.
A two-semester course combining small group discussions of selected, advanced topics in applied behavioral science with honors thesis supervision on a project of the student's own design. Students normally enroll for one or two hours in fall semester and three to five hours in spring semester. (Formerly HDFL 496.) Prerequisite: ABSC 304, ABSC/HDFL 308, and instructor permission. IND.

ABSC 606. Special Projects in the Community. 1-10 Hours. S.
Structured opportunities to develop and apply knowledge and skills (e.g., analyzing problems, strategic planning, intervention, evaluation) in a project that addresses a community problem or goal. (Formerly HDFL 606.) Prerequisite: Instructor permission. IND.

ABSC 620. Drug Abuse: From Basic Research to Public Policy. 3 Hours. S.
This course reviews basic and applied research in the social, behavioral, and neural sciences on how environmental variables, brain mechanisms, individual history, and cultural constraints interact and maintain drug abuse. Topics include the mechanisms of drug action; the safety, toxicity, stimulus properties, and functional impairments related to commonly abused drugs; common models of treatment and prevention; and historical and current legislative and judicial approach to drug abuse. (Formerly HDFL 620.) Prerequisite: A course in biology and a course in either applied behavioral science or psychology. LEC.

ABSC 626. Psychology of Adolescence. 3 Hours. S.
Impact of factors of social environment and physical growth upon psychological development from puberty to young adulthood. (Same as PSYC 626.) Prerequisite: PSYC 104, PSYC 333, or HDFL/ABSC 160. LEC.

ABSC 632. Advanced Child Behavior and Development. 3 Hours. S.
An advanced course in child development that includes a survey of the field's principles and theoretical approaches, and current issues in research and practice. Topics will include: prenatal development, cognition and language, social-emotional development, socialization
influences in childhood, developmental psychopathology, and social policies. (Formerly HDFL 632.) (Same as PSYC 632.) Prerequisite: ABSC/HDFL 160, PSYC 333, or instructor permission, and senior or graduate status. LEC.

**ABSC 671. Applied Behavior Analysis. 3 Hours. S.**
This advanced course extends knowledge and skills in analyzing behavioral problems, designing interventions, and planning applied research projects. Topics include the selection of problems and target populations, analysis of problems/goals, designing measurement systems, developing interventions, and disseminating products from applied behavioral research. (Formerly HDFL 671) Prerequisite: ABSC/HDFL 304 or instructor permission. LEC.

**ABSC 672. Applied Behavior Analysis, Honors. 3 Hours. S.**
This advanced course extends knowledge and skills in analyzing behavioral problems, designing interventions, and planning applied research projects. Topics include the selection of problems and target populations, analysis of problems/goals, designing measurement systems, developing interventions, and disseminating products from applied behavioral research. Students design an intervention research project. Prerequisite: Open only to students in the University Honors Program; ABSC/HDFL 304 or instructor permission. LEC.

**ABSC 675. Practicum in Infant-Toddler Care and Early Intervention I. 3-5 Hours. AE61 / S.**
Experience in a classroom-based early intervention and child-care program serving children younger than 3 years. Students gain practical experience with care-giving and teaching practices appropriate for typically and atypically developing children. Students learn to develop and implement individualized curricula based on assessments of children's skills. (Formerly HDFL 558.) Prerequisite: ABSC/HDFL 444 (or concurrent enrollment) and instructor permission. FLD.

**ABSC 676. Practicum in Infant-Toddler Care and Early Intervention II. 3-5 Hours. AE61 / S.**
An advanced practicum providing experience in classroom-based early-intervention and child-care program serving children younger than 3 years. Students gain practical experience with care-giving and teaching practices appropriate for typically and atypically developing children. Students learn to develop and implement individualized curricula based on assessments of children’s skills. (Formerly HDFL 559.) Prerequisite: ABSC/HDFL 444, HDFL 558 or ABSC 675, and instructor permission. FLD.

**ABSC 677. Practicum in Preschool Education and Intervention I. 3-5 Hours. AE61 / S.**
A one-semester practicum providing opportunities for students to assume responsibility for the education and guidance of young children in an early childhood program. Regularly scheduled individual and staff conferences enable students to evaluate personal growth and progress as teachers of young children. (Formerly HDFL 492.) Prerequisite: ABSC/HDFL 444 (or concurrent enrollment) and instructor permission. Must also meet special state requirements for child care employees and volunteers. FLD.

**ABSC 678. Practicum in Preschool Education and Intervention II. 3-5 Hours. AE61 / S.**
A one-semester advanced practicum providing opportunities for students to assume responsibility for the education and guidance of young children in an early childhood program. Regularly scheduled individual and staff conferences enable students to evaluate personal growth and progress as teachers of young children. (Formerly HDFL 493.) Prerequisite: ABSC/HDFL 444, HDFL 492 or ABSC 677, and instructor permission. Must also meet special state requirements for child care employees and volunteers. FLD.

**ABSC 679. Practicum in Behavior Analysis Research in Early Childhood Education. 1-6 Hours. AE61 / S.**
A two-semester practicum providing opportunities for supervised training in one of several ongoing research projects in the field of behavior analysis, either basic or applied. Students assist in conducting research and participate in individual and group meetings to discuss and evaluate research and related methodological issues. (Formerly HDFL 688.) Prerequisite: ABSC/HDFL 308 and instructor permission. FLD.

**ABSC 680. Practicum in Advanced Laboratory in the Development of Behavioral Treatments for Children with Autism. 1-6 Hours. AE61 / S.**
Students participate in an intensive behavioral treatment program teaching language, social skills, self-help skills, and academic skills to young children with autism. Students learn: to develop and implement treatment programs; design and use of a system of data collection and analysis; and apply the principles and philosophy of community and school mainstreaming. (Formerly HDFL 550.) Prerequisite: ABSC/HDFL 350 and instructor permission. LAB.

**ABSC 682. Organizational Behavior Management Practicum. 1-5 Hours. AE61 / S.**
This practicum course is designed to provide training and support practice in addressing socially significant problems and goals of community-based organizations using behavior analysis to guide assessment and intervention. Additionally, this course promotes community-university partnerships to support change and improvement in organizations through service learning. All practicum students are required to have previously completed ABSC 100 and selected applied behavioral science as a major or minor. FLD.

**ABSC 685. Practicum in Community-based Residential or Day Treatment Programs for Disabled Adults. 3-6 Hours. AE61 / S.**
A one or two-semester practicum in which students are provided with the opportunity to work directly with developmentally disabled adults in either community-based residential or day treatment programs. Students are required to read relevant literature, carry out treatment programs, and participate in weekly meetings to discuss treatment goals and progress. (Formerly HDFL 696.) Prerequisite: ABSC/HDFL 304, ABSC/HDFL 410, and instructor permission. FLD.

**ABSC 687. Practicum in Behavioral Gerontology. 1-6 Hours. AE61 / S.**
A one or two-semester practicum providing opportunities for supervised training in behavioral gerontology. Students: (a) read literature in the area of their specific practicum setting such as adult day care, senior centers, nursing homes; (b) assist in collecting information relevant to evaluating the program effectiveness of their efforts on behalf of the elderly; and (c) participate in discussions and planning meetings relevant to maintenance and improvement of operation of the practicum. (Formerly HDFL 644.) Prerequisite: ABSC/HDFL 342 or ABSC/HDFL 542 and instructor permission. FLD.

**ABSC 690. Practicum in Community Health and Development. 1-6 Hours. AE61 / U.**
A two-semester practicum in which students engage in structured opportunities to practice core competencies related to the work of promoting community health and development (e.g., strategic planning, intervention, evaluation). In weekly group meetings, students prepare for their individual working field settings (e.g., health and human service agencies, research and advocacy organizations, community organizations). (Formerly HDFL 690). Prerequisite: ABSC/HDFL 150, ABSC/HDFL 310, and instructor permission. FLD.
ABSC 691. Practicum in Community Health and Development, Honors. 1-6 Hours. AE61 / U.
A two-semester practicum in which students engage in structured opportunities to practice core competencies related to the work of promoting community health and development (e.g., strategic planning, intervention, evaluation). In weekly group meetings, students prepare for their individual working field settings (e.g., health and human service agencies, research and advocacy organizations, community organizations). (Formerly HDFL 692). Prerequisite: Open only to students in the University Honors Program; ABSC/HDFL 151, ABSC/HDFL 311 and instructor permission. FLD.

ABSC 692. Practicum in Basic Research. 3 Hours. AE61 / S.
Practical supervised training in the laboratory study of human and/or animal behavior. Students assist in conducting basic research, read and discuss research articles, attend lab meetings, and acquire data analysis and presentation skills. Prerequisite: ABSC 308 (or concurrent enrollment) and permission of the instructor. RSH.

ABSC 693. Practicum in Historical and Conceptual Foundations. 3-6 Hours. AE61 / S.
Practical supervised training in the historical and conceptual foundations of applied behavioral science (e.g., behavior analysis). Students research and read primary source literatures and write papers that advances our understanding of the field’s foundations (e.g., empirical, theoretical). Prerequisite: ABSC 100/101, ABSC 304, ABSC 308, and ABSC 509 (or concurrent enrollment), and permission of the instructor. IND.

ABSC 694. Practicum in Juvenile Problems. 3-6 Hours. AE61 / S.
A one-semester practicum providing opportunities for students to aid professionals in the development and implementation of behavioral treatment plans with adolescents. Regularly scheduled individual and group meetings enable the evaluation of the practicum students’ progress while working in the rehabilitative process for juveniles who have problems that can bring them into contact with the juvenile justice system. (Formerly HDFL 694.) Prerequisite: ABSC/HDFL 410, ABSC/HDFL 560, and permission of the instructor. RSH.

ABSC 695. Special Practicum in:______. 3-6 Hours. S.
A one or two-semester practicum providing opportunities for supervised, hands-on training outside the existing specialty areas or their options. This practicum must be arranged with the prior approval of a faculty advisor and the department’s Undergraduate Curriculum Committee. Students should see an advisor about this practicum early in their junior year. Prerequisite: Instructor permission. FLD.

ABSC 696. Special Practicum in, Honors:______. 3-6 Hours. S.
A one or two-semester practicum providing opportunities for supervised, hands-on training outside the existing specialty areas or their options. This practicum must be arranged with the prior approval of a faculty advisor and the department’s Undergraduate Curriculum Committee. Students should see an advisor about this practicum early in their junior year. Prerequisite: Open only to students in the University Honors Program and instructor permission. FLD.

ABSC 698. Special Research Practicum in:______. 3-6 Hours. S.
A one or two-semester research practicum providing opportunities for supervised, hands-on research training outside the existing specialty areas or their options. This practicum must be arranged with the prior approval of a faculty advisor and the department’s Undergraduate Curriculum Committee. Students should see an advisor about this practicum early in their junior year. Prerequisite: Instructor permission. FLD.

ABSC 699. Special Research Practicum in, Honors:______. 3-6 Hours. S.
A one or two-semester research practicum providing opportunities for supervised, hands-on research training outside of the existing specialty areas or their options. This practicum must be arranged with the prior approval of a faculty advisor and the department’s Undergraduate Curriculum Committee. Students should see an advisor early in their junior year about the practicum and its prerequisites and requirements. Prerequisite: Open only to students in the University Honors Program and instructor permission. FLD.

ABSC 701. Parenting in Modern Society. 3 Hours.
The theoretical study of parenting and parent-child relationships, techniques for analyzing common parenting problems, designing appropriate interventions, fostering effective communication skills, understanding issues of diversity, and promoting parent education programs are some of the issues addressed in this course. Professional collaboration and support of families and children are emphasized throughout. Students develop analytical skills through reading, discussion, and application of theoretical and empirical research. (Formerly HDFL 701.) Prerequisite: ABSC/HDFL 160 or equivalent knowledge of child development or child psychology. LEC.

ABSC 702. Curriculum Development for Young Children. 3 Hours.
A survey of educational materials and activities that are appropriate for young children (birth to age 8). Students explore several components of effective curriculum (e.g., objectives, effective methods of activity presentation, teaching strategies) and learn to combine them to construct curriculums for a range of content and skill areas. By focusing on the functional components of curriculums, students learn to construct, critically evaluate, and modify them for both typically developing children and children with special needs. A BACB® pre-approved course. (Formerly HDFL 702.) LEC.

ABSC 703. Leadership in Early Education Programs: Theory and Research. 3 Hours.
Effective leadership skills and professional roles associated with the administration of early childhood services and programs are examined in this course. Theoretical principles, empirical research, and professional responsibilities inherent in the provision of quality service, including needs assessment, organizational skills, delivery systems, human resource management, communication skills, grant writing, legal and ethical considerations, conflict resolution, and advocacy are explored through readings, discussion, and assigned projects. Not open to students who have completed ABSC 555. (Formerly HDFL 677). Prerequisite: ABSC/HDFL 160 or equivalent knowledge of child development or child psychology. LEC.

ABSC 704. Research Practicum in Clinical Child Psychology. 3 Hours.
This course provides students in the Clinical Child Psychology Program with the opportunity to enhance and consolidate their research activities by fulfilling one of the elective cluster course requirements. This practicum involves a contract with a research advisor and the program director. The contract includes definable products and dates for completion to prepare research for submission for publication, develop a grant proposal, or conduct additional research project independent of other requirements in the program. The course is not to be taken as an overload, but is to be part of a full-time course schedule. May be repeated. (Same as PSYC 704.) (Formerly HDFL 704.) Prerequisites: Graduate standing in clinical child psychology and instructor permission. LEC.

ABSC 705. Pediatric Psychology. 3 Hours.
Discussion of behavior problems commonly encountered in the pediatric population, including reviews of data-based methodologies for
remediation. Topics include general child rearing skills, bedtime problems, enuresis, encopresis, toilet training, self-injurious behavior, temper tantrums, behavior in community settings, child abuse, psychotropic drugs for children, adolescent behavior problems and selection of children’s play materials. (Formerly HDFL 705.) Prerequisite: ABSC/HDFL 160, ABSC/HDFL 632, or PSYC 602. LEC.

**ABSC 706. Special Topics in Clinical Child Psychology:** 3 Hours.
A course offering detailed discussion of the literature and research methods of a special topic within clinical child and pediatric psychology. Topic and instructor may change by semester and will be announced in the Schedule of Classes. May be repeated. (Same as PSYC 706.) (Formerly HDFL 706.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. LEC.

**ABSC 709. Biology and Behavior. 3 Hours.**
A course on the role of physiology and anatomy in behavior, with an emphasis on their participation in the basic behavioral processes and in typical and atypical behavioral development. The course also addresses issues in measurement and current research. (Formerly HDFL 709.) Prerequisite: ABSC/HDFL 796; ABSC/HDFL 798 recommended. LEC.

**ABSC 710. Community Health and Development. 3 Hours.**
This course extends knowledge and skills for addressing issues in community health and development (e.g., substance abuse, adolescent pregnancy, child and youth development, prevention of violence). Students learn core competencies such as analyzing community problems and goals, strategic planning, intervention, and evaluation, and then apply these skills to issues that matter to them and to the communities they serve. (Formerly HDFL 710.) (Same as ISP 871.) LEC.

**ABSC 716. Experimental Problems in Community Settings. 1-5 Hours.**
Research in the experimental design and analysis of community settings. No more than 10 hours total. (Formerly HDFL 716.) Prerequisite: Instructor permission. RSH.

**ABSC 719. Experimental Field Work in Community Settings. 1-5 Hours.**
Instruction in the methods and techniques of the experimental design and analysis of community settings through supervised participation in established research programs. Emphasizes the techniques of gathering original experimental data. No more than 10 hours total. (Formerly HDFL 719.) Prerequisite: Instructor permission. RSH.

**ABSC 721. Biological Bases of Mental Retardation. 4 Hours.**
This course deals with the biological substrates of mental retardation. Retardation is classified as a medical syndrome, rather than by behavioral patterns, but behavioral peculiarities are addressed where relevant. Attention is directed to both genetic causes such as the chromosomal anomalies (e.g., Mongolism) and molecular and metabolic errors (e.g., phenylketonuria), as well as to the environmentally produced retardation by nutritional deficiency, prenatal rubella, and brain trauma. (Formerly HDFL 721.) Prerequisite: One course in biology or equivalent. LEC.

**ABSC 723. Adolescent Adjustment. 3 Hours.**
An overview of adolescence with primary emphasis on various adjustment difficulties and respective therapeutic approaches. Content to provide perspectives on relevant practice, research, theory, and contemporary social forces. (Formerly HDFL 723.) Prerequisite: Instructor permission. LEC.

**ABSC 725. Research Methods and Application. 3 Hours.**
Surveys research methods used to identify, describe, understand, and intervene on socially important problems occurring across the life span (e.g., early childhood, adolescence, elders) and in varied settings (homes, classrooms, group-care facilities, and communities). Discusses research methods and concepts (e.g., prediction, control, reliability, validity) within scientific, psychological, and behavior-analytic frameworks. Presents strategies and tactics regarding descriptive and experimental methods, direct and indirect measurement, graphic and statistical analysis, and single-subject and group experimental designs. Examines ethics and social responsibility in research. Provides opportunities to read secondary and primary sources, develop research questions, write and present research proposals. (Formerly HDFL 725.) Prerequisite: Instructor permission. RSH.

**ABSC 730. Developmental Neurobiology. 3 Hours.**
This course consists of lectures and discussion sessions on topics that describe the structural and functional maturation of the nervous system. The areas covered deal with the morphological, physiological, and biochemical changes in the developing central nervous system of vertebrates (including human infants), and with the interaction of the external environment with some of these maturational processes. Prerequisite: Introductory human development, psychology, or biology course. LEC.

**ABSC 735. Within Subjects Research Methodology and Direct Observation. 3 Hours.**
A graduate level introduction to the logic of experimentation, direct observation strategies, and research conducted using individual (e.g., single subject) and time series experimental designs. An ABA-accredited and BACB® pre-approved course. (Formerly HDFL 735.) Prerequisite: Graduate standing in applied behavioral science or instructor permission. LEC.

**ABSC 741. Readings in Gerontology. 3-5 Hours.**
Supervised readings in topical areas of gerontology. A program of study, conferences, and reports are developed by the instructor and student. (Formerly HDFL 741.) Prerequisite: Instructor permission. RSH.

**ABSC 742. Research in Gerontology. 1-10 Hours.**
Original investigations of some unsolved problems relating to adult development and aging. (Formerly HDFL 742.) Prerequisite: Graduate standing or instructor permission. RSH.

**ABSC 756. Philosophical Bases of Early Childhood Education. 3 Hours.**
Historical influences and current theoretical models of early childhood education are addressed through a survey and analysis of the literature. Not open to students who have completed ABSC 356. (Formerly HDFL 756.) Prerequisite: ABSC/HDFL 160 or equivalent knowledge of child development or child psychology. LEC.

**ABSC 765. Evaluating and Disseminating Scientific Material I. 1-3 Hours.**
Intensive training in the evaluation and production of scientific critiques and reviews of current issues in the analysis of behavior, as disseminated through the media. May be repeated. (Formerly HDFL 765.) Prerequisite: Instructor permission. LEC.

**ABSC 787. Gerontology Proseminar. 3 Hours.**
A proseminar coordinated by the Gerontology Center. The proseminar explores essential areas of gerontology for researchers and practitioners, providing a multidisciplinary (e.g., psychology, biology, sociology, communication) perspective on aging. The proseminar surveys contemporary basic and applied research, service programs, and policy and management issues in gerontology. (Same as AMS 767, COMS 787, PSYC 787, and SOC 767.) (Formerly HDFL 787.) LEC.

**ABSC 788. Designing Early Education Environments. 3 Hours.**
This course reviews empirically-supported strategies for designing effective and socially valid care and education environments for
ABSC 796. Laboratory in Behavioral Development and Modification: The Analysis of Behavior I. 3 Hours.
An introductory graduate laboratory course on the basic principles of behavior, and related procedures for producing behavioral change, with nonhuman subjects. The principles and procedures have special relevance to analogous processes in child development, both normal and deviant. An ABA-accredited and BACB® pre-approved course. (Formerly HDFL 796.) Prerequisite: Instructor permission. LEC.

ABSC 797. Proseminar in Child Language. 2 Hours.
A review and discussion of current issues in children’s language acquisition. May be repeated for credit. Students are graded S/F. (Same as LING 799, PSYC 799 and SPLH 799.) (Formerly HDFL 797.) LEC.

ABSC 798. Conceptual Foundations of Behavior Analysis. 3 Hours.
A master’s-level graduate seminar on the field’s conceptual foundations, with special emphasis on behavior analysis and its application - applied behavior analysis. The course addresses the field’s history, philosophy of science, and disciplinary purview; its advanced behavioral principles and processes; its analyses of various content domains in the behavioral, social, and cognitive sciences (e.g., emotion, language, cognition, culture); and its relation to other disciplines (e.g., biology, psychology, anthropology). It also considers professional issues in, for example, the ethical conduct of research and practice. An ABA-accredited and BACB pre-approved course. Prerequisite: ABSC 796 or instructor permission. SEM.

ABSC 801. Design and Analysis of Community Development Methods. 1-6 Hours.
An examination of principles and practices of community development and evaluation of methods used to promote community improvement. May be repeated if the content differs. (Formerly HDFL 801.) Prerequisite: Instructor permission. RSH.

ABSC 802. Behavior Analysis in Developmental Disabilities. 3 Hours.
A graduate seminar that includes an overview of the behavioral characteristics of various developmental disabilities and examination of empirically-supported behavioral approaches to the study and treatment of developmental disabilities. Topics will include classification and etiology, motivation, methods for developing appropriate skills, assessment and treatment of behavior disorders, staff training, and legal and ethical issues related to treatment. Prerequisite: ABSC 796 and instructor permission. LEC.

ABSC 803. Fundamentals of Psychological Assessment and Intervention with Children. 3 Hours.
Lecture and supervised experience covering the theoretical and empirical literature on assessment and intervention methods for children, adolescents, and families. Students will learn and demonstrate evidence-based clinical interviewing skills, behavioral observation techniques, risk assessment techniques, therapeutic communication approaches, strategies for providing assessment feedback to families, and ethical principles related to the provision of assessment and psychotherapy (including client file and resource management.) The course requires interaction with clinical populations and communication with referral sources. (Same as PSYC 803.) Prerequisite: Graduate student in clinical child psychology program. LEC.

ABSC 804. Research in Community Health Promotion. 1-6 Hours.
Supervised, original investigations of problems relevant to community health, such as the prevention of substance abuse or promotion of child outcomes. As appropriate, the course is focused on any combination of: literature research, research planning, and preparation conducting research, analyzing data, writing research reports, or preparing oral reports of completed research. (Formerly HDFL 804.) Prerequisite: Instructor permission. RSH.

ABSC 805. Functional Behavioral Assessment. 3 Hours.
The strategies, tactics, and ethics of functional assessment are presented in the larger context of behavioral assessment (e.g., nomothetic and idiographic approaches). Research articles relevant to indirect, descriptive, and experimental functional assessment approaches and assessment-based interventions are carefully reviewed to determine the appropriate conditions for each type of assessment and intervention. (Formerly HDFL 805.) Prerequisite: ABSC 796 and instructor permission. LEC.

ABSC 806. Functional Behavioral Assessment Practicum. 1-6 Hours.
This course provides supervised experience in the use of functional behavioral assessment in home, clinic, or educational environments with young children presenting problem behaviors. (Formerly HDFL 806.) Prerequisite: ABSC 805 and instructor permission. FLD.

ABSC 807. Design and Evaluation of Community Health Promotion Methods. 1-6 Hours.
An examination of the methods used to develop and evaluate community health promotion programs. The course addresses topics of interest to participants, such as substance abuse, adolescent pregnancy, or child outcomes. May be repeated for credit if the content differs. (Formerly HDFL 807.) Prerequisite: Instructor permission. RSH.

ABSC 809. Professional Issues: Clinical Child Psychology. 1 Hour.
Consideration of special problems confronting the child and family oriented scientist-practitioner, and in the development of a professional identity. Topics include critical issues, including ethical, legal, cultural, empirical, and clinical aspects of research and practice. May be repeated. (Formerly HDFL 809.) (Same as PSYC 809.) Prerequisite: Graduate standing in clinical child psychology. LEC.

ABSC 810. Introduction to Developmental Assessment. 3 Hours.
A course covering the general principles of developmental assessment from birth through adulthood, with special emphasis on the history and nature of assessment instruments and the criteria for acceptance, reliability, and stability of results. Selected assessment techniques for infants, preschool children, elementary school children, adolescents, and adults are reviewed and evaluated for their utility, limitations, and applications. A critical analysis of assessment in general and particular assessment tools is made. (Formerly HDFL 810.) LEC.

ABSC 811. Achievement and Intellectual Assessment in Clinical Child Psychology. 3 Hours.
Course covers the basic theory, research, administration, and reporting of psychological assessment of development, intelligence, and achievement for children, adolescents, and adults within cultural and developmental contexts. The range of psychological instruments examined includes, for example, WIAT, K-ABC, W-J, S-B, WISC, WAIS, and WPPSI. (Same as PSYC 811.) Prerequisite: Graduate student in clinical child psychology. LEC.
ABSC 812. Behavioral and Personality Assessment of Children. 3 Hours.
Lecture, laboratory, field work, and supervision. Theory and applications in the psychological evaluation of children with standardized assessment techniques. The administration, scoring, interpretation, and reporting of behavioral and personality functioning in children. (Formerly HDFL 812.) (Same as PSYC 812.) Prerequisite: Graduate standing in clinical child psychology. LEC.

ABSC 813. Behavioral Science Research Proseminar. 1-3 Hours.
A master’s level professional seminar in which faculty and students present research proposals; offer formal presentations of completed empirical research, reviews of the literature, and other areas of scholarship; and engage discussion about contemporary empirical, conceptual, and professional issues in applied behavioral science. May be repeated for a total of six credits. (Formerly HDFL 813.) Prerequisite: Graduate standing in applied behavioral science or instructor permission. LEC.

ABSC 814. Advanced Child and Family Assessment. 3 Hours.
Lecture, laboratory, field work, and supervision. Supervised experience in specialized psychological assessment approaches for children and families. Emphasis on interview, observation, psychometric scales, consultation, rationale, administration, analysis, and reporting of mental health functioning of children and families. Experience with clinical populations, and communication with referral sources. (Formerly HDFL 814.) (Same as PSYC 814.) Prerequisite: Graduate student in clinical child psychology. LEC.

ABSC 820. Advanced Child Development. 3 Hours.
A survey of the basic empirical research in the field of child development, covering intelligence, cognition, perception, attention, personality, social behavior, and socialization processes. These literatures are integrated and their implications for social application are addressed. (Formerly HDFL 820.) (Same as PSYC 820.) Prerequisite: A course in child development or equivalent. LEC.

ABSC 821. Behavior Analysis of Child Development. 3 Hours.
An advanced graduate seminar on the behavior-analytic approach to child development. Students examine the behavior-analytic view of child development and compare and contrast this approach with other systems for understanding development. Students also review and critically evaluate current and seminal literature related to several different developmental domains (e.g., motor, emotional, social, cognitive development) and explore implications for the application of current knowledge. An ABA-accredited and BACB® pre-approved course. (Formerly HDFL 821.) Prerequisite: ABSC 798 and consent of instructor. LEC.

ABSC 822. Children and Public Policy. 3 Hours.
This course examines how public policies affect the development of children. Includes examination of child and family policy in the United States and other countries, policy-related research on children, major policy issues affecting children, and child advocacy. (Formerly HDFL 822.) Prerequisite: Instructor permission. LEC.

ABSC 824. Treatment of Severe Learning Problems. 3 Hours.
The course reviews new approaches to working with persons with retardation and autism; theoretical orientations and how they affect implementation of procedures; and current research outcomes in various developmental areas of persons with retardation. It covers approaches used with persons through the life span, from childhood through adulthood, that are based on ecological and stimulus control variables. Ethical and practical implications are the focus of class lectures and discussions. (Formerly HDFL 824.) LEC.

ABSC 825. Social Development. 3 Hours.
A lecture and discussion course in social development. It includes such topics as theoretical approaches to the study of social development, as well as the literature on family processes, peer relations, aggression and prosocial behavior, child abuse and neglect, family violence, child care, and the media. (Same as PSYC 825.) (Formerly HDFL 880.) Prerequisite: A course in child psychology or development. LEC.

ABSC 828. Research in Early Intervention with Children. 3 Hours.
A seminar on current issues in assessment and intervention for young children who are at risk for or who have special needs. Provides foundation for evaluating and understanding research in early intervention. Includes historical, conceptual and legislative underpinnings of early intervention, risk factors affecting development, methodological issues in early intervention research, best practice standards, and applications to social, language, and pre-academic domains. (Formerly HDFL 828.) LEC.

ABSC 831. Science of Human Behavior. 3 Hours.
A graduate seminar on the analysis of human behavior, grounded in basic behavioral principles. The focus is on the process and products of human development, among them motivation/emotion, social behavior, personality, sensation/perception, language, cognition, creativity, attitudes/beliefs, consciousness/unconsciousness, purpose/will, and values. The course is pre-approved by the Behavior Analysis Certification Board® for its BCBA® certification requirements. Prerequisite: ABSC 798 and Master’s degree in Applied Behavioral Science or instructor permission. SEM.

ABSC 834. Directed Readings in Community Health Promotion. 1-5 Hours.
Supervised readings in topical areas of community health promotion, such as the prevention of substance abuse and promotion of child outcomes. A program of study, conferences, and reports is developed by the instructor and student. (Formerly HDFL 834.) RSH.

ABSC 837. Advanced Study of People with Disabilities. 3 Hours.
This course reviews major approaches in identifying disability pathogenesis and explores the biological bases of selected congenital physical disabilities, and etiologies of selected acquired physical disabilities. Rehabilitation approaches and the role of scientist-practitioners in working with people with disabilities are also discussed. This course primarily covers adults with physical disabilities. (Formerly HDFL 837.) Prerequisite: Graduate standing or instructor permission. LEC.

ABSC 840. Theoretical Concepts of Human Development and Child Care Practice. 3 Hours.
Basic introduction to treatment concepts and procedures related to child development and child-care programs. The major goal is to provide a theoretical framework that is effective in dealing with various types of child deviancy. (Formerly HDFL 840.) Prerequisite: Graduate standing or instructor permission. LEC.

ABSC 841. Ethical, Legal, and Professional Issues in Applied Behavioral Science. 3 Hours.
The course covers ethical and legal issues in (a) the responsible conduct of basic, applied, and intervention research (e.g., informed consent and assent with typical and atypical populations; inclusion of underrepresented groups; bias, fraud, and plagiarism in data collection and reporting; conflict of interest; reporting misconduct; authorship) and (b) professional issues in teaching, research, and service (e.g., written and presented scientific communication; grant preparation; the journal review process; cultural competence; teaching; vita preparation). The course will also include instruction in the preparation of editorial reviews for manuscripts submitted for publication to in peer-reviewed journals, in partial fulfillment
of the department's doctoral requirement for preparing editorial reviews. A BACB pre-approved course. Prerequisite: Graduate standing in applied behavioral science. LEC.

ABSC 846. Practicum in Clinical Child Psychology I. 1-3 Hours. Lecture, laboratory, field work, and supervision appointment. Psychological evaluation and treatment of children and their families; supervised, progressive experience in psychological interventions in clinical child psychology. (Same as PSYC 846.) (Formerly HDFL 846.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. FLD.

ABSC 847. Practicum in Clinical Child Psychology II. 1-3 Hours. A continuation of ABSC 846/PSYC 846. (Formerly HDFL 847.) (Same as PSYC 847.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. FLD.

ABSC 848. Applied Gerontology: Practice and Intervention. 3 Hours. A survey of intervention research in gerontology. Program evaluations designed to determine the effectiveness of community-based interventions, current social service delivery practice, and contemporary social policies are examined. An ABA-accredited and BACB® pre-approved course. (Formerly HDFL 848.) LEC.

ABSC 856. An Interdisciplinary Approach to Intervention with the Handicapped. 3 Hours. This course surveys knowledge from various disciplines that address developmental disabilities across the life span. Its focus is on designing strategies for individual intervention and treatment programs by an interdisciplinary team. Designed for students in social work, speech pathology, psychology, nutrition, audiology, special education, physical therapy, nursing, child development, behavior analysis, and related fields. (Formerly HDFL 707.) Prerequisite: A basic course in child development or instructor permission. LEC.

ABSC 861. Applied Behavior Analysis. 3 Hours. This advanced course extends knowledge and skill in analyzing behavioral problems, designing interventions, and planning applied research projects. Topics include the selection of problems and target populations, analysis of problems and goals, designing measurement systems, developing interventions, and disseminating products from applied behavioral research. Students use examples from their own applied research. An ABA-accredited and BACB® pre-approved course. (Formerly HDFL 871.) LEC.

ABSC 862. Behavioral Community Psychology. 3 Hours. A seminar that provides an overview of the history and origin of behavioral community psychology. The course will examine the development and future of behavioral community psychology as an integration of two sub-disciplines, applied behavior analysis and community psychology. The course will provide an integrated review of empirically-based behavioral interventions applied in community-based settings. The course is offered at the 500 and 800 levels with additional assignments required at the 800-level. Prerequisite: ABSC 796, or ABSC 710, or instructor permission. LEC.

ABSC 866. Service System and Consumer Issues in Developmental Disabilities. 3 Hours. This course provides a service-system perspective on developmental disabilities. Students learn (a) how service systems have developed for people with developmental disabilities; (b) about service systems from the perspective of agency administrators, program evaluation, and public and private payment systems (e.g., health insurance, Medicaid, Medicare, CHIPS, Title V); and (c) from consumers, themselves, about the barriers they face in obtaining needed services. Finally, students learn about advocating for service-system change at a consumer, program, and policy level. Prerequisite: Graduate standing or instructor permission. LEC.

ABSC 870. Practicum I in Behavioral Psychology. 1-6 Hours. Instruction and supervised laboratory or field work for master’s students. Practica are offered by different instructors on different topics; may be repeated for credit if the content differs. Topics and instructors are announced in the Schedule of Classes. Prerequisite: Graduate standing in applied behavioral science or instructor permission. FLD.

ABSC 871. Practicum I in Behavior Analysis: ___. 1-6 Hours. Instruction and supervised laboratory or field work for master’s students. Practica are offered by different faculty members on different topics; may be repeated for credit if the content differs. Topics and instructors are announced in the Schedule of Classes. (Formerly HDFL 873.) Prerequisite: Graduate standing in applied behavioral science or instructor permission. FLD.

ABSC 872. Practicum I in: ___. 1-6 Hours. Instruction and supervised laboratory or field work for master’s students. Practica are offered by different faculty members on different topics; may be repeated for credit if the content differs. Topics and instructors are announced in the Schedule of Classes. Prerequisite: Graduate standing in applied behavioral science or instructor permission. FLD.

ABSC 873. Practicum in Educational Psychological/Rehabilitative Services: ___. 3-6 Hours. This course is for students who wish to complete practicum experiences in services related to persons with retardation, autism, or physical disabilities in programs in various settings, such as the Ann Sullivan Center in Lima, Peru and the Algeria School in Paraguay. The course is designed to give interested students opportunities to work with professionals in these programs on a semester or summer basis. The course consists of participation in professional activities associated with the practicum program and a report of these activities to the instructor. (Formerly HDFL 789.) Prerequisite: Instructor permission. FLD.

ABSC 874. Practicum in Consumer Evaluation of Behavior Programs. 3-6 Hours. A practicum course designed to provide students with the knowledge, background, and practical experience in the conduct of consumer evaluations for behavioral treatment programs. (Formerly HDFL 855.) Prerequisite: Instructor permission. FLD.

ABSC 875. Practicum in Community Health Promotion. 1-6 Hours. A practicum course designed to provide students with knowledge, background, and practical experience in the implementation of community health promotion projects and their evaluation. May be repeated for credit if the content differs. (Formerly HDFL 808.) Prerequisite: Instructor permission. FLD.

ABSC 876. Practicum in Community Development. 1-6 Hours. A practicum course designed to provide students with knowledge, background, and practical experience in the implementation of community improvement projects and their evaluation. May be repeated for credit if the content differs. (Formerly HDFL 802.) Prerequisite: Instructor permission. FLD.
ABSC 877. Advanced Practicum in Gerontology. 1-6 Hours.
Supervised practical experience in working with elders in home, community, or institutional settings. Regular individual conferences with faculty are used to evaluate student progress. (Formerly HDFL 849.) Prerequisite: Graduate standing or instructor permission. FLD.

ABSC 880. Early Childhood Practicum for Allied Professionals. 1-6 Hours.
Professionals in fields such as journalism, social welfare, and psychology may have career interests that include work with or on behalf of young children. This practicum provides students with individualized opportunities to work with young children in a group setting in order to extend their professional skills. (Formerly HDFL 790.) Prerequisite: Instructor permission. FLD.

ABSC 881. Early Childhood Care and Intervention Practicum I. 1-6 Hours.
A course covering the specification of learning goals and the implementation and evaluation of curriculum design management of groups of young children. May be repeated for no more than a total of six credit hours. (Formerly HDFL 791.) Prerequisite: Instructor permission. FLD.

ABSC 882. Early Childhood Care and Intervention Practicum II. 1-6 Hours.
A course to assess and teach skills in diagnosis and evaluation of particular problems in the developmental process of young children (1-5 years of age), and to design and implement interventions. May be repeated for no more than a total of six credit hours. (Formerly HDFL 792.) Prerequisite: ABSC 791 and instructor permission. FLD.

ABSC 883. Early Childhood Administration Practicum. 1-6 Hours.
Experiences in understanding and developing parent satisfaction with care arrangements for their child(ren), providing services to personnel responsible for care and development of young children, and/or maximizing use of available services for young children on their behalf. May be repeated for no more than a total of six credit hours. (Formerly HDFL 793.) Prerequisite: ABSC 791 and instructor permission. FLD.

ABSC 884. Early Childhood Early Intervention Practicum. 1-6 Hours.
Laboratory teaching in an early childhood classroom that includes children who are developmentally delayed, demonstrate behavioral or learning difficulties, or have other developmental disabilities. Experience includes individualized programming for children with special needs, as well as group management and group curriculum planning. May be repeated for no more than a total of six credit hours. (Formerly HDFL 794.) Prerequisite: ABSC 791 and instructor permission. FLD.

ABSC 885. Early Childhood Teacher Training Practicum. 1-6 Hours.
Experience in supervising staff who work in programs for young children. Supervision includes orienting, monitoring, and evaluating staff performance; opportunities for interaction with other professionals; experience in facilitating staff communication; and consulting on research projects. (Formerly HDFL 795.) Prerequisite: ABSC 791 and instructor permission. FLD.

ABSC 886. Developmental Assessment Practicum: ____. 1-6 Hours.
This course provides direct experience in the developmental assessment of a selected age group, such as infants, preschool and elementary children, adolescents, or adults. It may be repeated providing the age group specification is not repeated. (Formerly HDFL 811.) Prerequisite: HDFL 810 or an equivalent course. FLD.

ABSC 887. Clinical Practicum in Pediatric Psychology. 1-6 Hours.
Supervised experience with pediatric patients referred for behavior problems, including, for example, temper tantrums, enuresis, encopresis, and hyperactivity. Also includes evaluation and treatment of children with commonly encountered behavior problems. In addition, students observe pediatric staff performing appropriate physical exams and observe the interaction between the medical staff and the pediatric psychologist. (Formerly HDFL 823.) Prerequisite: ABSC 705 and instructor permission. FLD.

ABSC 888. Diversity Issues in Clinical Psychology. 3 Hours.
Review of individual differences pertaining to culture, ethnicity, race, gender, sexual orientation, age, etc., as these have an impact upon theory, research, assessment, and treatment issues in clinical psychology. (Same as PSYC 888.) Prerequisite: Graduate status in clinical psychology, or consent of instructor. LEC.

ABSC 890. Seminar in: _____. 3 Hours.
A seminar for master’s level students. It examines basic and applied research literatures in specialized fields of applied behavioral science. May be repeated for credit if the content differs. (Formerly HDFL 701.) Prerequisite: Graduate standing in applied behavioral science or instructor permission. LEC.

ABSC 891. Research in: ____. 1-6 Hours.
Supervised research investigations in basic or applied behavioral science for master’s students. The course introduces observational measurement, research methods and designs, and the conduct of research in the behavioral sciences. May be repeated for credit if the content is different. (Formerly HDFL 800.) Prerequisite: Graduate standing or instructor permission. RSH.

ABSC 892. Readings in: _____. 1-3 Hours.
An individual, supervised study of recent research and scholarship for master’s students. The course emphasizes current scholarship in selected areas of basic and applied behavioral science and its conceptual foundations. Designed for students whose needs cannot be met in other courses. May be repeated for credit if the content differs. (Formerly HDFL 833.) Prerequisite: Graduate standing or instructor permission. RSH.

ABSC 893. Special Topics in: _____. 1-3 Hours.
A research and readings course for master’s students. It allows them to concentrate their studies on selected basic and applied problems in behavioral science and carry out independent research. May be repeated for credit if the content differs. (Formerly HDFL 722, HDFL 724, HDFL 725, HDFL 799.) Prerequisite: Graduate standing or instructor permission. LEC.

ABSC 894. Study Abroad Topics in: ____. 1-3 Hours.
A course designed to enhance international experience in topic areas related to behavioral science for master’s students. May be repeated for credit if the content differs. Prerequisite: Graduate standing or instructor permission. LEC.

ABSC 897. Master’s Thesis in Clinical Child Psychology. 1-10 Hours.
Supervised research experience for completing the thesis leading to master’s degree. Graded on a satisfactory/unsatisfactory basis. (Formerly HDFL 897.) (Same as PSYC 897.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. RSH.

Supervised research experience for the thesis leading to a master’s degree in applied behavioral science. May be repeated. Graded on a satisfactory/unsatisfactory basis. (Formerly HDFL 899.) Prerequisite: Graduate standing in applied behavioral science or instructor permission. THE.

ABSC 900. Self-Control, Impulsivity, and Human Addictive Disorders. 3 Hours.
This course examines basic research designed to explore variables affecting animal and human decision making; particularly decisions
classified as demonstrating impulsivity and self-control. The evidence for genetic and learning contributions to patterns of impulsive decision making will be explored, as will the relation between impulsivity and a range of addictive disorders. LEC.

ABSC 905. Psychopathology in Children. 3 Hours.
Diagnosis and treatment of psychological problems in childhood and adolescence. Preference given to graduate students in child clinical psychology, school psychology, and counseling psychology. (Same as PSYC 905.) Prerequisite: Fifteen hours of graduate credit in psychology or consent of instructor. LEC.

ABSC 908. Psychotropic Drugs: Effects Through the Life Span. 3 Hours.
This course covers basic pharmacological concepts, neuropharmacological principles, and the therapeutics of drug effects on behavior. Special attention is given to age and history as influences in psychopharmacological outcomes. (Formerly HDFL 908.) LEC.

ABSC 913. Behavioral Science Research Proseminar. 1-3 Hours.
A doctoral level professional seminar in which faculty and students present research proposals; offer formal presentations of completed empirical research, reviews of the literature, and other areas of scholarship; and engage discussion about contemporary empirical, conceptual, and professional issues in applied behavioral science. May be repeated for a total of eight credits. (Formerly HDFL 913.) Prerequisite: Graduate standing in behavioral psychology or instructor permission. LEC.

ABSC 920. Seminar in Language Development. 3 Hours.
The course pertains to relevant research regarding infant speech development, vocabulary development, linguistic development, articulation development, and language retardation. (Same as SPLH 966.) (Formerly HDFL 920.) LEC.

ABSC 921. The History and Systems of Psychology. 3 Hours.
An advanced graduate seminar on the history of psychology and its systems, and their relations to contemporary psychology. Pertinent issues in the history and philosophy of science are addressed (e.g., scientific revolutions), as are concerns in the historiography of psychology (e.g., presentism). (Formerly HDFL 891.) Prerequisite: Master’s degree or instructor permission. LEC.

ABSC 931. Verbal Behavior. 3 Hours.
An advanced graduate seminar on the analysis of the verbal behavior of the proficient speaker and the biological, environmental, and motivational factors affecting it. Structural and developmental issues, as well as implications for language training and remediation are integrated throughout. Critiques and rebuttals are examined, along with current empirical and conceptual advances in research and theory. An ABA-accredited and BACB® pre-approved course. (Formerly HDFL 831.) Prerequisite: ABSC 798, advanced coursework in psycholinguistics or linguistics, or instructor permission. LEC.

ABSC 934. Directed Readings in Clinical Child Psychology. 3-5 Hours.
Designed to meet the needs of advanced students whose study in clinical child psychology cannot be met with present courses or for whom advanced work is desired in a specialized area of study. (Formerly HDFL 934.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. RSH.

ABSC 935. Experimental Foundations of Applied Behavior Analysis. 3 Hours.
A graduate level introduction to basic behavioral research. This course surveys seminal and current research in the experimental analysis of behavior and relates this work to research and practice in applied behavior analysis. Topics include respondent conditioning, complex schedule performance, avoidance, stimulus control, and choice. Prerequisite: ABSC 798 and consent of instructor. LEC.

ABSC 940. Measurement and Experimental Design for Applied Research. 3 Hours.
This is an advanced course on research methods helpful in the development, evaluation, and dissemination of effective and sustainable behavior-analytic programs. The practices examined involve (a) selecting non-reactive measures of staff implementation behaviors; (b) selecting effective and sustainable components of a staff management program; and (c) experimentally analyzing the effectiveness and sustainability of the staff management program. Particular emphasis is placed on the analysis of the principles of behavior that determine the maintenance of staff interventions and, therefore, the survival of behavioral programs in their post-research phase. Students read and discuss the literature on factors that promote or impede program survival. Students design an intervention program using the practices examined in the course, simulate an experimental analysis of the program, and write a JABA-style manuscript describing the program and their simulated data. An ABA-accredited and BACB® pre-approved course. (Formerly HDFL 940.) Prerequisite: ABSC/HDFL 735 or HDFL 803, ABSC/HDFL 796, and ABSC/HDFL 871 or instructor permission. LEC.

ABSC 941. Teaching and Conference. 3-6 Hours.
This course is used by graduate students fulfilling the doctoral program teaching requirement. Students assist in class preparation and organization, teaching, grading, and office hours or serve as discussion section leaders or laboratory course supervisors. They meet regularly with the faculty members they are assisting. Students enroll for 3 hours for the equivalent of a 25% assistantship and 6 hours for a 50% equivalent. (Formerly HDFL 941.) Prerequisite: Instructor permission. FLD.

ABSC 942. Techniques of Data Analysis for Applied Research. 3 Hours.
This course examines data analysis procedures commonly used with both large group and single subject experimental designs. In addition to presenting specific data analysis techniques, the strengths and weaknesses inherent in the various techniques are carefully reviewed and evaluated. (Formerly HDFL 942.) Prerequisite: ABSC/HDFL 735 or HDFL 803 and an intermediate statistics course. LEC.

ABSC 943. Advanced Practicum in Clinical Child Psychology III. 1-3 Hours.
Lecture, laboratory, field work, and supervision appointment. Advanced psychological intervention techniques for children, youth, and families; supervised progressive experience in application of behavioral and psycho-therapeutic methods to behavioral and emotional problems. (Formerly HDFL 943.) (Same as PSYC 943.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. FLD.

ABSC 944. Advanced Practicum in Clinical Child Psychology IV. 1-3 Hours.
A continuation of ABSC/HDFL 943 and PSYC 943. (Formerly HDFL 944.) (Same as PSYC 944.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. FLD.

ABSC 947. Advanced Practicum in Clinical Child Psychology V. 1-5 Hours.
A continuation of ABSC/HDFL 944 and PSYC 944. May be taken in more than one semester. (Formerly HDFL 947.) (Same as PSYC 947.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. FLD.
ABSC 951. The Analysis of Cognition. 3 Hours.  
A graduate seminar on the behavior analysis of cognition. Topics include 
consciousness, attention, perception, memory, language, rule-governed 
behavior, problem-solving, decision-making, generativity, creativity, and 
beliefs and attitudes. Comparisons and contrasts are drawn among 
different theoretical orientations (information-processing, parallel-
processing, nonmediational theories). Prerequisite: ABSC 798, advanced 
coursework in cognitive psychology, or instructor permission. RSH.

ABSC 953. Practicum II in Behavioral Psychology. 1-6 Hours.  
Advanced instruction and supervised laboratory or field work for doctoral 
students beyond ABSC 870. May be repeated for credit if the content 
differs. Prerequisite: Graduate standing in behavioral psychology or 
instructor permission. FLD.

ABSC 954. Practicum II in Behavior Analysis: ____. 1-6 Hours.  
Advanced instruction and supervised laboratory or field work for doctoral 
students beyond ABSC 871. May be repeated for credit if the content 
differs. Prerequisite: Graduate standing in behavioral psychology or 
instructor permission. FLD.

ABSC 956. Therapeutic Interventions with Children. 3-5 Hours.  
Clinical approaches to the therapeutic treatment of children with special 
emphasises on research findings and laboratory (practicum) experience. A 
survey of relationship therapies, operant strategies, system approaches, 
parent education and play therapy by the right therapist for a specific child 
with a particular problem. (Same as PSYC 976.) Prerequisite: Instructor 
permission. FLD.

ABSC 958. History of Applied Behavioral Science. 3 Hours.  
An advanced graduate seminar on the long past, short history, recent 
origins, and modern history of applied behavioral science. This includes 
the field’s history, internally: its conceptual system, sciences and 
discipline, profession, and institutions. It also includes the field’s history, 
externally, for instance, the history of Western philosophy, science, 
American culture, and the behavioral and social sciences. Historiographic 
issues are addressed throughout. Prerequisite: ABSC 798 and Master’s 
degree in ABS or instructor permission. SEM.

ABSC 959. Advanced Seminar in Applied Behavior Analysis: ____. 3 Hours.  
An advanced seminar examining the literature and research methods 
in specialized areas of applied behavior analysis (e.g., developmental 
disabilities, community health, organizational development). May be 
repeated for credit if the content differs. An ABA-accredited and BACB® 
pre-approved course. (Formerly HDFL 971.) LEC.

ABSC 963. Clinical Child Psychology Internship. 1 Hour.  
Three consecutive enrollments, covering a minimum of eleven months of 
experience in an approved clinical psychology field setting; supervision 
by qualified clinical child psychology faculty and field staff clinicians. 
Required of all clinical child psychology program students. An intensive 
guided experience in application of clinical child psychology theory, 
methods, and practices. Integrates scientific and clinical aspects of field. 
(Formerly HDFL 963.) (Same as PSYC 963.) Prerequisite: Completion of 
Ph.D. comprehensive examinations, graduate standing in clinical child 
psychology, and permission of clinical child psychology faculty. FLD.

ABSC 965. Evaluating and Disseminating Scientific Material II. 1-3 Hours.  
Intensive training in the evaluation and production of scientific critiques 
and reviews on current issues in the analysis of behavior, as disseminated 
through the media. May be repeated. (Formerly HDFL 965.) Prerequisite: 
Instructor permission. LEC.

ABSC 966. Advanced Readings in: ____. 1-6 Hours.  
An advanced individual, supervised study of recent research and 
scholarship for doctoral students. The course emphasizes current 
scholarship in selected areas of basic and applied behavioral science and 
its conceptual foundations. Designed for students whose needs cannot 
be met in other courses. May be repeated for credit if the content differs. 
(Formerly HDFL 900.) Prerequisite: Graduate standing in behavioral psychology or 
instructor permission. RSH.

ABSC 967. Advanced Seminar in: ____. 3 Hours.  
Advanced, supervised research in basic or applied behavioral science 
for doctoral students. The course may focus on any combination of a 
literature review, research planning and preparation, conducting research, 
analyzing data, writing research reports, and preparing oral reports of 
completed research. May be repeated for credit if the content differs. 
(Formerly HDFL 900.) Prerequisite: Graduate standing in behavioral psychology or 
instructor permission. LEC.

ABSC 969. Advanced Research in: ____. 1-9 Hours.  
Advanced, supervised research in basic or applied behavioral science 
for doctoral students. The course focuses on any combination of a 
literature review, research planning and preparation, conducting research, 
analyzing data, writing research reports, and preparing oral reports of 
completed research. May be repeated for credit if the content differs. 
(Formerly HDFL 900.) Prerequisite: Graduate standing in behavioral psychology or 
instructor permission. RSH.

ABSC 972. Practicum II in: ____. 1-6 Hours.  
Advanced instruction and supervised laboratory or field work for doctoral 
students beyond ABSC 872. May be repeated for credit if the content 
differs. Topic and instructor are announced in the Schedule of Classes. 
Prerequisite: Graduate standing in applied behavioral science or 
instructor permission. FLD.

ABSC 975. Advanced Seminar in Applied Behavior Analysis: _____. 3 Hours.  
Advanced graduate seminar on the long past, short history, recent 
origins, and modern history of applied behavioral science. This includes 
the field’s history, internally: its conceptual system, sciences and 
discipline, profession, and institutions. It also includes the field’s history, 
externally, for instance, the history of Western philosophy, science, 
American culture, and the behavioral and social sciences. Historiographic 
issues are addressed throughout. Prerequisite: ABSC 798 and Master’s 
degree in ABS or instructor permission. SEM.

ABSC 989. Methods of Obtaining External Research Funding. 1-3 Hours.  
The objective of this course is to demystify this process and prepare 
participants to submit their first independent research grant application. 
Participants learn about the characteristics of different funding 
mechanisms and agencies, the characteristics of successful and 
unsuccessful application strategies, how to turn an initial research idea 
into a competitive application, ethical issues that influence each stage of 
the development and submission process, and the nuts and bolts of grant 
development and management. Specific activities include critiquing an 
actual NIH grant application, participating in a mock review panel, and 
developing an actual grant application. LEC.

ABSC 990. Advanced Seminar in: _____. 3 Hours.  
An advanced seminar for doctoral students. It examines basic and applied 
research literatures in specialized fields of applied behavioral science. 
May be repeated for credit if the content differs. (Formerly HDFL 930.) 
Prerequisite: Graduate standing in behavioral psychology or instructor 
permission. LEC.

ABSC 991. Advanced Research in: _____. 1-9 Hours.  
Advanced, supervised research in basic or applied behavioral science 
for doctoral students. The course focuses on any combination of a 
literature review, research planning and preparation, conducting research, 
analyzing data, writing research reports, and preparing oral reports of 
completed research. May be repeated for credit if the content differs. 
(Formerly HDFL 900.) Prerequisite: Graduate standing in behavioral psychology or 
instructor permission. RSH.

ABSC 992. Advanced Readings in: _____. 1-6 Hours.  
An advanced individual, supervised study of recent research and 
scholarship for doctoral students. The course emphasizes current 
scholarship in selected areas of basic and applied behavioral science and 
its conceptual foundations. Designed for students whose needs cannot 
be met in other courses. May be repeated for credit if the content differs. 
(Formerly HDFL 900.) Prerequisite: Graduate standing in behavioral psychology or 
instructor permission. RSH.

ABSC 993. Advanced Special Topics in: _____. 1-3 Hours.  
An advanced research and readings course for doctoral students. It 
allows them to concentrate their studies on selected basic and applied 
problems in behavioral science and carry out independent research. 
May be repeated for credit if the content differs. (Formerly HDFL 931.) 
Prerequisite: Graduate standing in behavioral psychology or instructor 
permission. RSH.

ABSC 994. Advanced Study Abroad Topics in: _____. 1-6 Hours.  
An advanced course designed to enhance international experience in 
topic areas related to behavioral science for doctoral level students. 
May be repeated for credit if the content differs. Prerequisite: Graduate 
standing in behavioral psychology or instructor permission. RSH.

ABSC 995. Doctoral Dissertation in Clinical Child Psychology. 1-10 Hours.  
Research experience making an original contribution to literature in 
clinical child psychology. Graded on a satisfactory/unsatisfactory basis. 
(Formerly PSYC 995.) (Formerly HDFL 995.) LEC.

Advanced supervised research that makes an original, empirical 
contribution to the literature in applied behavioral science leading to a
doctoral degree in behavioral psychology. May be repeated. Graded on a satisfactory/unsatisfactory basis. (Formerly HDFL 999.) Prerequisite: Graduate standing in behavioral psychology or instructor permission. THE.

### Bachelor of Arts and Bachelor of General Studies in Applied Behavioral Science

#### Career Opportunities

The department prepares students for careers in their specialties, as well as for graduate school and professional training. Careers include work in such fields and settings as early childhood education; early childhood intervention programs; community programs for children, youth, and adults with developmental disabilities; programs for individuals with physical disabilities; delinquency, juvenile justice, and law enforcement; public health and health care; community-based and nongovernmental organizations; and behavioral consulting, management, human services, and business. Students enter graduate and professional schools in such areas as applied behavior analysis, applied developmental psychology, behavior analysis, clinical and counseling psychology, community development, gerontology, law, medicine, organizational behavior management, public health, social welfare, and special education.

#### Behavior Analysis Certification

The department offers a program of study that qualifies students to become Board Certified Assistant Behavior Analysts™. Students must pass ABSC 100, ABSC 304, and ABSC 308; obtain requisite supervised or mentored experience; complete the major; complete the KU degree; and pass a national examination. The Behavior Analysis Certification Board (http://www.bacb.com)® has pre-approved ABSC 100, ABSC 304, and ABSC 308 for admission to the national examination. Students should meet with a BACB® advisor early in the junior year.

#### Preparation and Advising

To graduate with the major in 4 years, prospective majors should enroll in Introduction to Applied Behavioral Science (ABSC 100 or ABSC 101) and Principles and Procedures of Behavior Modification and Therapy (ABSC 304) during the first 2 years. The content of these 2 courses will give students a basic understanding of the field of Applied Behavioral Science and help students decide whether they would like to apply to be admitted to the major. The requirements and procedures for applying to be admitted to the major are listed below. Major application forms are available in the Department’s main office or in the College Student Academic Services office. By the end of the second year, they should have consulted with a faculty advisor about degree requirements, specialty areas, and career opportunities. By the end of the third year, they should have taken the prerequisite courses for the fourth-year practicum. This information may also be found in the department’s Undergraduate Handbook. By the beginning of the junior year, majors should complete the College’s Major Declaration form. They should list either ABSCA-BA or ABSCA-BGS as the major code for a Bachelor of Arts or Bachelor of General Studies degree, respectively.

### Admission to the Major

#### Admission Requirements

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSC 100</td>
<td>Introduction to Applied Behavioral Science (3)</td>
</tr>
<tr>
<td>ABSC 101</td>
<td>Introduction to Applied Behavioral Science, Honors (3)</td>
</tr>
</tbody>
</table>

**Principles Procedures of Behavioral Modification and Theory (3)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSC 304</td>
<td>The Principles and Procedures of Behavior Modification and Therapy (3)</td>
</tr>
</tbody>
</table>

#### Admission GPA

A minimum 2.3 GPA is required in the admission courses designated above. All core courses completed at the time of application will be calculated into the admission GPA. University Course Repeat Policy will apply.

#### Application Term

Semester in which major admission criteria will be completed, normally no later than 60 hours, or for transfer students, during the initial term at KU. Application to this major after completion of 60 hours, or the initial KU term for transfer students, will likely delay graduation.

If a student does not meet the admission criteria or neglects to apply for admission in the term above, the student must petition the department for permission for late application.

#### Requirements for the B.A. or B.G.S. Major

All majors must complete the introductory and core course work as well choose from 1 of the following specialty area options.

**Applied Behavioral Sciences Introductory Knowledge (0)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSC 100</td>
<td>Introduction to Applied Behavioral Science (3)</td>
</tr>
<tr>
<td>ABSC 101</td>
<td>Introduction to Applied Behavioral Science, Honors (3)</td>
</tr>
</tbody>
</table>

**Applied Behavioral Sciences Core Knowledge and Skills (10)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSC 304</td>
<td>The Principles and Procedures of Behavior Modification and Therapy (3)</td>
</tr>
<tr>
<td>ABSC 308</td>
<td>Research Methods and Application (4)</td>
</tr>
<tr>
<td>ABSC 509</td>
<td>Contemporary Behavioral Science: Historical, Conceptual &amp; Comparative Foundation (3)</td>
</tr>
</tbody>
</table>

### Early Childhood Education & Intervention Specialty

This option is for students interested in understanding typical and atypical child development and learning to promote healthy development in young children (ages 0-6 years). Students who choose this option are required
to participate in practica in classrooms that serve toddlers and preschool children. Faculty: Professors Claudia Dozier (practicum supervisor), Pam Neidert (practicum supervisor), Lynn Marotz, and Jan Sheldon.

Required Specialty Area Core Knowledge and Skills (6)

Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSC 160</td>
<td>Introduction to Child Behavior and Development (Students may substitute PYSC 333 Child Psychology for ABSC 160. The credit hours for PYSC 333, however, do not count toward the 33 required ABSC major hours or toward the 15 required junior/senior ABSC hours.)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Specialty Area Electives (8)**

Satisfied by completing any junior/senior-level ABSC courses except those already required as introductory, core knowledge, and required specialty courses, which include ABSC 304, ABSC 308, ABSC 444, ABSC 509. Additionally, practicum courses (ABSC 675-ABSC 699) do not count toward specialty area elective hours. Please see specialty area advisors for recommendations. (at least 8 hours)

**Practicum 1 (6-10)**

Two semesters are required. The courses are offered for 5 credit hours during the fall and spring semesters, and for 3 hours during the summer session. Students must select at least one of the courses listed below. For their other required semester, students may also select from ABSC 679 or ABSC 680 (in addition to those listed below)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSC 675</td>
<td>Practicum in Infant-Toddler Care and Early Intervention I (for students new to the Toddler Care Practicum)</td>
<td>3</td>
</tr>
<tr>
<td>ABSC 676</td>
<td>Practicum in Infant-Toddler Care and Early Intervention II (for students who completed ABSC 675)</td>
<td>3</td>
</tr>
<tr>
<td>ABSC 677</td>
<td>Practicum in Preschool Education and Intervention I (for students new to the Preschool Education Practicum)</td>
<td>3</td>
</tr>
<tr>
<td>ABSC 678</td>
<td>Practicum in Preschool Education and Intervention II (for students who completed ABSC 677)</td>
<td>3</td>
</tr>
</tbody>
</table>

**BCABA Certification Examination Eligibility (0)**

Satisfied by selecting one of the following additional practicum courses (not previously taken). By completing three consecutive semesters of ABSC practicum courses, a student is eligible to sit for BCABA Certification Examination. The additional credit hours do not count toward the ABSC major hour requirements.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSC 675</td>
<td>Practicum in Infant-Toddler Care and Early Intervention I</td>
<td>3</td>
</tr>
<tr>
<td>ABSC 676</td>
<td>Practicum in Infant-Toddler Care and Early Intervention II</td>
<td>3</td>
</tr>
<tr>
<td>ABSC 677</td>
<td>Practicum in Preschool Education and Intervention I</td>
<td>3</td>
</tr>
<tr>
<td>ABSC 678</td>
<td>Practicum in Preschool Education and Intervention II</td>
<td>3</td>
</tr>
<tr>
<td>ABSC 679</td>
<td>Practicum in Behavior Analysis Research in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ABSC 680</td>
<td>Practicum in Advanced Laboratory in the Development of Behavioral Treatments for Children with Autism</td>
<td>3</td>
</tr>
</tbody>
</table>

**Early Childhood Autism Intervention Specialty**

This option is for students interested in conducting intervention procedures to address language and social skill deficits of children with autism in home and school settings. Students who choose this option are required to take a preparatory course and practica focusing on children with autism. Faculty: Professors Claudia Dozier (practicum supervisor), Pam Neidert (practicum supervisor), Florence D. DiGennaro Reed, Jan Sheldon, Jim Sherman (practicum supervisor).

Required Specialty Area Core Knowledge and Skills (9)

Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSC 160</td>
<td>Introduction to Child Behavior and Development (Students may substitute PYSC 333 Child Psychology for ABSC 160. The credit hours for PYSC 333, however, do not count toward the 33 required ABSC major hours or toward the 15 required junior/senior ABSC hours.)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Specialty Area Electives (5)**

Satisfied by completing any junior/senior-level courses, except those already required as introductory, core knowledge, and required specialty area courses (which include ABSC 304, ABSC 308, ABSC 350, ABSC 444, and ABSC 509. Additionally, practicum courses (ABSC 675-ABSC 699) do not count toward specialty area elective hours. Please see specialty area advisors for recommendations. (at least 5 hours)

**Practicum 1 (6)**

Two semesters are required. The courses are offered for 5 credit hours during the fall and spring semesters, and for 3 hours during the summer session. Note: ABSC 350 must be taken prior to, or concurrently with, enrollment in the above practicum courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSC 680</td>
<td>Practicum in Advanced Laboratory in the Development of Behavioral Treatments for Children with Autism</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSC 675</td>
<td>Practicum in Infant-Toddler Care and Early Intervention I</td>
<td>3</td>
</tr>
<tr>
<td>ABSC 676</td>
<td>Practicum in Infant-Toddler Care and Early Intervention II</td>
<td>3</td>
</tr>
<tr>
<td>ABSC 677</td>
<td>Practicum in Preschool Education and Intervention I</td>
<td>3</td>
</tr>
<tr>
<td>ABSC 678</td>
<td>Practicum in Preschool Education and Intervention II</td>
<td>3</td>
</tr>
<tr>
<td>ABSC 679</td>
<td>Practicum in Behavior Analysis Research in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ABSC 680</td>
<td>Practicum in Advanced Laboratory in the Development of Behavioral Treatments for Children with Autism</td>
<td>3</td>
</tr>
</tbody>
</table>

**BCABA Certification Examination Eligibility (0)**

Satisfied by selecting one of the following additional practicum courses (not previously taken). By completing three consecutive semesters of ABSC practicum courses, a student is eligible to sit for BCABA Certification Examination. The additional credit hours do not count toward the ABSC major hour requirements.
ABSC Early Childhood Research Specialty

This option is for students interested in gaining research experience in early childhood possibly as preparation for graduate school or employment in educational and clinical research centers. Students who choose this option will enroll in research-oriented practica. Interested students would consult with Professor Claudia Dozier. Faculty: Professors Claudia Dozier (practicum supervisor), Pam Neidert (practicum supervisor).

Required Specialty Area Core Knowledge and Skills (3)
Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSC 160</td>
<td>Introduction to Child Behavior and Development</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Specialty Area Electives (11)
Satisfied by completing 11 hours of any junior/senior-level courses approved by the advisor. The following are recommended:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSC 350</td>
<td>The Behavioral Treatment of Children with Autism</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ABSC 444</td>
<td>Curriculum Development for Young Children</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ABSC 405</td>
<td>Children and Media</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ABSC 455</td>
<td>Health, Safety, and Nutrition in Early Childhood Development</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ABSC 486</td>
<td>Issues in Parenting</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ABSC 535</td>
<td>Developmental Psychopathology</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ABSC 565</td>
<td>Applied Developmental Psychology</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ABSC 871</td>
<td>Practicum I in Behavior Analysis: _____</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Practicum (6)
Two semesters are required. The courses are offered for 3-5 credit hours during the fall and spring semesters, and for 3 hours during the summer session. Note: ABSC 308 must be taken prior to, or concurrently with, enrollment in the above practicum courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSC 679</td>
<td>Practicum in Behavior Analysis Research in Early Childhood Education (Students must complete at least 1 semester)</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

For the students’ other required semester, students may select from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSC 675</td>
<td>Practicum in Infant-Toddler Care and Early Intervention I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ABSC 676</td>
<td>Practicum in Infant-Toddler Care and Early Intervention II</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Youth Development & Juvenile Justice Specialty

This specialty area is for students who want to work with children and adolescents who may be involved formally or informally with the juvenile justice system. It includes courses addressing issues such as juvenile law, developing relationships, counseling and problem-solving, behavioral contracting, and other techniques used when working with school-aged children and adolescents. The course sequence culminates in a yearlong practicum during which students work with children and adolescents in the Truancy Prevention and Diversion Program. The practicum is in collaboration with the school district, Social and Rehabilitation Services, the district attorney’s office, and the juvenile court.

Graduates with this specialty are excellent candidates for positions as probation officers, counselors in mental health programs, intake and assessment officers, truancy prevention specialists, and treatment personnel in intervention and treatment programs for children and adolescents. Many students also pursue graduate study in social welfare, law, counseling, and psychology. Faculty: Professors Yo Jackson, Jan Sheldon (practicum supervisor), Ric Steele, and Eric Vernberg.

Required Specialty Area Core Courses (6)
Satisfied by the following. Students should plan their program with a department advisor.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSC 410</td>
<td>Behavioral Approaches in Working with Adolescents (ABSC 410 must be taken prior to enrolling in the practicum. It is offered only in the spring semester.)</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>
ABSC 560 The Juvenile Justice System: A Behavioral and Legal Perspective 3

Specialty Area Electives (9)
Select 9 hours of the following. Note: Although ABSC 160 is not required for this specialty area, it is a required prerequisite for some of the specialty area electives.

- ABSC 310 Building Healthy Communities
- ABSC 360 Drugs, Addiction, and Behavior
- ABSC 405 Children and Media
- ABSC 470 Organizational Behavior Management
- ABSC 486 Issues in Parenting
- ABSC 535 Developmental Psychopathology
- ABSC 562 Behavioral Community Psychology
- ABSC 565 Applied Developmental Psychology
- ABSC 626 Psychology of Adolescence

Practicum (10)
This practicum requires a two-semester commitment (enrollment in ABSC 694), beginning in the fall semester and continuing in the spring semester. Space may be limited and enrollment may depend on the date of indication of interest and performance in ABSC 410.

- ABSC 694 Practicum in Juvenile Problems 10

Adults with Disabilities Specialty
This specialty area is for students interested in working with people with developmental disabilities and in the development of supportive teaching programs in the community for people with developmental disabilities. The courses teach observing and defining behavior, increasing appropriate and decreasing inappropriate behavior, developing relationships, counseling, legal and ethical issues, and experimental design. The course sequence culminates in practicum work in a community-based residential service agency or day treatment program for adults with developmental disabilities.

Graduates of this specialty area are excellent candidates for positions in residential treatment programs, community human service agencies, and vocational and pre-vocational teaching programs for people with disabilities. Many students also pursue graduate studies in applied behavioral analysis, special education, and psychology. Faculty: Professors Jan Sheldon and Jim Sherman (practicum supervisor).

Required Specialty Area Course (3)
Satisfied by the following:

- ABSC 350 The Behavioral Treatment of Children with Autism 3

Specialty Area Electives (11)
Satisfied by completing 11 hours of any junior/senior-level courses to meet the 33 hour major requirement. The following are recommended:

- ABSC 410 Behavioral Approaches in Working with Adolescents
- ABSC 437 Independent Living and People with Disabilities
- ABSC 535 Developmental Psychopathology
- ABSC 560 The Juvenile Justice System: A Behavioral and Legal Perspective
- ABSC 565 Applied Developmental Psychology
- ABSC 671 Applied Behavior Analysis

Practicum (11)
Satisfied by completing of any ABSC courses, except those already required as introductory, core knowledge, and required specialty area courses, including ABSC 100, ABSC 304, ABSC 308, ABSC 350, ABSC 509. Additionally, at least 9 hours of coursework must be at the junior/senior level. Practicum courses (ABSC 675-ABSC 699) do not count toward specialty area elective hours. Please see specialty area advisors for more specific recommendations.

Community Health & Development Specialty
This specialty area is for students interested in building healthy and well-functioning communities. They may do so through public service (e.g., AmeriCorps, Peace Corps) or in a career following graduate study in an appropriate field such as public health, public policy, law, rehabilitation, psychology, social welfare, or medicine. It provides opportunities to better understand and make a difference with important community problems and goals (e.g., substance abuse, violence, education, child and youth development, independent living of people with disabilities, well-being of older adults).

Course work and practicum experiences focus on (a) intervention methods used to address community problems and goals (e.g., strategic planning, intervention, advocacy) and (b) research methods used to study the effects of community initiatives for health and development (e.g., community assessment, evaluation). The course sequence culminates in a 2-semester practicum arranged with faculty members and representatives of community organizations or governmental agencies (e.g., in public health, child advocacy, independent living, youth development, community development). Faculty: Professors Jomella Watson-Thompson (practicum supervisor), Stephen Fawcett (practicum supervisor), and Glen White (practicum supervisor).

Required Specialty Area Course (6)
Satisfied by the following:

- ABSC 150 Community Leadership 3
- ABSC 310 Building Healthy Communities, Honors 3
- ABSC 311 Building Healthy Communities, Honors 3

Specialty Area Electives (8)
Satisfied by completing any junior/senior-level ABSC courses, except those already required as introductory, core knowledge, and required specialty courses (including ABSC 304, ABSC 308, ABSC 310/311, ABSC 509. Additionally, practicum courses (ABSC 675-ABSC 699) do not count as specialty area electives. Please see specialty area advisors for recommendations. (at least 8 hours)

- ABSC 675 Practicum in Community Health and Development 3
- ABSC 690 Practicum in Community Health and Development, Honors 3

Basic Research
Students pursuing the basic research option learn about behavioral processes and research methods, and acquire skills in the experimental analysis of behavior. Students completing this option complete a 2-semester hands-on practicum in which they assist in the conduct of research on human or nonhuman behavioral processes. Students are
involved in all aspects of the research endeavor, from conceptualization of problems to data collection, analysis, and presentation. Students pursuing this option are required to complete an introductory course in statistics. Faculty: Professors Derek Reed (practicum supervisor), Florence D. DiGennaro Reed (practicum supervisor), and Edward K. Morris (practicum supervisor).

Specialty Area Electives (11)
Satisfied by completing any junior/senior-level ABSC courses, except those already required as introductory and core knowledge courses (ABSC 304, ABSC 308, ABSC 509). Additionally, practicum courses (ABSC 675-ABSC 699) do not count toward specialty area elective hours. Please see a specialty area advisor for recommendations.

Statistics in Psychological Research (3)
- PSYC 210 Statistics in Psychological Research 3
- or PSYC 211 Statistics in Psychological Research, Honors

Practicum (6)
Two semesters of practicum (ABSC 692) are required. Practicum courses are offered for 3-6 credit hours during the fall and spring semesters, and 3 hours during the summer session. However, no more than 6 hours total apply to the major. The prerequisite is the permission of the supervisor, as space permits.

ABSC 692 Practicum in Basic Research 3

Conceptual Foundations
Students pursuing the conceptual foundations option learn about contemporary conceptual issues in behavior analysis, its history and philosophy, and its relations with the behavioral, social, and cognitive sciences in general. As a result, they acquire skills in critical thinking about behavior and the behavior of scientists. Students who complete this option complete a 2-semester practicum in which they read and research a relevant literature and write a paper that advances their understanding of the field. Faculty: Professors Derek Reed (practicum supervisor), Florence D. DiGennaro Reed (practicum supervisor), and Edward K. Morris (practicum supervisor).

Required Specialty Area Course (3)
- ABSC 798 Conceptual Foundations of Behavior Analysis 3

Specialty Area Electives (8)
Satisfied by completing any junior/senior-level ABSC courses, except those already required as introductory and core knowledge courses (including ABSC 304, ABSC 308, ABSC 509, ABSC 798). Additionally, practicum courses (ABSC 675-ABSC 699) do not count toward specialty area elective hours. Please see a specialty area advisor for more specific recommendations. (at least 8 hours)

Practicum (6-10)
Satisfied by the following:
- ABSC 693 Practicum in Historical and Conceptual Foundations (Practicum courses are offered for 3-6 credit hours during the fall and spring semesters, and 3 hours during the summer session. No more than 6 hours total apply to the major.) 6-10

Organizational Behavior Management Research & Practice
This specialty area is for students interested in studying the application of behavioral principles to people and groups in business, industry, government, and human service settings. This specialty area includes courses in behavior analysis, research methods, and organizational behavior management with a focus on its three sub-disciplines including performance management, systems analysis, and behavior-based safety. The program culminates in practica that provide students with direct experiences improving employee behavior, work safety, or organizational systems within businesses in the community. Students completing this program will gain knowledge and experience in the areas of behavior analysis, management, staff training, and systems-level interventions. Careers: This area is relevant for students interested in behavioral consulting, management, human services, and business.

Introductory Course (3)
- ABSC 100 Introduction to Applied Behavioral Science 3
- or ABSC 101 Introduction to Applied Behavioral Science, Honors 3

Core Courses (10)
- ABSC 304 The Principles and Procedures of Behavior Modification and Therapy 3
- ABSC 308 Research Methods and Application 4
- ABSC 509 Contemporary Behavioral Science: Historical, Conceptual, and Comparative Foundations 3

Required Area Electives (6)
- ABSC 150 Community Leadership 3
- ABSC 470 Organizational Behavior Management 3

Specialty Area Electives (8)
Satisfied by completing any junior-senior level ABSC courses, except those already required as introductory, core knowledge, and required specialty area courses (including ABSC 304, ABSC 308, ABSC 470, ABSC 509). Additionally, practicum courses (ABSC 675-ABSC 699) do not count toward specialty area elective hours. Please see specialty area advisors for recommendations.

Practicum (6-10)
This practicum requires a 2-semester commitment (enrollment in ABSC 682), beginning in the fall semester and continuing in the spring semester. Space may be limited and enrollment may depend on the date of indication of interest. No more than 6 hours of practicum apply to the major.

ABSC 682 Organizational Behavior Management Practicum 6-10

BCABA Certification Examination Eligibility (optional)
By completing three consecutive semesters of ABSC practicum courses, a student is eligible to sit for BCABA Certification Examination. The additional credit hours do not count toward the ABSC major hour requirements.

Applied Behavioral Science Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade point average minimum standards:

Major Hours
Satisfied by 33 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior (300+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.
Major Junior/Senior (300+) Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Double Majors
The department encourages double majors and minors in other departments. Double majors are especially appropriate for students planning to attend graduate school or enter professional programs (e.g., psychology, law, medicine). Any of the College’s other majors may be appropriate, but among the more common are psychology, human biology, sociology, political science, and speech-language-hearing.

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please see the department for details.

Departmental Honors
The department’s honors program is suited for undergraduates planning to attend graduate school. Students are expected to enroll in two semesters of ABSC 599 for a total of 4 to 8 credit hours. The course combines small-group discussions on advanced topics in applied behavioral science, along with honors thesis supervision of a project of the student’s design. Honors students are invited to attend the ABS graduate proseminar or department colloquium series. Students should meet with the department’s honors advisor by the middle of the junior year to identify a faculty member with whom to complete the project. Prerequisite: Completion of at least 60 hours in the College with a grade-point average of 3.25 and an average of 3.5 in the department.

Study Abroad
The department offers students opportunities to obtain international experience in a program offered jointly with the Office of Study Abroad (http://www.studyabroad.ku.edu) (ABSC 279, ABSC 479) and research experience with faculty members who teach research courses or a research practicum:

**Minor in Applied Behavioral Science**

**Why study applied behavioral science?**
Because a science can solve relevant problems — individual and societal, local and global.

**Requirements for the Minor**
Students selecting a minor in Applied Behavioral Science are required to complete ABSC 100 and at least 15 credit hours of coursework in ABS, 12 of which must be at the junior/senior level (courses numbered 300 or above). No more than 3 credit hours in practicum courses and no more than 3 credit hours in research, special topics, and study abroad courses may count toward the general ABS minor.

We recommend that students who are interested in an ABS minor see an ABS advisor and consider completing a course sequence that focus on one of the following specialty areas: Early Childhood Education and Intervention; Early Childhood Autism Intervention, Early Childhood Research, Youth Development and Juvenile Justice, Adults with Disabilities, Community Health and Development, Basic Research in Behavioral Science, Organizational Behavior Management Research and Practice, and Historical and Conceptual Foundations of Behavioral Science. Specialty area course sequences are described below.

**Early Childhood Autism Intervention**
- ABSC 100 Introduction to Applied Behavioral Science 3
- ABSC 160 Introduction to Child Behavior and Development 3
- ABSC 304 The Principles and Procedures of Behavior Modification and Therapy 3
- ABSC 350 The Behavioral Treatment of Children with Autism 3
- ABSC 444 Curriculum Development for Young Children 3
- ABSC 680 Practicum in Advanced Laboratory in the Development of Behavioral Treatments for Children with Autism 3

1 Indicates practicum course. Admission to practicum courses for students completing a minor in ABS is subject to limitations on practicum openings.

**Early Childhood Research**
- ABSC 100 Introduction to Applied Behavioral Science 3
- ABSC 160 Introduction to Child Behavior and Development 3
- ABSC 304 The Principles and Procedures of Behavior Modification and Therapy 3
- ABSC 308 Research Methods and Application 4
- ABSC 350 The Behavioral Treatment of Children with Autism 3
- ABSC 444 Curriculum Development for Young Children 3
- ABSC 509 Contemporary Behavioral Science: Historical, Conceptual, and Comparative Foundations 3
- ABSC 679 Practicum in Behavior Analysis Research in Early Childhood Education 3

Research experience is recommended for students planning to attend graduate school. The department also offers some courses that include a service-learning component. Many of these programs, research experiences, and service-learning courses meet university requirements in these areas.
Indicates practicum course. Admission to practicum courses for students completing a minor in ABS is subject to limitations on practicum openings.

Early Childhood Education & Intervention

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<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tr>
<td>ABSC 100</td>
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<tr>
<td>ABSC 160</td>
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<tr>
<td>ABSC 304</td>
<td>The Principles and Procedures of Behavior</td>
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<tr>
<td></td>
<td>Modification and Therapy</td>
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<tr>
<td>ABSC 305</td>
<td>The Behavioral Treatment of Children with Autism</td>
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Select one of the following:

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>ABSC 350</td>
<td>The Behavioral Treatment of Children with Autism</td>
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<tr>
<td>ABSC 455</td>
<td>Health, Safety, and Nutrition in Early Childhood Development</td>
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<tr>
<td>ABSC 486</td>
<td>Issues in Parenting</td>
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Select one of the following:

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<th>Course Title</th>
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<tr>
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<td>Practicum in Infant-Toddler Care and Early</td>
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<td>&amp; ABSC 676</td>
<td>Intervention I</td>
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<td>and Practicum in Infant-Toddler Care and Early</td>
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<td></td>
<td>Intervention II</td>
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<tr>
<td>ABSC 677</td>
<td>Practicum in Preschool Education and Intervention</td>
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<td>&amp; ABSC 678</td>
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<td>and Practicum in Preschool Education and</td>
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<td>Intervention II</td>
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Youth Development and Juvenile Justice

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<td>ABSC 100</td>
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<td>The Principles and Procedures of Behavior</td>
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<tr>
<td></td>
<td>Modification and Therapy</td>
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<tr>
<td>ABSC 410</td>
<td>Behavioral Approaches in Working with Adolescents</td>
<td>3</td>
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<tr>
<td>ABSC 560</td>
<td>The Juvenile Justice System: A Behavioral and</td>
<td>3</td>
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<td></td>
<td>Legal Perspective</td>
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<td>ABSC 694</td>
<td>Practicum in Juvenile Problems</td>
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Adults with Disabilities

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<th>Course Title</th>
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<tbody>
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<td>ABSC 535</td>
<td>Developmental Psychopathology</td>
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<td>ABSC 437</td>
<td>Independent Living and People with Disabilities</td>
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<tr>
<td>ABSC 565</td>
<td>Applied Developmental Psychology</td>
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<tr>
<td>ABSC 685</td>
<td>Practicum in Community-based Residential or Day</td>
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<td></td>
<td>Treatment Programs for Disabled Adults</td>
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Community Health and Development

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>Introduction to Applied Behavioral Science</td>
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<tr>
<td>ABSC 150</td>
<td>Community Leadership</td>
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<tr>
<td>ABSC 310</td>
<td>Building Healthy Communities</td>
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Select three of the following:

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<tbody>
<tr>
<td>ABSC 410</td>
<td>Behavioral Approaches in Working with Adolescents</td>
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<td>ABSC 562</td>
<td>Behavioral Community Psychology</td>
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<td>Applied Developmental Psychology</td>
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<td>ABSC 626</td>
<td>Psychology of Adolescence</td>
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<td>ABSC 671</td>
<td>Applied Behavior Analysis</td>
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Basic Research in Behavioral Science

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<td>ABSC 308</td>
<td>Research Methods and Application</td>
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<td>PSYC 210</td>
<td>Statistics in Psychological Research</td>
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<td>ABSC 425</td>
<td>Teaching Apprenticeship in Applied Behavioral</td>
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<td>ABSC 509</td>
<td>Contemporary Behavioral Science: Historical,</td>
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<td></td>
<td>Conceptual, and Comparative Foundations</td>
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<tr>
<td>ABSC 692</td>
<td>Practicum in Basic Research</td>
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Organizational Behavior Management Research & Practice

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<td>ABSC 470</td>
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<td></td>
<td>Conceptual, and Comparative Foundations</td>
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<tr>
<td>ABSC 682</td>
<td>Organizational Behavior Management Practicum</td>
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1 Indicates practicum course. Admission to practicum courses for students completing a minor in ABS is subject to limitations on practicum openings.
Conceptual Foundations of Behavioral Science

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<td>ABSC 509</td>
<td>Contemporary Behavioral Science: Historical, Conceptual, and Comparative Foundations</td>
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<tr>
<td>ABSC 693</td>
<td>Practicum in Historical and Conceptual Foundations</td>
<td>3</td>
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</table>

1 Indicates practicum course. Admission to practicum courses for students completing a minor in ABS is subject to limitations on practicum openings.

Applied Behavioral Science Minor Hours & GPA

While completing all required courses, majors must also meet each of the following hour and grade point average minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 hours of junior/senior (300+) hours of KU resident credit in the minor.

Minor Junior/Senior (300+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 GPA in all departmental courses in the Minor. GPA calculations include all departmental courses in the field of study including Fs and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Master of Arts in Applied Behavioral Science

Why study applied behavioral science?
Because a science can solve relevant problems — individual and societal, local and global.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

Applicants seeking admission to the master’s or doctoral program should apply online (http://www.graduate.ku.edu). Detailed instructions are provided at that website. Applications are submitted to the university’s Graduate Application Processing Center (http://www.graduate.ku.edu), which records and forwards them to the department. Applicants submit a completed application form and 1 official transcript of all undergraduate and any graduate course work. They may also submit copies of relevant scholarly or professional work, published or unpublished. Reports of Graduate Record Examination scores are encouraged but not required.

Applicants also must obtain letters of recommendation from 3 professionals familiar with their academic or professional records. These are also submitted online by the applicant’s reference.

Among the department’s application materials is a list of the faculty members and descriptions of their research, scholarly, and professional interests. Applicants select at least 3 faculty members whose interests match their interests. These faculty members constitute the applicant’s admissions committee; only they review the application and its supporting materials. An applicant is accepted when one of the faculty members consents to admit the student. This faculty member becomes the advisor of record.

For admission with full graduate standing, the department recommends that applicants complete 12 credit hours of undergraduate or graduate course work in behavior analysis, behavioral science, psychology, education, or related fields, and 6 hours in experimental methods, research design, or statistics.

Many faculty advisors offer research and teaching assistantships. Information about graduate scholarships outside of the department is available online (http://www.graduate.ku.edu/funding-opportunities). Applicants should inform their prospective advisors if they apply for a scholarship.

For admission in the fall semester, the application and supporting materials should be received by December 15 of the previous year. Later applications receive consideration in the order of their receipt. Students may be admitted for the spring semester through the application procedures above, but there is no filing deadline.

M.A. in Applied Behavioral Science Degree Requirements

The master’s program trains highly competent scientist-practitioners in applied behavioral science. It requires course work on the basic principles and conceptual foundations of behavioral science and its research methods but emphasizes course work and training in applied and intervention research (e.g., assessment, analysis, intervention, evaluation). Its objective is to advance empirically based solutions to problems of individual and societal importance, both local and global.

The master’s program follows a junior-colleague model. Students work closely with their advisors and join them in many aspects of professional development. This includes designing and conducting research, preparing manuscripts for presentation and publication, presenting and publishing those manuscripts, and engaging in all facets of the responsible conduct of research. Students typically work with one advisor, but may work with
other faculty members or have co-advisors. If a student’s or advisor’s interests change, students are free to change advisors.

The M.A. degree requires 30 credit hours: 15 hours in 5 content areas, 3 hours in a practicum, and research and elective courses. Students also must conduct, write up, and orally defend an empirically based thesis. Course work is required in each of the following areas:

1. **Ethical, Legal, and Professional Issues** (3). Instruction in ethical principles in the conduct of research (e.g., informed consent, data analysis), legal issues in professional conduct (e.g., plagiarism, copyright), and professional skills (e.g., journal reviewing, professional communication).

2. **Principles of Behavior I** (3). The science of behavior (e.g., observation, experimentation), laboratory methods, basic behavioral principles (e.g., reinforcement, stimulus control), and their applications (e.g., early childhood, disabilities).

3. **Research Methods I** (3). Strategies and tactics of scientific research (e.g., objectivity, empiricism), the logic of experimentation (e.g., validity, reliability), measurement and direct observation, and experimental designs for single-subject and time-series analyses.

4. **Conceptual Foundations I** (3). The history and philosophy of behavioral science, contemporary advances in basic research for application, the analysis of everyday behavior (e.g., cognition, emotion), and current issues in the discipline and the profession (e.g., relations between basic and applied research).

5. **Applied Behavior Analysis I** (3). The characteristics of applied behavioral research (assessment, analysis, intervention, evaluation), intervention research (clinical, community), applied procedures and programs, social validity, and ethical issues.

6. **Research or Intervention Practicum** (3). A supervised practicum course in
   - a. basic or applied research or
   - b. behavioral interventions.

This course work also satisfies 6 of the course requirements and the thesis requirement in the doctoral program.

Master’s students are required to present the results of their research at a department professional seminar meeting. The presentation is comparable to what would be presented at a professional conference. Students answer questions from their peers and the faculty in attendance.

**Doctor of Philosophy in Behavioral Psychology**

**Psychology Licensure**

The department’s doctoral program in behavioral psychology does not satisfy requirements for licensure in psychology. Students wishing to meet these requirements should, with their advisors, consult the Association of State and Provincial Psychology Boards (http://www.asppb.org) for state and province requirements. In developing a curriculum that fulfills these requirements, students should consider carefully whether the required courses, clinical experiences, and internships for state and province licensure that are offered by the department and university are open to them.

**Admission to Graduate Studies**

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

**Graduate Admission**

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Applicants also must obtain letters of recommendation from 3 professionals familiar with their academic or professional records. These are also submitted online by the applicant’s reference.

Among the department’s application materials is a list of the faculty members and descriptions of their research, scholarly, and professional interests. Applicants select at least 3 faculty members whose interests match their interests. These faculty members constitute the applicant’s admissions committee; only they review the application and its supporting materials. An applicant is accepted when one of the faculty members consents to admit the student. This faculty member becomes the advisor of record.

For admission with full graduate standing, the department recommends that applicants complete 12 credit hours of undergraduate or graduate course work in behavior analysis, behavioral science, psychology, education, or related fields, and 6 hours in experimental methods, research design, or statistics.

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For admission in the fall semester, the application and supporting materials should be received by **December 15** of the previous year. Later applications receive consideration in the order of their receipt. Students may be admitted for the spring semester through the application procedures above, but there is no filing deadline.

**Ph.D. in Behavioral Psychology Degree Requirements**

The doctoral program trains highly competent researchers in applied behavioral science (e.g., applied behavior analysis, applied psychology). Students are taught to discover and produce, translate and apply, and
communicate knowledge in the behavioral sciences for understanding and solving problems of individual and societal importance, both local and global. The curriculum requires a sequence of instruction that integrates courses in the basic principles of behavior, experimental methods and research design, and conceptual foundations, but emphasizes course work and training in applied and intervention research (e.g., assessment, analysis, intervention, evaluation). Its objective is to discover and advance empirically based solutions to problems of individual and societal importance, both local and global.

The doctoral program follows a junior-colleague model. Students work closely with their advisors and join them in every aspect of professional development. This includes designing and conducting research, preparing manuscripts for presentation and publication, presenting and publishing those manuscripts, preparing editorial reviews of manuscripts, and engaging in all facets of the responsible conduct of research. Students typically work with 1 advisor, but may work with other faculty members or have co-advisors. If a student's or advisor's interests change, students are free to change advisors.

Course Requirements

The doctoral degree program requires students to take 1 course in 9 areas, along with 2 practicum courses. The areas and the practicum courses are:

1. Ethical, Legal, and Professional Issues (3). Instruction in the ethical principles in the conduct of research (e.g., informed consent, data analysis), legal issues in professional conduct (e.g., plagiarism, copyright), and professional skills (e.g., journal reviewing, professional communication).

2. Principles of Behavior I (3). The science of behavior (e.g., observation, experimentation), laboratory methods, basic behavioral principles (e.g., reinforcement, stimulus control), and their applications (e.g., early childhood, disabilities).

3. Research Methods I (3). Tactics and strategies of scientific research (e.g., objectivity, empiricism), the logic of experimentation (e.g., validity, reliability), measurement and direct observation, and experimental designs for single-subject and time-series analyses.

4. Conceptual Foundations I (3). The history and philosophy of behavioral science, contemporary advances in basic research for application, the analysis of everyday conduct (e.g., cognition, emotion), and current issues in the discipline and profession (e.g., relations between basic and applied research).

5. Applied Behavior Analysis I (3). The characteristics of applied behavioral research (assessment, analysis, intervention, evaluation), intervention research (clinical, community), applied procedures and programs, social validity, and ethical issues.

6. Principles of Behavior or Conceptual Foundations II (3). Advanced treatment of (a) the basic principles (behavioral choice stimulus equivalence) or empirical research in selected content domains (behavioral development, verbal behavior) or (b) the historical, comparative, and contemporary foundations of behavior science.

7. Research Methods II (3). Advanced treatment of the tactics and strategies of basic, applied, and intervention research (e.g., measurement, design), with an emphasis on conducting research in applied settings (e.g., community, school, organizations).

8. Applied Behavior Analysis II (3). Advanced or specialized reviews of applied and intervention research relevant to new approaches (e.g., ecobehavioral analysis, functional assessment), special problems (e.g., autism, substance abuse), atypical populations (e.g., adolescents, elders), and applied settings (e.g., schools, nursing homes).

9. Professional Development Seminar (1-3). An overview of professional issues in basic and applied research (consent, deception, bias), professional communications (authorship, plagiarism, publications, presentations), and professional development (vita preparation, job search strategies).

10. Research or Intervention Practicum I and II (6), 2 supervised practicum courses in (a) basic or applied research or (b) behavioral interventions.

Master's Thesis

Students complete an empirically based master's thesis and pass an oral examination on it. With their advisor's approval, empirically based theses from other programs may meet this requirement.

Research Skill

The Office of Graduate Studies requires students to have training in responsible scholarship and research skills pertinent to the field of research. This will be met by:

- Satisfactory completion of ABSC 735 plus 1 graduate-level methods course (students in the joint PhD-MPH program must complete the “plus 1” course through the MPH program)
- Satisfactory completion of ABSC 841
- 1 of the following:
  - At least 1 first-author publication in peer-reviewed journals, or
  - At least 2 first-author scholarly presentations at regional, state, or national professional meetings, no more than 1 of which may be a poster (the work presented must have been entirely completed while at KU)
- Successful passing of the Written and Oral Comprehensive Exam

Teaching Requirement

Graduate students receive training in the teaching and supervision of undergraduates. The requirement may be met in 1 of 2 ways. In the first, students serve as a paid half-time teaching assistants for 1 semester or as a quarter-time assistants for 2 semesters, assuming proportionate responsibility for class organization, lecturing, grading, and office hours under a faculty member's supervision. In the second, students take LA&S 792 or ABSC 941, attend 3 brown bag lectures at the Center for Teaching Excellence, and present a guest lecture to the department. In both cases, students must also write a statement of teaching philosophy and obtain numeric evaluations of their teaching in their guest lectures.

Professional Seminar II Requirement

Doctoral students are required to present the results of their research at a department professional seminar meeting. The presentation is comparable to what would be presented at a professional conference. Students answer questions from their peers and the faculty in attendance.

Comprehensive Examination

Students begin work on the requirements of the comprehensive examination after fulfilling the research skill requirements. The examination has 3 components:

- Successful passing of the Written and Oral Comprehensive Exam
1. **Editorial Critiques.** Students write 3 editorial reviews of published or unpublished journal articles, all of them empirical. The articles cover a range of topics and experimental designs. The first 2 are graded pass-fail by the student's advisor; the third must be passed by 2 other faculty members.

2. **Written Examination.** In preparation for the oral comprehensive examination, students write a research proposal that includes a critical and comprehensive review of the research literature relevant to the proposed research. The topic is chosen by students with the guidance of their advisors. Students may complete this requirement with a document formatted according to the 2010 APA Publication Manual or a federal grant proposal.

3. **Oral Examination.** In preparation for the oral examination, students provide their comprehensive examination committee members with a copy of their research review and proposal at least 2 weeks before the date of the defense. During the examination, committee members ask students questions about the review and proposal, as well as on topics covered in the required doctoral curriculum. The defense is successful if a majority of the committee members vote to pass it.

**Dissertation**

In consultation with their advisors, students conduct an empirically based dissertation, typically based on the comprehensive examination proposal, and pass an oral examination on it. Before the defense can be scheduled, the Professional Seminar II requirement and all 3 components of the comprehensive examination must be passed. The defense is successful if a majority of the committee members vote to pass it. Any interested member of the College’s Graduate Faculty may attend.

**Joint Degree: Ph.D. in Behavioral Psychology and Master of Public Health**

The department offers a joint Ph.D./M.P.H. degree in collaboration with the Master of Public Health (p. 1818) program in the Department of Preventive Medicine and Public Health at KU Medical Center. The degree incorporates efficiencies in the elective and research requirements of both departments. This is the first degree in the nation to combine an M.P.H. with the strengths of advanced study in applied behavioral science. Faculty and student research teams address issues in community health and development, child and youth health and development, disabilities and independent living, and healthy aging. Separate admission is required to both the Ph.D. program of the Department of Applied Behavioral Science (http://www.absc.ku.edu) and M.P.H. program of the Department of Preventive Medicine and Public Health (http://ph.kumc.edu).

**Certificate Program in Community Health and Development**

The Department of Applied Behavioral Science has established a 1-year certificate program in Community Health and Development. The program offers advanced training and university-based certification in building healthy communities. The focus is on training in core aspects of community work: community assessment, strategic planning, intervention, evaluation, and sustainability. Students admitted to the certificate program must be either regular KU graduate students or admitted as non-degree seeking students. For eligibility and admission criteria, see Certificates (p. 2059) in the Graduate Studies section of the online catalog or the subsection on Eligibility and Admission Criteria of the ABS Graduate Handbook (http://www.absc.ku.edu).

**Astronomy Undergraduate Programs**

**Why study astronomy?**

Because understanding the physical universe starts here.

**Undergraduate Programs**

Astronomy programs are offered through the Department of Physics and Astronomy. The astronomy curriculum offers undergraduates a survey of modern astronomy and an introduction to physical science, gives science and engineering students an introduction to astronomy and astrophysics, and prepares students majoring in astronomy for graduate study in astronomy or related fields.

**Courses for Nonmajors**

ASTR 191 surveys a wide range of contemporary astronomy topics while ASTR 293 discusses a shorter list of astrophysically extreme objects in greater detail; both courses require eligibility for MATH 101. ASTR 394 is open to students with previous coursework in astronomy, geology or biology; ASTR 391 offers an introduction to physical astronomy at a calculus-based level.

**Courses**

**ASTR 177. First Year Seminar: _____. 3 Hours. GE11 / U.**

A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Astronomy. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**ASTR 190. Astronomy and Civilization. 3 Hours. N.**

A survey course that describes the interplay between the science of astronomy and cultural beliefs. It uses, among others, examples of how religious and philosophical tenets have enhanced or conflicted with scientific principles. Not for astronomy majors. LEC.

**ASTR 191. Contemporary Astronomy. 3 Hours. NP GE3N / N.**

The structure and evolution of the universe, from nearby planets to distant quasars, are examined. Topics include recent discoveries concerning planets, stars, galaxies, pulsars and black holes as well as their evolution, the structure of the universe today and how it will be in the future. The emphasis is descriptive rather than mathematical. Concurrent enrollment in ASTR 196 suggested, but not required. Prerequisite: One year each of high school algebra and geometry. LEC.
ASTR 196. Introductory Astronomy Laboratory. 1 Hour. U.
An introduction to astronomical observations and methods. Students have the opportunity to use the telescopes at the K.U. observatory. The course includes constellation recognition, finding celestial objects, and interpreting astronomical data. A companion course to ASTR 191 or ASTR 391. Counts as a laboratory science when preceded or accompanied by ASTR 191 or ASTR 391. Prerequisite or corequisite: ASTR 191 or ASTR 391. LAB.

ASTR 293. Astronomy Bizarre. 3 Hours. GE3N / N.
An exploration of physical phenomena found in astrophysical extremes. Topics may include the following: the most violent explosions in the Universe (supernovae and gamma ray bursts); the biggest collisions in nature (galaxy interactions); the densest and most bizarre forms of matter (white dwarfs, neutron stars); the strongest magnetic fields (magnetars, pulsars); the amazing range of exo-planetary properties; and the mysteries of black holes. Prerequisite: Eligibility for MATH 101. LEC.

ASTR 390. Undergraduate Problems. 1-3 Hours. AE61 / N.
Undergraduate observational or theoretical problems in astronomy. Maximum credit, six hours. Prerequisite: Permission of department. IND.

ASTR 391. Physical Astronomy, Honors. 3 Hours. NP GE12/GE3N / N.
An honors, calculus-based introduction to astronomy and astrophysics, required for astronomy majors. Components of the Universe - from planetary systems, stellar systems, large scale structure and cosmology - are examined to illuminate the physics principles which govern their evolution. Prerequisite: MATH 121, and either permission of instructor, or participation in the University Honors Program. LEC.

ASTR 394. The Quest for Extraterrestrial Life. 3 Hours. NP GE11 / N.
An introduction to the search for planets around other stars and for life in the universe beyond the earth. A discussion of the astronomical conditions under which life might form and the biological conditions of life formation and evolution. Methods of searching for extraterrestrial life. Prerequisite: An introductory course in biology, astronomy or geology. LEC.

ASTR 400. Topics in Astronomy: _______. 1-3 Hours. N.
A course on special topics in astronomy. Course may be repeated for different topics. Each section may have additional prerequisites to be determined by the instructor. LEC.

ASTR 503. Undergraduate Research. 1-4 Hours. AE61 / N.
This course is for students seeking to fulfill the undergraduate research requirement. Students are expected to participate in some area of ongoing research in the department, chosen with the help of their advisor. At the end of the term, students will present their results in a seminar to other students and faculty. (Same as EPHX 503 and PHSX 503.) Prerequisite: Junior/Senior standing in Astronomy, Engineering Physics, or Physics, or permission of instructor. IND.

ASTR 591. Stellar Astronomy. 3 Hours. N.
Fundamentals of stellar astronomy including astronomical optics and techniques, coordinate and time systems, stellar spectroscopy, properties of normal, binary and variable stars. Prerequisite: PHSX 212 and PHSX 236. An introductory astronomy course is desirable. LEC.

ASTR 592. Galactic and Extragalactic Astronomy. 3 Hours. N.
A study of stellar groups, the interstellar medium, galactic structure and dynamics, galaxies, and cosmology. Prerequisite: ASTR 591 or consent of instructor. LEC.

ASTR 596. Observational Astrophysics. 2 Hours. AE61 / N.
Students acquire practical experience with astronomical equipment and data reduction techniques used in research and educational contexts. ASTR 596, combined with an independent research experience, provides a pathway for students to demonstrate creativity and integration of background knowledge. Prerequisite or corequisite: ASTR 591. LEC.

ASTR 597. Analysis in Astrophysics. 1-3 Hours. AE61 / N.
Individual students work on specialized research problems in the field of observational or theoretical astrophysics. Maximum credit, six hours. Prerequisite: ASTR 592. IND.

ASTR 691. Astrophysics I. 3 Hours. N.
An introduction to radiation processes, thermal processes, and radiative transfer in stellar atmospheres and the interstellar medium. (Same as EPHX 691 and PHSX 691.) Prerequisite: PHSX 313 or consent of instructor. LEC.

ASTR 692. Astrophysics II. 3 Hours. N.
The formation and evolution of stars, nucleosynthesis of the elements, and the physical processes of high energy physics. Prerequisite: ASTR 691 or consent of instructor. LEC.

ASTR 791. Seminar in Astrophysics. 1-3 Hours.
Seminar designed to cover current topics in the physics of the Universe beyond the solar system. Content will vary. Graduate students engaged in or preparing for research may repeat enrollments in this course. Open to undergraduates with twelve hours of physics/astronomy courses numbered 500 or above, or consent of instructor. LEC.

ASTR 792. Topics in Advanced Astrophysics. 3 Hours.
This course will address one or more of the following advanced topics in astrophysics: high energy astrophysics, nuclear astrophysics, galactic and extragalactic astrophysics, space physics, cosmology, astrobiophysics, and the interstellar and intergalactic media (ISM/IGM). This course may be repeated for credit if topical content differs. (Same as PHSX 792.) Prerequisite: ASTR 692 or permission of instructor. LEC.

ASTR 795. Space Plasma Physics. 3 Hours.
The physics of fully ionized gases in magnetic fields and their application to interplanetary processes, planetary radiation belts, and the surface of the sun. The motion of charged particles in magnetic fields, magnetohydrodynamic waves, the solar wind and the magnetosphere. (Same as PHSX 795.) Prerequisite: PHSX 621. Corequisite: PHSX 631. LEC.

ASTR 815. Computational Physics and Astronomy. 3 Hours.
Advanced computer applications in physics and astronomy. General discussion and illustration of problem organization and solution by numerical and other methods with examples from plasma, space, solid state, elementary particle, and nuclear physics and astronomy. Students will design, write, validate, and document a computer program to solve a physical problem. (Same as PHSX 815 and CHEM 914.) Prerequisite: Six hours of computer science courses numbered 300 or above, and six hours of physics and/or astronomy courses numbered 300 or above. LEC.

ASTR 897. Seminar in Plasma and Space Physics. 1-3 Hours.
Graduate students engaged in or preparing for research may repeat enrollments in this course. The content will vary. (Same as PHSX 897.) LEC.

PHSX 111. Introductory Physics. 3 Hours. NP GE11/GE3N / N.
A one-semester survey of classical and modern physics, designed primarily for liberal arts students. Typical subjects include the laws of motion, gravity, electricity and magnetism, sound, light, quantum mechanics, atomic and subatomic physics. Subjects are treated mainly conceptually with some use of basic data. Prerequisite: Eligibility for MATH 104. LEC.

PHSX 112. Concepts in Physics, Honors. 3 Hours. NP GE3N / N.
A discussion of important concepts in physics. While basic concepts such as force, energy, and mass will be introduced as needed, the emphasis
will be on an understanding and appreciation of contemporary science. Prerequisite: Eligibility for MATH 104 and participation in the University Honors Program or permission of instructor. LEC.

PHSX 114. College Physics I. 1-4 Hours. NP GE11/GE12/GE3N / N. Principles and applications of mechanics, fluids, heat, thermodynamics, and sound waves. Three class hours and one laboratory per week. This course emphasizes the development of quantitative concepts and problem solving skills for students needing a broad background in physics as part of their preparation in other major programs, and for those who wish to meet the laboratory science requirement of the College. In special circumstances, permission to enroll in less than four hours may be obtained from the department. Not open to students with credit in PHSX 211 or PHSX 216 or PHSX 236. Prerequisite: MATH 104, or three and one-half years of college-preparatory mathematics including trigonometry and a score of 25 or higher on ACT mathematics. LEC.

PHSX 115. College Physics II. 1-4 Hours. N. A continuation of PHSX 114. Principles and applications of electricity, magnetism, light, atomic physics, and nuclear physics. Three class hours and one laboratory per week. In special circumstances, permission to enroll in less than four hours may be obtained from the department. Not open to students with credit in PHSX 212 or PHSX 236. Prerequisite: PHSX 114. LEC.

PHSX 116. Introductory Physics Laboratory. 1 Hour. U. A laboratory exploring classical and modern physics, designed primarily for liberal arts students. Experiments in motion, gravity, electricity and magnetism, sound, light, atomic and subatomic physics are designed to teach physics concepts and basic laboratory techniques. One two-hour lab period per week. Counts as a laboratory science when preceded or accompanied by PHSX 111. Prerequisite: Eligibility for MATH 104. Corequisite: PHSX 111. LAB.

PHSX 150. Seminar in Physics, Astronomy and Engineering Physics. 0.5 Hours. N. This course is intended for all students in physics, astronomy and engineering physics. Course content includes topics of current interest in all fields of physics and astronomy. LEC.

PHSX 177. First Year Seminar: ____. 3 Hours. GE11 / U. A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Physics. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

PHSX 201. Transition to General Physics. 1 Hour. N. Classical mechanics and thermodynamics with calculus for students who have had a prior algebra-based course. Prerequisite: PHSX 114, either MATH 116 or 121, and permission of the department. LEC.

PHSX 210. General Physics I for Engineers. 3 Hours. GE11 / N. Introduction to classical mechanics and thermodynamics designed for students in the School of Engineering. Students not admitted to the School of Engineering must receive permission from instructor. PHSX 210 and PHSX 211 cannot both be taken for credit. Students with credit in PHSX 114 can obtain only one hour of credit. Prerequisite: MATH 121 with a grade of C or better; courses in high school physics and/or chemistry recommended. LEC.

PHSX 211. General Physics I. 1-4 Hours. NP GE11/GE12/GE3N / N. Introduction to classical mechanics and thermodynamics. Designed for students in engineering and physical science majors. In special circumstances, permission to enroll for fewer than four hours credit may be obtained from the department. Students with credit in PHSX 114 can obtain only one hour of credit. Prerequisite: MATH 116 or MATH 121; courses in high school physics and/or chemistry are recommended. LEC.

PHSX 212. General Physics II. 1-3 Hours. GE3N / N. Study of electricity and magnetism, waves and sound. In special circumstances, permission to enroll for fewer than three hours credit may be obtained from the department. Students with credit in PHSX 115 can obtain only one hour of credit. Prerequisite: PHSX 211, PHSX 210 or PHSX 213. Corequisite: MATH 122. LEC.

PHSX 213. General Physics I Honors. 1-5 Hours. NP GE11/GE12/ GE3N / N. An honors section of PHSX 211 and PHSX 216. Credit for fewer than five hours requires permission of the department. Recommended for students with a strong math background who are either in the University Honors Program or intending to major in a physical science. Courses in high school physics and chemistry are strongly recommended. Prerequisite: MATH 121 and permission of instructor. LEC.

PHSX 214. General Physics II Honors. 1-4 Hours. N. An honors section of PHSX 212 and PHSX 236. Credit for fewer than four hours requires permission of the department. Recommended for students with a strong math background who are either in the University Honors Program or intending to major in a physical science. Prerequisite: PHSX 216 together with either PHSX 211 or PHSX 210; or PHSX 213, and permission of instructor. Corequisite: MATH 122. LEC.

PHSX 216. General Physics I Laboratory. 1 Hour. GE11 / N. Experiments in classical mechanics and thermodynamics. Counts as a laboratory science when accompanied by PHSX 210 or PHSX 211. Pre-or Corequisite: PHSX 210 or PHSX 211. LAB.

PHSX 236. General Physics II Laboratory. 1 Hour. N. Experiments in electricity and magnetism, waves and sound. Pre-or Corequisite: PHSX 212. LAB.

PHSX 313. General Physics III. 3 Hours. GE3N / N. Introduction to modern physics. Topics include special relativity, optics, and introductions to quantum mechanics and solid state physics. Prerequisite: PHSX 212 and PHSX 236 or PHSX 214 or EECS 220. Corequisite: MATH 320 or MATH 220. LEC.

PHSX 316. Intermediate Physics Laboratory I. 1 Hour. U. Experiments in optics and modern physics. Development of experimental skills, data reduction, error analysis, and technical writing. One lab meeting per week and one lecture per week on topics including error analysis and experimental design. Pre-or corequisite: PHSX 313. LAB.

PHSX 400. Topics in Physics and Astronomy: ____. 1-3 Hours. N. A course on special topics in physics and astronomy, given as the need arises. Course may be repeated for different topics. Each section may have prerequisites to be determined by the instructor. LEC.

PHSX 500. Special Problems. 1-5 Hours. AE61 / N. Work in some area of physics beyond the topics or material covered in other courses. For some problems, continued enrollment in consecutive semesters may be appropriate. Prerequisite: One junior-senior course in science in an area related to the problem and consent of instructor. IND.

PHSX 501. Honors Research. 1-4 Hours. AE61 / N. This course is to enable students seeking departmental Honors in Astronomy, Engineering Physics, or Physics to fulfill the undergraduate research requirement. At the completion of the required 4 hours of total enrollment, a written and oral report of the research is required. (Same as EPHX 501.) Prerequisite: Junior/Senior standing in Astronomy, Engineering Physics, or Physics, or permission of instructor. IND.
PHSX 502. Seminar in Physics and Astronomy Instruction. 1-3 Hours. N. 
One meeting per week to plan and report progress on projects which 
may include tutoring of students in personalized modes of study; 
developing, administering, and scoring test items; designing and 
 improving demonstration and laboratory experiments. Amount of credit 
depends on projects contracted for and completed. (Distribution credit 
given for two-three hours only.) Prerequisite: Evidence of prior academic 
experience relevant to the student’s proposed activities in the seminar and 
permission of instructor. LEC.

PHSX 503. Undergraduate Research. 1-4 Hours. AE61 / N. 
This course is for students seeking to fulfill the undergraduate research 
requirement. Students are expected to participate in some area of 
ongoing research in the department, chosen with the help of their advisor. 
At the end of the term, students will present their results in a seminar to 
other students and faculty. (Same as ASTR 503 and EPHX 503.) 
Prerequisite: Junior/Senior standing in Astronomy, Engineering Physics, 
or Physics, or permission of instructor. IND.

PHSX 511. Introductory Quantum Mechanics. 3 Hours. N. 
An introduction to quantum mechanics, emphasizing a physical overview. 
Topics should include the formalisms of non-relativistic quantum 
mechanics, the 3-dimensional Schrodinger equation with applications to 
the hydrogen atom; spin and angular momentum; multi-particle systems 
of Fermi-Dirac and Bose-Einstein particles; time-independent perturbation 
theory. (Same as EPHX 511.) Prerequisite: PHSX 313 and MATH 290. 
LEC.

PHSX 516. Physical Measurements. 4 Hours. N. 
A laboratory course emphasizing experimental techniques and data 
analysis, as well as scientific writing and presentation skills. Experiments 
will explore a range of classical and modern physics topics. (Same as 
EPHX 516.) Prerequisite: PHSX 313, PHSX 316 and PHSX 521. (PHSX 
521 may be taken concurrently.) LAB.

PHSX 518. Mathematical Physics. 3 Hours. N. 
Applications of modern mathematical methods to problems in mechanics 
and modern physics. Techniques include application of partial 
differential equations and complex variables to classical field problems in 
continuous mechanics, unstable and chaotic systems, electrodynamics, 
hydrodynamics, and heat flow. Applications of elementary transformation 
theory and group theory, probability and statistics, and nonlinear 
analysis to selected problems in modern physics as well as to graphical 
representation of experimental data. Prerequisite: PHSX 313 and MATH 
320 or permission of instructor. (Same as EPHX 518.) LEC.

PHSX 521. Mechanics I. 3 Hours. N. 
Newton’s laws of motion. Motions of a particle in one, two, and three 
dimensions. Motion of a system of particles. Moving coordinate systems. 
(Same as EPHX 521.) Prerequisite: PHSX 211 and PHSX 216, or PHSX 
213; MATH 223; MATH 290; and MATH 220 or MATH 320. LEC.

PHSX 528. Geodynamics and Plate Tectonics. 3 Hours. N. 
Study of physical processes in the solid Earth and of geophysical 
approaches to studying Earth systems at regional and global scales. 
Topics include global potential fields, thermal regime, rheology and Earth 
deformation, earthquakes and seismic structure, plate motions and global 
tectonics. (Same as GEOL 573) Prerequisite: An introductory course in 
geology: MATH 116 or MATH 122; and PHSX 115, PHSX 214, or PHSX 
212 and PHSX 236. LEC.

PHSX 531. Electricity and Magnetism. 3 Hours. N. 
The properties of electric and magnetic fields, including electrostatics, 
Gauss’ Law, boundary value methods, electric fields in matter, 
electromagnetic induction, magnetic fields in matter, the properties of 
electric and magnetic dipoles, and of dielectric and magnetic materials. 
(Same as EPHX 531.) Prerequisite: PHSX 214, or PHSX 212 and PHSX 
236; PHSX 521 or special permission; MATH 223; MATH 290; and MATH 
220 or MATH 320. LEC.

PHSX 536. Electronic Circuit Measurement and Design. 4 Hours. N. 
A laboratory course that explores the theory and experimental techniques 
of analog and digital electronic circuit design and measurements. Topics 
include transient response, transmission lines, transistors, operational 
amplifiers, and digital logic. (Same as EPHX 536.) Prerequisite: PHSX 
214 or PHSX 212 and PHSX 236; MATH 223; and MATH 290. PHSX 313 
and 316 recommended. LAB.

PHSX 557. Topics in Mechanics, Properties of Materials, 
Thermodynamics. 1-3 Hours. 
This course covers the principles and applications of classical mechanics, 
fuids, heat, thermodynamics and sound. Teaching of these topics is 
strongly emphasized. Some laboratory work is included. This course is 
intended for students accepted to the BS Education major in Physics. This 
course does not count towards Physics or Astronomy major requirements 
in the College of Liberal Arts and Sciences. Prerequisite: Math 115 and 
116, and either PHSX 114 or PHSX 211. LEC.

PHSX 558. Topics in Electricity and Magnetism and Optics. 1-3 
Hours. 
This course covers the principles and applications of electricity, 
magnetism and optics. Teaching of these topics is strongly emphasized. 
Some laboratory work is included. This course is intended for students 
accepted to the BS Education major in Physics. This course does not 
count towards Physics or Astronomy major requirements in the College of 
Liberal Arts and Sciences. Prerequisite: MATH 115 and 116, and either 
PHSX 115 or PHSX 212. LEC.

PHSX 559. Topics in Modern Physics. 1-3 Hours. 
This course covers the principles and applications of quantum mechanics, 
atomic and nuclear physics. Teaching of these topics is strongly 
emphasized. Some laboratory work is included. This course is intended 
for students accepted to the BS Education major in Physics. This course 
does not count towards Physics or Astronomy major requirements in the 
College of Liberal Arts and Sciences. Prerequisite: MATH 115 and 116, 
and either PHSX 115 or PHSX 313. LEC.

PHSX 594. Cosmology and Culture. 3 Hours. AE42 / N. 
A survey of modern physical cosmology, its recent historical roots, and 
creation myths from many world cultures. An examination of the effects of 
these stories on their parent cultures. LEC.

PHSX 600. Special Topics in Physics and Astrophysics: __________. 3 
Hours. N. 
Different topics will be covered as needed. This course will address topics 
in physics and astrophysics not covered in regularly offered courses. 
May be repeated if topic differs. (Same as EPHX 600.) Prerequisite: 
Permission of instructor. LEC.

PHSX 601. Design of Physical and Electronic Systems. 4 Hours. 
AE61 / N. 
A laboratory course emphasizing the application of physical principles to 
the design of systems for research, monitoring, or control. Topics include 
the use of microcomputers as controllers, interfacing microcomputers 
with measurement devices, and use of approximations and/or computer 
simulation to optimize design parameters, linear control systems, and 
optics. (Same as EPHX 601.) Prerequisite: Twelve hours of junior-senior 
credit in physics or engineering, including one laboratory course. LAB.
PHSX 615. Numerical and Computational Methods in Physics. 3 Hours. N.
An introduction to the use of numerical methods in the solution of problems in physics for which simplifications allowing closed-form solutions are not applicable. Examples are drawn from mechanics, electricity, magnetism, thermodynamics, and optics. (Same as EPHX 615.) Prerequisite: PHSX 313, MATH 320 or equivalent, and EECS 138 or equivalent. LEC.

PHSX 621. Mechanics II. 3 Hours. N.
Continuation of PHSX 521. Lagrange’s equations and generalized coordinates. Mechanics of continuous media. Tensor algebra and rotation of a rigid body. Special relativity and relativistic dynamics. (Same as EPHX 621.) Prerequisite: PHSX 521. LEC.

PHSX 623. Physics of Fluids. 3 Hours. N.
An introduction to basic fluid mechanics in which fundamental concepts and equations are covered. Topics include hydrostatics, hydrodynamics, wave propagation in fluids, and applications in the areas such as astrophysics, atmospheric physics, and geophysics. (Same as EPHX 623.) Prerequisite: MATH 223; MATH 290; PHSX 212 and PHSX 236 (or PHSX 214 can replace PHSX 212 and PHSX 236.) LEC.

PHSX 631. Electromagnetic Theory. 3 Hours. N.
Maxwell’s equations, wave propagation, optics and waveguides, radiation, relativistic transformations of fields and sources, use of covariance and invariance in relativity. Normally a continuation of PHSX 531. (Same as EPHX 631.) Prerequisite: PHSX 531. LEC.

PHSX 641. Introduction to Nuclear Physics. 3 Hours. N.
Experimental methods and elementary concepts in nuclear physics, including nuclear forces, alpha and beta decay, gamma radiation, nuclear structure, and reaction systematics. (Same as EPHX 641.) Prerequisite: PHSX 313 and PHSX 511. LEC.

PHSX 655. Optics. 3 Hours. N.
Geometric optics. Wave properties of light: interference, diffraction, coherence. Propagation of light through matter. Selected topics in modern optics, e.g., lasers, fibers. (Same as EPHX 655.) Prerequisite: PHSX 313 and PHSX 316. LEC.

PHSX 661. Introduction to Elementary Particle Physics. 3 Hours. N.
Properties and interactions of quarks, leptons, and other elementary particles; symmetry principles and conservation laws; broken symmetry; gauge bosons; the fundamental interactions, grand unified theories of strong, electromagnetic, and weak interactions; the cosmological implications of elementary particle physics. (Same as EPHX 661.) Prerequisite: PHSX 313 and MATH 320. LEC.

PHSX 671. Quantum Mechanics I. 3 Hours.

PHSX 671. Graduate Seminar. 1 Hour.
First year graduate students meet to survey research opportunities in the department and develop skills in giving oral presentations in physics and related areas. Students will also learn about topics in responsible scholarship that may include: the origin of ideas and the allocation of credit, the treatment of data, scientific misconduct, intellectual property and entrepreneurship, the researcher in society, collaborative research, mentor/trainee responsibilities, and safe practices. LEC.

PHSX 718. Mathematical Methods in Physical Sciences. 3 Hours.
Review of complex variable theory; introduction to the partial differential equations of physical systems; Fourier analysis; special functions of mathematical physics; and chemistry. (Same as CHEM 718.) Prerequisite: Two semesters of junior-senior mathematics. LEC.

PHSX 721. Chaotic Dynamics. 3 Hours.
Topics covered may include the following: dynamical systems, attractors, sensitive dependence on initial conditions, chaos, one-dimensional maps, strange attractors and fractal dimensions, fat fractals, the horseshoe map, symbolic dynamics, linear stability of periodic orbits, stable and unstable manifolds, Lyapunov exponents, topological entropy, quasiperiodicity, strange nonchaotic attractors, nonattracting chaotic sets, fractal basin boundaries, renormalization group analysis, intermittency, crisis and chaotic transients. Prerequisite: Mechanics (PHSX 521, or its equivalent), ordinary differential equations (MATH 320, or its equivalent), and some computer programming knowledge. LEC.
This course will address one or more of the following advanced topics in extragalactic astrophysics, space physics, cosmology, astrobiophysics, astrophysics: high energy astrophysics, nuclear astrophysics, galactic and interstellar and intergalactic media (ISM/IGM). This course may be repeated for credit if topical content differs. (Same as ASTR 792.) Prerequisite: ASTR 692 or permission of instructor. LEC.

PHSX 793. Physical Cosmology. 3 Hours.
Discussion of how fundamental laws of physics govern the evolution of the universe as a whole along with its structure. Survey of cosmogenic clues in the observable universe, including observed structures, cosmic background radiation and evidence for dark matter. Development of the universe, including theories of initial conditions; cosmological phase transitions; generation of possible relics and dark matter; symmetry breaking; baryon asymmetry; nucleosynthesis; recombination, gravitational instability and the formation of structure; current experimental techniques. Prerequisite: PHSX 718. Recommended: PHSX 593. LEC.

PHSX 795. Space Plasma Physics. 3 Hours.
The physics of fully ionized gases in magnetic fields and their application to interplanetary processes, planetary radiation belts, and the sun. The motion of charged particles in magnetic fields, magnetohydrodynamic waves, the solar wind, the ionosphere, and the magnetosphere. (Same as ASTR 795.) Prerequisite: PHSX 621. Corequisite: PHSX 631. LEC.

PHSX 800. Graduate Problems. 1-5 Hours.
Advanced laboratory problems, special research problems, or library reading problems. Repeated enrollments are permitted. RSH.

PHSX 801. Advanced Topics. 1-3 Hours.
Lectures on advanced material not covered by regular courses. The topics are not limited but generally address recent experimental or theoretical developments in subjects such as superconductivity, nuclear physics, elementary particle physics, quantum field theory, gauge and unified theories, nonlinear or chaotic systems, space plasma physics, and astrophysics and cosmology. Repeated enrollments are permitted. LEC.

PHSX 811. Quantum Mechanics II. 3 Hours.
Time dependent perturbation theory. Gauge invariance and electromagnetic interactions. Quantization of the electromagnetic field and applications. The Dirac equation, its transformation properties and applications to relativistic problems. Scattering theory, elementary applications, and formal properties. Prerequisite: PHSX 711. LEC.

PHSX 815. Computational Methods in Physical Sciences. 3 Hours.
Advanced computer applications in physical science. General discussion and illustration of problem organization and solution by numerical and other methods with examples from physics, astronomy, and other physical sciences. Students will design, write, validate, and document a computer program to solve a physical problem. (Same as ASTR 815 and CHEM 914.) Prerequisite: Six hours of computer science courses numbered 300 or above, and six hours of physics and/or astronomy courses numbered 300 or above. LEC.

PHSX 817. Graduate Seminar. 1 Hour.
First year graduate students meet to survey research opportunities in the department and develop skills in giving oral presentations in physics and related areas. Prerequisite: Only one hour of 817 can count toward required hours for degree. LEC.

PHSX 821. Classical Mechanics. 3 Hours.
Vector and tensor notation; review of Newtonian mechanics; Lagrangian mechanics; linear vector spaces and matrix theory with applications to the theory of small oscillations; rigid bodies; Hamiltonian formalism. Special relativity. Prerequisite: Twelve hours of junior-senior courses in physics. LEC.

PHSX 831. Electrodynamics I. 3 Hours.
Electrostatics and magnetostatics; Maxwell’s equations; plane waves; waveguides. Prerequisite: PHSX 718 and PHSX 821. LEC.
PHSX 841. Nuclear Physics II. 3 Hours.
Nuclear forces and the two-body problem; nuclear models; phenomenological treatment of nuclear reactions and decay processes. Prerequisite: PHSX 741 and PHSX 811. LEC.

PHSX 861. Elementary Particles II. 3 Hours.
Theoretical analysis of the standard model of strong and electroweak interactions. Applications to decay and scattering processes with comparison to experiments. Selected topics in non-perturbative physics. Examples of tests to probe beyond the standard model. Prerequisite: PHSX 761. Corequisite: PHSX 911. LEC.

PHSX 871. Statistical Physics I. 3 Hours.
Review of and advanced topics in thermodynamics; the Maxwell relations; the third law; phase transitions. Kinetic theory: the Boltzmann equation; transport phenomena. Statistical mechanics: ideal Maxwell-Boltzmann, Fermi-Dirac and Bose-Einstein gases; ensemble theory; derivation of the laws of thermodynamics. Prerequisite: PHSX 711 and PHSX 821. PHSX 671 is recommended. LEC.

PHSX 881. Solid State Physics II. 3 Hours.
More advanced topics in solid state physics that may include: diamagnetism, paramagnetism, ferromagnetism, antiferromagnetism; electron and nuclear spin magnetic resonance; dielectric properties and ferroelectricity; photoconductivity and luminescence. Prerequisite: PHSX 631 and PHSX 711 (or CHEM 915). LEC.

PHSX 895. Plasma Physics. 3 Hours.
Magnetohydrodynamics, including discussion of shocks, waves, and stability theory; statistical mechanical foundations; kinetic theory; microstability; non-linear phenomena. Prerequisite: PHSX 795. LEC.

PHSX 897. Seminar in Plasma and Space Physics. 1-3 Hours.
Graduate students engaged in or preparing for research may repeat enrollments in this course. The content will vary. (Same as ASTR 897.) LEC.

PHSX 899. Master’s Research/Thesis. 1-10 Hours.
Research work (either experimental or theoretical) in physics for students working toward the master’s degree. Repeated enrollments are permitted. THE.

PHSX 911. Quantum Mechanics III. 3 Hours.
Path integral formulation of quantum mechanics. Introduction to quantum field theory using the canonical approach and using the path integral approach. Application of perturbation theory in quantum electrodynamics. Selected applications in condensed matter, nuclear, and particle physics. Prerequisite: PHSX 811. LEC.

PHSX 912. Quantum Field Theory. 3 Hours.
Survey of problems in quantum field theory. Functional methods. Renormalization and renormalization group. Role of symmetries. Gauge field theories. Symmetry breaking. Prerequisite: PHSX 911. LEC.

PHSX 915. Relativity. 3 Hours.
Reviews of special relativity, manifolds, tensors, and geometry. General coordinate covariance and general relativity. Applications to classical theory of gravitation: weak field tests, isotropic, homogeneous cosmology, Schwarzschild solution. Selected advanced topics. Prerequisite: A total of 10 hours of junior/senior work in physics and mathematics, including at least concurrent enrollment in MATH 646. LEC.

PHSX 917. Seminar in Theoretical Physics. 1-3 Hours.
Graduate students engaged in or preparing for research may repeat enrollments in this course. Content will vary. LEC.

PHSX 931. Electrodynamics II. 3 Hours.
Inhomogeneous Maxwell’s equations and multipole radiation fields; special theory of relativity; radiation from accelerated charges: scattering and dispersion. Prerequisite: PHSX 831. LEC.

PHSX 947. Seminar in Nuclear Physics. 1-3 Hours.
Graduate students engaged in or preparing for research may repeat enrollments in this course. The content will vary. LEC.

PHSX 957. Seminar in Particle Physics. 1-3 Hours.
Graduate students engaged in or preparing for research may repeat enrollments in this course. The content will vary. LEC.

PHSX 971. Advanced Statistical Mechanics. 3 Hours.
Advanced equilibrium statistical mechanics and introduction to nonequilibrium statistical mechanics. Topics include: the theory of liquids, critical phenomena, linear response theory and time correlation functions, Langevin dynamics, and molecular hydrodynamics. (Same as CHEM 950.) Prerequisite: PHSX 871 or CHEM 917. LEC.

PHSX 987. Seminar in Solid State Physics. 1-3 Hours.
Graduate students engaged in or preparing for research may repeat enrollments in this course. The content will vary. LEC.

PHSX 999. Ph.D. Dissertation Research. 1-10 Hours.
Research work (either experimental or theoretical) in physics for students working toward the Ph.D. degree. Repeated enrollments are permitted. THE.

Bachelor of Arts in Astronomy
Why study astronomy?
Because understanding the physical universe starts here.

Undergraduate Programs
Astronomy programs are offered through the Department of Physics and Astronomy. The astronomy curriculum offers undergraduates a survey of modern astronomy and an introduction to physical science, gives science and engineering students an introduction to astronomy and astrophysics, and prepares students majoring in astronomy for graduate study in astronomy or related fields.

Courses for Nonmajors
ASTR 191 surveys a wide range of contemporary astronomy topics while ASTR 293 discusses a shorter list of astrophysically extreme objects in greater detail; both courses require eligibility for MATH 101. ASTR 394 is open to students with previous coursework in astronomy, geology or biology; ASTR 391 offers an introduction to physical astronomy at a calculus-based level.

Undergraduate Admission
Admission to KU
All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.
Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

Advising

Students considering a major in astronomy should confer early with a departmental representative about the selection of courses. The B.A. degree is appropriate for students who want a general education in astronomy as part of a broadly structured liberal education. The B.S. is a more specialized program with a substantial emphasis on physics content as well as astronomy. It provides preparation for a professional career or graduate work in astronomy, astrophysics, or related fields. A total of 120 credit hours is required for graduation.

First- and Second-Year Preparation

All major programs in physics and astronomy share requirements in basic physics and mathematics including PHSX 150, a seminar course for majors. Completion of MATH 121 and MATH 122 in the first year allows students to start calculus-based physics foundation courses (PHSX 211 or PHSX 213, followed by PHSX 212 or PHSX 214, with labs PHSX 216 and PHSX 236) by the second semester. Majors are encouraged to take PHSX 213 and PHSX 214, the honors versions of PHSX 211 and PHSX 212. Students should take these courses and ASTR 391 in their first two years. B.S. astronomy majors normally complete additional course work in mathematics (MATH 223, MATH 290, and MATH 320), as well as PHSX 313 and PHSX 316, in the second year.

Requirements for the B.A. Major in Astronomy

All students pursuing the Bachelor of Arts in Astronomy must complete the KU Core requirements and the College BA specific requirements, listed in the KU Core and College sections of the catalog.

Additional general science requirements: (0)

Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

Calculus I. Satisfied by one of the following:
- MATH 121 Calculus I
- MATH 141 Calculus I: Honors
- Or equivalent

Calculus II. Satisfied by one of the following:
- MATH 122 Calculus II
- MATH 142 Calculus II: Honors
- Or equivalent

Seminar in Physics, Astronomy, & Engineering Physics. Satisfied by the following:
- PHSX 150 Seminar in Physics, Astronomy and Engineering Physics

General Physics I. Satisfied by one of the following:
- PHSX 211 General Physics I
- PHSX 211 & PHSX 216 General Physics I Laboratory
- PHSX 213 General Physics I Honors

General Physics II. Satisfied by one of the following:
- PHSX 212 General Physics II
- PHSX 212 & PHSX 236 General Physics II Laboratory
- PHSX 214 General Physics II Honors

Foundations of Chemistry I. Satisfied by one of the following:
- CHEM 130 General Chemistry I
- CHEM 190 Foundations of Chemistry I, Honors

Astronomy Major Requirements (11)

Majors must complete a course in each of the four following areas:

- Physical Astronomy, Honors. Satisfied by the following:
  - ASTR 391 Physical Astronomy, Honors
  - Stellar Astronomy. Satisfied by the following:
  - ASTR 591 Stellar Astronomy
  - Observational Astrophysics. Satisfied by the following:
  - ASTR 596 Observational Astrophysics
  - Galactic & Extragalactic Astronomy. Satisfied by the following:
  - ASTR 592 Galactic and Extragalactic Astronomy

Additional astronomy, astrophysics or physics courses required for major (5)

In addition to the above specifically required courses, Astronomy BA candidates must complete at least 5 additional credits in physics or astronomy at the 300+ level. Students may enroll in ASTR 390 for undergraduate problems for 1 or more credit hours and in ASTR 503 (501 honors) for research credit. ASTR 394 is highly recommended. Other recommended courses include ASTR 691 and 692, PHSX 594, GEOL 572, PHSX 313/316 and other PHSH courses 500 and above; most of these course have pre-requisites that may require additional preparation in mathematics and/or physics.

Major Hours & Major GPA

While completing all required courses (above), majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 25.5 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior (300+) Hours
Satisfied by a minimum of 16 hours from junior/senior courses (300+) in the major.

Major Junior/Senior (300+) Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).
With careful planning and commitment to a full-time course load, you can graduate in 4 years. See the department for details.

Departmental Honors in Astronomy

Qualified undergraduates earning either a B.A. or a B.S. degree with a major in astronomy may graduate with honors by meeting these requirements:

1. By the end of the candidate’s final semester, he or she must earn a minimum grade-point average of 3.25 overall and 3.5 in the major in all courses taken in residence and elsewhere.
2. The candidate must complete at least 24 credit hours of astronomy and physics courses numbered 500 or above, including undergraduate research represented by 4 hours of credit in ASTR 596, ASTR 597, PHSX 500, or PHSX 501, with a grade of B or higher.
3. The results of the research must be presented in written form and accepted by three members of the department faculty.

A student who plans to graduate with honors in astronomy must file a declaration of intent form with the departmental honors coordinator, preferably during his or her junior year, but no later than enrollment for the final undergraduate semester.

Bachelor of Science in Astronomy

Why study astronomy?
Because understanding the physical universe starts here.

Undergraduate Programs
Astronomy programs are offered through the Department of Physics and Astronomy. The astronomy curriculum offers undergraduates a survey of modern astronomy and an introduction to physical science, gives science and engineering students an introduction to astronomy and astrophysics, and prepares students majoring in astronomy for graduate study in astronomy or related fields.

Courses for Nonmajors
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All major programs in physics and astronomy share requirements in basic physics and mathematics including PHSX 150, a seminar course for majors. Completion of MATH 121 and MATH 122 in the first year allows students to start calculus-based physics foundation courses (PHSX 211 and PHSX 216 or PHSX 213, followed by PHSX 212 and PHSX 236 or PHSX 214) by the second semester. Majors are encouraged to take PHSX 213 and PHSX 214, the honors versions of PHSX 211/PHSX 216 and PHSX 212 /PHSX 236. Students should take these courses and ASTR 391 in their first two years. B.S. astronomy majors normally complete additional course work in mathematics (MATH 223, MATH 290, and MATH 320), as well as PHSX 313 and PHSX 316, in the second year.

Requirements for the B.S. Degree in Astronomy
All students pursuing the Bachelor of Science in Astronomy must complete the KU Core requirements in addition to the degree and major requirements. For details regarding the KU Core requirements, please see the KU Core section of the catalog.

General science requirements: (0)
Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

Computing and Programming. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EECS 138</td>
<td>Introduction to Computing: _____</td>
</tr>
<tr>
<td>EECS 168</td>
<td>Programming I</td>
</tr>
</tbody>
</table>

Calculus I. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH 141</td>
<td>Calculus I: Honors</td>
</tr>
</tbody>
</table>

Or equivalent
Calculus II. Satisfied by one of the following:

MATH 122  Calculus II
MATH 142  Calculus II: Honors
Or equivalent

Seminar in Physics, Astronomy, & Engineering Physics. Satisfied by the following:

PHSX 150  Seminar in Physics, Astronomy and Engineering Physics

General Physics I. Satisfied by one of the following:

PHSX 211  General Physics I
& PHSX 216  and General Physics I Laboratory
PHSX 213  General Physics I Honors

General Physics II. Satisfied by one of the following:

PHSX 212  General Physics II
& PHSX 236  and General Physics II Laboratory
PHSX 214  General Physics II Honors

Foundations of Chemistry I. Satisfied by one of the following:

CHEM 130  General Chemistry I
CHEM 190  Foundations of Chemistry I, Honors

Advanced Mathematics Core Knowledge and Skills (11)

Vector Calculus. Satisfied by the following:

MATH 223  Vector Calculus

Elementary Linear Algebra. Satisfied by the following:

MATH 290  Elementary Linear Algebra

Elementary Differential Equations. Satisfied by the following:

MATH 320  Elementary Differential Equations

Math Elective. Satisfied by one of the following:

PHSX 518  Mathematical Physics
PHSX 718  Mathematical Methods in Physical Sciences
MATH 526  Applied Mathematical Statistics I
MATH 530  Mathematical Models I
MATH 558  Introductory Modern Algebra
MATH 581  Numerical Methods
MATH 590  Linear Algebra
MATH 628  Mathematical Theory of Statistics
MATH 646  Complex Variable and Applications
MATH 647  Applied Partial Differential Equations
MATH 648  Calculus of Variations and Integral Equations
MATH 660  Geometry I
MATH 661  Geometry II
any 700-level MATH lecture course except MATH 701 and MATH 715.

Astronomy Requirements for Major (18-21)

Majors must complete courses as indicated in the following areas:

Physical Astronomy. Honors. Satisfied by the following:

ASTR 391  Physical Astronomy, Honors

Stellar Astronomy. Satisfied by the following:

ASTR 591  Stellar Astronomy

Galactic & Extragalactic Astronomy. Satisfied by the following:

ASTR 592  Galactic and Extragalactic Astronomy

Observational Astrophysics. Satisfied by the following:

ASTR 596  Observational Astrophysics

Astrophysics I and II. Satisfied by the following:

ASTR 691  Astrophysics I
ASTR 692  Astrophysics II
Undergraduate Research. Satisfied by the following:

ASTR 503  Undergraduate Research

Physics Core Knowledge and Skills (26)

Majors must complete courses as indicated in the following areas:

General Physics III. Satisfied by the following:

PHSX 313  General Physics III

Intermediate Physics Lab. Satisfied by the following:

PHSX 316  Intermediate Physics Laboratory I

Introductory Quantum Mechanics. Satisfied by the following:

PHSX 511  Introductory Quantum Mechanics

Physical Measurements or Electronic Circuit Measurement and Design. Satisfied by one of the following:

PHSX 516  Physical Measurements
PHSX 536  Electronic Circuit Measurement and Design

Mechanics I. Satisfied by the following:

PHSX 521  Mechanics I

Electricity and Magnetism. Satisfied by the following:

PHSX 531  Electricity and Magnetism

Thermal Physics. Satisfied by the following:

PHSX 671  Thermal Physics

Physics Elective. Satisfied by any PHSX lecture or laboratory course numbered 500 or higher (PHSX 693 recommended) (with the exception of PHSX 594), including:

ASTR 792  Topics in Advanced Astrophyics
ASTR/PHSX 795  Space Plasma Physics
GEOL 572  Geophysics
PHSX 693  Gravitation and Cosmology (recommended)

PHSX 594 will not be accepted for astronomy B.S. majors to satisfy this requirement.

Major Hours & Major GPA

While completing all required courses (above), majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 30 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior (300+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Major Junior/Senior (300+) Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).
Departmental Honors in Astronomy

Qualified undergraduates earning either a B.A. or a B.S. degree with a major in astronomy may graduate with honors by meeting these requirements:

1. By the end of the candidate’s final semester, he or she must earn a minimum grade-point average of 3.25 overall and 3.5 in the major in all courses taken in residence and elsewhere.
2. The candidate must complete at least 24 credit hours of astronomy and physics courses numbered 500 or above, including undergraduate research represented by 4 hours of credit in ASTR 596, ASTR 597, PHSX 500, or PHSX 501, with a grade of B or higher.
3. The results of the research must be presented in written form and accepted by three members of the department faculty.

A student who plans to graduate with honors in astronomy must file a declaration of intent form with the departmental honors coordinator, preferably during his or her junior year, but no later than enrollment for the final undergraduate semester.

Minor in Astrobiology

Why study astronomy?
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Undergraduate Programs

Astronomy programs are offered through the Department of Physics and Astronomy. The astronomy curriculum offers undergraduates a survey of modern astronomy and an introduction to physical science, gives science and engineering students an introduction to astronomy and astrophysics, and prepares students majoring in astronomy for graduate study in astronomy or related fields.

Courses for Nonmajors

ASTR 191 surveys a wide range of contemporary astronomy topics while ASTR 293 discusses a shorter list of astrophysically extreme objects in greater detail; both courses require eligibility for MATH 101. ASTR 394 is open to students with previous coursework in astronomy, geology or biology; ASTR 391 offers an introduction to physical astronomy at a calculus-based level.

Requirements for the Minor in Astrobiology

Astrobiology Minor Course Requirements

Students selecting this minor must complete courses as specified in each of the following areas:

Preparatory Coursework

Calculus (3-5)

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td>Calculus I (preferred) 3-5</td>
</tr>
<tr>
<td>or MATH 115</td>
<td>Calculus I</td>
</tr>
</tbody>
</table>

Foundations of Chemistry (5)

Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I 5</td>
</tr>
</tbody>
</table>

Minor Requirements

Principles of Molecular and Cellular Biology (4)

Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology 4</td>
</tr>
</tbody>
</table>

Geology (3)

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 101</td>
<td>The Way The Earth Works 3</td>
</tr>
<tr>
<td>GEOL 105</td>
<td>History of the Earth 3</td>
</tr>
<tr>
<td>GEOL 121</td>
<td>Prehistoric Life: DNA to Dinosaurs 3</td>
</tr>
</tbody>
</table>

Physical Astronomy, Honors (3)

Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 391</td>
<td>Physical Astronomy, Honors 3</td>
</tr>
</tbody>
</table>

Astrobiology Core (1-4)

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 394</td>
<td>The Quest for Extraterrestrial Life (Core) 1-4</td>
</tr>
<tr>
<td>ASTR 503</td>
<td>Undergraduate Research</td>
</tr>
</tbody>
</table>

Astrobiology Required Electives (6)

Student selecting this minor must complete 6 credit hours of course work in astronomy, biology, chemistry, geology, or physics at the 300-level or higher and not in the student’s major field.

Minor Hours & Minor GPA

While completing all required courses, minors must also meet each of the following hour and grade-point average minimum standards:

Minor Hours

Satisfied by a minimum of 19 hours of minor coursework.

Minor Hours in Residence

Satisfied by a minimum of 9 hours of KU resident credit in the minor.

Minor Junior/Senior Hours

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in courses in the minor. GPA calculations include all courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Minor in Astronomy

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Undergraduate Programs

Astronomy programs are offered through the Department of Physics and Astronomy. The astronomy curriculum offers undergraduates a survey of modern astronomy and an introduction to physical science, gives science and engineering students an introduction to astronomy and astrophysics, and prepares students majoring in astronomy for graduate study in astronomy or related fields.
Courses for Nonmajors

ASTR 191 surveys a wide range of contemporary astronomy topics while ASTR 293 discusses a shorter list of astrophysically extreme objects in greater detail; both courses require eligibility for MATH 101. ASTR 394 is open to students with previous coursework in astronomy, geology or biology; ASTR 391 offers an introduction to physical astronomy at a calculus-based level.

Requirements for the Minor in Astronomy

Astronomy Minor Course Requirements

Students selecting this minor must complete courses as specified in each of the following areas:

General Physics I (1-5)  
Satisfied by one of the following:  
PHSX 211 General Physics I  
& PHSX 216 and General Physics I Laboratory  
PHSX 213 General Physics I Honors

General Physics II (1-4)  
Satisfied by one of the following:  
PHSX 212 General Physics II  
& PHSX 236 and General Physics II Laboratory  
PHSX 214 General Physics II Honors

General Physics III and Intermediate Physics Laboratory (4)  
Satisfied by the following:  
PHSX 313 General Physics III 3  
PHSX 316 Intermediate Physics Laboratory I 1

Physical Astronomy, Honors (3)  
Satisfied by the following:  
ASTR 391 Physical Astronomy, Honors 3

Astronomy Required Electives. Satisfied by at least 5 hours in any combination of ASTR courses numbered above 300.

Minor Hours & Minor GPA

While completing all required courses (above), minors must also meet each of the following hour and grade-point average minimum standards:

Minor Hours

Satisfied by 20 hours of minor courses.

Minor Hours in Residence

Satisfied by a minimum of 9 junior/senior (300+) hours of KU resident credit in the minor.

Minor Junior/Senior Hours

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the minor. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Atmospheric Science Programs

Why study atmospheric science?

The study of atmospheric processes enables us to understand human interactions with the environment.

Undergraduate Programs

Atmospheric science programs are offered through the Department of Geography. The program offers undergraduates a fundamental knowledge of the atmosphere and the weather it generates. Interactions between weather phenomena and human decisions and activities give the subject important applications. Several tracks lead to a Bachelor of Science degree.

Graduate Programs

The purpose of the program is to expand the student’s knowledge of fundamental atmospheric processes and how the atmosphere interacts with other parts of the environment. Students become familiar with quantitative research methods and how these various approaches can be used to address different problems in atmospheric science. Students gain an in-depth ability to learn specific skills and apply them toward thesis work. These skills consist of, for example, statistical analysis techniques, numerical modeling, or work with atmospheric instrumentation. The breadth of the program and the diverse research topics explored by the faculty are able to accommodate students with a variety of interests.

Atmospheric science programs are offered through the Department of Geography. Details of the regulations on graduate study in atmospheric science are included in the department’s Policies for Graduate Study in Atmospheric Science, available on the department’s website (http://www.geog.ku.edu).

Courses

ATMO 105. Introductory Meteorology. 5 Hours. NE GE3N / N.  
A lecture and laboratory course introducing students to the atmosphere, weather and climate phenomena, and their controlling physical processes. Topics covered include: the structure of the atmosphere, energy and energy budgets, climate and climate change, air pollution, clouds and precipitation, pressure and wind systems, severe weather, and weather forecasting. LEC.

ATMO 106. Introductory Meteorology, Honors. 5 Hours. NE GE3N / N.  
Honors version of ATMO 105. A lecture and laboratory course introducing students to the atmosphere, weather and climate phenomena, and their controlling physical processes. Topics covered include: the structure of the atmosphere, energy and energy budgets, climate and climate change, air pollution, clouds and precipitation, pressure and wind systems, severe weather, and weather forecasting. Prerequisite: Membership in University Honors Program or by permission of instructor. LEC.

ATMO 177. First Year Seminar: _____. 3 Hours. GE11 / U.  
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Atmospheric Science. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.
ATMO 220. Unusual Weather. 3 Hours. NE GE11/GE3N / N.
An introductory lecture course which surveys the general principles and
techniques of atmospheric science and illustrates their application through
discussions of natural but unusual weather phenomena such as blizzards,
hurricanes, tornados, and chinooks, of the effects of air pollution on
weather, and of intentional human alteration of the atmosphere. LEC.

ATMO 310. Aviation Meteorology. 3 Hours. N.
This course introduces students to meteorological events that affect
aircraft operations. Aviation applications of meteorological observations
including satellite and radar observations are discussed. Students learn about graphical displays of meteorological information. Numerical forecasting models and how their output is applied for aviation is also considered. Forecasting of weather events of particular interest to aviation such as ceiling, visibility, icing and turbulence is emphasized. Prerequisite: ATMO 105 or AE 245 or equivalent. LEC.

ATMO 321. Climate and Climate Change. 3 Hours. N.
This course is designed to introduce students to the nature of the Earth’s
physical climate. It introduces the basic scientific concepts underlying our
understanding of our climate system. Particular emphasis is placed on
energy and water balances and their roles in evaluating climate change.
The course also evaluates the impact of climate on living organisms and
the human environment. Finally, past climates are discussed and potential
future climate change and its impact on humans is evaluated. (Same as GEOG 321.) Prerequisite: ATMO 105 or GEOG 104. LEC.

ATMO 499. Honors Course in Atmospheric Science. 2-3 Hours.
AE61 / N.
Open to students with nine hours of upper level credit in Atmospheric
Science, an average of at least 3.5 in all Atmospheric Science courses,
and an overall average of at least 3.25. Includes the preparation of an
honors paper and its defense before a committee of at least two regular
faculty members. LEC.

ATMO 505. Weather Forecasting. 3 Hours. N.
A first course in synoptic meteorology designed to introduce students to
weather analysis and forecasting through the application of hydrodynamic
and thermodynamic principles to operational analysis and forecasting.
Topics include analysis and interpretation of surface and upper-air
observations and data from satellites, radars, and wind profilers; chart and
sounding analysis; and three-dimensional, conceptual models of weather
systems. The course includes student-led weather briefings and analysis
exercises. Prerequisite: ATMO 105 and MATH 121 or MATH 115. LEC.

ATMO 506. Forecasting Models and Methods. 3 Hours. N.
Introduction to basic numerical weather prediction methods. Computer
programs are used to apply numerical methods to weather data and
to evaluate dynamical processes on numerical grids. Meteorological
graphics packages are used to analyze current weather data and
numerical model output. Current operational numerical models and output
products are discussed. Prerequisite: ATMO 505, MATH 122, and EECS 138 or EECS 168. LEC.

ATMO 515. Energy and Water Balance. 3 Hours. N.
A study of the distribution and circulation of water in the air-earth system
as influenced by atmospheric processes and surface conditions. The
solal and terrestrial radiation budget and the water balance at the
earth’s surface will be applied to agricultural and urban energy and water
problems. Prerequisite: ATMO 105 or EECS 138. LEC.

ATMO 521. Microclimatology. 3 Hours. N.
A study of climatic environment near the earth-atmosphere interface.
Consideration of rural climates in relation to agriculture and urban
climates as influenced by air pollution and other factors. Emphasis is on
physical processes in the lower atmosphere, distribution of atmospheric
variables, the surface energy budget and water balance. (Same as GEOG 521.) Prerequisite: ATMO 105 and MATH 106 or MATH 121. LEC.

ATMO 525. Air Pollution Meteorology. 3 Hours. N.
A study of background levels and concentrated sources of atmospheric
pollution together with considerations of pollution buildup in urban
areas as related to particular weather conditions. Inadvertent weather
modifications and effects of atmospheric pollution on particular weather
events and general climate will be discussed. Prerequisite: ATMO 105,
MATH 121, and EECS 138. LEC.

ATMO 531. Topics in Atmospheric Science: ______. 1-3 Hours. N.
An investigation of special topics in atmospheric science. May include
topics in dynamic, physical or synoptic meteorology or climatology as well
as related topics in earth and physical sciences. May be repeated if topic
differs. LEC.

ATMO 605. Operational Forecasting. 2 Hours.
Students enhance their forecasting expertise by preparing forecasts
for presentation to the public through a variety of media. Classroom
activities include weekly map discussions and analysis of current weather
situations. Forecasting topics such as forecast verification, aviation
forecast products, severe weather, flash floods and watches and warnings
are examined. Credit for ATMO 605, ATMO 606, and ATMO 607 is limited
to a total of eight hours, six of which may be counted toward a degree in
atmospheric science. Prerequisite: ATMO 505. FLD.

ATMO 606. Forecasting Practicum - Private Industry. 2 Hours. AE61 / N.
Practical experience in private industry working with current and/or
archived meteorological data. Possibilities include the preparation of
forecasts for TV stations and meteorological consulting firms, and working
with environmental consulting firms to assess air pollution hazards. May
be repeated two times for credit. Credit for ATMO 605, ATMO 606, and
ATMO 607 is limited to a total of eight hours, six of which may be counted
toward a degree in atmospheric science. Prerequisite: ATMO 605. FLD.

ATMO 607. Forecasting Intern - National Weather Service. 2 Hours.
AE52/AE61 / N.
Practical experience working in a National Weather Service forecasting
center in analyzing weather data and preparing weather forecasts. May
be repeated two times for credit. Credit for ATMO 605, ATMO 606, and
ATMO 607 is limited to a total of eight hours, six of which may be counted
toward a degree in atmospheric science. Prerequisite: ATMO 605. FLD.

ATMO 630. Synoptic Meteorology. 3 Hours. N.
Interpretation, development, and analysis of synoptic charts. Prerequisite:
ATMO 505 and ATMO 640. LEC.

ATMO 634. Physical Climatology. 3 Hours. N.
Atmospheric processes are described and discussed in relation to the
climate of the earth’s surface. Such topics as the greenhouse effect,
ozone depletion, and the effect of solar irradiance on climatic change will
be included. The physical processes and relationships between various
climatic features will be studied. Prerequisite: ATMO 505 and DSCI 301 or
MATH 526. LEC.

ATMO 640. Dynamic Meteorology. 3 Hours. N.
This course introduces the student to the fundamentals of fluid
dynamics necessary for understanding large scale atmospheric motions.
Fundamental physical laws of conservation of mass, momentum and
energy are examined and applied to atmospheric flows. Rotation in the
atmosphere is examined quantitatively in terms of both circulation and
vorticity. Prerequisite: MATH 223 and PHSX 214 or PHSX 212 and PHSX 236. LEC.
ATMO 642. Remote Sensing. 3 Hours.
This course is designed to prepare students to effectively use remotely sensed data in operational or research settings for further work in this field. Topics include radiation and radiation transfer applied to active and remote sensing; radiative properties of space, sun, earth and atmosphere; instrument design considerations and operational characteristics; inversion methods for temperature or concentration profiling; surface temperature measurement; cloud top height determination; rain rate and wind velocity measurement; severe weather detection; satellite photograph interpretation. Prerequisite: ATMO 680, MATH 581. LEC.

ATMO 650. Advanced Synoptic Meteorology. 3 Hours. N.
Analysis and interpretation of synoptic weather charts including treatment of numerical weather forecasting. Prerequisite: ATMO 630 and ATMO 660. LEC.

ATMO 660. Advanced Dynamic Meteorology. 3 Hours. N.
Advanced study of the atmosphere including treatment of the vorticity equation. Prerequisite: ATMO 640 and MATH 220 or MATH 320. LEC.

ATMO 680. Physical Meteorology. 3 Hours. N.
This course is designed to enhance the student's understanding of atmospheric processes through the study of these processes at molecular through micro scales. Topics include the properties and behavior of gases; transfer processes; phase change; solar and earth radiation; cloud drop, ice crystal and precipitation formation; atmospheric electricity; stratospheric chemistry. Prerequisite: MATH 223; PHSX 214, or PHSX 212 and PHSX 226. LEC.

ATMO 690. Special Problems in Meteorology. 1-3 Hours. N.
Prerequisite: Nine hours in meteorology. IND.

ATMO 697. Seminar for Seniors. 1 Hour. AE61 / N.
Current research in atmospheric science will be discussed. May be repeated for a total of two credit hours. Prerequisite: Senior level in atmospheric science. LEC.

ATMO 699. Undergraduate Research. 2 Hours. AE61 / U.
Work on a research project under the supervision of a faculty member. Prerequisite: Nine credit hours in atmospheric science. MAY be taken up to three times for credit. IND.

ATMO 710. Atmospheric Dynamics. 3 Hours.
Presentation of contemporary approaches to the study of atmospheric dynamics. May include methodologies that provide insight into global, synoptic, mesoscale or microscale motions. Prerequisite: ATMO 660 or equivalent. LEC.

ATMO 720. Atmospheric Modeling. 3 Hours.
Illustration and application of contemporary approaches to mathematical and statistical description of atmospheric phenomena. Prerequisite: MATH 122, ATMO 640, ATMO 680, and a course in statistics, or consent of instructor. LEC.

ATMO 727. Atmospheric Storms. 3 Hours.
The physical processes and operating principles involved in the development and life cycles of extreme or unusual weather events including tornadoes, blizzards, lightning displays, and tropical storms. Prerequisite: EECS 138, MATH 121, and ATMO 320. LEC.

ATMO 731. Advanced Topics in Atmospheric Science: _____ 1-3 Hours.
Advanced investigation of special topics in atmospheric science. May include topics in dynamic, physical or synoptic meteorology or climatology as well as related topics in earth and physical sciences. May be repeated if topic differs. LEC.

ATMO 750. Numerical Weather Prediction. 3 Hours.
An exploration of the mathematical methods used to describe the current state of the atmosphere and to predict future states. Current operational numerical weather prediction techniques will be included. Prerequisite: ATMO 660. LEC.

ATMO 825. Seminar in Climatology. 2-3 Hours.
LEC.

ATMO 827. Seminar in Atmospheric Science. 1-3 Hours.
LEC.

ATMO 899. Master’s Thesis. 1-10 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

GEOG 100. World Regional Geography. 3 Hours. SC AE42 / S.
An introductory survey of the environmental setting, historically formative periods, and present-day issues that distinguish the major culture areas of the world. LEC.

GEOG 101. World Regional Geography, Honors. 3 Hours. SC AE42 / S.
An introductory survey of the environmental setting, historically formative periods, and present-day issues that distinguish the major culture areas of the world. Open only to students in the College Honors Program, or by consent of instructor. LEC.

GEOG 102. Principles of Human Geography. 3 Hours. SC AE42 / GE3S / S.
An examination of the relationships between humans and their environments. The course introduces students to basic concepts in human geography relating to economic activities, landscapes, languages, migrations, nations, regions, and religions. Serves as the basis for further course work in cultural, economic, political, population, and urban geography. LEC.

GEOG 103. Principles of Human Geography, Honors. 3 Hours. SC AE42/GE3S / S.
An introduction to how human societies organize space and modify the world about them. Resultant patterns on the landscape are interpreted through principles of space perception, cultural ecology, diffusion, land use, and location theory. Comparisons are made between urban and rural areas and between subsistence and commercial societies. Open to students who have been accepted into the College Honors Program. LEC.

GEOG 104. Principles of Physical Geography. 3 Hours. NE GE3N / N.
The components of the physical environment are discussed in order to familiarize the student with their distributions and dynamic nature. Major topics include the atmosphere, landforms, soils, and vegetation together with their interrelationships and their relevance to human activity. This course and GEOG 105 together satisfy the laboratory science requirement. Both courses are required for geography majors. LEC.

GEOG 105. Introductory Laboratory in Physical Geography. 2 Hours. U.
A laboratory course designed to complement GEOG 104 in satisfying the laboratory science requirement. It is required for geography majors. Laboratory exercises include a wide variety of analyses using data on the atmosphere, hydrosphere, biosphere, and lithosphere. Prerequisite: GEOG 104, which may be taken concurrently. LAB.

GEOG 107. Principles of Physical Geography, Honors. 3 Hours. NE GE3N / N.
Interactive processes among the systems of the earth are studied and discussed. Major topics include vegetation, soils, landforms, water, the atmosphere, and cycles of matter between these portions of the earth. The course includes lectures and critical discussions to address study
problems in physical geography. Open only to students in the University Honors Program or by consent of the instructor. LEC.

GEOG 111. Maps and Mapping. 4 Hours. H.
How do people find their way from here to there or just around? Simple--they use maps. Maybe not maps on pieces of paper but maps in their heads: mental maps. Different people have different maps, even of the same place. Mapping is an ancient form of communication and maps have created ideas and opinions, promoted understanding and confusion. A non-technical approach to the transformation of space onto maps, to their content and structure, and their role and impact in human activity, past and present. Neither background in geography nor artistic skills are required. LEC.

GEOG 140. Global Environment I: The Discovery of Environmental Change. 5 Hours. GE3S / U.
This interdisciplinary course and laboratory sections survey the foundations of environmental understanding and the process of scientific discovery from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the history of environmental systems and life on earth, the discovery of biotic evolution, ecological change, and climate change. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to earth systems and the development of environmental understanding using historical and present-day examples. (Same as EVRN 140 and HIST 140.) LEC.

GEOG 142. Global Environment II: The Ecology of Human Civilization. 5 Hours. GE3S / U.
This interdisciplinary course and its laboratory sections survey the history of humanity’s relationship with the natural world over the long term from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the evolution of Homo sapiens and cultural systems; the development of hunter, gatherer, fisher, agricultural, and pastoral lifeways; the ecology of colonialism and industrial civilization, and the emergence of ideological and ethical perspectives on the relationship between nature and culture. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to the humanity’s engagement with the global environment using historical and present-day examples. (Same as EVRN 142 and HIST 142.) LEC.

GEOG 144. Global Environment I: The Discovery of Environmental Change, Honors. 5 Hours. U.
This interdisciplinary course surveys the foundations of environmental understanding and the process of scientific discovery from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the history of environmental systems and life on earth, the discovery of biotic evolution, ecological change, and climate change. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to earth systems and the development of environmental understanding using historical and present-day examples. (Same as EVRN 144 and HIST 144.) Open only to students admitted to the University Honors Program or by permission of instructor. LEC.

GEOG 145. Global Environment II: The Ecology of Human Civilization, Honors. 5 Hours. U.
This interdisciplinary course and its laboratory sections surveys the history of humanity’s relationship with the natural world over the long term from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the evolution of Homo sapiens and cultural systems; the development of hunter, gatherer, fisher, agricultural, and pastoral lifeways; the ecology of colonialism and industrial civilization, and the emergence of
receive attention. Systems under stress through population and other contemporary forces serve as examples. (Same as EVRN 304.) LEC.

**GEOG 311. Map Conception and Development. 4 Hours. N.**
An examination of the map process with emphasis on two areas: 1) the mental map formed during interaction with the environment and 2) the map as a physical object which emerges from mapping activity. A local area will serve as the laboratory/environment for the mapping activity including production and use. LEC.

**GEOG 316. Methods of Analyzing Geographical Data. 4 Hours. N.**
Introduces the benefits and limitations of using quantitative methods to analyze geographical problems. Covers traditional descriptive (e.g., measures of central tendency) and inferential statistics (e.g., hypothesis testing) but also inherently geographical approaches such as shape and point pattern analysis, and spatial autocorrelation. Laboratory emphasizes using the computer to explore and analyze geographical problems. LEC.

**GEOG 319. Topics in Techniques: ______. 1-3 Hours. N.**
An investigation of special topics in Techniques. May include coursework in cartography, GIS, or remote sensing. May be repeated if topic differs. LEC.

**GEOG 321. Climate and Climate Change. 3 Hours. N.**
This course is designed to introduce students to the nature of the Earth's physical climate. It introduces the basic scientific concepts underlying our understanding of our climate system. Particular emphasis is placed on energy and water balances and their roles in evaluating climate change. The course also evaluates the impact of climate on living organisms and the human environment. Finally, past climates are discussed and potential future climate change and its impact on humans is evaluated. (Same as ATMO 321.) Prerequisite: ATMO 105 or GEOG 104. LEC.

**GEOG 331. Regional Geomorphology of the United States. 3 Hours. N.**
This course examines processes and processes affecting the earth's surface, and furthermore identifies and describes the physiographic regions that are the result of these processes. Special efforts are made to explore various geographic resources, satellite imagery, and internet sources or geomorphic data from a regional perspective since there is no wholly satisfactory text available for the course. A research paper is required. Prerequisite: An introductory earth science course or consent of instructor. LEC.

**GEOG 332. Glaciers and Landscape. 3 Hours. N.**
Elements from glaciology, geology, and climatology are merged to examine the interactions between glaciers and their natural environments, including the processes involved in glacier formation, the relationship between glaciers and climate, the mechanisms of glacier flow, and interpretation of the Earth's glacial record. Emphasis is placed on an interdisciplinary approach to study environmental change and paleoclimate reconstruction. Prerequisite: GEOG 104 or GEOL 101, or consent of instructor. LEC.

**GEOG 335. Introduction to Soil Geography. 4 Hours. N.**
This course focuses on the properties and processes of soils as they occur in their environment. The student is introduced to the nature of soil as it functions as a body; genesis of soils; properties of soil solids, especially colloids; soil chemical composition, properties, and reactions; interaction between solid, liquid, and gaseous components in soils; plant-soil-water relationships; biological interactions with soil; classification of soils; and the distribution of soils on the landscape. Not open to students who have taken EVRN 535 or GEOG 535. (Same as EVRN 335.) Prerequisite: GEOG 104 or GEOL 101 or consent of instructor; BIOL 100 and CHEM 130 or CHEM 190 recommended. LEC.

**GEOG 338. Introduction to River Systems. 3 Hours. N.**
A course of fluvial geomorphology. Topics include the drainage basin, fluvial processes, river channel adjustment and forms, human disturbance and geomorphic response, and research methods in fluvial geomorphology. Field trip. Prerequisite: GEOG 104. LEC.

**GEOG 339. Topics in Physical Geography: ______. 1-3 Hours. N.**
An investigation of special topics in Physical Geography. May include coursework under headings of soils, vegetation, climate, or geomorphology. May be repeated if topic differs. LEC.

**GEOG 350. Physical Geography of Africa. 3 Hours. N.**
This course is a survey of the basic physical features of the African continent including structure and relief, rivers and lakes, soils and mineral resources. It includes characteristics and processes of African climates, and the ecology of Africa's four major biomes: tropical rain forest, savanna, steppe, and desert. Climatic and environmental variations of the past, emergence of humankind, and development of pastoral and farming systems are discussed. Contemporary environmental concerns also include deforestation and desertification, the impacts of drought, methods for monitoring African environments, and Africa's prospects in a 21st century suffering from global warming. (Same as AAAS 350.) LEC.

**GEOG 351. Africa's Human Geographies. 3 Hours. NW AE42/GE3H/GE3S / S/W.**
An introduction to historical, cultural, social, political, and economic issues in Africa from a geographic perspective. The course begins with the historical geography of humanity in Africa, from ancient times through to the present. Other topics include cultural dynamics, demography, health, rural development, urbanization, gender issues, and political geography. Case studies from Eastern and Southern Africa will be used to illustrate major themes. (Same as AAAS 351.) LEC.

**GEOG 352. Economic Geography. 3 Hours. S.**
This course offers an overview of contemporary economic geography with an underlying theme of uneven regional development. Topics examined include: the historical context in which capitalism emerged; the major theoretical approaches used to understand the temporal and spatial dynamics of capitalist society; a series of case studies of different economic sectors; and the global economy, including its development with respect to colonialism, neocolonialism, international trade, third world development, and population growth. LEC.

**GEOG 357. History and Philosophy of Geographic Information Science. 3 Hours. N.**
An examination of the development of geographic information science (GISci) from its roots in traditional geography, cartography, and remote sensing to modern geographic information systems (GIS). GIS is explored as a new scientific instrument, a "macroscope" for representing and analyzing complex earth processes, both physical and cultural. The societal benefits and risks of GIS are demonstrated and discussed. LEC.

**GEOG 358. Principles of Geographic Information Systems. 4 Hours. N.**
An introduction to computer-based analysis of spatial data. Covers basic principles of collecting, storing, analyzing, and displaying spatial data. Emphasis is on problem-solving activities using common spatial analytical techniques (e.g., map overlay). The student will gain extensive hands-on experience with state-of-the-art GIS software. LEC.

**GEOG 370. Introduction to Cultural Geography. 3 Hours. GE3S / H.**
Charts some of the major lines of research in cultural geography, including critical theory, political economy, poststructuralist thought, feminism, and global consumption. Through fieldwork, diverse research methods are applied to issues such as community development, cultural patterns on the landscape and global impacts on local economies.
GEOG 371. Environmental Geopolitics. 3 Hours. S.
This course examines how human relationships with the biophysical world are politicized. Examines key contributions to debates surrounding environmental security, resource conflicts, and related issues, as well as geopolitical assumptions on which these debates build. (Same as EVRN 371.) LEC.

GEOG 372. Environmental Policy. 3 Hours. N.
An historical and analytical study of the formulation, implementation, and consequences of environmental policy in the United States. Attention is directed at relevant interest groups, issues specific to both rural and urban populations, relationships between national policies and international organizations concerned with environmental problems. Prerequisite: GEOG 148 or EVRN 148; and either EVRN 103 or HIST 103, EVRN 347 or HIST 347, or GEOG150 or EVRN 150. LEC.

GEOG 375. Intermediate Human Geography. 3 Hours. S.
An examination of processes of cultural-economic interaction and patterns of human activity on a global scale. The topics cover the whole spectrum of human geography, with focus on urban-economic development, innovation and diffusion, and trade. Each week the third hour will be devoted to discussion of topics dealt with in lectures presented during the first two hours. Prerequisite: Introductory course in Geography or consent of the instructor. LEC.

GEOG 377. Urban Geography. 3 Hours. S.
This course explores the city from the multiple perspectives of its inhabitants. The cultural viewpoints of place, gender, age, and ethnicity are stressed. Traditional topics such as urban hierarchy, functions of the city, suburbanization, and ongoing changes in core and peripheral areas also receive attention. The distinctive landscapes of individual North American cities are emphasized, but examples also are drawn from throughout the world. LEC.

GEOG 379. Topics in Cultural Geography: ______. 1-3 Hours. S.
An investigation of special topics in Cultural Geography. May include coursework under headings of culture theory, material culture, language, foodways, or religion. May be repeated if topic differs. LEC.

GEOG 390. Geography of the United States and Canada. 3 Hours. S.
A study of the different physical, economic, and cultural settings in the United States and Canada which form the basis for the various forms of livelihood. Emphasis on the United States. (Same as AMS 390.) Prerequisite: An introductory geography course or background in the United States or Canadian history, social science, or culture or consent of instructor. LEC.

GEOG 395. Environmental Issues of: ______. 3 Hours. S.
This regional geography course examines contemporary environmental issues of a particular region of the world based on the expertise of the professor. Course emphasis is on the interaction of natural, socio-economic, and cultural factors of development that give rise to environmental problems. Students learn how local, national, and international government and non-governmental stakeholders address environmental problems. Course may be repeated with different professors. LEC.

GEOG 396. East Asia. 3 Hours. NW AE42/GE3H/GE3S / S/W.
This course is an introduction to the contemporary politics, economy, and culture of Korea, China, and Japan in the context of globalization. In addition to the discussion of individual countries, the course examines the cross-cutting themes such as international relations, cultural exchange, and economic development in the region of East Asia. LEC.

GEOG 397. Geography of Kansas and the Plains. 3 Hours. S.
A study of the different physical, economic, and cultural settings in Kansas and the Plains that form the basis for various kinds of livelihood. LEC.

GEOG 399. Topics in Regional Studies: ______. 1-3 Hours. S.
An investigation of special topics in Regional Studies. May include coursework related to a specific country or region. May be repeated if topic differs. LEC.

GEOG 410. Human Biogeography, Honors. 3 Hours. N.
Principles of evolution and earth change are used to examine distributions of human populations, wealth, and resources. Readings from the current literature will be included. Lecture and discussion. (Same as BIOL 410.) Prerequisite: BIOL 152 or 153 or GEOG 107 and membership in the University Honors Program or consent of instructor. LEC.

GEOG 418. Workshop in Production Cartography. 1-3 Hours. AE61 / N.
Theory and practice of map production and other related graphics using the latest graphic and GIS software. Projects vary but include the processes of design and production, editing and quality control, and a final printed or operational product. Involves a weekly consultation session and laboratory time in KU Cartographic GIS Services. Prerequisite: Completion of GEOG 311 and consent of instructor. IND.

GEOG 433. Biogeography Field and Laboratory Techniques. 3 Hours. N.
This course provides undergraduate students with practical experience in field data collection techniques and laboratory data analysis methods. During the first half of the semester, students work in the field using a variety of methods to measure such vegetation characteristics as: cover, density, biomass, leaf area, and canopy architecture. Students gain experience in the use of field instruments including a spectroradiometer, and techniques for quantifying biophysical attributes of vegetation. During the later part of the course, students learn to summarize their field data and examine relationships between the vegetation attributes and measurements made using remote sensing instruments. Recommended: GEOG 316 or an introductory statistics equivalent. (Same as EVRN 433.) FLD.

GEOG 458. Geographical Information Systems: ______. 1-6 Hours. N.
An introduction to the organization and components of geographic information systems and their software. Fundamental concepts and their implementation with applications to physical and human systems. LEC.

GEOG 490. Geographic Internship. 1-6 Hours. AE61 / N.
Supervised practical experience. The student submits a proposal describing the internship prior to enrollment. Upon acceptance, regularly scheduled meetings with the advisor provide assistance, guidance and evaluation of progress in the professional experience. A written summary of the experience or outcomes of the research project are prepared independently by the student, a representative of the host agency, and the advisor. Total credit not to exceed six hours. Prerequisite: Fifteen hours of geography and permission of instructor. FLD.

GEOG 498. Special Topics in Geography: ______. 1-5 Hours. U.
Prerequisite: Fifteen hours of geography. IND.

GEOG 499. Honors Course in Geography. 2-3 Hours. AE61 / U.
Open to students with nine hours of upper level credit in geography, an average of at least 3.5 in all geography courses, and an overall average of at least 3.25. Includes the preparation of an honors paper and its defense before a committee of at least two regular faculty members. IND.

GEOG 500. Senior Capstone in Geography. 3 Hours. AE61 / N.
The capstone project provides students with a broad-based, interdisciplinary educational experience and allows them to integrate and
synthesize the knowledge they have gained in their studies. The course is designed to achieve several objectives: provide an overview of geography as a unified, coherent discipline with multiple perspectives, emphasize writing and analytical skills, introduce students to a major research project that integrates elements of physical and human geography, and cultivate knowledge of future professional development. Graduate students may take this course by permission only. Prerequisite: Nine hours in Geography and status as a senior major in the department; or permission of instructor. LEC.

GEOG 510. Human Factors. 4 Hours. N.
An introduction to the concepts and theories underlying the study of human-technological systems. Human-machine interfaces and system properties and the environment are considered. Lecture-discussion sessions are supplemented by computer-supported laboratory and research activities. LEC.

GEOG 511. Intermediate Cartography: ______ 1-6 Hours. N.
An investigation of special topics in cartography. Can be repeated for different topics. Prerequisite: A course in cartography and consent of instructor. LEC.

GEOG 512. Advanced Design and Cartographic Principles. 3 Hours. S.
A study of graphic elements and their role in the physical and perceptual structure of the map image. Concepts and principles of design are stressed with particular emphasis on the figure-ground relationships, color and lettering. Prerequisite: GEOG 311. LEC.

GEOG 513. Cartographic Design. 3 Hours. S.
A study of graphic elements and their role in the physical and perceptual structure of the map image. Concepts and principles of design are stressed with particular emphasis on the figure-ground relationships, color and lettering. Prerequisite: GEOG 311. LEC.

GEOG 514. Visualizing Spatial Data. 4 Hours. N.
Students use Visual Basic or other currently prominent programming language to visualize spatial data. Early projects cover basic principles such as color manipulation and spatial transformations. Later projects involve developing more sophisticated software for data presentation, data exploration, and map animation. Prerequisite: Some experience with Visual Basic or other programming language. LAB.

GEOG 515. Applied Multivariate Analysis in Geography. 3 Hours. N.
An introduction to the application of multivariate statistical analysis in geography. Techniques covered include univariate and multivariate analysis of variance, multiple regression, logistic regression, principle component analysis, and spatial regression. Practical applications of the techniques in a geographical research context are emphasized. Students will learn how to use statistical packages such as SPSS. Prerequisite: GEOG 316 or equivalent. LEC.

GEOG 516. Data Handling and Map Symbolization. 3 Hours. N.
An analysis of methods for manipulating and symbolizing spatial data. Techniques studied include dot, choropleth, proportional symbols, and isarithmic (contour) mapping. Topics covered include data classification, the use of color, and automated methods of interpolation (triangulation, inverse distance, and kriging). Emphasis is on developing maps that can be presented to the general public, although some consideration is given to visualization software that can be utilized by individuals to explore spatial data. Prerequisite: GEOG 111 or GEOG 210 or GEOG 311. LEC.

GEOG 517. History of Cartography. 3 Hours. H.
A history of mapmaking worldwide from its origins to the present day. Emphasis on maps as historical records of evolving civilizations and cultural landscapes and methods of studying early maps. (Same as HIST 546.) LEC.

GEOG 521. Microclimatology. 3 Hours. N.
A study of climatic environments near the earth-atmosphere interface. Consideration of rural climates in relation to agriculture and urban climates as influenced by air pollution and other factors. Emphasis is on physical processes in the lower atmosphere, distribution of atmospheric variables, the surface energy budget, and water balance. (Same as ATMO 521.) Prerequisite: ATMO 105 and MATH 106 or MATH 121. LEC.

GEOG 526. Remote Sensing of Environment I. 4 Hours. N.
Introduction to study of the environment through air photos and satellite imagery, including principles of remote sensing, interactions of electromagnetic energy with the atmosphere and earth’s surface, aerial photography, satellite systems, and sensors (electro-optical, thermal, and radar). Emphasis in the latter part of the course is on such applications as global monitoring, land cover mapping, forestry, agriculture, and oceanography. Laboratory emphasizes visual interpretation of aerial photography and satellite imagery and an introduction to digital image processing in the department’s NASA Earth Science Remote Sensing Laboratory. (Same as EVRN 526.) Prerequisite: MATH 101 or equivalent. GEOG 358 recommended. LEC.

GEOG 531. Topics in Physical Geography: ______ 1-3 Hours. N.
An investigation of special topics in physical geography. May include specific course work under the headings of geomorphology, climatology, soils, vegetation, quaternary, paleoenvironments, hydrology, etc. May be repeated, if topic differs. LEC.

GEOG 532. Geoarchaeology. 3 Hours. N.
Application of the concepts and methods of the geosciences to interpretation of the archeological record. The course will focus primarily on the field aspects of geoarchaeology (e.g., stratigraphy, site formational processes, and landscape reconstruction), and to a lesser extent on the array of laboratory approaches available. (Same as ANTH 517.) Prerequisite: GEOG 104, ANTH 110, or ANTH 310. LEC.

GEOG 533. Soil Geography. 4 Hours. N.
A broad study of the principles and properties of soils and their distribution on the landscape. Topics covered include: pedology, clay mineralogy, soil physics, soil chemistry, management of soils, soil biology, taxonomy, and soil geomorphology. Laboratory section and a field project are required. Not open to students who have taken GEOG 335 or EVRN 335. (Same as EVRN 533.) Prerequisite: GEOG 104 or GEOG 101 or consent of the instructor; BIOL 104 and CHEM 130 or 190 recommended. LEC.

GEOG 537. Elements of Plant Geography. 3 Hours. N.
An introduction to spatial and temporal variation in natural plant populations and communities. Included is an introduction to methods of analysis, and an overview of structure and process in the earth’s major biomes. Prerequisite: GEOG 331; or an introductory biology/botany course and GEOG 104; or consent of instructor. LEC.

GEOG 538. Soil Chemistry. 3 Hours. N.
This course examines the chemical properties and processes of soils and methods of evaluation. Topics include solid and solution speciation, mineral solubility, soil colloidal behavior, ion exchange, surface complexation, soil salinity and sodicity, soil acidity, oxidation-reduction reactions, and kinetics of soil chemical processes. (Same as EVRN 538.) Prerequisite: GEOG 335 or GEOG 533 or EVRN 335 or EVRN 535, CHEM 135 or CHEM 195, MATH 121, PHSX 114, or consent of the instructor. LEC.

GEOG 541. Geomorphology. 4 Hours. N.
A critical study of land forms in relation to tectonics, climatic environment, and geologic processes. The use of geomorphic methods in the interpretation of Cenozoic history is emphasized. Laboratory exercises in analysis of field observations, maps, and photographs. Required field trip and fee. (Same as GEOG 514.) Prerequisite: GEOG 101 and GEOG 103, GEOG 104 and GEOG 105, or GEOG 103 and GEOLE 304. LEC.

GEOG 550. Environmental Issues in Africa. 3 Hours. S.
Acquaints students with the complexities of debates on environmental problems in Sub-Saharan Africa. Topics addressed may include
deforestation, desert expansion, wildlife conservation, soil erosion, climate change, coral reef destruction, water resources development, mangrove preservation, the environmental effects of war, industrialization, and urbanization. Class presentations and projects synthesize the perspectives of both human and physical geography. (Same as AAAS 551.) Prerequisite: GEOG 104 or permission of instructor. LEC.

GEOG 552. Topics in Urban/Economic Geography: ______. 1-3 Hours. S.
An investigation of special topics in urban/economic geography. May include specific course work under the headings of energy, economic development, international trade, environmental perception, housing, transportation, and migration. May be repeated. LEC.

GEOG 553. Geography of African Development. 3 Hours. NW AE42/GE3H/GE3S / S.
Acquaints students with the values of social parameters of African agricultural and pastoral practice. Topics include customary land rights, African perspectives on the natural world, gender issues in African agriculture, and the urbanization of African cultures. The course also contrasts African views with those of Western development practitioners and donor agencies. Case studies from different countries are used to highlight the continent’s regional differences. (Same as AAAS 553.) LEC.

GEOG 556. Geography of the Energy Crisis. 3 Hours. S.
A discussion and analysis of the basic facts and causes of energy problems on a national and world scale. Examines current production, consumption, efficiency, reserves, conservation, and other energy policy options, including adjustments that will affect consumer use, national politics, and strategic issues. Prerequisite: GEOG 102 or GEOG 375. LEC.

GEOG 557. Cities and Development. 3 Hours. S.
An intermediate level course in urban geography, with an emphasis on cities in the developing world. Example cities in Latin America and the Caribbean, Sub-Saharan Africa, the Middle East, South Asia, and/or Southeast Asia may be examined. The main focus is on the intersection between urbanization and economic development, but social, political, and cultural aspects of development in cities are considered. Other topics include the geographic impacts of European colonialism, urbanization and industrialization, rural-to-urban migration, urban structure and spatial dynamics, urban planning, and environmental sustainability. (Same as AAAS 557.) LEC.

GEOG 558. Intermediate Geographical Information Systems. 4 Hours. N.
An intermediate level course in geographic information science designed for advanced undergraduate and graduate level students who already have an introductory understanding of GIS. Emphasis will be placed on the application of spatial analytical techniques to geographical problem-solving. Topics include spatial data structures, interpolation techniques, terrain analysis, cost surfaces, and database management technique. Students will apply knowledge gained in lecture and reading to natural resource, urban, and scientific applications using state-of-the-art GIS software. Prerequisite: GEOG 358 or consent of instructor. LEC.

GEOG 560. GIS Application Programming. 3 Hours. N.
This course teaches programming within Geographic Information Systems. Students learn how to customize GIS applications to automate data processing and spatial analysis through programming languages. GIS programming concepts and methods are introduced from the aspects of spatial data management and analysis covering both the vector and raster data models. Prerequisite: GEOG 558 and a course in programming languages. LEC.

GEOG 570. Geography of American Indians. 3 Hours. NW AE42/GE3H/GE3S / S.
A survey of the culture and history of selected indigenous peoples of the Americas. Emphasis is placed on the environmental setting, the settlement and subsistence patterns, and the impact of European colonization. Discussion includes present-day ethnic and resource issues. LEC.

GEOG 571. Topics in Cultural Geography: ______. 1-3 Hours. S.
An investigation of special topics in cultural geography. May include specific course work under the headings of cultural theory and methodology, material culture, foodways, religion, and similar topics. May be repeated, if topic differs. LEC.

GEOG 572. Political Geography. 3 Hours. S.
Acquaints students with the theories and methods of political geography. Topics include geographical studies of: states, nations, and nationalism; territories and territoriality; geopolitics; and elections. Case studies from various regions of the world are included with an emphasis on the developing world. Prerequisite: GEOG 102 or equivalent or consent of instructor. LEC.

GEOG 574. Exploring Oceania. 3 Hours. S.
Acquaints students with the culture and history of Oceania including its settlement and the impacts of European and American colonialism on Australasia, Melanesia, Micronesia and Polynesia. Emphasis is placed on applying broad geographical concepts to this vast Oceanic region through the lenses of development, media and migration studies. Prerequisite: GEOG 102 or GEOG 103; or consent of instructor. LEC.

GEOG 576. Cultural Geography of the United States. 3 Hours. S.
Distributions of major culture elements including folk architecture, religion, dialect, foodways, and political behavior are systematically studied from a predominate historically perspective. These discussions are followed by a survey of the major culture regions in America. Although not absolutely necessary, familiarity with concepts treated in any of the following courses would be helpful: AMS 100, AMS 110, ANTH 108, ANTH 308, GEOG 102, or GEOG 390. (Same as AMS 576.) LEC.

GEOG 579. Geography of American Foodways. 3 Hours.
An interdisciplinary approach to food that explores the diversity of eating habits across the United States and the role of food as an indicator of cultural identity and change. Current regional and ethnic food consumption patterns are stressed. Topics include multiculturalism and regional identity, the symbiotic relationship between restaurant food and home cooking, the recent interest in farmers’ markets and organic foods, and the importance of the food industry and the popular press in setting trends. (Same as AMS 579.) LEC.

GEOG 590. Understanding Central Asia. 3 Hours. NW / S/W.
An intensive, multidisciplinary survey of Central Asia, focusing on the former Soviet republics-Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan-with additional coverage of neighboring regions (the Caucasus and the Caspian basin, Afghanistan, and western China). The course addresses the history of the region (from the Silk Road to Soviet rule), geography, religion, and the building of post-Soviet states and societies. (Same as REES 510.) LEC.

GEOG 591. Geography of Latin America. 3 Hours. SC AE42/GE3S / S/ W.
A study of the different physical, economic, and cultural settings in Latin America which form the basis for the various forms of livelihood. LEC.

GEOG 592. Middle American Geography. 3 Hours. S.
This regional study of the natural environments and cultural-historical backgrounds of Mexico, Central America, and the Caribbean details the
physical and historical processes that have shaped the cultural landscape. LEC.

GEOG 593. Central American Peoples and Lands. 3 Hours. S.
This is a study of the natural and cultural history of the region's lands and peoples that focuses on the cultural geography of the surviving indigenous populations, including their culture area, culture history, cultural landscape, and cultural ecology. LEC.

GEOG 594. Geography of the Former Soviet Union. 3 Hours. S/W.
An analysis of the spatial organization of the successor states to the USSR. A study of the diverse human and natural resources, demographic, cultural, and economic conditions. Prerequisite: An introductory geography course or background in Russian-East European history, social science, or culture, or consent of instructor. LEC.

GEOG 595. Geography of Eastern Europe. 3 Hours. S/W.
A study of nations and regions of Eastern Europe, excluding Russia. Prerequisite: An introductory geography course or background in Slavic-East European history, social science, or culture or consent of instructor. LEC.

GEOG 597. Geography of Brazil. 3 Hours. S.
Study of geographic factors, physical and cultural, that are basic to understanding the historical development of Portuguese South America and the contemporary and cultural geography of Brazil. Course also includes a survey of Brazil's South American neighbors. LEC.

GEOG 601. Indigenous Peoples of the World. 3 Hours. S.
A survey of the varied responses of global Indigenous peoples as a result of the imposition of external economic and political systems. An overview of diverse, thematic issues such as land rights, economic development, resources and cultural patrimony, languages, knowledge systems, and women's rights from the perspectives of Indigenous societies around the world. Detailed studies of Indigenous peoples seeking recognition and protection under international law are used. (Same as ISP 601.) Prerequisite: Permission of instructor. LEC.

GEOG 635. Soil Physics. 3 Hours. N.
Provides theoretical and practical foundations for understanding physical properties and processes of variably-saturated porous media. Focus is on the transport, retention, and transformation of water, heat, gas, and solutes through the soil. We examine modern vadose zone measurement methods, analytical tools, and numerical models for data collection and interpretation. (Same as EVRN 635.) Prerequisite: GEOG 335 or EVRN 335, or GEOG 535 or EVRN 535, and MATH 121, PHSX 114; or consent of instructor. LEC.

GEOG 658. Topics in Geographic Information Science: _____ 1-6 Hours.
An investigation of special topics in geographic information science. May include specific coursework under the headings of methodology, basic research, thematic or regional applications, geographic information systems (GIS), Global Positioning System (GPS), and geostatistics. May be repeated if topic differs. LEC.

GEOG 670. Cultural Ecology. 3 Hours. S.
Investigation of the interrelations between socio-cultural systems and the natural environment, including a survey of major theories and descriptive studies. (Same as ANTH 695.) Prerequisite: An introductory course in geography or anthropology. LEC.

GEOG 710. Information Design. 3 Hours.
Concepts and principles for the organization of verbal, numerical, and graphic/spatial data and their application to the production of information displays and instruments. Examination of the evolution of the information design process from the traditional (communication system) perspective to interactive user-centered design approaches. The nature of human information processing in handling information for both visualization and analysis, with particular emphasis on decision-making and usability. Prerequisite: GEOG 510, IND 510, PSYC 318, PSYC 685, or equivalent, or consent of instructor. LEC.

GEOG 711. Advanced Cartography: _____ 3 Hours.
An investigation of special topics in cartography. Can be repeated for different topics. Prerequisite: Consent of instructor. LEC.

GEOG 713. Practicum in Cartography. 1-6 Hours.
Experience in the organization and presentation of cartographic material in lecture, discussion, and laboratory formats. May be repeated to a total of six credits. Prerequisite: Consent of instructor. FLD.

GEOG 714. Field Experience. 3 Hours. AE61.
Working in a new environment presents problems unlike those encountered in a classroom situation. Data collection techniques and exercises discussed in this off-campus course are intended to provide experience in dealing with an unfamiliar situation. Course location is dictated by the interests and composition of the student group; offered in the first three weeks of August. Geography majors are encouraged to attend. This course is required for graduate students. Fee required. Prerequisite: Junior-senior standing and fifteen hours of geography or consent of instructor. FLD.

GEOG 716. Advanced Geostatistics. 3 Hours.
An introduction to the practical application of advanced geospatial statistical techniques. Potential topics include: spatial regression, interpolation, clustering, and advanced nonparametric statistics. Knowledge of a statistical package and GIS is assumed. Prerequisite: GEOG 516 or equivalent and GEOG 358 or equivalent. LEC.

GEOG 719. Development of Geographic Thought. 2-3 Hours.
Critical analysis of the growth of geographic thought from antiquity to the present: emphasis on structure of modern geography. Prerequisite: Twenty hours of geography or consent of instructor. LEC.

GEOG 726. Remote Sensing of Environment II. 4 Hours.
An overview of techniques for computer analysis of digital data from earth orbiting satellites for environmental applications. Topics covered include: data formats, image enhancements and analysis, classification, thematic mapping, and environmental change detection. The laboratory exercises provide hands-on experience in computer digital image processing in the department's NASA Earth Science Remote Sensing Laboratory. Prerequisite: Introductory statistics and GEOG 526 or equivalent. LEC.

GEOG 731. Topics in Physical Geography: _____ 1-3 Hours.
An investigation of special topics in physical geography. May include specific course work under the headings of geomorphology, climatology, soils, vegetation, quaternary, paleoenvironments, hydrology, etc. May be repeated. RSH.

GEOG 733. Advanced Biogeography Field and Laboratory Techniques. 3 Hours.
This course provides graduate students with practical experience in field data collection techniques and laboratory data analysis methods. During the first half of the semester, students will work in the field using a variety of methods to measure such vegetation characteristics as: cover, density, biomass, leaf area, and canopy architecture. Students will gain experience in the use of field instruments including a spectroradiometer, and techniques for quantifying vegetation biophysical attributes. The laboratory analyses component will include: data summary, data entry, correlation, regression, MANOVA, cluster analysis, and data display, and reporting. Recommended: GEOG 516 or multivariate statistics equivalent. LEC.
GEOG 735. Soil Geomorphology. 3 Hours.
Examines the interaction of pedogenic and geomorphic processes during the Quaternary with an emphasis on strategies and methodologies employed in soil-geomorphic studies. Group research projects incorporating field data collection and analyses are required. Prerequisite: GEOG 335 or GEOG 535 or consent of the instructor. LEC.

GEOG 741. Advanced Geomorphology. 1-3 Hours.
Detailed discussions of processes and landforms characteristic of specific environments. Considered during separate semesters will be general methodology, and fluvial, arid regions, glacial, and shoreline geomorphology. Course may be taken more than once. (Same as GEOL 741.) Prerequisite: GEOG 541. LEC.

GEOG 749. Topics in Stable Isotopes in the Natural Sciences:. 2-3 Hours.
Isotopic compositions of substances provide powerful insights into many topics in the natural sciences. Applications of isotopic analyses of carbon, hydrogen, oxygen, and nitrogen to selected research topics such as plant resource use, food web analysis, paleoecology, paleodiet reconstruction, hydrology, and soils genesis will be examined. Knowledge of isotope chemistry is not required. (Concepts necessary to understand pertinent articles will be taught during the first class meetings.) May be repeated. (Same as BIOL 749.) LEC.

GEOG 751. Analysis of Regional Development. 3 Hours.
An analytical approach to spatial organization of economic activities and aspects of growth and development. Location theory and the geography of trade and migration. A research paper is required. Prerequisite: GEOG 551, or a course in economics, or consent of instructor. LEC.

GEOG 752. Topics in Urban/Economic Geography: ____. 1-3 Hours.
An investigation of special topics in urban/economic geography. May include specific coursework under the headings of energy, economic development, international trade, environmental perception, housing, transportation, and migration. May be repeated. LEC.

GEOG 756. Energy Problems and the Economic-Physical Environment. 2-3 Hours.
This course investigates the economic, social, political, and environmental conditions of energy production, transport, and use: total energy consumption and mix, relations to the level and structure of the economy, substitutability of fuel and energy sources, resource endowment in an international setting. Prerequisite: GEOG 551 or a course in economics or consent of instructor. LEC.

GEOG 757. Geophysical Information Science. 4 Hours.
This course integrates topics in geophysical information science (GISc) with spatial analytical techniques to solve spatial problems. Focuses on the most current research in GISc and its relevance to the environmental sciences, natural resource management, and spatial decision-making. Students are expected to apply the concepts and techniques learned in this class to their own research projects. Prerequisite: GEOG 316 and GEOG 558, or consent of instructor. LEC.

GEOG 771. Topics in Cultural Geography: ____. 1-3 Hours.
An investigation of special topics in cultural geography. May include specific course methodology, material culture, foodways, religion, and similar topics. May be repeated. LEC.

GEOG 772. Problems in Political Geography. 3 Hours.
Case studies of regional and national power settings with particular emphasis upon the geographical analysis of political developments in unstable areas of the world. Prerequisite: GEOG 102 or GEOG 375. LEC.

GEOG 773. Humanistic Geography. 3 Hours.
A discussion and project-oriented course focused on ways of studying the character and meaning of places. Concepts examined include place image and image makers, landscapes as text, sense of place, vernacular regions, and alternate representations of space. Prerequisite: Graduate standing or fifteen hours of geography or consent of instructor. LEC.

GEOG 775. Proseminar in Population Geography. 3 Hours.
Evaluation of problem formulation data gathering, research methods, and substantive knowledge in the geography of human populations. Concurrent auditing of GEOG 575 plus an additional meeting each week is required. Prerequisite: GEOG 575 and GEOG 516, and SOC 514. LEC.

A detailed description and analysis of selected regions of North America. Prerequisite: An introductory geography course or background in United States or Canadian history, social science, or culture or consent of instructor. LEC.

GEOG 791. Latin American Regions: _____. 3 Hours.
A description and analysis of the principal sources of geographic information pertaining to portions or all of Latin America. Prerequisite: GEOG 591 or concurrent auditing of GEOG 591, or consent of instructor. LEC.

GEOG 794. Regions of the Former USSR. 3 Hours.
A description and analysis of geographic data pertaining to the successor states to the USSR. Prerequisite: Fifteen hours of Geography courses or background in Russian, East European or Middle East studies, or consent of instructor. LEC.

GEOG 795. European Regions: _____. 3 Hours.
Prerequisite: Fifteen hours of geography, background in specified area, or consent of instructor. LEC.

GEOG 796. Asian Regions: _____. 2-3 Hours.
Prerequisite: Fifteen hours in geography courses or background in Asia, or consent of instructor. LEC.

GEOG 801. Indigenous Peoples of the World. 3 Hours.
A survey of the varied responses of global Indigenous peoples as a result of the imposition of externally-dominated economic and political systems. An overview of diverse, thematic issues such as land rights, economic development, resources and cultural patrimony, languages, knowledge systems, and women’s rights from the perspectives of Indigenous societies around the world. Detailed studies of Indigenous peoples seeking recognition and protection under international law will be used. The course is offered at the 600 and 800 levels, with additional assignments at the 800 level. (Same as ISP 801.) LEC.

GEOG 802. Urban Geographic Information Systems. 3 Hours.
An advanced survey of urban GIS/LIS focusing on: (1) history; (2) the wide range of applications from Automated Mapping/Facilities Management (AM/FM) to topologically related GIS; (3) generic analytical functions in both raster and vector modalities; and (4) software employed, hardware platforms, and institutional settings. A limited experience in the use of GIS is provided from exercises employing ARC/Info software. Prerequisite: Some experience with DOS based computing. LEC.

GEOG 805. History of Geographic Thought. 2 Hours.
A course to familiarize students with the history and philosophy of geography as a science and humanity. The course summarizes, reviews, and explores the ongoing relevance of 2,500 years of theoretical and methodological advancements in human and physical geography. LEC.

GEOG 806. Basic Seminar. 2 Hours.
The second of two courses required of M.A. students designed to provide experience in the development of research proposals and exposure
to methodologies in geography. This course deals with approaches to geographic problems, and involves individual examination of special topics which require preparation, presentation, and critical evaluation of research proposals. LEC.

GEOG 818. Problems in Production Cartography. 1-3 Hours.
Advanced instruction in the theory and practice of producing maps and other related graphics for classroom instruction and research projects. Emphasis will be on current photo-mechanical and automated techniques. Prerequisite: By appointment. Consent of instructor. LEC.

GEOG 835. Practicum in Soil Mapping and Soil Erosion. 3 Hours.
This course is designed to give graduate students field experience in soil mapping and in the evaluation of soils for loss through processes of erosion. Prerequisite: GEOG 535 or equivalent or consent of instructor. FLD.

GEOG 858. Environmental Geographic Information Systems. 4 Hours.
An introduction to the use of GIS for environmental inventory, monitoring, and modeling. This course integrates the principles of landscape ecology with the analytical tools of GIS, remote sensing, and spatial analysis. Students will be taught GIS methodologies used to address real world problems and the use of GIS spatial analysis techniques to characterize landscapes and monitor their change. Prerequisite: GEOG 316 and GEOG 558 or equivalents, multivariate analysis recommended. LEC.

GEOG 890. Geographic Internship. 1-6 Hours.
Supervised professional experience. The student submits to the program committee a proposal describing the internship prior to enrollment. Upon acceptance, regularly scheduled meetings with the advisor provide assistance, guidance and evaluation of progress in the professional experience. A written summary of the experience or outcomes of the research project are prepared independently by the student, a representative of the host agency, and the advisor. Total credit not to exceed six hours. Prerequisite: Twelve hours of graduate level geography courses and consent of program committee. FLD.

GEOG 898. Readings in Geography. 1-4 Hours.
RSH.

GEOG 899. Master’s Thesis. 1-10 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

GEOG 911. Seminar in Cartography: ____. 1-4 Hours.
Study of selected topics in cartography. Can be repeated for different topics. Prerequisite: GEOG 513 or consent of instructor. LEC.

GEOG 912. Seminar in Quantitative Methods. 2-3 Hours.
LEC.

GEOG 926. Seminar in Remote Sensing. 2-4 Hours.
Study of selected topics in remote sensing theory and application. May include independent or group research and/or development work. Topic will be specified in advance. Prerequisite: GEOG 726 or consent of instructor. LEC.

GEOG 935. Seminar in Soil Geography. 2-3 Hours.
Subject matter varies but focuses on modern concepts and trends in soil geography. Sample topics include classification, paleopedology, and soil genesis. Field trip and fee may be required. Prerequisite: GEOG 735 or consent of instructor. LEC.

GEOG 937. Seminar in Vegetation Geography. 1-3 Hours.
(Same as BIOL 968,) LEC.

GEOG 939. Seminar in Fluvial Systems. 2-3 Hours.
Study of selected topics in theory and method of fluvial systems. Samples include hydraulic geometry, the nature of alluvial sediments, and basin case studies. Topic will be specified in advance. LEC.

GEOG 957. Seminar in Urban and Economic Geography. 2-3 Hours.
LEC.

GEOG 958. Seminar in Geographic Information Systems. 2-4 Hours.
Study of selected topics in analysis of digital geographic data. May include research and/or developmental work. Prerequisite: GEOG 758 or equivalent, or consent of instructor. LEC.

GEOG 970. Seminar in Cultural Geography: ____. 2-3 Hours.
Study of selected topics in the theory and method of cultural geography. Samples include religious patterns, folk architecture, and place-defining novels. Topic will be specified in advance. LEC.

GEOG 972. Seminar in Political Geography. 2-3 Hours.
Study of selected topics in the theory and method of political geography. Samples include insurgent states, electoral patterns, and political ecology. Topic will be specified in advance. Prerequisite: GEOG 772 or consent of instructor. LEC.

GEOG 975. Seminar in Population Geography. 2-3 Hours.
Study of selected geographic topics and problems dealing with the distribution of human populations. Prerequisite: GEOG 775 or consent of instructor. LEC.

GEOG 980. Seminar in Geography: _____. 1-3 Hours.
LEC.

GEOG 990. Seminar in Regional Geography: _____. 1-3 Hours.
(Selected areas to be specified.) LEC.

GEOG 996. Research in Geography. 1-5 Hours.
RSH.

GEOG 999. Doctoral Dissertation. 1-10 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

Bachelor of Science in Atmospheric Science

The Bachelor of Science in Atmospheric Science (B.S.) is designed to meet the recommendations of the American Meteorological Society for a bachelor’s degree in meteorology/atmospheric science. There are four options, each of which meet these recommendations.

1. General Option

This option is for students who want a broad background in atmospheric science. It is also the most suitable option for those who are aiming at a career in weather forecasting. It includes a third semester of synoptic meteorology as well as an air pollution course.

1. Air Pollution Option

Students prepare for a career emphasizing environmental aspects of meteorology. This option includes an additional semester of chemistry as well as environmental studies.

1. Hydrometeorology Option

Students prepare for a career involving the interface between meteorology and hydrology. These studies have important applications to flash floods, droughts and water supply. This option includes additional courses on fluid flow and hydrology from the School of Engineering.
1. News Media Option
This option is for students who wish to enter careers whose main function is to provide information to the general public. It requires additional courses from the School of Journalism.

Undergraduate Admission

Admission to KU
All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Admission to the College of Liberal Arts and Sciences
Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

Advising
Students who may decide to major in atmospheric science should confer early with a departmental representative about the selection of courses.

Requirements for the B.S. Degree in Atmospheric Science
4 specialized options are available for students who plan professional careers in meteorology or atmospheric science. The general meteorology option satisfies all the traditional professional meteorology requirements for employment with the National Weather Service, airlines, or other agencies. The air pollution meteorology option meets the need for trained specialists. The hydrometeorology option may lead to a career as a meteorologist in one of the many water-related activities in private and governmental agencies. The news media forecasting option can lead to a career forecasting the weather on television or radio. The B.S. degree with any of these specialties also prepares students to begin graduate programs in meteorology or atmospheric science.

Written Communication - Core Skill and Critical Inquiry
Composition (0)
Satisfied by one of the following:

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<td>ENGL 101</td>
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<td>Composition</td>
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<td>ACT English score of 27 or above or SAT English score of 600 or above</td>
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<tr>
<td>AP English Literature &amp; Composition score of 3 or above</td>
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Critical Reading and Writing (0)
Satisfied by one of the following:

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<td>ENGL 105</td>
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<td>Freshman Honors English</td>
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Equivalent transfer course

Sophomore Reading and Writing II (0)
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<td>Topics in Reading and Writing: ____</td>
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<td>ENGL 205</td>
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<td>Freshman-Sophomore Honors Proseminar: ____</td>
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<td>ENGL 209</td>
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<td>Introduction to Fiction</td>
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<td>ENGL 210</td>
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<td>Introduction to Poetry</td>
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<td>ENGL 211</td>
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<td>Introduction to the Drama</td>
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<tr>
<td>ENGL 362</td>
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<td>Foundations of Technical Writing (recommended)</td>
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<tr>
<td>AP English Literature &amp; Composition score of 5 or above</td>
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Equivalent

1 Requirement must be completed during initial term of admission at KU.
2 Requirement must be completed within the first academic year at KU.

Communication - Core Skills and Critical Inquiry. Satisfied by the following:

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<td>Effective Business Communication</td>
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Select one of the following:

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<td>Speaker-Audience Communication</td>
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<td>COMS 131</td>
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<td>Speaker-Audience Communication, Honors</td>
</tr>
<tr>
<td>COMS 150</td>
<td></td>
<td>Personal Communication</td>
</tr>
</tbody>
</table>

Humanities - Understanding the Human Condition. Satisfied by completing 1 course with requirement code H. Approved courses may be searched for availability through the Kyû portal.

Social and Behavioral Sciences - Understanding Society and Behavior. Satisfied by completing one course with requirement code S. Approved courses may be searched for availability through the Kyû portal.

Atmospheric Science Prerequisite or Co-requisite Knowledge (0)
Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

Computing and Programming. Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EECS 138</td>
<td></td>
<td>Introduction to Computing: ____ (Fortran preferred; C++ and Matlab accepted)</td>
</tr>
</tbody>
</table>

Scientific Principles of Environmental Studies. Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVRN 148</td>
<td></td>
<td>Scientific Principles of Environmental Studies</td>
</tr>
</tbody>
</table>

Calculus I. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td></td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH 141</td>
<td></td>
<td>Calculus I: Honors</td>
</tr>
</tbody>
</table>

Equivalent

Calculus II. Satisfied by one of the following:
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 122</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MATH 142</td>
<td>Calculus II: Honors</td>
<td></td>
</tr>
<tr>
<td>Equivalent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Physics I. Satisfied by one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHSX 211</td>
<td>General Physics I</td>
<td></td>
</tr>
<tr>
<td>&amp; PHSX 216</td>
<td>and General Physics I Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHSX 213</td>
<td>General Physics I Honors</td>
<td></td>
</tr>
<tr>
<td>General Physics II. Satisfied by one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHSX 212</td>
<td>General Physics II</td>
<td></td>
</tr>
<tr>
<td>&amp; PHSX 236</td>
<td>and General Physics II Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHSX 214</td>
<td>General Physics II Honors</td>
<td></td>
</tr>
<tr>
<td>Foundations of Chemistry I. Satisfied by the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
<td></td>
</tr>
<tr>
<td>or CHEM 190</td>
<td>Foundations of Chemistry I, Honors</td>
<td></td>
</tr>
<tr>
<td>Vector Calculus. Satisfied by the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 223</td>
<td>Vector Calculus</td>
<td></td>
</tr>
<tr>
<td>or MATH 243</td>
<td>Vector Calculus, Honors</td>
<td></td>
</tr>
<tr>
<td>Elementary Linear Algebra. Satisfied by the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 290</td>
<td>Elementary Linear Algebra</td>
<td></td>
</tr>
<tr>
<td>or MATH 291</td>
<td>Elementary Linear Algebra, Honors</td>
<td></td>
</tr>
<tr>
<td>Applied Differential Equation. Satisfied by the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 320</td>
<td>Elementary Differential Equations</td>
<td></td>
</tr>
<tr>
<td>or MATH 220</td>
<td>Applied Differential Equations</td>
<td></td>
</tr>
<tr>
<td>Statistics. Satisfied by the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 526</td>
<td>Applied Mathematical Statistics I</td>
<td></td>
</tr>
<tr>
<td>or DSCI 202</td>
<td>Statistics</td>
<td></td>
</tr>
<tr>
<td>Numerical Methods. Satisfied by the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 581</td>
<td>Numerical Methods</td>
<td></td>
</tr>
<tr>
<td>Atmospheric Science Core Knowledge and Skills (30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Majors must complete all of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introductory Meteorology. Satisfied by:</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>ATMO 105</td>
<td>Introductory Meteorology</td>
<td></td>
</tr>
<tr>
<td>Climate and Climate Change. Satisfied by:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ATMO/GEOG 321</td>
<td>Climate and Climate Change</td>
<td></td>
</tr>
<tr>
<td>Weather Forecasting. Satisfied by:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ATMO 505</td>
<td>Weather Forecasting</td>
<td></td>
</tr>
<tr>
<td>Microclimatology. Satisfied by:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ATMO/GEOG 521</td>
<td>Microclimatology</td>
<td></td>
</tr>
<tr>
<td>Synoptic Meteorology. Satisfied by:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ATMO 630</td>
<td>Synoptic Meteorology</td>
<td></td>
</tr>
<tr>
<td>Dynamic Meteorology. Satisfied by:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ATMO 640</td>
<td>Dynamic Meteorology</td>
<td></td>
</tr>
<tr>
<td>Remote Sensing. Satisfied by:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ATMO 642</td>
<td>Remote Sensing</td>
<td></td>
</tr>
<tr>
<td>Advanced Dynamic Meteorology. Satisfied by:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ATMO 660</td>
<td>Advanced Dynamic Meteorology</td>
<td></td>
</tr>
<tr>
<td>Physical Meteorology. Satisfied by:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ATMO 680</td>
<td>Physical Meteorology</td>
<td></td>
</tr>
<tr>
<td>Seminar for Seniors. Satisfied by:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ATMO 697</td>
<td>Seminar for Seniors</td>
<td>30</td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

**Meteorology Option**

Students selecting this major must select one of the following options:

**General Meteorology Option**  
This option satisfies all the traditional professional meteorology requirements for employment with the National Weather Service, airlines, or other agencies.

Air Pollution Meteorology. Satisfied by:  
ATMO 525 Air Pollution Meteorology 3
Operational Forecasting. Satisfied by:  
ATMO 605 Operational Forecasting 2
Advanced Synoptic Meteorology. Satisfied by:  
ATMO 650 Advanced Synoptic Meteorology 3

**Air Pollution Meteorology Option**  
This option meets the need for trained specialists.

Air Pollution Meteorology. Satisfied by:  
ATMO 525 Air Pollution Meteorology 3
Foundations of Chemistry II. Satisfied by:  
CHEM 135 General Chemistry II 5
Introduction to Environmental Engineering and Science. Satisfied by:  
CE 477 Introduction to Environmental Engineering and Science 3

**Hydrometeorology Option**  
This option may lead to a career as a meteorologist in one of the many water-related activities in private and governmental agencies.

Air Pollution Meteorology. Satisfied by:  
ATMO 525 Air Pollution Meteorology 3
Operational Forecasting. Satisfied by:  
ATMO 605 Operational Forecasting 2
Statics and Dynamics. Satisfied by:  
CE 301 Statics and Dynamics 5
Fluid Mechanics. Satisfied by:  
CE 330 Fluid Mechanics 4
Hydrology. Satisfied by:  
CE 455 Hydrology 3

**News Media Forecasting Option**  
This option can lead to a career forecasting the weather on television or radio.

Operational Forecasting. Satisfied by:  
ATMO 605 Operational Forecasting 2
Advanced Synoptic Meteorology. Satisfied by:  
ATMO 650 Advanced Synoptic Meteorology 3
Infomania: Information Management. Satisfied by:  
JOUR 302 Infomania: Information Management 3
Writing for Media. Satisfied by:  
JOUR 304 Media Writing 3
Concentration in Business

An undergraduate student may graduate from the School of Business with a concentration in atmospheric science.

Atmospheric Science Prerequisite or Co-requisite Knowledge (19-23)

Student selecting this minor must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

Computing and Programming. Satisfied by the following: 3

- EECS 138 Introduction to Computing: ____

Calculus I. Satisfied by one of the following: 5

- MATH 121 Calculus I
- MATH 141 Calculus I: Honors

Calculus II. Satisfied by one of the following: 5

- MATH 122 Calculus II
- MATH 142 Calculus II: Honors

General Physics I. Satisfied by one of the following: 1-5

- PHSX 211 General Physics I
- PHSX 216 and General Physics I Laboratory
- PHSX 213 General Physics I Honors

Introductory Meteorology. Satisfied by the following: 5

- ATMO 105 Introductory Meteorology

Atmospheric Science Required Courses (18)

Students selecting this minor must complete all of the following:

Climate and Climate Change. Satisfied by the following: 3

- ATMO/GEOG 321 Climate and Climate Change

Weather Forecasting. Satisfied by the following: 3

- ATMO 505 Weather Forecasting

Atmospheric Science Required Electives (9)

- ATMO 525 Air Pollution Meteorology
- ATMO 640 Dynamic Meteorology
- ATMO 680 Physical Meteorology

Major Hours & Major GPA

While completing all required courses (above), majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours

Satisfied by 33 hours of major courses.

Major Hours in Residence

Satisfied by a minimum of 15 hours of KU resident credit in the major.

Minor in Atmospheric Science

Why study atmospheric science?

The study of atmospheric processes enables us to understand human interactions with the environment.

Requirements for the Minor in Atmospheric Science

Atmospheric Science Prerequisite or Co-requisite Knowledge (0)

Calculus I. Satisfied by the following:

- MATH 121 Calculus I
- MATH 141 Calculus I: Honors

Calculus II. Satisfied by the following:

- MATH 122 Calculus II
- MATH 142 Calculus II: Honors

General Physics I. Satisfied by the following:

- PHSX 211 General Physics I
- PHSX 216 and General Physics I Laboratory
- PHSX 213 General Physics I Honors

Introduction Meteorology. Satisfied by the following:

- ATMO 105 Introductory Meteorology

Atmospheric Science Required Courses (11)

- ATMO 505 Weather Forecasting

Atmospheric Science Required Electives (9)

- ATMO 525 Air Pollution Meteorology
- ATMO 640 Dynamic Meteorology
- ATMO 680 Physical Meteorology

Major Junior/Senior (300+) Hours

Satisfied by a minimum of 30 hours from junior/senior courses (300+) in the major.

Major Junior/Senior (300+) Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Departmental Honors in Atmospheric Science

To be accepted as a candidate for honors, an undergraduate major must have completed at least 9 hours of upper-division credit in atmospheric science with a grade-point average of 3.5 in all atmospheric science courses and an overall average of at least 3.25. In addition, the program requires ATMO 499, an independent study course consisting of the creation of an honors paper. The student presents the results of this paper in an oral examination to a committee of a minimum of 2 faculty members, normally from the geography department, and chaired by the ATMO 499 supervisor. To graduate with honors, the student must complete the paper and the examination and maintain the 3.5 and 3.25 grade-point averages.
Select three of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATMO 521</td>
<td>Microclimatology</td>
</tr>
<tr>
<td>ATMO 525</td>
<td>Air Pollution Meteorology</td>
</tr>
<tr>
<td>ATMO 630</td>
<td>Synoptic Meteorology</td>
</tr>
<tr>
<td>ATMO 640</td>
<td>Dynamic Meteorology</td>
</tr>
<tr>
<td>ATMO 642</td>
<td>Remote Sensing</td>
</tr>
<tr>
<td>ATMO 680</td>
<td>Physical Meteorology</td>
</tr>
</tbody>
</table>

**Minor Hours & Minor GPA**

While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

**Minor Hours**
Satisfied by 20 hours of minor courses.

**Minor Hours in Residence**
Satisfied by a minimum of 9 hours of KU resident credit in the minor.

**Minor Junior/Senior (300+) Hours**
Satisfied by a minimum of 15 hours from junior/senior courses (300+) in the minor.

**Minor Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses in the minor. GPA calculations include all departmental courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

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**Atmospheric Science M.S. Degree Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATMO 710</td>
<td>Atmospheric Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>ATMO 720</td>
<td>Atmospheric Modeling</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 716</td>
<td>Advanced Geostatistics</td>
<td>3</td>
</tr>
<tr>
<td>Select 3 credit hours of electives in atmospheric science electives at the 700 level or above</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Select 6 credit hours of electives at the 500 level or above outside the geography department</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>A maximum of 6 hours of 500- and 600-level atmospheric science courses may be included in the program, excluding ATMO 505</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

The master’s thesis is a demonstration of a student’s ability to formulate an atmospheric science research problem, collect and analyze relevant data, synthesize appropriate literature, arrive at logical conclusions, and present the entire exercise in a public academic forum.

**Bioinformatics Program**

Bioinformatics is an interdisciplinary science at the interface of biology, chemistry, medicine, mathematics, and computer science. Its goal is development and application of computational approaches to studies of life processes and improvement of human health. The Bioinformatics Program recruits students with bachelor’s or master’s degrees who made a career choice to become professional bioinformaticians. The Ph.D. degree in bioinformatics requires successful completion of formal courses and demonstration of accomplishments in basic research, qualifying examinations, scientific writing, and formal presentations of research data.

**Courses**

**BINF 701. Bioinformatics I. 5 Hours.**

First semester of a two-semester course in bioinformatics and computational biology. Topics include basic concepts of bioinformatics and molecular modeling, bioinformatics databases, computational tools and modeling methods, protein sequence and structure alignment, conformational analysis, secondary structure determination, tertiary structure modeling (homology, threading, ab initio, molecular dynamics and Monte Carlo simulations, protein folding and dynamics), as well as students presentations of material from current papers in the field of study and their own on-going research for discussion and critique. Prerequisite: College introductory biochemistry (no requirement for specific courses).
math, and computer courses or concurrent enrollment in such courses and consent of instructor. (Same as PHCH 701.) LEC.

BINF 702. Bioinformatics II. 5 Hours.
Second semester of a two-semester course in bioinformatics and computational biology. Topics include protein quaternary structure modeling (protein-protein/DNA/small ligand docking, binding, computer-aided drug design), protein structure-function relationships, biological membranes (structure and function of integral membrane proteins, protein-membrane and protein-protein interactions in membranes), phylogenetic trees, modeling of genome-wide protein interaction networks based on structure, sequence, experiment and data-mining, as well as students presentations of material from current papers in the field of study and their own on-going research for discussion and critique. (Same as PHCH 702.) Prerequisite: BINF 701. LEC.

BINF 709. Topics in: ______. 1-3 Hours.
Advanced courses on special topics in Bioinformatics, given as need arises, including lectures, discussions, readings, or laboratory. Students may select sections according to their special interests. LEC.

BINF 999. Doctoral Dissertation. 1-12 Hours.
Original research that is to be incorporated into a PhD dissertation. THE.

Doctor of Philosophy in Bioinformatics

Bioinformatics Graduate Program

Bioinformatics is an interdisciplinary science at the interface of biology, chemistry, medicine, mathematics, and computer science. Its goal is development and application of computational approaches to studies of life processes and improvement of human health. The Bioinformatics Program recruits students with bachelor’s or master’s degrees who made a career choice to become professional bioinformaticians. The Ph.D. degree in bioinformatics requires successful completion of formal courses and demonstration of accomplishments in basic research, qualifying examinations, scientific writing, and formal presentations of research data.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Ph.D. Admission

Admission Requirements

Applicants must have a bachelor’s or master’s degree in natural sciences, mathematics, engineering, or another relevant field. Applications are accepted online (http://www.bioinformatics.ku.edu/education/PhD_prog.html).

Ph.D. Degree Requirements

Students must earn credit in each of the following courses or their equivalents:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BINF 701</td>
<td>Bioinformatics I</td>
<td>5</td>
</tr>
<tr>
<td>BINF 702</td>
<td>Bioinformatics II</td>
<td>5</td>
</tr>
<tr>
<td>BINF 709</td>
<td>Topics in: ______</td>
<td>1-3</td>
</tr>
<tr>
<td>BIOL 636</td>
<td>Biochemistry I</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 638</td>
<td>Biochemistry II</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 804</td>
<td>Scientific Integrity: Molecular Biosciences</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Elective courses in biology/chemistry</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Elective courses in analysis/mathematics/statistics</td>
<td>6</td>
</tr>
</tbody>
</table>

By the end of the second year, the student should have completed the formal course work to fulfill requirements for the degree. The student completes and submits a research proposal for the comprehensive oral examination. The proposal must develop a research topic related to the general areas of bioinformatics. The topic of the research proposal is decided upon by the student in consultation with the thesis advisor. Upon completion of the comprehensive oral examination, the student aggressively carries out research in the laboratory of the thesis advisor. In addition, the student continues attending the weekly bioinformatics seminar series and participating in the bioinformatics student seminar series. A Ph.D. degree is awarded once the student has written a final dissertation and carried out a successful defense of it before a committee.

The Bioinformatics Ph.D. includes training in research skills and responsible scholarship. The research skills training requirement is met through BINF 701/BINF 702 coursework, as well as through individual mentorship and collaborations in the Center for Bioinformatics and student research presentations. The responsible scholarship training requirement is met through BIOL 804 coursework, as well as through individual mentorship during the conduct of research.

Biology Undergraduate Program

Why study biology?

Study biology because undergraduates should have the opportunity to explore the breadth of biology that allows them to succeed in their chosen paths beyond the university.

Advising and Career Counseling

Undergraduate majors are encouraged to consult a faculty member as soon as possible to discuss degree options and course choices. Opportunities for independent study, research, field experience, student hourly employment, undergraduate teaching assistantships, and participation in student organizations are available. Students may consult faculty members in their areas of interest.

Undergraduate Biology Program staff can direct students to faculty members, and lists of faculty members who can advise students are available on the UBP website (http://kuub.ku.edu). Information about curricula, careers, and opportunities in the biological and health-related sciences are available on the UBP website (http://kuub.ku.edu), in the UBP office in 2045 Haworth, and the Biology Teaching Resource Center in 1004 Haworth. See the KU career resource website (http://career.ku.edu) for help with career choices and job searches.
Undergraduate Programs
The KU Undergraduate Biology Program (UBP) administers the

- B.A. and B.S. in biochemistry,
- B.A. in biology,
- B.S. in biology (ecology, evolution, and organismal biology),
- B.S. in biology (molecular, cellular, and developmental biology),
- B.S. in biology (teaching biology),
- B.A. in human biology (anthropology),
- B.A. in human biology (applied behavioral science),
- B.A. in human biology (biology),
- B.A. in human biology (psychology),
- B.A. in human biology (speech-language-hearing science),
- B.A. and B.S. in microbiology, and
- B.S. in molecular biosciences (KU Edwards Campus).

Courses for Nonmajors
Biology Courses by Topics
For a list of biology courses by topics, see Degrees. (http://kuub.ku.edu/ degrees)

Related Biology Courses
A biological course from departments outside the Undergraduate Biology Program may count toward a B.A. degree (up to 4 hours of credit). Check with a biology faculty advisor to determine whether nonbiology courses are acceptable to satisfy biology degree requirements.

Ecology and Evolutionary Biology
The Department of Ecology and Evolutionary Biology (http://www2.ku.edu/~eeb) offers M.A. and Ph.D. degrees in ecology and evolutionary biology, botany, and entomology. In addition, students may concentrate in ecology and evolutionary biology by seeking a B.S. in biology.

Molecular Biosciences
The Department of Molecular Biosciences (http://www.molecularbiosciences.ku.edu) offers M.A. and Ph.D. degrees in biochemistry and biophysics; microbiology; and molecular, cellular, and developmental biology.

The B.S. degree in molecular biosciences is offered on the KU Edwards Campus (http://edwardscampus.ku.edu).

Courses
BIOL 100. Principles of Biology. 3 Hours. NB GE3N / N.
Intended for non-science majors. The basic concepts of biology at the cellular, organismal, and population levels of organization and their applications to humans and modern society. An honors section, BIOL 101, is offered for students with superior academic records. BIOL 100 and BIOL 102 (or BIOL 101 and BIOL 103, honors) satisfy the College natural science with laboratory requirement. Concurrent enrollment in BIOL 102 is recommended. LEC.

BIOL 101. Principles of Biology, Honors. 3 Hours. NB GE3N / N.
Intended for non-science majors with superior academic records. The basic concepts of biology at the cellular, organismal, and population levels of organization and their applications to humans and modern society. BIOL 101 and either BIOL 102 or BIOL 103 satisfy the College natural science with laboratory requirement. Prerequisite: Membership in the College Honors Program or consent of instructor. LEC.

BIOL 102. Principles of Biology Laboratory. 1 Hour. U.
Intended for non-science majors. Exercises are designed to give the student hands-on experience with selected topics from the associated lecture course (BIOL 100). An honors laboratory (BIOL 103) is offered for students with superior academic records. Prerequisite: Concurrent enrollment in BIOL 100 is recommended. LAB.

BIOL 103. Principles of Biology Laboratory, Honors. 1 Hour. U.
Intended for non-science majors with superior academic records. Exercises are designed to give the students hands-on experience with selected topics from the associated lecture course (BIOL 101). Prerequisite: Membership in the College Honors Program or consent of instructor. Concurrent enrollment in BIOL 101 is recommended. LAB.

BIOL 105. Biology Orientation Seminar. 1 Hour. N.
Introduces interested students to information about majoring in the biological sciences at the University of Kansas. Students learn about degree requirements, academic advising, research opportunities, and
career options, as well as how to align academic and professional goals. Graded on a satisfactory/unsatisfactory basis. LEC.

**BIOL 110. Microorganisms in Your World. 3 Hours. NB / N.**
A course for students who are not science majors. Designed to acquaint students with some microbial activities which affect their lives. Includes the historical development of microbiology, the basic principles of microbial growth, disinfection, antibiotics, infection, and immunity; and some commercial, agricultural, and industrial uses of microorganisms. Emphasis is on infectious diseases. Not open to students with any credit in microbiology. May not be counted as a prerequisite for any other microbiology course. LEC.

**BIOL 116. Introduction to Evolutionary Biology. 3 Hours. N.**
An account of evolutionary thinking from classical to contemporary time. The emphasis is on mainstream developments (Darwinism, Mendelism, the Modern Synthesis, Cultural Ecology), but certain social issues will be examined (social Darwinism, creationism). LEC.

**BIOL 120. Insects in Your World. 3 Hours. NB GE3N / N.**
Students will learn about the global impact of insects on human concerns, both positive (pollination and decomposition) and negative (competition with humans for food, fiber, and shelter, and disease transmission) while developing an appreciation for the ways in which scientists work with real problems involving insects. The course will cover the overwhelming abundance and diversity of insects, and their life history, ecology, behavior, and physiology. This course is intended for both nonbiology and biology majors. Format: two lectures and one discussion section per week. LEC.

**BIOL 150. Principles of Molecular and Cellular Biology. 4 Hours. NB GE3N / N.**
An integrated lecture and laboratory course for biology majors and students planning to take additional courses in biology. This course covers basic biochemistry, cell structure and function, molecular biology, genetics, physiology, and development of plants and animals. Three hours of lecture and three hours of laboratory per week. An honors section (BIOL 151) is offered for students with superior academic records. Prerequisite: Concurrent or prior enrollment in CHEM 130, CHEM 190, CHEM 150, or CHEM 170, or consent of instructor. LEC.

**BIOL 151. Principles of Molecular and Cellular Biology, Honors. 4 Hours. NB GE3N / N.**
An integrated lecture and laboratory course for students with superior academic records who are biology majors or who plan to take additional courses in biology. This course covers basic biochemistry, cell structure and function, molecular biology, genetics, physiology, and development of plants and animals. Three hours of lecture and three hours of laboratory per week. Prerequisite: Membership in the University Honors Program and concurrent or prior enrollment in CHEM 130, CHEM 190, CHEM 150, or CHEM 170, or consent of instructor. LEC.

**BIOL 152. Principles of Organismal Biology. 4 Hours. NB GE3N / N.**
An integrated lecture and laboratory course for biology majors and students who plan to take additional courses in biology. This course covers basic elements of plant and animal morphology and physiology, principles of evolution, organismal diversity and phylogeny, population biology, population genetics, ecology, and behavior. Three hours of lecture and three hours of laboratory per week. An honors section (BIOL 153) is offered for students with superior academic records. Prerequisite: BIOL 150 or BIOL 151. LEC.

**BIOL 153. Principles of Organismal Biology, Honors. 4 Hours. NB GE3N / N.**
An integrated lecture and laboratory course for students with superior academic records who are biology majors or planning to take additional courses in biology. This course covers basic elements of plant and animal morphology and physiology, principles of evolution, organismal diversity and phylogeny, population biology, population genetics, ecology, and behavior. Three hours of lecture and three hours of laboratory per week. Prerequisite: BIOL 150 or BIOL 151 and membership in the University Honors Program or consent of instructor. LEC.

**BIOL 177. First Year Seminar: , 3 Hours. NB GE11.**
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in biology. Does not contribute to major requirements in biology. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

**BIOL 200. Basic Microbiology. 3 Hours. NB GE3N / N.**
Introduction to bacteria and viruses. Topics include historical development of microbiology, bacterial structure and growth, enzymes and energy production, disinfection, antibacterial drugs, gene transfer, viral replication, infection and immunity, with emphasis on infectious diseases. Can be substituted for BIOL 201 as a prerequisite for other microbiology courses by consent of department. Not open to those with credit in BIOL 110, BIOL 201, BIOL 400, or BIOL 401. Prerequisite: A course in high school biology and a course in high school chemistry. This course is not recommended for first semester freshmen. LEC.

**BIOL 203. Introductory Microbiology Laboratory. 2 Hours. U.**
Laboratory exercises to complement BIOL 200. Prerequisite: BIOL 200. May be taken concurrently. LAB.

**BIOL 210. Introduction to Clinical Laboratory Sciences. 1 Hour. U.**
An introductory overview of medical technology as a profession including types of analyses performed, specialties, interrelationships in the health care system and a visit to a clinical laboratory. This course will enable those considering a major in medical technology to have a clear definition of the profession. This course does not meet any degree requirements in biology. No prerequisite. (Same as CLS 210.) LEC.

**BIOL 215. Plants Through Time. 3 Hours. NB / N.**
Examines the evolution of plants and their environments from the origin of life to the present, including the historical development of the biosphere, mass extinctions (past and present), and social implications of future climate changes and deforestation. Not recommended for students with credit in GEOL 121. LEC.

**BIOL 225. Evolution and the History of Life. 3 Hours. GE3N / N.**
This introductory course for non-majors focuses on the significance of the history of life and the fossil record for our understanding of evolution. Key events in the history of life are considered, including the origins of life, the eukaryotic cell, and humans, and also various mass extinctions. The focus is on general scientific and evolutionary principles and mechanisms that can be extracted from the study of the fossil record. It also uses the lessons of the fossil record to consider the prospects for our own species. LEC.

**BIOL 240. Fundamentals of Human Anatomy. 3 Hours. N.**
Introduction to the gross anatomy of the human body. Covers the spatial arrangement and appearance of structures throughout the body, including visual identification of these structures. Musculoskeletal relationships, and the anatomy of major organ systems, are emphasized. Not intended for biology majors. Prerequisite: BIOL 100, or equivalent. LEC.

**BIOL 241. Human Anatomy Observation Laboratory. 2 Hours. U.**
One of the two laboratories in gross anatomy designed to complement BIOL 240. Emphasizes the three-dimensional appearance and spatial relationships of anatomical structures through supervised observations of pre-dissected human cadavers. Limited to students enrolled in, or seeking
admission to, programs that require a human anatomy observation laboratory. Concurrent or prior enrollment in BIOL 240 is required. LAB.

BIOL 242. Human Anatomy Dissection Laboratory. 3 Hours. U.
One of the two laboratories in gross anatomy designed to complement BIOL 240. Provides an opportunity to develop a comprehensive three-dimensional understanding of anatomical structures and spatial relationships while gaining substantial dissecting experience. Student perform supervised dissection of human cadavers. Limited to students enrolled in, or seeking admission to, programs that require a human anatomy laboratory. Concurrent or prior enrollment in BIOL 240 is required. LAB.

BIOL 246. Principles of Human Physiology. 3 Hours. N.
An introduction to the physiological and biochemical processes and general physiological principles necessary to sustain life. Organ and organ system processes are emphasized. Intended for students majoring in allied health or sports related curricula who require a course in human physiology. Not intended for biology majors. Prerequisite: BIOL 100 or equivalent. LEC.

BIOL 247. Principles of Human Physiology Laboratory. 2 Hours. U.
Designed to complement BIOL 246. Uses experiments and simulations to demonstrate laboratory techniques and representative processes in areas of human physiology. Concurrent or prior enrollment in BIOL 246 required. LAB.

BIOL 350. Principles of Genetics. 4 Hours. N.
Why are related individuals more similar than unrelated individuals and what is the basis for heritable traits? From Mendel's discoveries of the patterns of genetic inheritance, to the study of transmissible hereditary factors, genetics is central to understanding the biological sciences. Topics include molecular genetics and genetic engineering; Mendelian genetics and mapping; control of gene expression; cytogenetics; epigenetics and non-Mendelian genetics; and population and quantitative genetics. Examples are taken from a wide variety of organisms, including viruses, bacteria, plants, fungi, insects, and humans. Prerequisite: Two semesters of college-level chemistry and BIOL 150 or BIOL 152; or consent of the instructor. LEC.

BIOL 360. Principles of Genetics, Honors. 4 Hours. N.
The science of genetics aims to explain why individuals differ from one another and how these differences are inherited. Honors Genetics covers all core topics in fundamental genetics: Mendelian inheritance, meiosis and recombination, mutation, molecular genetics, population genetics, quantitative genetics and genomics. Special attention given to the practice of genetics and the complex relationship between genotype, phenotype and environment. A broader goal of Honors Genetics is to provide students a framework for understanding recent advances in medical genetics and the modern era of personal genomics. Prerequisite: Two semesters of college-level chemistry and BIOL 150 or BIOL 152, membership in the University Honors Program; or consent of the instructor. LEC.

BIOL 400. Fundamentals of Microbiology. 3 Hours. NB GE3N / N.
Fundamental principles of microbiology with emphasis on physical and chemical properties of the bacterial cell; microbial metabolism, cultivation, growth and death of bacteria; microbial genetics, pathogenesis and immunity, industrially important microorganisms. Prerequisite: BIOL 150 or BIOL 151 and two semesters of college chemistry, or consent of the instructor. LEC.

BIOL 401. Fundamentals of Microbiology, Honors. 3 Hours. N.
Honors section of BIOL 400 and BIOL 612, by application and invitation. Prerequisite: BIOL 151, two semesters of college chemistry, and membership in the University Honors Program, or consent of the instructor. LEC.

BIOL 402. Fundamentals of Microbiology Laboratory. 2 Hours. U.
Laboratory exercises designed to complement BIOL 400 or BIOL 700. Prerequisite: BIOL 400 or BIOL 612, or BIOL 400 or BIOL 612 concurrently. LAB.

BIOL 405. Laboratory in Genetics. 2 Hours. U.
A laboratory program which includes written reports on fruit fly crosses, exercises on meiosis, probability and statistics, human genetics and computer simulations of genetics problems. Prerequisite: Concurrent or prior (preferred) enrollment in BIOL 350 or its equivalent. LAB.

BIOL 408. Physiology of Organisms. 3 Hours. N.
A comprehensive and integrative approach to the study of organisms with an emphasis on physiological, ecological, structural, and behavioral adaptations to differing environments. Prerequisite: BIOL 152 or BIOL 153 and CHEM 130 or CHEM 190 or CHEM 170; or consent of the instructor. LEC.

BIOL 409. Physiology of Organisms, Laboratory. 2 Hours. U.
The laboratory exposes the students to the structure and function of the major groups of animals and plants. Students use basic techniques of biological observation, such as microscopy and dissection, and experimental techniques to analyze plant and animal function. Prerequisite: Concurrent or prior enrollment in BIOL 408, or consent of the instructor. LAB.

BIOL 410. Human Biogeography, Honors. 3 Hours. N.
Principles of evolution and earth change are used to examine distributions of human populations, wealth, and resources. Readings from the current literature will be included. Lecture and discussion. (Same as GEOG 410.) Prerequisite: BIOL 152 or BIOL 153 or GEOG 107 and membership in the University Honors Program or consent of instructor. LEC.

BIOL 412. Evolutionary Biology. 4 Hours. N.
Introduction to the patterns and processes of organic evolution. Considered are the history of evolutionary thought, molecular evolution, genetics and microevolution, selection and adaptation, and speciation and macroevolution. Emphasis will be placed on how scientists study and document change over time in natural populations, methods for testing hypotheses about events in evolutionary history, and how discovering evolutionary mechanisms at one level of organization can help to explicate general processes in the natural world. Prerequisite: BIOL 152 and BIOL 350, or consent of the instructor. LEC.

BIOL 413. History and Diversity of Organisms. 3 Hours. N.
An integrated lecture and laboratory course presenting an overview of the variety and ancestry of life on earth. Using representatives from prokaryotes, protists, plants, fungi, and animals, principles of phylogenetic reconstruction are illustrated and evolutionary trends in the life history features, functional morphology, and structural complexity of extant and extinct organisms are presented. Two hours of lecture and three hours of laboratory per week. Prerequisite: BIOL 152 or BIOL 153, or consent of the instructor. LEC.

BIOL 414. Principles of Ecology. 3 Hours. N.
Study of the principles underlying species population density changes, community structure and dynamics, biogeochemical cycles, and energy flow and nutrient cycling in ecosystems. Prerequisite: BIOL 152 or BIOL 153, or consent of the instructor. LEC.

BIOL 415. Field and Laboratory Methods in Ecology. 2 Hours. N.
This course complements BIOL 414 with field trips and laboratory exercises that illustrate the basic concepts of ecology. Topics covered include methodologies for quantitative sampling of terrestrial and aquatic
systems, design of field studies, computer simulation and digital data analysis techniques, and scientific writing. Prerequisite: Concurrent or prior enrollment in BIOL 414. A statistics course is recommended. FLD.

**BIOL 416. Cell Structure and Function. 3 Hours. N.**

Lecture survey of molecular cell biology with emphasis on experimental approaches to understanding cell function; topics include biological membranes and transmembrane transport, vesicular trafficking (secretion and endocytosis), cell signaling, cell motility and the cytoskeleton, and the regulation of the cell division cycle. Prerequisite: BIOL 150 or BIOL 151; BIOL 350 or BIOL 360; CHEM 130 or CHEM 190 or CHEM 170; and CHEM 135 or CHEM 195 or CHEM 175, or consent of the instructor. LEC.

**BIOL 417. Biology of Development. 3 Hours. N.**

A general course designed to introduce students to the developmental biology of animals. Emphasis is placed on understanding how a single-celled fertilized egg develops into a complex multicellular organism by the processes of cell division, differentiation, growth, and morphogenesis. Lectures stress experimental approaches to investigating development, including classic embryology and modern molecular genetics. Prerequisite: BIOL 350 or consent of the instructor. LEC.

**BIOL 418. Laboratory in: ____. 1-3 Hours. U.**

A varied program of laboratory and fieldwork designed to introduce students to investigative approaches in the study of the basic concepts of biological science. Students may enroll in more than one section. Prerequisite: BIOL 100, BIOL 101, BIOL 150, BIOL 151, or exemption. Each section may have additional prerequisites to be determined by instructor. LAB.

**BIOL 419. Topics in: ____. 1-3 Hours. N.**

Courses on special topics in biology, given as need arises. May be lectures, discussions, readings, laboratory, or fieldwork. Students may select sections according to their special needs. IND.

**BIOL 420. Seminar: ____. 1-3 Hours. N.**

The preparation and presentation of oral reports on selected topics from the recent research literature. Students may choose one interest group each semester, but may enroll in a given interest group only once. Enrollment in each interest group limited to twenty students. Prerequisite: Course work varying with the topic of the seminar, or consent of instructor. LEC.

**BIOL 421. Topics in Molecular Biosciences: ____. 3 Hours. N.**

Lecture instruction and the preparation and presentation of oral and written reports on selected topics from the recent research literature in molecular biosciences. Students may enroll in a given topic only once. Prerequisite: Course work varying with the topic of the seminar; or consent of instructor. LEC.

**BIOL 422. Non-laboratory Independent Study. 1-9 Hours. AE61 / N.**

Original study in discussion or preparation of review papers on selected topics of current interest. May be undertaken only with the consent of the major advisor and of the faculty member who will guide the research. Prerequisite: Consent of instructor. IND.

**BIOL 423. Independent Study. 1-9 Hours. AE61 / N.**

Original study in laboratory or field in selected topics of current research interest. May be undertaken only with the consent of the major advisor and of the faculty member who will guide the research. Prerequisite: Consent of instructor. IND.

**BIOL 425. Teaching Apprenticeship in Biology. 1-9 Hours. N.**

Involvement as teaching assistant for a course in Biology. Credit hours shall not exceed the credits offered for the course being taught. May be undertaken only with the consent of the Director of Undergraduate Biology and of the faculty member who will teach the course. Prerequisite: Consent of instructor and Director of Undergraduate Biology. FLD.

**BIOL 426. Laboratory in Cell Biology. 3 Hours. U.**

Laboratory exercises will examine the function, organization, and composition of eukaryotic cells. Prerequisite: BIOL 150 or BIOL 151; CHEM 130 or CHEM 190 or CHEM 170; concurrent or prior enrollment in BIOL 416 or BIOL 536; or consent of the instructor. BIOL 350 or BIOL 360 is highly recommended. LAB.

**BIOL 427. Developmental Biology Laboratory. 2 Hours. U.**

Laboratory exercises examine processes of early development in animal model organisms. Students study the normal development of live embryos and prepared slides of sea anemones, sea urchins, frogs and chicks. Study of regeneration and axial patterning through experimental manipulation of invertebrates is also explored. Prerequisite: Concurrent or prior enrollment in BIOL 417. LAB.

**BIOL 428. Introduction to Systematics. 3 Hours. N.**

Basic elements of systematic theory and practice; phylogenetic reconstruction using morphological and molecular data; interpretation of phylogenetic hypotheses; principles of nomenclature and classification; evolutionary processes and patterns of species diversity; discussion of the aims and needs of taxonomy; species and speciation; construction of keys; significance of biological collections. Prerequisite: BIOL 152 or BIOL 153. Not intended for students with advanced systematics background. LEC.

**BIOL 430. Laboratory in Molecular Biology. 3 Hours. U.**

Practical experience in recombinant DNA technology and molecular cloning. Prerequisite: BIOL 416 or a course in biochemistry or microbiology. LAB.

**BIOL 432. Human Behavioral Genetics. 3 Hours. S.**

A survey of human behavioral genetics for upper division undergraduates. Emphasis is on how the methods and theories of quantitative, population, medical, and molecular genetics can be applied to individual and group differences in humans. Both normal and abnormal behaviors are covered, including intelligence, mental retardation, language and language disorders, communication, learning, personality, and psychopathology. (Same as ANTH 447, PSYC 432, SPLH 432.) Prerequisite: Introductory courses in biology/genetics or biological anthropology and psychology are recommended. LEC.

**BIOL 435. Introduction to Neurobiology. 3 Hours. N.**

Basic principles of neurobiology. The focus will be on the nature of communication among nerve cells and their targets. Topics will include the development, structure and function of nerve cells, chemistry of neurotransmission, processing and integration including the cellular and molecular basis of higher functions and neurological disorders. Prerequisite: BIOL 150 or BIOL 151. LEC.

**BIOL 440. Advanced Human Anatomy. 6 Hours. N.**

Integrated lecture and laboratory course designed to provide students with a detailed understanding of the structure of the human body. Cadaver dissection will reinforce three-dimensional relationships discussed in lecture and each of the main organ systems will be considered using a regional approach to the body. Prerequisite: BIOL 152 or equivalent; BIOL 240, BIOL 241, or BIOL 242; and instructor consent. LEC.

**BIOL 448. Kansas Plants. 3 Hours. N.**

A study of common and important non-cultivated Kansas plants, with special emphasis on the ecology of the state; paleoclimatic and paleobotanical background of the central prairies and plains; present climate, physiography and vegetation; poisonous, edible, and medicinal plants; identification by means of simplified keys. Prerequisite: BIOL 100, BIOL 101, BIOL 150, or BIOL 151 and BIOL 152 or BIOL 153. LEC.
BIOL 449. Laboratory/Field Work in Human Biology. 1-3 Hours. AE61 / N.
Faculty supervised laboratory or field research for Human Biology majors. Students design and complete a research project in collaboration with a Human Biology faculty member. (Same as ANTH 449, PSYC 449, and SPLH 449.) Prerequisite: Consent of instructor and Human Biology major. FLD.

BIOL 454. Brain Diseases and Neurological Disorders. 3 Hours. N.
Major brain diseases and neurological disorders such as stroke, Alzheimer's Disease, Parkinson's Disease, Huntington's Disease, Multiple Sclerosis, Epilepsy, Schizophrenia, etc., will be discussed in terms of the etiology, molecular, and cellular basis of potential therapeutic interventions. Graduate students are required to present original research paper assigned by the instructor to the class in addition to other assignments for all the students enrolled. Prerequisite: BIOL 150, or consent of instructor. LEC.

BIOL 461. Biodiversity of the Rainforest. 3 Hours. N.
An introduction to birds, bats, and plants of the rainforest, with emphasis on general characteristics of each of the taxa and their relationship to the tropical ecosystem, as well as their particular anatomy, ecology, behavior, and diversity. Field work focuses on identification of birds and bats (at species level), plants (at family level), and on capturing and preservation techniques. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

BIOL 463. Introduction to Ornithology of the Tropics. 4 Hours. N.
A theory and practice course on birds. Course covers morphology, reproduction, evolution, ecology, and behavior, as well as systematics of Costa Rican birds. Course includes field work on bird identification. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

BIOL 465. Marine Biology. 4 Hours. N.
A theory and practice course on biotic relations, the role of organisms and marine biodiversity. It covers basic marine principles and physico-chemical processes (temperature, salinity, dissolved oxygen, nutrients, and pH in the water) and their effect on the abundance, and horizontal and vertical distribution of marine organisms. Course includes field work on data collection. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

BIOL 467. Marine Resources Management. 3 Hours. N.
A theory and practice course which focuses on the techniques used for monitoring the growth of fish, shrimp, and mollusks, with the purpose of understanding the variables that could produce the best yields. The course covers ecology (population growth, competition, predators, ecosystem dynamics), and fishery biology (growth, fish yield, capture efficiency) applicable in the field experiments. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

BIOL 468. Fresh Water Ecology. 4 Hours. N.
A theory and practice class on the study of rivers and lagoons. It includes systematics of rivers, lagoons, and reservoirs. Course includes theory and field work to monitor physical (stream topography, flow, edge vegetation), chemical (nutrients, temperature, pH levels, dissolved oxygen), and biological (collecting and identification of aquatic insects) conditions in rivers. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

BIOL 477. Ecology and Global Change. 3 Hours. N.
Humans influence both natural and managed ecosystems. This course studies the effects of climate change, land-use change, and reductions in biodiversity on ecosystems. Emphasis is placed on how biological and physical processes may be perturbed by human influences. Topics include the greenhouse effect, species extinctions, human disease expansion, and the effects of global change on agricultural productivity. A combination of lectures and discussion address issues from a scientific basis and link these ecological issues to our everyday lives and society as a whole. Prerequisite: BIOL 152, BIOL 153, or equivalent, or permission of instructor. LEC.

BIOL 480. Biology and Diversity of Parasites. 3 Hours. N.
Introductory lecture course to the field of Parasitology. Provides basic knowledge about the morphology and biology of parasitic animals. Coverage includes a diversity of protozoan and metazoan groups parasitizing animals, including humans (e.g., malaria, amoebas, hookworms, tapeworms). Some emphasis is given to groups of parasites of particular medical and/or economic importance. Selected principles of parasitism are introduced. Prerequisite: BIOL 152 or BIOL 153, or permission of instructor. LEC.

BIOL 481. Parasitology Laboratory. 1 Hour. U.
Laboratory course in the study of protozoan and metazoan parasites of animal, including humans, emphasizing their diversity, classification, morphology, and identification. One three-hour laboratory each week. Prerequisite: Concurrent or prior enrollment in BIOL 480. LAB.

BIOL 494. Introduction to Mammalogy. 3 Hours.
A study of mammals, with emphasis on evolution, biogeography, systematics, and natural history. Lectures, laboratory, and field study. Prerequisite: BIOL 152 or 153 or permission of instructor. LEC.

BIOL 499. Introduction to Honors Research. 2 Hours. N.
Intended for sophomores planning to enroll in the Biology Honors Program. Students interested in pursing Biology Honors discuss with Biology faculty members the rationale, methods, and interpretations of research being carried out in individual faculty labs to learn how scientific research is conducted. Prerequisite: At least 17 credit hours of college level natural sciences coursework or consent of instructor. LEC.

BIOL 500. Biology of Insects. 3 Hours. N.
Lectures and demonstrations providing an introduction to the study of insects, including general classification, structure, phylogeny, identification, development, physiology, behavior, ecology, and relations to human affairs. Prerequisite: BIOL 152, 153, or equivalent, or permission of instructor. LEC.

BIOL 502. Laboratory in Insect Biology and Diversity. 2 Hours. U.
Laboratory and field studies of insects, emphasizing their diversity, classification, ecological relationships, morphology, and behavior. Course provides practical application of principles covered in BIOL 500. Prerequisite: Concurrent or prior enrollment in BIOL 500 or the equivalent. LAB.
BIOL 503. Immunology. 3 Hours. N.
Lectures on the nature and mechanisms of natural and acquired resistance including humoral and cellular immunity. Characteristics of antigens and antibodies and of their interaction; ontogeny and cellular basis of immune responsiveness, hypersensitivity; specific immunologic tolerance. Not open to those with credit in BIOL 524. Prerequisite: BIOL 400 or BIOL 401, or consent of instructor. LEC.

BIOL 504. Immunology Laboratory. 2 Hours. U.
Laboratory designed to complement BIOL 503. Prerequisite: BIOL 503, or BIOL 503 concurrently. LAB.

BIOL 505. Social Insects. 3 Hours. N.
Lectures and laboratory demonstrations on presocial and social insects, specifically termites, ants, wasps, and bees. Emphasis will be placed on evolution of social behavior and the place of social insects in sociobiology. Prerequisite: BIOL 152, BIOL 153, or equivalent. LEC.

BIOL 506. Pathogenic Microbiology. 3 Hours. N.
Lectures. Characteristics and mechanisms of pathogenic microorganisms and disease processes. Elements of host-parasite interactions. Not open to freshmen or sophomores. Prerequisite: BIOL 503, or consent of instructor. LEC.

BIOL 507. Pathogenic Microbiology Laboratory. 2 Hours. U.
Laboratory to complement BIOL 506. Cultivation of pathogenic microorganisms, diagnostic procedures, and experiments to demonstrate various aspects of microbial pathogenicity and host responses. Prerequisite: BIOL 402 and BIOL 506 (or concurrent enrollment) or consent of instructor. LAB.

BIOL 509. Biology of Spiders. 3 Hours. N.
An introduction to the evolution, anatomy, physiology, behavior, and ecology of spiders and other arachnids. Special topics include the action of spider venoms; the composition and uses of silk; courtship and mating; predation; social behavior; and the role of spiders in natural and agricultural ecosystems. Concurrent enrollment in BIOL 511 is encouraged. Prerequisite: BIOL 152, BIOL 153 or permission of instructor. LEC.

BIOL 510. Comparative Anatomy. 5 Hours. N.
Structure, function, and evolution of the vertebrates. Lectures and laboratory study. A course designed for zoologists. Prerequisite: BIOL 100, BIOL 101, BIOL 150, or BIOL 151 and BIOL 152 or BIOL 153. LEC.

BIOL 511. Biology of Spiders Laboratory. 1 Hour. U.
Topics will include comparative biology of arachnid orders (spiders, scorpions, harvestmen, mites, and others), external and internal anatomy of spiders, identification of common spider families and genera, and spider behavior. Students will be required to make a small collection (collect, preserve, and identify specimens). Prerequisite: BIOL 509; concurrent enrollment is preferred. LAB.

BIOL 512. General Virology. 3 Hours. N.
Lectures and discussions covering the basic nature and characteristics of viruses from a general biological point of view: viruses of bacteria, animals and plants, physical-chemical properties; host-cell-viral interactions; mode of replication of DNA and RNA viruses, tumor viruses. Prerequisite: BIOL 400, BIOL 401 or consent of instructor. LEC.

BIOL 513. Virology Laboratory. 2 Hours. U.
Experiments involving cultivation, quantitation, and identification of animal viruses, continuous cell culture and primary chicken embryo culture techniques. Molecular biology techniques are used to demonstrate the steps in virus replication. The value of viruses as tools to understand normal cellular processes is emphasized in experiments which demonstrate the relative simplicity of viruses and the relative complexity of eukaryotic cells. Demonstrations include transformation of cells by tumor viruses and electron microscopy of virus particles. Prerequisite: BIOL 402 and BIOL 512, or consent of instructor. LAB.

BIOL 514. Principles of Ecology, Honors. 3 Hours. N.
Honors section of BIOL 414 for students with superior academic records. Course covers core concepts on the ecology of individuals, populations, communities, and ecosystems. Relative to BIOL 414, topics are presented in greater depth with increased student participation and stronger emphasis on the primary scientific literature. Prerequisite: BIOL 100, BIOL 101, BIOL 150, or BIOL 151 and BIOL 152 or BIOL 153. Open only to students admitted to the University Honors Program or by consent of instructor. LEC.

BIOL 516. Microbial Physiology. 3 Hours. N.
Elements of microbial physiology. Carbohydrate metabolism; enzymes and coenzymes; microbial nutrition; quantitative problems in microbial physiology; a survey of microbial metabolic types. Prerequisite: BIOL 400 or BIOL 402, and five hours of organic chemistry. LEC.

BIOL 517. Microbial Physiology Laboratory. 2 Hours. U.
Laboratory designed to complement BIOL 516. Prerequisite: BIOL 516, or BIOL 516 concurrently. LAB.

BIOL 518. Microbial Genetics. 3 Hours. N.
Bacteria and viruses as models of genetic systems. Mutagenesis and repair. Transformation, transductions, and recombination. Molecular biology of gene expression. Prerequisite: An introductory microbiology course. LEC.

BIOL 519. Microbial Genetics Laboratory. 2 Hours. U.
Laboratory designed to complement BIOL 518. Prerequisite: BIOL 402, BIOL 518, or BIOL 518 concurrently. LAB.

BIOL 520. Marine Biology. 3 Hours. N.
This introductory course covers biological, physical, and chemical ocean sciences, with an emphasis on ecological aspects. In addition to this Lawrence campus course, students may enroll for a supplementary 1 credit field trip class to a Caribbean coral reef island offered in December or January. Prerequisite: BIOL 414 or permission of the instructor. LEC.

BIOL 521. Insect Systematics. 4 Hours. N.
A study of the diversity of insects, including the classification of all living and fossil orders and the more common families primarily on the basis of external morphology. The biology, ecology, phylogeny, and geological history of each order is covered. Includes both lectures and laboratory exercises. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 500, BIOL 502 or equivalent, or permission of instructor. LEC.

BIOL 525. Aquatic Entomology. 4 Hours. N.
Designed to enable students to develop skill in the area of identification of aquatic insects and to gain a detailed comprehension of their community structure and dynamics. The external morphology of all aquatic orders is covered, followed by consideration of specific physiological and behavioral adaptations that facilitate an aquatic existence. Includes both lectures and laboratory exercises. Requirements include making a collection of aquatic insects. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 414 or BIOL 500. LEC.

BIOL 526. Insect Physiology and Internal Morphology. 3 Hours. N.
Mechanisms and integration of the internal life-supporting systems of insects, emphasizing the interdependence of structure and function. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 408 and BIOL 500, or permission of instructor. LEC.
BIOL 528. External Morphology of Insects. 4 Hours. N.
A study of external structure common to all insect orders, with detailed comparative laboratory studies of representative species. Includes both lectures and laboratory exercises. The course is offered at the 500 and 700 levels with additional assignments at the 700 level. Prerequisite: BIOL 500, BIOL 502 or equivalent, or permission of instructor. LEC.

BIOL 529. Immature Insects. 3 Hours. N.
The classification, structure, and ecological distribution of immature insects, especially larvae of Holometabola. Includes both lectures and laboratory exercises. The course is offered at the 500 and 700 levels with additional assignments at the 700 level. Prerequisite: BIOL 502 or permission of instructor. LEC.

BIOL 530. Biology of Fungi. 4 Hours. N.
A study of the major groups of fungi from slime molds to mushrooms. Emphasis on their activities in natural substrates, isolation techniques, parasitic and mutualistic relationships with other organisms, uses in research, industrial applications, production of mycotoxins and poisons, and physiological, genetic and reproductive behavior. Lectures, laboratory, and field trips. Prerequisite: BIOL 100, BIOL 101, BIOL 150, or BIOL 151 and BIOL 152 or BIOL 153. LEC.

BIOL 536. Cell Structure and Function (Honors). 3 Hours. N.
BIOL 536 is the honors version of BIOL 416. Completion of this class will satisfy the BIOL 416 requirement. Open to students in the Honors program or by permission of instructor. Prerequisite: BIOL 350 or consent of instructor. LEC.

BIOL 540. General Invertebrate Zoology. 4 Hours. N.
Phylogeny, physiology, and embryology; evolutionary processes; characteristics of major ecological groupings. Laboratory will consider major taxonomic categories with emphasis on functional morphology and its evolutionary modifications. Prerequisite: BIOL 152 or BIOL 153. LEC.

BIOL 545. Evolution of Development. 3 Hours. N.
An advanced course designed to expose students to evolutionary change in the developmental patterning of plant and animal form. This course integrates multiple biological disciplines including phylogenetics, comparative morphology, molecular evolution and developmental genetics to explore biodiversity at a mechanistic level. Topics range from issues surrounding homology assessment to empirical examples of how changes in gene expression or function may have shaped morphological diversity. Prerequisite: BIOL 350 or equivalent. LEC.

BIOL 555. General Plant Physiology. 3 Hours. N.
The principal physiological processes of higher plants including photosynthesis, respiration, water relations, mineral nutrition, and factors associated with morphogenesis. Prerequisite: BIOL 408 or consent of instructor. LEC.

BIOL 560. Histology. 3 Hours. N.
Study of detailed microscopic anatomy of cells, tissues, and organs of mammals. Examples are drawn from normal and abnormal tissue, histochemistry, and electron microscopy. Lecture and demonstrations. A course in anatomy and physiology is highly recommended. Prerequisite: BIOL 152 or BIOL 153. LEC.

BIOL 570. Introduction to Biostatistics. 3 Hours. N.
Statistical concepts related to biological problems. Topics include the scientific method, data representation, descriptive statistics, elementary probability distributions, estimation and hypothesis testing, emphasizing the analysis of variation. Prerequisite: College algebra and ten hours of natural science. LEC.

BIOL 571. Introduction to Biostatistics Laboratory. 2 Hours. U.
Introductory statistical analyses on microcomputers. Data entry and export; simple graphs and exploratory data analysis; descriptive statistics; sampling; point and interval estimation; one and two sample t-tests; Chi-square; regression and correlation; analysis of variance; and nonparametric methods. Prerequisite: BIOL 570 or equivalent (may be taken concurrently). LAB.

BIOL 572. Principles of Biogeography. 3 Hours. N.
An introduction to the study of the distribution of life on earth. Covers geographical patterns of species diversity and the processes that give rise to those patterns; speciation, extinction, dispersal, vicariance, continental drift, ecological interactions, and phylogeny. Topics are presented within the framework of evolutionary history and include discussion of the biology of species on islands, terrestrial biomes, altitudinal zonation of species, latitudinal species gradients, historical factors governing species distributions, macroevolutionary trends in the fossil record, and application of modern molecular techniques for testing biogeographical hypotheses. Prerequisite: BIOL 152 or 153 and past or concurrent enrollment in BIOL 412, 413, 414, or 550; or permission of Instructor. LEC.

BIOL 583. Herpetology. 3 Hours. N.
A study of amphibians and reptiles. This lecture course will explore the taxonomic diversity of amphibians and reptiles, and current areas of active research in herpetology. Topics will be considered within a phylogenetic framework, and include discussion on systematics, biogeography, tetrapod origins, skeletal systems, growth, circulatory system, locomotion, thermal and water regulation, hibernation, ecology, sexual behavior, parental care, and mimicry. LEC.

BIOL 589. Ichthyology. 4 Hours. N.
A study of fishes. Lecture topics include the structure and adaptations of fishes to the aquatic environment and a survey of major fish groups with emphasis on their evolution and biogeography. Laboratory topics include a survey of fish diversity using specimens and the use of keys to identify fishes, with emphasis on the Kansas fish fauna. This course meets with BIOL 792. Students taking this course at the 700 level will have additional work required of them. Prerequisite: BIOL 152 and/or BIOL 413. LEC.

BIOL 593. Ornithology. 3 Hours. N.
A lecture and laboratory course on the biology, evolution, and diversity of birds. Prerequisite: BIOL 412 (or BIOL 413), or permission of instructor. LEC.

BIOL 594. Forest Ecosystems. 3 Hours.
Students learn basic concepts of forest productivity, forest water relations, forest hydrology, nutrient cycling, through soils and vegetation, nutrient uptake, carbon cycling, decomposition, linkages to aquatic ecosystems, and agents of disturbance to these cycles. The class spends a significant part of the semester exploring forest soil profiles and the challenges they present to different forest ecosystems. We discuss the function of forest ecosystems in a global context and identify and understand smaller-scale processes that drive forest function. Prerequisite: CHEM 135 or CHEM 195 or CHEM 175, and BIOL 414. LEC.

BIOL 595. Human Genetics. 3 Hours. N.
A lecture course providing balanced coverage of Mendelian and molecular genetics of humans; includes discussions and presentations on current issues in human and medical genetics. Prerequisite: BIOL 350. LEC.

BIOL 598. Research Methods. 3 Hours. N.
An introduction for pre-service teachers to the tools used by scientists to solve scientific problems. Topics include design of experiments and interpretation of their results, use of statistics, mathematical modeling, laboratory safety, ethical treatment of human subjects, writing scientific
papers, giving oral presentations, and obtaining data from the scientific literature. Open only to students in the UKanTeach program. LEC.

**BIOL 599. Senior Seminar: _____. 1 Hour. AE61 / N.**
A synthesis and discussion of current trends in a discipline or disciplines related to one of the degrees offered in the biological sciences. Emphasis is placed on providing seniors with an appreciation of the discipline’s state-of-the-art and on developing skills for success in the next stage of a career in the biological sciences. Topics depend on the associated degree program. Prerequisite: Must be taken in the final year of a degree and students must have completed most of the course work required for one of the degrees in the biological sciences. LEC.

**BIOL 600. Introductory Biochemistry, Lectures. 4 Hours. N.**
Designed to offer the essentials of the chemistry of the constituents of living organisms and the changes these constituents undergo during life processes in the human body and other living forms. Prerequisite: BIOL 150 or BIOL 151 and one semester of organic chemistry. LEC.

**BIOL 601. Principles of Biochemistry Laboratory. 2 Hours.**
Theory and methods in the development of protein separation and purification, enzyme structure/function, and enzyme kinetics derived from primary literature searches and readings. Prerequisite or Co-requisite: BIOL 600; or consent of instructor. LAB.

**BIOL 602. Plant Ecology. 3 Hours. N.**
Introduction to basic concepts, focused at community and species level. Architectural ecomorphology of plants and their physiological responses to physical factors: solar radiation, climate, and soils. Plant succession as an interaction among species differing in ecomorphology and life style. Classification and ordination of plant communities: practice and theory. Other topics include: species diversity and lognormal distribution as to abundance classes; species/area relations and theory of island biogeography; allelochemic defenses; geneecology; paleoecology. Prerequisite: BIOL 414 or consent of instructor. Concurrent enrollment in parallel laboratory, BIOL 607, recommended. LEC.

**BIOL 603. Systematic Botany. 3 Hours. N.**
A lecture/laboratory course providing hands-on experience with plant identification, a history of plant classification, the principles of nomenclature and character analysis, the basics of systematics theory, and a phylogenically-oriented introduction to vascular plant diversity. Prerequisite: BIOL 413 or equivalent. LEC.

**BIOL 606. Ecological Plant Physiology. 3 Hours. N.**
Physiological responses of higher plants to environmental factors are discussed. Major topics are: water relations, heat transfer, resistance to water and temperature stress, dormancy, photoperiodism, photosynthesis and respiration under natural conditions, and effects of environmental pollution. Prerequisite: BIOL 408 or consent of instructor. LEC.

**BIOL 607. Field and Laboratory Exercises in Plant Ecology. 2 Hours. U.**
Introduction to quantitative analysis of plant communities and correlated environmental parameters; field and/or laboratory measurements of ecophysiological traits and comparative ecomorphology of principal species. Prerequisite: BIOL 414. Concurrent enrollment in parallel lecture, BIOL 602, recommended, but not required. LAB.

**BIOL 609. Current Progress in Microbiology. 1 Hour. U.**
A seminar course which will focus on current research in microbiology. A term paper will be required of each student. May be repeated for credit. Required of all majors in the senior year. Prerequisite: Two courses in microbiology. LEC.

**BIOL 611. Molecular Systematics and Evolution. 4 Hours. N.**
An introduction to the use of molecular data in systematics and population biology. Topics include: evolution of genes and proteins; properties of mitochondrial DNA, chloroplast DNA, ribosomal RNA genes, protein-coding genes, and repetitive DNAs; laboratory methods for data collection; and data analysis. Prerequisite: BIOL 350. BIOL 550 or equivalent is recommended. LEC.

**BIOL 612. Fundamentals of Microbiology. 3 Hours. NB / N.**
Lectures. Fundamental principles of microbiology with emphasis in physical and chemical properties of the bacterial cell; microbial metabolism, cultivation, growth and death of bacteria; microbial genetics; pathogenesis and immunity, industrially important microorganisms. Meets with BIOL 400, but students will be given additional and more advanced assignments, and will carry higher expectations. Prerequisite: BIOL 150 or BIOL 151 and two semesters of college chemistry, or consent of instructor. LEC.

**BIOL 613. Biology of Honeybees. 3 Hours. N.**
Social organization, evolution, behavior, morphology, communication, pollination biology, and ecology of honeybees. Experience will be gained with colony dynamics and behavior while working with bees in the field. Prerequisite: BIOL 152, BIOL 153, or consent of instructor. LEC.

**BIOL 616. Medical Entomology. 3 Hours. N.**
A study of the major human diseases transmitted by arthropods with emphasis on the biology and ecology of vectors, vector feeding mechanisms as related to disease transmission, epidemiology of arthropod-borne diseases, and the impact of arthropod-borne diseases on humans. Laboratory work on recognition of vector species, information sources, and use of taxonomic keys. Prerequisite: BIOL 152 or BIOL 153 and a course in microbiology or consent of instructor. LEC.

**BIOL 622. Paleontology. 3 Hours. N.**
A study of the structure and evolution of ancient life; the nature and diversity of life through time; the interactions of ancient organisms with their environments and the information that the study of fossils provides about ancient environments; the use of fossils to determine the ages of rocks and the timing of past events in earth history; and the patterns of extinction through time. (Same as GEOL 521.) Prerequisite: BIOL 100, BIOL 101, BIOL 152, BIOL 153, GEOL 105, or GEOL 304. LEC.

**BIOL 623. Paleontology Laboratory. 1 Hour. U.**
Laboratory course in the study of fossils with emphasis on the practice of paleontology and the morphology of ancient organisms. (Same as GEOL 523.) LAB.

**BIOL 625. Behavioral Ecology and Sociobiology. 3 Hours. N.**
The role of natural selection in animal behavior, and the influence of behavior on population biology and social dynamics of animal species. Topics include: game theory and optimization as applied to animal behavior; altruism, cooperation and competition; kin recognition and interactions; group formation and dynamics, dominance, aggression, and territoriality; feeding strategies; reproductive behavior including mate choice, parental care, and mating systems. Prerequisite: BIOL 152; either BIOL 350, BIOL 412 or BIOL 414 recommended; or consent of instructor. LEC.

**BIOL 630. Conservation and Wildlife Biology. 3 Hours. N.**
Examination of the concepts and processes involved in conservation of plant and animal populations and communities. Topics to be covered include conservation of endangered species, problems with invasions of exotic species and habitat fragmentation, wildlife management, and design of nature reserves. Prerequisite: BIOL 414, BIOL 412 strongly recommended. LEC.
BIOL 636. Biochemistry I. 3 Hours. N.
First semester of a two-semester lecture course in introductory biochemistry. Emphasis upon the physical structure of macromolecules and membranes, enzyme structure/function, and enzyme kinetics. Prerequisite: CHEM 335 or consent of instructor. LEC.

BIOL 637. Introductory Biochemistry Laboratory. 2 Hours. U.
The laboratory portion of BIOL 600 or 636. Experiments have been selected to introduce the student to cell constituents and biochemical reactions. One four-hour laboratory and one-hour lecture each week. Prerequisite: BIOL 600 or BIOL 636, or concurrent enrollment. LAB.

BIOL 638. Biochemistry II. 3 Hours. N.
Second semester of a two-semester lecture course in introductory biochemistry. Emphasis upon the metabolism of carbohydrates, lipids, amino acids, proteins, and nucleic acids. Prerequisite: BIOL 636. LEC.

BIOL 639. Advanced Biochemistry Laboratory. 2 Hours. U.
The laboratory portion of BIOL 638. One four-hour laboratory and a one-hour lecture each week. Experiments have been selected to familiarize students with experimental biochemical techniques using state-of-the-art methodology. Prerequisite: BIOL 637 and 638 (BIOL 638 may be taken concurrently). LAB.

BIOL 640. The Biology and Evolution of Fossil Plants. 3 Hours. N.
A lecture course in which fossil plants, protists and fungi are examined throughout geologic time. Emphasis will be directed at paleoecology, biogeography and the stratigraphic distribution and composition of ancient floras. (Same as GEOL 528.) Prerequisite: BIOL 413 or permission of instructor. LEC.

BIOL 641. Laboratory in Paleobotany. 1 Hour. U.
An examination of selected fossil plants throughout geological time and the techniques used to study them; laboratory will include identification and the use of plant fossils in biostratigraphy. (Same as GEOL 529.) Prerequisite: BIOL 413 or permission of instructor. Must be taken concurrently with BIOL 640. LAB.

BIOL 644. Comparative Animal Physiology. 3 Hours. N.
Lecture and discussion of the basic mechanism of organic maintenance and integration; a comparative treatment of the uniformities and diversity of animal function; emphasis on environmental adaptations and evolutionary relationships. Prerequisite: BIOL 408, five hours of organic chemistry, and one year of college physics, or consent of instructor. LEC.

BIOL 646. Mammalian Physiology. 4 Hours. N.
Lectures and demonstrations. An intermediate course in the functions, mechanisms and interactions of mammalian organ systems. Discussions span topics from molecular to whole animal functions. Required for pharmacy students and strongly recommended for students planning advanced work in any area of physiology. The student is assumed to have the knowledge and ability to utilize their math and science background. Prerequisite: Five hours of organic chemistry, a course of college physics. LEC.

BIOL 647. Mammalian Physiology Laboratory. 2 Hours. U.
Laboratory experiments in representative areas of mammalian physiology designed to complement BIOL 646. Not open to students with credit in BIOL 247. Prerequisite or Co-requisite: BIOL 646. LAB.

BIOL 648. Systematics and Macroevolution. 3 Hours. N.
An introduction to the theory of macroevolution and the fundamental principles of systematics. Intended for students planning to pursue advanced studies in organismal biology, evolution, and/or systematics. Topics in macroevolution will include hierarchy theory, species concepts, speciation and species selection. Methods of phylogenetic estimation will be discussed and include parsimony, maximum likelihood and Bayesian inference. Evolutionary studies utilizing phylogenies including tests of homology, studies of character evolution, and biogeography will be discussed. An overview of classification and nomenclature will also be provided. Prerequisite: BIOL 412 or equivalent. LEC.

BIOL 650. Advanced Neurobiology. 3 Hours. N.
The course builds an in depth knowledge about basic mechanisms of synaptic communication among nerve cells and their targets, and the structure and function of nervous systems. Topics include nervous system development and synapse formation, structure and function of neurons, physiological and molecular basis of synaptic communication between neurons, mechanisms of synaptic plasticity involved in learning and memory, sensory systems (vision, auditory, vestibular, motor reflexes and pain), processing of neural information at cellular and system levels, synapse regeneration and diseases of the nervous system. Prerequisite: BIOL 435 (Introduction to Neurobiology), or consent of instructor. LEC.

BIOL 652. Comparative Animal Behavior. 3 Hours. N.
A comparative analysis of behavior as an adaptive mechanism; emphasis on ontogenetic and evolutionary aspects of behavior. Prerequisite: BIOL 152 or BIOL 153, and PSYC 104, or consent of instructor. LEC.

BIOL 654. Comparative Animal Behavior, Laboratory. 1 Hour. U.
Laboratory and field phase of BIOL 652. Students may elect sections according to their special interests. Prerequisite: Prior or concurrent enrollment in BIOL 652. LAB.

BIOL 655. Behavioral Genetics. 3 Hours. N.
A survey of behavioral genetics in animals and humans. Emphasis is on how the methods and theories of quantitative, population and molecular genetics can be applied to individual and group differences in animals. Behaviors covered may include circadian rhythms, foraging, courtship, learning and memory, anxiety, social structures and human behaviors. Prerequisite: BIOL 350 or consent of instructor. LEC.

BIOL 656. Ecosystem Ecology. 3 Hours. N.
An introduction to the patterns and processes that affect terrestrial ecosystems. Emphasis is placed on understanding nutrient cycles (e.g., carbon nitrogen phosphorous), hydrologic cycles, and patterns of net primary productivity. The role of both natural and anthropogenic disturbances in structuring terrestrial ecosystems is examined in the context of global land-use patterns. Discussion of current research literature will be expected. (Same as EVRN 656.) Prerequisite: BIOL 414 and CHEM 130. LEC.

BIOL 661. Ecology of Rivers and Lakes. 3 Hours. N.
Study of the ecology and structure of creeks, rivers, ponds, lakes, and wetlands as well as some of the major human impacts. Prerequisite: One year of biology or permission of the instructor. BIOL 414 recommended. LEC.

BIOL 662. Aquatic Ecology Laboratory. 2 Hours. U.
A field and laboratory course introducing biological, physical, and chemical characteristics of lentic (ponds and lakes) and lotic (creeks and rivers) habitats. Students learn sampling and monitoring techniques and how to classify aquatic biota at higher taxonomic levels. Co- or prerequisite: CHEM 130 or CHEM 190 or CHEM 170, and BIOL 661. LAB.

BIOL 664. Vertebrate Biology. 3 Hours. N.
A laboratory course emphasizing principles of systematics and identification and the behavioral ecology of local vertebrate animals. Prerequisite: BIOL 152, BIOL 153 or consent of instructor. LAB.

BIOL 667. Chemical Communication in Sex, Feeding, and Fighting. 3 Hours. N.
The course focuses on the role of chemical information molecules in the interrelationships among organisms, with particular attention
to interactions (a) within and between animal species, (b) within and between plant species, (c) between animals and plants, (d) between predators and prey, and (e) between parasites and hosts. Prerequisite: BIOL 100 or BIOL 101 or BIOL 152 or BIOL 153 or consent of instructor. LEC.

BIOL 668. Evolutionary Ecology. 3 Hours. N.
Emphasis will be on the themes that interface ecology and evolutionary studies. Topics will include selection theory; reproductive, foraging, and sex allocation problems; coevolution; patterns or morphological and behavioral adaptations; competition, predation, and population regulation. Special attention will be given to the philosophy and practice of resolving unanswered questions in evolutionary ecology. Prerequisite: BIOL 412 or permission of instructor. LEC.

BIOL 669. Biology of Freshwater Invertebrates. 3 Hours. N.
A lecture, field, and laboratory course examining the classification, biological characteristics, and ecology of invertebrates in lotic and lentic habitats. Major groups of benthic and planktonic invertebrates will be studied, including aquatic insects, crustaceans, molluscs, and others. Prerequisite: BIOL 540, BIOL 660, BIOL 661, or BIOL 663, or permission of instructor. LEC.

BIOL 672. Gene Expression. 3 Hours. N.
A study of the structure and expression of genes in prokaryotes and eukaryotes. Emphasis on the mechanisms of DNA, RNA, and protein synthesis. Prerequisite: A course in biochemistry or consent of instructor. LEC.

BIOL 673. Cellular and Molecular Neurobiology. 3 Hours.
Mechanisms of neural function and development will be considered at the cellular and molecular levels. Synaptic mechanisms of learning and memory, modulation of transmitter release, and the molecular basis of neurodegenerative disorders will also be discussed. Prerequisite: BIOL 435, BIOL 646, or permission of instructor. LEC.

BIOL 676. Mammalian Neuroanatomy. 3 Hours. N.
Lectures, video tape demonstrations, and laboratory dissection of mammalian nervous system with some attention to human material. Major emphasis on nervous system structure as it relates to function. For neurobiology and pre-health science majors. Prerequisite or Corequisite: A course in neurobiology (BIOL 435, BIOL 650), or permission of the instructor. LAB.

BIOL 688. The Molecular Biology of Cancer. 3 Hours. N.
The basic concepts of molecular biology are examined and used to probe the process by which a normal cell becomes a cancer cell. The course investigates DNA damage and repair, chemical carcinogenesis, gene cloning and manipulation, the control of gene expression in eukaryotes, tumor viruses, the roles of oncogenes and tumor suppressor genes in carcinogenesis, and cancer therapy. Prerequisite: BIOL 350 and BIOL 416; or BIOL 536; or consent of instructor. LEC.

BIOL 694. The Art of Becoming a Professional Scientist. 3 Hours. N.
Discusses aspects of graduate education that are directed at students entering graduate school and that focus on how to be successful in the post PhD phases of a career, but that must be initiated early in the graduate student program of study. One three hour discussion per week. Senior standing and planning on entering graduate school. LEC.

BIOL 695. Animal Communication and Sensory Ecology. 3 Hours. N.
Lectures and discussion sessions. A study of the propagation and perception of olfactory, acoustic, and visual signals produced by animals in the context of communication. Both physiological and evolutionary perspectives will be treated. Prerequisite: A course in behavior or consent of instructor. LEC.

BIOL 699. Biology Honors Research Colloquium. 1 Hour. AE61 / U.
Students pursuing Honors in Biology will meet weekly to discuss, both formally and informally, their honors research. Background information and experimental approaches of the research will be examined and critiqued. Prerequisite: Enrollment in Biology Honors program and consent of instructor. LEC.

BIOL 700. Conservation Principles and Practices. 3 Hours.
This course will acquaint the future museum professional with problems in conserving all types of collections. Philosophical and ethical approaches will be discussed, as well as the changing practices regarding conservation techniques. Emphasis will be placed on detection and identification of causes of deterioration in objects made of organic and inorganic materials, and how these problems can be remedied. Storage and care of objects will also be considered. (Same as AMS 714, GEOL 780, HIST 722 and MUSE 706.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

BIOL 701. Topics in: ______. 1-3 Hours.
Advanced courses on special topics in biology, given as need arises. Lectures, discussions, readings, laboratory, or field work. Students may select sections according to their special interests. LEC.

BIOL 702. Laboratory Practice: Radiation Safety Procedures. 0.75 Hour.
An introduction to the basic properties of radioisotopes, and the fundamental safety practices needed for the safe use of low levels of radioactive materials. Risks associated with radiation exposures and applicable state and federal regulations are discussed. (Normally the content of the first ten hours of BIOL 703.) Prerequisite: Senior standing in one of the sciences. LAB.

BIOL 703. Radioisotopes and Radiation Safety in Research. 1.25 Hour.
An introduction to the properties of radioactive materials, radiations, and their interaction with matter, methods of radiation detection and measurement, protective measures, applicable state and federal regulations, design and implementation of safety management systems in the research laboratory, design of tracer experiments, and the risks associated with radiation exposure. Prerequisite: BIOL 702 or concurrent enrollment in BIOL 702, algebra and two semesters of either physics or chemistry. LEC.

BIOL 704. Research Animal Methods. 3 Hours.
Lectures, discussions, and laboratory sessions. Selection of proper animal models for specific research studies. Various external influences that alter research data. Routine techniques including restraint, sample collection, injection, anesthesia and euthanasia. Prevention and handling of common research animal problems or diseases. Proper and humane animal care as defined by the Federal Animal Welfare Act. Prerequisite: Senior or graduate standing in one of the biological sciences or permission of instructor. LEC.

BIOL 706. Current Trends in Curation and Collection Management. 2 Hours.
Seminar course to provide students with a working knowledge of the primary issues and current trends in building, administration, and care of scientific collections. Topics include permits, collecting, accessioning, cataloging, preservation, preventive conservation, and access to collections and data. The course format consists of readings, lectures, guest speakers, discussions, and visits to scientific collections on campus. (Same as MUSE 710.) LEC.

BIOL 708. External Morphology of Insects. 4 Hours.
A study of external structure common to all insect orders, with detailed comparative laboratory studies of representative species. The course is
offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 500, BIOL 502 or equivalent, or permission of instructor. LEC.

BIOL 709. Immature Insects. 3 Hours.
The classification, structure, and ecological distribution of immature insects, especially larvae of Holometabola. Includes both lectures and laboratories. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 502 or consent of instructor. LEC.

BIOL 710. Insect Development. 3 Hours.
A study of the embryonic and postembryonic development of insects. Emphasis is placed on developmental physiology of the early embryonic stages, the morphogenesis of organ systems, and the action of hormones in postembryonic development. Laboratory includes demonstrations and histological and experimental work. Prerequisite: Consent of instructor or BIOL 500. LEC.

BIOL 711. Insect Systematics. 4 Hours. N.
A study of the diversity of insects, including the classification of all living and fossil orders and the more common families primarily on the basis of external morphology. The biology, ecology, phylogeny, and geological history of each order will be covered. Includes both lectures and laboratory exercises. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 500 and BIOL 502 or equivalent, or permission of instructor. LEC.

BIOL 712. Evolutionary Biology - Graduate. 3 Hours.
A thorough survey of evolutionary biology. Topics include: the history of evolutionary thought, genetics and the nature of variation, adaptation, speciation, coevolution, macroevolution, the comparative method, and the history of life. Prerequisite: BIOL 350 or equivalent or consent of instructor. LEC.

BIOL 714. Community and Ecosystem Ecology. 3 Hours.
Study of factors determining distribution of organisms, community structures, energy flow in ecosystems, and functional analysis of ecosystems. Discussion periods will include reading from current scientific literature. Prerequisite: Intended for graduate students in biology who did not have an undergraduate course in community ecology. Consent of instructor. LEC.

BIOL 716. Insect Physiology and Internal Morphology. 3 Hours.
Mechanisms and integration of the internal life-supporting systems of insects, emphasizing the interdependence of structure and function. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 408 and BIOL 500, or permission of instructor. LEC.

BIOL 717. Insect Ecology and Behavior. 3 Hours.
Lectures and laboratory demonstrations. A study of insect population dynamics, life history strategies, co-evolutionary interactions, foraging, and reproductive and social behaviors. Approaches from basic population biology and behavioral ecology are emphasized. Prerequisite: A course in ecology or behavior, or consent of instructor. LEC.

BIOL 718. Laboratory in Molecular Biology. 3 Hours.
Practical experience in recombinant DNA technology and molecular cloning. Given concurrent with BIOL 418. Prerequisite: BIOL 416 or course in biochemistry or microbiology. Training in radiation safety preferred. LAB.

BIOL 719. Light and Electron Microscopy. 3 Hours.
A lecture and laboratory class emphasizing the theoretical and practical use of light microscopes and scanning and transmission electron microscopes. A variety of approaches using light microscopy will be employed, including brightfield, phase, fluorescence, DIC, polarization, and darkfield optics. A variety of techniques will be used to prepare specimens and view them using scanning and transmission electron microscopy. Video and computer-aided analysis of images as well as conventional photographic techniques will be included. Prerequisite: Permission of instructor. LEC.

BIOL 720. Scientific Illustration. 3 Hours.
Lectures, demonstrations, and studio participation. Instruction in the preparation of illustrations for scientific publications, theses, and oral and poster presentations. Emphasis on basic drafting and layout skills, and pen and ink and tone renderings intended for publication. Attention given to preparation of photographs for publication and oral presentations. Instruction provided in use of specialized optical equipment for drawing. Prerequisite: Upper division or graduate standing and permission of instructor. LEC.

BIOL 721. Microbial Genetics. 3 Hours.
Bacteria and viruses as models of genetic systems. Mutagenesis and repair. Transformation, transductions, and recombination. Molecular biology of gene expression. This course is the graduate-level section of BIOL 518 and MCRB 510. Graduate students will be assigned additional and more advanced studies. Prerequisite: An introductory microbiology course or permission of instructor. LEC.

BIOL 725. Aquatic Entomology. 4 Hours.
Identification of aquatic insects and detailed study of their community structure and dynamics. The external morphology of all aquatic orders will be covered, followed by consideration of specific physiological and behavioral adaptations that facilitate an aquatic existence. Includes both lectures and laboratory exercises. Requirements include making a collection of aquatic insects. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 414 or BIOL 500 or permission of instructor. LEC.

BIOL 742. Plant Population Biology. 3 Hours.
A survey of the major areas of plant population ecology and genetics including competition, demography, pollination ecology, gene flow, natural selection and mating systems. Each topic is introduced by a lecture and is further explored by discussion of the current literature. Prerequisite: BIOL 412 or equivalent. LEC.

BIOL 743. Population Genetics. 3 Hours.
Description and discussion of genetic variation in natural populations. The effects and interaction of selection, migration, mutation, mating systems, and finite population size on the maintenance of genetic variation. Discussion of the interface with evolution and population ecology. Prerequisite: BIOL 404 and BIOL 412 or equivalent. LEC.

BIOL 745. Laboratory in Experimental Ecology. 3 Hours.
A series of seven laboratory modules emphasizing quantitative methods and experimental analysis. Each module requires data collection analysis, and written interpretation. Modern instrumentation, including use of microcomputers, is emphasized. Topics include ecological modeling, ecological genetics, physiological ecology, community structure, mating and reproduction and precipitation and soil chemistry. Prerequisite: BIOL 412 or BIOL 414. LAB.

BIOL 746. Principles of Systematics. 4 Hours.
Lectures: historical and philosophical foundations of modern systematics; theory and practice of classifications; character analysis; phylogeny reconstruction; formulation and testing of systematic hypotheses; species concepts and speciation; the interface between systematics and evolutionary theory, particularly the origins of asymmetric diversity patterns, macroevolution, adaptation, coevolution, and the evolution of higher taxa; roles of paleontological, ontogenetic, biochemical, and
molecular data in systematics; and biogeography. Laboratory work: practical applications of nomenclature, development of keys, descriptions and systematic revisions, character analysis, phylogeny reconstruction, hypothesis testing, interpretation of biogeographic patterns. (Three hours lecture and two hours laboratory per week.) Prerequisite: BIOL 628 or equivalent. Intended for graduate students planning to specialize in systematics. LEC.

BIOL 747. Quantitative Genetics. 3 Hours.
A discussion of genetic traits for which individual gene differences do not separate a population into qualitatively distinct groups. Includes the estimation of heritability, genetic determination, and number of loci, and a study of selection theory. Prerequisite: BIOL 404 or BIOL 412 or equivalent and a course in statistics. LEC.

BIOL 749. Topics in Stable Isotopes in the Natural Sciences: 2-3 Hours.
Isotopic compositions of substances provide powerful insights into many topics in the natural sciences. Applications of isotopic analyses of carbon, hydrogen, oxygen, and nitrogen to selected research topics such as plant resource use, food web analysis, paleoecology, paleodiet reconstruction, hydrology, and soils genesis will be examined. Knowledge of isotope chemistry is not required. (Concepts necessary to understand pertinent articles will be taught during the first class meetings.) May be repeated. (Same as GEOG 749.) LEC.

BIOL 750. Advanced Biochemistry. 3 Hours.
The structures and dynamics of proteins and nucleic acids will be developed in terms of well-understood examples which will also be used to discuss the function of major classes of proteins. The application of structural and dynamical principles to biological membranes and their function will also be discussed. Prerequisite: BIOL 807 and BIOL 808, a general biochemistry course, or permission of instructor. LEC.

BIOL 751. Plant Communities of North America. 3 Hours.
Physiognomic and floristic analysis of the vegetation, with emphasis on the Southwest; distribution of communities in relation to climate, substratum, and disturbance; recognition of dominant elements of vegetation through study of specimens and illustrative material. Prerequisite: BIOL 602. LEC.

BIOL 752. Cell Biology. 3 Hours.
A lecture course emphasizing biochemical, developmental, and molecular aspects of cell structure and function. Prerequisite: BIOL 807 and BIOL 808, or BIOL 416 or BIOL 536, or permission of instructor. LEC.

BIOL 753. Advanced Genetics. 3 Hours.
An advanced course in modern genetic analysis of eukaryotes. Course material will consist mainly of primary literature in the field of genetics. Topics covered include: genomic structure and genome projects; nature of mutations; mutant analysis; genetic recombination and mapping; analysis of gene function; genetic buffering; RNAi and epigenetics; and the genetics of model organisms. This course is meant for graduate students in the Molecular Biosciences and Genetics programs. Prerequisite: BIOL 807 and BIOL 808, or a course in genetics and a course in biochemistry, or permission of the instructor. LEC.

BIOL 754. Brain Diseases and Neurological Disorders. 3 Hours.
Major brain diseases and neurological disorders such as stroke, Alzheimer’s Disease, Parkinson’s Disease, Huntington’s Disease, Multiple Sclerosis, Epilepsy, Schizophrenia, etc., will be discussed in terms of the etiology, molecular, and cellular basis of potential therapeutic interventions. Graduate students are required to present original research paper assigned by the instructor to the class in addition to the other assignments for all the students enrolled. Prerequisite: BIOL 150, or consent of instructor. LEC.

BIOL 755. Mechanisms of Development. 3 Hours.
Molecular aspects of differential gene function, signal transduction, and cell polarity in the regulation of morphogenesis. Prerequisite: BIOL 807 and BIOL 808 for graduate students; BIOL 417 or equivalent for undergraduate students; or permission of instructor. LEC.

BIOL 756. Cell and Tissue Culture Laboratory. 3 Hours.
An introduction to current laboratory methods of cell and tissue culture, intended to provide an understanding of and substantial experience in several aspects of animal cell growth, cell synchrony, cell nutrition, the production and selection of mutant cell lines, the production and use of heterokaryons and interspecífic hybrids, cell transformation in vitro, the cultivation and characterization of differentiated cells in culture, enzyme induction, and cell karyotyping. LAB.

BIOL 757. Carcinogenesis and Cancer Biology. 3 Hours.
This course surveys the field of cancer research. The major goal is to introduce the breadth of cancer research while, at the same time, providing sufficient depth to allow the student to recognize problems in cancer and to design experiments which study cancer biology. Toward that end, the student should (at the conclusion of the course) be able to: define cancer, identify and discuss its causes; identify and discuss the genetic basis for cancer development and progression; discuss the theoretical basis for cancer therapy design and efficacy testing; discuss the biochemical, molecular and cellular events involved in the natural history of major human neoplasms. Prerequisite: Permission of instructor. LEC.

BIOL 757. The Vegetation of the Earth. 3 Hours.
A discussion of the world’s vegetation in its natural condition and as affected by man. Included are aspects of its economic and cultural usefulness and the problem of its preservation. Prerequisite: BIOL 634. LEC.

BIOL 760. Plant Molecular Biology. 3 Hours.
Gene expression in chloroplasts, mitochondria, and plant nuclei, and regulatory interactions among these genomes. Special topics include the molecular biology of the photosynthetic apparatus, nitrogen fixation, stress and development, viruses and viroids, transposable genetic elements and gene evolution, and gene transfer and plant genetic engineering. Prerequisite: A course in biochemistry, cell or molecular biology, or permission of instructor. LEC.

BIOL 770. Plant Biochemistry. 3 Hours.
A detailed study of plant biochemistry with emphasis on metabolic and regulatory processes particularly characteristic or unique in plants. Prerequisite: BIOL 600 or equivalent. LEC.

BIOL 772. Gene Expression. 3 Hours.
A study of the structure and expression of genes in prokaryotes and eukaryotes. Emphasis on the mechanisms of DNA, RNA, and protein biosynthesis. This course meets concurrently with BIOL 672 and is open to graduate students seeking a more rigorous treatment of techniques in molecular biology that students receive in BIOL 672. Prerequisite: A course in biochemistry or consent of instructor. LEC.

BIOL 775. Chemistry of the Nervous System. 3 Hours.
A detailed study of the molecular aspects of nerve transmission will be covered with special emphasis on the uptake, storage, release, biosynthesis and metabolism of specific neurotransmitters. Drugs affecting these processes and current research on receptor isolation and receptor mechanisms will be discussed from a chemical viewpoint. (Same as CHEM 775, MDCM 775, NURO 775, PTX 775, and PHCH 775.) Prerequisite: BIOL 600 or equivalent or consent of instructor. LEC.
BIOL 777. Integrative and Developmental Neurobiology. 3 Hours.
Cellular processing of neural information both at the local level and in long distance integration. Local computing functions, and integration of these functions among the various areas to produce coherent movement and perceptions will be discussed. A description of forces guiding the development of the nervous system to form a coherent working system in both invertebrate and vertebrate animals will be presented, as will determinants of brain sexual dimorphism. Prerequisite: An upper level course in physiology or BIOL 520. LEC.

BIOL 780. Fisheries. 2 Hours.
Philosophy and practice of conservation as it applies to major world fisheries. Species principally utilized, factors affecting production, methods for appraisal and management of stocks. Historical and prospective roles of the fisheries in relation to human food supplies and recreational needs. Prerequisite: BIOL 412. LEC.

BIOL 781. Fisheries, Laboratory. 2 Hours.
Training in field and laboratory techniques for fishery research and management. Prerequisite: Concurrent or prior enrollment in BIOL 780. LAB.

BIOL 782. Principles of Biogeography. 3 Hours.
A synthesis of historical and ecological biogeography of plants and animals, treating vicariance, dispersal, and community patterns; lectures, readings, discussions. A course in systematics and a course in ecology are recommended. LEC.

BIOL 783. Herpetology. 3 Hours. N.
A study of amphibians and reptiles. This lecture course will explore the taxonomic diversity of amphibians and reptiles, and current areas of active research in herpetology. Topics will be considered within a phylogenetic framework, and include discussion on systematics, biogeography, tetrapod origins, skeletal systems, growth, circulatory system, locomotion, thermal and water regulation, hibernation, ecology, sexual behavior, parental care, and mimicry. Students taking the course at the 700 level will have additional work required of them. Prerequisite: BIOL 152 Principles of Organismal Biology, and/or BIOL 413 History and Diversity of Organisms. LEC.

BIOL 784. Introduction to Museum Public Education. 3 Hours.
Consideration of the goals of an institution’s public education services, developing programs, identifying potential audiences, developing audiences, and funding. Workshops and demonstrations are designed for students to gain practical experience working with various programs and developing model programs. (Same as AMS 797, GEOL 784, HIST 721, and MUSE 705.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

BIOL 785. Museum Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museums as organizations; accounting, budget cycles, personnel management, and related topics will be presented using, as appropriate, case studies and a simulated museum organization model. (Same as AMS 731, GEOL 783, HIST 728, and MUSE 701.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

BIOL 786. Fundamentals of Tropical Biology. 1-8 Hours.
The tropical environment and biota; ecologic relations, communities and evolution in the tropics. Primarily a field course, taught in Costa Rica; two sessions per year, February-March, July-August. FLD.

BIOL 787. Introduction to Museum Exhibits. 3 Hours.
This course will consider the role of exhibits as an integrated part of museum collection management, research, and public service. Lecture and discussion will focus on issues involved in planning and producing museum exhibits. Laboratory exercises will provide first hand experience with basic preparation techniques. Emphasis will be placed on the management of an exhibit program in both large and small museums in the major disciplines. (Same as AMS 700, GEOL 781, HIST 723, and MUSE 703.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

BIOL 788. The Nature of Museums. 3 Hours.
The purpose of this course is to provide an overview of the kinds of museums, their various missions, and their characteristics and potentials as research, education, and public service institutions responsible for collections of natural and cultural objects. (Same as AMS 720, GEOL 782, HIST 720, and MUSE 702.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

BIOL 789. Field Course in Entomology. 1-6 Hours.
Field experiences in various habitats, with an emphasis in ecology, systematics, behavior, and collection techniques. FLD.

BIOL 790. Paleontology of Lower Vertebrates. 3 Hours.
General account of the osteology, geological distribution, and evolution of the principal groups of fishes, amphibians, reptiles, and birds. Lectures and laboratory. (Same as GEOL 725.) LEC.

BIOL 791. Paleontology of Higher Vertebrates. 3 Hours.
Evolution of mammals, and anatomical modifications involved in the process as ascertained from the fossil record. Lectures and laboratory. (Same as GEOL 726.) LEC.

BIOL 792. Ichthyology. 4 Hours.
A study of fishes. Lecture topics include the structure and function of fishes; the adaptations of fishes to the aquatic environment; and a survey of major fish groups with emphasis on evolutionary relationships and biogeography. Laboratory topics include a survey of fishes using specimens, and the use of keys to identify fishes with emphasis on the Kansas fish fauna. A research paper using primary scientific literature is required. Prerequisite: Graduate standing or permission of the instructor. LEC.

BIOL 794. Mammalogy. 3 Hours.
A study of mammals, with emphasis on systematics, biogeography, and natural history. Lectures, laboratory, and field study. Prerequisite: BIOL 100 or BIOL 413. LEC.

BIOL 795. Biology of Amphibians. 3 Hours.
Evolutionary biology of amphibians with emphasis on systematics, morphology, development, reproductive strategies, and distribution; lectures and laboratory. Prerequisite: BIOL 664 or permission of instructor. LEC.

BIOL 796. Biology of Reptiles. 3 Hours.
Evolutionary biology of reptiles with emphasis on systematics, morphology, reproductive strategies, and distribution; lectures and laboratory. Prerequisite: BIOL 664 or permission of instructor. LEC.

BIOL 797. Field Course in Vertebrate Paleontology. 3-6 Hours.
Training in the techniques of collecting vertebrate fossils, description and interpretation of the stratigraphy of fossiliferous sediments, and interpretation of the adequacy and bias of samples. FLD.

BIOL 798. Principles and Practices of Museum Collection Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museum collections, their associated data, and their use in scholarly research; cataloging, storage, fumigation, automated information management and related topics will be presented for museums of art, history, natural history and anthropology. (Same as AMS 730, GEOL 785, HIST 725, and MUSE 704.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.
BIOL 799. Natural History Museum Apprenticeship. 1-6 Hours.
Provides directed, practical experience in collection care and management, public education, exhibits and administration with emphases to suit the particular requirements of each student. Full time for one semester or half time for two semesters. (Same as AMS 799, ANTH 799, GEOL 723, HIST 799, and MUSE 799.) FLD.

BIOL 801. Topics in: ____. 1-3 Hours.
Advanced courses on special topics in biology, given as need arises. Lectures, discussing readings, laboratory or field work. Students may select sections according to their special interests. LEC.

BIOL 802. The Art of Becoming a Professional Scientist. 3 Hours.
Discusses aspects of graduate education that are directed at the post PhD phases of a career, but that must be initiated early in the graduate student program of study. One 3-hour discussion per week. LEC.

BIOL 804. Scientific Integrity: Molecular Biosciences. 1 Hour.
This course introduces aspects and issues associated with being an ethical, responsible, and professional research scientist. Included topics are professional practices, regulations, and rules that define the responsible and ethical conduct of research. Graduate students will become familiar with and prepare to navigate through challenges that occur during a career in research science. The format of individual classes is expected to incorporate both instruction and discussion. Prerequisite: Admission to the graduate program in Molecular Biosciences, or consent of instructor. LEC.

BIOL 806. Major Patterns in Insect Evolution. 3 Hours.
Extensive reading and discussion of the primary literature on topics relating to major patterns in the evolutionary history of insects, including the fossil history of insects, the monophyly of arthropods, the origin of wings, the changing role of insects in ecological communities, the origins of social behavior, modes and mechanisms of speciation, and patterns of species diversity. Assigned readings require a solid background in evolutionary theory and insect biology, especially morphology, development, and classification. Prerequisite: Permission of instructor. LEC.

BIOL 807. Graduate Molecular Biosciences. 6 Hours.
An introduction to the advanced study of biochemistry, microbiology, genetics, cell and developmental biology, and neurobiology for all Molecular Biosciences graduate students. Topics can include macromolecular structure, metabolism, kinetics and thermodynamics, bioinformatics, prokaryotic and eukaryotic genetic mechanisms, cell structure and function, signal transduction, basic and pathogenic bacteriology, immunology, virology, membrane potentials, synaptic transmission, and sensory neurophysiology. Prerequisite: Admission to the graduate program in Molecular Biosciences, or consent of instructor. LEC.

BIOL 809. Graduate Molecular Biosciences for Medicinal Chemists. 4 Hours.
An introduction to the advanced study of biochemistry, microbiology, and neurobiology for graduate students in Medicinal Chemistry. Prerequisite: Admission to the graduate program in Medicinal Chemistry and consent of instructor. LEC.

BIOL 810. Seminar in Biochemistry. 1 Hour.
Presentation and discussion of specific areas of recent research in biochemistry. This course may be taken more than once. LEC.

BIOL 811. Advanced Molecular and Cellular Immunology. 2 Hours.
Covers recent advances in immunochemistry and immunobiology. Topics include structure and function of antibodies, hybridoma systems, idiotypes, induction and regulation of the immune response through cell interactions and cytokine action, and the role of immune activity in disease states such as hypersensitivity, autoreactivity, and cancer. Prerequisite: BIOL 807 and BIOL 808, or an introductory course in immunology, or consent of instructor. LEC.

BIOL 812. Mechanisms of Host-Parasite Relationships. 2 Hours.
Emphasis is on virulence factors of microorganisms and the host response to infection. Topics will include pathogenesis of intracellular and extracellular parasites, bacterial adhesins, and toxins, and the role of innate and acquired immunity in host resistance and the response to infection. Prerequisite: BIOL 807 and BIOL 808, or a course in biochemistry, or consent of instructor. LEC.

BIOL 813. Advanced Bacterial Physiology. 2 Hours.
The intermediary reactions catalyzed by the bacterial cell during energy-requiring processes. Thermodynamic considerations of these processes are discussed. Knowledge of calculus is recommended. Prerequisite: BIOL 807 and BIOL 808, or a course in microbiology and a course in biochemistry, or consent of instructor. LEC.

BIOL 814. Advanced Molecular Virology. 2 Hours.
The course concentrates on evaluation of current literature concerning all aspects of molecular biology, biochemical characterization, and pathogenic mechanisms involved in host-virus interactions. Students will be expected to present articles and participate in discussions. Prerequisite: BIOL 807 and BIOL 808, or a course in microbial genetics and a course in virology, or consent of instructor. LEC.

BIOL 815. Advanced Molecular Genetics. 2 Hours.
A literature-based course that covers recent advances in microbial molecular genetics. Topics include transcription, translation, mutagenesis and repair, genetic exchange mechanisms, and regulation of gene expression. Prerequisite: BIOL 807 and BIOL 808, or a course in microbial genetics, or consent of instructor. LEC.

BIOL 818. Techniques in Molecular Biosciences. 2 Hours.
This course provides an introduction to common techniques used for research strategies in molecular biosciences. The course will cover common techniques in cell biology, biochemistry, microbiology, and neurobiology. Information will be presented in lectures and through practical demonstrations. This course is primarily intended for first year graduate students in the Department of Molecular Biosciences. Prerequisite: Enrollment in the Molecular Biosciences Graduate Program or consent of instructor. LAB.

BIOL 840. Scientific Communication. 2 Hours. N.
Principles of English communication skills for the professional scientist. The course explores the form, function, and practice (including ethics) of scientific communication, emphasizing elements of writing and speech that are important to clarity and precision. The course covers written and verbal communication of primary research results as well as composing correspondence, a curriculum vitae, reviews, etc. Prerequisite: Graduate standing. LEC.

BIOL 841. Biometry I. 5 Hours.
The application of statistical methods to data from various fields of biological research. Special emphasis is placed on practical computational procedures. Prerequisite: College algebra. LEC.

BIOL 842. Biometry II. 3 Hours.
This course is primarily devoted to special advanced topics in analysis of variance, analysis of covariance and regression analysis. Polynomial regression and multiple linear regression will be presented as well the general linear model. Elementary matrix algebra will be developed as needed. Prerequisite: BIOL 841. LEC.
BIOL 847. Phylogenetics. 3 Hours.
An introduction to the theory and practice of phylogenetic systematics. Includes principles of character analysis including determination of homology and determination of character polarity, testing alternate phylogenetic trees, and reconstructing trees using computer techniques. Also includes principles of constructing phylogenetic classifications and the nature of taxa in the phylogenetic system. Other topics, such as the nature of species and principles of biogeography are included. Prerequisite: Twenty hours natural history. LEC.

BIOL 848. Phylogenetic Methods. 4 Hours.
A survey of methods for inferring phylogenetic trees from character data and using phylogenies to address evolutionary questions. Lectures will present the relevant theory and algorithmic description of methods. Computer lab will familiarize students with software that implements the analyses discussed in lecture. Intended for graduate students specializing in systematics. Prerequisite: BIOL 845 and BIOL 841 or consent of instructor. LEC.

BIOL 872. Gene Expression II. 3 Hours.
Second semester of a two-semester lecture course on gene expression. Emphasis on control of gene expression at the transcriptional and post-transcriptional levels. Prerequisite: BIOL 772 or consent of instructor. LEC.

BIOL 888. Topics in Evolutionary Morphology: ____. 2 Hours.
Presentation and discussion by graduate students and faculty of selected topics centering on observed changes in structure and function of organisms from a phylogenetic point of view. Presentation will include results of original research when possible and appropriate, and otherwise, will be based on syntheses of recent literature. RSH.

BIOL 890. Advanced Study in Microbiology. 1-10 Hours.
Original investigation by students at the master's degree level. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Ten or more hours of microbiology and consent of department. RSH.

BIOL 895. Human Genetics. 3 Hours.
A lecture course providing balanced coverage of Mendelian and molecular genetics of humans; includes discussions and presentations on current issues in human and medical genetics. Prerequisite: A course in genetics. LEC.

BIOL 899. Master's Thesis. 1-10 Hours.
Research which is to be incorporated into an M.A. thesis. Not more than ten hours may be earned. Graded on a satisfactory/unsatisfactory basis. THE.

BIOL 901. Graduate Seminar in Biochemistry and Biophysics. 1 Hour.
Advanced course examining current research topics in biochemistry and biophysics. Extensive student/faculty interaction is emphasized utilizing lectures, class discussion of assigned readings of research reports, and oral presentations. Prerequisite: Enrollment in graduate school, and departmental admission. LEC.

BIOL 902. Graduate Seminar in Molecular, Cellular, and Developmental Biology. 1 Hour.
Advanced course examining current research topics in molecular, cellular, and developmental biology. Extensive student/faculty interaction is emphasized utilizing lectures, class discussion of assigned readings of research reports, and oral presentations. Prerequisite: Enrollment in graduate school, and departmental permission. SEM.

BIOL 903. Graduate Seminar in Neurobiology. 1 Hour.
Advanced course examining current research topics in neurobiology. Extensive student/faculty interaction is emphasized utilizing lectures, class discussion of assigned readings of research reports, and oral presentations. Prerequisite: Enrollment in graduate school, and departmental permission. LEC.

BIOL 904. Graduate Seminar in Microbiology. 1 Hour.
Advanced course examining current research topics in microbiology. Extensive student/faculty interaction is emphasized utilizing lectures, class discussion of assigned readings of research reports, and oral presentations. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Enrollment in graduate school, and departmental permission. RSH.

BIOL 905. Advanced Molecular Genetics. 1-3 Hours.
A review of current literature in molecular genetics. RSH.

BIOL 906. Advanced Genetics. 1-3 Hours.
May be repeated for credit up to six hours. Review of current literature and genetic theory of selected topics such as population, molecular, quantitative, and physiological genetics. RSH.

BIOL 911. Research Topics in Plant Physiology and Biochemistry. 1-6 Hours.
Directed research on selected topics. Prerequisite: BIOL 770 or equivalent. RSH.

BIOL 918. Modern Biochemical and Biophysical Methods. 4 Hours.
This course emphasizes the use of techniques for solving problems of structure and function of biological macromolecules. Students will complete several modules that consist of lectures relating to theory and practical aspects of each methodological approach, and apply these techniques to solving a specific problem. Students will submit a paper describing the resulting data and conclusions. Prerequisite: BIOL 807, BIOL 808, and BIOL 818, or permission of instructor. LEC.

BIOL 925. Research Grant Proposal Preparation. 3 Hours.
This course introduces the basics of preparing a successful scientific grant application. Topics to be covered include how to develop a novel, fundable project, scientific writing and grantsmanship, and what criteria reviewers consider in evaluating grants. The course will be a mix of instruction and class discussion. Prerequisite: Admission to the graduate program in Molecular Biosciences, or consent of instructor. LEC.

BIOL 930. Ultrastructure and Cellular Mechanisms. 3 Hours.
Two lectures and one seminar-recitation. A detailed consideration of electron microscopic analyses of cell structure as related to cell function. Prerequisite: BIOL 416. LEC.

BIOL 943. Multivariate Data Analysis. 3 Hours.
Matrix formulation of multivariate models and data. Specific methods covered include Principal Components Analysis, Factor Analysis, Multiple Group Discriminant Analysis and Canonical Analysis, and Canonical Correlation Analysis. Prerequisite: BIOL 842 or knowledge of elementary matrix algebra. LEC.

BIOL 944. Topics in Quantitative Ecology: ____. 1-3 Hours.
Presentation and discussion by instructor and students of mathematical and statistical concepts in ecology. Topics are selected from texts or sets of readings. LEC.

BIOL 950. Evolutionary Mechanisms. 3 Hours.
Reading and discussions of evolutionary mechanisms from the genetic, ecologic, and systematic viewpoints. Prerequisite: BIOL 412. LEC.

BIOL 952. Introduction to Molecular Modeling. 3 Hours.
Introduction to theory and practice of contemporary molecular modeling, including molecular mechanics, molecular dynamics, computer graphics, data analysis, use of structure and sequence databases, docking, and homology modeling. Weekly computer laboratory section aimed at allowing participants to pursue independent research projects that incorporate modeling aspects. Lectures, laboratory manuals, program...
BIOL 968. Seminar in Vegetation Geography. 2-3 Hours.  
(Same as GEOG 937.) LEC.

BIOL 985. Advanced Study. 1-10 Hours.  
Individual investigations; laboratory, field or museum; or reading assignments in specialized topics not ordinarily treated in other courses. Graded on a satisfactory/unsatisfactory basis. RSH.

BIOL 999. Doctoral Dissertation. 1-12 Hours.  
Original research that is to be incorporated into a Ph.D. dissertation. Graded on a satisfactory/unsatisfactory basis. THE.

BTEC 300. Introduction to Biotechnology. 3 Hours. N.  
Review of techniques used in food, agricultural, pharmaceutical, industrial, and environmental biotechnology. Role of regulatory agencies during the discovery, development, and manufacture of new medical devices, biotechnology, biomedical, and pharmaceutical products. Guest presentations in biotechnology. Prerequisite: BIOL 416. LEC.

BTEC 330. Biotechnology Regulation and Documentation Processes. 3 Hours. N.  
Current good manufacturing practices (GMP) as they apply in the biotechnology workplace. History, rationale, purpose, and GMP requirements applicable to the manufacturing, packaging, labeling, testing, and control of pharmaceutical products, and consequences of inaction. Prerequisite: BTEC 300. LEC.

BTEC 340. Biotechnology Research Methods and Applications. 3 Hours. N.  
Introduction to fermentation and protein chemistry. Theory behind laboratory techniques and overview of industrial scale expression systems. Bacterial cell culture techniques, principles of fermenter operation and purification, documentation procedures, important tasks for clean room operations, including sanitization, sterilization, cleaning procedures, calibration, and environmental monitoring. Prerequisite: BTEC 300; BIOL 600. LEC.

BTEC 341. Principles of Bioprocessing Laboratory I. 1 Hour. N.  
Laboratory sessions involve use of microbial expression vectors, fermentation systems, and large-scale purification of recombinant protein. Includes bacterial cell culture techniques, principles of bioreactor/fermentation operations and purification techniques, and calibration. Primary goal of this course is to provide students with an advanced background in bacterial upstream and downstream biotechnology. Prerequisite: BTEC 300; BTEC 340 or concurrent enrollment in BTEC 340. LAB.

BTEC 405. Microbial Genetics Laboratory. 4 Hours. N.  
Research projects center on using molecular genetics to examine the biology of the bacterium Pseudomonas aeruginosa, an opportunistic pathogen often found in the lungs of cystic fibrosis patients. Students engage in independent projects to probe various aspects of P. aeruginosa physiology such as antibiotic resistance, phase variation, toxin production, secondary metabolite production, twitching motility, swimming behaviors, and more. Projects aim to discover the molecular basis for these processes using both classical and new, cutting-edge techniques. These include plasmid manipulation, genetic complementation, mutagenesis, PCR, DNA sequencing, enzyme assays, and gene expression studies. Prerequisite: BIOL 350; BIOL 402. LAB.

BTEC 424. Independent Study in Biotechnology. 1-3 Hours. N.  
Independent project at a related bioscience industry partner or faculty in selected topics of current translational research interest. May be undertaken only with the consent of the major advisor who will guide the research after determining objectives with the interested industry partner or faculty. Prerequisite: Consent of instructor. IND.

BTEC 440. Biotechnology Research Methods and Applications II. 3 Hours. N.  
Theory and practicum behind laboratory techniques and overview of industrial scale expression systems of insect or mammalian protein chemistry. Cell culture techniques, principles of bioreactor operation and purification, documentation procedures, important tasks for clean room operations, including sanitization, sterilization, cleaning procedures, calibration, and environmental monitoring are evaluated. Prerequisite: BTEC 340; BTEC 341. LEC.

BTEC 441. Principles of Bioprocessing Laboratory II. 1 Hour. N.  
Mammalian cell culture techniques, principles of bioreactor operations and purification techniques, and calibration. The primary goal of this course is to provide students with an advanced background in mammalian upstream and downstream biotechnology. Prerequisite: BTEC 341; BTEC 440 or concurrent enrollment in BTEC 440. LAB.

BTEC 450. Applied Bioinformatics. 3 Hours. N.  
Overview of the fields of bioinformatics and genomics. Topics, tools, issues and current trends in these and related fields are discussed. Principles and practical application of bioinformatics tools in molecular biology and genetics are evaluated. The haploid human genome occupies a total of just over 3 billion DNA base pairs. This information is not contained in books, but stored in electronic databases. Computational biology utilizes infer function by comparative analysis. This course is designed for life scientists from all fields to introduce them to the power of bioinformatics and enable them to access and utilize biological information in databases for their own research. Prerequisite: BTEC 300; BIOL 570 or MATH 365 or PSYC 210. LEC.

BTEC 460. Introduction to Quality Control/Quality Assurance in Biotechnology. 3 Hours. N.  
Quality control techniques, assurance issues, and management methods. Quality in design and planning, in the constructed project, and in production of goods and services. Prerequisite: BTEC 330. LEC.

BTEC 475. Bioseparations Laboratory. 2 Hours. N.  
Develop novel and effective strategies for extraction and purification of recombinant and native biomolecules by understanding constraints posed by the biological system and the products. Research projects are geared toward developing cost-effective processes for recovery of industrial and biopharmaceutical products derived from a variety of native and/or transgenic sources. Prerequisite: BTEC 405; BTEC 441. LAB.

BTEC 494. Selected Topics in Biotechnology. 1 Hour. N.  
Course work varies with the topic of the seminar. The preparation and presentation of oral reports on selected topics from recent translational research literature. Students may choose one interest group each semester, but may enroll in a given interest group only once. May be repeated for credit when topics vary. Prerequisite: BTEC 300 and approval of instructor. LEC.

BTEC 501. Ethical Issues in Biotechnology. 1 Hour. N.  
Student investigations and discussions of current controversial issues in biotechnology. This course emphasizes thinking about new technologies in a rational and thoughtful way. Prerequisite: BTEC 300. LEC.

BTEC 541. Gene Expression Analysis: Microarrays. 2 Hours. N.  
This course reviews current theory, techniques, instrumentation, troubleshooting, analysis tools, and advanced protocols for microarray analysis. Students have the opportunity to utilize skills learned during lecture in a laboratory environment. At the conclusion of this course,
students understand microarray experimental design, its tools, and analysis of generated data. Prerequisites: BTEC 300. LAB.

BTEC 542. Protein Expression in Insect Cells. 2 Hours. N.
Introduction to the insect cells expression system, and its advantages and disadvantages. Introduction to expression of recombinant proteins with baculovirus. Outline of antibody and antibody fragments as well as other complex proteins. Basic techniques used for growth and maintenance of insect cell cultures. The lab portion of the course provides students with practical experience in protein expression techniques in the insect cells expression system. Prerequisite: BTEC 300. LAB.

BTEC 545. RNA Interference and Model Organisms. 2 Hours. N.
Introduction and history of RNA interference technology. Principles, mechanism, and applications of RNA interference in model organisms. Laboratory sessions include RNA interference-mediated silencing of genes in plants, C. elegans, and mammalian cell culture. Prerequisite: BTEC 300. LAB.

BTEC 547. Bioanalytical Lab. 2 Hours. N.
Analytical methods used for testing biotherapeutics are examined. Emphasis is placed on assessing protein concentration, purity, identity and activity. The importance of sample processing, throughput and level of validation are explored as samples from upstream processing, downstream processing and final bulk are interrogated. Students also learn key concepts used to validate the performance of analytical methods. Prerequisite: BTEC 300. LAB.

BTEC 599. Biotechnology Capstone Experience. 3 Hours. N.
Supervised internship at a biotech company; or an independent thesis; or honors thesis with Honors Program. Prerequisite: BTEC 441 and approval of instructor. FLD.

Bachelor of Arts in Biochemistry

Why study biology?
Study biology because undergraduates should have the opportunity to explore the breadth of biology that allows them to succeed in their chosen paths beyond the university.

Undergraduate Admission

Admission to KU
All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

First- and Second-Year Preparation
Because biology study requires preparation in other sciences, students should begin meeting major requirements in the first year. It is particularly important to take CHEM 130 and CHEM 135 in the first year and, for several majors, to take CHEM 330, CHEM 331, CHEM 335, and CHEM 336 in the second year. Ideally, most majors should also take BIOL 150 and BIOL 152 during the first year, as well as BIOL 105. Students who have taken BIOL 100 and BIOL 102, have earned an A or B in both courses, and have decided to major in a biological science should consult a UBPA advisor to request permission to substitute BIOL 100 and BIOL 150 for BIOL 150.

Admission to the Major

Admission Requirements

Course Requirements

Admission course requirements for Biochemistry, Biology, Human Biology, and Molecular Biosciences

Biology Orientation Seminar (1)
Satisfied by:
| BIOL 105 | Biology Orientation Seminar | 1 |

Principles of Molecular and Cellular Biology (4)
Satisfied by one of the following: 4
| BIOL 150 | Principles of Molecular and Cellular Biology |
| BIOL 151 | Principles of Molecular and Cellular Biology, Honors |

Principles of Organismal Biology (4)
Satisfied by one of the following: 4
| BIOL 152 | Principles of Organismal Biology |
| BIOL 153 | Principles of Organismal Biology, Honors |

Chemistry II (5)
Satisfied by one of the following: 5
| CHEM 135 | General Chemistry II |
| CHEM 195 | Foundations of Chemistry II, Honors |
| CHEM 175 | Chemistry for the Chemical Sciences II |

Principles of Genetics (4)
Satisfied by one of the following: 4
| BIOL 350 | Principles of Genetics |
| BIOL 360 | Principles of Genetics, Honors |

Admission course requirements for Microbiology

Biology Orientation Seminar (1)
Satisfied by:
| BIOL 105 | Biology Orientation Seminar | 1 |

Principles of Molecular and Cellular Biology (4)
Satisfied by one of the following: 4
| BIOL 150 | Principles of Molecular and Cellular Biology |
Biochemistry

Requirements for the B.A. Major in vertebrate). paleontology, physiology, systematics, or zoology (invertebrate or entomology, genetics, marine biology, molecular biology, neurobiology, cell biology, developmental biology, environmental biology, ecology, entomology, genetics, marine biology, molecular biology, neurobiology, paleontology, physiology, systematics, or zoology (invertebrate or vertebrate).

Majors and Concentrations

Bachelor’s degree requirements in biology are modified as necessary. Current requirements are available in the UBP office and online (http://www.kuub.ku.edu). Major programs are offered in biochemistry, biology, human biology, and microbiology. Students may choose to concentrate in a range of specialties in the biological sciences, such as botany, cellular biology, developmental biology, environmental biology, ecology, entomology, genetics, marine biology, molecular biology, neurobiology, paleontology, physiology, systematics, or zoology (invertebrate or vertebrate).

Requirements for the B.A. Major in Biochemistry

Major Course Requirements

General Science Requirements (33-38)

Majors must complete the following general science requirements that 33-38 serve as foundational courses for this major.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology</td>
</tr>
<tr>
<td>BIOL 151</td>
<td>Principles of Molecular and Cellular Biology, Honors</td>
</tr>
</tbody>
</table>

Principles of Genetics (4)

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 350</td>
<td>Principles of Genetics</td>
</tr>
<tr>
<td>BIOL 360</td>
<td>Principles of Genetics, Honors</td>
</tr>
</tbody>
</table>

Biology Admission GPA

Must have a grade-point average of at least 2.2 based on grades in BIOL 150, BIOL 152, CHEM 135, and BIOL 350 (or equivalents). KU’s course repeat policy applies to grade-point average calculation.

Microbiology Admission GPA

Must have a grade-point average of at least 2.2 based on grades in BIOL 150, CHEM 135, and BIOL 350 (or equivalents). Microbiology admission requirements differ from those for Biochemistry, Biology, Human Biology, and Molecular Biosciences, because BIOL 152 is not required for the B.A. and B.S. degrees in microbiology. KU’s course repeat policy applies to grade-point average calculation.

Application Term

Application to the major should occur in the term in which admission requirements will be completed. If the student does not meet established admission grade-point average criteria or neglects to apply for admission in this term, she or he must petition the Undergraduate Biology Program for permission for late application. The Undergraduate Biology Program, as part of an approved petition, determines late admission requirements (including grade-point average and course requirements) and the final deadline for admission.

Biochemistry Requirements (29)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology</td>
</tr>
<tr>
<td>BIOL 151</td>
<td>Principles of Molecular and Cellular Biology, Honors</td>
</tr>
<tr>
<td>BIOL 152</td>
<td>Principles of Organismal Biology</td>
</tr>
<tr>
<td>BIOL 153</td>
<td>Principles of Organismal Biology, Honors</td>
</tr>
<tr>
<td>BIOL 350</td>
<td>Principles of Genetics</td>
</tr>
<tr>
<td>BIOL 360</td>
<td>Principles of Genetics, Honors</td>
</tr>
</tbody>
</table>

CHEM 170 | Chemistry for the Chemical Sciences I |
| CHEM 130 | General Chemistry I |
| CHEM 190 | Foundations of Chemistry I, Honors |

Chemistry II. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 135</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHEM 195</td>
<td>Foundations of Chemistry II, Honors</td>
</tr>
</tbody>
</table>

Organic Chemistry I. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 330</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>CHEM 380</td>
<td>Organic Chemistry I, Honors</td>
</tr>
</tbody>
</table>

Organic Chemistry I Laboratory. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 331</td>
<td>Organic Chemistry I Laboratory</td>
</tr>
</tbody>
</table>

Organic Chemistry II. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 335</td>
<td>Organic Chemistry II</td>
</tr>
</tbody>
</table>

Calculus I and II. Students who plan to attend graduate school should enroll in MATH 121 and MATH 122. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td>Calculus I &amp; MATH 122 and Calculus II (or equivalent)</td>
</tr>
</tbody>
</table>

Physics. Satisfied by one of the following options:

Option 1: General Physics I & II

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 211</td>
<td>General Physics I</td>
</tr>
<tr>
<td>PHSX 212</td>
<td>General Physics II</td>
</tr>
</tbody>
</table>

Option 2: College Physics I & II

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 114</td>
<td>College Physics I</td>
</tr>
</tbody>
</table>

Biochemistry I. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 636</td>
<td>Biochemistry I</td>
</tr>
<tr>
<td>BIOL 637</td>
<td>Introductory Biochemistry Laboratory</td>
</tr>
<tr>
<td>BIOL 638</td>
<td>Biochemistry II</td>
</tr>
<tr>
<td>BIOL 639</td>
<td>Advanced Biochemistry Laboratory</td>
</tr>
<tr>
<td>BIOL 672</td>
<td>Gene Expression</td>
</tr>
<tr>
<td>BIOL 599</td>
<td>Senior Seminar: _____ (Must be taken in senior year.)</td>
</tr>
</tbody>
</table>
Biological Physical Chemistry. Satisfied by:
CHEM 510 Biological Physical Chemistry 3

Biochemistry Electives (6)
Satisfied by completing at least 6 hours of biology courses numbered 400 or higher. These courses must be selected in consultation with a biochemistry advisor. Some suggested courses are BIOL 400 or BIOL 401, BIOL 408, BIOL 416 or BIOL 536, BIOL 417, BIOL 424, or BIOL 646. No more than 3 hours of BIOL 423 Non-Lab Independent Study and/or BIOL 424 Independent Study (combined) can be applied towards the elective requirement.

Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 35 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 27 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Refer to sample 4-year plans (http://kuub.ku.edu/degrees) and meet regularly with an academic advisor.

Departmental Honors
Undergraduate majors are eligible to graduate with honors in biology if they fulfill the following requirements:

1. Complete all course work required for the appropriate degree in biology.
2. Achieve a minimum grade-point average of 3.25 overall and 3.5 in the major.
3. Complete BIOL 499 Introduction to Honors Research with a grade of B or higher.
4. Complete BIOL 699 Biology Honors Research Colloquium with a grade of B or higher.
5. Complete an independent research project under the supervision of a faculty member in an area appropriate to the degree sought.
6. Submit an honors thesis to the honors committee once the research is complete and present the results of the completed research at the honors research symposium.

Students majoring in Human Biology with Anthropology, Applied Behavioral Science, Psychology, or Speech-Language-Hearing concentrations will follow the honors requirements for their respective concentration department.

Specific guidelines and intent forms are available in the Undergraduate Biology Program office and online (http://www.kuub.ku.edu). Candidates must declare their intent to graduate with honors at least 2 semesters before graduation.

Study Abroad
Consult an advisor at least 4 months before undertaking study abroad. Consult the Office of Study Abroad (http://www.studyabroad.ku.edu), 108 Lippincott Hall, for information about study in one of the many countries (e.g., Scotland, Australia, Switzerland) with special arrangements with KU.

Bachelor of Arts in Biology
Why study biology?
Study biology because undergraduates should have the opportunity to explore the breadth of biology that allows them to succeed in their chosen paths beyond the university.

Undergraduate Admission
Admission to KU
All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences
Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

First- and Second-Year Preparation
Because biology study requires preparation in other sciences, students should begin meeting major requirements in the first year. It is particularly important to take CHEM 130 and CHEM 135 in the first year and, for several majors, to take CHEM 330, CHEM 331, CHEM 335, and CHEM 336 in the second year. Ideally, most majors should also take BIOL 150 and BIOL 152 during the first year, as well as BIOL 105. Students who have taken BIOL 100 and BIOL 102, have earned an A or B in both courses, and have decided to major in a biological science should consult a UBP advisor to request permission to substitute BIOL 100 and BIOL 102 for BIOL 150.
Admission to the Major

Admission Requirements

Course Requirements

Admission course requirements for Biochemistry, Biology, Human Biology, and Molecular Biosciences

Biology Orientation Seminar (1)
Satisfied by:

BIOL 105 Biology Orientation Seminar 1

Principles of Molecular and Cellular Biology (4)
Satisfied by one of the following:

BIOL 150 Principles of Molecular and Cellular Biology
BIOL 151 Principles of Molecular and Cellular Biology, Honors

Principles of Organismal Biology (4)
Satisfied by one of the following:

BIOL 152 Principles of Organismal Biology
BIOL 153 Principles of Organismal Biology, Honors

Chemistry II (5)
Satisfied by one of the following:

CHEM 135 General Chemistry II
CHEM 195 Foundations of Chemistry II, Honors
CHEM 175 Chemistry for the Chemical Sciences II

Principles of Genetics (4)
Satisfied by one of the following:

BIOL 350 Principles of Genetics
BIOL 360 Principles of Genetics, Honors

Admission course requirements for Microbiology

Biology Orientation Seminar (1)
Satisfied by:

BIOL 105 Biology Orientation Seminar 1

Principles of Molecular and Cellular Biology (4)
Satisfied by one of the following:

BIOL 150 Principles of Molecular and Cellular Biology
BIOL 151 Principles of Molecular and Cellular Biology, Honors

Chemistry II (5)
Satisfied by one of the following:

CHEM 135 General Chemistry II
CHEM 195 Foundations of Chemistry II, Honors
CHEM 175 Chemistry for the Chemical Sciences II

Principles of Genetics (4)
Satisfied by one of the following:

BIOL 350 Principles of Genetics
BIOL 360 Principles of Genetics, Honors

Biology Admission GPA

Must have a grade-point average of at least 2.2 based on grades in BIOL 150, BIOL 152, CHEM 135, and BIOL 350 (or equivalents). KU’s course repeat policy applies to grade-point average calculation.

Microbiology Admission GPA

Must have a grade-point average of at least 2.2 based on grades in BIOL 150, CHEM 135, and BIOL 350 (or equivalents). Microbiology admission requirements differ from those for Biochemistry, Biology, Human Biology, and Molecular Biosciences, because BIOL 152 is not required for the B.A. and B.S. degrees in microbiology. KU’s course repeat policy applies to grade-point average calculation.

Application Term

Application to the major should occur in the term in which admission requirements will be completed. If the student does not meet established admission grade-point average criteria or neglects to apply for admission in this term, she or he must petition the Undergraduate Biology Program for permission for late application. The Undergraduate Biology Program, as part of an approved petition, determines late admission requirements (including grade-point average and course requirements) and the final deadline for admission.

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Requirements for the B.A. Major in Biology

Major Course Requirements

General Science Requirements (29-31)

Biology Orientation Seminar. Satisfied by:

BIOL 105 Biology Orientation Seminar 1

Chemistry I. Satisfied by one of the following:

CHEM 130 General Chemistry I
CHEM 195 Foundations of Chemistry II, Honors

Organic Chemistry I. Satisfied by one of the following:

CHEM 310 Fundamentals of Organic Chemistry
CHEM 330 Organic Chemistry I

Organic Chemistry I Laboratory. Satisfied by:

CHEM 331 Organic Chemistry I Laboratory 2

Calculus. Satisfied by one of the following:

MATH 115 Calculus I
MATH 116 and Calculus II
MATH 121 Calculus I
MATH 141 Calculus I: Honors

Physics I. Satisfied by one of the following:

PHSX 114 College Physics I
### Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

#### Major Hours

Satisfied by 36 hours of major courses.

#### Major Hours in Residence

Satisfied by a minimum of 15 hours of KU resident credit in the major.

#### Major Junior/Senior Hours

Satisfied by a minimum of 28 hours from junior/senior courses (300+) in the major.

#### Major Junior/Senior Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator ([http://clas.ku.edu/undergrad/tools/gpa](http://clas.ku.edu/undergrad/tools/gpa)).

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Refer to sample 4-year plans ([http://kuub.ku.edu/degrees](http://kuub.ku.edu/degrees)) and meet regularly with an academic advisor.

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3. Complete BIOL 499 Introduction to Honors Research with a grade of B or higher.
4. Complete BIOL 699 Biology Honors Research Colloquium with a grade of B or higher.
5. Complete an independent research project under the supervision of a faculty member in an area appropriate to the degree sought.
6. Submit an honors thesis to the honors committee once the research is complete and present the results of the completed research at the honors research symposium.

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Bachelor of Arts in Human Biology

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Because biology study requires preparation in other sciences, students should begin meeting major requirements in the first year. It is particularly important to take CHEM 130 and CHEM 135 in the first year and, for several majors, to take CHEM 330, CHEM 331, CHEM 335, and CHEM 336 in the second year. Ideally, most majors should also take BIOL 150 and BIOL 152 during the first year, as well as BIOL 105. Students who have taken BIOL 100 and BIOL 102, have earned an A or B in both courses, and have decided to major in a biological science should consult a UBP advisor to request permission to substitute BIOL 100 and BIOL 102 for BIOL 150.

Admission to the Major

Admission Requirements
Course Requirements
Admission course requirements for Biochemistry, Biology, Human Biology, and Molecular Biosciences

Biology Orientation Seminar (1)
Satisfied by:
BIOL 105 Biology Orientation Seminar 1
Principles of Molecular and Cellular Biology (4)

Admission course requirements for Microbiology

Biology Orientation Seminar (1)
Satisfied by:
BIOL 105 Biology Orientation Seminar 1
Principles of Molecular and Cellular Biology (4)

Admission course requirements for Microbiology

Chemistry II (5)
Satisfied by one of the following:
CHEM 135 General Chemistry II
CHEM 195 Foundations of Chemistry II, Honors
CHEM 175 Chemistry for the Chemical Sciences II

Principles of Genetics (4)
Satisfied by one of the following:
BIOL 350 Principles of Genetics
BIOL 360 Principles of Genetics, Honors

Admission course requirements for Microbiology

Biology Orientation Seminar (1)
Satisfied by:
BIOL 105 Biology Orientation Seminar 1
Principles of Molecular and Cellular Biology (4)

Admission course requirements for Microbiology

Chemistry II (5)
Satisfied by one of the following:
CHEM 135 General Chemistry II
CHEM 195 Foundations of Chemistry II, Honors
CHEM 175 Chemistry for the Chemical Sciences II

Principles of Genetics (4)
Satisfied by one of the following:
BIOL 350 Principles of Genetics
BIOL 360 Principles of Genetics, Honors

Biology Admission GPA
Must have a grade-point average of at least 2.2 based on grades in BIOL 150, BIOL 152, CHEM 135, and BIOL 350 (or equivalents). KU’s course repeat policy applies to grade-point average calculation.

Microbiology Admission GPA
Must have a grade-point average of at least 2.2 based on grades in BIOL 150, CHEM 135, and BIOL 350 (or equivalents). Microbiology admission requirements differ from those for Biochemistry, Biology, Human Biology, and Molecular Biosciences, because BIOL 152 is not required for the B.A. and B.S. degrees in microbiology. KU’s course repeat policy applies to grade-point average calculation.

Application Term
Application to the major should occur in the term in which admission requirements will be completed. If the student does not meet established admission grade-point average criteria or neglects to apply for admission in this term, she or he must petition the Undergraduate Biology Program.
for permission for late application. The Undergraduate Biology Program, as part of an approved petition, determines late admission requirements (including grade-point average and course requirements) and the final deadline for admission.

**Majors and Concentrations**

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**Requirements for the B.A. Major in Human Biology**

The curriculum builds from a broad background of general science courses and adds depth in a set of 5 specialized disciplines. Courses in the disciplines emphasize topics related to humans and provide a solid understanding of each field of knowledge.

For general requirements for the B.A. degree, see CLAS General Education Degree Requirements (p. 783) on the College of Liberal Arts and Sciences Degree Requirements page.

Students must choose 1 concentration from the 5 areas:

- Anthropology
- Applied behavioral science
- Biology
- Psychology
- Speech-language-hearing

**General Science Requirements (34)**

Majors must complete the following 34-hour minimum of general science requirements that serve as foundational courses for this major.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 304</td>
<td>Fundamentals of Physical Anthropology</td>
</tr>
<tr>
<td>BIOL 105</td>
<td>Biology Orientation Seminar</td>
</tr>
<tr>
<td>BIOL 150</td>
<td>Principles of Molecular &amp; Cellular Biology</td>
</tr>
<tr>
<td>BIOL 151</td>
<td>Principles of Molecular &amp; Cellular Biology, Honors</td>
</tr>
<tr>
<td>BIOL 152</td>
<td>Principles of Organismal Biology</td>
</tr>
<tr>
<td>BIOL 153</td>
<td>Principles of Organismal Biology, Honors</td>
</tr>
<tr>
<td>MATH 115 &amp; 116</td>
<td>Calculus I and Calculus II</td>
</tr>
<tr>
<td>MATH 121</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH 141</td>
<td>Calculus I: Honors</td>
</tr>
</tbody>
</table>

**Chemistry I. Satisfied by one of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHEM 190</td>
<td>Foundations of Chemistry I, Honors</td>
</tr>
</tbody>
</table>

**Chemistry II. Satisfied by one of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 135</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHEM 195</td>
<td>Foundations of Chemistry II, Honors</td>
</tr>
</tbody>
</table>

**Physics I. Satisfied by one of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 114</td>
<td>College Physics I</td>
</tr>
<tr>
<td>PHYS 211 &amp; 216</td>
<td>General Physics I and General Physics I Laboratory</td>
</tr>
</tbody>
</table>

**Statistics. Satisfied by one of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 570</td>
<td>Introduction to Biostatistics (Recommended for the Anthropology and Biology Concentrations)</td>
</tr>
<tr>
<td>PSYC 210</td>
<td>Statistics in Psychological Research (Recommended for the Psychology Concentration)</td>
</tr>
<tr>
<td>MATH 365</td>
<td>Elementary Statistics</td>
</tr>
</tbody>
</table>

1 PSYC 300 was renumbered to PSYC 210 and the honors version to PSYC 211, as of fall 2010.

**Anthropology**

**Anthropology Concentration (13)**

Majors must complete the following 31 hours. These additional science courses are included in the Human Biology-Anthropology major hours and GPA calculations.

**Organic Chemistry I. Satisfied by one of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 310</td>
<td>Fundamentals of Organic Chemistry</td>
</tr>
<tr>
<td>CHEM 330</td>
<td>Organic Chemistry I</td>
</tr>
</tbody>
</table>

**Organic Chemistry I Laboratory. Satisfied by:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 331</td>
<td>Organic Chemistry I Laboratory</td>
</tr>
</tbody>
</table>

**Cell Structure & Function. Satisfied by one of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 416</td>
<td>Biology of Development</td>
</tr>
<tr>
<td>BIOL 440</td>
<td>Advanced Human Anatomy</td>
</tr>
</tbody>
</table>

**Category 1: Human Anatomy and Physiology**

**Biography of Development. Satisfied by:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 542</td>
<td>Biology of Human Nutrition</td>
</tr>
<tr>
<td>ANTH 648</td>
<td>Human Osteology</td>
</tr>
<tr>
<td>ANTH 650</td>
<td>Human Reproduction: Biology and Behavior</td>
</tr>
</tbody>
</table>

**Category 2: Human Biology**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 426</td>
<td>Laboratory in Cell Biology</td>
</tr>
<tr>
<td>BIOL 440</td>
<td>Advanced Human Anatomy</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>BIOL 600</td>
<td>Introductory Biochemistry, Lectures</td>
</tr>
<tr>
<td>BIOL 637</td>
<td>Introductory Biochemistry Laboratory</td>
</tr>
<tr>
<td>BIOL 646</td>
<td>Mammalian Physiology</td>
</tr>
<tr>
<td>BIOL 647</td>
<td>Mammalian Physiology Laboratory</td>
</tr>
</tbody>
</table>

**Category 2: Human Population Biology**

- **BIOL 655** | Principles of Genetics
- **BIOL 660** | Principles of Genetics, Honors

Introduction to Applied Behavioral Science. Satisfied by:

**ABSC 100** | Introduction to Applied Behavioral Science 3
**ABSC 160** | Introduction to Child Behavior and Development 3

Development. Satisfied by one of the following:

**ABSC 308** | Research Methods and Application 4

Senior Seminar in Human Biology. Satisfied by:

**BIOL 599** | Senior Seminar: _____ (Must be taken in senior year.) 1

**Applied Behavioral Science Concentration Categories (18-21)**

Satisfied by completing 2 of the following 4 categories (18-21 hours required):

**Category 1: Applied Behavioral Science**

- Principles and Procedures of Behavior Modification and Therapy. Satisfied by:
  - **ABSC 304** | The Principles and Procedures of Behavior Modification and Therapy

Applied Behavioral Science. Satisfied by completing 6 hours selected from the following courses:

**ABSC 150** | Community Leadership
**ABSC 310** | Building Healthy Communities
**ABSC 311** | Building Healthy Communities, Honors
**ABSC 350** | The Behavioral Treatment of Children with Autism
**ABSC 410** | Behavioral Approaches in Working with Adolescents
**ABSC 437** | Independent Living and People with Disabilities

**Category 2: Development: Typical and Atypical**

**ABSC 535** | Developmental Psychopathology
**ABSC 565** | Applied Developmental Psychology
**BIOL 417** | Biology of Development

**Category 3: Biology of Behavior**

**Physiology of Organisms. Satisfied by:**

**BIOL 408** | Physiology of Organisms
**BIOL 417** | Biology of Behavior. Satisfied by completing 6 hours selected from the following:

**Category 4: Evolution, Culture, and Behavior**

**Applied Behavioral Science**

Applied Behavioral Science Concentration (15)

Majors must complete the following 33 hours. These additional science courses are included in the Human Biology-Applied Behavioral Science major hours and GPA calculations.

- Principles of Genetics. Satisfied by one of the following: 4

**Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**

Satisfied by 31 hours of major courses.

**Major Hours in Residence**

Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**

Satisfied by a minimum of 31 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).
BIOL 412  Evolutionary Biology
Evolution, Culture, and Behavior. Satisfied by completing 6 hours selected from the following:
ANTH 341  Human Evolution
ANTH 415  The Rise of Civilization
ANTH 650  Human Reproduction: Biology and Behavior
ANTH 661  Cultural Dynamics
BIOL/GEOG 410  Human Biogeography, Honors
BIOL 428  Introduction to Systematics
BIOL 625  Behavioral Ecology and Sociobiology
BIOL 652  Comparative Animal Behavior

Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 33 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 24 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Biology Concentration (14)
Majors must complete the following 32 hours. These additional science courses are included in the Human Biology-Biology major hours and GPA calculations.

Organic Chemistry I. Satisfied by one of the following: 3
CHEM 310  Fundamentals of Organic Chemistry
CHEM 330  Organic Chemistry I

Organic Chemistry I Laboratory. Satisfied by:
CHEM 331  Organic Chemistry I Laboratory

Physics II. Satisfied by one of the following: 4
PHSX 115  College Physics II
PHSX 212  General Physics II
& PHSX 236  and General Physics II Laboratory

Principles of Genetics. Satisfied by one of the following: 4
BIOL 350  Principles of Genetics
BIOL 360  Principles of Genetics, Honors

Senior Seminar in Human Biology. Satisfied by:
BIOL 599  Senior Seminar: _____ (Must be taken in senior year.) 1

Biology Laboratory Electives. Course selections from the following categories must include at least 3 hours of laboratory credit, 400 level or above.

Biology Concentration Categories (18-19)

Category 1: Development and Genetics
Biology of Development. Satisfied by:
BIOL 417  Biology of Development

Development and Genetics. Satisfied by completing 6 hours from the following:
ABSC/PSYC 535  Developmental Psychopathology
ANTH 762  Human Growth and Development
BIOL 405  Laboratory in Genetics
BIOL 416  Cell Structure and Function
or BIOL 536  Cell Structure and Function (Honors)
BIOL 595  Human Genetics
BIOL 655  Behavioral Genetics
BIOL 688  The Molecular Biology of Cancer
PSYC 333  Child Development
PSYC 430  Cognitive Development
PSYC 531  Language Development
SPLH 566  Language Development

Category 2: Anatomy and Physiology
Mammalian Physiology. Satisfied by:
BIOL 646  Mammalian Physiology

Category 3: Evolution, Ecology, and Adaptation
Evolutionary Biology. Satisfied by:
BIOL 412  Evolutionary Biology

Evolution, Ecology, and Adaptation. Satisfied by completing 6 hours selected from the following:
ANTH 340  Human Variation and Evolution
ANTH 341  Human Evolution
ANTH 350  Human Adaptation
ANTH 652  Population Dynamics
BIOL 410  Human Biogeography, Honors
BIOL 414  Principles of Ecology
BIOL 668  Evolutionary Ecology
PSYC 555  Evolutionary Psychology

Category 4: Human Disease
Fundamentals of Microbiology. Satisfied by one of the following:
BIOL 400  Fundamentals of Microbiology
BIOL 401  Fundamentals of Microbiology, Honors
Human Disease. Satisfied by completing 6 hours selected from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 402</td>
<td>Fundamentals of Microbiology Laboratory</td>
</tr>
<tr>
<td>ANTH 555</td>
<td>Evolution of Human Diseases</td>
</tr>
<tr>
<td>BIOL 503</td>
<td>Immunology</td>
</tr>
<tr>
<td>BIOL 504</td>
<td>Immunology Laboratory</td>
</tr>
<tr>
<td>BIOL 506</td>
<td>Pathogenic Microbiology</td>
</tr>
<tr>
<td>BIOL 507</td>
<td>Pathogenic Microbiology Laboratory</td>
</tr>
<tr>
<td>BIOL 512</td>
<td>General Virology</td>
</tr>
<tr>
<td>BIOL 513</td>
<td>Virology Laboratory</td>
</tr>
<tr>
<td>BIOL 518</td>
<td>Microbial Genetics</td>
</tr>
<tr>
<td>BIOL 519</td>
<td>Microbial Genetics Laboratory</td>
</tr>
<tr>
<td>BIOL 595</td>
<td>Human Genetics</td>
</tr>
<tr>
<td>BIOL 616</td>
<td>Medical Entomology</td>
</tr>
<tr>
<td>BIOL 688</td>
<td>The Molecular Biology of Cancer</td>
</tr>
</tbody>
</table>

Total Hours 32-33

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**

Satisfied by 32 hours of major courses.

**Major Hours in Residence**

Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**

Satisfied by a minimum of 28 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**

Satisfied by a minimum of 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Psychology

**Psychology Concentration (13)**

Majors must complete the following 31 hours. These additional science courses are included in the Human Biology-Psychology major hours and GPA calculations.

Organic Chemistry I. Satisfied by one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 310</td>
<td>Fundamentals of Organic Chemistry</td>
</tr>
<tr>
<td>CHEM 330</td>
<td>Organic Chemistry I</td>
</tr>
</tbody>
</table>

Organic Chemistry I Laboratory. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 331</td>
<td>Organic Chemistry I Laboratory</td>
</tr>
</tbody>
</table>

Principles of Genetics. Satisfied by one of the following: 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 350</td>
<td>Principles of Genetics</td>
</tr>
<tr>
<td>BIOL 360</td>
<td>Principles of Genetics, Honors</td>
</tr>
</tbody>
</table>

Research Methods. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 200</td>
<td>Research Methods in Psychology</td>
</tr>
</tbody>
</table>

Senior Seminar in Human Biology. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 599</td>
<td>Senior Seminar: _____ (Must be taken in senior year.)</td>
</tr>
</tbody>
</table>

Psychology Concentration Categories (18)

Satisfied by completing 2 of the following 4 categories listed below. 18 (18 hours required)

Category 1: Evolution, Adaptation and Health

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 555</td>
<td>Evolutionary Psychology</td>
</tr>
<tr>
<td>PSYC 605</td>
<td>Health Psychology</td>
</tr>
<tr>
<td>ANTH 340</td>
<td>Human Variation and Evolution</td>
</tr>
<tr>
<td>ANTH 341</td>
<td>Human Evolution</td>
</tr>
<tr>
<td>ANTH 350</td>
<td>Human Adaptation</td>
</tr>
<tr>
<td>ANTH 442</td>
<td>Anthropological Genetics</td>
</tr>
<tr>
<td>ANTH 447</td>
<td>Human Behavioral Genetics</td>
</tr>
<tr>
<td>ANTH 542</td>
<td>Biology of Human Nutrition</td>
</tr>
<tr>
<td>ANTH 555</td>
<td>Evolution of Human Diseases</td>
</tr>
<tr>
<td>BIOL 412</td>
<td>Evolutionary Biology</td>
</tr>
<tr>
<td>BIOL 595</td>
<td>Human Genetics</td>
</tr>
</tbody>
</table>

Category 2: Human Development

Child Development. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 333</td>
<td>Child Development</td>
</tr>
<tr>
<td>PSYC 334</td>
<td>Child Development, Honors</td>
</tr>
</tbody>
</table>

Human Development. Satisfied by completing 6 hours selected from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 430</td>
<td>Cognitive Development</td>
</tr>
<tr>
<td>PSYC/ABSC 535</td>
<td>Developmental Psychopathology</td>
</tr>
<tr>
<td>PSYC/ABSC 632</td>
<td>Advanced Child Behavior and Development</td>
</tr>
<tr>
<td>BIOL 417</td>
<td>Biology of Development</td>
</tr>
</tbody>
</table>

Category 3: Human Cognition and Language

Cognitive Psychology. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 318</td>
<td>Cognitive Psychology</td>
</tr>
</tbody>
</table>

Human Cognition & Language. Satisfied by completing 6 hours selected from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 418</td>
<td>Introduction to Cognitive Science</td>
</tr>
<tr>
<td>PSYC 482</td>
<td>Sensation and Perception</td>
</tr>
<tr>
<td>PSYC 518</td>
<td>Human Memory</td>
</tr>
<tr>
<td>PSYC 531</td>
<td>Language Development</td>
</tr>
<tr>
<td>PSYC 536</td>
<td>The Psychology of Language</td>
</tr>
<tr>
<td>SPLH 466</td>
<td>Language Science</td>
</tr>
<tr>
<td>SPLH 566</td>
<td>Language Development</td>
</tr>
</tbody>
</table>

Category 4: Neuroscience

Satisfied by completing 9 hours selected from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 370</td>
<td>Behavioral Neuroscience</td>
</tr>
<tr>
<td>PSYC 380</td>
<td>Clinical Neuroscience</td>
</tr>
<tr>
<td>PSYC 475</td>
<td>Cognitive Neuroscience</td>
</tr>
<tr>
<td>ANTH 650</td>
<td>Human Reproduction: Biology and Behavior</td>
</tr>
<tr>
<td>BIOL 435</td>
<td>Introduction to Neurobiology</td>
</tr>
<tr>
<td>BIOL 454</td>
<td>Brain Diseases and Neurological Disorders</td>
</tr>
<tr>
<td>BIOL 655</td>
<td>Behavioral Genetics</td>
</tr>
<tr>
<td>SPLH 320</td>
<td>The Communicating Brain: The Ultimate Personal Computer</td>
</tr>
</tbody>
</table>

SPLH 320 | The Communicating Brain: The Ultimate Personal Computer |
Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 31 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**
Satisfied by a minimum of 28 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Speech-Language-Hearing

**Speech-Language-Hearing Concentration (12)**

Majors must complete the following 30 hours. These additional science courses are included in the Human Biology-Speech-Language-Hearing major hours and GPA calculations.

- Physics. Satisfied by one of the following:
  - SPLH 120  The Physics of Speech  4
  - PHSX 115  College Physics II

- Research Methods. Satisfied by:
  - SPLH 660  Research Methods in Speech-Language-Hearing  3

- Genetics. Satisfied by one of the following:
  - BIOL 350  Principles of Genetics  4
  - BIOL 360  Principles of Genetics, Honors

- Senior Seminar in Human Biology. Satisfied by:
  - BIOL 599  Senior Seminar: _____ (Must be taken in senior year.)  1

**Speech-Language-Hearing Concentration Categories (18-19)**

Satisfied by completing 2 of the following 4 categories (18-19 hours required).

**Category 1: Development and Genetics**

- Biology of Development. Satisfied by:
  - BIOL 417  Biology of Development

- Development and Genetics. Satisfied by completing 6 hours selected from the following:
  - ANTH 762  Human Growth and Development
  - BIOL 405  Laboratory in Genetics
  - BIOL 416  Cell Structure and Function
  - or BIOL 536  Cell Structure and Function (Honors)
  - BIOL 595  Human Genetics
  - BIOL 655  Behavioral Genetics
  - PSYC 333  Child Development
  - PSYC 430  Cognitive Development
  - SPLH 464  Undergraduate Seminar in: _____
  - or SPLH 764  Seminar in: _____
  - SPLH 466  Language Science
  - SPLH 566  Language Development

**Category 2: Anatomy and Physiology**

- Mammalian Physiology. Satisfied by:
  - BIOL 646  Mammalian Physiology

- Anatomy and Physiology. Satisfied by completing 6 hours selected from the following:
  - BIOL 440  Advanced Human Anatomy
  - BIOL 647  Mammalian Physiology Laboratory
  - SPLH 662  Principles of Speech Science
  - SPLH 663  Principles of Hearing Science

**Category 3: Neuroscience**

- Physiology of Organisms. Satisfied by:
  - BIOL 408  Physiology of Organisms

- Neuroscience. Satisfied by completing 6 hours selected from the following:
  - BIOL 435  Introduction to Neurobiology
  - PSYC 370  Behavioral Neuroscience
  - PSYC 380  Clinical Neuroscience
  - PSYC 475  Cognitive Neuroscience
  - SPLH 320  The Communicating Brain: The Ultimate Personal Computer
  - SPLH 464  Undergraduate Seminar in: _____ (Neural Bases of Speech & Voice)
  - SPLH 464  Undergraduate Seminar in: _____ (Speech Motor Control)

**Category 4: Research Practicum**

Satisfied by completing 9 hours selected from the following courses:

- SPLH 464  Undergraduate Seminar in: _____ (Circuit Theory & Bioinstrumentation)

- SPLH 449  Laboratory/Field Work in Human Biology (various topics)

- SPLH 499  Directed Study in Speech-Language-Hearing

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 30 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**
Satisfied by a minimum of 26 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Refer to sample 4-year plans (http://www.humanbio.ku.edu/degrees) and meet regularly with an academic advisor.
Departmental Honors

Undergraduate majors are eligible to graduate with honors in biology if they fulfill the following requirements:

1. Complete all course work required for the appropriate degree in biology.
2. Achieve a minimum grade-point average of 3.25 overall and 3.5 in the major.
3. Complete BIOL 499 Introduction to Honors Research with a grade of B or higher.
4. Complete BIOL 699 Biology Honors Research Colloquium with a grade of B or higher.
5. Complete an independent research project under the supervision of a faculty member in an area appropriate to the degree sought.
6. Submit an honors thesis to the honors committee once the research is complete and present the results of the completed research at the honors research symposium.

Students majoring in Human Biology with Anthropology, Applied Behavioral Science, Psychology, or Speech-Language-Hearing concentrations will follow the honors requirements for their respective concentration department.

Specific guidelines and intent forms are available in the Undergraduate Biology Program office and online (http://www.kuub.ku.edu). Candidates must declare their intent to graduate with honors at least 2 semesters before graduation.

Study Abroad

Consult an advisor at least 4 months before undertaking study abroad. Consult the Office of Study Abroad (http://www.studyabroad.ku.edu), 108 Lippincott Hall, for information about study in one of the many countries (e.g., Scotland, Australia, Switzerland) with special arrangements with KU.

Bachelor of Arts in Microbiology

Why study biology?

Study biology because undergraduates should have the opportunity to explore the breadth of biology that allows them to succeed in their chosen paths beyond the university.

Undergraduate Admission

Admission to KU

All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

First- and Second-Year Preparation

Because biology study requires preparation in other sciences, students should begin meeting major requirements in the first year. It is particularly important to take CHEM 130 and CHEM 135 in the first year and, for several majors, to take CHEM 330, CHEM 331, CHEM 335, and CHEM 336 in the second year. Ideally, most majors should also take BIOL 150 and BIOL 152 during the first year, as well as BIOL 105. Students who have taken BIOL 100 and BIOL 102, have earned an A or B in both courses, and have decided to major in a biological science should consult a UBP advisor to request permission to substitute BIOL 100 and BIOL 150 for BIOL 150.

Admission to the Major

Admission Requirements

Course Requirements

Admission course requirements for Biochemistry, Biology, Human Biology, and Molecular Biosciences

<table>
<thead>
<tr>
<th>Biology Orientation Seminar (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied by:</td>
</tr>
<tr>
<td>BIOL 105  Biology Orientation Seminar 1</td>
</tr>
</tbody>
</table>

Principles of Molecular and Cellular Biology (4)

<table>
<thead>
<tr>
<th>Principles of Molecular and Cellular Biology (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied by one of the following:</td>
</tr>
<tr>
<td>BIOL 150  Principles of Molecular and Cellular Biology</td>
</tr>
<tr>
<td>BIOL 151  Principles of Molecular and Cellular Biology, Honors</td>
</tr>
</tbody>
</table>

Principles of Organismal Biology (4)

<table>
<thead>
<tr>
<th>Principles of Organismal Biology (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied by one of the following:</td>
</tr>
<tr>
<td>BIOL 152  Principles of Organismal Biology</td>
</tr>
<tr>
<td>BIOL 153  Principles of Organismal Biology, Honors</td>
</tr>
</tbody>
</table>

Chemistry II (5)

<table>
<thead>
<tr>
<th>Chemistry II (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied by one of the following:</td>
</tr>
<tr>
<td>CHEM 135  General Chemistry II</td>
</tr>
<tr>
<td>CHEM 195  Foundations of Chemistry II, Honors</td>
</tr>
<tr>
<td>CHEM 175  Chemistry for the Chemical Sciences II</td>
</tr>
</tbody>
</table>

Principles of Genetics (4)

<table>
<thead>
<tr>
<th>Principles of Genetics (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied by one of the following:</td>
</tr>
<tr>
<td>BIOL 350  Principles of Genetics</td>
</tr>
<tr>
<td>BIOL 360  Principles of Genetics, Honors</td>
</tr>
</tbody>
</table>

Admission course requirements for Microbiology

<table>
<thead>
<tr>
<th>Biology Orientation Seminar (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied by:</td>
</tr>
<tr>
<td>BIOL 105  Biology Orientation Seminar 1</td>
</tr>
</tbody>
</table>
Principles of Molecular and Cellular Biology (4)
Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology</td>
</tr>
<tr>
<td>BIOL 151</td>
<td>Principles of Molecular and Cellular Biology, Honors</td>
</tr>
</tbody>
</table>

Chemistry II (5)
Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 135</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHEM 195</td>
<td>Foundations of Chemistry II, Honors</td>
</tr>
<tr>
<td>CHEM 175</td>
<td>Chemistry for the Chemical Sciences II</td>
</tr>
</tbody>
</table>

Principles of Genetics (4)
Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 350</td>
<td>Principles of Genetics</td>
</tr>
<tr>
<td>BIOL 360</td>
<td>Principles of Genetics, Honors</td>
</tr>
</tbody>
</table>

Biology Admission GPA
Must have a grade-point average of at least 2.2 based on grades in BIOL 150, BIOL 152, CHEM 135, and BIOL 350 (or equivalents). KU's course repeat policy applies to grade-point average calculation.

Microbiology Admission GPA
Must have a grade-point average of at least 2.2 based on grades in BIOL 150, CHEM 135, and BIOL 350 (or equivalents). Microbiology admission requirements differ from those for Biochemistry, Biology, Human Biology, and Molecular Biosciences, because BIOL 152 is not required for the B.A. and B.S. degrees in microbiology. KU’s course repeat policy applies to grade-point average calculation.

Application Term
Application to the major should occur in the term in which admission requirements will be completed. If the student does not meet established admission grade-point average criteria or neglects to apply for admission in this term, she or he must petition the Undergraduate Biology Program for permission for late application. The Undergraduate Biology Program, as part of an approved petition, determines late admission requirements (including grade-point average and course requirements) and the final deadline for admission.

Majors and Concentrations
Bachelor's degree requirements in biology are modified as necessary. Current requirements are available in the UBP office and online (http://www.kuub.ku.edu). Major programs are offered in biochemistry, biology, human biology, and microbiology. Students may choose to concentrate in a range of specialties in the biological sciences, such as botany, cellular biology, developmental biology, environmental biology, ecology, entomology, genetics, marine biology, molecular biology, neurobiology, paleontology, physiology, systematics, or zoology (invertebrate or vertebrate).

Requirements for the B.A. Major in Microbiology
Course work allows students to study microbiology as part of their general education and provides a background for teachers. It also prepares students for work in medical, public health, research, and industrial laboratories; for graduate, medical, or dental school; or for the clinical laboratory sciences program.

For general requirements for the B.A. degree, see CLAS General Education Degree Requirements on the College of Liberal Arts and Sciences Degree Requirements (p. 783) page.

General Science Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 105</td>
<td>Biology Orientation Seminar</td>
</tr>
</tbody>
</table>

Principles of Molecular & Cellular Biology. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology</td>
</tr>
<tr>
<td>BIOL 151</td>
<td>Principles of Molecular and Cellular Biology, Honors</td>
</tr>
</tbody>
</table>

Principles of Genetics. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 350</td>
<td>Principles of Genetics</td>
</tr>
<tr>
<td>BIOL 360</td>
<td>Principles of Genetics, Honors</td>
</tr>
</tbody>
</table>

Chemistry I. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHEM 190</td>
<td>Foundations of Chemistry I, Honors</td>
</tr>
</tbody>
</table>

Chemistry II. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 135</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHEM 195</td>
<td>Foundations of Chemistry II, Honors</td>
</tr>
</tbody>
</table>

Organic Chemistry I. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 310</td>
<td>Fundamentals of Organic Chemistry</td>
</tr>
<tr>
<td>CHEM 330</td>
<td>Organic Chemistry I</td>
</tr>
</tbody>
</table>

Organic Chemistry I Laboratory. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 331</td>
<td>Organic Chemistry I Laboratory</td>
</tr>
</tbody>
</table>

Calculus. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 115</td>
<td>Calculus I</td>
</tr>
<tr>
<td>&amp; MATH 116</td>
<td>Calculus II</td>
</tr>
</tbody>
</table>

Physics I. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 114</td>
<td>College Physics I</td>
</tr>
<tr>
<td>PHSX 211</td>
<td>General Physics I</td>
</tr>
</tbody>
</table>

& PHSX 216 and General Physics I Laboratory

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 213</td>
<td>General Physics I Honors</td>
</tr>
</tbody>
</table>

Physics II. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 115</td>
<td>College Physics II</td>
</tr>
<tr>
<td>PHSX 212</td>
<td>General Physics II</td>
</tr>
</tbody>
</table>

& PHSX 236 and General Physics II Laboratory

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 214</td>
<td>General Physics II Honors</td>
</tr>
</tbody>
</table>

Microbiology Core Knowledge & Skills (9-10)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 400</td>
<td>Fundamentals of Microbiology</td>
</tr>
<tr>
<td>BIOL 401</td>
<td>Fundamentals of Microbiology, Honors</td>
</tr>
</tbody>
</table>

Fundamentals of Microbiology Laboratory. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 402</td>
<td>Fundamentals of Microbiology Laboratory</td>
</tr>
</tbody>
</table>

Microbial Physiology or Introductory Biochemistry. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 516</td>
<td>Microbial Physiology</td>
</tr>
</tbody>
</table>
Microbiology Electives and Laboratory Requirements (15)
Satisfied by completing 15 hours of microbiology courses, including 3 lab courses, selected from the following:

- BIOL 503 Immunology
- BIOL 504 Immunology Laboratory
- BIOL 506 Pathogenic Microbiology
- BIOL 507 Pathogenic Microbiology Laboratory
- BIOL 512 General Virology
- BIOL 513 Virology Laboratory
- BIOL 517 Microbial Physiology Laboratory
- BIOL 518 Microbial Genetics
- BIOL 519 Microbial Genetics Laboratory

Microbiology Elective (3)
Satisfied by completing 3 additional hours of BIOL courses numbered 400 or higher; to be selected in consultation with a microbiology advisor.

Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 27 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 27 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Refer to sample 4-year plans (http://kuub.ku.edu/ degrees) and meet regularly with an academic advisor.

Departmental Honors
Undergraduate majors are eligible to graduate with honors in biology if they fulfill the following requirements:

1. Complete all course work required for the appropriate degree in biology.
2. Achieve a minimum grade-point average of 3.25 overall and 3.5 in the major.
3. Complete BIOL 499 Introduction to Honors Research with a grade of B or higher.
4. Complete BIOL 699 Biology Honors Research Colloquium with a grade of B or higher.
5. Complete an independent research project under the supervision of a faculty member in an area appropriate to the degree sought.
6. Submit an honors thesis to the honors committee once the research is complete and present the results of the completed research at the honors research symposium.

Students majoring in Human Biology with Anthropology, Applied Behavioral Science, Psychology, or Speech-Language-Hearing concentrations will follow the honors requirements for their respective concentration department.

Specific guidelines and intent forms are available in the Undergraduate Biology Program office and online (http://www.kuub.ku.edu). Candidates must declare their intent to graduate with honors at least 2 semesters before graduation.

Study Abroad
Consult an advisor at least 4 months before undertaking study abroad. Consult the Office of Study Abroad (http://www.studyabroad.ku.edu), 108 Lippincott Hall, for information about study in one of the many countries (e.g., Scotland, Australia, Switzerland) with special arrangements with KU.

Bachelor of Science in Biochemistry

Why study biology?
Study biology because undergraduates should have the opportunity to explore the breadth of biology that allows them to succeed in their chosen paths beyond the university.

Undergraduate Admission

Admission to KU
All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.
First- and Second-Year Preparation

Because biology study requires preparation in other sciences, students should begin meeting major requirements in the first year. It is particularly important to take CHEM 130 and CHEM 135 in the first year and, for several majors, to take CHEM 330, CHEM 331, CHEM 335, and CHEM 336 in the second year. Ideally, most majors should also take BIOL 150 and BIOL 152 during the first year, as well as BIOL 150. Students who have taken BIOL 100 and BIOL 102, have earned an A or B in both courses, and have decided to major in a biological science should consult a UBP advisor to request permission to substitute BIOL 100 and BIOL 102 for BIOL 150.

Admission to the Major

Admission Requirements

Course Requirements

Admission course requirements for Biochemistry, Biology, Human Biology, and Molecular Biosciences

Biology Orientation Seminar (1)

Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 105</td>
<td>1</td>
</tr>
</tbody>
</table>

Principles of Molecular and Cellular Biology (4)

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 150</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 151</td>
<td></td>
</tr>
</tbody>
</table>

Principles of Organismal Biology (4)

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 152</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 153</td>
<td></td>
</tr>
</tbody>
</table>

Chemistry II (5)

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 135</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 195</td>
<td></td>
</tr>
<tr>
<td>CHEM 175</td>
<td></td>
</tr>
</tbody>
</table>

Principles of Genetics (4)

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 350</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 360</td>
<td></td>
</tr>
</tbody>
</table>

Admission course requirements for Microbiology

Biology Orientation Seminar (1)

Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 105</td>
<td>1</td>
</tr>
</tbody>
</table>

Principles of Molecular and Cellular Biology (4)

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 150</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 151</td>
<td></td>
</tr>
</tbody>
</table>

Chemistry II (5)

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 135</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 195</td>
<td></td>
</tr>
<tr>
<td>CHEM 175</td>
<td></td>
</tr>
</tbody>
</table>

Biology Admission GPA

Must have a grade-point average of at least 2.2 based on grades in BIOL 150, BIOL 152, CHEM 135, and BIOL 350 (or equivalents). KU’s course repeat policy applies to grade-point average calculation.

Microbiology Admission GPA

Must have a grade-point average of at least 2.2 based on grades in BIOL 150, CHEM 135, and BIOL 350 (or equivalents). Microbiology admission requirements differ from those for Biochemistry, Biology, Human Biology, and Molecular Biosciences, because BIOL 152 is not required for the B.A. and B.S. degrees in microbiology. KU’s course repeat policy applies to grade-point average calculation.

Application Term

Application to the major should occur in the term in which admission requirements will be completed. If the student does not meet established admission grade-point average criteria or neglects to apply for admission in this term, she or he must petition the Undergraduate Biology Program for permission for late application. The Undergraduate Biology Program, as part of an approved petition, determines late admission requirements (including grade-point average and course requirements) and the final deadline for admission.

Majors and Concentrations

Bachelor’s degree requirements in biology are modified as necessary. Current requirements are available in the UBP office and online (http://www.kuub.ku.edu). Major programs are offered in biochemistry, biology, human biology, and microbiology. Students may choose to concentrate in a range of specialties in the biological sciences, such as botany, cellular biology, developmental biology, environmental biology, ecology, entomology, genetics, marine biology, molecular biology, neurobiology, paleontology, physiology, systematics, or zoology (invertebrate or vertebrate).

Requirements for the B.S. Degree in Biochemistry

General Education Requirements

In addition to degree and major requirements, all students must complete the KU Core.

General Science Requirements (39-40)

Majors must complete the following general science requirements that serve as foundational courses for this major.

Biology Orientation Seminar. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 105</td>
<td>1</td>
</tr>
</tbody>
</table>

Chemistry I. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 170</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 130</td>
<td></td>
</tr>
<tr>
<td>CHEM 190</td>
<td></td>
</tr>
</tbody>
</table>

Chemistry II. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 175</td>
<td>5</td>
</tr>
</tbody>
</table>
CHEM 135  General Chemistry II
CHEM 195  Foundations of Chemistry II, Honors
Organic Chemistry I. Satisfied by one of the following:  3
  CHEM 330  Organic Chemistry I
  CHEM 380  Organic Chemistry I, Honors
Organic Chemistry I Laboratory. Satisfied by:
  CHEM 331  Organic Chemistry I Laboratory  2
Organic Chemistry II. Satisfied by one of the following:  3
  CHEM 335  Organic Chemistry II
  CHEM 385  Organic Chemistry II, Honors
Organic Chemistry II Laboratory. Satisfied by:
  CHEM 336  Organic Chemistry II Laboratory  2

Calculus I & II. Satisfied by:  10
  MATH 121  Calculus I
& MATH 122  and Calculus II

Physics. Satisfied by one of the following options:  8-9
  Option 1: General Physics I & II
    PHSX 211  General Physics I
    & PHSX 216  and General Physics I Laboratory
    PHSX 212  General Physics II
    & PHSX 236  and General Physics II Laboratory
  Option 2: College Physics I & II
    PHSX 114  College Physics I
    & PHSX 115  and College Physics II

Biochemistry Course Requirements (34)
Satisfied by completing 34 hours from courses below.  34
Principles of Molecular and Cellular Biology. Satisfied by one of the following:
  BIOL 150  Principles of Molecular and Cellular Biology
  BIOL 151  Principles of Molecular and Cellular Biology, Honors
Principles of Organismal Biology. Satisfied by one of the following:
  BIOL 152  Principles of Organismal Biology
  BIOL 153  Principles of Organismal Biology, Honors
Principles of Genetics. Satisfied by one of the following:
  BIOL 350  Principles of Genetics
  BIOL 360  Principles of Genetics, Honors
Biochemistry I. Satisfied by:
  BIOL 636  Biochemistry I
Introductory Biochemistry Laboratory. Satisfied by:
  BIOL 637  Introductory Biochemistry Laboratory
Biochemistry II. Satisfied by:
  BIOL 638  Biochemistry II
Advanced Biochemistry Laboratory. Satisfied by:
  BIOL 639  Advanced Biochemistry Laboratory
Gene Expression. Satisfied by:
  BIOL 672  Gene Expression
Senior Seminar in Biochemistry. Satisfied by:
  BIOL 599  Senior Seminar: _____ (Must be taken in senior year)
Analytical Chemistry. Satisfied by:
  CHEM 620  Analytical Chemistry
Analytical Chemistry Laboratory. Satisfied by:

CHEM 621  Analytical Chemistry Laboratory

CHEM 510  Biological Physical Chemistry

CHEM 530  Physical Chemistry I

Biochemistry Required Electives (12)
Satisfied by completing 12 hours of BIOL courses numbered 400 or higher, which must be selected in consultation with a Biochemistry advisor. Some suggested courses include BIOL 400/BIOL 401, BIOL 408, BIOL 416, BIOL 424, BIOL 430, BIOL 518, BIOL 688, or BIOL courses having a biochemistry course as prerequisite. No more than 3 hours of BIOL 423 Non-Lab Independent Study and/or BIOL 424 Independent Study (combined) can be applied towards the elective requirement.

Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 46 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 38 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

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Undergraduate majors are eligible to graduate with honors in biology if they fulfill the following requirements:
1. Complete all course work required for the appropriate degree in biology.
2. Achieve a minimum grade-point average of 3.25 overall and 3.5 in the major.
3. Complete BIOL 499 Introduction to Honors Research with a grade of B or higher.
4. Complete BIOL 699 Biology Honors Research Colloquium with a grade of B or higher.
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Consult an advisor at least 4 months before undertaking study abroad. Consult the Office of Study Abroad (http://www.studyabroad.ku.edu), 108 Lippincott Hall, for information about study in one of the many countries (e.g., Scotland, Australia, Switzerland) with special arrangements with KU.

**Bachelor of Science in Biology**

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**Admission to the Major**

**Admission Requirements**

**Course Requirements**

**Admission course requirements for Biochemistry, Biology, Human Biology, and Molecular Biosciences**

**Biology Orientation Seminar (1)**

Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 105</td>
<td>Biology Orientation Seminar</td>
</tr>
</tbody>
</table>

**Principles of Molecular and Cellular Biology (4)**

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology</td>
</tr>
<tr>
<td>BIOL 151</td>
<td>Principles of Molecular and Cellular Biology, Honors</td>
</tr>
</tbody>
</table>

**Principles of Organismal Biology (4)**

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 152</td>
<td>Principles of Organismal Biology</td>
</tr>
<tr>
<td>BIOL 153</td>
<td>Principles of Organismal Biology, Honors</td>
</tr>
</tbody>
</table>

**Chemistry II (5)**

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 135</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHEM 195</td>
<td>Foundations of Chemistry II, Honors</td>
</tr>
<tr>
<td>CHEM 175</td>
<td>Chemistry for the Chemical Sciences II</td>
</tr>
</tbody>
</table>

**Principles of Genetics (4)**

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 350</td>
<td>Principles of Genetics</td>
</tr>
<tr>
<td>BIOL 360</td>
<td>Principles of Genetics, Honors</td>
</tr>
</tbody>
</table>

**Admission course requirements for Microbiology**

**Biology Orientation Seminar (1)**

Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 105</td>
<td>Biology Orientation Seminar</td>
</tr>
</tbody>
</table>

**Principles of Molecular and Cellular Biology (4)**

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology</td>
</tr>
<tr>
<td>BIOL 151</td>
<td>Principles of Molecular and Cellular Biology, Honors</td>
</tr>
</tbody>
</table>

**Chemistry II (5)**

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 135</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHEM 195</td>
<td>Foundations of Chemistry II, Honors</td>
</tr>
<tr>
<td>CHEM 175</td>
<td>Chemistry for the Chemical Sciences II</td>
</tr>
</tbody>
</table>

**Principles of Genetics (4)**

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 350</td>
<td>Principles of Genetics</td>
</tr>
<tr>
<td>BIOL 360</td>
<td>Principles of Genetics, Honors</td>
</tr>
</tbody>
</table>

**Biology Admission GPA**

Must have a grade-point average of at least 2.2 based on grades in BIOL 150, BIOL 152, CHEM 135, and BIOL 350 (or equivalents). KU’s course repeat policy applies to grade-point average calculation.
The University of Kansas

Microbiology Admission GPA
Must have a grade-point average of at least 2.2 based on grades in BIOL 150, CHEM 135, and BIOL 350 (or equivalents). Microbiology admission requirements differ from those for Biochemistry, Biology, Human Biology, and Molecular Biosciences, because BIOL 152 is not required for the B.A. and B.S. degrees in microbiology. KU’s course repeat policy applies to grade-point average calculation.

Application Term
Application to the major should occur in the term in which admission requirements will be completed. If the student does not meet established admission grade-point average criteria or neglects to apply for admission in this term, she or he must petition the Undergraduate Biology Program for permission for late application. The Undergraduate Biology Program, as part of an approved petition, determines late admission requirements (including grade-point average and course requirements) and the final deadline for admission.

Majors and Concentrations
Bachelor’s degree requirements in biology are modified as necessary. Current requirements are available in the UBP office and online (http://www.kuub.ku.edu). Major programs are offered in biochemistry, biology, human biology, and microbiology. Students may choose to concentrate in a range of specialties in the biological sciences, such as botany, cellular biology, developmental biology, environmental biology, ecology, entomology, genetics, marine biology, molecular biology, neurobiology, paleontology, physiology, systematics, or zoology (invertebrate or vertebrate).

Requirements for the B.S. Degree in Biology

General Education Requirements
In addition to degree and major requirements for all plans and subplans, all students must complete the KU Core.

Ecology, Evolution, and Organismal Biology

General Science Requirements (31-33)
 Majors must complete the following general science requirements that serve as foundational courses for this major.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 105</td>
<td>Biology Orientation Seminar</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 190</td>
<td>Foundations of Chemistry I, Honors</td>
<td></td>
</tr>
<tr>
<td>CHEM 135</td>
<td>General Chemistry II</td>
<td></td>
</tr>
<tr>
<td>CHEM 195</td>
<td>Foundations of Chemistry II, Honors</td>
<td></td>
</tr>
<tr>
<td>CHEM 310</td>
<td>Fundamentals of Organic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 330</td>
<td>Organic Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHEM 380</td>
<td>Organic Chemistry I, Honors</td>
<td></td>
</tr>
<tr>
<td>BIOL 600</td>
<td>Introductory Biochemistry, Lectures</td>
<td></td>
</tr>
</tbody>
</table>

Calculus. Satisfied by one of the following: 5-6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 115</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MATH 116</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MATH 121</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MATH 141</td>
<td>Calculus I: Honors</td>
<td></td>
</tr>
</tbody>
</table>

Physics I. Satisfied by one of the following: 4-5

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 114</td>
<td>College Physics I</td>
<td></td>
</tr>
<tr>
<td>PHSX 211</td>
<td>General Physics I</td>
<td></td>
</tr>
<tr>
<td>PHSX 216</td>
<td>General Physics I Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHSX 213</td>
<td>General Physics I Honors</td>
<td></td>
</tr>
</tbody>
</table>

Physics II. Satisfied by one of the following: 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 115</td>
<td>College Physics II</td>
<td></td>
</tr>
<tr>
<td>PHSX 212</td>
<td>General Physics II</td>
<td></td>
</tr>
<tr>
<td>PHSX 236</td>
<td>General Physics II Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHSX 214</td>
<td>General Physics II Honors</td>
<td></td>
</tr>
</tbody>
</table>

Ecology, Evolution, and Organismal Biology Requirements (29)
Satisfied by completing 29 hours from courses below. These additional science courses are included in the Ecology, Evolution, and Organismal Biology major hours and GPA calculations.

Principles of Molecular & Cellular Biology. Satisfied by one of the following: 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology</td>
<td></td>
</tr>
<tr>
<td>BIOL 151</td>
<td>Principles of Molecular and Cellular Biology, Honors</td>
<td></td>
</tr>
</tbody>
</table>

Principles of Organismal Biology. Satisfied by one of the following: 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 152</td>
<td>Principles of Organismal Biology</td>
<td></td>
</tr>
<tr>
<td>BIOL 153</td>
<td>Principles of Organismal Biology, Honors</td>
<td></td>
</tr>
</tbody>
</table>

Principles of Genetics. Satisfied by one of the following: 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 350</td>
<td>Principles of Genetics</td>
<td></td>
</tr>
<tr>
<td>BIOL 360</td>
<td>Principles of Genetics, Honors</td>
<td></td>
</tr>
</tbody>
</table>

Physiology of Organisms. Satisfied by:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 408</td>
<td>Physiology of Organisms</td>
<td></td>
</tr>
</tbody>
</table>

Evolutionary Biology. Satisfied by:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 412</td>
<td>Evolutionary Biology</td>
<td></td>
</tr>
</tbody>
</table>

Principles of Ecology. Satisfied by:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 414</td>
<td>Principles of Ecology</td>
<td></td>
</tr>
<tr>
<td>BIOL 514</td>
<td>Principles of Ecology, Honors</td>
<td></td>
</tr>
</tbody>
</table>

History & Diversity of Organisms / Systematics. Satisfied by one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 413</td>
<td>History and Diversity of Organisms</td>
<td></td>
</tr>
<tr>
<td>BIOL 428</td>
<td>Introduction to Systematics</td>
<td></td>
</tr>
</tbody>
</table>

Introduction to Biostatistics. Satisfied by:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 570</td>
<td>Introduction to Biostatistics</td>
<td></td>
</tr>
</tbody>
</table>

Senior Seminar in EEOB. Satisfied by:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 599</td>
<td>Senior Seminar: _____ (in EEOB. Must be taken in senior year.)</td>
<td></td>
</tr>
</tbody>
</table>

Ecology, Evolution, and Organismal Biology Required Electives, Laboratory, and Seminar (18)
Satisfied by completing 18 hours of BIOL courses numbered 400 or higher, including at least 4 hrs of lab credit and 2 hrs of seminar/topics course (BIOL 419, BIOL 420, BIOL 499, BIOL 701). No more than 5 hrs of BIOL 423 Non-Lab Independent Study and/or BIOL 424 Independent Study (combined) can by applied to the elective requirement, with no more than 2 hrs of BIOL 424 being applied to the laboratory requirement. The Undergraduate Biology Program must approve exceptions to these elective requirements.

Laboratory. Satisfied by completing at least 4 hrs of laboratory courses. No more than 2 hrs of BIOL 424 can count toward lab requirement.

Seminar. Satisfied by completing at least 2 hrs of the following seminar or topics course:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 419</td>
<td>Topics in: _____</td>
</tr>
<tr>
<td>BIOL 420</td>
<td>Seminar: _____</td>
</tr>
<tr>
<td>BIOL 499</td>
<td>Introduction to Honors Research</td>
</tr>
<tr>
<td>BIOL 701</td>
<td>Topics in: _____</td>
</tr>
</tbody>
</table>

**Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**

Satisfied by 47 hours of major courses.

**Major Hours in Residence**

Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**

Satisfied by a minimum of 39 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Molecular, Cellular, and Developmental Biology**

**General Science Requirements (32-34)**

Majors must complete the following general science requirements that serve as foundational courses for this major.

**Biology Orientation Seminar. Satisfied by:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 105</td>
<td>Biology Orientation Seminar</td>
</tr>
</tbody>
</table>

Chemistry I. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHEM 190</td>
<td>Foundations of Chemistry I, Honors</td>
</tr>
</tbody>
</table>

Chemistry II. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 135</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHEM 195</td>
<td>Foundations of Chemistry II, Honors</td>
</tr>
</tbody>
</table>

Organic Chemistry I. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 330</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>CHEM 380</td>
<td>Organic Chemistry I, Honors</td>
</tr>
</tbody>
</table>

Organic Chemistry I Laboratory. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 331</td>
<td>Organic Chemistry I Laboratory</td>
</tr>
</tbody>
</table>

Organic Chemistry II. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 335</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>CHEM 385</td>
<td>Organic Chemistry II, Honors</td>
</tr>
</tbody>
</table>

**Calculus. Satisfied by one of the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH 115 &amp; MATH 116</td>
<td>Calculus I and Calculus II</td>
</tr>
<tr>
<td>MATH 141</td>
<td>Calculus I: Honors</td>
</tr>
</tbody>
</table>

**Statistics. Satisfied by one of the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 570</td>
<td>Introduction to Biostatistics</td>
</tr>
<tr>
<td>MATH 365</td>
<td>Elementary Statistics</td>
</tr>
<tr>
<td>PSYC 210</td>
<td>Statistics in Psychological Research</td>
</tr>
</tbody>
</table>

**Physics I. Satisfied by one of the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 114</td>
<td>College Physics I</td>
</tr>
<tr>
<td>PHSX 211 &amp; PHSX 216</td>
<td>General Physics I Laboratory</td>
</tr>
<tr>
<td>PHSX 213</td>
<td>General Physics I Honors</td>
</tr>
</tbody>
</table>

**Physics II. Satisfied by one of the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 115</td>
<td>College Physics II</td>
</tr>
<tr>
<td>PHSX 212 &amp; PHSX 236</td>
<td>General Physics II Laboratory</td>
</tr>
<tr>
<td>PHSX 214</td>
<td>General Physics II Honors</td>
</tr>
</tbody>
</table>

**Molecular, Cellular, and Developmental Biology Requirements (39-40)**

Satisfied by completing courses below. These additional science courses are included in the MCDB major hours and GPA calculations.

**Principles of Molecular & Cellular Biology. Satisfied by one of the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology</td>
</tr>
<tr>
<td>BIOL 151</td>
<td>Principles of Molecular and Cellular Biology, Honors</td>
</tr>
</tbody>
</table>

**Principles of Organismal Biology. Satisfied by one of the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 152</td>
<td>Principles of Organismal Biology</td>
</tr>
<tr>
<td>BIOL 153</td>
<td>Principles of Organismal Biology, Honors</td>
</tr>
</tbody>
</table>

**Principles of Genetics. Satisfied by one of the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 350</td>
<td>Principles of Genetics</td>
</tr>
<tr>
<td>BIOL 360</td>
<td>Principles of Genetics, Honors</td>
</tr>
</tbody>
</table>

**Evolutionary Biology. Satisfied by:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 412</td>
<td>Evolutionary Biology</td>
</tr>
</tbody>
</table>

**Laboratory in Genetics / Cell Biology / Developmental Biology. Satisfied by one of the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 405</td>
<td>Laboratory in Genetics</td>
</tr>
<tr>
<td>BIOL 426</td>
<td>Laboratory in Cell Biology</td>
</tr>
<tr>
<td>BIOL 427</td>
<td>Developmental Biology Laboratory</td>
</tr>
</tbody>
</table>

**Cell Structure and Function. Satisfied by:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 416</td>
<td>Cell Structure and Function</td>
</tr>
<tr>
<td>or BIOL 536</td>
<td>Cell Structure and Function (Honors)</td>
</tr>
</tbody>
</table>

**Biology of Development. Satisfied by:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 417</td>
<td>Biology of Development</td>
</tr>
</tbody>
</table>

**Introduction to Neurobiology. Satisfied by:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 435</td>
<td>Introduction to Neurobiology</td>
</tr>
</tbody>
</table>

**Senior Seminar in MCDB. Satisfied by:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 599</td>
<td>Senior Seminar: _____ (in MCDB. Must be taken in senior year.)</td>
</tr>
</tbody>
</table>

**Introductory Biochemistry. Satisfied by:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 600</td>
<td>Introductory Biochemistry</td>
</tr>
</tbody>
</table>
Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**

Satisfied by 47-48 hours of major courses.

**Major Hours in Residence**

Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**

Satisfied by a minimum of 39 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Teaching Biology

**General Science Requirements (29-31)**

Majors must complete the following general science requirements that serve as foundational courses for this major.

- Biology Orientation Seminar. Satisfied by:
  - BIOL 105 Biology Orientation Seminar
  - CHEM 130 General Chemistry I
  - CHEM 190 Foundations of Chemistry I, Honors
- Chemistry I. Satisfied by one of the following:
  - CHEM 135 General Chemistry II
  - CHEM 195 Foundations of Chemistry II, Honors
- Organic Chemistry I. Satisfied by one of the following:
  - CHEM 310 Fundamentals of Organic Chemistry
  - CHEM 330 Organic Chemistry I
  - CHEM 380 Organic Chemistry I, Honors
- Organic Chemistry I Laboratory. Satisfied by:
  - CHEM 331 Organic Chemistry I Laboratory
- Calculus. Satisfied by one of the following:
  - MATH 115 Calculus I
  - MATH 116 Calculus II
  - MATH 121 Calculus I
- Physics I. Satisfied by one of the following:
  - PHSX 114 College Physics I
  - PHSX 211 & PHSX 216 General Physics I
  - PHSX 213 General Physics I Honors

**Teaching Biology Course Requirements (32-33)**

Satisfied by completing 32-33 hours of course work below.

- Principles of Molecular & Cellular Biology. Satisfied by one of the following:
  - BIOL 150 Principles of Molecular and Cellular Biology
  - BIOL 151 Principles of Molecular and Cellular Biology, Honors
- Principles of Organismal Biology. Satisfied by one of the following:
  - BIOL 152 Principles of Organismal Biology
  - BIOL 153 Principles of Organismal Biology, Honors
- Principles of Genetics. Satisfied by one of the following:
  - BIOL 350 Principles of Genetics
  - BIOL 360 Principles of Genetics, Honors
- Evolutionary Biology. Satisfied by:
  - BIOL 412 Evolutionary Biology
  - Principles of Ecology. Satisfied by:
  - BIOL 414 Principles of Ecology
- Cell Structure & Function. Satisfied by one of the following:
  - BIOL 416 Cell Structure and Function
  - BIOL 536 Cell Structure and Function (Honors)
- Research Methods. Satisfied by:
  - BIOL 428 Research Methods
  - Senior Seminar. Satisfied by:
  - BIOL 599 Senior Seminar: _____ (must be taken in senior year)

**Teaching Biology Required Electives and Laboratory (7)**

Satisfied by 7 hours of BIOL courses numbered 400 or higher which include at least 4 hours of laboratory credit. Courses listed above which have not been used to fulfill the above requirements may be used as electives. No more than 3 hours of BIOL 423 Non-Lab Independent Study and/or BIOL 424 Independent Study (combined) can be applied towards the elective requirement with no more than 2 hours of BIOL 424 being applied towards the laboratory requirement.

- Laboratory. Satisfied by completing a minimum of 4 hours of biology laboratory courses numbered 400 or higher. Some course limits apply, including no more than 2 hours of BIOL 423/Biol 424 allowed toward Lab requirement.

- Physics II. Satisfied by one of the following:
  - BIOL 426 Physical Physics II
  - BIOL 426 & BIOL 428 Physical Physics II Laboratory
  - BIOL 428 Physical Physics II Honors

- Molecular, Cellular, and Developmental Biology Required Electives (12)

Satisfied by any BIOL courses numbered 400 or higher; no more than 3 hrs of BIOL 423 Non-Lab Independent Study and/or BIOL 424 Independent Study (combined) can be used to fulfill the elective requirement.
Teaching Biology Elective. Satisfied by completing a minimum of 3 hours of BIOL courses numbered 400 or higher. No more than 3 hours of BIOL 423/BIOL 424 allowed toward Elective requirement.

### Graduation with Distinction or Highest Distinction

The top 10 percent of each year’s graduating class is designated as graduating with distinction. Of these, the top one-third is designated as graduating with highest distinction. To be eligible, students must have completed at least 60 credit hours, graded A through F, in residence at KU. See Required Work in Residence below.

### Graduation with Departmental Honors

Most departments and programs allow qualified majors to work toward graduation with departmental honors. Graduation with departmental honors is awarded in recognition of exceptional performance in the major, completion of a program of independent research or an alternative project, and a strong overall academic record.

In addition to the requirements of individual departments and programs (which must be approved by the College committee on undergraduate studies and advising), the College requires the following for graduation with departmental honors:

1. Candidates must declare the intention to work for departmental honors with the appropriate departmental honors coordinator(s) no later than the time of enrollment for the final undergraduate semester, but sooner if required by the department(s). Copies of the intent form should be returned to College Student Academic Services.

2. At the end of the final undergraduate semester, the candidate must have achieved an overall grade-point average of at least 3.25 and a grade-point average of at least 3.5 in the major. Both overall and major grade-point averages include work completed at other institutions, as well as at KU. No minimum grade-point average is required to declare candidacy for graduation with departmental honors unless specified by the department.

3. Each candidate’s departmental honors work must include independent research or an acceptable alternative project. The results of research are presented in a form appropriate to the requirements of the major department. Equivalents to the independent research component are established by approved departmental honors programs. In courses meeting the independent research requirement, the candidate must earn a grade of B or higher. Successful completion of all departmental honors requirements must be certified to the departmental honors coordinator(s) by a panel composed of at least three members of the College faculty who have read the report of the independent research and heard the oral presentation, where required.

### Petitions

A department or program may petition to award graduation with departmental honors to deserving students who, for good reason, do not meet every College and departmental requirement. Send petitions to the committee on undergraduate studies and advising, College Student Academic Services (http://clas.ku.edu/undergrad).
University Honors Program

The University Honors Program (http://www.honors.ku.edu) provides opportunities for outstanding and creative undergraduate students in all schools at KU to develop their full potential during their undergraduate years. The Honors Program brings talented students together in honors classes and seminars to benefit from mutual interests and association. It brings students and faculty members together in a teaching and research environment that ensures high academic achievement and standards. The program also coordinates merit-based scholarship opportunities for qualified students, including KU awards such as the University Scholars Program, and Undergraduate Research Awards. The Honors Student Association and the Honors Ambassador Program provide opportunities for student leadership.

In general, honors classes are small, oriented to discussion, and taught by full-time members of the faculty. Most honors courses fulfill requirements and deal with introductory fundamentals and principles, but they are likely to do so in more depth than their non-honors equivalents. Honors courses are distinguished by the energetic atmosphere and critical thinking generated by the students in them and the faculty members who teach them.

Honors students are interested in expanding their knowledge and take a broad range of liberal arts and sciences courses. This is true of students in the professional schools (architecture, engineering, business, etc.) as well as students in the College of Liberal Arts and Sciences. Honors program advisors typically recommend that students explore their interests through the broad curriculum choices KU has to offer.

A first-year, semester-long tutorial experience provides an introduction to an academic area of study in an informal setting that allows students to get to know one another and the instructor. The tutorial explores the research methods of a discipline and acquaints the student with the research resources at KU. Honors advising is personalized in meetings with honors staff, faculty fellows, and specially selected advisors from across the university. The program’s advising committee facilitates early and frequent contact with academic advisors in the students’ areas of interest. Honors students benefit from priority enrollment, which provides flexibility in planning one’s academic curriculum.

The program does not require a minimum number of honors courses a semester. However, students in the program quickly discover that honors courses engage the intellect, hold the interest, and create the enthusiasm for learning they seek at a university. Students in the professional schools are particularly encouraged to seek out honors course opportunities early, while their curricula still have breadth and flexibility.

Honors students are strongly encouraged to include research, study abroad experiences, internships, and community service in their academic programs. Consult Honors Program staff about applying these activities toward completion of honors requirements.

Admission

Students with strong high school curricula and excellent academic records are encouraged to apply to the University Honors Program. Admission is highly competitive. Although no ACT/SAT composite score or high school grade-point average guarantees that a student will or will not be admitted to the University Honors Program, this year’s average ACT composite for accepted students is 32.4, and the average unweighted GPA for an accepted student is 3.96. Applications are evaluated on the basis of high school curriculum, grades, an essay, activities, and standardized test scores. Applications from first- and second-year students currently attending KU, as well as incoming transfer students, are evaluated on the basis of college course work, an essay, and college activities. Review of applications begins in October and continues through April. Send inquiries to the University Honors Program, 1506 Engel Road, Lawrence, KS 66045-3845. View further information and the online application (http://www.honors.ku.edu).

Completion of the Program

Students graduate from the program by completing 8 honors units and the first-year, semester-long tutorial. The 8 units must be completed as follows:

1. 6 honors courses (may include graduate-level courses numbered 700 and above).
2. 1 out-of-classroom experience such as study abroad, departmental honors, documented research experience, approved and documented internship experience, or approved and documented community service.
3. The eighth unit may be from either category 1 or category 2.

Students also must maintain a minimum 3.25 grade-point average.

Nunemaker Center

This unique building, with its modern architectural design, is the home of the Honors Program, near the Daisy Hill residence halls at 15th Street and Engel Road. The Honors Program is home to several faculty fellows who serve the program and bring additional resources to the program to complement the full-time staff. Faculty fellows are available for advising, consultation about majors and careers, guiding research projects, and work with the Honors Council to develop programmatic initiatives.

Students are encouraged to take advantage of the spaces available at Nunemaker, including several classrooms and study areas, a kitchen, comfortable lounges that include 2 fireplaces, and wireless Internet access. Nunemaker also serves as a gallery for undergraduate art. The center is open days and evenings.

View Honors courses in the online catalog.

Departmental Honors

Undergraduate majors are eligible to graduate with honors in biology if they fulfill the following requirements:

1. Complete all course work required for the appropriate degree in biology.
2. Achieve a minimum grade-point average of 3.25 overall and 3.5 in the major.
3. Complete BIOL 499 Introduction to Honors Research with a grade of B or higher.
4. Complete BIOL 699 Biology Honors Research Colloquium with a grade of B or higher.
5. Complete an independent research project under the supervision of a faculty member in an area appropriate to the degree sought.
6. Submit an honors thesis to the honors committee once the research is complete and present the results of the completed research at the honors research symposium.
Students majoring in Human Biology with Anthropology, Applied Behavioral Science, Psychology, or Speech-Language-Hearing concentrations will follow the honors requirements for their respective concentration department.

Specific guidelines and intent forms are available in the Undergraduate Biology Program office and online (http://www.kuub.ku.edu). Candidates must declare their intent to graduate with honors at least 2 semesters before graduation.

Study Abroad
Consult an advisor at least 4 months before undertaking study abroad. Consult the Office of Study Abroad (http://www.studyabroad.ku.edu), 108 Lippincott Hall, for information about study in one of the many countries (e.g., Scotland, Australia, Switzerland) with special arrangements with KU.

Bachelor of Science in Microbiology
Why study biology?
Study biology because undergraduates should have the opportunity to explore the breadth of biology that allows them to succeed in their chosen paths beyond the university.

Undergraduate Admission
Admission to KU
All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences
Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

First- and Second-Year Preparation
Because biology study requires preparation in other sciences, students should begin meeting major requirements in the first year. It is particularly important to take CHEM 130 and CHEM 135 in the first year and, for several majors, to take CHEM 330, CHEM 331, CHEM 335, and CHEM 336 in the second year. Ideally, most majors should also take BIOL 150 and BIOL 152 during the first year, as well as BIOL 105. Students who have taken BIOL 100 and BIOL 102, have earned an A or B in both courses, and have decided to major in a biological science should consult a UBP advisor to request permission to substitute BIOL 100 and BIOL 102 for BIOL 150.

Admission to the Major
Admission Requirements
Course Requirements
Admission course requirements for Biochemistry, Biology, Human Biology, and Molecular Biosciences
Biology Orientation Seminar (1)
Satisfied by:
BIOL 105  Biology Orientation Seminar 1
Principles of Molecular and Cellular Biology (4)
Satisfied by one of the following:
BIOL 150  Principles of Molecular and Cellular Biology
BIOL 151  Principles of Molecular and Cellular Biology, Honors

Principles of Organismal Biology (4)
Satisfied by one of the following:
BIOL 152  Principles of Organismal Biology
BIOL 153  Principles of Organismal Biology, Honors
Chemistry II (5)
Satisfied by one of the following:
CHEM 135  General Chemistry II
CHEM 195  Foundations of Chemistry II, Honors
CHEM 175  Chemistry for the Chemical Sciences II
Principles of Genetics (4)
Satisfied by one of the following:
BIOL 350  Principles of Genetics
BIOL 360  Principles of Genetics, Honors

Admission course requirements for Microbiology
Biology Orientation Seminar (1)
Satisfied by:
BIOL 105  Biology Orientation Seminar 1
Principles of Molecular and Cellular Biology (4)
Satisfied by one of the following:
BIOL 150  Principles of Molecular and Cellular Biology
BIOL 151  Principles of Molecular and Cellular Biology, Honors
Chemistry II (5)
Satisfied by one of the following:
CHEM 135  General Chemistry II
CHEM 195  Foundations of Chemistry II, Honors
CHEM 175  Chemistry for the Chemical Sciences II
Principles of Genetics (4)
Satisfied by one of the following:
BIOL 350  Principles of Genetics
BIOL 360  Principles of Genetics, Honors
Biology Admission GPA

Must have a grade-point average of at least 2.2 based on grades in BIOL 150, BIOL 152, CHEM 135, and BIOL 350 (or equivalents). KU’s course repeat policy applies to grade-point average calculation.

Microbiology Admission GPA

Must have a grade-point average of at least 2.2 based on grades in BIOL 150, CHEM 135, and BIOL 350 (or equivalents). Microbiology admission requirements differ from those for Biochemistry, Biology, Human Biology, and Molecular Biosciences, because BIOL 152 is not required for the B.A. and B.S. degrees in microbiology. KU’s course repeat policy applies to grade-point average calculation.

Application Term

Application to the major should occur in the term in which admission requirements will be completed. If the student does not meet established admission grade-point average criteria or neglects to apply for admission in this term, she or he must petition the Undergraduate Biology Program for permission for late application. The Undergraduate Biology Program, as part of an approved petition, determines late admission requirements (including grade-point average and course requirements) and the final deadline for admission.

Majors and Concentrations

Bachelor’s degree requirements in biology are modified as necessary. Current requirements are available in the UBP office and online (http://www.kuub.ku.edu). Major programs are offered in biochemistry, biology, human biology, and microbiology. Students may choose to concentrate in a range of specialties in the biological sciences, such as botany, cellular biology, developmental biology, environmental biology, ecology, entomology, genetics, marine biology, molecular biology, neurobiology, paleontology, physiology, systematics, or zoology (invertebrate or vertebrate).

Requirements for the B.S. Degree in Microbiology

General Education Requirements

In addition to degree and major requirements, all students must complete the KU Core.

Microbiology Course Requirements

<table>
<thead>
<tr>
<th>General Science Requirements (51-53)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Majors must complete 51-53 hours of the following general science requirements that serve as foundational courses for this major.</td>
</tr>
<tr>
<td>Biology Orientation Seminar. Satisfied by:</td>
</tr>
<tr>
<td>BIOL 105</td>
</tr>
<tr>
<td>Molecular &amp; Cellular Biology. Satisfied by one of the following:</td>
</tr>
<tr>
<td>BIOL 150</td>
</tr>
<tr>
<td>BIOL 151</td>
</tr>
<tr>
<td>Principles of Genetics. Satisfied by one of the following:</td>
</tr>
<tr>
<td>BIOL 350</td>
</tr>
<tr>
<td>BIOL 360</td>
</tr>
<tr>
<td>Chemistry I. Satisfied by one of the following:</td>
</tr>
<tr>
<td>CHEM 130</td>
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<tr>
<td>CHEM 190</td>
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<tr>
<td>CHEM 135</td>
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<tr>
<td>CHEM 195</td>
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<tr>
<td>CHEM 330</td>
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<tr>
<td>CHEM 380</td>
</tr>
<tr>
<td>Organic Chemistry I Laboratory. Satisfied by:</td>
</tr>
<tr>
<td>CHEM 331</td>
</tr>
<tr>
<td>Organic Chemistry II. Satisfied by one of the following:</td>
</tr>
<tr>
<td>CHEM 335</td>
</tr>
<tr>
<td>CHEM 385</td>
</tr>
<tr>
<td>Organic Chemistry II Laboratory. Satisfied by:</td>
</tr>
<tr>
<td>CHEM 336</td>
</tr>
<tr>
<td>Physics. Satisfied by one of the following:</td>
</tr>
<tr>
<td>Option 1: College Physics</td>
</tr>
<tr>
<td>PHSX 114  &amp; PHSX 115</td>
</tr>
<tr>
<td>Option 2: General Physics</td>
</tr>
<tr>
<td>PHSX 211  &amp; PHSX 216</td>
</tr>
<tr>
<td>PHSX 212  &amp; PHSX 236</td>
</tr>
<tr>
<td>Calculus. Satisfied by one of the following:</td>
</tr>
<tr>
<td>MATH 115  &amp; MATH 116</td>
</tr>
<tr>
<td>MATH 121</td>
</tr>
<tr>
<td>Statistics. Satisfied by one of the following:</td>
</tr>
<tr>
<td>BIOL 570</td>
</tr>
<tr>
<td>MATH 365</td>
</tr>
<tr>
<td>PSYC 210</td>
</tr>
<tr>
<td>Biochemistry I. Satisfied by:</td>
</tr>
<tr>
<td>BIOL 636</td>
</tr>
<tr>
<td>Biochemistry II. Satisfied by:</td>
</tr>
<tr>
<td>BIOL 638</td>
</tr>
</tbody>
</table>

Microbiology Course Requirements (29)

Satisfied by completing 29 hours from the following courses:

<table>
<thead>
<tr>
<th>Fundamentals of Microbiology. Satisfied by one of the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 400</td>
</tr>
<tr>
<td>BIOL 401</td>
</tr>
<tr>
<td>Fundamentals of Microbiology Laboratory. Satisfied by:</td>
</tr>
<tr>
<td>BIOL 402</td>
</tr>
<tr>
<td>Cell Structure &amp; Function. Satisfied by one of the following:</td>
</tr>
<tr>
<td>BIOL 416</td>
</tr>
<tr>
<td>or BIOL 536</td>
</tr>
<tr>
<td>Immunology. Satisfied by:</td>
</tr>
<tr>
<td>BIOL 503</td>
</tr>
<tr>
<td>Immunology Laboratory. Satisfied by:</td>
</tr>
<tr>
<td>BIOL 504</td>
</tr>
<tr>
<td>Pathogenic Microbiology. Satisfied by:</td>
</tr>
<tr>
<td>BIOL 506</td>
</tr>
<tr>
<td>Pathogenic Microbiology Laboratory. Satisfied by:</td>
</tr>
<tr>
<td>BIOL 507</td>
</tr>
</tbody>
</table>
General Virology. Satisfied by:
BIOL 512 General Virology 3
Virology Laboratory. Satisfied by:
BIOL 513 Virology Laboratory 2
Microbial Genetics. Satisfied by:
BIOL 518 Microbial Genetics 3
Microbial Genetics Laboratory. Satisfied by:
BIOL 519 Microbial Genetics Laboratory 2
Senior Seminar - Current Progress in Microbiology. Satisfied by:
BIOL 599 Senior Seminar: _____ (Must be taken in senior year) 1

Microbiology Required Electives (6)
Satisfied by completing 6 hours of BIOL courses numbered 400 or higher, which must be selected in consultation with a microbiology advisor.

Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 35 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 35 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Departmental Honors
Undergraduate majors are eligible to graduate with honors in biology if they fulfill the following requirements:

1. Complete all course work required for the appropriate degree in biology.
2. Achieve a minimum grade-point average of 3.25 overall and 3.5 in the major.
3. Complete BIOL 499 Introduction to Honors Research with a grade of B or higher.
4. Complete BIOL 699 Biology Honors Research Colloquium with a grade of B or higher.
5. Complete an independent research project under the supervision of a faculty member in an area appropriate to the degree sought.
6. Submit an honors thesis to the honors committee once the research is complete and present the results of the completed research at the honors research symposium.

Students majoring in Human Biology with Anthropology, Applied Behavioral Science, Psychology, or Speech-Language-Hearing concentrations will follow the honors requirements for their respective concentration department.

Specific guidelines and intent forms are available in the Undergraduate Biology Program office and online (http://www.kuub.ku.edu). Candidates must declare their intent to graduate with honors at least 2 semesters before graduation.

Study Abroad
Consult an advisor at least 4 months before undertaking study abroad. Consult the Office of Study Abroad (http://www.studyabroad.ku.edu), 108 Lippincott Hall, for information about study in one of the many countries (e.g., Scotland, Australia, Switzerland) with special arrangements with KU.

Bachelor of Science in Molecular Biosciences

Why study biology?
Study biology because undergraduates should have the opportunity to explore the breadth of biology that allows them to succeed in their chosen paths beyond the university.

Undergraduate Admission

Admission to KU
All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences
Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

First- and Second-Year Preparation
Because biology study requires preparation in other sciences, students should begin meeting major requirements in the first year. It is particularly important to take CHEM 130 and CHEM 135 in the first year and, for several majors, to take CHEM 330, CHEM 331, CHEM 335, and CHEM 336 in the second year. Ideally, most majors should also take BIOL 150 and BIOL 152 during the first year, as well as BIOL 105. Students who have taken BIOL 100 and BIOL 102, have earned an A or B in both courses, and have decided to major in a biological science should consult a UBP advisor to request permission to substitute BIOL 100 and BIOL 102 for BIOL 150.
Admission to the Major

Admission Requirements

Course Requirements

Admission course requirements for Biochemistry, Biology, Human Biology, and Molecular Biosciences

Biology Orientation Seminar (1)
Satisfied by:
BIOL 105 Biology Orientation Seminar 1

Principles of Molecular and Cellular Biology (4)
Satisfied by one of the following:
BIOL 150 Principles of Molecular and Cellular Biology
BIOL 151 Principles of Molecular and Cellular Biology, Honors

Principles of Organismal Biology (4)
Satisfied by one of the following:
BIOL 152 Principles of Organismal Biology
BIOL 153 Principles of Organismal Biology, Honors

Chemistry II (5)
Satisfied by one of the following:
CHEM 135 General Chemistry II
CHEM 195 Foundations of Chemistry II, Honors
CHEM 175 Chemistry for the Chemical Sciences II

Principles of Genetics (4)
Satisfied by one of the following:
BIOL 350 Principles of Genetics
BIOL 360 Principles of Genetics, Honors

Admission course requirements for Microbiology

Biology Orientation Seminar (1)
Satisfied by:
BIOL 105 Biology Orientation Seminar 1

Principles of Molecular and Cellular Biology (4)
Satisfied by one of the following:
BIOL 150 Principles of Molecular and Cellular Biology
BIOL 151 Principles of Molecular and Cellular Biology, Honors

Chemistry II (5)
Satisfied by one of the following:
CHEM 135 General Chemistry II
CHEM 195 Foundations of Chemistry II, Honors
CHEM 175 Chemistry for the Chemical Sciences II

Principles of Genetics (4)
Satisfied by one of the following:
BIOL 350 Principles of Genetics
BIOL 360 Principles of Genetics, Honors

Microbiology Admission GPA

Must have a grade-point average of at least 2.2 based on grades in BIOL 150, CHEM 135, and BIOL 350 (or equivalents). Microbiology admission requirements differ from those for Biochemistry, Biology, Human Biology, and Molecular Biosciences, because BIOL 152 is not required for the B.A. and B.S. degrees in microbiology. KU’s course repeat policy applies to grade-point average calculation.

Application Term

Application to the major should occur in the term in which admission requirements will be completed. If the student does not meet established admission grade-point average criteria or neglects to apply for admission in this term, she or he must petition the Undergraduate Biology Program for permission for late application. The Undergraduate Biology Program, as part of an approved petition, determines late admission requirements (including grade-point average and course requirements) and the final deadline for admission.

Molecular Biosciences

KU Edwards Campus

The undergraduate program in molecular biosciences is offered in its entirety only at the KU Edwards Campus (http://edwardscampus.ku.edu), 12600 Quivira Rd., Overland Park, KS 66213. This program is designed for students who have earned an associate’s degree or equivalent hours and wish to complete the upper-level courses necessary for a bachelor’s degree.

Requirements for the B.S. Degree in Molecular Biosciences

The program offers students a strong background in genetics, microbiology, cell biology, and biochemistry, as well as laboratory skills in genetics and microbiology. Graduates have entered medical school, dental school, and graduate school with high success rates. Contact the CLAS undergraduate advisor on the Edwards Campus, Dan Mueller, dmueller@ku.edu, 864-8659 (from Lawrence) or 913-897-8659 (outside of Lawrence) for more information.

General Education Requirements

In addition to degree and major requirements, all students must complete the KU Core.

General Science Requirements (32-34)

Majors must complete the following general science requirements that serve as foundational courses for this major.

Biology Orientation Seminar. Satisfied by:
BIOL 105 Biology Orientation Seminar 1
Chemistry I. Satisfied by one of the following:
CHEM 130 General Chemistry I
CHEM 190 Foundations of Chemistry I, Honors
Chemistry II. Satisfied by one of the following:
CHEM 135 General Chemistry II
CHEM 195 Foundations of Chemistry II, Honors
Organic Chemistry I. Satisfied by one of the following:
CHEM 330 Organic Chemistry I
CHEM 380 Organic Chemistry I, Honors
Organic Chemistry I Laboratory. Satisfied by:
CHEM 331 Organic Chemistry I Laboratory 2

Organic Chemistry II. Satisfied by one of the following:
CHEM 335 Organic Chemistry II
CHEM 385 Organic Chemistry II, Honors

Calculus. Satisfied by one of the following:
MATH 115 Calculus I
MATH 116 and Calculus II
MATH 121 Calculus I

Physics. Satisfied by one of the following:
PHSX 114 College Physics I
& PHSX 115 and College Physics II

Option 1: College Physics
PHSX 211 General Physics I
& PHSX 216 and General Physics I Laboratory

Option 2: General Physics
PHSX 212 General Physics II
& PHSX 236 and General Physics II Laboratory

Molecular Biosciences Course Requirements (34)
Molecular & Cellular Biology. Satisfied by:
BIOL 150 Principles of Molecular and Cellular Biology 4
or BIOL 151 Principles of Molecular and Cellular Biology, Honors

Principles of Organismal Biology. Satisfied by:
BIOL 152 Principles of Organismal Biology 4
or BIOL 153 Principles of Organismal Biology, Honors

Principles of Genetics. Satisfied by:
BIOL 350 Principles of Genetics 4
or BIOL 360 Principles of Genetics, Honors

Fundamentals of Microbiology. Satisfied by:
BIOL 400 Fundamentals of Microbiology 3
or BIOL 401 Fundamentals of Microbiology, Honors

Fundamentals of Microbiology Laboratory. Satisfied by:
BIOL 402 Fundamentals of Microbiology Laboratory 2

Laboratory in Genetics. Satisfied by:
BIOL 405 Laboratory in Genetics 2

Cell Structure & Function. Satisfied by:
BIOL 416 Cell Structure and Function 3
or BIOL 536 Cell Structure and Function (Honors)

Molecular Biology Laboratory. Satisfied by:
BIOL 430 Laboratory in Molecular Biology 3

Introduction to Biostatistics. Satisfied by:
BIOL 570 Introduction to Biostatistics 3

Introductory Biochemistry. Satisfied by:
BIOL 600 Introductory Biochemistry, Lectures 4

Principles of Biochemistry Laboratory. Satisfied by:
BIOL 601 Principles of Biochemistry Laboratory 2

Senior Seminar in Molecular Biosciences (1)
Satisfied by:
BIOL 599 Senior Seminar: _____ (Must be taken in senior year. Offered only at the Edwards Campus.) 1

Molecular Bioscience Required Electives (12)
Satisfied by completing 12 hours of BIOL courses numbered 400 or higher, including at least 2 hours of a seminar/topics course (BIOL 419, BIOL 420, BIOL 421, BIOL 701). No more than 3 hours of BIOL 423 Non-Lab Independent Study and/or BIOL 424 Independent Study (combined) can be applied towards the elective requirement. Seminar. Satisfied by completing at least 2 hours of the following seminar or topics courses:
BIOL 419 Topics in:______
BIOL 421 Topics in Molecular Biosciences:______
BIOL 420 Seminar:______
BIOL 701 Topics in:______

Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 47 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 39 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Departmental Honors
Undergraduate majors are eligible to graduate with honors in biology if they fulfill the following requirements:

1. Complete all course work required for the appropriate degree in biology.
2. Achieve a minimum grade-point average of 3.25 overall and 3.5 in the major.
3. Complete BIOL 499 Introduction to Honors Research with a grade of B or higher.
4. Complete BIOL 699 Biology Honors Research Colloquium with a grade of B or higher.
5. Complete an independent research project under the supervision of a faculty member in an area appropriate to the degree sought.
6. Submit an honors thesis to the honors committee once the research is complete and present the results of the completed research at the honors research symposium.

Students majoring in Human Biology with Anthropology, Applied Behavioral Science, Psychology, or Speech-Language-Hearing concentrations will follow the honors requirements for their respective concentration department.

Specific guidelines and intent forms are available in the Undergraduate Biology Program office and online (http://www.kuub.ku.edu). Candidates must declare their intent to graduate with honors at least 2 semesters before graduation.
Study Abroad
Consult an advisor at least 4 months before undertaking study abroad. Consult the Office of Study Abroad (http://www.studyabroad.ku.edu), 108 Lippincott Hall, for information about study in one of the many countries (e.g., Scotland, Australia, Switzerland) with special arrangements with KU.

Department of Chemistry

Why study chemistry?
Because understanding the atomic and molecular nature of matter informs us about ourselves and our universe, and creating and finding applications for new and modified forms of matter helps to conserve and enhance our world.

Undergraduate Programs
Chemistry course work educates undergraduates to become professional chemists or to do graduate work in chemistry. It also provides the basic chemistry background for students entering such fields as biochemistry, biological sciences, dentistry, engineering, environmental science, geology, medicine, pharmacy, physics, and secondary-level science education. Courses in chemistry provide general knowledge and appreciation of chemistry and its impact on society.

Advanced Placement
Students who have taken the Advanced Placement Examination in chemistry should have the results forwarded to the Office of Admissions (http://admissions.ku.edu). Students who score 5 need not take CHEM 130 and CHEM 135 and receive 10 hours of credit. With departmental permission, those who score 3 or 4 receive credit for CHEM 130. Credit for CHEM 135 also may be given to those who pass a special examination. Students who score at least 50 on the College Level Examination Program general chemistry examination receive 5 hours of credit in CHEM 110.

Courses for Nonmajors
Undergraduates taking chemistry as preparatory study for another field should consult the courses listed for that field in this catalog. CHEM 100 and CHEM 110 are introductory courses for the nonscience major who wants to study the general principles, methods, role, and significance of chemistry in the modern world, for prenursing students, and for students who plan to take no additional courses in chemistry. Premedical students and chemistry or other science majors should not take CHEM 100 or CHEM 110. CHEM 100 is lecture only. CHEM 110 includes a laboratory. Engineering students who need only one semester of chemistry should take CHEM 150. CHEM 130 is an introductory course for students who plan to take more than one year of college chemistry, including chemical engineering, premedical, prepharmacy, and predental students and students in biological sciences who must take organic chemistry. Students should continue with CHEM 135 in the same academic year that they take CHEM 130.

Graduate Programs
The department’s graduate program, its Ph.D. program in particular, produces graduates with the basic knowledge, skills, and experimental training necessary to enter productive careers in academic, industrial, and government positions. Faculty and graduate students work collegially, not only in the search for new knowledge at the frontiers of chemistry, but also toward the solution of problems of fundamental societal concern.

Although the department believes it is essential to provide graduate students with a knowledge base spanning the traditional areas of analytical, inorganic, organic, and physical chemistry, it nurtures its particular strengths in several important research areas at the interface of chemistry and the biological/medical sciences. The Department of Chemistry at KU is a worldwide leader in graduate training and research in bioanalytical chemistry, and its additional interactions with the pharmaceutical and biological sciences have led to strong graduate research programs in diverse areas such as bio-inorganic, bio-organic, and biophysical chemistry.

The department also recognizes its central science role by maintaining strong research and Ph.D. programs in areas that interface closely with molecular biosciences, physics, chemical engineering, mathematics, and computer science, for example, in drug discovery, theoretical chemistry, materials, molecular modeling, and laser spectroscopy. The entering Ph.D. student can be assured of finding vigorous programs spanning a full range of chemical studies, and the graduating Ph.D. student can be equally confident that his or her training and skills are marketable commodities.

The department’s M.S. program is a traditional companion to the Ph.D. program and shares the same goals. It is encouraged for students who prefer a program with less depth and a research (thesis) project that is manageable in 2 to 4 semesters. Although most entering graduate students choose the Ph.D.—the most desirable degree for those who wish to work as independent scientists in academic, industrial, or institutional settings—the M.S. serves a useful and essential role for students with other ambitions.

Research support facilities include the Biochemical Research Service Laboratory, Instrumentation Design Laboratory, Mass Spectrometry Laboratory, Molecular Graphics and Modeling Laboratory, Nuclear Magnetic Resonance Laboratory, X-ray Crystallography Laboratory, and Glassblowing Shop. Anschutz Library contains more than 300,000 books and periodicals spanning the fields of chemistry, biochemistry, physics, geology, and pharmacy.

Courses
CHEM 100. Chemistry in Context: ______. 3 Hours. NP GE3N / N.
An introduction to chemistry that focuses on basic chemical principles, designed for students with no previous background in chemistry. This course promotes the development of chemical literacy within a context that encourages an appreciation of the role and significance of chemistry in the modern world. Not intended for students who need to fulfill a specific chemistry requirement as part of their degree program. LEC.

CHEM 110. Introductory Chemistry. 5 Hours. NP GE3N / N.
This integrated lecture and laboratory course provides an introduction to basic concepts related to general, organic, and biological chemistry. Suitable for students seeking an introductory course and for students who are majoring in health and allied health fields. Students whose majors require more than one semester of chemistry should enroll in CHEM 130, CHEM 170, or CHEM 190. CHEM 110 and CHEM 150 cannot both be taken for credit. LEC.

CHEM 130. General Chemistry I. 5 Hours. NP GE12/GE3N / N.
This course seeks to develop a working knowledge of the conceptual foundation and the quantitative chemical relationships on which subsequent chemistry courses are built. Atomic structure, chemical
bonding, reaction stoichiometry, thermochemistry, and periodic trends are emphasized in this integrated lecture and laboratory course. Students pursuing or considering a major in one of the chemical sciences should strongly consider taking CHEM 170 or CHEM 190. Students with credit in CHEM 110 will have two hours added on to their total number of hours required for graduation. Prerequisite: Must be eligible for MATH 115. LEC.

CHEM 135. General Chemistry II. 5 Hours. GE12/GE3N / N.
This course, which is a continuation of CHEM 130, focuses on chemical kinetics, chemical equilibrium, acid-base chemistry, and thermodynamics. Additional topics, such as environmental chemistry, electrochemistry, coordination chemistry, nuclear chemistry, organic chemistry, and/or polymers, may also be introduced in this integrated lecture and laboratory course. Students pursuing or considering a major in one of the chemical sciences should strongly consider taking CHEM 175 or CHEM 195. Prerequisite: CHEM 130, CHEM 170 or CHEM 190. LEC.

CHEM 150. Chemistry for Engineers. 5 Hours. GE12/GE3N / N.
This one semester course is designed for students in the School of Engineering who are not required to take additional chemistry courses at the college level. Topics covered in this integrated lecture and laboratory course include quantum theory, atomic structure, chemical bonding, solids, liquids, gases, thermodynamics, equilibrium, acids and bases, kinetics, polymer chemistry, and materials science. The application of these concepts to engineering problems and practices is emphasized. Prerequisite: Must have completed a course in high school chemistry and be eligible for MATH 121 (or have Departmental consent). Students not admitted to the School of Engineering must receive permission from instructor. CHEM 110 and CHEM 150 cannot both be taken for credit. LEC.

CHEM 170. Chemistry for the Chemical Sciences I. 5 Hours. GE12/GE3N / N.
The first course in a two-semester sequence focused on the principles and applications of modern chemistry. This integrated lecture and laboratory course is designed for students pursuing or considering a major in one of the chemical sciences (such as chemistry, biochemistry, chemical engineering or petroleum engineering). The CHEM 170/CHEM 175 course sequence covers the same general topics as CHEM 130/CHEM 135, but with an increased emphasis on modern applications of chemistry. Students with credit in CHEM 110 will have two hours added on to their total number of hours required for graduation. Prerequisite: Eligibility for MATH 115. LEC.

CHEM 175. Chemistry for the Chemical Sciences II. 5 Hours. N.
An integrated lecture and laboratory course which is a continuation of CHEM 170. Prerequisite: CHEM 130, CHEM 170 or CHEM 190. LEC.

CHEM 177. First Year Seminar: _______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Chemistry. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

CHEM 180. Seminar I. 0.5 Hours. U.
Special topics for chemistry majors such as using the chemical literature, educational and professional perspectives, scientific ethics, and undergraduate research opportunities. It is recommended that students take this half-semester course in their freshman or sophomore year. Prerequisite: A declared major in chemistry or consent of instructor. LEC.

CHEM 190. Foundations of Chemistry I, Honors. 5 Hours. NP GE12/GE3N / N.
This integrated lecture and laboratory course, which is designed for qualified and motivated students having a strong interest in chemistry, provides a more thorough treatment of the concepts and topics covered in CHEM 130 and CHEM 170. It is anticipated that students in CHEM 190 plan to take more than one year of chemistry at the college level. Students with credit in CHEM 110 will have two hours added on to their total number of hours required for graduation. Prerequisite: high-school chemistry and calculus; at least one of the following: (a) acceptance into the KU Honors Program, (b) an AP exam score in chemistry of 3 or higher, (c) a mathematics ACT score of 28 or higher; or permission of instructor. LEC.

CHEM 195. Foundations of Chemistry II, Honors. 5 Hours. GE12/GE3N / N.
A course designed for qualified and motivated students with strong interest in chemistry to provide a more thorough treatment of the concepts and topics of advanced general chemistry. It is anticipated that the students in CHEM 195 have completed CHEM 190 or excelled in CHEM 130 or CHEM 170. Prerequisite: Membership in the University Honors Program, CHEM 130, CHEM 170 or CHEM 190, or consent of the department. LEC.

CHEM 309. History of Chemistry. 3 Hours. H.
Birth of modern chemical science from roots in Greek natural philosophy, alchemy, Renaissance medicine and technology. The Chemical Revolution of Lavoisier and Dalton. Maturity of chemistry in the 19th and 20th centuries, along with an examination of growth of chemical institutions and the rise of chemical industry. Emphasis on developments from the 18th century to the present. (Same as HIST 309.) LEC.

CHEM 310. Fundamentals of Organic Chemistry. 3 Hours. GE3N / N.
A study of the structures and reactions of important classes of organic compounds. Along with the organic laboratory, CHEM 331, this course will fulfill the needs of students requiring a single semester of organic chemistry. Students requiring more than one semester of organic chemistry should enroll in CHEM 330. Prerequisite: CHEM 135, CHEM 175 or CHEM 195. LEC.

CHEM 330. Organic Chemistry I. 3 Hours. GE3N / N.
A study of the structure and reactivity of selected classes of organic compounds. CHEM 330 is the first course of a two-semester sequence. Students who require only one semester of organic chemistry should enroll in CHEM 310. Students with credit in CHEM 310 will have two hours added on to their total number of hours required for graduation. Prerequisite: CHEM 135, CHEM 175 or CHEM 195. LEC.

CHEM 331. Organic Chemistry I Laboratory. 2 Hours. U.
Emphasis on basic techniques for the preparation, separation, and purification of organic compounds. Required for a major in chemistry and by those departments and programs specifying a complete undergraduate organic chemistry course. Prerequisite or corequisite: CHEM 310 or CHEM 330 or CHEM 380. LAB.

CHEM 335. Organic Chemistry II. 3 Hours. N.
A continuation of CHEM 330, intended for students who want further training in organic chemistry. Prerequisite: CHEM 330 or CHEM 380. LEC.

CHEM 336. Organic Chemistry II Laboratory. 2 Hours. U.
More advanced organic laboratory techniques with emphasis on modern spectroscopic methods for determining the structure and purity of organic compounds. Prerequisite: CHEM 331. Prerequisite or corequisite: CHEM 335 or CHEM 385. LAB.

CHEM 380. Organic Chemistry I, Honors. 3 Hours. GE3N / N.
This is the first half of a two-semester sequence in organic chemistry for students with strong records in previous chemistry courses and who are planning or considering a major in a chemistry-related field. The content is similar to that of CHEM 330 but with coverage in greater depth and
more emphasis on developing problem-solving skills. Students requiring only one semester of organic chemistry should not enroll in this course but take CHEM 310. Students with credit in CHEM 310 who take and complete CHEM 380 will have two hours added to their total number of credit hours required for graduation. Prerequisite: CHEM 135, CHEM 175 or CHEM 195 and membership in the University Honors Program or consent of instructor. LEC.

CHEM 385. Organic Chemistry II, Honors. 3 Hours. N.
This is the second course in a two-semester sequence in organic chemistry for students with strong records in previous chemistry courses and who are planning or considering a major in chemistry or in a chemistry-related field. The content is similar to that of CHEM 335 but with coverage in greater depth and more emphasis on developing problem-solving skills. Prerequisite: CHEM 330 or CHEM 380 and membership in the University Honors Program, or consent of instructor. LEC.

CHEM 450. Directed Readings/Laboratory in Chemistry. 1-3 Hours. N.
Individual and supervised study or laboratory work on special topics or problems in chemistry. Prerequisite: Ten hours of chemistry and a minimum overall grade-point average of 2.0 or consent of department. IND.

CHEM 510. Biological Physical Chemistry. 3 Hours. N.
A one semester course, designed particularly for biology, biochemistry, and premedical students, which surveys the fundamentals of physical chemistry. The basic principles of thermodynamics, chemical kinetics, quantum chemistry, and spectroscopy will be introduced, and their application to aqueous solutions and biochemical systems will be emphasized. Prerequisite: One semester of organic chemistry, two semesters of calculus, and two semesters of physics. LEC.

CHEM 511. Biological Physical Chemistry Laboratory. 2 Hours. AE61 / U.
A course particularly for biology, biochemistry, and premedical students. Experiments in physical chemistry illustrating the fundamental principles of quantum mechanics, spectroscopy, thermodynamics, and kinetics as applied to chemical systems. Prerequisite: CHEM 510. LAB.

CHEM 530. Physical Chemistry I. 3 Hours. N.
An introduction to the basic principles of quantum mechanics, atomic and molecular structure, molecular rotations and vibrations, group theory, spectroscopy, and statistical mechanics. Prerequisite: CHEM 135, CHEM 175 or CHEM 195; PSXS 211 and PSXS 212; MATH 121, MATH 122 and MATH 220 or MATH 320; and completion of, or concurrent enrollment in MATH 290 or consent of instructor. LEC.

CHEM 531. Physical Chemistry I Laboratory. 2 Hours. U.
Experiments in physical chemistry, with emphasis on the fundamental principles of quantum mechanics and spectroscopy as applied to chemical systems. Prerequisite: CHEM 530. LAB.

CHEM 535. Physical Chemistry II. 4 Hours. N.
Emphasizes the thermodynamics of molecular systems with application to the structure and properties of gases, liquids, solids, materials, statistical thermodynamics, chemical kinetics, and reaction dynamics. Prerequisite: CHEM 530 and MATH 290 or consent of instructor. LEC.

CHEM 536. Physical Chemistry II Laboratory. 2 Hours. U.
Experiments in physical chemistry, with emphasis on the fundamental principles of chemical thermodynamics and kinetics. Prerequisite: CHEM 535 or consent of instructor. LEC.

CHEM 598. Research Methods. 3 Hours. N.
An introduction for pre-service teachers to the tools used by scientists to solve scientific problems. Topics include design of experiments and interpretation of their results, use of statistics, mathematical modeling, laboratory safety, ethical treatment of human subjects, writing scientific papers, giving oral presentations, and obtaining data from the scientific literature. Open only to students in the UKanTeach program. LEC.

CHEM 620. Analytical Chemistry. 3 Hours. N.
Principles of analytical chemistry with emphasis on the fundamental reactions used for chemical analysis. Topics include chemical equilibria in acid/base, complexation, separations, and redox systems, data analysis, potentiometry and spectrophotometry. Prerequisite: One semester of organic chemistry and organic chemistry laboratory, CHEM 535 or CHEM 510 (or concurrent enrollment in CHEM 510), or permission of instructor. Corequisite: CHEM 621. LEC.

CHEM 621. Analytical Chemistry Laboratory. 2 Hours. U.
Experiments illustrate fundamental principles of chemical analysis methods. The course serves as an introduction to advanced instrumental methods of analysis. Prerequisite: One semester of organic chemistry and organic chemistry laboratory, CHEM 535 or CHEM 510 (or concurrent enrollment in CHEM 510), or permission of instructor. Corequisite: CHEM 620. LAB.

CHEM 635. Instrumental Methods of Analysis. 2 Hours. U.
Theory and application of instrumental methods to modern analytical problems. Topics covered include atomic and molecular spectroscopy, electrochemistry, mass spectrometry, and separations. Prerequisite: CHEM 620 and CHEM 621 and one semester of physical chemistry laboratory, or permission of instructor. Corequisite: CHEM 636. LEC.

CHEM 636. Instrumental Methods of Analysis Laboratory. 2 Hours. AE61 / U.
Theory and application of instrumental methods to modern analysis problems. Experiments covered in this capstone laboratory course include atomic and molecular spectroscopy, electrochemistry, and separation methods. Prerequisite: CHEM 620 and CHEM 621, and one semester of physical chemistry laboratory; or permission of instructor. Corequisite: CHEM 635. LAB.

CHEM 660. Systematic Inorganic Chemistry. 3 Hours. N.
A systematic study of the elements and their compounds, emphasizing the relationship between properties of substances and their atomic and molecular structures and the positions of the elements in the periodic systems. Prerequisite: CHEM 510 or CHEM 530. LEC.

CHEM 661. Advanced Inorganic Laboratory. 2 Hours. U.
Experiments concerning the synthesis and characterization of inorganic compounds. Prerequisite: CHEM 660 or concurrent enrollment in CHEM 660. LAB.

CHEM 668. Topics in Chemistry: . 1-5 Hours. N.
Courses on special topics in chemistry, given as the need arises. Course may be repeated for different topics. Prerequisite: 20 hours of Chemistry. Each section may have additional prerequisites to be determined by the instructor. LEC.

CHEM 695. Seminar II. 0.5 Hours. U.
Special topics and presentations by students and faculty in areas of current interest such as recent advancements in chemistry, professional development, societal issues facing chemists, and reports of ongoing research. This half-semester course is recommended for seniors. Prerequisite: CHEM 180. LEC.

CHEM 698. Undergraduate Research Problems. 1-6 Hours. AE61 / N.
May be repeated to accumulate a maximum of 10 credit hours. An undergraduate research course, in any of the fields of chemistry, consisting of either experimental work or the preparation of an extensive paper based on library investigation of a selected topic. A final report must be submitted to the department at the end of the semester. Open by
permission of the department to those with at least 20 hours of chemistry. IND.

CHEM 699. Undergraduate Honors Research. 2-6 Hours. AE61 / N. To be taken two semesters for a total of no more than 8 hours. An undergraduate research course, in any of the fields of chemistry. At the completion of the research, a written thesis, and an oral presentation will be required. Prerequisite: Admission to Chemistry Honors Program. IND.

CHEM 700. Responsible Scholarship in the Chemical Sciences. 1 Hour. A course for beginning graduate students with particular emphasis on scholarship issues relevant to the chemical sciences. Topics will include scientific ethics, codes of conduct, record keeping, authorship, and the responsibilities of a scientist. Group discussions, particularly centered around case studies, will be a significant component of the course. LEC.

CHEM 701. Laboratory Safety in the Chemical Sciences. 1 Hour. A course for beginning graduate students focusing on chemical safety in modern laboratories. The course will feature practical instruction in lab safety, an introduction to safety resources, and group discussions centered around case studies. LEC.

CHEM 718. Mathematical Methods in Physical Sciences. 3 Hours. Review of all complex variable theory; introduction to the partial differential equations of physics; Fourier analysis; and special functions of mathematical physics. (Same as PHSX 718.) Prerequisite: Two semesters of junior-senior mathematics. LEC.

CHEM 720. Fundamentals and Methods of Analytical Chemistry. 3 Hours. An introductory graduate level course in analytical chemistry, in which the principles of electrochemistry, spectroscopy, and separation science are utilized to solve analytical problems in inorganic, organic and biochemistry. Prerequisite: An undergraduate course in analytical chemistry and one semester of physical chemistry or concurrent enrollment. LEC.

CHEM 730. Coordination and Organometallic Chemistry. 3 Hours. An examination of the basic foundations of coordination chemistry and organometallic chemistry including symmetry methods, bonding, magnetism, and reaction mechanisms. Prerequisite: Two semesters of organic chemistry and one semester of physical chemistry in which quantum chemistry is introduced. The latter course may be taken concurrently with CHEM 730. LEC.

CHEM 740. Principles of Organic Reactions. 3 Hours. A consideration of the structural features and driving forces that control the course of chemical reactions. Topics will include acid and base properties of functional groups; qualitative aspects of strain, steric, inductive, resonance, and solvent effects on reactivity; stereo-chemistry and conformations; an introduction to orbital symmetry control; basic thermodynamic and kinetic concepts; and an overview of some important classes of mechanisms. Prerequisite: Two semesters of undergraduate organic and one semester of physical chemistry or concurrent enrollment. LEC.

CHEM 742. Spectroscopic Identification of Organic Compounds. 3 Hours. The use of techniques such as infrared, nuclear magnetic resonance, and ultraviolet spectroscopy, and mass spectrometry for elucidating the structure of organic molecules. A lecture and workshop course. Prerequisite: CHEM 626 and CHEM 627. LEC.

CHEM 750. Introduction to Quantum Mechanics. 3 Hours. An introduction to the basic principles of quantum theory relevant to atomic and molecular systems. Topics include operators and operator algebra, matrix theory, eigenvalue problems, postulates of quantum mechanics, the Schrodinger equation, angular momentum, electronic structure, molecular vibrations, approximation methods, group theory, and the foundations of spectroscopy. Prerequisite: Two semesters of physical chemistry. LEC.

CHEM 760. Introduction to Chemistry in Biology. 3 Hours. A comprehensive introduction to the application of chemistry to address problems in biology at the molecular level. The fundamentals of biomolecules (nucleic acids, proteins, lipids and carbohydrates) and techniques of chemical biology research will be discussed. LEC.

CHEM 775. Chemistry of the Nervous System. 3 Hours. A study of the overall concept of central nervous system functioning. A brief introduction to neuroanatomy and neurophysiological techniques as well as a relatively detailed discussion of the chemistry of neurotransmitters is included. (Same as BIOL 775, MDCM 775, NURO 775, PTX 775, and PHCH 775.) Prerequisite: One year of undergraduate organic chemistry. LEC.

CHEM 800. Research. 1-10 Hours. Original investigation on the graduate level. RSH.

CHEM 810. Colloquium: _____. 1 Hour. Colloquia on various topics of current interest are presented by students, faculty, and visiting scientists. LEC.

CHEM 812. Chemical Seminar. 1-3 Hours. Individual studies of certain advanced phases of chemistry not covered in the regular graduate courses. IND.

CHEM 820. Analytical Separations. 3 Hours. An advanced treatment of analytical separations techniques. The theory of separation science will be augmented with discussion of practical aspects of instrumentation and experiment design. Prerequisite: CHEM 720. LEC.

CHEM 822. Electrochemical Analysis. 3 Hours. An advanced treatment of selected electroanalytical techniques and methodology. Prerequisite: CHEM 720. LEC.

CHEM 824. Spectrochemical Methods of Analysis. 3 Hours. General concepts of encoding chemical information as electromagnetic radiation; major instrumental systems for decoding, interpretation, and presentation of the radiation signals; atomic emission, absorption, and fluorescence; ultraviolet, visible, infrared, and microwave absorption; molecular luminescence; scattering methods; mass spectrometry; magnetic resonance; automated spectrometric systems. Prerequisite: CHEM 720. LEC.

CHEM 826. Mass Spectrometry. 3 Hours. An introduction to mass spectrometry. The various ionization techniques and mass analyzers will be discussed, and many examples of different mass spectrometric applications will be introduced. Prerequisite: CHEM 720. LEC.

CHEM 828. Bioanalysis. 3 Hours. A course covering important aspects in modern chemical measurement with particular emphasis placed on bioanalysis. This course will survey the modern analytical challenges associated with the ongoing efforts in genomics and proteomics and discuss future trends in methods in instrumentation. Prerequisite: CHEM 720. LEC.

CHEM 830. Structure, Bonding and Spectroscopic Methods in Inorganic Chemistry. 3 Hours. An introduction of quantum and group theories in relation to bonding and physicochemical properties of inorganic substances. Topics include vibrational and electronic spectroscopies, magnetism, and inorganic photochemistry. Prerequisite: CHEM 730. LEC.
CHEM 832. Inorganic Reaction Mechanisms and Catalysis. 3 Hours.
Mechanistic aspects of transition metal chemistry including substitution reactions, electron transfer reactions, rearrangement reactions, ligand reactions and inorganic photochemistry. Principles and applications of heterogeneous and homogeneous catalytic processes emphasizing catalysis at transition metal centers. Prerequisite: CHEM 730. LEC.

CHEM 840. Physical Organic Chemistry. 3 Hours.
An examination of the methods used to probe the mechanisms of organic reactions and of the chemistry of some important reactive intermediates. Topics will include isotope effects, kinetics, linear free energy relationships, solvent effects, a continuing discussion of orbital symmetry, rearrangements, carbocations, carbanions, carbenes, radicals, excited states, and strained molecules. Prerequisite: CHEM 740. LEC.

CHEM 842. Organic Synthesis I. 3 Hours.
A discussion of fundamental reactions for the formation of carbon-carbon bonds, oxidation, reduction, and functional group interchange. Prerequisite: CHEM 740. LEC.

CHEM 844. Problem Solving in Organic Chemistry. 1 Hour.
A course designed to develop a student's ability to apply fundamental concepts of mechanistic organic and organometallic chemistry, physical organic chemistry, bioorganic chemistry, synthetic organic reactions and techniques for structure elucidation. Students will propose solutions to practice problems mimicking challenges that arise in contemporary research in organic chemistry. The format includes interactive problem-solving discussions led by faculty and peers and monthly written examinations. May be repeated up to three times until the student has passed at least four of the written exams. Graded on a Satisfactory/ Unsatisfactory basis. Prerequisite: CHEM 740 or permission of instructor. SEM.

CHEM 850. Advanced Quantum Mechanics. 3 Hours.
The advanced mathematical and physical principles of quantum mechanics relevant to atomic and molecular systems. Topics may include abstract vector spaces and representations, time-dependent quantum dynamics, electronic structure theory, density matrices, second-quantization, advanced group theory, path integrals, and scattering theory. Prerequisite: CHEM 750 or its equivalent. LEC.

CHEM 852. Statistical Thermodynamics. 3 Hours.
Thermodynamics and introduction to equilibrium statistical mechanics with emphasis on problems of chemical interest. The course consists of two roughly equal parts: 1) An advanced overview of the laws and concepts of thermodynamics with application to specific problems in phase and chemical equilibria and 2) An introduction to equilibrium statistical mechanics for both classical and quantum systems. Prerequisite: CHEM 750 or its equivalent. LEC.

CHEM 854. Chemical Kinetics and Dynamics. 3 Hours.
A study of the rates, mechanisms, and dynamics of chemical reactions in gases and liquids. Topics include an advanced overview of classical kinetics, reaction rate theories (classical collision theory, transition-state theory and introductory scattering theory), potential energy surfaces, molecular beam reactions, photochemistry, Marcus electron transfer theory and other areas of current interest. Prerequisite: CHEM 750 or its equivalent. LEC.

CHEM 856. Molecular Spectroscopy. 3 Hours.
Quantitative molecular spectroscopy and its chemical applications. The basic principles of the molecular energy levels, selection rules and spectral transition intensities will be discussed and applied to rotational, vibrational, electronic, and nuclear magnetic spectroscopy. Linear and nonlinear spectroscopies will be addressed. Prerequisite: CHEM 750 or its equivalent. LEC.

CHEM 899. Master's Thesis. 1-10 Hours.
Research work (either experimental or theoretical) in chemistry for students working toward the M.S. degree. Graded on a satisfactory/unsatisfactory basis. THE.

CHEM 900. Advanced Research. 1-10 Hours.
Original investigation in chemistry at the graduate level. Graded on satisfactory/unsatisfactory basis. Prerequisite: Advancement to doctoral candidacy. RSH.

CHEM 914. Computational Methods in Physical Sciences. 3 Hours.
Advanced computer applications in physical science. General discussion and illustration of problem organization and solution by numerical and other methods with examples from physics, astronomy, and other physical sciences. Students will design, write, validate, and document a computer program to solve a physical problem. (Same as ASTR 815 and PHSX 815.) Prerequisite: Six hours of computer science courses numbered 300 or above, and six hours of physics and/or astronomy courses numbered 300 or above. LEC.

CHEM 930. Bioinorganic Chemistry. 3 Hours.
A survey of metalloproteins and metalloenzymes, their structures and functions, including recent advances in biomimetic modeling, small molecule activation in biological systems, and related physical methods. Prerequisite: CHEM 832. LEC.

CHEM 942. Organic Synthesis II. 3 Hours.
A survey of important techniques in organic chemistry with respect to scope, limitations, mechanism, and stereochemistry. Emphasis will be placed on new synthetic methods and application of such methods to the synthesis of structurally interesting compounds, particularly natural products. Prerequisite: CHEM 842. LEC.

CHEM 950. Advanced Statistical Mechanics. 3 Hours.
Advanced equilibrium statistical mechanics and introduction to nonequilibrium statistical mechanics. Topics include: the theory of liquids, critical phenomena linear response theory and time correlation functions, Langevin dynamics, and molecular hydrodynamics. (Same as PHSX 971.) Prerequisite: CHEM 909 or equivalent. LEC.

CHEM 970. College Teaching Experience in Chemistry. 3 Hours.
A student will engage in a semester-long, planned instructional activity that shall include college classroom teaching under the supervision of a chemistry department faculty member. Prerequisite: Two semesters as a graduate teaching assistant. LEC.

CHEM 980. Advanced Topics in Chemistry: ______. 2-3 Hours.
A course covering special advanced topics in chemistry not included in other graduate courses. One or more topics will be covered in a given semester and an announcement of the course content and prerequisites will be made at the end of the previous semester. This course may be taken more than once when the topic varies. LEC.

CHEM 999. Doctoral Dissertation. 1-10 Hours.
Research work (either experimental or theoretical) in chemistry for students working toward the Ph.D. degree. Graded on a satisfactory/unsatisfactory basis. THE.

Bachelor of Arts in Chemistry

Why study chemistry?
Because understanding the atomic and molecular nature of matter informs us about ourselves and our universe, and creating and finding applications for new and modified forms of matter helps to conserve and enhance our world.
Undergraduate Admission

Admission to KU

All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

Chemistry Programs

The B.A. degree is for the student who wants to understand the fundamental principles of chemistry and to study a number of other fields. The B.S. degree prepares students for graduate school and professional careers. Both are based on a high school background that includes at least 1½ years of algebra and 1 year of geometry. High school courses in chemistry and physics are desirable but are not required. Many chemistry majors are preparing for medical school or for graduate study in chemistry and related fields. For graduate school, the common body of knowledge in the B.A. program is the minimum prerequisite. For premedical students, much of the knowledge will be important in their careers. Even more important, however, is the training in logical thinking, drawing conclusions from experimental observations, and digesting and understanding scientific information.

First- and Second-Year Preparation

Because study in chemistry requires preparation in mathematics and physics as well as a structured series of courses in chemistry, students should begin meeting major requirements in the first year. Students planning to major in chemistry should consult a chemistry department major advisor during their first semester to develop a 4-year plan for degree completion. It is particularly important to take CHEM 170 (or CHEM 130 or CHEM 190) and CHEM 175 (or CHEM 135 or CHEM 195) in the first year and CHEM 330 (or CHEM 380) and CHEM 331 in the second year. For those seeking a B.A. degree, it is also important to complete two semesters of calculus and two semesters of physics during the first two years. Minimum requirements in these subject areas for the B.A. degree are MATH 115, MATH 116, PHSX 114, PHSX 115.

Requirements for the B.A. Major

In addition to the common College requirements for the B.A., a minimum of 29 hours in chemistry (including 5 hours each of analytical, organic, and physical chemistry lecture and laboratory) and one year each of calculus and physics (prerequisites for physical chemistry) are required. These courses fulfill the requirements:

Chemistry Courses (29)

Select one of the following: 5
CHEM 170 Chemistry for the Chemical Sciences I
CHEM 130 General Chemistry I
CHEM 190 Foundations of Chemistry I, Honors

Select one of the following: 5
CHEM 175 Chemistry for the Chemical Sciences II
CHEM 135 General Chemistry II
CHEM 195 Foundations of Chemistry II, Honors
CHEM 180 Seminar I 0.5

Select one of the following: 3
CHEM 310 Fundamentals of Organic Chemistry
CHEM 330 Organic Chemistry I
or CHEM 380 Organic Chemistry I, Honors
CHEM 331 Organic Chemistry I Laboratory 2

Select one of the following: 5
CHEM 510 Biological Physical Chemistry
& CHEM 511 and Biological Physical Chemistry Laboratory
CHEM 530 Physical Chemistry I
& CHEM 531 and Physical Chemistry I Laboratory
CHEM 620 Analytical Chemistry 3
CHEM 621 Analytical Chemistry Laboratory 2
CHEM 695 Seminar II 0.5

Additional chemistry course 3

Mathematics and Physics (14-19)

MATH 115 Calculus I 3-5
or MATH 121 Calculus I
MATH 116 Calculus II 3-5
or MATH 122 Calculus II
PHSX 114 College Physics I 4-5
or PHSX 211 General Physics I
& PHSX 216 and General Physics I Laboratory
PHSX 115 College Physics II 4
or PHSX 212 General Physics II
& PHSX 236 and General Physics II Laboratory

Courses that fulfill the additional 3 hours for the major are CHEM 335 (or CHEM 385) Organic Chemistry II, CHEM 635 and CHEM 636 Instrumental Methods of Analysis and Laboratory, CHEM 535 Physical Chemistry II, or CHEM 660 Systematic Inorganic Chemistry. Note that CHEM 535 has CHEM 530, MATH 220, and MATH 290 as prerequisites. Students in premedical programs should be aware that a year of organic chemistry lecture and laboratory (CHEM 330 or CHEM 380, CHEM 331, CHEM 335 or CHEM 385, and CHEM 336) is required for admission to virtually all medical schools. Students who need only 1 semester of organic chemistry should substitute CHEM 310 (the 1-semester organic chemistry lecture course) for CHEM 330, when possible.
Environmental Chemistry Option

This option is available to students who plan to use their chemistry background in environmentally related areas. The additional courses required provide background in other environmental sciences as well as further exposure to important methods used in environmental laboratories.

In addition to all of the requirements for the regular B.A. major, the following courses are required:

- CHEM 335 Organic Chemistry II ¹
- or CHEM 385 Organic Chemistry II, Honors
- CHEM 336 Organic Chemistry II Laboratory
- CHEM 635 Instrumental Methods of Analysis
- CHEM 636 Instrumental Methods of Analysis Laboratory
- Plus 2 electives (6) (In consultation with a faculty major advisor, choose two courses from those listed in Environmental Chemistry Option Group I or Environmental Chemistry Option Group II below.)

Environmental Chemistry Option Group I

- BIOL 100 Principles of Biology
- or BIOL 150 Principles of Molecular and Cellular Biology
- EVRN 148 Scientific Principles of Environmental Studies
- GEOG 304 Environmental Conservation
- GEOG 351 Africa’s Human Geographies
- BIOL 400 Fundamentals of Microbiology
- BIOL 414 Principles of Ecology
- BIOL 600 Introductory Biochemistry, Lectures
- ATMO 105 Introductory Meteorology
- Environmental Chemistry Option Group II
- BIOL 661 Ecology of Rivers and Lakes (with or without BIOL 662 Aquatic Ecology Laboratory)
- CE 477 Introduction to Environmental Engineering and Science
- GEOL 552 Introduction to Hydrogeology
- ATMO 525 Air Pollution Meteorology
- EVRN 611 Water Quality, Land Use, and Watershed Ecosystems
- CHEM 698 Undergraduate Research Problems

¹ Select this course as the additional chemistry course.

Biological Chemistry Option

This option is available to students interested in the biological applications of chemistry. The curriculum is compatible with many pre-health-professions programs and prepares the student for graduate study or career opportunities.

In addition to all of the requirements for the regular B.A. major, the following courses are required:

- CHEM 335 Organic Chemistry II ¹
- or CHEM 385 Organic Chemistry II, Honors
- CHEM 336 Organic Chemistry II Laboratory
- BIOL 636 Biochemistry I
- BIOL 638 Biochemistry II
- Plus 1 elective (3) (In consultation with a faculty major advisor, choose 1 course from those listed in the Biology Option Group in requirements for the B.S. degree in Chemistry: Biological Chemistry option.)

Biology Option Group

- BIOL 350 Principles of Genetics
- BIOL 400 Fundamentals of Microbiology
- BIOL 416 Cell Structure and Function

¹ Select this course as the additional chemistry course.

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please consult the department for details.

Departmental Honors

Undergraduates may apply for admission to the departmental honors program after completion of an analytical, organic, and physical chemistry course but no sooner than the beginning of the junior year. Highly motivated and superior B.A. and B.S. students are admitted to the honors program. Honors in chemistry are awarded to students who have been admitted to the program and who have completed the following requirements with superior performance, including an overall KU GPA 3.25 and a major GPA of 3.5.

1. At least 2 semesters of CHEM 699 (4-8 hours total) resulting in a written thesis.
2. Evaluation and approval of the thesis by a faculty advisory committee.
3. Oral presentation of the thesis results at a special departmental seminar or other approved forum.

For an application form and further information, consult the department office.

Bachelor of Science in Chemistry

Why study chemistry?

Because understanding the atomic and molecular nature of matter informs us about ourselves and our universe, and creating and finding applications for new and modified forms of matter helps to conserve and enhance our world.

Undergraduate Admission

Admission to KU

All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

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Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

Chemistry Programs

The B.S. degree prepares students for graduate school and professional careers. The B.A. degree is for the student who wants to understand the fundamental principles of chemistry and to study a number of other fields. Both are based on a high school background that includes at least 1½ years of algebra and 1 year of geometry. High school courses in chemistry and physics are desirable but are not required. Many chemistry majors are preparing for medical school or graduate study in chemistry and related fields. For graduate school, the common body of knowledge in the B.A. program is the minimum prerequisite. For premedical students, much of the knowledge will be important in their careers. Even more important, however, is the training in logical thinking, drawing conclusions from experimental observations, and digesting and understanding scientific information.

First- and Second-Year Preparation

Because study in chemistry requires preparation in mathematics and physics as well as a structured series of courses in chemistry, students should begin meeting major requirements in the first year. Students planning to major in chemistry should consult a chemistry department major advisor during their first semester to develop a 4-year plan for degree completion. It is particularly important to take CHEM 170 (or CHEM 130 or CHEM 190) and CHEM 175 (or CHEM 135 or CHEM 195) in the first year and CHEM 330 (or CHEM 380) and CHEM 331 in the second year. For those seeking a B.S. degree it is also important to complete CHEM 335 (or CHEM 385) and CHEM 336 in the second year as well as their mathematics preparation (MATH 121, MATH 122, MATH 220 or MATH 320, and MATH 290) and physics preparation (PHSX 211 & PHSX 216, and PHSX 212 & PHSX 236) in the first 2 years.

Requirements for the B.S. Degree

General Education Requirements

All students must complete the KU Core.

Chemistry Prerequisite or Co-requisite Knowledge (27-28)

Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

Calculus I. Satisfied by one of the following: 5
- MATH 121  Calculus I
- MATH 141  Calculus I: Honors

Calculus II. Satisfied by one of the following: 5
- MATH 122  Calculus II
- MATH 142  Calculus II: Honors

Differential Equations. Satisfied by one of the following: 3
- MATH 220  Applied Differential Equations
- MATH 320  Elementary Differential Equations

Elementary Linear Algebra. Satisfied by: 2
- MATH 290  Elementary Linear Algebra

General Physics I. Satisfied by one of the following: 5
- PHSX 211  General Physics I
& PHSX 216  and General Physics I Laboratory
- PHSX 213  General Physics I Honors

General Physics II. Satisfied by one of the following: 4
- PHSX 212  General Physics II
& PHSX 236  and General Physics II Laboratory
- PHSX 214  General Physics II Honors

Biochemistry. Satisfied by one of the following: 3-4
- BIOL 600  Introductory Biochemistry, Lectures
- BIOL 636  Biochemistry I

Chemistry Core Knowledge and Skills (46)

Majors must complete courses as indicated in the following areas:

Chemistry for the Chemical Sciences I. Satisfied by one of the following: 5
- CHEM 170  Chemistry for the Chemical Sciences I
- CHEM 130  General Chemistry I
- CHEM 190  Foundations of Chemistry I, Honors

Chemistry for the Chemical Sciences II. Satisfied by one of the following: 5
- CHEM 175  Chemistry for the Chemical Sciences II
- CHEM 135  General Chemistry II
- CHEM 195  Foundations of Chemistry II, Honors

Seminar I. Satisfied by:
- CHEM 180  Seminar I

Organic Chemistry I (Lecture and Lab). Satisfied by:
- CHEM 330  Organic Chemistry I
or CHEM 380  Organic Chemistry I, Honors
- CHEM 331  Organic Chemistry I Laboratory

Organic Chemistry II (Lecture and Lab). Satisfied by:
- CHEM 335  Organic Chemistry II
or CHEM 385  Organic Chemistry II, Honors
- CHEM 336  Organic Chemistry II Laboratory

Physical Chemistry I (Lecture and Lab). Satisfied by:
- CHEM 530  Physical Chemistry I
& CHEM 531  and Physical Chemistry I Laboratory

Physical Chemistry II (Lecture and Lab). Satisfied by:
- CHEM 535  Physical Chemistry II
& CHEM 536  and Physical Chemistry II Laboratory

Analytical Chemistry (Lecture and Lab). Satisfied by:
- CHEM 620  Analytical Chemistry
& CHEM 621  and Analytical Chemistry Laboratory

Instrumental Methods of Analysis (Lecture and Lab). Satisfied by:
- CHEM 635  Instrumental Methods of Analysis
& CHEM 636  and Instrumental Methods of Analysis Laboratory

Systematic Inorganic Chemistry. Satisfied by:
- CHEM 660  Systematic Inorganic Chemistry

Advanced Inorganic Laboratory. Satisfied by:
CHEM 661  Advanced Inorganic Laboratory  2
Seminar II. Satisfied by:
CHEM 695  Seminar II  0.5

Chemistry Required Elective (0)
Satisfied by one of the following:
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 698</td>
<td>Undergraduate Research Problems</td>
</tr>
<tr>
<td>CHEM 699</td>
<td>Undergraduate Honors Research</td>
</tr>
</tbody>
</table>

700-level course

Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

### Major Hours
Satisfied by 50 hours of major courses.

### Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

### Major Junior/Senior Hours
Satisfied by a minimum of 39.5 hours from junior/senior courses (300+) in the major.

### Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator.

(http://clas.ku.edu/undergrad/tools/gpa)

Environmental Chemistry Option
This option allows students to focus on environmental issues and to understand how chemistry may be applied to environmental problems. Students are prepared for graduate programs or employment.

General Education Requirements
All students must complete the KU Core.

### Chemistry Prerequisite or Co-requisite Knowledge (24)
Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

#### Calculus I. Satisfied by one of the following:
- MATH 121  Calculus I
- MATH 141  Calculus I: Honors

#### Calculus II. Satisfied by one of the following:
- MATH 122  Calculus II
- MATH 142  Calculus II: Honors

#### Differential Equations. Satisfied by one of the following:
- MATH 220  Applied Differential Equations
- MATH 320  Elementary Differential Equations

#### Elementary Linear Algebra. Satisfied by:
- MATH 290  Elementary Linear Algebra

#### General Physics I. Satisfied by one of the following:
- PHSX 211  General Physics I
- PHSX 216  General Physics I Laboratory
- PHSX 213  General Physics I Honors

#### General Physics II. Satisfied by one of the following:
- PHSX 212  General Physics II
- PHSX 236  and General Physics II Laboratory
- PHSX 214  General Physics II Honors

Chemistry Core Knowledge and Skills (44)
Majors must complete courses as indicated in the following areas:

#### Chemistry for the Chemical Sciences I. Satisfied by one of the following:
- CHEM 170  Chemistry for the Chemical Sciences I
- CHEM 130  General Chemistry I
- CHEM 190  Foundations of Chemistry I, Honors

#### Chemistry for the Chemical Sciences II. Satisfied by one of the following:
- CHEM 175  Chemistry for the Chemical Sciences II
- CHEM 135  General Chemistry II
- CHEM 195  Foundations of Chemistry II, Honors

#### Seminar I. Satisfied by:
- CHEM 180  Seminar I  0.5

#### Organic Chemistry I (Lecture and Lab). Satisfied by:
- CHEM 330  Organic Chemistry I
- CHEM 380  Organic Chemistry I, Honors

#### Organic Chemistry II (Lecture and Lab). Satisfied by:
- CHEM 335  Organic Chemistry II
- CHEM 385  Organic Chemistry II, Honors

#### Physical Chemistry I (Lecture and Lab). Satisfied by:
- CHEM 530  Physical Chemistry I
- CHEM 531  Physical Chemistry I Laboratory

#### Physical Chemistry II (Lecture and Lab). Satisfied by:
- CHEM 535  Physical Chemistry II
- CHEM 536  Physical Chemistry II Laboratory

#### Analytical Chemistry (Lecture and Lab). Satisfied by:
- CHEM 620  Analytical Chemistry
- CHEM 621  and Analytical Chemistry Laboratory

#### Instrumental Methods of Analysis (Lecture and Lab). Satisfied by:
- CHEM 635  Instrumental Methods of Analysis
- CHEM 636  and Instrumental Methods of Analysis Laboratory

#### Systematic Inorganic Chemistry. Satisfied by:
- CHEM 660  Systematic Inorganic Chemistry

#### Seminar II. Satisfied by:
- CHEM 695  Seminar II  0.5

Electives (6)
Majors choosing this option should select 2 electives (6 hours) from each of the following groups:

### Environmental Chemistry Option Group I
- BIOL 100  Principles of Biology
- BIOL 150  Principles of Molecular and Cellular Biology
- EVRN 148  Scientific Principles of Environmental Studies
- GEOG 304  Environmental Conservation
- GEOL 351  Environmental Geology
- BIOL 400  Fundamentals of Microbiology
- BIOL 600  Introductory Biochemistry, Lectures
BIOL 414 Principles of Ecology
ATMO 105 Introductory Meteorology
Environmental Chemistry Option Group II
BIOL 661 Ecology of Rivers and Lakes (with or without BIOL 662 Aquatic Ecology Laboratory)
CE 477 Introduction to Environmental Engineering and Science
GEOL 552 Introduction to Hydrogeology
ATMO 525 Air Pollution Meteorology
EVRN 611 Water Quality, Land Use, and Watershed Ecosystems
CHEM 698 Undergraduate Research Problems

All 4 courses chosen from Groups I and II may not be in the same department or division.

Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 44 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 33.5 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Biological Chemistry Option
This option is available to students interested in the biological applications of chemistry. The curriculum is compatible with many pre-health-professions programs and prepares the student for graduate study or career opportunities.

General Education Requirements
All students must complete the KU Core.

Chemistry Prerequisite or Co-requisite Knowledge (24)
Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

Calculus I. Satisfied by one of the following: 5
MATH 121 Calculus I
MATH 141 Calculus I: Honors

Calculus II. Satisfied by one of the following: 5
MATH 122 Calculus II
MATH 142 Calculus II: Honors

Differential Equations. Satisfied by one of the following: 3
MATH 220 Applied Differential Equations
MATH 320 Elementary Differential Equations

Elementary Linear Algebra. Satisfied by: 2
MATH 290 Elementary Linear Algebra

General Physics I. Satisfied by one of the following: 5
PHSX 211 General Physics I
& PHSX 216 General Physics I Laboratory

PHSX 213 General Physics I Honors

General Physics II. Satisfied by one of the following: 4
PHSX 212 General Physics II
& PHSX 236 General Physics II Laboratory

PHSX 214 General Physics II Honors

Chemistry Core Knowledge and Skills (46)
Majors must complete courses as indicated in the following areas:

Chemistry for the Chemical Sciences I. Satisfied by one of the following: 5
CHEM 170 Chemistry for the Chemical Sciences I
CHEM 130 General Chemistry I
CHEM 190 Foundations of Chemistry I, Honors

Chemistry for the Chemical Sciences II. Satisfied by one of the following: 5
CHEM 175 Chemistry for the Chemical Sciences II
CHEM 135 General Chemistry II
CHEM 195 Foundations of Chemistry II, Honors

Seminar I. Satisfied by: 0.5
CHEM 180 Seminar I

Organic Chemistry I (Lecture and Lab). Satisfied by: 3
CHEM 330 Organic Chemistry I
or CHEM 380 Organic Chemistry I, Honors
CHEM 331 Organic Chemistry I Laboratory

Organic Chemistry II (Lecture and Lab). Satisfied by: 3
CHEM 335 Organic Chemistry II
or CHEM 385 Organic Chemistry II, Honors
CHEM 336 Organic Chemistry II Laboratory

Physical Chemistry I (Lecture and Lab). Satisfied by: 2
CHEM 530 Physical Chemistry I
& CHEM 531 Physical Chemistry I Laboratory

Physical Chemistry II (Lecture and Lab). Satisfied by: 5
CHEM 535 Physical Chemistry II
& CHEM 536 Physical Chemistry II Laboratory

Analytical Chemistry (Lecture and Lab). Satisfied by: 5
CHEM 620 Analytical Chemistry
& CHEM 621 Analytical Chemistry Laboratory

Instrumental Methods of Analysis (Lecture and Lab). Satisfied by: 4
CHEM 635 Instrumental Methods of Analysis
& CHEM 636 Instrumental Methods of Analysis Laboratory

Systematic Inorganic Chemistry. Satisfied by: 3
CHEM 660 Systematic Inorganic Chemistry

Advanced Inorganic Laboratory. Satisfied by: 2
CHEM 661 Advanced Inorganic Laboratory

Seminar II. Satisfied by: 0.5
CHEM 695 Seminar II

Chemistry Required Elective (0)
Satisfied by one of the following:
CHEM 698  Undergraduate Research Problems
CHEM 699  Undergraduate Honors Research

700-level course

**Biological Chemistry Core Knowledge and Skills (9)**
Principles of Molecular and Cellular Biology. Satisfied by:
BIOL 150  Principles of Molecular and Cellular Biology  4
Biochemistry. Satisfied by:
BIOL 636  Biochemistry I
BIOL 638  Biochemistry II
Biochemistry Laboratory. Satisfied by:
BIOL 637  Introductory Biochemistry Laboratory  2

**Biological Chemistry Required Electives (3)**
Majors choosing this option should select 1 elective (3 hours) from the following:
BIOL 350  Principles of Genetics
BIOL 400  Fundamentals of Microbiology
BIOL 416  Cell Structure and Function

**Major Hours & Major GPA**
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 50 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**
Satisfied by a minimum of 39.5 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Chemical Physics Option**
This option allows students to focus on the theoretical basis of chemistry. Students are prepared for graduate programs or employment.

**General Education Requirements**
All students must complete the KU Core.

**Chemistry Prerequisite or Co-requisite Knowledge (22-23)**
Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.
Calculus I. Satisfied by one of the following:  5
MATH 121  Calculus I
MATH 141  Calculus I: Honors
Calculus II. Satisfied by one of the following:  5
MATH 122  Calculus II
MATH 142  Calculus II: Honors

Differential Equations. Satisfied by one of the following:  3
MATH 220  Applied Differential Equations
MATH 320  Elementary Differential Equations

Elementary Linear Algebra. Satisfied by:
MATH 290  Elementary Linear Algebra  2

General Physics I. Satisfied by one of the following:
PHSX 211  General Physics I
& PHSX 216  and General Physics I Laboratory
PHSX 213  General Physics I Honors

General Physics II. Satisfied by one of the following:  4
PHSX 212  General Physics II
& PHSX 236  and General Physics II Laboratory
PHSX 214  General Physics II Honors

Biochemistry. Satisfied by one of the following:  3-4
BIOL 600  Introductory Biochemistry, Lectures
BIOL 636  Biochemistry I

**Chemistry Core Knowledge and Skills (46)**
Majors must complete courses as indicated in the following areas:
Chemistry for the Chemical Sciences I. Satisfied by one of the following:  5
CHEM 170  Chemistry for the Chemical Sciences I
CHEM 130  General Chemistry I
CHEM 190  Foundations of Chemistry I, Honors
Chemistry for the Chemical Sciences II. Satisfied by one of the following:  5
CHEM 175  Chemistry for the Chemical Sciences II
CHEM 135  General Chemistry II
CHEM 195  Foundations of Chemistry II, Honors

Seminar I. Satisfied by:
CHEM 180  Seminar I  0.5

Organic Chemistry I (Lecture and Lab). Satisfied by:
CHEM 330  Organic Chemistry I
or CHEM 380  Organic Chemistry I, Honors
CHEM 331  Organic Chemistry I Laboratory  2

Organic Chemistry II (Lecture and Lab). Satisfied by:
CHEM 335  Organic Chemistry II
or CHEM 385  Organic Chemistry II, Honors
CHEM 336  Organic Chemistry II Laboratory  2

Physical Chemistry I (Lecture and Lab). Satisfied by:
CHEM 530  Physical Chemistry I
& CHEM 531  and Physical Chemistry I Laboratory  5

Physical Chemistry II (Lecture and Lab). Satisfied by:
CHEM 535  Physical Chemistry II
& CHEM 536  and Physical Chemistry II Laboratory  6

Analytical Chemistry (Lecture and Lab). Satisfied by:
CHEM 620  Analytical Chemistry
& CHEM 621  and Analytical Chemistry Laboratory  5

Instrumental Methods of Analysis (Lecture and Lab). Satisfied by:
CHEM 635  Instrumental Methods of Analysis
& CHEM 636  and Instrumental Methods of Analysis Laboratory  4

Systematic Inorganic Chemistry. Satisfied by:
CHEM 660  Systematic Inorganic Chemistry  3

Advanced Inorganic Laboratory. Satisfied by:
CHEM 661  Advanced Inorganic Laboratory  2
Seminar II. Satisfied by:
CHEM 695  Seminar II  0.5

Chemistry Physics Core Knowledge and Skills (0)
Majors must complete 2 courses from each of the following groups:

<table>
<thead>
<tr>
<th>Group I</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>PHSX 313 General Physics III</td>
<td>and Intermediate Physics Laboratory I (PHSX 313 and PHSX 316 should be taken concurrently)</td>
</tr>
<tr>
<td>PHSX 518 Mathematical Physics</td>
<td></td>
</tr>
<tr>
<td>PHSX 521 Mechanics I</td>
<td></td>
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<tr>
<td>PHSX 615 Numerical and Computational Methods in Physics</td>
<td></td>
</tr>
<tr>
<td>PHSX 623 Physics of Fluids</td>
<td></td>
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<tr>
<td>PHSX 655 Optics</td>
<td></td>
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<tr>
<td>PHSX 681 Concepts in Solids</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Group II</th>
<th></th>
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<tbody>
<tr>
<td>PHSX 531 Electricity and Magnetism</td>
<td></td>
</tr>
<tr>
<td>PHSX 621 Mechanics II</td>
<td></td>
</tr>
<tr>
<td>MATH 646 Complex Variable and Applications</td>
<td></td>
</tr>
<tr>
<td>MATH 647 Applied Partial Differential Equations</td>
<td></td>
</tr>
<tr>
<td>CHEM 698 Undergraduate Research Problems</td>
<td></td>
</tr>
<tr>
<td>CHEM 750 Introduction to Quantum Mechanics</td>
<td></td>
</tr>
</tbody>
</table>

**Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 46 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**
Satisfied by a minimum of 35.5 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Departmental Honors**

Undergraduates may apply for admission to the departmental honors program after completion of an analytical, organic, and physical chemistry course but no sooner than the beginning of the junior year. Highly motivated and superior B.A. and B.S. students are admitted to the honors program. Honors in chemistry are awarded to students who have been admitted to the program and who have completed the following requirements with superior performance, including an overall KU GPA 3.25 and a major GPA of 3.5.

1. At least 2 semesters of CHEM 699 (4-8 hours total) resulting in a written thesis.

2. Evaluation and approval of the thesis by a faculty advisory committee.

3. Oral presentation of the thesis results at a special departmental seminar or other approved forum.

For an application form and further information, consult the department office.

**Minor in Chemistry**

**Why study chemistry?**

Because understanding the atomic and molecular nature of matter informs us about ourselves and our universe, and creating and finding applications for new and modified forms of matter helps to conserve and enhance our world.

**Requirements for the Minor**

The minor allows students outside the department to obtain a strong, distributed background in the discipline. It is particularly useful for students anticipating careers in medicine, health professions, biological sciences, environmental sciences, chemical engineering, business, law, secondary education, or any career in which a basic understanding of the molecular sciences is helpful. A total of 23 credit hours is required, including 13 hours of upper-division work and at least 2 upper-division laboratories. Students should see a chemistry department advisor early in the junior year.

**Chemistry Minor Course Requirements (29-34)**

Students selecting this minor must complete the following:

<table>
<thead>
<tr>
<th>Calculus I. Satisfied by one of the following:</th>
<th>3-5</th>
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<tr>
<td>MATH 115 Calculus I</td>
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<tr>
<td>MATH 121 Calculus I</td>
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<tr>
<td>MATH 141 Calculus I: Honors</td>
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<tr>
<th>Calculus II. Satisfied by one of the following:</th>
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<td>MATH 116 Calculus II</td>
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<tr>
<td>MATH 122 Calculus II</td>
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<tr>
<td>MATH 142 Calculus II: Honors</td>
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<th>General or College Physics I. Satisfied by one of the following:</th>
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<tr>
<td>PHSX 114 College Physics I</td>
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<tr>
<td>PHSX 211 General Physics I &amp; PHSX 216 General Physics I Laboratory</td>
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<tr>
<td>PHSX 213 General Physics I Honors</td>
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<th>General or College Physics II. Satisfied by one of the following:</th>
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<tbody>
<tr>
<td>PHSX 115 College Physics II</td>
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<tr>
<td>PHSX 212 General Physics II &amp; PHSX 236 General Physics II Laboratory</td>
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<tr>
<td>PHSX 214 General Physics II Honors</td>
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<tr>
<th>Chemistry for the Chemical Sciences I. Satisfied by one of the following:</th>
<th>5</th>
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<tbody>
<tr>
<td>CHEM 170 Chemistry for the Chemical Sciences I</td>
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<tr>
<td>CHEM 130 General Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHEM 190 Foundations of Chemistry I, Honors</td>
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</tbody>
</table>

Chemistry for the Chemical Sciences II. Satisfied by one of the following: 5
Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

Prerequisites

Before beginning graduate work, students should have completed a bachelor’s degree in chemistry or a related field.

Application

Applications for admission are accepted online through the Office of Graduate Studies. Applications must include academic transcripts from all post-secondary schools attended, as well as recommendation letters from 3 individuals familiar with the applicant’s academic background and abilities. Additional materials that are strongly recommended include Graduate Record Examination scores (GRE), a resume/CV and a personal statement describing the applicant’s qualifications and reasons for pursuing a graduate degree in chemistry.

International applicants should also provide official scores from the Test of English as a Foreign Language (TOEFL).

Although the preferred submission deadline is January 15, applications must be received by April 15 to be considered for admission in the fall semester.

To apply, complete the online graduate application (http://www.graduate.ku.edu) and upload all requested documents.

Procedure

Completed applications are reviewed by a committee of faculty members from the Department of Chemistry. Offers of admission depend on favorable evaluation of the application materials and an expectation that the student will attain an undergraduate grade-point average of B or higher in chemistry and all other natural science and mathematics courses. Admission to the graduate program is contingent upon completion of a bachelor’s degree in chemistry (or a related field) and all other general admission requirements.

M.S. Degree Requirements

Each student must complete (with a B- or better) a distribution requirement consisting of two courses selected from the following list of introductory courses in the 4 major areas of study:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CHEM 720</td>
<td>Fundamentals and Methods of Analytical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 730</td>
<td>Coordination and Organometallic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 740</td>
<td>Principles of Organic Reactions</td>
<td>3</td>
</tr>
</tbody>
</table>

Master of Science in Chemistry

Why study chemistry?

Because understanding the atomic and molecular nature of matter informs us about ourselves and our universe, and creating and finding applications for new and modified forms of matter helps to conserve and enhance our world.
The minimum total credit hours required for the master’s degree is 30.

The candidate for the master’s degree must complete a thesis that does not exceed one-third of the credit hours and demands the solution of some research problem in chemistry. The remaining work may consist of additional specialized courses in chemistry or in related fields such as physics, mathematics, microbiology, biochemistry, or chemical engineering. Students completing a master’s thesis in chemical education must take PRE 715 Understanding Research in Education and PRE 710 Introduction to Statistical Analysis. Courses from outside the department cannot be from more than 2 departments.

At the time of the completion of the thesis, a candidate for the master’s degree must pass an oral thesis defense (examination) administered by a committee of three members of the department’s Graduate Faculty.

**Doctor of Philosophy in Chemistry**

**Why study chemistry?**

Because understanding the atomic and molecular nature of matter informs us about ourselves and our universe, and creating and finding applications for new and modified forms of matter helps to conserve and enhance our world.

**Admission to Graduate Studies**

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

**Graduate Admission**

**Prerequisites**

Before beginning graduate work, students should have completed a bachelor’s degree in chemistry or a related field.

**Application**

Applications for admission are accepted online through the Office of Graduate Studies. Applications must include academic transcripts from all post-secondary schools attended, as well as recommendation letters from three individuals familiar with the applicant’s academic background and abilities. Additional materials that are strongly recommended include Graduate Record Examination (GRE) scores, and a resume/CV and personal statement describing the applicant’s qualifications and reasons for pursuing a graduate degree in chemistry. International applicants should also provide scores from the Test of English as a Foreign Language (TOEFL). Although the preferred submission deadline is January 15, applications must be received by April 15 to be considered for admission in the fall semester.

To apply, complete the online graduate application form (http://www.graduate.ku.edu) and upload all requested documents.

**Procedure**

Completed applications are reviewed by a committee of faculty members from the Department of Chemistry. Offers of admission depend on favorable evaluation of the application materials and an expectation that the student will attain an undergraduate grade-point average of B or higher in chemistry and all other natural science and mathematics courses. Admission to the graduate program is contingent upon completion of a bachelor’s degree in chemistry (or a related field) and all other general admissions requirements.

**Ph.D. Degree Requirements**

Each Ph.D. aspirant must complete the following course requirements:

1. Distribution Requirement: Complete the same distribution requirement as for the Master of Science in chemistry.
2. Complete with a B– or higher 4 courses at the 700 level or above in chemistry or a related area. The list of courses to be completed must be agreed upon by the student and the student’s research advisor and approved by the Graduate Affairs Committee before the beginning of the student’s second semester in the program. (Changes to the list can only be made with the approval of the student, the research advisor, and the graduate affairs committee.)

   **Note:** these 4 courses represent a minimal set and do not preclude the student, with consultation of the research advisor, from taking additional courses in support of the research effort.
3. Complete CHEM 700 (Responsible Scholarship in the Chemical Sciences) with a B- or better. This course satisfies the university’s Responsible Scholarship requirement for the chemistry Ph.D.

These courses must be satisfactorily completed before a student takes the comprehensive oral examination.

The aspirant also must fulfill the following requirements:

1. A comprehensive oral examination must be completed. The student must prepare a written, original research proposal before the examination is scheduled. The proposal must be presented and defended orally at the examination; however, the examination is comprehensive in nature. The student must be prepared for questions on a range of topics in the discipline. It should be noted that requirements (1) and (2) must be completed before the comprehensive oral examination can be taken. Failure to pass the oral examination before the beginning of the fourth year of graduate study leads to ineligibility for support by departmental or research funds.
2. A dissertation based on original work of high quality in one of the principal fields of chemistry must be completed.
3. A final oral examination and defense of the dissertation must be completed.

For further details, see Doctoral Degree Requirements, Doctor of Philosophy (p. 2062) in the Graduate Studies section of the online catalog.
Child Language Doctoral Program

The doctoral program in Child Language offers the first specialized degree in this new area of study. The program crosses traditional academic boundaries to give students the theoretical, empirical, and methodological competence necessary to study basic and applied issues in language acquisition. This multidisciplinary program is a cooperative endeavor of faculty members from the Departments of Applied Behavioral Science, Linguistics, Psychology, and Speech-Language-Hearing: Sciences and Disorders.

Students study 4 areas:

1. Core theoretical and experimental work on language acquisition,
2. Relevant methods and theories in linguistics and psycholinguistics,
3. Theoretical perspectives on developmental psychology, and
4. The nature of disordered language development and methods and techniques for language intervention.

Each student is advised by a support committee of 3 faculty members. Enrollment in a proseminar in language acquisition is required of all students in addition to participation in research activities. Opportunities for individual research projects include the projects of participating faculty members and the research teams of the Schiefelbusch Institute for Life Span Studies, the Speech-Language-Hearing Clinic, and the clinical/research facilities of KU Medical Center.

Graduates are candidates for teaching and research positions, clinical positions providing service to communicatively disabled persons, and research work in business and governmental sectors.

The Child Language doctoral program reports to the College of Liberal Arts and Sciences in collaboration with participating departments. The 23-member faculty is drawn from the participating departments. The Institute for Life Span Studies provides additional instructional, research, and clinical experiences.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

Students must submit 3 letters of recommendation, 1 copy of all undergraduate and graduate transcripts, and scores from the Graduate Record Examination (verbal, quantitative, analytical). Applicants should have earned bachelor’s degrees that include course work in linguistics, psychology, speech pathology, and statistics with minimum grade-point averages of B. Preference is given to those with master’s degrees in linguistics, psychology, education, special education, or speech and hearing sciences or to applicants with relevant post-baccalaureate work experience. No one is admitted for a terminal M.A. degree. Admission materials are reviewed by a subcommittee of the advisory council. The admissions committee supervises the admission process and recommends applicants to the advisory council.

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the program:

The University of Kansas
Child Language Program
Dole Human Development Center
1000 Sunnyside Ave., Room 3031
Lawrence, KS 66045-7561

Ph.D. Degree Requirements

For the Ph.D. degree, the student must complete all general requirements. These include residence, research skills, comprehensive oral examination, preparation of a dissertation, and the final oral
examination and defense of the dissertation. 3 options for fulfilling the research skills requirement are available:

1. Competence in the use of computers can be demonstrated by course work or by a successful demonstration of proficiency. Competence in both programming skills and computer applications is required.
2. Proficiency in a language other than English or reading knowledge of 2 languages other than English can be demonstrated.
3. A record of professional research experience or publication may be used to demonstrate research skills.

**Note:** Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current policies on Doctoral Research Skills and Responsible Scholarship are listed in the KU Policy Library.

For students entering without the master’s degree, the requirements for the M.A. are at least 8 credit hours of core courses in language acquisition; 9 hours of supplemental courses in linguistics, psycholinguistics, developmental psychology, or language intervention; 6 hours of statistics; and 6 hours of thesis. Continuous enrollment in the child language proseminar is required. Within 3 years of entering the program, students normally complete the required 30 graduate credit hours, prepare an M.A. thesis, and pass a final general examination and defense of the thesis.

Ph.D. post-master’s requirements include a minimum of 47 additional graduate credit hours. These should include at least 8 hours of additional core courses in language acquisition; 18 hours of additional supplemental courses, 9 hours of additional statistical and methodological courses, and a minimum of 6 hours of dissertation. Continuous enrollment in the proseminar is required.

After completing the research skills requirement and the major portion of the course work, the doctoral student must pass a written preliminary examination and a comprehensive oral examination. The written examination covers 4 areas:

1. Language acquisition,
2. Psycholinguistics,
3. Developmental psychology,
4. Disordered language development or language intervention.

The comprehensive oral examination covers the major field, taking one of 5 forms:

1. A defense of the written preliminary examinations,
2. A defense of a completed research project,
3. A prospectus for a future research project,
4. A discussion of a major review paper, or
5. A review of a research grant proposal and a simulated site visit defense of the proposal.

All students are expected to be engaged continuously in research on child language. Research involvement is documented with appropriate enrollment in research, thesis, and dissertation credit hours, and in the proseminar in child language.

### Courses
See course listings for the cooperating departments.

### Department of Classics

**Why study classics?**

Because knowledge of Greek and Roman antiquity is fundamental to understanding the ancient and modern world.

### Undergraduate Scholarships and Awards

The department offers several scholarships and awards, such as the Mildred Lord Greef award for best paper or essay, the Albert O. Greef award for literary translation, the Tenney Frank scholarships for undergraduate study, and the Tenney Frank awards for foreign study of the classics. For information, contact the department (http://www2.ku.edu/~classics).

All graduate students who wish to be considered for KU scholarships and financial aid must complete applications with Financial Aid and Scholarships.

### KU Financial Aid

All undergraduates who wish to be considered for KU scholarships and financial aid must complete applications with Financial Aid and Scholarships (http://affordability.ku.edu/steps/index.shtml).

### Undergraduate Programs

Classics is the integrated study of Greek and Roman civilization through its languages, its literature, and its artistic and archaeological remains. The Department of Classics offers 2 majors. Both provide students of diverse career goals a broad humane education and afford a solid foundation for those who wish to pursue graduate work in classics. The Classical Antiquity major provides inclusive, interdisciplinary training in ancient Greek and Roman cultures and prepares you for graduate study in Greek and Roman archaeology, art history, or history. The Classical Languages major trains you to read the great authors of classical antiquity (e.g., Homer, Plato, Vergil, Sappho, Saint Augustine) in the original language and prepares you for graduate study in classics and for teaching in some private schools. You might also combine your classical language interest with a degree in the School of Education. A degree in education with a Latin major allows you to teach Latin in public high schools.

### Language Proficiency

The CLAS language requirement may be fulfilled by taking either Latin or Greek. To meet the language requirement in Latin, a student should complete LAT 104, LAT 108, and LAT 112 followed by LAT 200 (or their equivalents). To meet the language requirement in Greek, a student should complete GRK 104, GRK 108 or their equivalents, and 2 more courses (6 hours) at the GRK 300 level. The number of hours required may be reduced if a student has high school or transfer hours.

### Placement in Latin

Students who wish to enroll in Latin after studying Latin in high school or elsewhere should seek advice from the classics faculty about appropriate placement in Latin courses at KU. Whenever possible, make an advising appointment in advance by calling the Department of Classics at 785-864-3153 or by contacting an advisor (http://www2.ku.edu/~classics/undergraduateadvisors_faculty.shtml).
Retroactive Credit in Latin

In cooperation with the University Registrar, the Department of Classics awards retroactive university credit for work in Latin at the high school level. To qualify for retroactive credit, the student’s initial university-level enrollment in Latin must be in a KU course. The student qualifies for retroactive credit only after completing the KU Latin course with a grade of C or higher.

After completing such a course with a qualifying grade, the student must bring his or her ARTS form and high school transcript to the Department of Classics office for verification. The department then notifies the Office of the University Registrar of the number of credit hours to be awarded. The student’s transcript shows the number of hours awarded but no letter grade. The hours count toward graduation. Guidelines are as follows:

• 2 Years of High School Latin: A student must enroll initially at KU in LAT 112 or LAT 113 and receive a grade of C or higher. 3 hours of retroactive credit will be awarded.

• 3 Years of High School Latin: A student who initially enrolls in LAT 200 or LAT 201 and receives a grade of C or higher will receive 6 hours of retroactive credit. A student who enrolls in LAT 112 or LAT 113 and receives a grade of C or higher will receive 3 hours of retroactive credit.

• 4 Years of High School Latin: A student who initially enrolls in a Latin course higher than LAT 200 or LAT 201 (e.g., any 300-level Latin course) and receives a grade of C or higher will receive 9 hours of retroactive credit. A student who enrolls in LAT 200 or LAT 201 and receives a grade of C or higher will receive 6 hours of retroactive credit.

Note: If a student initially enrolls in a course below the specified level (e.g., a student with 4 years of high school Latin enrolls in LAT 112 or LAT 113), he or she receives no retroactive credit. If a student initially enrolls in a course above the specified level (e.g., a student with 2 years of high school Latin enrolls in LAT 200 or LAT 201, or a student with 3 years of high school Latin enrolls in a Latin course higher than LAT 200 or LAT 201) and receives a grade of C or higher, he or she is eligible for the full retroactive credit allowed for that course.

Courses for Nonmajors

The department offers a range of courses in ancient art, archaeology, literature, and language, including 4 years of undergraduate Latin and 3½ years of ancient Greek. No knowledge of Latin or Greek is needed for courses labeled CLSX, such as the principal course CLSX 148 Greek and Roman Mythology.

Graduate Programs

The Department of Classics offers advanced course work in the ancient civilizations of Greece and Rome. Students are expected to study the classical languages (Greek and Latin) and literatures as well as the art and archaeological remains of the Greek and Roman worlds.

Graduate Teaching Assistantships

Financial support is available in the form of teaching assistantships in Latin, Greek, or mythology. Contact the department (http://www2.ku.edu/~classics) for information.

Visit the Graduate Studies website for information about funding opportunities (http://www.graduate.ku.edu/funding-opportunities) for graduate students at KU.

Courses

CLSX 148. Greek and Roman Mythology. 3 Hours. HL GE3H / H/W.
A systematic examination of the traditional cycles of Greek myth and their survival and metamorphosis in Latin literature. Some attention is given to the problems of comparative mythology and the related areas of archaeology and history. Slides and other illustrated materials. No knowledge of Latin or Greek is required. LEC.

CLSX 149. Greek and Roman Mythology Honors. 3 Hours. HL GE3H / H/W.
The study of Greek and Roman mythology through extensive readings in primary classical texts and secondary authors. Prerequisite: Admission to the Honors Program or consent of instructor. LEC.

CLSX 151. Introduction to Classical Archaeology. 3 Hours. HT GE11/GE3H / H/W.
An introduction to the history, methods, and excavation techniques of archaeology, with special emphasis on ancient Greece and Rome. Topics include stratigraphy, chronology, artifact analysis, the role of archaeology in our understanding of Greek and Roman society, and the treatment of archaeology in popular culture. Illustrated throughout with presentations of important archaeological sites of the ancient Mediterranean such as Athens and Pompeii, from the earliest times through late antiquity. LEC.

CLSX 177. Frist Year Seminar: ___, 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Classics. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

CLSX 178. Writing About Greek and Roman Culture. 3 Hours. GE21 / H.
This course uses focused content from Greek and Roman mythology as a vehicle for learning, applying, and practicing essential skills of writing. The content varies from term to term but is always circumscribed, such as Helen of Sparta, nature myths, the wandering hero, or children in Greek tragedy. Students complete a variety of writing exercises that build upon each other and include revision. The course will be taught in English. LEC.

CLSX 230. Greek Literature and Civilization. 3 Hours. HL GE3H / H.
An introduction to ancient Greek literature and civilization. Studied against the historical and cultural background of their times will be writers of poetry and prose such as Homer, Sappho, the tragedians, Aristophanes, Plato, and topics arising from the texts such as religion, athletics, oral performance, sexuality, and the development of literary genres. No knowledge of Greek required and no prerequisite. LEC.

CLSX 232. Word Power: Greek and Latin Elements in English. 3 Hours. H/W.
A study of English words drawn from Greek and Latin for all those interested in the sources of the English vocabulary. Enough Greek and Latin for essential purposes is also studied. No knowledge of Greek or Latin is required. A student may not receive credit for both CLSX 232 and CLSX 332. LEC.

CLSX 240. Roman Literature and Civilization. 3 Hours. HL GE3H / H.
An introduction to ancient Roman literature and civilization. Studied against the historical and cultural background of their times will be authors such as Plautus, Vergil, Livy, Petronius, and topics arising from the texts such as religion, oratory, slavery, political propaganda, the Roman games,
and the development of Roman literature. No knowledge of Latin required and no prerequisite. LEC.

**CLSX 317. Greek and Roman Art. 3 Hours. H/W.**
A survey of the art of ancient Greece and Rome (ca. 1000 B.C.E. - 500 C.E.). Emphasis on major sites, architecture, sculpture, and painting. Illustrated lectures and discussion; use of the Wilcox Classical Museum. No knowledge of Greek or Latin is required. Not open to students who have taken both CLSX 526/HA 526 and CLSX 527/HA 537, except with permission of the instructor. (Same as HA 317, HWC 317.) LEC.

**CLSX 330. Greek Literature and Civilization, Honors. 3 Hours. HL GE3H / H.**
Honors version of CLSX 230. An introduction to ancient Greek literature and civilization through extensive readings in primary Greek texts. No knowledge of Greek required. Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

**CLSX 332. Scientific Word Power: Greek and Latin Elements in the Vocabulary of Science. 3 Hours. H.**
A study of the terminology of science with reference to its debt to the Greek and Latin languages. While all the natural sciences will be treated, there will be some emphasis on the biological sciences. No knowledge of Greek or Latin is required. A student may not receive credit for both CLSX 232 and CLSX 332. LEC.

**CLSX 340. Roman Literature and Civilization, Honors. 3 Hours. HL GE3H / H.**
Honors version of CLSX 240. An introduction to ancient Roman Literature and civilization through extensive readings in primary Roman texts. No knowledge of Latin required. Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

**CLSX 350. Modern Themes, Ancient Models: _____ 3 Hours. H.**
The study of the evolution of a cultural or literary tradition from the Graeco-Roman world into modern times. The theme of the course will normally vary from semester to semester; topics such as these may be examined: the analysis of a literary genre (e.g. drama, satire, lyric), the transformation of the ancient mythical heritage, the reception of ancient astronomy. Students should consult the Schedule of Classes for the theme of the course in a given semester. With departmental permission, may be repeated for credit as topic varies. (Same as HWC 380.) LEC.

**CLSX 351. Introduction to Classical Archaeology, Honors. 3 Hours. HT GE11/GE3H / H/W.**
Honors version of CLSX 151, with the focus towards critical approaches and research. Special attention is paid to recent methodological, theoretical, and ethical debates within the profession of Classical archaeology. Assignments and activities may include position papers on contentious issues of the day, research assignments, and/or field trips to museums and related institutions. Prerequisite: Admission to the Honors Program or consent of instructor. LEC.

**CLSX 355. Ancient Greece and Rome in Film. 3 Hours. H.**
This course explores the reception of the cultures of ancient Greece and Rome in film. Students in this course learn about the cultures of ancient Greece and Rome through primary sources, and analyze several films from the 20th and 21st centuries for which these sources are relevant. The course considers the relationship between historical accuracy and artistic license in the films selected for the course, how each film reflects the concerns of the modern cultural context in which it was made, the common visual and thematic elements that link films set in ancient Greece or Rome, and the reuse of elements from Greek and Roman mythology and history in films set in the modern world. No knowledge of Latin or Greek required. LEC.

**CLSX 374. Gender and Sexuality, Ancient and Modern. 3 Hours. AE42 / H.**
Classical Greek and Roman attitudes to gender and sexuality compared and contrasted with modern notions and behaviors. Attention is paid to literature (dramatic, philosophical, medical, and legal texts) and archaeological evidence (vase painting, sculpture, and domestic architecture). The course may include the following topics: age divisions and rites of passage from childhood to maturity; marriage; conception, birth, and infanticide; the family; love; homoeroticism; property and economics; and sexuality and the law, politics, and religion. No knowledge of Greek or Latin is required. (Same as HWC 374.) LEC.

**CLSX 375. Studies in: _____ 1-3 Hours. H/W.**
Selected readings in Greek and Roman antiquity and the classical tradition for students who desire special work on a flexible basis. No knowledge of Greek or Latin is required. May be repeated for credit, the maximum being twelve hours. Prerequisite: Consent of instructor. LEC.

**CLSX 384. The Rise of Greek Tragedy. 3 Hours. H.**
Plays by Aeschylus, Sophocles, and Euripides will be read in translation. The place of the plays, and the role they play in Athenian (and Greek) culture of the 5th century. This course includes the Oresteia, Oedipus Tyrannus, Antigone, and Medea. No knowledge of Greek is required. LEC.

**CLSX 388. Poetry and Politics in Fifth-Century Athens. 3 Hours. H.**
The later plays of Euripides and Sophocles, selected plays by the comic dramatist Aristophanes, and passages from the historian Thucydides. Criticism of the plays, and discussion of themes common to literature and history in this period. The dissolution of a high culture. CLSX 384 is NOT a prerequisite. No knowledge of Greek required. LEC.

**CLSX 490. Comprehensive Examination of Classical Antiquity. 1 Hour. U.**
An examination covering the six areas of course work and reading for the Classical Antiquity major, to be taken by the student pursuing the major in the last semester of the senior year. Prerequisite: A declared major in Classical Antiquity and status as a graduating senior. IND.

**CLSX 492. Independent Study for Classical Antiquity Majors. 3 Hours. U.**
Under the supervision of an advisor in Classics, the student will do extensive reading in the area of Classics generously defined, to result in two or more papers as agreed upon between faculty and student. IND.

**CLSX 496. Honors Essay in Classical Antiquity. 3 Hours. AE61 / H/W.**
Individual directed research and preparation of an essay on a topic in Classical literature, culture, or language. Prerequisite: Eligibility for departmental honors and consent of essay advisor. IND.

**CLSX 501. The History of the Latin Language. 3 Hours. H.**
The place of Latin among the Indo-European languages and the languages of Italy, its development as a literary medium, and how it changed in pronunciation, vocabulary, and grammar from its beginnings through the Medieval period. LEC.

**CLSX 502. Development of Ancient Greece, ca. 1000-300 B.C.E. 3 Hours. H/W.**
Emphasis on the ancient sources and texts, developments in political institutions and society, the changing definitions of personal, cultural, and national identities, and the cultural tensions between Greece and the cultures to the west and east, especially Italy and Persia. No knowledge of the ancient languages is required. (Same as HIST 502). LEC.

**CLSX 515. Gender and Sexuality in Greek Culture. 3 Hours. H.**
This course explores various approaches to the study of gender and sexuality in Greek antiquity. Contents will vary, and the course may focus...
on methodology and case studies, or on particular themes, historical periods, or artistic or literary genres. No knowledge of Greek or Latin is required. (Same as WGSS 515.) Prerequisite: Graduate status, or 6 credit hours in Classics, Greek, Latin, or Women, Gender and Sexuality Studies; or permission of instructor. LEC.

CLSX 516. Gender and Sexuality in Roman Culture. 3 Hours. H.
This course explores various approaches to the study of gender and sexuality in Roman antiquity. Contents vary, and the course may focus on methodology and case studies, or on particular themes, historical periods, or artistic or literary genres. No knowledge of Greek or Latin is required. (Same as WGSS 516.) Prerequisite: Graduate status, or 6 credit hours in Classics, Greek, Latin, or Women, Gender and Sexuality Studies; or permission of instructor. LEC.

CLSX 525. Aegean Archaeology and Art. 3 Hours. H/W.
An interdisciplinary survey of the major cultures of the prehistoric Aegean (Greek) world from the Neolithic period to the end of the Bronze Age (ca. 3000-1100 B.C.E.), with special emphasis on the cultural and artistic achievements of the Mycenaeans, Minoans, and Cycladic islanders, including their contacts with the neighboring cultures of Anatolia (Hittites and Troy), the Levant, Egypt, and South Italy. Includes lecture with slides and discussion. For advanced undergraduates with backgrounds in the humanities and for graduate students (especially in Classics and History of Art). No knowledge of Greek or Latin is required. (Same as HA 525.) LEC.

CLSX 526. Greek Archaeology and Art. 3 Hours. H/W.
An interdisciplinary survey of the material culture of the ancient Greek world from the Protogeometric period to the end of the Hellenistic age (ca. 1100 - 30 B.C.E.), with emphasis on the major sites, monuments, and changing forms of social and artistic expression (e.g., architecture, sculpture, vase painting). Includes lectures with slides and discussion; use of the Wilcox Museum of Classical Antiquities. For advanced undergraduates with backgrounds in the humanities and for graduate students (especially in Classics and History of Art). No knowledge of Greek or Latin is required. (Same as HA 526.) LEC.

CLSX 527. Roman Archaeology and Art. 3 Hours. H/W.
An interdisciplinary survey of the material culture of ancient Rome from its origins to the late empire (8th c.B.C. - 4th c.C.E.). Emphasis on major sites, monuments, and changing forms of social and artistic expression, as well as on Etruscan and Greek influence on Rome and Rome’s influence on its provinces. Includes lectures with slides and discussion; use of the Wilcox Museum of Classical Antiquities. No knowledge of Greek or Latin is required. For advanced undergraduates with backgrounds in the humanities and for graduate students (especially in Classics and History of Art). No knowledge of Greek or Latin is required. (Same as HA 537.) LEC.

CLSX 529. Archaeology and Art of the Ancient Near East. 3 Hours. H.
A cross-cultural survey of the material remains of the major civilizations of the ancient Near East, including Anatolia, Mesopotamia, the Levant, and Egypt from Neolithic period to the rise of the Roman empire (ca. 6000 B.C.E. - 30 B.C.E.). Includes lectures with slides and discussion. For advanced undergraduates with backgrounds in the humanities and for graduate students (especially in Classics and History of Art). No knowledge of Greek or Latin is required. (Same as HA 529.) LEC.

CLSX 538. Pompeii and Herculaneum. 3 Hours. H.
An interdisciplinary treatment of the art and archaeology of the ancient Roman cities of Pompeii and Herculaneum in Italy. Emphasis on the structures and decorations of major public spaces and houses and on aspects of cultural, social, political, commercial, and religious life from the period of the second century B.C.E. to 79 C.E., when Pompeii and Herculaneum were buried by the eruption of Mt. Vesuvius. Slide lectures and discussion. (Same as HA 538, HWC 538.) Prerequisite: Graduate status, or 6 credit hours in Classics, Greek, Latin, History of Art, or permission of the instructor. LEC.

CLSX 550. Capstone in Classics. 1-3 Hours. AE61 / H.
This capstone seminar synthesizes various aspects in the discipline of Classics by focusing on recent award-winning scholarship or creative work in the field. Specific assignments and additional readings vary from one semester to another and will be stated on the instructor's syllabus. Introductory knowledge of Greek or Latin is required. Prerequisite: 15 hours in CLSX/LAT/GRK at the 200 level or above, or status as a senior major in the department, or permission of the instructor. LEC.

CLSX 570. Study Abroad Topics in Greek and Roman Culture: ______. 1-3 Hours. H.
This course is designed for the study of special topics in Classics at the junior/senior level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

CLSX 575. Readings in: ______. 1-3 Hours.
Selected readings in Greek and Roman antiquity and the classical tradition for students who desire special work on a flexible basis. No knowledge of Greek or Latin is required. May be repeated for credit if topic varies. Only six hours may count toward the major. Prerequisite: Consent of instructor. LEC.

CLSX 576. Topics in Greek and Roman Literature: ______. 3 Hours. H.
Lecture and discussion course focusing on a theme, genre, or period of literature from the ancient classical world. No knowledge of Greek or Latin is required. May be repeated for credit if topic varies. Only 6 hours may count toward the major. LEC.

CLSX 577. Topics in the Archaeology and Art of the Ancient Mediterranean: ______. 3 Hours. AE61 / H.
Lecture and discussion course focusing on a theme, medium, region, or period in the archaeology and art of the ancient Near Eastern and classical world. May be repeated for credit if topic varies. Only 6 hours may count toward the major. LEC.

CLSX 675. Studies in: ______. 1-3 Hours. H/W.
Selected readings in Greek and Roman antiquity and the classical tradition for students who desire special work on a flexible basis. No knowledge of Greek or Latin is required. May be repeated for credit, the maximum being twelve hours. Prerequisite: Consent of instructor. IND.

CLSX 717. Investigations in Greek Drama I. 3 Hours.
Attendance at CLSX 384 required, plus one seminar per week, discussing the scholarly background of the major lecture, as well as the problems and aims of teaching Greek drama in English to undergraduates. No knowledge of Greek is required. RSH.

CLSX 718. Investigations in Greek Drama II. 3 Hours.
A continuation of CLSX 717. Attendance at CLSX 388 plus one seminar per week. No knowledge of Greek is required. RSH.

CLSX 790. Practicum in the Teaching of Classics. 0.5 Hours.
Required of all assistant instructors and teaching assistants in the teaching of Classics courses. May be repeated up to three semester hours credit in total. FLD.

CLSX 899. Thesis. 1-6 Hours.
Thesis hours. THE.

GRK 104. Elementary Ancient Greek. 5 Hours. U.
The essentials of ancient Greek grammar, with readings. LEC.

GRK 105. Elementary Ancient Greek, Honors. 5 Hours. U.
The essentials of ancient Greek grammar, with readings. Prerequisite: Membership in the University Honors Program or permission of instructor. LEC.
GRK 108. Ancient Greek Readings and Grammar. 5 Hours. U.
A continuation of Greek 104, with extensive readings from one or more classical authors. Prerequisite: GRK 104 or GRK 105. LEC.

GRK 109. Ancient Greek Readings and Grammar, Honors. 5 Hours. U.
A continuation of GRK 105, with extensive readings from one or more classical authors. Prerequisite: GRK 104 or 105; and membership in the University Honors Program or permission of instructor. LEC.

GRK 112. Intermediate Ancient Greek. 3 Hours. U.
Systematic grammar review and selected texts from Plato and Euripides. Prerequisite: GRK 108 or GRK 109 or consent of instructor. LEC.

GRK 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Greek. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

GRK 301. Philosophy and Oratory. 3 Hours. H/W.
Systematic grammar review in conjunction with readings selected from Plato, Aristotle and the Attic orators, with attention to issues of interpretation and social and cultural history. Prerequisite: GRK 108 or GRK 109. LEC.

GRK 302. Drama and Lyric Poetry. 3 Hours. H/W.
Systematic grammar review in conjunction with readings selected from Aeschylus, Sophocles, Euripides, and the lyric poets, with attention to issues of literary interpretation and cultural history. Prerequisite: GRK 108 or GRK 109. LEC.

GRK 303. Greek Narrative Prose. 3 Hours. H/W.
Systematic grammar review in conjunction with readings selected from the historians Herodotus, Thucydides, and Xenophon, as well as from the Greek novels and the New Testament. Attention will be given to issues of interpretation and cultural history. Prerequisite: GRK 108 or GRK 109. LEC.

GRK 310. Homer's Odyssey. 3 Hours. H/W.
Selections from Homer's Odyssey, with attention to issues of literary translation and interpretation, performance, and social and cultural history. Prerequisite: GRK 301, or GRK 302, or GRK 303. LEC.

GRK 312. Homer's Iliad. 3 Hours. H/W.
Selections from Homer's Iliad, with attention to issues of literary translation and interpretation, performance, and social and cultural history. Prerequisite: GRK 301, or GRK 302, or GRK 303. LEC.

GRK 375. Readings in: ______. 1-3 Hours. H/W.
Readings in classical Greek texts. May be repeated for up to twelve hours. Prerequisite: GRK 108 or the equivalent. IND.

GRK 496. Honors Essay in Greek. 3 Hours. AE61 / H/W.
Individual directed research and preparation of an essay on a topic in Greek literature or language. Prerequisite: Eligibility for departmental honors and consent of essay advisor. IND.

GRK 508. Early Greek Philosophy. 3 Hours. H/W.
A study of the doctrines of Greek philosophy before Plato. Emphasis on the Pre-Socratic philosophers with some attention paid to the Sophists and the Hippocratic Corpus. (Same as PHIL 508.) Prerequisite: PHIL 384, or GRK 301, or GRK 302, or GRK 303, or GRK 310, or GRK 312, or permission of instructor. LEC.

GRK 701. Archaic Poetry. 3 Hours.
Close reading of texts from Homer, Hesiod, Pindar, the lyric poets. LEC.

GRK 702. Drama. 3 Hours.
Close reading of texts from Aeschylus, Sophocles, Euripides, Aristophanes. LEC.

GRK 703. History and Oratory. 3 Hours.
Close reading of texts from Herodotus, Thucydides, Xenophon, Attic orators. LEC.

GRK 704. Philosophy. 3 Hours.
Close reading of texts from Plato, Aristotle, the Pre-Socratics. LEC.

GRK 705. Readings in Classical Greek. 3 Hours.
Extensive reading in a variety of Greek authors. LEC.

GRK 790. Practicum in the Teaching of Greek. 0.5 Hours.
Required of all assistant instructors and teaching assistants in the teaching of Greek. May be repeated up to three semester hours credit in total. FLD.

GRK 798. Studies in: ______. 1-3 Hours.
Selected readings for qualified students who desire special work on a flexible basis. May be repeated for credit, the maximum being twelve hours. Prerequisite: Undergraduate proficiency in Greek or equivalent. RSH.

GRK 899. Thesis. 1-6 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

LAT 104. Elementary Latin I. 5 Hours. U.
An introduction to the Latin language. LEC.

LAT 105. Elementary Latin I, Honors. 5 Hours. U.
Integrates study of elementary Latin with study of Roman culture. Prerequisite: Admission to Honors Program or permission of department. LEC.

LAT 108. Elementary Latin II. 5 Hours. U.
Latin grammar concluded with selected readings. Prerequisite: LAT 104 or LAT 105, or permission of department. LEC.

LAT 109. Elementary Latin II, Honors. 5 Hours. U.
Latin grammar concluded with selected readings, integrated with study of Roman culture. Prerequisite: LAT 105 or permission of department. LEC.

LAT 112. Readings in Latin Literature. 3 Hours. U.
Systematic grammar review in conjunction with selected prose authors, such as Cicero or Caesar, with additional readings in Roman poetry. Attention to literary history and historical context. Prerequisite: LAT 108 or LAT 109, or permission of department. LEC.

LAT 113. Readings in Latin Literature, Honors. 3 Hours. U.
Systematic grammar review in conjunction with selected prose authors, such as Cicero or Caesar, with additional readings in Roman poetry. Exercises in literary analysis and/or prose composition. Prerequisite: LAT 109 or permission of department. LEC.

LAT 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Latin. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

LAT 200. Vergil's Aeneid. 3 Hours. H/W.
Selections from Vergil's Aeneid, with attention to literary interpretation and literary history. Prerequisite: LAT 112 or LAT 113 or permission of department. LEC.
LAT 201. Vergil’s Aeneid, Honors. 3 Hours. H/W.
Selections from Vergil’s Aeneid with attention to literary history. Exercises in literary interpretation and verse composition. Prerequisite: LAT 113 or permission of department. LEC.

LAT 300. Intermediate Latin Composition. 3 Hours. H/W.
Composition in Latin prose, stressing the basic principles of Latin syntax and style. Recommended for majors and minors. Prerequisite: LAT 200 or LAT 201. LEC.

LAT 301. Prose Fiction and Epistolography. 3 Hours. H/W.
Selected readings from such authors as Cicero, Seneca, Petronius, Pliny, and Apuleius, with attention to literary interpretation and historical context. Prerequisite: LAT 200 or LAT 201, or permission of department. LEC.

LAT 302. Hexameter Poetry. 3 Hours. H/W.
Selected readings from such authors as Lucretius, Vergil, Ovid, and the satirists, with attention to literary interpretation and historical context. Prerequisite: LAT 200 or LAT 201, or permission of department. LEC.

LAT 303. Roman Historians. 3 Hours. H/W.
Selected readings from such authors as Caesar, Livy, and Tacitus, with attention to issues in Roman history and historiography. Prerequisite: LAT 200 or LAT 201, or permission of department. LEC.

LAT 304. Lyric and Elegiac Poetry. 3 Hours. H/W.
Selected readings from such authors as Catullus, Horace, Tibullus, Propertius, Sulpicia, Ovid, and Martial, with attention to literary interpretation and historical context. Prerequisite: LAT 200 or LAT 201, or permission of department. LEC.

LAT 305. Roman Drama. 3 Hours. H/W.
Selected readings from such authors as Plautus, Terence, and Seneca, with attention to literary interpretation, theater history, and performance. Prerequisite: LAT 200 or LAT 201, or permission of department. LEC.

LAT 375. Readings in: _____. 1-3 Hours. H/W.
Readings in Latin literature, selected in consultation with the instructor. May be repeated for up to twelve hours. Prerequisite: LAT 200 or LAT 201, or permission of department. LEC.

LAT 496. Honors Essay in Latin. 3 Hours. AE61 / H/W.
Individual directed research and preparation of an essay on a topic in Latin literature or language. Prerequisite: Eligibility for departmental honors and consent of essay advisor. IND.

LAT 700. Advanced Latin Prose Composition. 3 Hours.
An examination of the grammar, syntax, and style of the Latin language through exercises in composition. Prerequisite: Consent of instructor. LEC.

LAT 701. Hexameter Poetry. 3 Hours.
Close reading of texts from authors such as Lucretius, Vergil, Ovid, Statius. Prerequisite: Consent of instructor. LEC.

LAT 702. Lyric and Elegy Poetry. 3 Hours.
Close reading of texts from authors such as Catullus, Horace, Propertius, Tibullus, Sulpicia, Ovid, Martial. Prerequisite: Consent of instructor. LEC.

LAT 703. History, Oratory, Philosophy. 3 Hours.
Close reading of texts from authors such as Cicero, Livy, Seneca, Tacitus, Augustine. Prerequisite: Consent of instructor. LEC.

LAT 704. Drama, Satire, and Novel. 3 Hours.
Close reading of texts from Plautus, Terence, Horace, Petronius, Seneca, Juvenal, Apuleius. LEC.

LAT 705. Readings in Classical Latin. 3 Hours.
Extensive reading in a variety of Latin authors. LEC.

LAT 790. Practicum in the Teaching of Latin. 0.5 Hours.
Required of all assistant instructors and teaching assistants in the teaching of Latin. May be repeated up to three semester hours credit in total. FLD.

LAT 791. Seminar in the Teaching of Latin. 3 Hours.
An introduction to teaching required of all assistant instructors and teaching assistants. Topics to include: pronunciation, etymology, Latin style, testing methods, and the selecting of texts. LEC.

LAT 798. Studies in: _____. 1-3 Hours.
Selected readings for qualified students who desire special work on a flexible basis. May be repeated for credit, the maximum being twelve hours. Prerequisite: Undergraduate proficiency in Latin or equivalent. RSH.

LAT 899. Thesis. 1-6 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

Bachelor of Arts and Bachelor of General Studies in Classical Antiquity

Why study classics?
Because knowledge of Greek and Roman antiquity is fundamental to understanding the ancient and modern world.

Undergraduate Admission

Admission to KU

All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

Classics Majors

The Department of Classics offers 2 majors. Both provide students of diverse career goals a broad humane education and afford a solid foundation for those who wish to pursue graduate work in classics. The Classical Antiquity major provides inclusive, interdisciplinary training
in ancient Greek and Roman cultures and prepares you for graduate study in ancient archaeology, art, or history. The Classical Languages major trains you to read the great authors of classical antiquity (e.g., Homer, Plato, Vergil, Sappho, Saint Augustine) in the original language and prepares you for graduate study in classics and for teaching in some private schools.

You might also combine your classical language interest with a degree in the School of Education. A degree in education with a Latin major allows you to teach Latin in public high schools.

First- and Second-Year Preparation

Potential classics majors should keep in mind that proficiency in Greek or Latin is required for either major; they need to enroll in GRK 104 or LAT 104 or their equivalents as early as possible. For students with no former training, proficiency takes 4 semesters; Classical Languages majors need additional language courses. Other courses to consider taking during the first or second year include CLSX 148, CLSX 151, CLSX 230, CLSX 240, CLSX 317, or the honors versions of those courses. As soon as the student decides that classics is a possible major, he or she should talk to an undergraduate advisor (http://www2.ku.edu/~classics/undergraduateadvisors_faculty.shtml) in classics.

Requirements for the B.A. or B.G.S. Major: Classical Antiquity

The Classical Antiquity major consists of 30 hours of work in Classics and related courses, in addition to the coursework in Latin and/or Greek required for the major. The major is designed to encourage interdisciplinary understanding of ancient Greek and Roman cultures while maximizing student flexibility.

Of the 30 hours that constitute the major, 15 must be in the Classics Department, i.e., CLSX, GRK, and LAT courses; and 15 must be junior/senior hours, i.e., at the 300 level or above. This major has two tracks: Classical Humanities, and Classical Art and Archaeology. Coursework in Latin and or Greek required for the major: 4-semester proficiency in Latin or ancient Greek, or four semesters combined Greek and/or Latin, or the equivalent.

Major Requirements

Track 1 - Classical Archaeology (30)

15 hours from list A
6 hours from list B
9 hours from list C

Track 2 - Classical Humanities (30)

15 hours from list B
6 hours from list A
9 hours from list C

List A - Classical Archaeology (1-6)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>CLSX 151</td>
<td>Introduction to Classical Archaeology</td>
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<tr>
<td>or CLSX 351</td>
<td>Introduction to Classical Archaeology, Honors</td>
</tr>
<tr>
<td>CLSX 317</td>
<td>Greek and Roman Art</td>
</tr>
<tr>
<td>CLSX 525</td>
<td>Aegean Archaeology and Art</td>
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<tr>
<td>CLSX 526</td>
<td>Greek Archaeology and Art</td>
</tr>
<tr>
<td>CLSX 527</td>
<td>Roman Archaeology and Art</td>
</tr>
<tr>
<td>CLSX 538</td>
<td>Pompeii and Herculaneum</td>
</tr>
<tr>
<td>CLSX 529</td>
<td>Archaeology and Art of the Ancient Near East</td>
</tr>
<tr>
<td>CLSX 577</td>
<td>Topics in the Archaeology and Art of the Ancient Mediterranean:</td>
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</tbody>
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List B - Classical Humanities (0)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>CLSX 148</td>
<td>Greek and Roman Mythology</td>
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<tr>
<td>or CLSX 149</td>
<td>Greek and Roman Mythology Honors</td>
</tr>
<tr>
<td>CLSX 230</td>
<td>Greek Literature and Civilization</td>
</tr>
<tr>
<td>or CLSX 330</td>
<td>Greek Literature and Civilization, Honors</td>
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<tr>
<td>CLSX 240</td>
<td>Roman Literature and Civilization</td>
</tr>
<tr>
<td>or CLSX 340</td>
<td>Roman Literature and Civilization, Honors</td>
</tr>
<tr>
<td>CLSX 384</td>
<td>The Rise of Greek Tragedy</td>
</tr>
<tr>
<td>CLSX 388</td>
<td>Poetry and Politics in Fifth-Century Athens</td>
</tr>
<tr>
<td>CLSX 576</td>
<td>Topics in Greek and Roman Literature:</td>
</tr>
</tbody>
</table>

List C - Electives (7-10)

<table>
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<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>CLSX 232</td>
<td>Word Power: Greek and Latin Elements in English</td>
</tr>
<tr>
<td>or CLSX 332</td>
<td>Scientific Word Power: Greek and Latin Elements in the Vocabulary of Science</td>
</tr>
<tr>
<td>CLSX 350</td>
<td>Modern Themes, Ancient Models:</td>
</tr>
<tr>
<td>CLSX 374</td>
<td>Gender and Sexuality, Ancient and Modern</td>
</tr>
<tr>
<td>CLSX 375</td>
<td>Studies in:</td>
</tr>
<tr>
<td>CLSX 496</td>
<td>Honors Essay in Classical Antiquity</td>
</tr>
<tr>
<td>CLSX 502</td>
<td>Development of Ancient Greece, ca. 1000-300 B.C.</td>
</tr>
<tr>
<td>CLSX 515</td>
<td>Gender and Sexuality in Greek Culture</td>
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<tr>
<td>CLSX 516</td>
<td>Gender and Sexuality in Roman Culture</td>
</tr>
<tr>
<td>CLSX 550</td>
<td>Capstone in Classics</td>
</tr>
<tr>
<td>CLSX 570</td>
<td>Study Abroad Topics in Greek and Roman Culture:</td>
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<tr>
<td>CLSX 575</td>
<td>Readings in:</td>
</tr>
<tr>
<td>CLSX 675</td>
<td>Studies in:</td>
</tr>
<tr>
<td>ANTH 110</td>
<td>Introduction to Archaeology</td>
</tr>
<tr>
<td>ANTH 415</td>
<td>The Rise of Civilization</td>
</tr>
<tr>
<td>ANTH 520</td>
<td>Archaeological Ceramics</td>
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<tr>
<td>HIST 402</td>
<td>Roman Military History</td>
</tr>
<tr>
<td>HIST 506</td>
<td>Roman Republic</td>
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<tr>
<td>HIST 507</td>
<td>Early Roman Empire</td>
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<tr>
<td>HIST 508</td>
<td>Late Roman Empire (284-527)</td>
</tr>
<tr>
<td>HIST 509</td>
<td>Ancient Mesopotamian Culture and Religion</td>
</tr>
<tr>
<td>REL 525</td>
<td>Jews and Christians</td>
</tr>
<tr>
<td>REL 526</td>
<td>Jewish History and Literature in the Greek and Roman Periods</td>
</tr>
<tr>
<td>REL 527</td>
<td>Ancient Mesopotamian Culture and Religion</td>
</tr>
</tbody>
</table>
REL 530 Christian Origins: from the Beginnings to Augustine
Any course from List A or B beyond those used to fulfill the requirement.

1 Only 6 hours each of CLSX 575, CLSX 576, and CLSX 577 may count toward the major.

Students wishing to use their LAT or GRK to satisfy the university’s language requirement must do four semesters of the same language.

Classical Antiquity Major Hours & Major GPA
While completing all required courses (above), majors must also meet each of the following hour and grade point average minimum standards:

**Major Hours**
Satisfied by 30 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior (300+) Hours**
Satisfied by a minimum of 15 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior (300+) Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

With careful planning and commitment to a full-time course load, you can graduate in 4 years. See your major advisor for information regarding creation of a 4-year plan.

**Departmental Honors**
A candidate for honors must meet all the general requirements for graduation with honors established by the College. The independent research requirement is met by successful completion of Honors Essay: CLSX 496, GRK 496, or LAT 496. This is normally in the spring semester of the senior year. This enrollment substitutes for one of the optional major courses, whether central or peripheral.

**Study Abroad**
The department offers study abroad opportunities in Greece and Italy. All students may apply to attend these summer programs, and classics majors are especially encouraged to enroll. Courses offered vary from year to year; consult the Office of Study Abroad (http://www.studyabroad.ku.edu) or advisors in the Department of Classics (http://www2.ku.edu/~classics).

For scholarships, students should apply to Study Abroad as well as to the department. The department also offers advice to students interested in non-KU programs or in summer internships at archaeological sites.

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All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

**Admission to the College of Liberal Arts and Sciences**
Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

**Classics Majors**
The Department of Classics offers 2 majors. Both provide students of diverse career goals a broad humane education and afford a solid foundation for those who wish to pursue graduate work in classics. The Classical Antiquity major provides inclusive, interdisciplinary training in ancient Greek and Roman cultures and prepares you for graduate study in ancient archaeology, art, or history. The Classical Languages major trains you to read the great authors of classical antiquity (e.g., Homer, Plato, Vergil, Sappho, Saint Augustine) in the original language and prepares you for graduate study in classics and for teaching in some private schools.

You might also combine your classical language interest with a degree in the School of Education. A degree in education with a Latin major (p. 346) allows you to teach Latin in public high schools.

The department offers study abroad opportunities in Greece and Italy. All students may apply to attend these summer programs, and classics majors are especially encouraged to enroll.
First- and Second-Year Preparation

Potential classics majors should keep in mind that proficiency in Greek or Latin is required for either major; they need to enroll in GRK 104 or LAT 104 or their equivalents as early as possible. For students with no former training, proficiency takes 4 semesters; Classical Languages majors need additional language courses. Other courses to consider taking during the first or second year include CLSX 148, CLSX 151, CLSX 230, CLSX 240, or the honors versions of those courses. As soon as the student decides that classics is a possible major, he or she should talk to an undergraduate advisor (http://www2.ku.edu/~classics/undergraduateadvisors_faculty.shtml) in classics.

Requirements for the B.A. or B.G.S. Major: Classical Languages

The Classical Languages major consists of 27 hours of work in classics and related courses, beyond these 4 preliminary requirements: LAT 104, LAT 108, GRK 104, and GRK 108 or their equivalents. Students who have already taken the equivalents of those courses proceed to the next level. Study of both languages is required, but students with particular career plans may obtain written permission from the chair to substitute electives for one of the languages. This major requires at least 15 hours in language courses starting with LAT 112/LAT 113 or GRK 301, 3 hours in ancient art and archaeology, 3 hours in ancient history, and 6 hours in electives. Students aiming for graduate school in classics should take as many semesters of Latin and Greek as possible—at the least, 3 years of one ancient language and 2 years of the other. Future graduate students should also consider double majoring in Classical Antiquity and Classical Languages.

Elementary Knowledge in Greek or Latin (20)

Majors must complete courses as specified in each of the following areas. These hours do not contribute to the minimum number of hours required for the major. Equivalent courses and retroactive credit count toward this requirement. Study of both languages is required, but students with particular career plans may obtain written permission from the chair to substitute electives for one of the languages.

Elementary Latin I. Satisfied by:
LAT 104 Elementary Latin I 5
or LAT 105 Elementary Latin I, Honors

Elementary Latin II. Satisfied by:
LAT 108 Elementary Latin II 5
or LAT 109 Elementary Latin II, Honors

Elementary Ancient Greek. Satisfied by:
GRK 104 Elementary Ancient Greek 5
or GRK 105 Elementary Ancient Greek, Honors

Ancient Greek Readings and Grammar. Satisfied by:
GRK 108 Ancient Greek Readings and Grammar 5
or GRK 109 Ancient Greek Readings and Grammar, Honors

Classical Languages Major Core Language Knowledge and Skills (15)

Majors must complete at least 15 hours in language courses, beyond the elementary level, starting with LAT 112/LAT 113 or GRK 301 or the equivalent.

Students aiming for graduate school in classics should take as many semesters of Latin and Greek as possible, at the least 3 years of one ancient language and 2 years of the other.

Major Core Knowledge and Skills (6)

History. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLSX 230</td>
<td>Greek Literature and Civilization</td>
</tr>
<tr>
<td>or CLSX 330</td>
<td>Greek Literature and Civilization, Honors</td>
</tr>
<tr>
<td>CLSX 240</td>
<td>Roman Literature and Civilization</td>
</tr>
<tr>
<td>or CLSX 340</td>
<td>Roman Literature and Civilization, Honors</td>
</tr>
<tr>
<td>HIST 402</td>
<td>Roman Military History</td>
</tr>
<tr>
<td>CLSX/HIST</td>
<td>Development of Ancient Greece, ca. 1000-300</td>
</tr>
<tr>
<td>502</td>
<td>B.C.</td>
</tr>
<tr>
<td>HIST 506</td>
<td>Roman Republic</td>
</tr>
<tr>
<td>HIST 507</td>
<td>Early Roman Empire</td>
</tr>
<tr>
<td>HIST 508</td>
<td>Late Roman Empire (284-527)</td>
</tr>
</tbody>
</table>

Ancient Art & Archaeology. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLSX 151</td>
<td>Introduction to Classical Archaeology</td>
</tr>
<tr>
<td>CLSX 317</td>
<td>Greek and Roman Art</td>
</tr>
<tr>
<td>CLSX 525</td>
<td>Aegean Archaeology and Art</td>
</tr>
<tr>
<td>CLSX 526</td>
<td>Greek Archaeology and Art</td>
</tr>
<tr>
<td>CLSX 527</td>
<td>Roman Archaeology and Art</td>
</tr>
<tr>
<td>CLSX 529</td>
<td>Archaeology and Art of the Ancient Near East</td>
</tr>
<tr>
<td>CLSX 538</td>
<td>Pompeii and Herculaneum</td>
</tr>
<tr>
<td>CLSX 577</td>
<td>Topics in the Archaeology and Art of the Ancient Mediterranean: _____</td>
</tr>
<tr>
<td>HWC/HA 600</td>
<td>Biography of a City: _____ (any ancient Mediterranean city)</td>
</tr>
</tbody>
</table>

Classical Languages Major Required Electives (6)

Majors must complete 2 courses (6 hours) of electives. Elective courses may include any CLSX course and any course listed above (but not used to satisfy the requirement), and PHIL 384, PHIL 508, PHIL 605, PHIL 607, PHIL 608, HWC 304, or HWC 390, or other courses in allied fields as approved by the department chair.

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and GPA minimum standards:

Major Hours
Satisfied by 27 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 15 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Major Junior/Senior Attempts
Summary includes Classical Languages junior/senior (300+) hours attempted, including F's and incompletes.

With careful planning and commitment to a full-time course load, you can graduate in 4 years, possibly with more than one major. Many students double major in Classical Languages and Classical Antiquity. Others
combine a Classics major with a major in another department. See the Chair or a major advisor in the department for information regarding creation of a 4-year plan.

Departmental Honors
A candidate for honors must meet all the general requirements for graduation with honors established by the College. The independent research requirement is met by successful completion of Honors Essay: CLSX 496, GRK 496, or LAT 496. This is normally completed in the spring semester of the senior year, though some students complete it in the fall semester. Students interested in honors in Classics should speak to an advisor in the junior year. This enrollment substitutes for one of the optional major courses, whether central or peripheral.

The department offers study abroad opportunities in Greece and Italy. All students may apply to attend these summer programs, and classics majors are especially encouraged to enroll. Courses offered vary from year to year; consult the Office of Study Abroad (http://www.studyabroad.ku.edu) or advisors in the Department of Classics (http://www2.ku.edu/~classics).

For scholarships, students should apply to Study Abroad as well as to the department. The department also offers advice to students interested in non-KU programs or in summer internships at archaeological sites.

Minor in Classics
Why study classics?
Because knowledge of Greek and Roman antiquity is fundamental to understanding the ancient and modern world.

Requirements for the Minor
The minor requires 18 credit hours (12 hours at the junior/senior level) in courses in the Department of Classics (and other approved courses).

Minor Hours & GPA
While completing all required courses, majors must also meet each of the following hour and grade point average minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 hours of junior/senior (300+) hours of KU resident credit in the minor.

Minor Junior/Senior Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 GPS in all departmental courses in the minor. GPA calculations include all departmental courses in the field of study including Fs and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Greek
- 18 hours in ancient Greek and related courses. At least 6 of those hours must be in ancient Greek at the 300 level or above.
- In addition to courses in Greek, students may include CLSX 317 or CLSX 526, any other CLSX courses at the 300 level or above (not including CLSX 340 or CLSX 501), and PHIL 608.

Latin
- 18 hours in Latin and/or related courses. At least 6 of those hours must be in Latin at the 300 level or above.
- In addition to Latin courses, students may include CLSX 317 or CLSX 527, any other CLSX courses at the 300 level or above (not including CLSX 330, CLSX 384, or CLSX 388), and PHIL 608.

Classical Antiquity
- 18 hours in classics and related courses. At least 12 hours must be in CLSX courses; 6 hours may be in Greek, Latin, ancient philosophy, or ancient history (excluding HIST 107).

Classical Languages
- 18 hours in Latin and/or Greek. At least 12 of those hours must be in ancient Greek or Latin at the 300 level or above.

Master of Arts in Classics
Why study classics?
Because knowledge of Greek and Roman antiquity is fundamental to understanding the ancient and modern world.

Graduate Teaching Assistantships
Financial support is available in the form of teaching assistantships in Latin, Greek, or mythology. Contact the department (http://classics.ku.edu) for information.

Visit the Graduate Studies website for information about funding opportunities (http://www.graduate.ku.edu/funding-opportunities) for graduate students at KU.

Financial Aid and Scholarships (http://affordability.ku.edu/steps/index.shtml) administers grants, loans, and need-based financial aid.

Admission to Graduate Studies
An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.
Graduate Admission

The B.A. in classics or another field in the humanities is required. For admission to the graduate program, the entering student should have 15 junior/senior hours in Latin and/or Greek. Well-qualified candidates with fewer hours in ancient languages are considered for admission and may be offered positions as graduate teaching assistants in non-language courses. Financial support is available in the form of teaching assistantships in Latin, Greek, or mythology. The Graduate Record Examination is not required but is necessary if the applicant wishes to be considered for university-level scholarships.

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the department:

The University of Kansas
Department of Classics
Graduate Advisor
Wescoe Hall
1445 Jayhawk Blvd., Room 1021
Lawrence, KS 66045-7594

Scholarships and Awards

The department offers several scholarships and awards, such as the Mildred Lord Greef award for best paper or essay, the Albert O. Greef award for literary translation, the Tenney Frank scholarships for undergraduate study, and the Tenney Frank awards for foreign study of the classics. For information, contact the department.

All graduate students who wish to be considered for KU scholarships and financial aid must complete applications with Financial Aid and Scholarships.

M.A. Degree Requirements

Course Requirements

1. The degree program consists of 30 hours, whether one chooses the thesis or non-thesis option.
2. The student may stress either Latin or Greek or a combination of both. Students who take only one of the ancient languages at the graduate level must present at least 10 hours of elementary course work in the other; this requirement may also be satisfied by passing a departmental examination.
3. Students may select their 30 hours from graduate courses in Greek, Latin, classics, and certain courses in philosophy, history, history of art, and linguistics. A maximum of 12 hours may be taken in non-language courses.
4. Students who elect to write an M.A. thesis must complete at least 24 hours on the graduate level, in addition to 6 hours of Thesis (LAT 899 or GRK 899 or CLSX 899). In consultation with the graduate advisor, each student selects a thesis committee of 3 members.
5. The student selecting the non-thesis option must complete 30 hours of courses on the graduate level. In 2 of these courses, students must prepare research papers that meet the approval of the appropriate instructors and the graduate advisor. These papers are placed on file in the department office.

Language Requirements

Incoming graduate students take a diagnostic reading examination in Greek or Latin or both if they plan to take graduate-level courses in both languages. Students who take only one of the ancient languages at the graduate level must demonstrate a basic knowledge of the other. By the end of graduate study, the student must also demonstrate a reading knowledge of German, Italian, or French by using the established university procedures for determining graduate language proficiency (as defined under Doctor of Philosophy, Research Skills in the Graduate Studies (p. 2059) section of the online catalog).

Examinations

A written general examination is required of all M.A. students. For further information, see the departmental handbook.

Clinical Child Psychology Program

Clinical Child Psychology Graduate Program

The Clinical Child Psychology Program (CCPP) at the University of Kansas is a graduate program leading to the doctoral degree (Ph.D.) in Clinical Child Psychology. The CCPP is accredited by the American Psychological Association’s Commission on Accreditation as a clinical psychology doctoral training program with a special emphasis on children, adolescents, and families. The Program is affiliated with the Department of Psychology and Applied Behavioral Science, and has strong ties with Department of Pediatrics at the University of Kansas School of Medicine (KUMC). The program does not offer a terminal Masters degree. However, students admitted to the Doctoral program without a Masters degree will obtain a MA in Clinical Child Psychology en route to the Ph.D.

The mission of the CCPP is to develop leaders in the research, dissemination, and practice of clinical science for children, youths, and their families. As such, doctoral training in the CCPP develops clinical scientists capable of conducting innovative research and developing and delivering interventions for a range of human problems, particularly those involving children and families. In service of its mission, the CCPP is designed to promote professional competencies in four specific domain areas (Research, Clinical Practice, Professionalism, and Leadership/Professional Communications). This is accomplished through broad and general training across the substantive areas of the science of psychology (i.e., behavioral, social, cognitive, affective, and biological bases of psychology), specialized training in research methodology and statistical analytic methods, and specialized clinical training through basic and advanced practica. Subdomains of the professional competency and substantive knowledge areas are detailed in the CCPP Training Manual (http://www.ccpp.ku.edu/sites/ccpp.ku.edu/files/docs/Manual%20Revised %20July%202013.pdf). A particular strength of the program is the developmental perspective that pervades all core courses.

The field of psychological science is changing rapidly, with advances in our understanding, assessment, diagnosis, prevention, and treatment of a range of conditions. Our goal is to train the professionals who are at the forefront of these advances in research, dissemination, education, and service. The program’s didactic and practical experiences prepare graduates for the many roles open to clinical child psychologists. Graduates hold research/teaching positions in universities, medical schools, colleges, and internship programs, and direct service delivery
positions in mental health centers, hospitals, and schools. A summary of graduate placements is available at www.ccpp.ku.edu/program-graduates.

In its fulfillment of the training model of clinical psychology known as the “scientist-practitioner model,” the CCPP utilizes report of the National Conference on Scientist-Practitioner Education and Training for the Professional Practice of Psychology. This conference defined the model as “an integrative approach to science and practice wherein each must continually inform the other” in which the scientific research base is related to clinical practice, and practice elements are inherently interrelated to research. The CCPP places an extremely high priority on the development of research skills and competencies.

Students can complete course work, practicum requirements, and research requirements for the doctoral degree in 4 years of full-time study followed by a 1-year pre-doctoral clinical internship at an approved site, although some students take longer. Students are expected to, and indeed want to, participate maximally in research and clinical experiences to ensure the breadth of their training. An empirically-based master’s thesis (if not obtained prior to admission), qualifying examination, and doctoral dissertation are formal milestones of research progress in addition to regular evaluation in courses, clinical practica, and annual faculty reviews.

The Director of the Program serves as the official Academic Advisor for all students in the program. As such, the Director bears responsibility for assisting the student in course selection, articulating career goals, assisting with program requirements (e.g., internship applications), and designing experiences consonant with career goals. However, each student in the Clinical Child Psychology Program selects a Research Advisor who provides individualized guidance with regard to course selection, developing and articulating career goals, and designing experiences consonant with career goals.

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Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to
Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

**Graduate Admission**

Admission to the CCPP is highly competitive. All completed applications are reviewed and incoming students are selected by an admissions committee chaired by the Program Director and comprising core CCPP faculty members and a student representative. Essential requirements for admission include (a) a Bachelor’s degree from an accredited institution, (b) a record of scholarly achievement that shows strong promise of success in course work, research, and clinical work, and (c) at least 15 credit hours in psychology coursework, including statistics and research methodology. Preferred qualifications for admission include a strong record of research experience and evidence of research productivity (e.g., presentations, posters, honors theses).

The Admissions committee will use the following when determining suitability for admission: The applicant’s transcripts and grade point averages (GPAs) from previous educational institutions; scores from the Graduate Records Examination (verbal reasoning, quantitative reasoning, analytic writing, and, for students who did not major in psychology, the Advanced Test in Psychology); a writing sample; a written statement of interests/goals provided by the candidate; the candidate’s résumé or CV; and 3 letters of recommendation from professionals who can address the candidate’s potential in a doctoral training program. Highly rated applicants will be invited to interview with CCPP faculty and students prior to admissions decisions. Financial aid is available. Please visit the program’s website for information regarding student admissions, outcomes, and other data (http://www.ccpp.ku.edu/student-admissions-data).

Submit your graduate application online (http://www.graduate.ku.edu) (College of Liberal Arts and Sciences, Psychology — Clinical Child Psychology Program) as well as all supplemental materials.

**Clinical Child Psychology Curriculum**

The following curriculum meets criteria for APA accreditation and KU general requirements.

**Psychology Core**

1. Biological Aspects:
   - PSYC 961 Biological Foundations of Psychopathology 3

2. Cognitive/Affective Aspects:
   - PSYC 870 Cognitive Development 3

3. Social Aspects:
   - ABSC/PSYC 825 Social Development 3

4. History of Psychology. Select one of the following:
   - PSYC 805 History of Psychology
   - ABSC 921 The History and Systems of Psychology
   - PRE 882 History and Systems of Psychology

5. Cultural and Ethnic Diversity:
   - ABSC/PSYC 888 Diversity Issues in Clinical Psychology 3
   - or PRE 875 Individual and Cultural Differences in Counseling Psychology

**Clinical Child Psychology Specialty Skills**

**Psychopathology, Psychodiagnosis, and Psychological Assessment**

**Required:**

- ABSC/PSYC 803 Fundamentals of Psychological Assessment and Intervention with Children 3
- ABSC/PSYC 811 Achievement and Intellectual Assessment in Clinical Child Psychology 3
- ABSC/PSYC 812 Behavioral and Personality Assessment of Children 3
- ABSC/PSYC 905 Psychopathology in Children 3

**Intervention and Therapy Procedures**

**Required:**

- ABSC/PSYC 976 Therapeutic Interventions with Children 3-5
- Select one of the following: 3
  - PSYC 967 Psychotherapy with Families
  - PRE 956 Theory of Couples and Family Counseling
  - PSYC 946 Theories and Methods of Psychotherapy
  - PSYC 949 Empirically Supported Treatment
  - PSYC 936 Group Therapeutic Techniques

**Clinical Practica**

**Required (17 credit hours, 275 contact hours):**

- ABSC/PSYC 846 Practicum in Clinical Child Psychology I 1-3
- ABSC/PSYC 847 Practicum in Clinical Child Psychology II 1-3
- ABSC/PSYC 943 Advanced Practicum in Clinical Child Psychology III 1-3
- ABSC/PSYC 944 Advanced Practicum in Clinical Child Psychology IV 1-3
- ABSC/PSYC 947 Advanced Practicum in Clinical Child Psychology V 1-5

**Ethics/Professional Standards**

**Required:**

- PSYC 975 Professional and Ethical Problems in Clinical Psychology 3
- or PRE 880 Ethical and Legal Issues in Professional Psychology
- ABSC/PSYC 809 Professional Issues: Clinical Child Psychology (one semester)

Clinical adult psychology workshop (offered every other year)

Students are expected to function within the code of professional ethics of the American Psychological Association (http://www.apa.org/ethics/code) in their behavior and personal demeanor. Adherence to these ethical principles is part of the regular evaluation of students for completion of the degree in clinical child psychology.

**Consultation and Supervision**

- PSYC/ABSC 706 Special Topics in Clinical Child Psychology: _____ 3
- or PRE 945 Clinical Supervision and Consultation
Research and Statistics Core Courses

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 815</td>
<td>Design and Analysis for Developmental Research</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 968</td>
<td>Research Methods in Clinical Psychology</td>
<td></td>
</tr>
<tr>
<td>PSYC 790</td>
<td>Statistical Methods in Psychology I</td>
<td>4</td>
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<tr>
<td>or PRE 811</td>
<td>Analysis of Variance</td>
<td></td>
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<tr>
<td>PSYC 791</td>
<td>Statistical Methods in Psychology II</td>
<td>4</td>
</tr>
<tr>
<td>or PRE 810</td>
<td>Regression Analysis</td>
<td></td>
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</tbody>
</table>

Alternates to PSYC 791/PRE 810 include the following:

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tr>
<td>ABSC 735 &amp; ABSC 796</td>
<td>Within Subjects Research Methodology and Direct Observation and Laboratory in Behavioral Development and Modification: The Analysis of Behavior I</td>
<td></td>
</tr>
<tr>
<td>ABSC 940</td>
<td>Measurement and Experimental Design for Applied Research</td>
<td></td>
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</table>

Ph.D. Preliminary Examination: The Task

The program uses the Task system for its preliminary examination in research methodology, teaching, or applied/clinical area. Details are available in the Clinical Child Psychology Program Training Manual, available on the program’s website (http://clchild.ku.edu).

Ph.D. Oral Comprehensive Examination

Upon completion of all course requirements for the Ph.D. and of the Task, except for dissertation and internship, the student must pass the oral comprehensive examination. Details are available in the Clinical Child Psychology Program Training Manual, available on the program’s website (http://clchild.ku.edu).

Doctoral Dissertation

The Ph.D. dissertation must be based on an original, empirical investigation. A minimum of 12 hours in dissertation in clinical child psychology is required.

Predoctoral Internship

An 11-month clinical internship at a setting accredited by the American Psychological Association is required. Students enroll in ABSC 963/PSYC 963 for a total of 3 credit hours.

Courses

See the course listings for the Departments of Applied Behavioral Science and Psychology.

Department of Communication Studies

Why study communication studies?

Because effective and ethical communication is at the core of family, of human organizations of all types, and of democratic decision making.

Undergraduate Programs

In our complex, mediated, global, and pluralistic world, we are awash in messages. Others seek to influence our ideas and our actions, and we seek to influence theirs. Studying human communication in its many forms and contexts enables students to be engaged civic participants, reflective audience analysts, effective communicators at work and in relationships, and reflective consumers of messages. Examining communication through historical and contemporary lenses demonstrates its power to move individuals, to enable the development of groups ranging from families to nations, and to inspire events. The communication studies curriculum prepares students to engage with the world they enter as thoughtful, critical communicators and as agents of community building in a global world.

Master’s Degree and Thesis

The master’s degree requires a thesis consisting of empirical research and a minimum of 30 hours of course work (24 of which must be nonthesis credit hours). A minimum of 6 credit hours in ABSC 897/PSYC 897 Master’s Thesis in Clinical Child Psychology is required.

Graduate Programs

The Department of Communication Studies offers the Master of Arts and Doctor of Philosophy degrees.

KU Edwards Campus M.A. Program

The M.A. also is offered on the KU Edwards Campus (http://edwardscampus.ku.edu) in Overland Park. The requirements for the
degree at the Edwards Campus are the same as for the program on
the Lawrence campus. Edwards Campus classes are taught by the
same faculty members who teach regularly in Lawrence. Courses are
scheduled during the late afternoons and evenings to accommodate
working professionals.

Dual-title Ph.D. in Communication Studies
and Gerontology

This dual-title degree is an option available to students who have first
been admitted to the doctoral program. The dual-title degree allows the
pursuit of a single degree that incorporates study within a traditional
discipline and training in an interdisciplinary field; the student is awarded
one degree (Ph.D.) with both titles identified on the diploma (e.g., “Ph.D.
in Communication Studies and Gerontology”).

This option is designed to appeal to students who are strong in a
traditional discipline but also motivated to study across disciplinary lines.
In the course of study, students can avail themselves of disciplinary
depth and interdisciplinary breadth. At the post-doctoral stage, dual-title
graduates will have enhanced career and employment opportunities,
able to claim expertise in one or both titles of their degree when seeking
positions in education and research.

More information about this option, its admissions requirements, and plan
of study can be found on the department website or the website of the
Gerontology program.

Courses

COMS 104. Introduction to Communication Studies. 3 Hours. H.
Survey of the major areas of the Communication Studies field. Provides
an overview of communication theory and research methods, and
introduces key topics, approaches, and applications in core areas such
as rhetoric, organizational communication, interpersonal communication,
terculural communication, and communication technology. LEC.

COMS 130. Speaker-Audience Communication. 3 Hours. GE22 / U.
Study of rhetorical theory and its application to the preparation,
presentation, and criticism of oral discourse in audience situations.
Special consideration of listening behavior and of the ethical conduct
of speech in a free society. This course fulfills the College argument and
reason requirement. LEC.

COMS 131. Speaker-Audience Communication, Honors. 3 Hours.
GE22 / U.
The study of rhetorical theory and its application to the preparation,
presentation, and criticism of oral discourse in audience situations.
Special consideration of listening behavior and of the ethical conduct
of speech in a free society. This course fulfills the College argument and
reason requirement. This is an honors section of COMS 130 open only to
students in the Honors Program. LEC.

COMS 132. Oral Communication for the Professional Schools. 3
Hours. GE22 / H.
Grounded in communication theory, the purpose of this new course is
to teach public speaking skills within a professional context. Focus is on
the preparation, presentation, and critique of various forms of oral
communication, including but not limited to informative, persuasive,
and group presentations. Course is restricted to students in the professional
schools. LEC.

COMS 150. Personal Communication. 3 Hours. U.
This course is an introduction to communication theory, process, and
skill. The course seeks to increase the student’s understanding of
communication theory, both interpersonal and public, and of his or her
own communicative behavior. Class projects and participation urge
students to apply this theoretical knowledge to a variety of settings,
including interpersonal and addressing groups and audiences. This
course does not fulfill the College argument and reason requirement. Not
open to those who have credit in COMS 130. LEC.

COMS 177. First Year Seminar: _____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing
current issues in Communication Studies. Course is designed to
meet the critical thinking learning outcome of the KU Core. First-Year
Seminar topics are coordinated and approved by the Office of First-Year
Experience. Prerequisite: First-time freshman status. LEC.

COMS 201. Introduction to Leadership. 2 Hours. H.
This course introduces students to the study of the leadership process.
The course covers theories and research on core themes of leadership,
foosing on how course materials relate to students’ own leadership
experiences. This course is taught online. Concurrent enrollment in
COMS 202 is recommended. Students considering the Leadership
Studies Minor must complete COMS 202. Not open to seniors. LEC.

COMS 202. Introduction to Leadership Applications. 1 Hour. AE51 / H.
This course focuses on the application of information learned in COMS
201. Activities and discussions emphasize application, analysis, and
engagement with the process of leadership. Concurrent enrollment in
COMS 202 is recommended. Students considering the Leadership
Studies Minor must complete COMS 201 and COMS 202. Not open to
seniors. Prerequisite/co-requisite: COMS 201. LEC.

COMS 210. Communication in Organizational and Professional
Contexts. 3 Hours. S.
Introduces foundational concepts in organizational communication,
ocusing on topics such as superior-subordinate relationships,
formation- and feedback-seeking, relationships with stakeholders,
and dealing with organizational change. The course emphasizes
individual communication practices and responsibilities that contribute to
organizational outcomes and personal success in organizations. LEC.

COMS 230. Fundamentals of Debate. 3 Hours. GE11 / U.
Introduction to the principles of debating. Emphasis on debating
iches, analysis of the question, methods of using evidence,
utation, and brief making. This course fulfills the College argument and
reason requirement. LEC.

COMS 231. Practicum in Forensics. 1 Hour. U.
For students selected by faculty supervisor for work on university debate
quad. Students to enroll at time of their selection. Recurring enrollments
mitted. FLD.

COMS 232. The Rhetorical Tradition. 3 Hours. HR / H.
Historical survey of theories of communication and persuasion, the people
who produced them, and the philosophical assumptions upon which they
rest. Beginning with the Greeks, especially Plato and Aristotle, and ending
with selections from Kenneth Burke and other contemporary figures, the
course focuses on changing concepts of rhetoric throughout a time span
of some 2000 years. Prerequisite: COMS 130, COMS 150, or COMS 230.
LEC.

COMS 235. Introduction to Rhetoric and Social Influence. 3 Hours.
HL GE11 / H.
This course examines in detail the texts of speeches and essays on
controversial issues in order to illustrate the varied forms of rhetorical
action and the diverse modes of analysis and evaluation that can be
plied to them. Examples are drawn from the rhetorical literature of
Students will write short technical reports, plan meetings and conferences, electronically mediated communication skills necessary for business. The purpose of this course is to develop effective written, spoken, and interpersonal influence. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 244. Introduction to Interpersonal Communication Theory. 3 Hours. S GE3S / S.
Examines basic theoretical perspectives and research on verbal and nonverbal communication elements affecting communication between individuals in a variety of contexts. Topics include communication competence, developmental aspects of interpersonal communication, and interpersonal influence. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 246. Introduction to Intercultural Communication. 3 Hours. S.
This course attempts to provide an understanding of communication as it affects culture and as it is affected by culture. Special emphasis will be placed on the principle of similarity and differences as it relates to the roles of verbal and non-verbal symbols, codes, and cues, stereotypes, prejudices and value and thought patterning systems between and among cultures. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 307. Introduction to Political Communication. 3 Hours. S.
The primary goal of this course is to encourage critical engagement in politics and political campaigns. This course addresses various elements of political communication, with primary focus on the political campaign. By the end of the semester students are able to understand the relevant theories of political communication, evaluate and use critical thinking skills in consuming political messages, and grasp the complex structural and situational factors that influence political discourse. Prerequisite: COMS 130. LEC.

COMS 310. Introduction to Organizational Communication. 3 Hours. SC GE3S / S.
This course provides a foundation for the study of communication in organizational contexts. It introduces students to various organization theories including classical, human relations, systems, and cultural approaches and examines the role of communication in each. Information flow, communication climate, communication networks, work relationships and managerial communication are discussed as well as organizational symbolism, conflict resolution, rituals and ethics. The course is designed to heighten students’ awareness of the role of communication in the organizing process and to develop their abilities to diagnose and prevent communication-related problems. Prerequisite: COMS 130 or COMS 150. LEC.

COMS 320. Communication on the Internet. 3 Hours. S.
This course introduces social and communication issues in the context of online interaction. Surveys a range of social internet technologies (e.g., newsgroups, chat, MUDs, etc.). Focus is on the interpersonal topics, including the establishment and maintenance of individual and cultural identities, personal relationships, the emergence of online communities, power and conflict in online groups, language use in online contexts, and how online groups are used to enhance or alter civic and global cultures. LEC.

COMS 330. Effective Business Communication. 3 Hours. S.
The purpose of this course is to develop effective written, spoken, and electronically mediated communication skills necessary for business. Students will write short technical reports, plan meetings and conferences, prepare and present briefings and persuasive proposals with visual aids, and examine the use of new communication technologies. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 331. Persuasive Speaking. 3 Hours. H.
Guided experiences in the preparation and presentation of discourse intended to influence outcomes of human interactions in various speaker-audience situations, including television. Special emphasis on speech styles in influencing thought, attitudes, and behavior. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 335. Rhetoric, Politics and the Mass Media. 3 Hours. H.
This course investigates the ways in which rhetorical strategies (persuasive and linguistic usage) permeate the relationship between politics and politicians and the mass media. We will analyze media coverage of political debates, the presidential use of radio, television and press conferences, and the network evening news coverage of political events to see how political decisions are influenced by and influence the media. (Same as POLS 521.) Prerequisite: COMS 130 or COMS 150. LEC.

COMS 342. Problem-Solving in Teams and Groups. 3 Hours. S.
This course introduces basic concepts important to leading and/or participating in problem-solving work teams. Problem identification and analysis and leadership are emphasized and practiced. Teamwork variables are discussed and promoted. Lecture, demonstrations, exercises in class are structure for students to analyze groups outside of class. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 344. Relational Communication. 3 Hours. S.
This course studies communication issues, theories, research and skills applicable to sustaining and enriching long-term relationships, such as families, friendships and close workplace collaborations. Emphasis is given to applying course concepts to students’ own relationships and interaction in class. Prerequisite: COMS 244. LEC.

COMS 356. Introduction to Behavioral Research Methods in Communication. 3 Hours. GE12 / S.
An introduction to the nature of theory and theory building in the study of human communication. Research methods include experimentation, survey, content analysis, and field description. An introduction to statistics and statistical tests is included as well. Prerequisite: MATH 101 and admission to the Communication Studies major or consent of instructor. LEC.

COMS 410. Micro-Level Organizational Communication. 3 Hours. S.
An examination of dyadic level communication in organizations, with emphasis on contexts of superior-subordinate and peer communication. The course also addresses contexts of organizational entry and exit, perception and judgment, information seeking, feedback, and organizational attachment. Prerequisite: COMS 310. LEC.

COMS 411. Marco Level Organizational Communication. 3 Hours. S.
An exploration of the communication patterns and challenges between organizational groups and organizations as a whole. Key elements include networks, boundary spanning, inter-organizational collaboration, and the role of technology in linking large organizational components. Prerequisite: COMS 310 or instructor permission. LEC.

COMS 412. Communication in Distributed Organizations. 3 Hours. S.
Examination of the communication challenges faced by distributed organizations, especially those with a global presence. Topics include telework, virtual terms, and new processes required to support interaction among people located in several different places. Prerequisite: COMS 310 or permission of instructor. LEC.
COMS 420. Communication, Technology and Globalization. 3 Hours. H.
Examines the social, cultural, and economic challenges and opportunities advanced communication technologies and globalization pose to processes such as democratic deliberation, urban governance, and environmental sustainability. Prerequisite: COMS 130. LEC.

COMS 425. Communication and the American Presidency. 3 Hours. H.
Examination of the ways in which American presidents communicate with the American people and how such communication influences the public. Emphasis is on a number of approaches to better understanding presidential communication, including rhetorical, historical, and content analysis. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 431. Communication and Leadership. 3 Hours. H.
This course provides an overview of the role of communication in leadership in a variety of contexts, including: interpersonal, small group, intercultural, organizational, and public sphere. It will include theoretical and experiential approaches to effective leadership communication. Prerequisite: Admission to Leadership Minor or consent of instructor. LEC.

COMS 435. Forms and Styles of American Public Discourse. 3 Hours. H.
Changing styles of public discourse are examined from the beginning of the nation to contemporary times, and the generic forms of address that have emerged from our national dialogue, such as jeremiads, inaugurals and apologies, are studied from a formistic perspective. Prerequisite: COMS 235. LEC.

COMS 440. Communication and Gender. 3 Hours. AE41 / S.
Focuses attention on the relationship between communication and gender, including both physical and psychological dimensions. Topics include: sex role orientations and stereotypes; perceived and actual differences in verbal and nonverbal communication behaviors; the influence of gender on communication in a variety of contexts. (Same as WGSS 440.) Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 441. Health Communication. 3 Hours. H.
This course is a survey of the many disciplines found in the field of health communication, including persuasion that targets health-related behavior, negotiation of treatment with health care providers, emotional support of patients, news media coverage of medical research, and health campaign principles. Prerequisite: COMS 130. LEC.

COMS 447. Intercultural Communication: The Afro-American. 3 Hours. AE41 / H/W.
An examination of the barriers to effective communication between black Americans and non-black Americans. (Same as AAAS 420.) Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 450. Ethical Issues in Political Communication. 3 Hours. H.
Application of ethical standards to the evaluation of political communication. Examination of value questions related to advocacy in modern society (propaganda, demagoguery, credibility). Analysis of First Amendment rights and other issues pertaining to censorship and freedom of speech (defamation, dissent, incitement, public morals, privacy). Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 453. Communication in Political Campaigns. 3 Hours. H.
This course examines political communication as it evolves throughout a political campaign and includes such topics as theories and strategies, stages in political campaigns, influence of the mass media, television advertising, candidate debates, polling, and the use of new technologies in delivering campaign communication. Selected examples from recent campaigns illustrate the strategies and effects of political communication as we examine how politicians persuade us to vote for them. Prerequisite: A course in communication studies. LEC.

COMS 459. Undergraduate Seminar in: ______. 1-3 Hours. H.
Course organized any semester to study particular subject matter or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. (Distribution credit given for two or three hour enrollments only.) LEC.

COMS 460. Undergraduate Seminar in: ______. 1-3 Hours. S.
Course organized any semester to study particular subject matter or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. (Distribution credit given for two or three hour enrollments only.) LEC.

COMS 485. Communication and Organizational Change. 3 Hours. S.
Examines communication processes that support or hinder implementation of organizational change. Topics include stakeholder analysis, individual responses to change, communicating about change, generating support for change, and managing resistance to change. LEC.

COMS 496. Capstone in: ______. 3 Hours. S.
In the capstone course students synthesize and apply knowledge and skills gained through the major. Capstone coursework requires students to integrate practices and theories learned in their areas of concentration. Topics within each concentration change as needs and resources develop. Prerequisite: Senior standing, COMS 130, and completion of COMS 235 and COMS 356 or concurrent enrollment. LEC.

COMS 497. Honors Seminar. 3 Hours. AE61 / H.
This course is intended for honor students who want to learn more about the history of communication studies, major areas of research, or more in-depth knowledge about special communication-related topics. Areas to be covered may change as needs and resources change. LEC.

COMS 498. Honors Thesis. 2-6 Hours. AE61 / H.
(Six hours maximum credit, which may be distributed through two semesters.) Study should include readings directed toward original research, i.e., an intensive investigation of a specific problem in this field. Prerequisite: Consent of the Department Honors Committee. IND.

COMS 499. Directed Study in Communication Studies. 1-3 Hours. H.
(A maximum of six hours of credit may be counted, with not more than four in a single area of study.) Investigation of a special topic or project selected by the student with advice, approval, and supervision of an instructor. Such study may take the form of directed reading, or special research, individual reports and conferences. (Distribution credit given for two-three hours only.) Prerequisite: At least seven hours of credit in the department and consent of instructor. IND.

COMS 503. Post-Soviet Communication. 3 Hours. H.
This course is designed to acquaint students with the shifting manner of public discourse in Post-Soviet Russia and help them to explore in some depth cross-cultural communication between America and Russia. In addition to contemporary and historical background on Russian communicative practices, students examine discourse in business development, mass media, marketing, and advertising. All readings in English. (Same as SLAV 503). LEC.

COMS 530. Internship in Communication Studies. 1-3 Hours. AE61 / S.
Students do communication-centered fieldwork in an organization related to their career goals. Criteria for the organizations and work assignments suitable for internship credit are in an information brochure available at the COMS Department office and website. The internship plan is developed
with field supervisor and internship faculty adviser. Reports and meetings are required. Prerequisite: Permission of instructor, admission to COMS major. FLD.

**COMS 531. Seminar in Leadership Strategies and Applications. 3 Hours.**
This seminar serves as the capstone course for the Leadership Studies minor. It includes advanced readings on leadership theory and practice, as well as major written and applied projects in which students integrate and demonstrate what they have learned in the program. Prerequisite: COMS 201, COMS 431, and admission to the Leadership Studies minor. LEC.

**COMS 532. Leadership Studies Practicum. 1-3 Hours. AE61 / U.**
Students engage in a variety of training programs and field experiences in which they learn about leadership, observe leaders in action, and involve themselves in leadership activities. Written assignments and group discussions are used to analyze their learning. Should be taken for a total of three credit hours, across more than one semester. Prerequisite: COMS 201 and admission to the Leadership Studies minor. FLD.

**COMS 535. American Public Address, Puritans to 1900. 3 Hours.**
A history of American public address from the Puritans to about 1900. Using the tools of rhetorical criticism, students describe, analyze, and evaluate select rhetoric from the period. Graduate students are assigned extra reading and a research paper. Prerequisite: COMS 235. LEC.

**COMS 536. American Public Address, 1900-Present. 3 Hours.**
A history of American public address from 1900 to the present. Using the tools of rhetorical criticism, students describe, analyze, and evaluate select rhetoric from the period. Graduate students are assigned extra reading and a research paper. Prerequisite: COMS 235. LEC.

**COMS 537. Communication in Conflict Resolution. 3 Hours.**
An examination of conflict situations and the manner in which communication can serve as a vehicle for their intensification or resolution. The focus is on the theory of games as it applies to conflict within interpersonal situations; implications will be drawn for larger social systems. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

**COMS 538. Persuasion Theory and Research. 3 Hours.**
This course focuses on the social scientific study of persuasion. Traditional theories of attitude change and persuasion research are studied along with techniques of measuring attitudes. Attention is also given to the attitude-behavior relationship and the production of compliance-gaining messages. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

**COMS 539. Argumentation. 3 Hours.**
Analysis of the theory and techniques of argumentation in historical and contemporary writings, with special emphasis on the works of Aristotle, John Stuart Mill, Richard Whately, and Stephen Toulmin. Application of argumentation theory to political and legal discourse. Opportunity for student performances in the preparation and criticism of argument. Prerequisite: Four hours in the department. LEC.

**COMS 543. Group Leadership Practicum. 1-3 Hours.**
Theory and practice in leadership of small group interaction. Includes responsibility for conducting a semester-long series of group meetings in an educational context under the supervision of faculty, study and training in leadership skills, a weekly practicum seminar, and individual conferences with supervising instructor. May be taken more than once, but not for more than four hours total credit. (Distribution credit given for two-three hours only.) Prerequisite: COMS 344, COMS 455, and permission of instructor. FLD.

**COMS 544. Advanced Interpersonal Communication: Theories and Research. 3 Hours.**
Intensive exploration of contemporary theories and research in the field of interpersonal communication; emphasis on an array of theoretical models and research exemplars; comparative analysis of major theoretical and research paradigms. Prerequisite: COMS 244 or instructor consent. LEC.

**COMS 546. Communication Across the Life-span. 3 Hours.**
Examination of the ways in which communication changes across the life-span, and influences human development. Course will include topics such as barriers to communication among elderly populations; communication and mis-communication across generations; the role of language in constructing life-span development (e.g., the mid-life crisis); development of language and social interaction during childhood; peer relationships and communication in adolescence; uses and effects of mass communication across the life-span. Prerequisite: COMS 244 and COMS 356. LEC.

**COMS 547. Communication and Culture. 3 Hours.**
A study of the systematic relationship between communication and culture. Emphasis is on culture as a variable in communicative situations: cultural aspects of attitude and cognition, language interchange, cultural differences in extra-verbal behavior, interaction between oral traditions and mass media. Prerequisite: COMS 130, COMS 150, COMS 230, or an introduction course in anthropology. LEC.

**COMS 548. Theories of the Interview. 3 Hours.**
Comprehensive study of communication processes in dyadic, face-to-face situations commonly encountered in organizations and professional environments. Intensive analysis of simulated and real-life interviews. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

**COMS 549. Communication in Service and Sales. 3 Hours.**
This course will deal with communication between organizational personnel and their customers or clients. Case studies and research concerning communication behaviors of service providers and salespeople will be covered. Prerequisite: COMS 310. LEC.

**COMS 551. The Rhetoric of Black Americans. 3 Hours. H/W.**
A study of the rhetoric of black Americans, from their earliest protest efforts to the contemporary scene, with focus on the methods and themes employed to alter their status in American society. (Same as AAAS 534.) Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

**COMS 552. The Rhetoric of Women’s Rights. 3 Hours. AE41 / H.**
An analysis of the themes and rhetorical strategies of the women’s rights movement in America. The course will view the struggle for women’s rights from a historical perspective and will conclude with contemporary issues concerning the role of women in society. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

**COMS 554. Rhetoric of Popular Culture. 3 Hours. H.**
A study of the social and cultural importance of popular culture. Emphasis is on using rhetorical analysis and a number of important theoretical perspectives to help examine popular culture’s often unnoticed influence. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

**COMS 555. Family Communication. 3 Hours.**
An examination of trends and theory related to the scientific study of the family, with a focus on issues related to family interaction, functioning, relationships, and communication. Research and theories from communication, sociological, and psychological perspectives are employed to examine topics such as family violence, mental health problems, marital satisfaction, divorce, courtship, and the impact of the family on its children (and vice versa). Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.
COMS 557. East Asian Communication. 3 Hours. S.
Explores the major communication theories and research in the East Asian cultural contexts by focusing on the Chinese, Japanese, and Korean cultures. Examines, from a broader perspective, certain cultural values (e.g., harmony, hierarchy, conservatism, and modernism) upheld in East Asian cultures and their influences on people’s communicative behaviors in an age of globalization. Students explore issues of history, identity, verbal and non-verbal symbols, stereotypes, prejudice, values and thought patterning systems in the East Asian cultural context from a communicative perspective. This course is designed as a bridge course and meets with a graduate level section of the same title. Prerequisite: COMS 246. LEC.

COMS 559. Seminar in: ____. 1-3 Hours. H.
Course organized any given semester to study particular subject matter or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. (Distribution credit given for two-three hours only.) LEC.

COMS 560. Seminar in: ____. 3 Hours. S.
Course organized any given semester to study particular subject matter or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. (May be repeated for credit if content varies.) LEC.

COMS 590. Nonverbal Communication. 3 Hours. S.
Examination of non-linguistic behavior in human communication, including proxemics (spacing), kinesics (movement and expression), and paralinguistics (voice quality). Includes phylogenetic and developmental perspectives, methods of analysis, applications to interpersonal problems. (Same as PSYC 590.) Prerequisite: COMS 356 or PSYC 210 or PSYC 211. LEC.

COMS 603. Topics in Presidential Rhetoric: ____. 3 Hours. H.
This course involves an examination of presidential rhetoric, including a focus on the strategies present in presidential discourse, the function that this rhetoric serves, and the historical context in which it was presented. One or more important presidential rhetors will be covered each semester. This course can be repeated for credit if taken under a different topic. LEC.

COMS 605. Speech Writing. 3 Hours. H.
Emphasis is on actual practice in preparing speech manuscripts for oneself and others. Model speeches are examined to better understand language, evidence, and stylistic choices available to speech writers. The ethical dimensions of writing for others in corporate and political positions are stressed. Students are required to prepare a variety of speeches and analyses of others’ speeches. Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

COMS 607. Political Communication. 3 Hours. H.
This course will focus on contemporary political communication theory and illustrate how such theories are exemplified in modern political contexts; political arguments and developing consensus, constitutional issues and hearings, the rhetorical presidency, the dissemination of political information, and political uses of definition. (Same as POLS 520.) Prerequisite: COMS 130 or COMS 150. LEC.

COMS 620. Communication and New Technology. 3 Hours. S.
This course explores the impact of new communication technology on individuals and groups in various contexts. Topics include: The development of computer-mediated communication, social and psychological impacts of new communication technology, the evolution of telework and advances in interactive telecommunications. LEC.

COMS 639. Legal Communication. 3 Hours. S.
An analysis of how communication principles and theories operate within the context of the legal system. Topics covered will include the lawyer/client interview, depositions and pre-trial discovery, settlement negotiation, jury selection, opening and closing statements, and witness testimony. Prerequisite: COMS 130 or COMS 150. LEC.

COMS 647. Issues in Intercultural Communication. 3 Hours. S.
Examination of the processes and factors affecting communication in an intercultural context, and of methods of training for intercultural communication roles. Prerequisite: COMS 547 and an introductory course in anthropology, or consent of instructor. LEC.

COMS 656. Mass Media: Social Science Applications. 3 Hours. S.
This course introduces students to the major theories of and prominent research in mass communication. The aim is to stimulate critical thinking about the content and effects of mass communication, develop critical consumption skills, and enhance awareness of public policy issues relating to the media. Students are required to read a variety of chapters and articles on mass communication, promoting independent investigation into specific areas of interest. This course is a bridge course and meets with a graduate level section of the same title. Prerequisite: COMS 356. LEC.

COMS 667. Interpersonal Communication in Multinational Organizations. 3 Hours.
A study of interpersonal communication in management and professional development in intercultural situations. Focus on preparation of the global manager or professional in the organizational environment. Special attention to the problems and challenges of intercultural interactions in the context of multinational organizations. LEC.

COMS 669. Human Conflict and Peace. 3 Hours. H.
Study of religious, cultural, and social traditions toward understanding the nature and purposes of human conflict. Analysis of various meanings of peace, with emphasis on study of nonviolent approaches to management of conflict. Class discussion, readings, and individual research projects. (Same as REL 669.) Prerequisite: Junior standing or above. LEC.

COMS 710. Survey of Theory and Research in Organizational Communication. 3 Hours.
This course examines the theoretical and philosophical underpinnings of organizational communication research. Course topics cover variable analytic traditions and systems theory, as well as cultural, critical, and various interpretive approaches to understanding communication in organizational contexts. Prerequisite: COMS 310 and permission of the instructor. LEC.

COMS 730. Writing and Speaking for Decision Makers. 3 Hours.
Theory and application of communication strategies for corporate communication. This course presents rhetorical analysis of organizational situations and audiences, focusing on corporate decision-makers. Included are informative and persuasive communications such as board presentations, requests for proposal and responses to RFPs, grant proposals, and persuasive presentations for adoption, implementation, or evaluation of organizational programs. Course is limited to Regents Center students only. LEC.

COMS 741. Special Topics in Communication Studies: ____. 2-3 Hours.
Examination of special topics in Communication Studies. Prerequisite: Instructor consent. LEC.

COMS 784. Proseminar in Communication and Aging. 1 Hour.
A weekly forum for students and faculty to discuss professional issues and interdisciplinary research in communication and aging. May be
COMS 787. Gerontology Proseminar. 3 Hours.
A proseminar coordinated by the Gerontology Center. The proseminar explores essential areas of gerontology for researchers and practitioners, providing a multidisciplinary (psychology, biology, sociology, and communication) perspective on aging. The proseminar surveys contemporary basic and applied research, service programs, and policy and management issues in gerontology. (Same as ABSC 787, AMS 767, PSYC 787, and SOC 767.) (Formerly HDFL 787.) LEC.

COMS 807. Rhetoric, Politics and the Mass Media. 3 Hours.
This course investigates the ways in which rhetorical strategies (persuasive and linguistic usage) permeate the relationship between politics and politicians and the media. We will analyze media coverage of political debates, the presidential use of radio, television and press conferences, the network evening news coverage of political events, the influence of political advertising to see how political decisions are influenced by and influence the media. LEC.

COMS 810. Organizational Communication: Theory and Research. 3 Hours.
This course examines the theoretical and philosophical underpinnings of organizational communication research. Course topics cover variable analytic traditions and systems theory, as well as cultural, critical, and various interpretive approaches to understanding communication in organizational contexts. Prerequisite: COMS 310 and permission of instructor. LEC.

COMS 835. Impression Formation and Interpersonal Behavior. 3 Hours.
Intensive investigation of the processes involved in impression formation and of the effects of established impressions upon interpersonal communication. (Same as PSYC 845.) Prerequisite: COMS 535 or PSYC 670. LEC.

COMS 844. Seminar in Interpersonal Communication. 3 Hours.
This class will address current theory and research in interpersonal communication. Issues addressed may include verbal or nonverbal communication in families, close relationships, initial interactions, and the like. LEC.

COMS 846. Communication and Aging. 3 Hours.
Examination of the interrelationship between communication and the aging process. The course will include current research and theory on such topics as intergenerational communication, language and age identity, age-stereotyping and communication, mass media and aging, age and health communication, and others of current interest in the field. LEC.

COMS 848. Communication Audits in Organizations. 3 Hours.
The principal thrust of this course is a hands-on analysis of the communication in 1-2 organizations. Students work as a consulting group to analyze dimensions of communication, communication channels, job satisfaction, organizational commitment, and communication strategies. Experience is gained in organizational research methods, instrument development, organizational analysis, feedback, and organizational development. LEC.

COMS 850. Introduction to Research Methods. 3 Hours.
An introduction to methodological approaches to the study of communication. Approaches considered will include (a) humanistic message analysis and evaluation; (b) ethnographic and observational techniques; (c) survey construction and execution; and (d) experimental design and procedures. Special focus on issues of validity, reliability, and ethics. LEC.

COMS 851. Communication Research: Historical and Descriptive. 3 Hours.
An introduction to types of historical and descriptive research in human communication. Library resources and methods of research will be covered. Emphasis will be placed upon preparing a research prospectus and upon writing the research report. LEC.

COMS 852. Communication Research: Experimentation and Quantitative Analysis. 3 Hours.
An introduction to the process of research in communication studies, including consideration of basic principles in research design, methods of observation and measurement, and the application of appropriate statistical techniques. LEC.

COMS 855. Qualitative Research Methods in Communication Studies. 3 Hours.
Study of strategies for describing communication behavior in particular contexts, emphasizing ethnography and specific observational and interview data gathering and analysis methods. Prerequisite: COMS 755 or equivalent. LEC.

COMS 856. Communication Research: Quantitative Analysis. 3 Hours.
An intermediate overview of statistical techniques commonly used in communication research. Content will include a review of univariate statistical tests such as t-test, correlation, chi-square, and other nonparametric techniques of data analysis. Additionally, factorial analysis of variance, multiple regression, and factor analysis will be covered, along with the application of appropriate statistical techniques. Prerequisite: COMS 850 and an introductory course in statistics. LEC.

COMS 859. Proseminar in Communication Studies. 3 Hours.
An overview and integration of communication studies based upon an examination of selected basic writings in the discipline. LEC.

COMS 860. New Communication Technology and the Work Place. 3 Hours.
An examination of changes in the work place and for workers associated with new communication technologies such as e-mail, voice mail, teleconferencing, distributed computer processing, and computer-supported decision making. Emphasis is on changes in organizational communication patterns, participant responses to the technologies, and evaluation of the outcomes of implementing work place communication technologies. To be taken by Regents Center students. LEC.

COMS 898. Investigation and Conference (For Master’s Candidates). 1-8 Hours.
(Limited to eight hours credit toward the M.A. degree.) Directed research and experimentation for M.A. students in some phase of speech science or the teaching of speech and drama. RSH.

COMS 899. Master’s Thesis. 1-6 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

COMS 907. Seminar in Political Communication. 3 Hours.
This course will focus on contemporary political communication theory and illustrate how such theories are exemplified in modern political contexts: political arguments and developing consensus, communication strategies in Congressional and bureaucratic decision-making, the rhetorical presidency, the dissemination of political information, political narrative, and political campaigns. LEC.

COMS 930. Seminar in Speech: _____ . 1-4 Hours.
Special problems in speech. Prerequisite: Twelve hours of credit in the department. LEC.
COMS 932. Theories of Rhetoric: Classical. 3 Hours.
An intensive study of the rhetorical theories of classical writers from 466 B.C. to the decline of Roman oratory. Principal emphasis will be on Isocrates, Plato, Aristotle, Quintilian, Cicero, and Longinus. LEC.

COMS 933. Theories of Rhetoric: Neo-Classical. 2-3 Hours.
A study of the development of rhetorical theory from 325 A.D. to the twentieth century. Notable departures from the classical tradition will be examined. Special concentration on the writings of Augustine and the tradition of medieval preaching. Alcuin, Ramus, Bacon, Campbell, Whately, Blair, John Quincy Adams, and the elocutionary movement. LEC.

COMS 936. Seminar in Language and Discourse. 3 Hours.
This seminar uses interdisciplinary readings to examine central theoretical questions regarding language and communication. The course moves from considering major theoretical positions to current research in communication on discourse. Methodological issues in the study of language and discourse are also addressed. LEC.

COMS 938. Seminar in Persuasion. 2-3 Hours.
Examination of selected topics in persuasion, with emphasis on the application of recent theories and experimental research to the analysis of persuasive discourse. Prerequisite: COMS 538 or equivalent. LEC.

COMS 939. Seminar in Argumentation. 2-3 Hours.
Examination of special problems in argumentation, with emphasis on the relationship of systems of argumentation to their philosophic presuppositions. Discussion of the writings of Toulmin, Natanson, Johnstone, Perelman, Dewey. Prerequisite: COMS 539 or equivalent. LEC.

COMS 941. Seminar in Health Communications. 3 Hours.
This course is a survey of the many disciplines of study found in the field of health communication. Emphases include decision making regarding health-related behaviors, the influence of interpersonal messages, negotiating treatment with health care providers, coping with medical difficulties, the critical examination of medical research, news, and health campaigns, and the impacts of new technologies. SEM.

COMS 943. Seminar in Organizational Communication. 3 Hours.
Analysis of speech communication functions in the organizational structures of business, industry, labor, military, education, government, and professional agencies. Development of conceptual schemes for conducting research and training programs on speech systems which characterize the operation of organized groups. LEC.

COMS 950. Seminar in Public Address: _____ 3 Hours.
The study of public address by historical periods or by topics. LEC.

COMS 951. Seminar in Movement Theory and Genre Criticism. 3 Hours.
This course examines the theoretical and methodological underpinnings of approaches to rhetorical analysis focusing on social movements and rhetorical genres. It will review existing theory on these topics, develop a methodological approach to both forms of critical analysis, and test each methodological approach via case studies. Prerequisite: COMS 755 or consent of instructor. LEC.

COMS 952. Seminar in Mythic and Narrative Approaches to Rhetorical Criticism. 3 Hours.
This course examines the theoretical and methodological underpinnings of approaches to rhetorical analysis focusing on narrative rhetoric, with a special emphasis on myth as a type of narrative. It will review existing theory on these topics, consider a number of alternative methodological approaches, and test each methodological approach via case studies. Prerequisite: COMS 755 or consent of instructor. LEC.

COMS 953. Seminar in Organizational Rhetoric. 3 Hours.
This course focuses on theoretical and methodological materials related to the use of rhetoric in an organizational setting. It will review existing theory and methodological development on this topic, paying special attention to the distinction between rhetoric used within an organization and rhetoric focused on audiences external to the organization. Multiple case-studies will be considered to illuminate the functioning of both internal and external organizational rhetoric. Prerequisite: COMS 755 or consent of instructor. LEC.

COMS 954. Seminar in Social Support. 3 Hours.
A study of contemporary and historical writings on rhetorical criticism. Emphasis is placed upon the development of critical methodology for future research and writing. Prerequisite: COMS 755. LEC.

COMS 955. Seminar in Rhetorical Criticism. 3 Hours.
This course examines the theoretical and methodological underpinnings of approaches to rhetorical analysis focusing on narrative rhetoric, with a special emphasis on myth as a type of narrative. It will review existing theory on these topics, develop a methodological approach to both forms of critical analysis, and test each methodological approach via case studies. Prerequisite: COMS 755 or consent of instructor. LEC.

COMS 956. Seminar in Movement Theory and Genre Criticism. 3 Hours.
This course examines the theoretical and methodological underpinnings of approaches to rhetorical analysis focusing on social movements and rhetorical genres. It will review existing theory on these topics, develop a methodological approach to both forms of critical analysis, and test each methodological approach via case studies. Prerequisite: COMS 755 or consent of instructor. LEC.

COMS 957. Seminar in Mythic and Narrative Approaches to Rhetorical Criticism. 3 Hours.
This course examines the theoretical and methodological underpinnings of approaches to rhetorical analysis focusing on narrative rhetoric, with a special emphasis on myth as a type of narrative. It will review existing theory on these topics, develop a methodological approach to both forms of critical analysis, and test each methodological approach via case studies. Prerequisite: COMS 755 or consent of instructor. LEC.

COMS 958. Comparative Theories of Speech Communication. 3 Hours.
A descriptive and comparative analysis of theories of communication applicable to speech behavior. Prerequisite: COMS 859 or equivalent. LEC.

COMS 959. Theories of Rhetoric: Contemporary. 3 Hours.
A study of the writings on rhetorical theory in the twentieth century. Principal emphasis will be on the psychological treatment of rhetoric. I.A. Richards and Kenneth Burke, and the relationship in the twentieth century between rhetoric and dialectic, rhetoric and poetic. Prerequisite: COMS 859 or equivalent. LEC.

COMS 977. Research in: ______ 1-6 Hours.
Supervised research under the direction of a faculty member on a topic of mutual interest to the faculty and graduate student. RSH.

COMS 998. Investigation and Conference (For Doctoral Candidates). 1-8 Hours.
(Limited to eight hours credit towards the Ph.D. degree.) Directed research and experimentation for Ph.D. students in some phase of speech science or the teaching of speech and drama. RSH.

COMS 999. Doctoral Dissertation. 1-12 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.
Bachelor of Arts and Bachelor of General Studies in Communication Studies

Career Opportunities
A major in communication studies is helpful for careers in business and industry, education, foreign service, health care, human resources, law, politics and government, public relations, religion, sales and marketing, social service agencies, and technology. All occupations and human concerns involve communication in some form.

Admission to the Major

Admission Criteria

Course Requirements
Admission to the major
1. Students must have completed COMS 130 or COMS 131, or have satisfied exemption requirements.
2. Students must have completed two of the following courses: COMS 210, COMS 232, COMS 238, COMS 244, COMS 246.
3. Students must have completed two of the following courses: COMS 230, COMS 235, COMS 330, COMS 331, COMS 342, COMS 307.

Grade-Point Average Requirements
Students must earn a minimum grade-point average of 2.75 or higher in COMS 130 and the courses designated for admission to the student’s selected track. Grades in other COMS courses are not considered for admission to the major. KU’s course repeat policy applies to grade-point average calculation.

Application Term
Students should apply to the major during the semester in which major admission criteria will be completed. This is normally no later than 60 hours, or for transferring students, normally during the initial term at KU. Application to this major after completion of 60 hours, or the initial KU term for transfer students, will likely delay graduation.

Requirements for the B.A. or B.G.S. Major

Prerequisite Knowledge (3)
Majors must complete a public speaking requirement as specified below. Note: COMS 130 and COMS 131 do not contribute to the minimum number of hours required for the major.

Speaker-Audience Communication. Satisfied by one of the following: COMS 130 Speaker-Audience Communication

Coms 131 Speaker-Audience Communication, Honors

Exemption

Communication Studies Core Knowledge and Skills (0)
Majors select two concentrations of courses, one designated as primary and one as secondary. To complete the major, students must complete 33 credit hours, distributed as:

Breadth of discipline (6 hours). All students choose two introductory classes from the following list, one for their primary concentration and one for their secondary concentration: (Note: the secondary concentration courses must be chosen from the same concentration area for both the breadth and depth of discipline requirements) (9)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS 210</td>
<td>Communication in Organizational and Professional Contexts</td>
</tr>
<tr>
<td>COMS 232</td>
<td>The Rhetorical Tradition</td>
</tr>
<tr>
<td>COMS 238</td>
<td>Cases in Persuasion (for the Political Communication/Social Influence concentration)</td>
</tr>
<tr>
<td>COMS 244</td>
<td>Introduction to Interpersonal Communication Theory (for the Interpersonal/Intercultural concentration)</td>
</tr>
<tr>
<td>COMS 246</td>
<td>Introduction to Intercultural Communication</td>
</tr>
</tbody>
</table>

Skills classes (6 hours). Students choose two skills courses from their primary concentration. (6)

Students pursuing the Rhetoric Concentration take the following two courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS 230</td>
<td>Fundamentals of Debate</td>
</tr>
<tr>
<td>COMS 331</td>
<td>Persuasive Speaking</td>
</tr>
</tbody>
</table>

Students pursuing the Interpersonal/Intercultural concentration choose two courses from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS 330</td>
<td>Effective Business Communication</td>
</tr>
<tr>
<td>COMS 342</td>
<td>Problem-Solving in Teams and Groups</td>
</tr>
</tbody>
</table>

Students pursuing the Political Communication/Social Influence concentration choose two courses from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS 307</td>
<td>Introduction to Political Communication</td>
</tr>
<tr>
<td>COMS 330</td>
<td>Effective Business Communication</td>
</tr>
<tr>
<td>COMS 331</td>
<td>Persuasive Speaking</td>
</tr>
</tbody>
</table>

Students pursuing the Organizational Communication concentration choose two courses from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS 330</td>
<td>Effective Business Communication</td>
</tr>
<tr>
<td>COMS 331</td>
<td>Persuasive Speaking</td>
</tr>
<tr>
<td>COMS 342</td>
<td>Problem-Solving in Teams and Groups</td>
</tr>
</tbody>
</table>

Methods classes (6)

All students in all concentrations take the two methods courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS 235</td>
<td>Introduction to Rhetoric and Social Influence</td>
</tr>
<tr>
<td>COMS 356</td>
<td>Introduction to Behavioral Research Methods in Communication</td>
</tr>
</tbody>
</table>

Depth of discipline (12)
Coursework in upper-level electives emphasizes students’ primary concentration. Students may take as many as three courses (9 hours) of upper-level electives in their primary concentration. The fourth course should be taken in their secondary concentration. Note: the secondary concentration courses must be chosen from the same concentration area for both the breadth and depth of discipline requirements.

Capstone experience (3)
Students take a capstone course in their primary or secondary concentration or meet this requirement with other approved elements.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS 496</td>
<td>Capstone in: _______</td>
</tr>
</tbody>
</table>
Upper-level elective options
Rhetoric Concentration: Understanding Messages
COMS 335 Rhetoric, Politics & Mass Media
COMS 435 Forms and Styles of American Public Discourse
COMS 551 The Rhetoric of Black Americans
COMS 552 The Rhetoric of Women’s Rights
COMS 535 American Public Address I
COMS 536 American Public Address II
COMS 539 Argumentation
COMS 554 The Rhetoric of Popular Culture
COMS 560 Rhetoric of War
COMS 603 Topics in Presidential Rhetoric
COMS 605 Speech Writing
Interpersonal/Intercultural Concentration: Relating to Others
COMS 440 Communication and Gender
COMS 447 African-American Communication
COMS 544 Advanced Interpersonal Communication
COMS 546 Communication Across the Lifespan
COMS 547 Communication and Culture
COMS 555 Family Communication
COMS 557 East-Asian Communication
COMS 590 Nonverbal Communication
COMS 654 Social Science Approaches to the Media
Political Communication/Social Influence Concentration: Influencing Others
COMS 310 Introduction to Organizational Communication
COMS 335 Rhetoric, Politics & Mass Media
COMS 425 Communication and the American Presidency
COMS 450 Ethics and Political Communication
COMS 453 Political Campaigns
COMS 437 Ethics and Political Communication
COMS 537 Communication in Conflict Resolution
COMS 538 Persuasion Theory and Research
COMS 539 Argumentation
COMS 607 Political Communication
COMS 639 Legal Communication
COMS 654 Social Science Approaches to Media
COMS 560 Communication, Media and Terrorism
Organizational Communication Concentration

Major Hours
Satisfied by 33 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 18 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please consult the department for details.

Departmental Honors
Outstanding undergraduates may earn departmental honors if they meet the following criteria:

1. A grade-point average at the time of graduation of at least 3.25 overall and 3.5 in communication studies courses.
2. Completion of an honors thesis involving independent research — either a single comprehensive project or an integration of several related projects. Completion requires satisfactory defense of the thesis in an oral examination and submission of a satisfactory thesis manuscript to the department office by one month before graduation. Independent research for the thesis must be conducted under the direction of a faculty member. The student must be enrolled with that instructor in 2 to 6 hours of COMS 498, usually over two semesters.

Minor in Communication Studies

Why study communication studies?
Because effective and ethical communication is at the core of family, of human organizations of all types, and of democratic decision making.

Requirements for the Minor
Students selecting the communication studies minor must complete 6 COMS courses (18 hours).

Prerequisite Knowledge. Minors must complete a public speaking requirement. These hours do not contribute to the minimum number of hours required for the minor.

Speaker-Audience Communication (0)
Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS 130</td>
<td>Speaker-Audience Communication</td>
</tr>
<tr>
<td>COMS 131</td>
<td>Speaker-Audience Communication, Honors</td>
</tr>
<tr>
<td>COMS 230</td>
<td>Fundamentals of Debate</td>
</tr>
<tr>
<td></td>
<td>Exemption</td>
</tr>
</tbody>
</table>
Communication Studies Course Requirements. Satisfied by 6 COMS courses (18 hours), 12 hours at the 300+ level.

Minor Hours & GPA
While completing all required courses, majors must also meet each of the following hour and grade point average minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 hours of junior/senior (300+) hours of KU resident credit in the minor.

Minor Junior/Senior Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 GPA in all departmental courses in the minor. GPA calculations include all departmental courses in the field of study including Fs and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Minor in Leadership Studies

Why study leadership studies?
The KU Leadership Studies Minor (LSM) believes that leadership is a process, not an outcome. Effective leadership starts with effective communication, and therefore students develop their learning around the adaptive leadership paradigm and develop core leadership competencies in order to mobilize others to tackle tough challenges and thrive.

Requirements for the Minor
Leadership studies is an 18-credit hour interdisciplinary minor offered through the communication studies department. The minor requires completion of COMS 201 and COMS 202 as prerequisites, and the additional 18-credit hours as identified below. Due to limited space capacity, top candidates will be given preferential permission to enroll in the subsequent COMS courses in the minor. Therefore, students may apply for admission to the minor while taking COMS 202 or upon completion of the course. Course work involves studying theory and research in leadership and applying it to the students’ leadership experiences. Communication studies majors may earn a minor in leadership studies, but the COMS courses required for the minor cannot be used to fulfill communication studies major requirements.

Prerequisite Knowledge (0)
Minors must complete a public speaking requirement. These hours do not contribute to the minimum number of hours required for the minor.

Speaker-Audience Communication. Satisfied by one of the following:
- COMS 130 Speaker-Audience Communication
- COMS 131 Speaker-Audience Communication, Honors
- COMS 230 Fundamentals of Debate

Exemption

Introductory Coursework (0)
Minors must complete introductory leadership coursework. These hours do not contribute to the minimum number of hours required for the minor.

Introduction to Leadership. Satisfied by:
- COMS 201 Introduction to Leadership

Introduction to Leadership Applications. Satisfied by:
- COMS 202 Introduction to Leadership Applications

The minor requires 18 hours as follows:

Communication Studies Course Requirements (9)
Communication and Leadership. Satisfied by:
- COMS 431 Communication and Leadership 3

Seminar in Leadership Strategies and Applications. Satisfied by:
- COMS 531 Seminar in Leadership Strategies and Applications 3

Leadership Studies Practicum. Satisfied by:
- COMS 532 Leadership Studies Practicum 3

1 course from each of the following categories:

Ethics (3)
- PHIL 160 Introduction to Ethics
- PHIL 161 Introduction to Ethics Honors
- PHIL 360 Moral Issues in Business
- PHIL 365 Moral Issues in the Professions
- PHIL 370 Moral Issues in Medicine
- PHIL 375 Moral Issues in Computer Technology
- PHIL 380 Environmental Ethics
- PHIL 677 Medical Ethics: Professional Responsibilities
- SOC 160 Social Problems and American Values
- SOC 161 Social Problems and American Values, Honors
- REL 377 Religious Ethics and Moral Decisions
- REL 665 Religious Ethics
- HWC 510 Science, Technology, and Society
- POLS 528 Environmental Justice and Public Policy
- NURS 455 Legal/Ethical Foundation for Professional Nursing Practice

Community Development (3)
- ABSC 150 Community Leadership
- ABSC 151 Community Leadership, Honors
- ABSC 310 Building Healthy Communities
- SOC 320 Organizations in Society
- SOC 340 The Community
- SOC 341 Urban Sociology
- SOC 620 Social Organization
- SOC 671 Social Movements
- SOC 370 Conflict Resolution
- ECON 530 American Economic Development
- EVRN 320 Environmental Policy Analysis
- EVRN 332 Environmental Law
- GEOG 377 Urban Geography
- POLS 520 Political Communication
- POLS 615 Campaigns and Elections
- POLS 616 Interest Group Politics
- PSYC 492 Psychology and Social Issues
- NURS 440 Leadership and Management in Nursing
- PHPR 619 Health Care Systems
- PRE 106 Multicultural Student Leadership Seminar
- SW 220 Social Work, Social Welfare and U.S. Society
Minor Hours & GPA

While completing all required courses, majors must also meet each of the following hour and grade point average minimum standards:

**Minor Hours**

- Satisfied by 19 hours of minor courses.

**Minor Hours in Residence**

- Satisfied by a minimum of 9 hours of junior/senior (300+) hours of KU resident credit in the minor.

**Minor Junior/Senior Hours**

- Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

**Minor Graduation GPA**

- Satisfied by a minimum of a 2.0 GPA in all departmental courses in the minor. GPA calculations include all departmental courses in the field of study including Fs and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

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**Master of Arts in Communication Studies**

**Why study communication studies?**

Because effective and ethical communication is at the core of family, of human organizations of all types, and of democratic decision making.

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**Admission to Graduate Studies**

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

**Graduate Admission**

All domestic M.A. and Ph.D. applicants on the Lawrence or Edwards Campuses must submit the Graduate Record Examination. International students who apply to Lawrence must submit Test of English as a Foreign Language scores. International students who have earned a U.S. degree must submit GRE scores.

Submit your graduate application online (http://www.graduate.ku.edu). Send curriculum vitae or résumé, 3 letters of recommendation, and a 2- to 3-page personal statement to the department:

**The University of Kansas**
Department of Communication Studies
Robert C. Rowland, Graduate Director
Bailey Hall
1440 Jayhawk Blvd., Room 102
Lawrence, KS 66045-7545

**M.A. Degree Requirements**

**Concentration in Communication Studies**

For course work areas, see Ph.D. requirements.
Communication Studies

Satisfactory completion of these required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS 851</td>
<td>Communication Research: Historical and Descriptive</td>
<td>3</td>
</tr>
<tr>
<td>or COMS 852</td>
<td>Communication Research: Experimentation and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quantitative Analysis</td>
<td></td>
</tr>
</tbody>
</table>

Select a second methodology course \(^1\) 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS 859</td>
<td>Proseminar in Communication Studies</td>
<td>3</td>
</tr>
<tr>
<td>COMS 899</td>
<td>Master’s Thesis</td>
<td>6</td>
</tr>
</tbody>
</table>

Select at least 6 hours in each of 2 areas of communication 6

Select 3 additional credit hours from any communication studies courses or from outside the department 3

Final oral examination 6

Total Hours 30

\(^1\) Appropriate for the student’s area of study. A list of courses is provided following the requirements.

Nonthesis Option

A nonthesis option is available in communication studies. Requirements for this option include:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS 859</td>
<td>Proseminar in Communication Studies</td>
<td>3</td>
</tr>
<tr>
<td>COMS 851</td>
<td>Communication Research: Historical and Descriptive</td>
<td>3</td>
</tr>
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<td>Communication Research: Experimentation and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quantitative Analysis</td>
<td></td>
</tr>
</tbody>
</table>

Select at least 9 hours in each of 2 areas of communication 9

Select 6 hours of electives 6

General examination structured as follows: \(^1\) 6

<table>
<thead>
<tr>
<th>Section</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 hour written over required courses</td>
<td></td>
</tr>
<tr>
<td>2 hours written over the first major area of communication</td>
<td></td>
</tr>
<tr>
<td>2 hours written over the second major area of communication</td>
<td></td>
</tr>
<tr>
<td>1 hour oral examination</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Each student must complete an examination over the 2 course work concentrations.

KU Edwards Campus M.A. Program

The M.A. also is offered on the KU Edwards Campus (http://edwardscampus.ku.edu) in Overland Park. The requirements for the degree at the Edwards Campus are the same as for the program on the Lawrence campus. Edwards Campus classes are taught by the same faculty members who teach regularly in Lawrence. Courses are scheduled during the late afternoons and evenings to accommodate working professionals.

Doctor of Philosophy in Communication Studies

Why study communication studies?

Because effective and ethical communication is at the core of family, of human organizations of all types, and of democratic decision making.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student.

Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

All domestic M.A. and Ph.D. applicants on the Lawrence or Edwards Campuses must submit the Graduate Record Examination. International students who apply to Lawrence must submit Test of English as a Foreign Language scores. International students who have earned a U.S. degree must submit GRE scores.

Submit your graduate application online (http://www.graduate.ku.edu). Send curriculum vitae or résumé, 3 letters of recommendation, and a 2- to 3-page personal statement to the department:

The University of Kansas
Department of Communication Studies
Robert C. Rowland, Graduate Director
Bailey Hall
1440 Jayhawk Blvd., Room 102
Lawrence, KS 66045-7545

Ph.D. Degree Requirements

Concentration in Communication Studies

Requirements include:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS 859</td>
<td>Proseminar in Communication Studies (waived for students with the M.A. in communication)</td>
<td>3</td>
</tr>
<tr>
<td>COMS 958</td>
<td>Comparative Theories of Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMS 959</td>
<td>Theories of Rhetoric: Contemporary</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional subject matter courses (27)

A minimum of 27 hours of additional subject matter courses: 27

These courses must represent 2 emphases.

These areas are developed by the student in consultation with the advisor and the director of graduate study.
If a student holds a master’s degree in communication studies (or equivalent), appropriate course work from this degree may be used to fulfill the subject matter course requirements. However, the total number of hours from the M.A. program used to satisfy items 2c, 3, and 4 must not exceed 24 hours.

**Electives (18)**

Electives may be chosen from another department or any phase of the program. The 18 hours need not be all in the same department. They may be used to broaden or intensify the program, as long as they constitute a meaningful course of study. Only 6 hours may be in independent study. Students with master’s degrees from other universities satisfy this requirement with 18 hours from their master’s programs.

**Research Methodology (15)**

Courses required of all students:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS 851</td>
<td>Communication Research: Historical and Descriptive</td>
<td>3</td>
</tr>
<tr>
<td>or COMS 852</td>
<td>Communication Research: Experimentation and Quantitative Analysis</td>
<td></td>
</tr>
</tbody>
</table>

Choose 12 additional hours appropriate to the student’s research/ dissertation interest. A list of approved courses is provided below.

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1. These lists are not comprehensive. Other courses may count as methods courses provided the student receives approval from the advisor.
2. The courses on these lists are not required. These are recommended courses for training in each methods type.
3. All methods courses should be chosen with the advisor's input.

Rhetorical methods courses include but are not limited to:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS 851</td>
<td>Communication Research: Historical and Descriptive</td>
<td>3</td>
</tr>
<tr>
<td>COMS 930</td>
<td>Seminar in Speech: ______ (Postmodern Rhetorical Theories)</td>
<td>1-4</td>
</tr>
<tr>
<td>COMS 930</td>
<td>Seminar in Speech: ______ (Contemporary Theories in Public Address)</td>
<td>1-4</td>
</tr>
<tr>
<td>COMS 951</td>
<td>Seminar in Movement Theory and Genre Criticism</td>
<td>3</td>
</tr>
<tr>
<td>COMS 952</td>
<td>Seminar in Mythic and Narrative Approaches to Rhetorical Criticism</td>
<td>3</td>
</tr>
<tr>
<td>COMS 955</td>
<td>Seminar in Rhetorical Criticism</td>
<td>3</td>
</tr>
</tbody>
</table>

Please consult with your advisor and other relevant faculty members about courses that may meet the research methods requirement. Courses that may be used to meet a Methods requirement instead of Theory, because they involve systematic and explicit reflection on research methods including appropriate research questions, objects of study, and units of analysis include:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS 930</td>
<td>Seminar in Speech: ______ (Seminar on Burke)</td>
<td>1-4</td>
</tr>
<tr>
<td>COMS 933</td>
<td>Theories of Rhetoric: Neo-Classical</td>
<td>2-3</td>
</tr>
<tr>
<td>COMS 953</td>
<td>Seminar in Organizational Rhetoric</td>
<td>3</td>
</tr>
</tbody>
</table>

Courses outside of COMS may qualify as a rhetorical methods course subject to advisor approval.

**In Department Qualitative Methods Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS 855</td>
<td>Qualitative Research Methods in Communication Studies</td>
<td>3</td>
</tr>
<tr>
<td>COMS 930</td>
<td>Seminar in Speech: ______ (Analyzing Qualitative Data)</td>
<td>1-4</td>
</tr>
<tr>
<td>COMS 936</td>
<td>Seminar in Language and Discourse</td>
<td>3</td>
</tr>
</tbody>
</table>

It is recommended that graduate students complete COMS 855 prior to taking qualitative methods courses outside of Communication Studies.

**Qualitative Methods Graduate Courses at KU that are Not in Communication Studies:**

Courses with an asterisk have been recommended by our graduate students or affiliate faculty. The others are listed in the graduate catalogue but may or may not be taught and/or really appropriate for our students.

**American Studies:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>AMS 803</td>
<td>Research Methods in American Studies *</td>
<td>3</td>
</tr>
<tr>
<td>AMS 998</td>
<td>Seminar in: ______ (special topics) *</td>
<td>3</td>
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</tbody>
</table>

**Anthropology:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 783</td>
<td>Doing Ethnography *</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 786</td>
<td>Ethnographic Documentary Production</td>
<td>3</td>
</tr>
</tbody>
</table>

**Journalism:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOUR 829</td>
<td>Marketing Communications Research</td>
<td>3</td>
</tr>
</tbody>
</table>
DANC 102. Ballet II. 1.5 Hour.
Classical and modern approaches to the language of ballet for beginners may be repeated for credit. Does not count toward the dance major requirements. ACT.

DANC 103. Modern I. 1.5 Hour.
Dance technique for beginners with precedents in the movement vocabularies of Isadora Duncan, Martha Graham, Doris Humphrey, Merce Cunningham, and the seminal choreographers of modern dance. May be repeated for credit. Does not count toward the dance major requirements. ACT.

DANC 104. Modern II. 1.5 Hour.
Dance technique for experienced beginners with precedents in the movement vocabularies of Isadora Duncan, Martha Graham, Doris Humphrey, Merce Cunningham, and the seminal choreographers of modern dance. May be repeated for credit. Does not count toward the dance major requirements. Prerequisite: DANC 103 or permission of instructor. ACT.

DANC 105. Jazz I. 1.5 Hour.
Dance technique for beginners based on elements of Latino, African, popular, and classical jazz dance forms. May be repeated for credit. Does not count toward the dance major requirements. ACT.

DANC 106. Jazz II. 1.5 Hour.
Dance technique for experienced beginners based on elements of Latino, African, popular, and classical jazz dance forms. May be repeated for credit. Does not count toward the dance major requirements. Prerequisite: DANC 105 or consent of instructor. ACT.

DANC 108. Pas de Deux. 1 Hour.
The elements of classical ballet partnering (pas de deux) are explored. These elements include supported poses, turns, lifts, and their coordination between the partners. For men only. Women enroll in Pointe and Pas de Deux, DANC 307. May be repeated for credit. ACT.

DANC 109. Men's Ballet. 2 Hours.
An introduction to classical ballet focusing on the particular requirements of the male ballet technique including leaps, turns, batterie, and their presentation. May be repeated for credit. ACT.

DANC 125. Movement Efficiency for Athletes. 3 Hours.
A course designed to improve athletic performance potential by improving initiation and follow-through of movement; improving coordination, timing, and ease of action; and reducing the risk of injury through better technique. Students will learn how to apply the basic principles of Rudolf Laban and Irmgard Bartenieff to the specialized movement skills of various sports. Students will also learn to develop individualized warm-ups and drills to improve performance. Prerequisite: Participation in team sports, dance, martial arts, other skilled sport movement, or consent of instructor. ACT.

DANC 150. Dance Improvisation. 2 Hours.
Developing skills in perception and the rapid translation of ideas into dance. Central to the course will be exposure to a variety of stimuli from music and the visual arts, to nature and people on the streets. Prerequisite: DANC 104 or consent of instructor. ACT.

DANC 177. First Year Seminar: . 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen addressing current issues in Dance. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

DANC 201. Ballet III. 1.5 Hour.
Classical and modern approaches to the language of ballet for intermediate dancers. May be repeated for variable credit. Prerequisite: DANC 102 or consent of instructor. LAB.
DANC 203. Modern III. 1-2 Hours.
Dance technique for intermediate dancers with precedents in the movement vocabularies of Isadora Duncan, Martha Graham, Doris Humphrey, Merce Cunningham, and the seminal choreographers of modern dance. May be repeated for variable credit. Prerequisite: DANC 104 or consent of instructor. LAB.

DANC 205. Jazz III. 1-2 Hours.
Dance technique for intermediate dancers based on elements of Latino, African, popular and classical jazz dance forms. May be repeated for variable credit. Prerequisite: DANC 105 or consent of instructor. LAB.

DANC 210. Rhythms and Structures of Music. 1 Hour.
An introduction to the analysis and use of rhythms and the compositional forms of music for dance. LEC.

DANC 220. Dance Performance. 1 Hour.
A dance repertory and performance class with emphasis on developing skills for performing ballet, modern, jazz, historic, and/or forms of theatrical dance. May be repeated for credit. Prerequisite: 200- or 300-level dance technique course. ACT.

DANC 230. Introduction to African Dance Theatre. 2 Hours. NW.
An introduction to the general techniques of non-verbal theatrical conventions in African cultures. Practical training in movement vocabulary will be supplemented by lectures on the "text" of performance. (Same as AAAS 334 and THR 226.) LEC.

DANC 240. Introduction to Classical East Indian Dance. 3 Hours.
Classical East Indian dance has an extensive movement vocabulary that emphasizes the coordination of rhythmic foot patterns with intricate hand gestures. Students will learn the mudras (hand gestures) and their significance and integration within each dance. Readings will include excerpts from the Natya Sastra and other treatises of East Indian dance and culture. LEC.

DANC 250. Choreography: Structured Solos. 2 Hours.
Movement studies for solo figure based on exploration of the fundamental ingredients of dance (space, time, weight, and energy flow) and how to organize them into short compositional forms such as ABA, verse/refrain, or narrative. Prerequisite: DANC 150 and DANC 203 or consent of instructor. LEC.

DANC 260. Musical Theatre Dance. 2 Hours.
This course focuses on the dance and movement vocabulary uniquely associated with musical theatre productions, as well as a variety of popular dance styles from the 1920s to the present. Performance techniques for the stage are emphasized. ACT.

DANC 301. Ballet IV. 1-3 Hours.
Classical and modern approaches to the language of ballet for advanced dancers. May be repeated for variable credit. Prerequisite: DANC 202 or consent of instructor. LAB.

DANC 303. Modern IV. 1-3 Hours.
Dance technique for advanced dancers with precedents in the movement vocabularies of Isadora Duncan, Martha Graham, Doris Humphrey, Merce Cunningham, and the seminal choreographers of modern dance. May be repeated for variable credit. Prerequisite: DANC 203 or consent of instructor. LAB.

DANC 305. Jazz IV. 3 Hours.
Dance technique for advanced dancers based on elements of Latino, African, popular and classical jazz dance forms. May be repeated for credit. Prerequisite: DANC 205 or consent of instructor. LAB.

DANC 307. Pointe and Pas De Deux. 2 Hours.
An introduction to pointe and classical partnering work for the intermediate/advanced female ballet dancer, with equal emphasis on pointe technique and style, and on classical repertory for couples. May be repeated for credit. Prerequisite: DANC 201 or consent of instructor. LAB.

DANC 308. Pas de Deux. 1 Hour.
The exploration of classical ballet partnering (pas de deux) including supported poses, lifts, turns, and their coordination between the partners. For men only. Women enroll in Pointe and Pas de Deux, DANC 307. May be repeated for credit. Prerequisite: DANC 108, DANC 201, or permission of instructor. LAB.

DANC 309. Men’s Ballet. 2 Hours.
A continuation of the study of male classical ballet technique including leaps, turns, batterie, and their presentation. May be repeated for credit. Prerequisite: DANC 109, DANC 201, or permission of instructor. LAB.

DANC 310. Music for Dance. 3 Hours.
An examination of music as accompaniment for dance in both classroom and performance settings. Students will listen and analyze music from various historic periods to develop the skills necessary to select music appropriate for choreography. They will learn techniques for working with accompanists and composers. Prerequisite: DANC 210 or consent of instructor. LEC.

DANC 320. University Dance Company. 0-1 Hours.
A dance repertory, performance and production class. Emphasis is on the development of skills for performing and/or producing dance concerts. Admission by audition only. May be repeated for credit. IND.

DANC 325. Movement Efficiency for Athletes. 3 Hours.
A course designed to improve athletic performance potential by improving initiation and follow-through of movement; improving coordination, timing, and ease of action; and reducing the risk of injury through better technique. Students will learn how to apply the basic principles of Rudolf Laban and Irmgard Bartenieff to the specialized movement skills of various sports. Students also will learn to develop individualized warm-ups and drills to improve performance. Prerequisite: Participation in team sports, dance, martial arts, other skilled sport movement, or consent of instructor. ACT.

DANC 330. Approaches to World Dance. 3 Hours. HL AE42.
This course examines dance forms from throughout the world and how they relate to the times and cultures in which they evolved. Dance forms such as African, East Indian classical, European court dance, ballet, modern, and jazz will be studied through readings, master classes, live performances, videotapes, and films. Prerequisite: 200-level English course. LEC.

DANC 350. Choreography: Group Forms. 3 Hours.
In-depth development of movement themes for duet, trio, and larger groups. At least one concert length work with plans for presentation to an audience will be required. Prerequisite: DANC 250 or consent of instructor. LAB.

DANC 375. Ideokinesis. 3 Hours. H.
Basic concepts of neuromuscular and skeletal education through the use of specific imagery (ideokinesis). Based on the work of Mabel Todd, Lulu Sweigard, and Irmgard Bartenieff, the emphasis is on body connectedness and dynamic alignment. The aim is to realize full movement potential in the most efficient way through intrinsic body awareness. Injury prevention is addressed by introducing principles of conditioning (strength, flexibility, endurance) and factors leading to injury such as muscular imbalances or postural deviations. LEC.

DANC 420. Introduction to Videography and Website Design for Dance. 3 Hours. H.
This is a hands-on course exploring digital video technology for dance. Students are introduced to video and website production as well as the
time management skills necessary to engage the multi-faceted project that is dance video. We will cover video techniques for recording dance; video editing; collaborating with national and international sites and artists; and self-promotion and marketing strategies with video and websites. The final project will be the creation of a video website for each student. No previous video editing experience is required. Prerequisite: Basic computer literacy. LEC.

DANC 430. Dance for Children. 3 Hours.
Methods and materials for teaching creative dance and the fundamentals of dance technique to children. Lessons are prepared and tested in the classroom and then presented to elementary school children. Prerequisite: DANC 203 or consent of instructor. LEC.

DANC 440. Introduction to Classical East Indian Dance. 3 Hours. NW AE42.
Classical East Indian dance has an extensive movement vocabulary that emphasizes the coordination of rhythmic foot patterns with intricate hand gestures. Students will learn the mudras (hand gestures) and their significance and integration within each dance. Readings will include excerpts from the Natya Sastra and other treatises of East Indian dance and culture. LEC.

DANC 450. Environmental Choreography. 3 Hours.
Designing dances for non-traditional performing spaces both indoors and outdoors. Students analyze how different natural and built environments can affect the gesture, space, time, and overall structure of a dance composition as well as the relationship between performers and spectators. Prerequisite: DANC 350 or consent of instructor. LAB.

DANC 460. Dance History: Research and Reconstruction. 3 Hours. HL AE42 / H.
Through research and reconstruction, students will examine major topics in dance history, such as the meaning and function of dance in pre-industrial societies, communal and court dance in Europe from the 14th to the 19th centuries, and the transformation and development of dance as a theatre art in the modern world. Texts by dance historians and treatises by dancing masters will be supplemented by readings from fields, such as anthropology, philosophy, art history, and literature, that indicate the different ways of approaching the history of dance. LEC.

DANC 470. Renaissance and Baroque Dance. 3 Hours.
Students will analyze, interpret, reconstruct, and perform historic dance forms, such as the galliard and minuet, by working with treatises of Renaissance and Baroque dancing masters, scholarly studies, and other documentary materials. The dance forms will be studied in relation to the music, visual arts, and literature of the period. LEC.

DANC 475. Performing Arts Administration Dancers. 3 Hours.
Designed to provide an overview of key areas in performing arts administration, including professional speaking and writing, grant writing and development, publicity and marketing strategies, developing relationships with presenters and funders, and audience education. Through readings, class discussion, guest lectures with professionals from the field, and projects based on real-life scenarios, students will develop tools to further their careers as choreographers and performers. This focused study also provides individuals with the direction and means to employ their training in the field of performing arts administration and management at many different levels. This course prepares dance students for their entry into the professional arts marketplace. LEC.

DANC 480. Movement for Older Adults. 3 Hours.
This course is designed to increase knowledge and understanding of the movement problems experienced by older adults and to develop the student's ability to create movement interventions to address these concerns. Prerequisite: Open to juniors and seniors only. LEC.

DANC 490. Introduction to Flamenco Dance Technique. 3 Hours. AE42/GE3H.
Using the basic compas (rhythmic structures) of Flamenco, we will explore the different components of flamenco dance technique: floreo (spiral fingers), brazeo (arm movements), palmas (rhythmic hand-clapping), maraje (marking, or movement through space), vueltas (turns) and zapateado (footwork). We will cultivate an awareness of flamenco's unique posture, learn the structure of the different rhythmic forms and introduce the possibilities for personal expression and improvisation. LEC.

DANC 498. Directed Study in: _____, 1-3 Hours.
Investigation of a special topic or project in aesthetics, dance history, movement analysis, production, or a creative project. A maximum of six hours may be counted toward graduation. Prerequisite: At least seven hours of credit in dance courses. IND.

DANC 530. Practicum in: _____, 1 Hour.
Supervised experience in teaching beginning level dance technique in the styles of ballet, jazz, or modern dance. Different approaches are analyzed, discussed, and tested in the studio. Prerequisite: Intermediate level of dance technique in the style of the practicum. FLD.

DANC 540. Field Experience in Dance Teaching. 1-3 Hours.
Teaching ballet, modern, or jazz dance technique to children or adults with faculty supervision in an academic or community program. Prerequisite: DANC 530 and consent of instructor. FLD.

DANC 550. Senior Project. 3 Hours. AE61.
In-depth research project in dance theory or history, or choreography project involving the complete development and presentation of a dance idea. Prerequisite: Performance option: DANC 320, DANC 350, DANC 450, THF 220 or THF 224, and permission of the dance division. Research option: DANC 340, DANC 370, DANC 375, DANC 460, and permission of the dance division. IND.

DANC 580. Special Topics in Dance, 1-3 Hours.
A study of current developments in dance with an emphasis on performance or research. May be repeated for credit. Prerequisite: Junior or senior standing and consent of instructor. IND.

DANC 598. Seminar in Dance. 3 Hours.
Special studies in dance. May be repeated for credit. Prerequisite: Junior or senior standing and consent of instructor. LEC.

DANC 735. Analysis, Criticism, and Choreography. 3 Hours.
The choreographic approaches of outstanding dance masters of the past (for example, Marius Petipa and Isadora Duncan) and present (for example, Martha Graham and Merce Cunningham) will be analyzed in terms of their handling of gesture, time, space, structure, and meaning. Students will be expected to seek out and study readings, photographs, and films in order to do written and performance projects based on the choreographic principles of old and new masters in ballet and modern dance. Prerequisite: A course in dance choreography or consent of instructor. LEC.

DANC 740. Introduction to Laban Movement. 3 Hours.
This course will introduce both the theoretical and physical applications of Laban Movement Analysis: Effort/Shape Notation (a notation system recording changes in movement qualities with respect to time, weight, space, and energy flow); Space harmony (a system that describes human movement in relation to space); Bartenieff Movement Fundamentals (a series of basic exercises to integrate and facilitate the neuromuscular connections within the body); and Laban Movement Analysis to the fields of anthropology, dance, human development, industrial efficiency, the performing arts, physical education, physical therapy, and psychology will be introduced. LAB.
DANC 742. Laban Movement Observation, Analysis, and Notation. 3 Hours.
Two systems of symbolic movement notation will be used in this course: Rudolf Laban’s Effort/Shape Writing and his system of Labanotation. Several applications of Laban’s notational systems will be studied as they appear in cross-cultural, developmental, psychological, and sociological research. Emphasis will be placed on refining the student’s ability to perceive, describe, and notate human movement of all kinds from everyday gestures to highly trained movement skills. Prerequisite: DANC 740 or consent of instructor. LAB.

DANC 780. Movement for Older Adults. 3 Hours.
This course is designed to increase knowledge and understanding of the movement problems experienced by older adults and to develop the student’s ability to create movement interventions to address these concerns. Prerequisite: Open to graduate students in any field of study. LEC.

DANC 898. Directed Study in: ______. 1-3 Hours.
Directed study in some aspect of aesthetics, dance history, movement analysis, production, or an advanced creative project. Prerequisite: Consent of instructor. IND.

Bachelor of Fine Arts in Dance

Dance Undergraduate Programs

The Department of Dance offers the Bachelor of Arts in Dance and the Bachelor of Fine Arts in Dance degrees. A minor in dance is available to students in all majors.

Bachelor of Fine Arts in Dance Degree

Majors must complete 33 hours of courses in the following areas.
- Dance Technique (33)

Dance Performance (15)
- Majors must complete courses as specified in each of the following areas:
  - DANC 250: Musical Theatre Dance 2
  - DANC 350: University Dance Company 4
  - DANC 440: Introduction to Classical East Indian Dance 3
  - DANC 490: Introduction to Flamenco Dance Technique 3
  - DANC 550: Senior Project 3

Dance Studies (23)
- Majors must complete courses as specified in each of the following areas:
  - DANC 210: Rhythms and Structures of Music 1
  - DANC 230: Introduction to African Dance Theatre 3
  - DANC 330: Approaches to World Dance 3
  - DANC 375: Ideokinesis 3
  - DANC 420: Introduction to Videography and Website Design for Dance 3
  - DANC 430: Dance for Children 3
  - DANC 460: Dance History: Research and Reconstruction 3
  - DANC 475: Performing Arts Administration Dancers 3
  - DANC 530: Practicum in: ______ 1

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**

Satisfied by 81 hours of major courses.

**Major Hours in Residence**

Satisfied by a minimum of 15 hours of KU resident credit in the major.
Major Junior/Senior Hours
Satisfied by a minimum of 47 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Graduation Plan
With careful planning and commitment to a full-time course load, you can graduate in 4 years. For details please consult the department.

Bachelor of Arts in Dance
Dance Undergraduate Programs
The Department of Dance offers the Bachelor of Arts in Dance and the Bachelor of Fine Arts in Dance degrees. A minor in dance is available to students in all majors.

Bachelor of Arts in Dance Degree Requirements
The B.A. in Dance at the University of Kansas does not require an audition. Instead, all students must pass a technical and academic evaluation at the end of their sophomore year. However, to be considered for a scholarship, a prospective or transfer student must audition. The B.A. in dance offers comprehensive technical training, built on a solid liberal arts foundation, which allows students to double-major or to pursue graduate study in any number of fields.

The curriculum leading to the B.A. in dance offers integrated training in ballet, modern, and jazz dance techniques, as well as courses in dance improvisation and composition, history and philosophy of dance, Laban Movement Analysis, dance science, music for dance, creative dance for children, dance production, and independent study options. An audition is required for admission to the B.A. program in dance. The program prepares students for professional careers in dance or for further academic study. The senior project may involve research in any of the above areas or choreography and performance culminating in a senior recital. Students are expected to take technique classes appropriate to their level of training each semester they are enrolled. A total of 120 credit hours is required.

Bachelor of Arts in Dance Course Requirements

General Education Requirements (0)
Completion of the KU Core (See KU Core)
Completion of the College BA degree specific requirements (see College BA requirements)

Dance Technique (16)

Students may choose 16 hours from among the following, but must take at least the following: One semester of level III in jazz. Two semesters of level III in ballet and two semesters of level III in modern. Courses may be taken twice for full credit and may be taken for variable credit thereafter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
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<tbody>
<tr>
<td>DANC 102</td>
<td>Ballet II</td>
</tr>
<tr>
<td>DANC 104</td>
<td>Modern II</td>
</tr>
<tr>
<td>DANC 106</td>
<td>Jazz II</td>
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<td>DANC 201</td>
<td>Ballet III</td>
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<td>DANC 203</td>
<td>Modern III</td>
</tr>
<tr>
<td>DANC 205</td>
<td>Jazz III</td>
</tr>
<tr>
<td>DANC 301</td>
<td>Ballet IV</td>
</tr>
<tr>
<td>DANC 303</td>
<td>Modern IV (Jazz IV)</td>
</tr>
<tr>
<td>DANC 305</td>
<td>Jazz IV</td>
</tr>
</tbody>
</table>

Dance Performance (2)
University Dance Company. Satisfied by 2 hours of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANC 320</td>
<td>University Dance Company</td>
</tr>
</tbody>
</table>

Dance Composition (10)
Majors must complete courses as specified in each of the following areas.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANC 150</td>
<td>Dance Improvisation</td>
</tr>
<tr>
<td>DANC 250</td>
<td>Choreography: Structured Solos</td>
</tr>
<tr>
<td>DANC 350</td>
<td>Choreography: Group Forms</td>
</tr>
<tr>
<td>DANC 450</td>
<td>Environmental Choreography</td>
</tr>
</tbody>
</table>

Pedagogy (4)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANC 430</td>
<td>Dance for Children</td>
</tr>
<tr>
<td>DANC 530</td>
<td>Practicum in: _____</td>
</tr>
</tbody>
</table>

Dance Studies (16)
Majors must complete courses as specified in each of the following areas.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANC 330</td>
<td>Approaches to World Dance</td>
</tr>
<tr>
<td>DANC 375</td>
<td>Ideokinesis</td>
</tr>
<tr>
<td>DANC 210</td>
<td>Rhythms and Structures of Music</td>
</tr>
<tr>
<td>DANC 230</td>
<td>Introduction to African Dance Theatre</td>
</tr>
<tr>
<td>DANC 260</td>
<td>Musical Theatre Dance</td>
</tr>
<tr>
<td>DANC 420</td>
<td>Introduction to Videography and Website Design for Dance</td>
</tr>
<tr>
<td>DANC 440</td>
<td>Introduction to Classical East Indian Dance</td>
</tr>
<tr>
<td>DANC 460</td>
<td>Dance History: Research and Reconstruction</td>
</tr>
<tr>
<td>DANC 475</td>
<td>Performing Arts Administration Dancers</td>
</tr>
<tr>
<td>DANC 490</td>
<td>Introduction to Flamenco Dance Technique</td>
</tr>
</tbody>
</table>

Senior Project (3)
Satisfied by completion of 3 hours of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANC 550</td>
<td>Senior Project</td>
</tr>
</tbody>
</table>

Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 51 hours of major courses.
Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Graduation Plan
With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please contact the department for details.

Minor in Dance

Dance Undergraduate Programs
The Department of Dance offers the Bachelor of Arts in Dance and the Bachelor of Fine Arts in Dance degrees. A minor in dance is available to students in all majors.

Requirements for the Minor in Dance
Open to all KU students

Dance Minor Course Requirements
Students selecting this minor must complete the following requirements:

Dance Technique (8)
Satisfied by 8 hours from the following: 8
DANC 102 Ballet II
DANC 104 Modern II
DANC 106 Jazz II
DANC 201 Ballet III
DANC 203 Modern III
DANC 205 Jazz III
DANC 260 Musical Theatre Dance
DANC 301 Ballet IV
DANC 303 Modern IV
DANC 305 Jazz IV

Dance Minor Required Electives (12)
Satisfied by 12 hours from the following: 12
DANC 150 Dance Improvisation
DANC 210 Rhythms and Structures of Music
DANC 230 Introduction to African Dance Theatre
DANC 250 Choreography: Structured Solos
DANC 330 Approaches to World Dance
DANC 375 Ideokinesis
DANC 420 Introduction to Videography and Website Design for Dance
DANC 430 Dance for Children
DANC 440 Introduction to Classical East Indian Dance
DANC 460 Dance History: Research and Reconstruction
DANC 475 Performing Arts Administration
DANC 490 Introduction to Flamenco Dance Technique

Minor Hours & Minor GPA
While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

Minor Hours
Satisfied by 20 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 junior/senior hours of KU resident credit in the minor.

Minor Junior/Senior Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses (300+) in the minor. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Department of East Asian Languages and Cultures

Why study East Asian languages and cultures?
Because in-depth knowledge of East Asia is critical in the new global culture and marketplace.

Eastern Civilizations Courses
The Eastern Civilizations courses promote a broad understanding of the civilizations of China, Japan, and to a limited extent, Korea.

ECIV 104, ECIV 304, and ECIV 305 (Honors). Eastern Civilizations consist of readings from the major works of East Asian thought, religion, and literature. Those who are considering a major or minor in EALC are encouraged to enroll in ECIV 304 or ECIV 305 (Honors), rather than ECIV 104.

Undergraduate Programs
The department offers a full program of instruction in the languages, literatures, and cultures of China, Japan, and Korea.

The areas of East Asia covered represent three of the oldest continuous civilizations in the world. Japan and mainland China are the world’s largest economies after the United States. South Korea and Taiwan are key U.S. trading partners. The economic and political relationship between the U.S. and East Asia will be among the most important for the U.S. in the 21st century.

With an EALC B.A., students can pursue a range of careers in business, government, education, nonprofit organizations, etc., or continue on to
graduate study in East Asian languages and literatures. Some students choose an EALC B.A. to connect with their heritages or to fulfill personal interests.

**Placement**

If students have already learned Chinese, Japanese, or Korean to some degree, whether at home, in a classroom, or elsewhere, they must take a placement test before enrolling in a language class. For more information, contact the department administrator at 785-864-3100. There is no fee for a placement test. To be eligible for enrollment in intermediate Chinese, Japanese, or Korean, a student must have earned college credit for the first year or have earned 2 years of high school credit in that language or have permission from the department based on the results of the placement test.

**Retroactive Credit**

Students with no prior college or university Chinese, Japanese, or Korean course credit are eligible for retroactive credit according to this formula:

- Students with 2 or 3 years of high school study who enroll in second-semester Chinese, Japanese, or Korean (CHIN 108, JPN 108, KOR 108) and earn grades of C or higher may receive 2 hours of retroactive credit.
- Students with 3 or 4 years of high school study who enroll in third-semester Chinese, Japanese, or Korean (CHIN 204, JPN 204, KOR 204) and earn grades of C or higher may receive 5 hours of retroactive credit.
- Students with 4 years of high school study who enroll in fourth-semester Chinese, Japanese, or Korean (CHIN 208, JPN 208, KOR 208) and earn grades of C or higher may receive 7 hours of retroactive credit.

**Courses for Non-majors**

Courses available to non-language specialists are listed under East Asian Languages and Cultures Courses.

EALC also offers elementary and intermediate language courses in Tibetan (TIB 101, TIB 102, TIB 201, TIB 202) and Uyghur (UYGR 101, UYGR 102, UYGR 201, UYGR 202). Tibetan and Uyghur language studies can be used to fulfill the CLAS second language requirement necessary to complete the B.A. degree.

**Graduate Program**

**M.A. in East Asian Languages & Cultures**

The areas of East Asia covered represent 3 of the oldest continuous civilizations of the world. The great historical contributions of China, Japan, and Korea in literature, philosophy, and art are widely recognized and studied throughout the world. Today, the highly advanced industries of Korea and Taiwan have contributed to the development of extremely valuable socio-political and economic ties between these areas and the United States.

The Department of East Asian Languages and Cultures (EALC) is the only department in Kansas offering a regular program of instruction in the languages, literatures, and cultures of East Asia.

The EALC Thesis M.A. program trains students who will devote themselves to becoming effective links between the Far East and the United States.

Students concentrate in Chinese, Japanese, or East Asian Cultures, usually entering the program with at least two years of college-level language. The program typically takes two years to complete, including the defense of a required Master’s thesis.

**Center for East Asian Studies**

The Center for East Asian Studies (http://www.ceas.ku.edu) is a National Resource Center funded by the U.S. Department of Education. CEAS promotes East Asian language and area studies; coordinates interdisciplinary activities; works with the East Asian Library; advises students in East Asian studies; awards Foreign Language and Area Studies Fellowships in Chinese, Japanese, Korean, Uyghur, and Tibetan; and arranges special events related to East Asia on campus. CEAS also offers outreach to schools, businesses, and the community and serves as a regional resource for information about East Asia.

**Courses**

**CEAS 200. Topics in East Asian Studies: ____. 1-3 Hours. U.**

An introductory interdisciplinary topics course addressing contemporary issues related to one or more East Asian countries. Format and content will vary. Does not count toward the EALC major or minor requirements unless otherwise indicated by EALC in the Schedule of Classes. LEC.

**CEAS 500. Seminar in East Asian Studies: ____. 1-3 Hours. U.**

An interdisciplinary seminar addressing contemporary issues related to one or more East Asian countries. Prerequisites to be determined by instructor(s) on the basis of course content. Does not count toward the EALC major or minor requirements unless otherwise indicated by EALC in the Schedule of Classes. LEC.

**CEAS 700. Contemporary East Asia. 3 Hours.**

This graduate seminar explores rapidly changing societies in contemporary East Asia, particularly China, Japan, and Korea. The course provides a critical overview of East Asia and its diversity and complexity using cross-cultural perspectives and interdisciplinary social science approaches, and situates East Asian societies in the context of globalization. LEC.

**CEAS 802. Research Seminar, 3 Hours.**

Students will work with the instructor and, when appropriate, an additional faculty advisor to design, research and write up a research paper on an East Asian topic of their choosing. Students enrolling in this course are expected to have taken a social science research methods class prior to taking this course and to apply those methods to the research process. A core course for the MA in Contemporary East Asian Studies. Prerequisite: Permission of the instructor. SEM.

**CHIN 100. Elementary Conversational Chinese I. 3 Hours. U.**

Three hours of class per week plus outside use of recorded text materials. Basic spoken language instruction intended primarily for beginners planning travel or work in China and Taiwan. Introduction to basic written characters. Does not fulfill College of Liberal Arts and Sciences foreign language distribution requirements or department major and minor requirements. LEC.

**CHIN 101. Elementary Conversational Chinese II. 3 Hours. U.**

Continuation of CHIN 100. Prerequisite: CHIN 100 or equivalent. LEC.
CHIN 102. Beginning Chinese I. 4 Hours. U.
Taught mainly in the summer, this course covers about 75% of the material in CHIN 104, upon which this course is modeled. LEC.

CHIN 104. Elementary Chinese I. 5 Hours. U.
Three hours of lecture and three hours of spoken drill each week. An introduction to spoken and written modern standard Chinese (Mandarin). Not open to students with native ability in Mandarin or Chinese dialect. Students who have any previous knowledge of Chinese must take a placement exam before enrolling in Chinese classes at K.U. Consult Department of East Asian Languages and Cultures for details. LEC.

CHIN 106. Elementary Chinese for Advanced Beginners. 3 Hours. U.
This course is designed for students who have already acquired some elementary Chinese language abilities (in high school or from family), but cannot be placed in CHIN 108, Elementary Chinese II. The course focuses on perfecting listening, speaking, reading and writing skills, and prepares students for CHIN 108. For admission to the class, students must take the EALC Chinese placement exam, be interviewed by designated instructors, and approved. LEC.

CHIN 108. Elementary Chinese II. 5 Hours. U.
Continuation of CHIN 104. Prerequisite: CHIN 101, CHIN 104, or equivalent. LEC.

CHIN 148. Intensive Elementary Chinese. 10-12 Hours. U.
An accelerated one semester course in elementary Chinese, covering the material of CHIN 104 and CHIN 108. Classes meet for two hours of lecture and one hour of drill daily. Emphasis on spoken language with grammar and readings in selected texts. No prerequisite. LEC.

CHIN 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Chinese. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

CHIN 204. Intermediate Chinese I. 5 Hours. U.
Continuation of CHIN 108. Three hours of lecture and three hours of spoken drill. Prerequisite: CHIN 108 or equivalent. LEC.

CHIN 206. Intermediate Chinese Conversation. 2 Hours. U.
Practice in speaking, presentation of prepared talks, and guided discussions. This course is primarily used to award transfer credit and does not fulfill any portion of the College of Liberal Arts and Sciences foreign language requirement. Prerequisite: CHIN 204 or equivalent. FLD.

CHIN 208. Intermediate Chinese II. 5 Hours. U.
Continuation of CHIN 204. Prerequisite: CHIN 204. LEC.

CHIN 251. Reading and Writing Chinese I. 1-3 Hours. H.
Designed for those who speak modern standard (Mandarin) Chinese but lack reading and writing skills. Focuses on acquiring knowledge of the Chinese writing system and preparing students for possible entry into advanced courses in Chinese, e.g. CHIN 504 (Advanced Modern Chinese I), or, after appropriate testing, for possible exemption from the College of Liberal Arts and Sciences foreign language requirement. Students should take the online Chinese placement exam and consult with the Chinese Language Program Coordinator. Enrollment by permission of the Chinese Language Program Coordinator only. LEC.

CHIN 252. Reading and Writing Chinese II. 1-3 Hours. H.
Continuation of CHIN 251. Prerequisite: CHIN 251 or permission of the instructor. LEC.

CHIN 290. Accelerated Chinese. 3 Hours. U.
Instruction in reading and writing Chinese for students who already possess a degree of oral/aural proficiency. This course will prepare students for enrollment in CHIN 504, Advanced Modern Chinese I. No prerequisites. Consent of instructor required. LEC.

CHIN 342. Introduction to Classical Chinese. 3 Hours. H.
An introduction to Classical Chinese through detailed analysis of short original passages from a variety of early Chinese texts. Students gain a foundation in the grammar and vocabulary of Classical Chinese, preparing them for CHIN 544. The course is offered at the 300 and 500 levels, with additional requirements for students taking the 500 level. Prerequisite: A basic knowledge of Chinese characters (e.g. from CHIN 108 or JPN 108) and consent of the instructor, or CHIN 208 or JPN 208. Not open to students who have completed CHIN 542. LEC.

CHIN 366. Advanced Chinese Conversation. 2 Hours. U.
Guided discussions designed to increase fluency and further improve pronunciation. Prerequisite: CHIN 504 or equivalent. LEC.

CHIN 498. Directed Readings in Chinese. 1-4 Hours. H/W.
Readings in Chinese on a subject selected by a student with the advice and direction of the instructor. Individual meetings and reports. Prerequisite: Consent of instructor. IND.

CHIN 504. Advanced Modern Chinese I. 5 Hours. H/W.
Five hours of class and two of drill. Readings in selected modern Chinese literary texts and discussion in Chinese of recordings of stories and dramas. Prerequisite: CHIN 208 or equivalent. LEC.

CHIN 508. Advanced Modern Chinese II. 5 Hours. H/W.
Continuation of CHIN 504. Prerequisite: CHIN 504 or equivalent. LEC.

CHIN 512. Advanced Chinese I. 2 Hours. H/W.
Readings in modern Chinese texts on a variety of subjects and discussion in Chinese. Prerequisite: CHIN 218 or equivalent. LEC.

CHIN 513. Advanced Chinese II. 2 Hours. H/W.
Continuation of CHIN 512. Prerequisite: CHIN 512 or equivalent. LEC.

CHIN 542. Introduction to Classical Chinese. 3 Hours. H/W.
An introduction to Classical Chinese through detailed analysis of short original passages from a variety of early Chinese texts. Students gain a foundation in the grammar and vocabulary of Classical Chinese, preparing them for CHIN 544. The course is offered at the 300 and 500 levels, with additional requirements for students taking CHIN 542. Prerequisite: A basic knowledge of Chinese characters (e.g. from CHIN 108 or JPN 108) and consent of instructor, or CHIN 208 or JPN 208. Not open to students who have completed CHIN 342. LEC.

CHIN 544. Readings in Classical Chinese: ____. 3 Hours. AE42/ AE61 / H/W.
Classical Chinese is the language of the most famous works of Chinese philosophy and most Chinese literature before the twentieth century. The course introduces readings from a specific philosophical school or literary genre, for example: Confucian Philosophical Texts, Daoist Philosophical Texts, Poetry, Ming/Qing fiction, etc. Prerequisite: CHIN 342 or CHIN 542 or consent of the instructor. May be repeated for credit if content varies. LEC.

CHIN 562. Modern Chinese Texts I. 3 Hours. NW AE61 / H/W.
Readings and interpretation of varied modern Chinese texts. Continued study of the language in the form of oral discussion and written reports. Prerequisite: CHIN 504 or equivalent. LEC.

CHIN 564. Modern Chinese Texts II. 3 Hours. H/W.
A continuation of CHIN 562 with materials of increasing difficulty. Prerequisite: CHIN 562. LEC.

CHIN 580. Introduction to Chinese Research Materials. 1 Hour. U.
An introduction to basic reference works in Chinese and Western languages, including dictionaries, encyclopedias, concordances, and
bibliographies. Library organization and research methods will also be discussed. (Five week course.) Prerequisite: CHIN 208 or equivalent. LEC.

CHIN 598. Readings in: ____. 1-3 Hours. H/W.
Students will read selections from materials on a given topic or topics. May be repeated for credit. Prerequisite: CHIN 564 or permission of instructor. IND.

CHIN 690. Seminar in Chinese Texts. 1-3 Hours. H/W.
Varying topics with varying prerequisites. LEC.

CHIN 801. Directed Readings and Research in Chinese. 1-4 Hours.
Advanced language training for the study of Chinese sources in the humanities or social science field of the student. Prerequisite: Consent of instructor. RSH.

CHIN 880. Advanced Chinese Research Materials. 2 Hours.
A detailed examination of various Chinese language reference works and research materials. Emphasis will be placed on the use of different types of reference works to carry out research strategies. Prerequisite: CHIN 504 or equivalent and CHIN 580. LEC.

EALC 105. Living Religions of the East. 3 Hours. HR/NW AE42/GE3H / H/W.
A basic introduction to religion in India, China, and Japan with emphasis upon religions that affect the modern period. Not open to students who have taken REL 108/EALC 108. (Same as REL 106.) LEC.

EALC 108. Living Religions of the East, Honors. 3 Hours. HR/NW AE42/GE3H / H.
A basic introduction to religion in India, China, and Japan with emphasis upon religions that affect the modern period. Open only to students in the University Honors Program or by permission of instructor. Not open to students who have taken REL 106/EALC 108. (Same as REL 108.) LEC.

EALC 121. Introduction to Contemporary China. 3 Hours. NW AE42 / H.
An overview of contemporary Chinese culture and society since the economic reforms and opening up launched in 1978, through the study of changes in politics, the economy, society, culture and everyday life in China. The course is taught in English. No prior knowledge of Chinese language is required. LEC.

EALC 130. Myth, Legend, and Folk Beliefs in East Asia. 3 Hours. NW AE42 / H/W.
A survey of the commonly held ideas about the beginning of the world, the role of gods and spirits in daily life, and the celebrations and rituals proper to each season of the year. The purpose of the course is to present the traditional world view of the peoples of East Asia. (Same as ANTH 293, REL 130.) LEC.

EALC 131. Myth, Legend, and Folk Beliefs in East Asia, Honors. 3 Hours. NW / H/W.
A survey of the commonly held ideas about the beginning of the world, the role of gods and spirits in daily life, and the celebrations and rituals proper to each season of the year. The purpose of the course is to present the world view of the ordinary peoples of East Asia in contrast to their more sophisticated systems of philosophy that are better known to the Western world. Open only to students in the University Honors Program or by permission of instructor. LEC.

EALC 136. The Japanese Tradition. 3 Hours. NW / H/W.
An examination of the cultural heritage of Japan from earliest times to Meiji Restoration. Emphasis will be placed upon Japan’s literary tradition. Not open to students with credit in EALC 512. LEC.

EALC 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in East Asian Languages and Cultures. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

EALC 198. Studies in: ____. 1-5 Hours. H.
Special purpose subject in East Asia and contiguous regions. LEC.

EALC 231. Introduction to: ____. 1-3 Hours. NW / H/W.
Topics are various aspects of Chinese and Japanese cultures. LEC.

EALC 298. Studies in: ____. 1-5 Hours. H.
Special purpose subject in East Asia and contiguous regions. LEC.

EALC 301. Cultural Traditions of China, Inner Asia, and Tibet. 3 Hours. NW / H.
This course acquaints the student with the broad outlines of the traditional cultures and literatures of China and the contiguous regions of Inner Asia and Tibet. Course materials include translations and discussions of oral tales, epics, poetry, novels, and biography, which explore the interaction between these regions and cultures as well as their continuities and disparities. The course is most appropriate for students with no background in Asian culture. LEC.

EALC 302. Cultural Traditions of Japan and Korea. 3 Hours. NW / H/W.
A wide-ranging examination of the similarities and difference between Japanese and Korean culture through folklore, literature, film, and other texts. Format: Lecture and discussion. Designed for students with no background in Asian culture. LEC.

EALC 310. The Chinese Novel. 3 Hours. H/W.
Reading and analysis of the form and types of Chinese novel, its beginnings and development to the present day. LEC.

EALC 312. Traditional Japanese Literature in Translation. 3 Hours. H/W.
A survey of the major works of Japan’s long literary heritage. Readings from such classics as the Tale of Genji, the world’s first novel, No drama, and poetry will acquaint the student with one of the world’s great literary traditions. (Not open to students with credit in EALC 712.) LEC.

EALC 314. Traditional Chinese Literature in Translation. 3 Hours. H/W.
A general survey of representative literary works of major genres in traditional China. Lectures, assigned readings, and discussions in English. A knowledge of Chinese is not required. (Not open to students with credit in EALC 714.) LEC.

EALC 315. Survey of Japanese Film. 3 Hours. NW AE42 / H.
This course surveys the major developments in and critical approaches to twentieth-century Japanese film. Focusing mostly on narrative films, the course introduces students to basic methodological issues in Japanese film history, especially questions of narrative, genre, stardom, and authorship. We examine Japanese cinema as an institution located within specific contexts focusing on the ways in which this institution shapes gender, race, class, ethnic and national identities. This course examines how patterns of distribution, exhibition, and reception have influenced film aesthetics and film style over the last century. Through secondary readings, lectures, and discussions students critically examine how Japanese cinema as an institution both responds to and intervenes in the social, cultural, and political history of twentieth century Japan. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. (Same as FMS 315.) LEC.
EALC 316. Modern Japanese Literature in Translation: 1868-1945. 3 Hours. AE42 / H/W.
A survey of major literary works of Japan’s modern era through the Pacific War. Topics include the social and spiritual challenges of modernization, urbanization, and the issues of race and national identity. Works by Soseki, Ogai, Akutagawa, Tanizaki, Kawabata, and others will be covered. This course is offered at the 300 and 700 levels, with additional assignments at the 700 level. Not open to students who have completed EALC 716. LEC.

EALC 317. Contemporary Japanese Literature in Translation: 1945-Present. 3 Hours. AE42 / H/W.
A survey of major literary works of Japan’s post-war and contemporary eras. Topics include life during and after the war, the experience of the atomic bomb, and the postmodern landscape. Works by Dazai, Mishima, Oe, Abe, Murakami, and others will be covered. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. Not open to students who have completed EALC 717. LEC.

EALC 318. Modern Chinese Fiction and Film. 2-3 Hours. H/W.
A general survey of important Chinese fiction and film of the 20th century. Lectures, readings, and discussions in English. Knowledge of Chinese is not required. Not open to students with credit in EALC 518. This course is taught at the 300 and 500 levels with additional assignments at the 500-level. LEC.

EALC 319. Contemporary Chinese Fiction and Film. 3 Hours. H.
A general survey of important Chinese fiction and film from the late 20th century to the present. Lectures, readings, and discussions in English. A knowledge of Chinese is not required. (Not open to students with credit in EALC 519.) LEC.

EALC 320. Modern East Asia: Multiple Perspectives. 3 Hours. NW / H.
A survey of the major political changes in China, Japan, Korea and Tibet in the 20th century. Students will learn about the changes that swept through East Asia as it rapidly modernized via documentary films and lectures and will study the impact of these changes on individuals by reading autobiographies. LEC.

EALC 330. Chinese Literature and Culture: Premodern Times. 3 Hours. NW / H/W.
An examination of Chinese literature and culture from earliest times to the modern period. Not open to students who have taken EALC 530. This course is taught at the 300 and 500 levels with additional assignments at the 500-level. LEC.

EALC 331. Studies In: ____, 1-3 Hours. H/W.
Topics in the Chinese and Japanese literatures. LEC.

EALC 332. Asian Literature in Translation: ____. 3 Hours. NW / H/W.
Introduction to Asian culture and society through close reading and analysis of important works of Asian literature. Themes and issues to be focused upon will vary (e.g., traditional or modern literature of China, Japan, or Korea, and special topics of interest). Lecture and discussion format. Knowledge of Asian languages is not required. LEC.

EALC 333. Asian Literature in Translation, Honors: ____. 3 Hours. NW / H/W.
Introduction to Asian culture and society through close reading and analysis of important works of Asian literature. Themes and issues to be focused upon will vary (e.g., traditional or modern literature of China, Japan, or Korea, and special topics of interest). Lecture and discussion format. Knowledge of Asian languages is not required. Open only to students in the University Honors Program or by permission of instructor. LEC.

EALC 340. Structure of Chinese. 3 Hours. H.
A detailed study of the phonological and grammatical structure of Chinese and the interactions between language and culture. Depending on student interest, a unit on the pedagogy of teaching Chinese as a foreign language may also be included. Primarily for students who want a linguistic knowledge of the language rather than a practical command of it. Students taking the course at the 500 level will have more work required of them. LEC.

EALC 350. Contemporary Japan. 3 Hours. NW / U.
An exploration of the Japanese way of life, self-concepts, and world view through lecture, discussion, reading, and field trips to businesses, community organizations, and cultural sites. Offered only during the Summer Institute in Hiratsuka, Japan. LEC.

EALC 351. Colonial Korea. 3 Hours. H.
This course examines the history, society, and culture of Korea from the end of Choson dynasty through the Colonial period (1910-1945) in its East Asian and global context. The course uses a multi-disciplinary approach, including history, anthropology, literature, and film. Not open to students with credit in EALC 561. LEC.

EALC 352. Post-Colonial Korea. 3 Hours. H.
This course examines the history, society, and culture of South Korea from the time of its liberation from Japan in 1945 to the present in its East Asian and global context. The course uses a multi-disciplinary approach, including history, anthropology, literature, and film. Prerequisite: EALC 361 or EALC 561, or permission of the instructor. Not open to student with credit in EALC 562. LEC.

EALC 353. Gendered Modernity in East Asia. 3 Hours. H.
This course explores rapidly changing gender relationships and the sense of being “modern” in East Asia by examining marriage and family systems, work, education, consumer culture, and geopolitics. The class seeks to understand how uneven state control over men and women shapes desires, practices, and norms and how men and women act upon such forces. Avoiding biological or social determinism, this course treats gender as an analytical category and examines how modern nation-states and global geopolitics are constituted and operated. (Same as ANTH 363 and WGSS 363.) LEC.

EALC 354. Peoples of Japan and Korea. 3 Hours. NW / S/W.
An analysis of the cultural diversity and unity of the peoples of Japan and Korea. Emphasis on historical and ethnological relationships, social structure, and ethics. (Same as ANTH 364.) LEC.

EALC 355. Japanese People through Films. 3 Hours. NW / S/W.
Japanese people’s culture and society through an extensive examination of both documentary and feature films. Readings from social science fields and literature will be used—-the former to supply a theoretical framework for the study of Japanese people and the latter to further the inquiry into the individual sentiment motivating actions. (Same as ANTH 365.) LEC.

EALC 356. The Life Cycle in Japanese Culture and Literature. 3 Hours. NW / H/W.
A study of the Japanese people from birth to death: what it means to be born in a Japanese family, to grow up Japanese, and to die Japanese. Anthropological works and selections from Japanese literature and film will be used to examine ways in which Japanese people live through the critical periods in their life cycle. (Same as ANTH 366.) LEC.

EALC 357. The Peoples of China. 3 Hours. NW / S/W.
An analysis of the cultural origin, diversity, and unity of the peoples of China. Emphasis on historical development, social structure, cultural continuity and change, and ethics. (Same as ANTH 368.) LEC.
EALC 370. Chinese Folk Belief. 3 Hours. H/W.
A survey of the beliefs of the ordinary Chinese people throughout the centuries with regard to myths, the other world, festivals, and the gods. Prerequisite: A course dealing with China. LEC.

EALC 380. Popular Cultures of East Asia. 3 Hours. NW / H.
This course examines the contemporary popular cultures of Korea, Japan, China, and Taiwan, with particular emphasis on relations between East Asia and North America. Students study the issue of globalization and how the transnational flow of commodities and culture affects local societies and individual identities. They learn to identify, describe, and analyze the cross-cultural content of popular cultural artifacts and modes of expression relating to East Asia. To this end, they explore in detail such subjects as: fashion, foodways, cinema, manga, soap operas, and punk rock. Not open to students who have taken EALC 580. LEC.

EALC 410. The Culture of Play in Japan. 3 Hours. NW / N/W.
This course examines the phenomenon and manifestations of play in Japanese culture. Topics include but are not confined to: the philosophy of play, the semiotics of play, the places of play, the role of laughter, play in Japanese religion, simulation and performance, and play and competition. LEC.

EALC 411. The Culture of Play in Japan, Honors. 3 Hours. NW / N/W.
This course examines the phenomenon and manifestations of play in Japanese culture. Topics include but are not confined to: the philosophy of play, the semiotics of play, the places of play, the role of laughter, play in Japanese religion, simulation and performance, and play and competition. Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

EALC 412. Visual and Literary Culture in Modern Japan. 3 Hours. H.
This course examines the interconnections between the evolution of modern Japanese literature and vision technologies such as painting, panoramas, magic lanterns, stereoscopes, photography, motion pictures, television, and computers. The course provides an overview of modern Japanese literature from the perspectives of the visual culture in which that literature was conceived. The course considers such authors as Higuchi, Soseki, Ogai, Shimazaki, Akutagawa, Tanizaki, Yokomitsu, Kawabata, and Abe. Not open to students who have completed EALC 612. LEC.

EALC 413. Asian Media Studies. 3 Hours. H.
This course examines new and emerging media in East Asia and how the media industries of East Asia function. Using recent scholarship and industry data on contemporary cyberculture, music studies, and television industries of East Asia we examine how such factors as globalization, post-colonialism, censorship, emerging technology, and national media legislation affect regional and transnational media industries in Japan, South Korea, and Mainland China/Taiwan/Hong Kong. (Same as FMS 413.) LEC.

EALC 415. Ancient China. 3 Hours. NW / H.
A survey of ancient Chinese culture to the Qin period. Major archaeological discoveries and the literary tradition are taken as the primary evidence through which a number of topics are introduced (for example: environment, food, writing, art, thought, ritual). A knowledge of Chinese is not required. The course is offered at the 400 and 600 levels, with additional assignments at the 600 level. Not open to students who have completed EALC 615. LEC.

EALC 418. Sexual Politics in Chinese Literature and Culture: Premodern Times. 3 Hours. NW / H.
This course uses myth, literature, history, biography, and other documents to discuss sexual politics in China from ca 1500 B.C.E. to the end of the last dynasty in 1911. Topics include: emperors, empresses, and consorts, polygamy, prostitution, love, yin and yang cosmology, the art of the bedchamber, women’s literature, and erotic literature. Recommended: A course in East Asian studies. Not open to students who have taken EALC 618. This course is taught at the 400 and 600 levels with additional assignments at the 600-level. LEC.

EALC 420. Daily Life in China From the Opium War to the Present. 3 Hours. NW / H/W.
Daily life and issues of social and cultural interaction between China and Western nations from the Opium War to the present. Fiction, travel diary, historical sources, film, and personal accounts will make up course materials. LEC.

EALC 431. Studies in: _____. 1-3 Hours. H/W.
Topics in the Chinese and Japanese traditions. LEC.

EALC 488. Senior Seminar in East Asian Languages and Cultures. 3 Hours. AE61 / H/W.
Open to seniors majoring in East Asian Languages and Cultures or by consent of instructor. LEC.

EALC 498. Directed Readings in East Asian Languages and Cultures. 1-4 Hours. AE61 / H/W.
Readings in English on an East Asian subject, selected by a student with the advice and direction of the instructor. Individual meetings and reports. Prerequisite: ECIV 104 or ECIV 304 and consent of instructor. IND.

EALC 499. Honors Thesis. 3 Hours. AE61 / H/W.
Required of all students working for a degree with honors. May be repeated for a total of nine semester hours. IND.

EALC 508. Religion in China. 3 Hours. NW AE42/GE3H / H/W.
Survey of religious thought and practice in China from the Shang to the People’s Republic. (Same as REL 508.) LEC.

EALC 509. Religion in Japan. 3 Hours. NW AE42/GE3H / H/W.
Survey of religious thought and practice in Japan from the Jomon period to the present. (Same as REL 509.) LEC.

EALC 510. Education in Japan. 3 Hours. NW / N/W.
An investigation of the relationship between education and Japanese national and cultural identity as expressed in conceptions of childhood: philosophical and political positions underlying curricular and administrative policies, teachers’ training, and pedagogical styles; the interface between education, “work,” and the economy in general; and the theme of “internationalization,” (kokusaika). The course is taught in English. LEC.

EALC 518. Modern Chinese Fiction & Film. 3 Hours. H.
A general survey of important Chinese fiction and film of the 20th century. Lectures, readings, and discussions in English. Knowledge of Chinese is not required. Not open to students with credit in EALC 318. This course is taught at the 300 and 500 levels with additional assignments at the 500-level. Prerequisite: An Introductory East Asian studies course such as ECIV 104 or ECIV 304 or EALC 105; or consent of instructor. LEC.

EALC 519. Contemporary Chinese Fiction and Film. 3 Hours. H.
A general survey of important Chinese fiction and film from the late 20th century to the present. Lectures, readings, and discussions in English. A knowledge of Chinese is not required. This course is taught at the 300 and 500 levels with additional assignments at the 500-level. Prerequisite: An Introductory East Asian studies course such as ECIV 104 or ECIV 304 or EALC 105; or consent of instructor. (Not open to students with credit in EALC 319.) LEC.

EALC 520. Entrepreneurship in East Asia. 3 Hours. NW / H.
An intensive examination of the history and current status of entrepreneurship in China, Japan, and other nations in East Asia. This course investigates the role of entrepreneurs in Asian economic
development from the nineteenth century to the present, as well as the
relation between entrepreneurship and Asian cultural traditions. The
opportunities and challenges of entrepreneurship in East Asia today are
also considered. (Same as HIST 640.) LEC.

EALC 527. Asian Theatre and Performance. 3 Hours. NW / H/W.
A survey of traditional and modern theatre and performance in Asia, with
greatest attention given to India, China, and Japan. A study of plays,
dramatic genres, history, conventions of play production, and acting styles
and other performance forms. (Same as THR 527.) LEC.

EALC 530. Chinese Literature and Culture: Premodern Times. 3
Hours. NW / H/W.
An examination of Chinese literature and culture from earliest times to
the modern period. This course is taught at the 300 and 500 levels with
additional assignments at the 500-level. Prerequisite: An introductory East
Asian studies course, such as ECIV 104 or ECIV 304 or EALC 105; or
consent of the instructor. Not open to students with credit in EALC 330.
LEC.

EALC 536. Cultural Traditions of Japan. 3 Hours. NW / H/W.
An examination of the major intellectual and aesthetic trends in Japanese
history. The course is designed to give teachers and professionals, as
well as students with a general interest in Japan, an overview of its unique
cultural tradition. Not open to students with credit in EALC 136. LEC.

EALC 541. Asian Film. 3 Hours. NW AE42 / H.
Seminar on various national film cultures of East and Southeast Asia.
Representative films are studied from formal, stylistic, and socio-historic
perspectives. Addresses the 12 impact of key cultural, economic, and
political issues on each film industry. Class discussion, reports, and
individual research papers. The course is offered at the 500 and 800
levels, with additional assignments at the 800 level. (Same as FMS 541.)
Prerequisite: Junior status. LEC.

EALC 543. Contemporary Japanese Film. 3 Hours. NW AE42 / H.
Seminar on the major developments in the contemporary (1980-present)
Japanese film industry examining how filmmaking practices and film
criticism have been influenced by such issues as transnationalism,
oppositionalism, critical race theory, postmodernism, and new media. We
survey recent Industrial and stylistic trends as well as key critical debates.
Class discussion, reports, and individual research papers. The course is
offered at the 500 and 700 levels, with additional assignments at the 700
level. (Same as FMS 543.) Prerequisite: Junior status. LEC.

EALC 555. Buddhists and Buddhism in China. 3 Hours. NW AE42 / H.
A reading and media-rich survey of institutional, ritual, literary,
educational, and exegetical practices that have shaped the lives of
Buddhists in China, past and present. Alterities within the Buddhist
tradition, and interactions with other religious options, are considered.
(Same as REL 555.) LEC.

EALC 561. Colonial Korea. 3 Hours. H.
This course examines the history, society, and culture of Korea from the
end of the Choson dynasty through the colonial period (1920-1945) in
its East Asian and global context. The course uses a multi-disciplinary
approach, including history, anthropology, literature, and film. Prerequisite: EALC
361 or EALC 561, or permission of the instructor. There are additional
readings and more extensive writing assignments than in EALC 362. Not
open to students with credit in EALC 362. LEC.

EALC 563. Cultural History of Korea. 3 Hours. H.
This course examines the cultural history of Korea in periods prior to the
19th Century. Special attention is given to varying constructions of cultural
value, heritage, and identity, together with the historically specific factors
that engendered them. (Same as HIST 590.) LEC.

EALC 564. Modern Korean Culture and Society. 3 Hours. H.
This course examines the history, society, values, and political economy
of Korea in its East Asian and global context. The course uses multi-
disciplinary approaches, including those of history, anthropology, literature
and film. Prerequisite: An introductory course in East Asian studies, or
permission of instructor. LEC.

EALC 565. Popular Images in Japanese Culture, Literatures, and
Films. 3 Hours. NW / S/W.
The course examines recurring themes and images in Japanese culture
through films, literary works, and anthropological and other social science
literature. These themes and images are studied in the contexts of both
modern and traditional cultures. Although the popular deviates from the
orthodox, nevertheless, the energy and pervasiveness of these offspring
enforce and sustain "proper" cultural values. As a result of exploration of
both highways and backroads of cultural expression, a holistic picture of
Japanese ethos will emerge. (Same as ANTH 567.) LEC.

EALC 567. Japanese Ghosts and Demons. 3 Hours. NW / S/W.
An investigation of deeply rooted Japanese beliefs about intimate
relationships among humans, animals, and nature - beliefs which help
to explain the mysterious and to lend order to the world. Anthropological
works, selections from Japanese literature, historical documents,
artworks, and films will be used to examine supernatural themes. (Same
as ANTH 567.) LEC.

EALC 570. The Structure of Japanese. 3 Hours. H.
A detailed study of the phonological and grammatical structure of
Japanese and the use of the language in social/cultural contexts. Primarily
for students who want a linguistic knowledge of the language rather than a
practical command of it. (Same as LING 570.) LEC.

EALC 572. The Structure of Chinese. 3 Hours. AE42 / H.
A detailed study of the phonological and grammatical structure of Chinese
and the interactions between language and culture. Depending on
student interests, a unit on the pedagogy of teaching Chinese as a
foreign language may also be included. Primarily for students who want a
linguistic knowledge of the language rather than a practical command of it.
(Same as LING 572.) LEC.

EALC 575. Love, Sexuality and Gender in Japanese Literature. 3
Hours. H.
An examination of Japanese attitudes toward love, sexuality, and gender
differences as revealed in literature from the tenth century to the present.
Discussion format. LEC.

EALC 578. Gender and Society in Modern China. 3 Hours. H.
This course examines gender politics and social institutions in modern
China by examining important literary works and films from the
Republican era (1911-1949), the Maoist era (1949-1976), and the
post-Mao era (1976-present). Secondary readings are also supplied.
All the readings are in English. No knowledge of Chinese is required.
Prerequisite: An introductory East Asian studies course such as ECIV
104, ECIV 304, or EALC 105; or consent of the instructor. LEC.
EALC 580. Popular Cultures of East Asia. 3 Hours. NW / H.
This course examines the contemporary popular cultures of Korea, Japan, China, and Taiwan, with particular emphasis on relations between East Asia and North America. Students study the issue of globalization and how the transnational flow of commodities and culture affects local societies and individual identities. They learn to identify, describe, and analyze the cross-cultural content of popular cultural artifacts and modes of expression relating to East Asia. To this end, they explore in detail such subjects as: fashion, foodways, cinema, manga, soap operas, and punk rock. More extensive writing requirements than 380. Not open to students who have taken EALC 380. LEC.

EALC 583. Imperial China. 3 Hours. NW / H/W.
An intensive survey of China’s traditional civilization and its history, with emphasis on the last centuries of imperial rule under the Sung, Yuan, Ming, and Ch’ing dynasties (to 1850). (Same as HIST 583.) LEC.

EALC 584. Modern China. 3 Hours. NW AE42 / H/W.
An intensive survey of China’s history from the early 19th century to the present. Key topics include the decline of the traditional system, the rise of communism, the Maoist era, and the tensions of change and control in the 1980s and 1990s. (Same as HIST 584.) LEC.

EALC 585. Reform in Contemporary China. 3 Hours. NW AE42 / H/W.
Examines the epochal changes that have occurred in China from Deng Xiaoping’s rise to power in 1978 to the present. Includes a focus on the historical background of the revolutionary period before examining the political and economic changes that spawned the 1989 "pro-democracy" movement at Tiananmen. The course includes an analysis of the events of the 1990s focusing on U.S.-China political and economic relations and the destabilizing effects of inflation, infrastructural reform, political and economic decentralization, and leadership succession. A previous course on China is helpful, but not mandatory. (Same as POLS 668.) LEC.

EALC 587. Early Modern Japan. 3 Hours. NW AE42 / H/W.
Early modern Japan (16th to 19th century) examines the history, culture, and patterns of life during an era of rigid social control but artistic brilliance. After an historical overview of the period, students will explore topics including the social structure, travel, religion, thought, and the formation of traditional cultural forms such as Kabuki theater. (Same as HIST 587.) LEC.

EALC 588. Japan, 1853-1945. 3 Hours. NW / H/W.
This course provides an intensive survey of Japanese history from the arrival of Commodore Perry through the Pacific War. Social, economic, and political themes will be emphasized. Among the topics covered will be the Meiji Restoration, industrialization, Japanese imperialism, Taisho democracy, and wartime mobilization. (Same as HIST 588.) LEC.

EALC 589. Japan Since 1945. 3 Hours. NW / H/W.
This course provides an overview of Japanese history from the end of World War II to the present day. Among the topics covered will be the Allied Occupation, postwar politics and social change, the economic "miracle," popular culture, women and the family, crime and punishment, the educational system, and Japan’s place in the world. (Same as HIST 589.) LEC.

EALC 590. Topics in East Asian Languages and Cultures: _____. 1-9 Hours. H/W.
Specific topical courses will be offered every year covering a number of disciplines. Credit, description, and prerequisites will vary. Note: May be repeated for credit up to the stated limit. LEC.

EALC 591. Topics in East Asian Languages and Cultures: _____. 1-9 Hours. S/W.
Specific topical courses will be offered every year covering a number of disciplines. Credit, description, and prerequisites will vary. Note: May be repeated for credit up to the stated limit. LEC.

EALC 593. Modern Korea. 3 Hours. NW / H/W.
This course will examine selected topics in Modern Korean history in the 19th and 20th centuries, with special emphasis on Korea’s connections to China and Japan. (Same as HIST 593.) Prerequisite: A college-level course in East Asian history or culture, or consent of instructor. LEC.

EALC 594. Law and Society in Traditional China. 3 Hours. H/W.
The course begins with a series of lectures on the main principles underlying Chinese social structure. The course then examines the application of those principles in legal cases. Students read legal cases in translation and argue them in class. (Same as HIST 594.) Prerequisite: A course in Chinese history. LEC.

EALC 596. Defining Japan: Marginalized Groups and the Construction of National Identity. 3 Hours. NW / H/W.
This course investigates the construction of national identity in modern Japan by examining the historical experiences of groups marginalized by mainstream society. We will explore the pressures of conformity, the pervasiveness of social ostracism and the surprising diversity in Japanese society. Among the groups discussed will be indigenous peoples (the Ainu, Okinawans), the Korean minority, the outcast class (burakumin), the sick and disabled, the Yakuza, and political activists. (Same as HIST 596.) LEC.

EALC 597. Japanese Theater History. 3 Hours. NW / H/W.
This course examines the historical development and characteristics of Japanese theater, with special attention to traditional theater and the genres of noh, kyogen, and kabuki in particular, tracing their origins in the pre-modern era and their continued performance today. To gain an understanding of the historical and artistic setting of these arts, lectures and readings will consider broader issues such as performance and ritual in religion and daily life, gender and representation, and folk theater. A portion of this class will include practical studies of theatrical forms including noh dance and kabuki music (shamisen). (Same as HIST 597.) LEC.

EALC 598. History and Structure of the Japanese Language. 3 Hours. H/W.
The historical development of Japanese. Study of Japanese phonology, morphology and syntax, using the techniques of descriptive linguistics and generative grammar. Prerequisite: An introductory course in linguistics or one year of Japanese. LEC.

EALC 600. Biography of a City: _____. 3 Hours. H/W.
This interdisciplinary, team-taught course surveys the artistic, intellectual, and historical development of some of the great cities of the world, such as Kyoto or Tokyo. LEC.

EALC 612. Visual and Literary Culture in Modern Japan. 3 Hours. H.
This course examines the interconnections between the evolution of modern Japanese literature and vision technologies such as painting, panoramas, magic lanterns, stereoscopes, photography, motion pictures, television, and computers. The course provides an overview of modern Japanese literature from the perspectives of the visual culture in which that literature was conceived. The course considers such authors as Higuchi, Soseki, Ogai, Shimazaki, Akutagawa, Tanizaki, Yokomitsu, Kawabata, and Abe. There will be additional assignments for students in 612. Not open to students who have completed EALC 412. LEC.
EALC 615. Ancient China. 3 Hours. NW / H/W.
A survey of ancient Chinese culture to the Qin period. Major archaeological discoveries and the literary tradition will be taken as the primary evidence through which a number of topics are introduced (for example: environment, food, writing, art, thought, ritual). A knowledge of Chinese is not required. The course is offered at the 400 and 600 levels, with additional assignments at the 600 level. Not open to students who have completed EALC 415. LEC.

EALC 618. Sexual Politics in Chinese Literature and Culture: Premodern Times. 3 Hours. NW / H.
This course uses myth, literature, history, biography, and other documents to discuss sexual politics in China from ca 1500 B.C.E. to the end of the last dynasty in 1911. Topics include: emperors, empresses, and consorts, polygamy, prostitution, love, yin and yang cosmology, the art of the bedchamber, women's literature, and erotic literature. Prerequisite: A course in East Asian studies. Not open to students who have taken EALC 418. This course is taught at the 400 and 600 levels with additional assignments at the 600-level. LEC.

EALC 620. Daily Life in China from the Opium War to the Present. 3 Hours. NW / H/W.
Daily life and issues of social and cultural interaction between China and Western nations from the Opium War to the present. Fiction, travel diary, historical sources, film, and personal accounts will make up course materials. LEC.

EALC 636. Women in Japanese Literature. 3 Hours. H/W.
An examination of women as subjects, readers, and writers of Japanese literature. Topics may include images and stereotypes of women in Japanese literature; feminist readings of this literature; female culture; and the psychodynamics of female creativity. LEC.

EALC 642. Chinese Thought. 3 Hours. NW AE42/GE3H / H/W.
A survey of the principal modes of Chinese thought from their origins through the imperial period. Not open to students with credit in EALC 132. (Same as HWC 524 and PHIL 506.) Prerequisite: Eastern civilizations course or a course in Asian history or a distribution course in philosophy. LEC.

EALC 646. Chinese Law. 3 Hours. H/W.
The history and development of civil and criminal law in China from its beginnings until the present. The course will be taught both by lectures and by discussion of cases. A section of the course will concern modern Chinese law. Prerequisite: A course on China, or general background in law or business. LEC.

EALC 649. Doing Business With China: Law and Policy. 3 Hours. NW / H/W.
A study of the issues involved in doing business with China. The current Chinese political and economic context will be examined, followed by a study of the Chinese legal system and Chinese economic law and regulation. Relevant U.S. law will also be considered. Prerequisite: A course on China, or general background in law or business. LEC.

EALC 656. Government and Politics of East Asia. 3 Hours. NW AE42 / S/W.
A comparative examination of the contemporary political institutions, processes and ideas of China, Japan, and Korea. (Same as POLS 656.) Prerequisite: A distribution course in political science or a course in East Asian studies. LEC.

EALC 666. Political Economy of East Asia. 3 Hours. S.
This course provides basic understanding of fiscal, monetarist, and trade policies; how governments in East Asia use them to pursue growth; the extent to which these governments follow or controvert economics to pursue growth; and how the performances of economies in East Asia relate to the US and global economies. (Same as POLS 666.) Prerequisite: POLS 150. LEC.

EALC 676. International Relations of Asia. 3 Hours. S/W.
An intensive study of the problems of ideological conflict, diplomatic relations, strategic arrangements, economic cooperation, and cultural exchange in East and Southeast Asia with special emphasis upon the roles of major world powers. (Same as POLS 676.) Prerequisite: POLS 170 or a course in East Asian studies. LEC.

EALC 678. Chinese Foreign Policy. 3 Hours. S/W.
In-depth examination of China's changing policies toward other countries with special emphasis on policy-making process, negotiating behavior, military strategy, economic relations, and cultural diplomacy. (Same as POLS 678.) LEC.

EALC 700. Introduction to East Asian Studies. 1 Hour.
Required of all M.A. students in the Department regardless of concentration. Introduction to resources in East Asian languages and literature. LEC.

EALC 701. Practicum in Teaching Chinese. 1 Hour.
This course is required every semester for graduate teaching assistants in the Chinese language program in EALC. The course will cover applicable second language acquisition theories and principles of foreign language pedagogy and focus on teaching methodologies, instructional techniques, and development of pedagogical materials specific to the Chinese classroom. This class will be conducted in a seminar format. Prerequisite: Teaching appointment in the East Asian Languages and Cultures department. SEM.

EALC 702. Practicum in Teaching Japanese. 1 Hour.
This course is required every semester for graduate teaching assistants in the Japanese language program in East Asian Languages and Cultures. The course will cover applicable second language acquisition theories and principles of foreign language pedagogy and focus on teaching methodologies, instructional techniques, and development of pedagogical materials specific to the Japanese language classroom. This class will be conducted in a seminar format. Prerequisite: Teaching appointment in the East Asian Languages and Cultures department. SEM.

EALC 703. Practicum in Teaching Korean. 1 Hour.
This course is required every semester for graduate teaching assistants in the Korean language program in East Asian Languages and Cultures. The course will cover applicable second language acquisition theories and principles of foreign language pedagogy and focus on teaching methodologies, instructional techniques, and development of pedagogical materials specific to the Korean language classroom. This class will be conducted in a seminar format. Prerequisite: Teaching appointment in the East Asian Languages and Cultures department. SEM.

EALC 712. Readings in Traditional Japanese Literature. 3 Hours.
A survey of Japanese literature from earliest times to 1868. Students will study the major writers in each genre, with special emphasis on an individual research topic. A knowledge of Japanese is not required. (Not open to students with credit in EALC 312.) LEC.

EALC 714. Readings in Traditional Chinese Literature. 3 Hours.
A general survey of representative literary works of major genres in traditional China. Lectures, assigned readings, and discussions in English. A knowledge of Chinese is not required. (Not open to students with credit in EALC 314.) LEC.

EALC 715. Survey of Japanese Film. 3 Hours.
This course surveys the major developments in patterns of distribution, exhibition, and reception and their influence on film aesthetics in twentieth century Japanese film. Through secondary readings, lectures, and
discussions students will examine how Japanese cinema as an institution responds to and intervenes in the social, cultural, and political history of twentieth century Japan. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. (Same as FMS 715.) LEC.

A survey of major literary works of Japan’s modern era through the Pacific War. Topics include the social and spiritual challenges of modernization, urbanization, and the issues of race and national identity. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. An individual research project in an area of the student’s special interest will be required. Not open to students who have completed EALC 316. LEC.

EALC 717. Contemporary Japanese Literature in Translation: 1945-Present. 3 Hours.
A survey of major literary works of Japan’s post-war and contemporary eras. Topics include life during and after the war, the experience of the atomic bomb, and the postmodern landscape. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. An individual research project in an area of the student’s special interest will be required. Not open to students who have completed EALC 317. LEC.

EALC 718. Readings in Modern Chinese Literature. 2-3 Hours.
A general survey of the important writers of the 20th century and their works. Lectures, readings, and discussions in English. A knowledge of Chinese is not required. (Not open to students with credit in EALC 318.) LEC.

EALC 732. Seminar in Eastern Religious Thought: ______. 3 Hours.
Analysis of the religious thought of selected thinkers of India, China, and/or Japan, traditional and modern. May be taken more than once if subject matter varies sufficiently. (Same as REL 762.) Prerequisite: REL 507, REL 508, REL 509, or permission of the instructor. LEC.

EALC 733. Seminar in Eastern Religious Texts: ______. 3 Hours.
Analysis of a selected religious text or texts from India, China, or Japan, in translation. May be taken more than once if subject matter varies sufficiently. (Same as REL 733.) Prerequisite: REL 507, REL 508, REL 509, or permission of the instructor. LEC.

EALC 743. Contemporary Japanese Film. 3 Hours.
Seminar on the major developments in the contemporary (1980-present) Japanese film industry examining how filmmaking practices and film criticism have been influenced by such issues as transnationalism, postcolonialism, critical race theory, postmodernism, and new media. We will survey recent industrial and stylistic trends as well as key critical debates. Class includes discussion, reports, and individual research papers. This course is offered at the 500 and 700 levels, with additional assignments at the 700 level. (Same as FMS 743.) SEM.

EALC 747. East Asian History and Culture for Teachers. 2 Hours.
An advanced survey of the history, culture, and contemporary affairs of China, Japan and Korea, specifically designed for K-12 educators who wish to incorporate East Asian topics into their classroom teaching. Pedagogical methods and resources for the study of East Asia will be emphasized. Topics covered will address relevant benchmarks in the state curricular standards in social studies, themes from the Advanced Placement world history examination, and the national standards in world history. (Same as HIST 747.) Prerequisite: Approval of the instructor. LEC.

EALC 762. Readings in Japanese Religion. 3 Hours.
A high-level introduction to the traditional religions of Japan, with special emphasis on Japanese Buddhism. Texts to be used will include translations of original documents as well as secondary studies. Those students who have competence in Japanese will be required to do some readings in that language, but a knowledge of the language is not a prerequisite. LEC.

EALC 764. Modern Korean Culture and Society. 3 Hours.
An examination of the history, society, values, and political economy of Korea in its East Asian and global context. The course will use a multidisciplinary approach, including history, ethnography, fiction, and film. LEC.

EALC 766. Japanese People: Their Culture and Literature. 3 Hours.
A study of Japanese people’s life cycle through a combination of theoretical social scientific observations of Japanese as a cultural group and personal literary descriptions of them. An individual research paper is required. (Not open to students with credit in EALC 366.) LEC.

EALC 776. Seminar in Religion and Society in Asia: ______. 3 Hours.
Analysis of selected Asian religions and their relationships to selected Asian societies. May be taken more than once if subject matter varies sufficiently. (Same as REL 776.) Prerequisite: REL 507, REL 508, REL 509, or permission of the instructor. LEC.

EALC 790. Topics in East Asian Languages and Cultures: ______. 1-3 Hours.
Special topical courses covering a number of disciplines. Credit descriptions and prerequisites will vary. NOTE: May be repeated for up to 12 total credits. RSH.

EALC 801. Directed Readings. 1-5 Hours.
Designed to meet the needs of advanced students whose study in East Asian studies cannot be met with regular courses. Prerequisite: Consent of instructor. RSH.

EALC 841. Asian Film. 3 Hours.
Seminar on various national film cultures of East and Southeast Asia. Representative films are studied from formal, stylistic, and socio-historic perspectives. Addresses the impact of key cultural, economic and political issues on each film industry. Class includes discussion, reports, and individual research papers. This course is offered at the 500 and 800 levels, with additional assignments at the 800 level. (Same as FMS 841.) SEM.

EALC 888. Contemporary China Studies. 3 Hours.
This course will review and analyze the current literature on China’s social and political development, including a wide range of topics within political science. There is a rich body of literature within each topic such as civil society in China, legal reform, political culture, nationalism, gender issues, ethnicity, political behavior, elections, economic development, and inequality. This course will introduce key literature within each topic focusing on the debates among China scholars as well as how these debates fit in the general field of political science. (Same as GIST 888 and POLS 888.) Prerequisite: POLS 668 or permission of the instructor. LEC.

EALC 899. Thesis. 1-6 Hours.
An inquiry into the source material upon a specific subject. THE.

ECIV 104. Eastern Civilizations. 3 Hours. HL/NW AE42 / H/W.
This course acquaints the student with the broad outlines of the traditional cultures and literatures of East Asia, and explores the interaction between these regions and cultures as well as their continuities and disparities. Course materials include translations and discussions of original sources. The course is most appropriate for students with no background in Asian culture. Does not complete major requirement. Not open to students with credit in ECIV 304. LEC.

ECIV 105. Eastern Civilizations Honors. 3 Hours. HL/NW AE42 / H/W.
An introductory course designed to acquaint the student with the broad outlines of the traditional cultures and literatures of East Asia. By reading
translations of original source materials, the student is able to see the interaction among the various cultures as well as their essential continuity. The course is most appropriate for students without any background in Asian culture. Offered for students with superior academic records. Open only to students in the University Honors Program or by permission of instructor. LEC.

ECIV 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Eastern Civilization. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

ECIV 304. Eastern Civilizations. 3 Hours. HL/NW AE42 / H/W.
This course acquaints the student with the broad outlines of the traditional cultures and literatures of East Asia, and explores the interaction between these regions and cultures as well as their continuities and disparities. Course materials include translations and discussions of original sources. The course is most appropriate for students with no background in Asian culture. Not open to students with credit in ECIV 104. If majoring in EALC and have completed ECIV 104, see major advisor about completing the ECIV 304 major requirement. LEC.

ECIV 305. Eastern Civilizations Honors. 3 Hours. HL/NW AE42 / H/W.
An introductory course designed to acquaint the student with the broad outlines of the traditional cultures and literatures of East Asia, and by reading translations of original source materials, the student is able to see the interaction among the various cultures as well as their essential continuity. The course is most appropriate for students without any background in Asian culture. Similar to ECIV 304, but reading and writing assignments reflect the fact that this is an honors course. Open only to students in the University Honors Program or by permission of instructor. LEC.

JPN 100. Beginning Japanese I. 3 Hours. U.
An introduction to Japanese. Familiarity with the basic structural patterns of the language through conversation is stressed. The hiragana and katakana syllabaries are introduced and a few characters are learned. Usually offered as part of a Summer Study Abroad Program. LEC.

JPN 101. Beginning Japanese II. 3 Hours. U.
Continuation of JPN 100. Available to students who took JPN 100 as part of the Summer Study Abroad Program. Not available for credit for students who have previously completed JPN 104. Prerequisite: JPN 100 or equivalent. LEC.

JPN 104. Elementary Japanese I. 5 Hours. U.
Three hours of lecture, three hours of drill per week. Acquisition of basic language skills (listening, speaking, reading, writing). Not available for credit for students who have previously completed JPN 101. LEC.

JPN 108. Elementary Japanese II. 5 Hours. U.
Continuation of JPN 104. Prerequisite: JPN 101, JPN 104, or equivalent. LEC.

JPN 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Japanese. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

JPN 204. Intermediate Japanese I. 5 Hours. U.
Three hours of lecture, three hours of drill. Prerequisite: JPN 108 or equivalent. LEC.

JPN 206. Intermediate Japanese Conversation. 2-4 Hours. U.
Enhancement of conversational ability at the intermediate level. Used primarily to accommodate transfer credits. Prerequisite: JPN 204 or equivalent. LEC.

JPN 208. Intermediate Japanese II. 5 Hours. U.
Continuation of JPN 204. Prerequisite: JPN 204. LEC.

JPN 226. Japanese in Context - Intermediate. 3 Hours. U.
Supervised and individualized study and practice of language skills through direct experience in interviews and guided practical applications in various public settings in Japan. Some conventional classroom instruction in grammar included. Offered only during the Summer Institute in Hiratsuka, Japan. Prerequisite: Two semesters or the equivalent of Japanese language study. LEC.

JPN 233. Special Skills in Japanese: ____. 1-4 Hours. U.
Instruction in special skills in Japanese, such as pronunciation, recognition of Chinese characters, comprehension of broadcast media, etc. at the freshman/sophomore level. Course work must be arranged through the office of KU Study Abroad and approved by the Department of East Asian Languages and Cultures. May be repeated for credit if content varies. LEC.

JPN 306. Advanced Japanese Conversation I. 2 Hours. H/W.
Intensive practice of communicative skills at the advanced level. Prerequisite: JPN 208 or equivalent. LEC.

JPN 310. Advanced Japanese Conversation II. 2 Hours. H/W.
Continuation of JPN 306. LEC.

JPN 326. Japanese in Context - Advanced. 3 Hours. U.
Supervised and individualized study and practice of language skills through direct experience in interviews and guided practical applications in various public settings in Japan. Some conventional classroom instruction in grammar and usage. Offered only during the Summer Institute in Hiratsuka, Japan. Prerequisite: Four semesters or the equivalent of Japanese language study. LEC.

JPN 333. Special Skills in Japanese: ____. 1-4 Hours. U.
Instruction in special skills in Japanese, such as pronunciation, recognition of Chinese characters, comprehension of broadcast media, etc. at the junior/senior level. Course work must be arranged through the office of KU Study Abroad and approved by the Department of East Asian Languages and Cultures. May be repeated for credit if content varies. LEC.

JPN 386. Advanced Japanese Conversation III. 1-3 Hours. U.
Instruction in discussion in formal contexts and speech making. Prerequisite: JPN 504 or equivalent. LEC.

Readings in Japanese on a subject selected by a student with the advice and direction of the instructor. Individual meetings and reports. Prerequisite: Consent of instructor. IND.

JPN 504. Advanced Modern Japanese I. 3 Hours. H/W.
Readings in selected Japanese texts on various topics: history, education, language, society, business, and literature. Meets three hours per week. Prerequisite: JPN 208 or equivalent. LEC.

JPN 508. Advanced Modern Japanese II. 3 Hours. H/W.
Continuation of JPN 504. Prerequisite: JPN 504 or equivalent. LEC.

JPN 509. Business Japanese. 3 Hours. U.
Study of Japanese language especially appropriate to business situations. Although the course emphasizes developing conversational ability, the primary focus is on strengthening reading and writing in the specialized area. The course includes discussion of non-verbal aspects of Japanese
business practices as well. Prerequisite: The first semester of third-year
Japanese or the equivalent. LEC.

**JPN 542. Introduction to Classical Japanese I. 3 Hours. H/W.**
Introductory grammar and readings in classical Japanese texts.
Prerequisite: JPN 508. LEC.

**JPN 544. Introduction to Classical Japanese II. 3 Hours. H.**
Continued readings of classical Japanese texts, on the intermediate and advanced
level. Introduction to the elements of kambun (Sino-Japanese) and sorobun (epistolary) styles. Prerequisite: JPN 542 or equivalent. LEC.

**JPN 562. Modern Japanese Texts I. 3 Hours. AE61 / H/W.**
Readings and interpretation of modern Japanese texts from various fields.
Continued study of the language in the form of oral discussion and written reports. Prerequisite: JPN 508. LEC.

**JPN 564. Modern Japanese Texts II. 3 Hours. H/W.**
A continuation of JPN 562. Prerequisite: JPN 562 or equivalent. LEC.

**JPN 569. Advanced Business Japanese. 3 Hours. U.**
This course strengthens reading and writing skills and continues
developing conversational ability. It assumes a higher level of competency
in Japanese than JPN 509 and includes both verbal and non-verbal aspects of Japanese business practices. Prerequisite: Completion of third-year Japanese or equivalent. LEC.

**JPN 598. Readings in: ____. 1-3 Hours. H/W.**
Students will read selections from materials on a given topic or topics.
May be repeated for credit. Prerequisite: JPN 564 or permission of instructor. IND.

**JPN 690. Seminar in: ____. 1-3 Hours. H/W.**
Varying topics with varying prerequisites. LEC.

**JPN 801. Directed Readings and Research in Japanese. 1-4 Hours.**
Advanced language training for the study of Japanese sources in the humanities or social science field of the student. Prerequisite: JPN 564 or consent of instructor. RSH.

**JPN 880. Advanced Japanese Research Materials. 2 Hours.**
A detailed examination of various Japanese language reference works and research materials. Emphasis will be placed on the use of different types of reference works to carry out research strategies. Prerequisite: JPN 508 or equivalent and JPN 580. LEC.

**KOR 104. Elementary Korean I. 5 Hours. U.**
Five hours of class and two hours of drill in the spoken language each week. Grammar and readings in selected texts. LEC.

**KOR 108. Elementary Korean II. 5 Hours. U.**
Continuation of KOR 104. Prerequisite: KOR 104. LEC.

**KOR 177. First Year Seminar: ____. 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Korean. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**TIB 101. Elementary Tibetan I. 3 Hours. U.**
An introduction to the Tibetan language in both its literary and colloquial forms according to the Central Tibetan dialects. Four semesters of 3-credit Tibetan language courses fulfill the College of Liberal Arts and Sciences foreign language requirement. LEC.

**TIB 102. Elementary Tibetan II. 3 Hours. U.**
A continuation of TIB 101. Prerequisite: TIB 101 or equivalent. Four semesters of 3 credit Tibetan language courses fulfill the College of Liberal Arts and Sciences foreign language requirement. LEC.

**TIB 177. First Year Seminar: ____. 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Tibetan. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**TIB 200. Intermediate Tibetan I. 3 Hours. U.**
Continuation of TIB 201. Prerequisite: TIB 201 or equivalent. Four semesters of 3 credit Tibetan language courses fulfill the College of Liberal Arts and Sciences foreign language requirement. LEC.

**TIB 201. Intermediate Tibetan II. 3 Hours. U.**
Continuation of TIB 201. Prerequisite: TIB 201 or equivalent. Four semesters of 3 credit Tibetan language courses fulfill the College of Liberal Arts and Sciences foreign language requirement. LEC.

**UYGR 101. Elementary Uyghur I. 3 Hours. U.**
Uyghur is an important Central Asian Turkic language spoken by nine million people in China. The first semester is designed to give the student basic communicative competency, including pronunciation and
intonation, structure, and syntax. Effective oral and written communication is stressed. LEC.

**UYGR 102. Elementary Uyghur II. 3 Hours. U.**
Continuation of UYGR 101. Prerequisite: UYGR 101 or the equivalent. LEC.

**UYGR 177. First Year Seminar: _____. 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Uyghur. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**UYGR 201. Intermediate Uyghur I. 3 Hours. U.**
Continuation of UYGR 102. Prerequisite: UYGR 102 or equivalent. LEC.

**UYGR 202. Intermediate Uyghur II. 3 Hours. U.**
Continuation of UYGR 201. Prerequisite: UYGR 201 or equivalent. LEC.

**Bachelor of Arts in East Asian Languages and Cultures**

**Why study East Asian languages and cultures?**

Because knowledge of East Asia is critical in the new global culture and marketplace.

**Undergraduate Admission**

**Admission to KU**

All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

**Admission to the College of Liberal Arts and Sciences**

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

**Major and Concentrations**

For undergraduates in the department, the B.A. degree in East Asian languages and cultures is available in the following concentrations:

1. Chinese language and literature.
2. Japanese language and literature.
3. East Asian studies with Chinese language.
4. East Asian studies with Japanese language.
5. East Asian studies with Korean language.
6. Double language Concentration: Chinese and/or Japanese and/or Korean.

**First- and Second-Year Preparation**

Students considering a major in EALC should begin language training as soon as possible, starting with CHIN 104/JPN 104/KOR 104-CHIN 108/JPN 108/KOR 108 in the first year and advancing to the intermediate 204-208 level. Students are encouraged to take ECIV 304/ECIV 305 as soon as possible. Talk to the undergraduate advisor in the target language to plan a 4-year course of study. Call 785-864-3100 for information about advisors to contact.

**Requirements for the B.A. Major**

**Chinese Language and Literature Concentration**

**East Asian Languages and Cultures Prerequisite Knowledge (20)**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CHIN 104</td>
<td>Elementary Chinese I</td>
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<tr>
<td>CHIN 108</td>
<td>Elementary Chinese II</td>
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<th>Hours</th>
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<tr>
<td>CHIN 204</td>
<td>Intermediate Chinese I or Intermediate Chinese II</td>
<td>10</td>
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<tr>
<td>CHIN 504 &amp; CHIN 508</td>
<td>Advanced Modern Chinese I and Advanced Modern Chinese II</td>
<td>10</td>
</tr>
<tr>
<td>CHIN 342</td>
<td>Introduction to Classical Chinese</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 542</td>
<td>Introduction to Classical Chinese</td>
<td>3</td>
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<td>CHIN 562</td>
<td>Modern Chinese Texts I</td>
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And one of the following:

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<tr>
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<th>Title</th>
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<tr>
<td>CHIN 544</td>
<td>Readings in Classical Chinese: _____</td>
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<tr>
<td>CHIN 564</td>
<td>Modern Chinese Texts II</td>
</tr>
<tr>
<td>EALC/LING 572</td>
<td>The Structure of Chinese</td>
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**East Asian Languages and Cultures Core Knowledge and Skill (22)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>CHIN 342</td>
<td>Introduction to Classical Chinese</td>
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<tr>
<td>CHIN 542</td>
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<tr>
<td>CHIN 552</td>
<td>Modern Chinese Texts I</td>
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<tbody>
<tr>
<td>CHIN 544</td>
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</tr>
<tr>
<td>CHIN 564</td>
<td>Modern Chinese Texts II</td>
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</tbody>
</table>

**East Asian Languages and Cultures Required Elective (0)**

Major's choosing this concentration must complete a course in each of the following areas (A course cannot be used in more than 1 area):

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
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<td>CHIN 552</td>
<td>Modern Chinese Texts I</td>
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<tr>
<td>CHIN 544</td>
<td>Readings in Classical Chinese: _____</td>
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<td>CHIN 564</td>
<td>Modern Chinese Texts II</td>
</tr>
<tr>
<td>EALC/LING 572</td>
<td>The Structure of Chinese</td>
</tr>
</tbody>
</table>
EALC 330/530 Chinese Literature and Culture: Premodern Times
EALC 370 Chinese Folk Belief
EALC 418/618 Sexual Politics in Chinese Literature and Culture: Premodern Times
EALC 499 Honors Thesis

Pre-modern China. Satisfied by one course, e.g.:
EALC 330/530 Chinese Literature and Culture: Premodern Times
EALC 415/615 Ancient China
EALC 418/618 Sexual Politics in Chinese Literature and Culture: Premodern Times
EALC 508 Religion in China
EALC 555 Buddhists and Buddhism in China
EALC 583 Imperial China
EALC 642 Chinese Thought
EALC 499 Honors Thesis

Modern China. Satisfied by one course, e.g.:
EALC 318 Modern Chinese Fiction and Film
EALC 319 Contemporary Chinese Fiction and Film
EALC 368 The Peoples of China
EALC 420/620 Daily Life in China From the Opium War to the Present
EALC 584 Modern China
EALC 585 Reform in Contemporary China
EALC 649 Doing Business With China: Law and Policy
EALC 678 Chinese Foreign Policy
EALC 499 Honors Thesis

**Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 31 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 12 hours of KU resident credit in the major.

**Major Junior/Senior Hours**
Satisfied by a minimum of 31 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Japanese Language and Literature Concentration**

**East Asian Languages and Cultures Prerequisite Knowledge (20)**
Elementary Japanese I. Satisfied by:
JPN 104 Elementary Japanese I 5
Elementary Japanese II. Satisfied by:
JPN 108 Elementary Japanese II 5
Language Proficiency. Satisfied by:

**East Asian Languages and Cultures Core Knowledge and Skills (19)**

- Majors choosing this concentration must complete a course or courses in each of the following areas:
- **Eastern Civilizations.** Satisfied by one of the following:
  - ECIV 304 Eastern Civilizations 3
  - or ECIV 305 Eastern Civilizations Honors
- **Advanced Language.** Satisfied by:
  - JPN 306 Advanced Japanese Conversation I 4
  & JPN 310 Advanced Japanese Conversation II
  - JPN 504 Advanced Modern Japanese I 6
  & JPN 508 Advanced Modern Japanese II
  - JPN 562 Modern Japanese Texts I 3
  And one of the following: 3
  - JPN 564 Modern Japanese Texts II
  - JPN 569 Advanced Business Japanese
  - EALC/LING 570 The Structure of Japanese

**East Asian Languages and Cultures Required Elective (0)**

- Majors choosing this concentration must complete a course in each of the following areas (a course cannot be used in more than 1 area):
- **Pre-Modern Japanese Literature in Translation.** Satisfied by one course, e.g.:
  - EALC 412 Traditional Japanese Literature in Translation
  - EALC 575 Love, Sexuality and Gender in Japanese Literature
- **Modern Japanese Literature in Translation.** Satisfied by one course, e.g.:
  - EALC 316 Modern Japanese Literature in Translation: 1868-1945
  - EALC 317 Contemporary Japanese Literature in Translation: 1945-Present
  - EALC 412 Visual and Literary Culture in Modern Japan

**Pre-Modern Japan.** Satisfied by one course on pre-modern Japan, e.g.:
- EALC 312 Traditional Japanese Literature in Translation
- EALC 410 The Culture of Play in Japan
- EALC 411 The Culture of Play in Japan, Honors
- EALC 509 Religion in Japan
- EALC 587 Early Modern Japan
- EALC 499 Honors Thesis

**Modern Japan.** Satisfied by one course on modern Japan, e.g.:
- EALC 316 Modern Japanese Literature in Translation: 1868-1945
- EALC 317 Contemporary Japanese Literature in Translation: 1945-Present
- EALC 543 Contemporary Japanese Film
- EALC 588 Japan, 1853-1945
- EALC 589 Japan Since 1945
- EALC 499 Honors Thesis
Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 31 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 12 hours of KU resident credit in the major.

**Major Junior/Senior Hours**
Satisfied by a minimum of 31 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**East Asian Studies with Chinese Language Concentration**

**East Asian Languages and Cultures Prerequisite Knowledge (20)**

Elementary Chinese I. Satisfied by:
- CHIN 104 Elementary Chinese I 5

Elementary Chinese II. Satisfied by:
- CHIN 108 Elementary Chinese II 5

Language Proficiency. Satisfied by:
- CHIN 204 Intermediate Chinese I & CHIN 208 Intermediate Chinese II 10

**East Asian Languages and Cultures Core Knowledge and Skills (13)**

Majors choosing this concentration must complete a course or courses in each of the following areas:

Eastern Civilizations. Satisfied by one of the following
- ECIV 304 Eastern Civilizations 3
- or ECIV 305 Eastern Civilizations Honors

Advanced Language. Satisfied by:
- CHIN 504 Advanced Modern Chinese I & CHIN 508 Advanced Modern Chinese II 10

**East Asian Languages and Cultures Required Elective (0)**

Majors choosing this concentration must complete a course in each of the following areas (a course cannot be used in more than one area):

Pre-Modern China. Satisfied by one course on pre-modern China, e.g.:
- EALC 314 Traditional Chinese Literature in Translation
- EALC 330 Chinese Literature and Culture: Premodern Times
- EALC 415 Ancient China
- EALC 418 Sexual Politics in Chinese Literature and Culture: Premodern Times
- EALC 583 Imperial China

Modern China. Satisfied by one course on modern China, e.g.:
- EALC 318 Modern Chinese Fiction and Film
- EALC 319 Contemporary Chinese Fiction and Film
- EALC 420 Daily Life in China From the Opium War to the Present
- EALC 584 Modern China

China in the Humanities. Satisfied by one course on China in a humanities discipline, e.g.:
- EALC 301 Cultural Traditions of China, Inner Asia, and Tibet
- EALC 310 The Chinese Novel
- EALC 314 Traditional Chinese Literature in Translation
- EALC 317 Contemporary Japanese Literature in Translation: 1945-Present
- EALC 318 Modern Chinese Fiction and Film
- EALC 330 Chinese Literature and Culture: Premodern Times
- EALC 370 Chinese Folk Belief
- EALC 415 Ancient China
- EALC 418 Sexual Politics in Chinese Literature and Culture: Premodern Times
- EALC 508 Religion in China
- EALC 530 Chinese Literature and Culture: Premodern Times
- EALC 555 Buddhists and Buddhism in China
- EALC 583 Imperial China
- EALC 584 Modern China

China in the Social Sciences. Satisfied by one course on China in a social science discipline, e.g.:
- EALC 368 The Peoples of China
- EALC 572 The Structure of Chinese
- EALC 585 Reform in Contemporary China
- EALC 678 Chinese Foreign Policy

Advanced East Asian Languages and Cultures. Satisfied by one junior/senior-level (300+) EALC course.

East Asian Course. Satisfied by one course based on an East Asian country other than China, e.g.:
- EALC 302 Cultural Traditions of Japan and Korea

**Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 31 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 12 hours of KU resident credit in the major.

**Major Junior/Senior Hours**
Satisfied by a minimum of 31 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**East Asian Studies with Japanese Language Concentration**

**East Asian Languages and Cultures Prerequisite Knowledge (20)**

Elementary Japanese I. Satisfied by:
- JPN 104 Elementary Japanese I 5

Elementary Japanese II. Satisfied by:
- JPN 108 Elementary Japanese II 5

Language Proficiency. Satisfied by:
- JPN 204 Intermediate Japanese I & JPN 208 Intermediate Japanese II 10

**East Asian Languages and Cultures Core Knowledge and Skills (13)**

Majors choosing this concentration must complete a course or courses in each of the following areas:

Eastern Civilizations. Satisfied by one of the following
- ECIV 304 Eastern Civilizations 3
- or ECIV 305 Eastern Civilizations Honors

Advanced Language. Satisfied by:
- CHIN 504 Advanced Modern Chinese I & CHIN 508 Advanced Modern Chinese II 10

**East Asian Languages and Cultures Required Elective (0)**

Majors choosing this concentration must complete a course in each of the following areas (a course cannot be used in more than one area):

Pre-Modern China. Satisfied by one course on pre-modern China, e.g.:
- EALC 314 Traditional Chinese Literature in Translation
- EALC 330 Chinese Literature and Culture: Premodern Times
- EALC 415 Ancient China
- EALC 418 Sexual Politics in Chinese Literature and Culture: Premodern Times
- EALC 583 Imperial China

Modern China. Satisfied by one course on modern China, e.g.:
- EALC 318 Modern Chinese Fiction and Film
- EALC 319 Contemporary Chinese Fiction and Film
- EALC 420 Daily Life in China From the Opium War to the Present
- EALC 584 Modern China

China in the Humanities. Satisfied by one course on China in a humanities discipline, e.g.:
- EALC 301 Cultural Traditions of China, Inner Asia, and Tibet
- EALC 310 The Chinese Novel
- EALC 314 Traditional Chinese Literature in Translation
- EALC 317 Contemporary Japanese Literature in Translation: 1945-Present
- EALC 318 Modern Chinese Fiction and Film
- EALC 330 Chinese Literature and Culture: Premodern Times
- EALC 370 Chinese Folk Belief
- EALC 415 Ancient China
- EALC 418 Sexual Politics in Chinese Literature and Culture: Premodern Times
- EALC 508 Religion in China
- EALC 530 Chinese Literature and Culture: Premodern Times
- EALC 555 Buddhists and Buddhism in China
- EALC 583 Imperial China
- EALC 584 Modern China

China in the Social Sciences. Satisfied by one course on China in a social science discipline, e.g.:
- EALC 368 The Peoples of China
- EALC 572 The Structure of Chinese
- EALC 585 Reform in Contemporary China
- EALC 678 Chinese Foreign Policy

Advanced East Asian Languages and Cultures. Satisfied by one junior/senior-level (300+) EALC course.

East Asian Course. Satisfied by one course based on an East Asian country other than China, e.g.:
- EALC 302 Cultural Traditions of Japan and Korea
JPN 108  Elementary Japanese II  5
Language Proficiency. Satisfied by:
JPN 204  Intermediate Japanese I  10
& JPN 208  and Intermediate Japanese II

**East Asian Languages and Cultures Core Knowledge and Skill (13)**

Majors choosing this concentration must complete a course or courses in each of the following areas:

**Eastern Civilizations.** Satisfied by one of the following:
ECIV 304  Eastern Civilizations  3
or ECIV 305  Eastern Civilizations Honors

**Advanced Language.** Satisfied by:
JPN 306  Advanced Japanese Conversation I  4
& JPN 310  and Advanced Japanese Conversation II
JPN 504  Advanced Modern Japanese I  6
& JPN 508  and Advanced Modern Japanese II

**East Asian Languages and Cultures Required Elective (0)**

Majors choosing this concentration must complete a course in each of the following areas (a course cannot be used in more than one area):

**Pre-modern Japan.** Satisfied by one course on pre-modern Japan, e.g.:
EALC 312  Traditional Japanese Literature in Translation
EALC 410  The Culture of Play in Japan
EALC 411  The Culture of Play in Japan, Honors
EALC 587  Early Modern Japan

**Modern Japan.** Satisfied by one course on modern Japan, e.g.:
EALC 316  Modern Japanese Literature in Translation: 1868-1945
EALC 317  Contemporary Japanese Literature in Translation: 1945-Present
EALC 543  Contemporary Japanese Film
EALC 588  Japan, 1853-1945
EALC 589  Japan Since 1945

**Japan in the Humanities.** Satisfied by one course on Japan in a humanities discipline, e.g.:
EALC 312  Traditional Japanese Literature in Translation
EALC 315  Survey of Japanese Film
EALC 316  Modern Japanese Literature in Translation: 1868-1945
EALC 317  Contemporary Japanese Literature in Translation: 1945-Present
EALC 410  The Culture of Play in Japan
EALC 411  The Culture of Play in Japan, Honors
EALC 412  Visual and Literary Culture in Modern Japan
EALC 509  Religion in Japan
EALC 543  Contemporary Japanese Film
EALC 575  Love, Sexuality and Gender in Japanese Literature
EALC 587  Early Modern Japan
EALC 588  Japan, 1853-1945
EALC 589  Japan Since 1945

**Japan in the Social Sciences.** Satisfied by one course on Japan in a social science discipline, e.g.:
EALC 350  Contemporary Japan
EALC 570  The Structure of Japanese

Advanced East Asian Languages and Cultures. Satisfied by one junior/senior-level (300+) EALC course, e.g.:
EALC 301  Cultural Traditions of China, Inner Asia, and Tibet

East Asian Course. Satisfied by one course based on an East Asian country other than Japan.

**Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 31 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 12 hours of KU resident credit in the major.

**Major Junior/Senior Hours**
Satisfied by a minimum of 31 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator [here](http://clas.ku.edu/undergrad/tools/gpa).

**East Asian Studies with Korean Language Concentration**

**East Asian Languages and Cultures Prerequisite Knowledge (20)**

Elementary Korean I. Satisfied by:
KOR 104  Elementary Korean I  5

Elementary Korean II. Satisfied by:
KOR 108  Elementary Korean II  5

Language Proficiency. Satisfied by:
KOR 204  Intermediate Korean I  10
& KOR 208  and Intermediate Korean II

**East Asian Languages and Cultures Core Knowledge and Skills (11)**

Majors choosing this concentration must complete a course or courses in each of the following areas:

**Eastern Civilizations.** Satisfied by one of the following:
ECIV 304  Eastern Civilizations  3
or ECIV 305  Eastern Civilizations Honors

**Advanced Language.** Satisfied by:
KOR 504  Advanced Modern Korean I  8
& KOR 508  and Advanced Modern Korean II

**East Asian Languages and Cultures Required Elective (0)**

Majors choosing this concentration must complete a course in each of the following areas (a course cannot be used in more than one area):

**Pre-modern Korea.** Satisfied by one course on pre-modern Korea, e.g.:
EALC 563  Cultural History of Korea
EALC 569  Introduction to Korean Painting
EALC 469  Art and Culture of Korea, Honors

Modern Korea. Satisfied by one course on modern Korea, e.g.:
EALC 593  Modern Korea
East Asia in the Humanities. Satisfied by one course on East Asia in a humanities discipline, e.g.:  
- EALC 380 Popular Cultures of East Asia  
- EALC 413 Asian Media Studies  
- EALC 541 Asian Film  

East Asia in the Social Sciences. Satisfied by one course on East Asia in a social science discipline, e.g.:  
- EALC 363 Gendered Modernity in East Asia  
- EALC 520 Entrepreneurship in East Asia  
- COMS 557 East Asian Communication  
- EALC 656 Government and Politics of East Asia  
- EALC 666 Political Economy of East Asia  
- EALC 676 International Relations of Asia  

East Asian Studies. Satisfied by three courses (9 hours) in any East Asian field. One of these three may be KOR 562.  

**Major Hours & Major GPA**  
1 EALC 499 may be used to fulfill either of these requirements.  

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:  

**Major Hours**  
Satisfied by 32 hours of major courses.  

**Major Hours in Residence**  
Satisfied by a minimum of 15 hours of KU resident credit in the major.  

**Major Junior/Senior Hours**  
Satisfied by a minimum of 32 hours from junior/senior courses (300+) in the major.  

**Major Junior/Senior Graduation GPA**  
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).  

**Double Language Concentration**  
Majors choosing this concentration must complete the following requirements for 2 languages from the following: Japanese, Chinese, and/or Korean. Total hours required for this concentration will depend on the languages chosen and will range from 30-32 jr/sr hours.  

**East Asian Languages and Cultures Prerequisite Knowledge (0)**  
Elementary Japanese or Chinese or Korean I. Satisfied by one of the following:  
- JPN 104 Elementary Japanese I  
- CHIN 104 Elementary Chinese I  
- KOR 104 Elementary Korean I  

Elementary Japanese or Chinese or Korean II. Satisfied by one of the following:  
- JPN 108 Elementary Japanese II  
- CHIN 108 Elementary Chinese II  
- KOR 108 Elementary Korean II  

Language Proficiency. Satisfied by one of the following:  
- JPN 204 Intermediate Japanese I  
  & JPN 208 Intermediate Japanese II  
- CHIN 204 Intermediate Chinese I  
  & CHIN 208 Intermediate Chinese II  
- KOR 204 Intermediate Korean I  
  & KOR 208 Intermediate Korean II  

**East Asian Languages and Cultures Core Knowledge and Skills (2)**  
Advanced Language. Satisfied by one of the following:  
- JPN 306 Advanced Japanese Conversation I  
  & JPN 310 Advanced Japanese Conversation II  
- JPN 504 and Advanced Modern Japanese I  
  & JPN 508 and Advanced Modern Japanese II  
- CHIN 504 Advanced Modern Chinese I  
  & CHIN 508 Advanced Modern Chinese II  
- KOR 504 Advanced Modern Korean I  
  & KOR 508 Advanced Modern Korean II  

**Pre-Modern Culture (6)**  
Choose 2 of the following 3, matching language choices (6 credits combined - must be in the same two languages as chosen to fulfill the language sequences):  
- China  
- Japan  
- Korea  

**Modern Culture (6)**  
Choose 2 of the following 3, matching language choices (6 credits combined - must be in the same two languages as chosen to fulfill the language sequences):  
- China  
- Japan  
- Korea  

**Major Hours & Major GPA**  
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:  

**Major Hours**  
Satisfied by 30-32 hours of major courses.  

**Major Hours in Residence**  
Satisfied by a minimum of 15 hours of KU resident credit in the major.  

**Major Junior/Senior Hours**  
Satisfied by a minimum of 30-32 hours from junior/senior courses (300+) in the major.  

**Major Junior/Senior Graduation GPA**  
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).  

**Graduation Plan**  
With careful planning and commitment to a full-time course load, you can graduate in 4 years. Contact the department for details.
Departmental Honors
The department awards honors to undergraduates who demonstrate exceptional academic achievement. Students should make their intentions known in writing before the final undergraduate semester, preferably during the junior year. The candidate must achieve a minimum overall grade-point average of 3.25 and a minimum of 3.5 in the major and complete EALC 499 with a grade of B or higher. In EALC 499, the student writes an honors thesis under the supervision of a faculty member. Two faculty members evaluate the thesis.

Study Abroad
Students are encouraged to undertake a substantial study abroad experience as part of the major. Studying abroad helps students master the language and affords them cultural understanding far beyond what can be conveyed in a classroom.

KU offers several options for academic-year abroad, direct-exchange programs for undergraduates and graduates in China (Nankai, Nanjing, Huazhong Normal universities and the University of Hong Kong), Japan (Fukuoka, J.F. Obirin, Okayama, Sophia universities and Tsuda College) and South Korea (Korea University). The department sponsors a five-week study abroad program in Hiratsuka, Japan, every summer.

The study abroad office also helps students find other summer, semester, or academic-year programs that meet unique student needs. Credit is usually similar to credit earned during an academic year at KU, and costs are about the same. Some scholarship aid is available. Consult the Office of Study Abroad (http://www.studyabroad.ku.edu) for program and scholarship information as well as program offerings in other countries in Asia.

Minor in East Asian Languages and Cultures

Why study East Asian languages and cultures?
Because knowledge of East Asia is critical in the new global culture and marketplace.

Requirements for the Minor
Students selecting this minor must complete one of the following options:

East Asian Languages and Cultures Minor Option I

Advanced Language Requirement for Minor Option I (10)
Must complete the third year of one of the following languages: 10
(students who complete this requirement by taking KOR 504 and KOR 508 will complete a 20 hour minor)
Japanese. Satisfied by:
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>JPN 306</td>
<td>Advanced Japanese Conversation I</td>
</tr>
<tr>
<td>JPN 310</td>
<td>Advanced Japanese Conversation II</td>
</tr>
<tr>
<td>JPN 504</td>
<td>Advanced Modern Japanese I</td>
</tr>
<tr>
<td>JPN 508</td>
<td>Advanced Modern Japanese II</td>
</tr>
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</table>

Chinese. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN 504</td>
<td>Advanced Modern Chinese I</td>
</tr>
<tr>
<td>CHIN 508</td>
<td>Advanced Modern Chinese II</td>
</tr>
</tbody>
</table>

Korean. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>KOR 504</td>
<td>Advanced Modern Korean I</td>
</tr>
<tr>
<td>KOR 508</td>
<td>Advanced Modern Korean II</td>
</tr>
</tbody>
</table>

Required Electives for Minor Option I (9-12)
Students who choose to pursue Korean language must complete 1 additional Korean culture course.

Select one of the following categories:

- Japanese or Chinese Culture Requirement. Satisfied by three courses on Japanese or Chinese culture (9 hours)
- Korean Culture Requirement. Satisfied by four courses on Korean culture (12 hours)

East Asian Languages and Cultures Minor Option II

Core Knowledge and Skills for Minor Option II (10)
Must complete the second year of one of the following languages: 10

Japanese
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>JPN 204</td>
<td>Intermediate Japanese I</td>
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<tr>
<td>JPN 208</td>
<td>Intermediate Japanese II</td>
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Chinese
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN 204</td>
<td>Intermediate Chinese I</td>
</tr>
<tr>
<td>CHIN 208</td>
<td>Intermediate Chinese II</td>
</tr>
</tbody>
</table>

Korean
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>KOR 204</td>
<td>Intermediate Korean I</td>
</tr>
<tr>
<td>KOR 208</td>
<td>Intermediate Korean II</td>
</tr>
</tbody>
</table>

Required Electives for Minor Option II (18)
Select courses on East Asian Studies pertaining to the language studied:

- Pre-Modern History. Satisfied by the completion of 1 course on the pre-modern history of 1 of the following: Japan, China, or Korea (3 hours).
- Modern History. Satisfied by the completion of 1 course on the modern history of 1 of the following: Japan, China, or Korea (3 hours).
- East Asian Studies Electives. Satisfied by the completion of 4 courses on 1 of the following: Japan, China, or Korea (12 hours).

Minor Hours & Minor GPA

While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

- Minor Hours
Satisfied by 18-20 hours of minor courses.

- Minor Hours in Residence
Satisfied by a minimum of 9 junior/senior (300+) hours of KU resident credit in the minor.

- Minor Junior/Senior Hours
Satisfied by a minimum of 18-20 hours from junior/senior courses (300+) in the minor.

- Minor Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses in the minor. GPA calculations include all courses in the field of study.
including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Master of Arts in East Asian Languages and Cultures

Why study East Asian languages and cultures?

The areas of East Asia covered represent 3 of the oldest continuous civilizations of the world. The great historical contributions of China, Japan, and Korea in literature, philosophy, and art are widely recognized and studied throughout the world. Today, the highly advanced industries of Japan, the enormous human resources of China, and the rapidly growing economies of Korea and Taiwan have contributed to the development of extremely valuable socio-political and economic ties between these areas and the United States.

M.A. Program Overview

The Department of East Asian Languages and Cultures (EALC) is the only department in Kansas offering a regular program of instruction in the languages, literatures, and cultures of East Asia.

The EALC Thesis M.A. program trains students who will devote themselves to becoming effective links between the Far East and the United States. Students concentrate in Chinese, Japanese, or East Asian Cultures, usually entering the program with at least two years of college-level language. The program typically takes two years to complete, including the defense of a required Master’s thesis.

FLAS Fellowships

Students in the M.A. program may also be eligible for a Foreign Language and Area Studies (FLAS) (http://flas.ku.edu) fellowship through the Center for East Asian Studies. FLAS fellowships include:

- Summer award - up to $5,000 for tuition and a stipend of $2,500 for living expenses for summer language study equivalent to one full year of language study
- Academic Year award - full KU tuition and a $15,000 stipend for living expenses for academic year study that includes two semesters of language and six credits or more of East Asian culture courses.

Students in the joint J.D./M.A. or who are also admitted to other programs are strongly encouraged to apply (http://flas.ku.edu/how-apply) for this funding.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Admission to the M.A. program

Apply to the EALC M.A. program via the Office of Graduate Studies online application system (http://www.graduate.ku.edu). For additional information regarding departmental admissions requirements, deadlines, and the application process, please visit the graduate admissions page (https://ealc.drupal.ku.edu/gradadmission) of the EALC Department website, or contact the EALC Department Graduate Program Coordinator, Morgan Swartzlander, mswartz@ku.edu.

Master’s Program

The department offers a master’s degree in East Asian languages and cultures. The student declares his or her concentration in 1 of 3 options.

- Chinese language and literature
- Japanese language and literature
- East Asian cultures

Students of Chinese or Japanese language and literature gain in-depth knowledge of these ancient civilizations, which have produced some of the world’s greatest literature.

Students of East Asian cultures develop a broad interdisciplinary knowledge of East Asia. This concentration is for students pursuing professional or noncollege teaching careers, for students in the early stages of language training, or for students who have already acquired competence in an East Asian language.

Prerequisites

Entrance requirements for a concentration in either Chinese or Japanese language and literature include

- 3 years of the modern language and, for Chinese language students, one year of classical Chinese or the demonstrated equivalent. Students not meeting this prerequisite may be admitted with deficiencies provided they achieve this level of proficiency outside the minimum of 30 graduate credit hours required for the degree.
- 2 lecture courses dealing with East Asia.

Entrance requirements for a concentration in East Asian cultures are

- At least 2 years of an East Asian language. Students not meeting this prerequisite may be admitted with deficiencies provided they achieve this level of proficiency outside the minimum of 30 graduate credit hours required for the degree.
- 2 lecture courses dealing with East Asia.

Requirements for Chinese or Japanese Language and Literature Concentration

1. A minimum of 30 graduate credit hours:
   a. Fourth-year level of language courses.
   b. At least 18 credit hours must be taken in the department in residence.
   c. 6 of these 18 credit hours must demonstrate research capacity in the student’s major language in lecture courses or seminars.
   d. EALC 700 Introduction to East Asian Studies and the relevant bibliography course must be included.
   e. No more than 3 hours of directed readings courses may be included in the required 30 hours.
f. Students are expected to take at least one course at the 500 level or above in the literature of their concentration.

g. Students must take 1 course that deals wholly with an East Asian country outside their concentration.

2. A thesis (3 credit hours) involving significant use of materials in the student’s major language.

Requirements for East Asian Cultures Concentration

1. A minimum of 30 graduate credit hours:
   a. Third-year level of language courses.
   b. At least 24 credit hours, taken in the department in residence.
   c. EALC 700 Introduction to East Asian Studies must be included in the student’s curriculum.
   d. Students are expected to select 1 of the East Asian cultures for concentration and to include in their programs at least 2 courses dealing wholly with an East Asian culture outside their concentrations.
   e. Students may not take more than 3 hours of directed readings.
   f. Students may, in consultation with the department graduate advisor, take other credit hours in a discipline or disciplines closely related to their studies.

   East Asian area courses are offered in anthropology, film and media studies, geography, history, history of art, linguistics, philosophy, political science, religious studies, sociology, and theatre.

g. Students must take 1 course at the 500 level or above in the literature or thought of the country of their concentration.

2. A thesis (3 credit hours) that must deal with a subject in the concentration chosen by the student.

East Asian Courses in Other Departments

Anthropology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ANTH 565</td>
<td>Popular Images in Japanese Culture, Literatures, and Films</td>
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Communication Studies

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<tbody>
<tr>
<td>COMS 557</td>
<td>East Asian Communication</td>
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Economics

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<tbody>
<tr>
<td>ECON 583</td>
<td>Economic Issues of East Asia</td>
<td>3</td>
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</tbody>
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Film and Media Studies

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>FMS 541</td>
<td>Asian Film</td>
<td>3</td>
</tr>
<tr>
<td>FMS 743</td>
<td>Contemporary Japanese Film</td>
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Geography

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<tbody>
<tr>
<td>GEOG 796</td>
<td>Asian Regions: _____</td>
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History

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<tr>
<td>HIST 510</td>
<td>Topics in: _____</td>
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<tr>
<td>HIST 582</td>
<td>Ancient Japan</td>
<td>3</td>
</tr>
<tr>
<td>HIST 583</td>
<td>Imperial China</td>
<td>3</td>
</tr>
<tr>
<td>HIST 584</td>
<td>Modern China</td>
<td>3</td>
</tr>
<tr>
<td>HIST 587</td>
<td>Early Modern Japan</td>
<td>3</td>
</tr>
<tr>
<td>HIST 588</td>
<td>Japan, 1853-1945</td>
<td>3</td>
</tr>
<tr>
<td>HIST 589</td>
<td>Japan Since 1945</td>
<td>3</td>
</tr>
<tr>
<td>HIST 590</td>
<td>Cultural History of Korea</td>
<td>3</td>
</tr>
<tr>
<td>HIST 593</td>
<td>Modern Korea</td>
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HIST 605  Medieval Japan  3
HIST 696  Seminar in: _____  3
History of Art

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<tr>
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<tbody>
<tr>
<td>HA 503</td>
<td>Japanese Prints</td>
<td>3</td>
</tr>
<tr>
<td>HA 545</td>
<td>Early Chinese Art</td>
<td>3</td>
</tr>
<tr>
<td>HA 705</td>
<td>Major Artist: _____</td>
<td>1-3</td>
</tr>
<tr>
<td>HA 782</td>
<td>Japanese Painting</td>
<td>3</td>
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<tr>
<td>HA 788</td>
<td>Proseminar in Japanese Art</td>
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</tr>
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<td>HA 789</td>
<td>Proseminar in Chinese Art</td>
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<td>HA 822</td>
<td>Seminar in Buddh Art: _____</td>
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<td>HA 824</td>
<td>Seminar in Edo Period Painting: _____</td>
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<td>HA 980</td>
<td>Seminar in Chinese Art: _____</td>
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<td>HA 990</td>
<td>Seminar in Japanese Art: _____</td>
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Political Science

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<tbody>
<tr>
<td>POLS 656</td>
<td>Governments and Politics of East Asia</td>
<td>3</td>
</tr>
<tr>
<td>POLS 668</td>
<td>Reform in Contemporary China</td>
<td>3</td>
</tr>
<tr>
<td>POLS 676</td>
<td>International Relations of Asia</td>
<td>3</td>
</tr>
<tr>
<td>POLS 678</td>
<td>Chinese Foreign Policy</td>
<td>3</td>
</tr>
<tr>
<td>POLS 956</td>
<td>The Governments and Politics of Asia</td>
<td>2-3</td>
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</table>

Religious Studies

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<th>Credit</th>
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<tbody>
<tr>
<td>REL 508</td>
<td>Religion in China</td>
<td>3</td>
</tr>
<tr>
<td>REL 509</td>
<td>Religion in Japan</td>
<td>3</td>
</tr>
<tr>
<td>REL 510</td>
<td>Religion in Korea</td>
<td>3</td>
</tr>
<tr>
<td>REL 733</td>
<td>Seminar in Eastern Religious Texts: _____</td>
<td>3</td>
</tr>
<tr>
<td>REL 762</td>
<td>Seminar in Eastern Religious Thought: _____</td>
<td>3</td>
</tr>
<tr>
<td>REL 776</td>
<td>Seminar in Religion and Society in Asia: _____</td>
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Theatre

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<td>THR 527</td>
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</table>

For additional courses in the above disciplines, see appropriate sections of the online catalog.

Joint Degrees

MBA/M.A. Joint Master’s Degree Program

Offered in conjunction with the KU School of Business, the Master of Business Administration and Master of Arts in East Asian Languages and Cultures is designed to combine a business education with a specific focus on China, Japan, Korea, or Pan-Asian geographic areas and languages.

Course Requirements

The joint MBA/M.A. degree program requires 60 credit hours, structured as follows:

**MBA Requirements: 36 Credits**

- Foundation Courses: 16
- Environmental Courses: 2
- Breadth Courses: 6
- Elective Courses: 12

Note: Some business courses may be offered at Edwards Campus in Overland Park rather than at Lawrence Campus.
Area Studies Requirements: 25 Credits

Introductory Course
2 semesters of advanced language study (6-10 credits depend on language chosen)
Graduate level literature or thought course (3 credits in country of concentration)
2 additional graduate courses in country of concentration
1 graduate course outside country of concentration
Unifying research thesis

Note: See the MBA-M.A. EALC Curriculum Guide for details about eligible classes.

Joint Degree Program in Law and East Asian Languages and Culture

Joint Degree Program in Law and East Asian Languages and Cultures

The J.D./M.A. EALC program, which leads to the J.D. and M.A. in East Asian Languages and Cultures degrees, combines into 4 years and one summer of full time study the Juris Doctor program offered by the School of Law and the Master of East Asian Languages and Cultures program offered by the Department of East Asian Languages and Cultures in the College of Liberal Arts and Sciences.

Growing interdependence with East Asia, particularly with China, provides a need for lawyers versed in culture and language. A joint degree in Law and East Asian Languages and Cultures opens many doors for its recipients. One can find opportunities in international trade and finance, immigration law, and other related fields, as well as a greater ability to work with clients from various backgrounds.

Funding

Joint J.D./M.A. students are eligible and strongly encouraged to apply for a Foreign Language and Area Studies (FLAS) (http://flas.ku.edu) fellowship through the Center for East Asian Studies. FLAS fellowships include:

• Summer award - up to $5,000 for tuition and a stipend of $2,500 for living expenses for summer language study equivalent to 1 full year of language study
• Academic Year award - full KU tuition and a $15,000 stipend for living expenses for academic year study that includes 2 semesters of language and 6 credits or more of East Asian culture courses.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Admission to the Joint Program

To be admitted to the joint J.D./M.A. EALC Program, an applicant must hold an earned baccalaureate degree from an accredited college or university, complete the admission processes, meet the admission requirements for both the School of Law and the Department of East Asian Languages and Cultures, and be admitted to both programs no later than the end of the first year of study in Law or the completion of more than 16 credit hours in EALC. Full-time study is required for the joint J.D./M.A. EALC program. The Law School Admission Test (LSAT) is the only standardized test required for an applicant to the joint degree program.

For information about applying to the Law School, see the school website (http://www.law.ku.edu/admissions). For information about applying to the EALC Department, please visit the graduate admissions page (https://ealc.drupal.ku.edu/gradadmission) of the EALC Department website, or contact the EALC Department Graduate Program Coordinator, Morgan Swartzlander, mswartz@ku.edu.

Degree Requirements

To receive the J.D./M.A. EALC, a student must successfully complete a minimum of 106 credit hours, 81 in the School of Law and 25 in the Department of East Asian Languages and Cultures. The School of Law requires a 2.0 grade point average, while the Graduate School requires a 3.0 GPA for all courses counting toward the M.A. in EALC portion of the degree.

J.D. Requirements

Students must complete all required first year School of Law courses (32 credit hours) prior to enrolling in courses for the joint degree. In addition to these course requirements, the School of Law has an upper-class writing requirement, a residence requirement, and a time limit for completion of the degree.

In addition to the 44 TOTAL credit hours of coursework required of all law students, students in the joint J.D./M.A. EALC program must complete an additional 12 credit hours of coursework consisting of courses in any two of the following four areas of concentration:

International Trade (6)
LAW 944 International Trade Law 3
LAW 864 Advanced International Trade Law 3
International Commerce (6)
LAW 945 International Commerce and Investment 3
LAW 936 International Economic Law and Development 3
Public International Law (6)
LAW 974 Public International Law 3
LAW 932 International Human Rights Law 3
Comparative Law (6)
LAW 879 Comparative Law 3
LAW 918 Islamic Law 3
Students may choose courses to complete the remaining hours necessary to reach the total of 81 hours of law school credit needed for the joint degree from any part of the Law School curriculum.

Please refer to the current School of Law Catalog for further details about the requirements for the J.D. portion of the degree.

**EALC Requirements**

Students shall consider the degree in East Asian Cultures to be interdisciplinary in nature:

1. A minimum of 22 graduate credit hours plus 1 of the two options listed in part 7.
2. Each student is expected to select 1 of the East Asian Cultures (Japan, China, or Korea) for concentration and to include in his or her program at least two courses dealing wholly with an East Asian culture outside of his or her concentration. Up to 2 courses can be pan-East Asian courses including the student's country of concentration.
3. Students must complete a third year of language of the country of concentration.
4. EALC 700, Introduction to East Asian Studies, must be included in the student’s curriculum if the course is offered during the time the student is in resident study.
5. No more than 3 hours of directed reading in a language may count toward the M.A. degree.
6. Students are required to take 1 course in the literature or thought of the country of concentration at 500 level or above.
7. Students are required to fulfill 1 of the following requirements:
   a. Write a thesis (3 credit hours) which must deal with a subject within the concentration chosen by the student, or
   b. Practical thesis: Hold an internship or job in the country of concentration for a period of at least 8 weeks, at the advisor’s approval, and write a 40 page analysis of the cultural aspects of the experience (3 credits)

Students MUST consult with the EALC Director of Graduate Studies (DGS) immediately upon admission to the joint program to determine an enrollment plan and obtain a list of current approved joint courses. Joint students must also consult with the DGS during advising periods each semester.

Third and fourth year Chinese, Japanese, and Korean language courses fulfill the requirements, as well.

**Typical Enrollment Pattern**

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<th></th>
<th>Law</th>
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<tr>
<td>Fourth Year</td>
<td>22</td>
<td>6 (including thesis)</td>
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<td>Total Credit Earned</td>
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<td>Law credit allowed</td>
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</table>

^1 There is no credit toward the degree for first and second year language. First and second year language are 10 credits each. Third year language is 10 credits and counts toward the degree.

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**Department of Ecology and Evolutionary Biology**

**Ecology and Evolutionary Biology Graduate Programs**

The department comprises a large number of biologists with a variety of research interests. 3 broad overlapping themes capture the interests and activities in EEB — biodiversity and macroevolution, ecology and global change biology, and evolutionary mechanisms. The department offers graduate study leading to Master of Arts and Doctor of Philosophy degrees in botany, entomology, and ecology and evolutionary biology. General information about the department and its faculty, current graduate students, admission, and financial support may be found on the department’s website (http://www2.ku.edu/~eeb).

Neotropical biodiversity is a special area of concentration among EEB faculty. Many faculty members have courtesy appointments in the Latin American Area Studies Program, which fosters multidisciplinary research in Latin America across the campus. KU is a member of the Organization for Tropical Studies, and many faculty members and students participate in advanced, field-oriented OTS courses. Graduate students can receive fellowships for courses, e.g. BIOL 786 Fundamentals of Tropical Biology, or research projects in Costa Rica. Other EEB faculty have research concentrations in Asia, Africa, Antarctica, and elsewhere, creating a genuinely global reach for EEB research activities.

(B.A. and B.S. degree programs in biology are listed under Biology Undergraduate Programs (p. 1171).)

**Facilities**

Departmental physical facilities include laboratories, natural history collections, and field-study sites near the university. Most laboratory facilities are in Dyche Hall, Higuchi Hall, McGregor Herbarium, Haworth Hall, and the Public Safety Building. Special facilities in Haworth include controlled-environment rooms, greenhouses, and various instrument rooms, including an excellent electron microscope laboratory.

The natural history collections are housed by the **Biodiversity Institute** and include approximately 8 million specimens, including mammals, birds, reptiles, amphibians, fishes, arthropods and other invertebrates, parasites, and plants, as well as fossils of vertebrates, arthropods, other invertebrates, and plants. Collections support diverse research in evolutionary biology, paleobiology, and ecology including systematics, phylogenetics, biogeography, morphology, behavior, biodiversity informatics, and biotic surveys and inventories. The BI also has leading facilities for diverse analyses of biodiversity information, including well-equipped spatial analysis laboratories, and extensive facilities for molecular systematics.

The **Kansas Biological Survey** is a KU research and service unit and a nonregulatory state agency, whose mission is to gather information on
the kinds, distribution, and abundance of plants and animals in Kansas, and to compile, analyze, interpret, and distribute this information broadly. KBS is a nationally recognized leader in several fields of environmental research and maintains a strong tradition of natural history studies. Scientists at KBS study terrestrial ecosystem ecology, aquatic ecology, water quality, biodiversity, ecology and population biology of animals and plants, and conservation and restoration of natural communities. KBS researchers routinely use technologies such as satellite and airborne remote sensing, aerial photography, and Geographic Information Systems.

KBS administers the University of Kansas Field Station, 3,400 acres of field-sites dedicated to environmental research and education. KUS sites are in the transition zone between the Eastern Deciduous Forest and Tallgrass Prairie biomes and include woodland, prairie, old fields, and wetlands. The Fitch Natural History Reservation and Baldwin Woods are used primarily to study unmanipulated ecological processes in undisturbed habitats. The John H. Nelson Environmental Study Area is used for experimental ecological studies and has experimental ponds, a dedicated lake and watershed, a common garden, small-mammal enclosures, and a succession facility.

Courses

**BIOL 100. Principles of Biology. 3 Hours. NB GE3N / N.**
Intended for non-science majors. The basic concepts of biology at the cellular, organismal, and population levels of organization and their applications to humans and modern society. An honors section, BIOL 101, is offered for students with superior academic records. BIOL 100 and BIOL 102 (or BIOL 101 and BIOL 103, honors) satisfy the College natural science with laboratory requirement. Concurrent enrollment in BIOL 102 is recommended. LEC.

**BIOL 101. Principles of Biology, Honors. 3 Hours. NB GE3N / N.**
Intended for non-science majors with superior academic records. The basic concepts of biology at the cellular, organismal, and population levels of organization and their applications to humans and modern society. Concurrent enrollment in BIOL 102 or BIOL 103 is recommended. BIOL 101 and either BIOL 102 or BIOL 103 satisfy the College natural science with laboratory requirement. Prerequisite: Membership in the College Honors Program or consent of instructor. LEC.

**BIOL 102. Principles of Biology Laboratory. 1 Hour. U.**
Intended for non-science majors. Exercises are designed to give the student hands-on experience with selected topics from the associated lecture course (BIOL 100). An honors laboratory (BIOL 103) is offered for students with superior academic records. Prerequisite: Concurrent enrollment in BIOL 100 is recommended. LAB.

**BIOL 103. Principles of Biology Laboratory, Honors. 1 Hour. U.**
Intended for non-science majors with superior academic records. Exercises are designed to give the students hands-on experience with selected topics from the associated lecture course (BIOL 101). Prerequisite: Membership in the College Honors Program or consent of instructor. Concurrent enrollment in BIOL 101 is recommended. LAB.

**BIOL 105. Biology Orientation Seminar. 1 Hour. N.**
Introduces interested students to information about majoring in the biological sciences at the University of Kansas. Students learn about degree requirements, academic advising, research opportunities, and career options, as well as how to align academic and professional goals. Graded on a satisfactory/unsatisfactory basis. LEC.

**BIOL 110. Microorganisms in Your World. 3 Hours. NB / N.**
A course for students who are not science majors. Designed to acquaint students with some microbial activities which affect their lives. Includes the historical development of microbiology, the basic principles of microbial growth, disinfection, antibiotics, infection, and immunity; and some commercial, agricultural, and industrial uses of microorganisms. Emphasis is on infectious diseases. May not be counted as a prerequisite for any other microbiology course. LEC.

**BIOL 116. Introduction to Evolutionary Biology. 3 Hours. N.**
An account of evolutionary thinking from classical to contemporary time. The emphasis is on mainstream developments (Darwinism, Mendelism, the Modern Synthesis, Cultural Ecology), but certain social issues will be examined (social Darwinism, creationism). LEC.

**BIOL 120. Insects in Your World. 3 Hours. NB GE3N / N.**
Students will learn about the global impact of insects on human concerns, both positive (pollination and decomposition) and negative (competition with humans for food, fiber, and shelter, and disease transmission) while developing an appreciation for the ways in which scientists work with real problems involving insects. The course will cover the overwhelming abundance and diversity of insects, and their life history, ecology, behavior, and physiology. This course is intended for both nonbiology and biology majors. Format: two lectures and one discussion section per week. LEC.

**BIOL 150. Principles of Molecular and Cellular Biology. 4 Hours. NB GE3N / N.**
An integrated lecture and laboratory course for biology majors and students planning to take additional courses in biology. This course covers basic biochemistry, cell structure and function, molecular biology, genetics, physiology, and development of plants and animals. Three hours of lecture and three hours of laboratory per week. An honors section (BIOL 151) is offered for students with superior academic records. Prerequisite: Concurrent or prior enrollment in CHEM 130, CHEM 190, CHEM 150, or CHEM 170, or consent of instructor. LEC.

**BIOL 151. Principles of Molecular and Cellular Biology, Honors. 4 Hours. NB GE3N / N.**
An integrated lecture and laboratory course for students with superior academic records who are biology majors or who plan to take additional courses in biology. This course covers basic biochemistry, cell structure and function, molecular biology, genetics, physiology, and development of plants and animals. Three hours of lecture and three hours of laboratory per week. Prerequisite: Membership in the University Honors Program and concurrent or prior enrollment in CHEM 130, CHEM 190, CHEM 150, or CHEM 170, or consent of instructor. LEC.

**BIOL 152. Principles of Organismal Biology. 4 Hours. NB GE3N / N.**
An integrated lecture and laboratory course for biology majors and students planning to take additional courses in biology. This course covers basic elements of plant and animal morphology and physiology, principles of evolution, organismal diversity and phylogeny, population biology, population genetics, ecology, and behavior. Three hours of lecture and three hours of laboratory per week. An honors section (BIOL 153) is offered for students with superior academic records. Prerequisite: BIOL 150 or BIOL 151. LEC.

**BIOL 153. Principles of Organismal Biology, Honors. 4 Hours. NB GE3N / N.**
An integrated lecture and laboratory course for students with superior academic records who are biology majors or planning to take additional courses in biology. This course covers basic elements of plant and animal morphology and physiology, principles of evolution, organismal diversity and phylogeny, population biology, population genetics, ecology, and behavior. Three hours of lecture and three hours of laboratory per week. Prerequisite: BIOL 150 or BIOL 151 and membership in the University Honors Program or consent of instructor. LEC.
BIOL 177. First Year Seminar: _____ 3 Hours. NB GE11.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in biology. Does not contribute to major requirements in biology. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

BIOL 200. Basic Microbiology. 3 Hours. NB GE3N / N.
Introduction to bacteria and viruses. Topics include historical development of microbiology, bacterial structure and growth, enzymes and energy production, disinfection, antibacterial drugs, gene transfer, viral replication, infection and immunity, with emphasis on infectious diseases. Can be substituted for BIOL 201 as a prerequisite for other microbiology courses by consent of department. Not open to those with credit in BIOL 110, BIOL 201, BIOL 400, or BIOL 401. Prerequisite: A course in high school biology and a course in high school chemistry. This course is not recommended for first semester freshmen. LEC.

BIOL 203. Introductory Microbiology Laboratory. 2 Hours. U.
Laboratory exercises to complement BIOL 200. Prerequisite: BIOL 200. May be taken concurrently. LAB.

BIOL 210. Introduction to Clinical Laboratory Sciences. 1 Hour. U.
An introductory overview of medical technology as a profession including types of analyses performed, specialties, interrelationships in the health care system and a visit to a clinical laboratory. This course will enable those considering a major in medical technology to have a clear definition of the profession. This course does not meet any degree requirements in biology. No prerequisite. (Same as CLS 210.) LEC.

BIOL 215. Plants Through Time. 3 Hours. NB / N.
Examines the evolution of plants and their environments from the origin of life to the present, including the historical development of the biosphere, mass extinctions (past and present), and social implications of future climate changes and deforestation. Not recommended for students with credit in GEOL 121. LEC.

BIOL 225. Evolution and the History of Life. 3 Hours. GE3N / N.
This introductory course for non-majors focuses on the significance of the history of life and the fossil record for our understanding of evolution. Key events in the history of life are considered, including the origins of life, the eukaryotic cell, and humans, and also various mass extinctions. The focus is on general scientific and evolutionary principles and mechanisms that can be extracted from the study of the fossil record. It also uses the lessons of the fossil record to consider the prospects for our own species. LEC.

BIOL 240. Fundamentals of Human Anatomy, 3 Hours. N.
Introduction to the gross anatomy of the human body. Covers the spatial arrangement and appearance of structures throughout the body, including visual identification of these structures. Musculoskeletal relationships, and the anatomy of major organ systems, are emphasized. Not intended for biology majors. Prerequisite: BIOL 100, or equivalent. LEC.

BIOL 241. Human Anatomy Observation Laboratory. 2 Hours. U.
One of the two laboratories in gross anatomy designed to complement BIOL 240. Emphasizes the three-dimensional appearance and spatial relationships of anatomical structures through supervised observations of pre-dissected human cadavers. Limited to students enrolled in, or seeking admission to, programs that require a human anatomy observation laboratory. Concurrent or prior enrollment in BIOL 240 is required. LAB.

BIOL 242. Human Anatomy Dissection Laboratory. 3 Hours. U.
One of the two laboratories in gross anatomy designed to complement BIOL 240. Provides an opportunity to develop a comprehensive three-dimensional understanding of anatomical structures and spatial relationships while gaining substantial dissecting experience. Student perform supervised dissection of human cadavers. Limited to students enrolled in, or seeking admission to, programs that require a human anatomy laboratory. Concurrent or prior enrollment in BIOL 240 is required. LAB.

BIOL 246. Principles of Human Physiology. 3 Hours. N.
An introduction to the physiological and biochemical processes and general physiological principles necessary to sustain life. Organ and organ system processes are emphasized. Intended for students majoring in allied health or sports related curricula who require a course in human physiology. Not intended for biology majors. Prerequisite: BIOL 100 or equivalent. LEC.

BIOL 247. Principles of Human Physiology Laboratory. 2 Hours. U.
Designed to complement BIOL 246. Uses experiments and simulations to demonstrate laboratory techniques and representative processes in areas of human physiology. Concurrent or prior enrollment in BIOL 246 is required. LAB.

BIOL 350. Principles of Genetics. 4 Hours. N.
Why are related individuals more similar than unrelated individuals and what is the basis for heritable traits? From Mendel’s discoveries of the patterns of genetic inheritance, to the study of transmissible hereditary factors, genetics is central to understanding the biological sciences. Topics include molecular genetics and genetic engineering; Mendelian genetics and mapping; control of gene expression; cytogenetics; epigenetics and non-Mendelian genetics; and population and quantitative genetics. Examples are taken from a wide variety of organisms, including viruses, bacteria, plants, fungi, insects, and humans. Prerequisite: Two semesters of college-level chemistry and BIOL 150 or BIOL 152; or consent of the instructor. LEC.

BIOL 360. Principles of Genetics, Honors. 4 Hours. N.
The science of genetics aims to explain why individuals differ from one another and how these differences are inherited. Honors Genetics covers all core topics in fundamental genetics: Mendelian inheritance, meiosis and recombination, mutation, molecular genetics, population genetics, quantitative genetics and genomics. Special attention given to the practice of genetics and the complex relationship between genotype, phenotype and environment. A broader goal of Honors Genetics is to provide students a framework for understanding recent advances in medical genetics and the modern era of personal genomics. Prerequisite: Two semesters of college-level chemistry and BIOL 150 or BIOL 152, membership in the University Honors Program; or consent of the instructor. LEC.

BIOL 400. Fundamentals of Microbiology. 3 Hours. NB GE3N / N.
Fundamental principles of microbiology with emphasis on physical and chemical properties of the bacterial cell; microbial metabolism, cultivation, growth and death of bacteria; microbial genetics, pathogenesis and immunity, industrially important microorganisms. Prerequisite: BIOL 150 or BIOL 151 and two semesters of college chemistry, or consent of the instructor. LEC.

BIOL 401. Fundamentals of Microbiology, Honors. 3 Hours. N.
Honors section of BIOL 400 and BIOL 612, by application and invitation. Prerequisite: BIOL 151, two semesters of college chemistry, and membership in the University Honors Program, or consent of the instructor. LEC.

BIOL 402. Fundamentals of Microbiology Laboratory. 2 Hours. U.
Laboratory exercises designed to complement BIOL 400 or BIOL 700. Prerequisite: BIOL 400 or BIOL 612, or BIOL 400 or BIOL 612 concurrently. LAB.
BIOL 405. Laboratory in Genetics. 2 Hours. U.
A laboratory program which includes written reports on fruit fly crosses, exercises on meiosis, probability and statistics, human genetics and computer simulations of genetics problems. Prerequisite: Concurrent or prior (preferred) enrollment in BIOL 350 or its equivalent. LAB.

BIOL 408. Physiology of Organisms. 3 Hours. N.
A comprehensive and integrative approach to the study of organisms with an emphasis on physiological, ecological, structural, and behavioral adaptations to differing environments. Prerequisite: BIOL 152 or BIOL 153 and CHEM 130 or CHEM 190 or CHEM 170; or consent of the instructor. LEC.

BIOL 409. Physiology of Organisms, Laboratory. 2 Hours. U.
The laboratory exposes the students to the structure and function of the major groups of animals and plants. Students use basic techniques of biological observation, such as microscopy and dissection, and experimental techniques to analyze plant and animal function. Prerequisite: Concurrent or prior enrollment in BIOL 408, or consent of the instructor. LAB.

BIOL 410. Human Biogeography, Honors. 3 Hours. N.
Principles of evolution and earth change are used to examine distributions of human populations, wealth, and resources. Readings from the current literature will be included. Lecture and discussion. (Same as GEOG 410.) Prerequisite: BIOL 152 or BIOL 153 or GEOG 107 and membership in the University Honors Program or consent of instructor. LEC.

BIOL 412. Evolutionary Biology. 4 Hours. N.
Introduction to the patterns and processes of organic evolution. Considered are the history of evolutionary thought, molecular evolution, genetics and microevolution, selection and adaptation, and speciation and macroevolution. Emphasis will be placed on how scientists study and document change over time in natural populations, methods for testing hypotheses about events in evolutionary history, and how discovering evolutionary mechanisms at one level of organization can help to explicate general processes in the natural world. Prerequisite: BIOL 152 and BIOL 350, or consent of the instructor. LEC.

BIOL 413. History and Diversity of Organisms. 3 Hours. N.
An integrated lecture and laboratory course presenting an overview of the variety and ancestry of life on earth. Using representatives from prokaryotes, protists, plants, fungi, and animals, principles of phylogenetic reconstruction are illustrated and evolutionary trends in the life history features, functional morphology, and structural complexity of extant and extinct organisms are presented. Two hours of lecture and three hours of laboratory per week. Prerequisite: BIOL 152 or BIOL 153, or consent of the instructor. LEC.

BIOL 414. Principles of Ecology. 3 Hours. N.
Study of the principles underlying species population density changes, community structure and dynamics, biogeochemical cycles, and energy flow and nutrient cycling in ecosystems. Prerequisite: BIOL 152 or BIOL 153, or consent of the instructor. LEC.

BIOL 415. Field and Laboratory Methods in Ecology. 2 Hours. N.
This course complements BIOL 414 with field trips and laboratory exercises that illustrate the basic concepts of ecology. Topics covered include methodologies for quantitative sampling of terrestrial and aquatic systems, design of field studies, computer simulation and digital data analysis techniques, and scientific writing. Prerequisite: Concurrent or prior enrollment in BIOL 414. A statistics course is recommended. FLD.

BIOL 416. Cell Structure and Function. 3 Hours. N.
Lecture survey of molecular cell biology with emphasis on experimental approaches to understanding cell function; topics include biological membranes and transmembrane transport, vesicular trafficking (secretion and endocytosis), cell signaling, cell motility and the cytoskeleton, and the regulation of the cell division cycle. Prerequisite: BIOL 150 or BIOL 151; BIOL 350 or BIOL 360; CHEM 130 or CHEM 190 or CHEM 170; and CHEM 135 or CHEM 195 or CHEM 175, or consent of the instructor. LEC.

BIOL 417. Biology of Development. 3 Hours. N.
A general course designed to introduce students to the developmental biology of animals. Emphasis is placed on understanding how a single-celled fertilized egg develops into a complex multicellular organism by the processes of cell division, differentiation, growth, and morphogenesis. Lectures stress experimental approaches to investigating development, including classic embryology and modern molecular genetics. Prerequisite: BIOL 350 or consent of the instructor. LEC.

BIOL 418. Laboratory in: ______. 1-3 Hours. U.
A varied program of laboratory and fieldwork designed to introduce students to investigative approaches in the study of basic concepts of biological science. Students may enroll in more than one section. Prerequisite: BIOL 100, BIOL 101, BIOL 150, BIOL 151, or exemption. Each section may have additional prerequisites to be determined by instructor. LAB.

BIOL 419. Topics in: ______. 1-3 Hours. N.
Courses on special topics in biology, given as need arises. May be lectures, discussions, readings, laboratory, or fieldwork. May be repeated once. Prerequisite: Consent of instructor. IND.

BIOL 420. Seminar: ______. 1-3 Hours. N.
The preparation and presentation of oral reports on selected topics from the recent research literature. Students may choose one interest group each semester, but may enroll in a given interest group only once. Enrollment in each interest group limited to twenty students. Prerequisite: Course work varying with the topic of the seminar, or consent of instructor. LEC.

BIOL 421. Topics in Molecular Biosciences: ______. 3 Hours. N.
Lecture instruction and the preparation and presentation of oral and written reports on selected topics from the recent research literature in molecular biosciences. Students may enroll in a given topic only once. Prerequisite: Course work varying with the topic of the seminar, or consent of instructor. LEC.

BIOL 423. Non-laboratory Independent Study. 1-9 Hours. AE61 / N.
Original study in discussion or preparation of review papers on selected topics of current interest. May be undertaken only with the consent of the major advisor and of the faculty member who will guide the research. Prerequisite: Consent of instructor. IND.

BIOL 424. Independent Study. 1-9 Hours. AE61 / N.
Original study in laboratory or field in selected topics of current research interest. May be undertaken only with the consent of the major advisor and of the faculty member who will guide the research. Prerequisite: Consent of instructor. IND.

BIOL 425. Teaching Apprenticeship in Biology. 1-9 Hours. N.
Involvement as teaching assistant for a course in Biology. Credit hours shall not exceed the credits offered for the course being taught. May be undertaken only with the consent of the Director of Undergraduate Biology and of the faculty member who will teach the course. Prerequisite: Consent of instructor and Director of Undergraduate Biology. FLD.

BIOL 426. Laboratory in Cell Biology. 3 Hours. U.
Laboratory exercises will examine the function, organization, and composition of eukaryotic cells. Prerequisite: BIOL 150 or BIOL 151, CHEM 130 or CHEM 190 or CHEM 170; concurrent or prior enrollment in BIOL 416 or BIOL 536; or consent of the instructor. BIOL 350 or BIOL 360 is highly recommended. LAB.
BIOL 427. Developmental Biology Laboratory. 2 Hours. U.
Laboratory exercises examine processes of early development in animal model organisms. Students study the normal development of live embryos and prepared slides of sea anemones, sea urchins, frogs and chicks. Study of regeneration and axial patterning through experimental manipulation of invertebrates is also explored. Prerequisite: Concurrent or prior enrollment in BIOL 417. LAB.

BIOL 428. Introduction to Systematics. 3 Hours. N.
Basic elements of systematic theory and practice; phylogenetic reconstruction using morphological and molecular data; interpretation of phylogenetic hypotheses; principles of nomenclature and classification; evolutionary processes and patterns of species diversity; discussion of the aims and needs of taxonomy; species and speciation; construction of keys; significance of biological collections. Prerequisite: BIOL 152 or BIOL 153. Not intended for students with advanced systematics background. LEC.

BIOL 430. Laboratory in Molecular Biology. 3 Hours. U.
Practical experience in recombinant DNA technology and molecular cloning. Prerequisite: BIOL 416 or a course in biochemistry or microbiology. LAB.

BIOL 432. Human Behavioral Genetics. 3 Hours. S.
A survey of human behavioral genetics for upper division undergraduates. Emphasis is on how the methods and theories of quantitative, population, medical, and molecular genetics can be applied to individual and group differences in humans. Both normal and abnormal behaviors are covered, including intelligence, mental retardation, language and language disorders, communication, learning, personality, and psychopathology. (Same as ANTH 447, PSYC 432, SPLH 432.) Prerequisite: Introductory courses in biology/genetics or biological anthropology and psychology are recommended. LEC.

BIOL 435. Introduction to Neurobiology. 3 Hours. N.
Basic principles of neurobiology. The focus will be on the nature of communication among nerve cells and their targets. Topics will include the development, structure and function of nerve cells, chemistry of neurotransmission, processing and integration including the cellular and molecular basis of higher functions and neurological disorders. Prerequisite: BIOL 150 or BIOL 151. LEC.

BIOL 440. Advanced Human Anatomy. 6 Hours. N.
Integrated lecture and laboratory course designed to provide students with a detailed understanding of the structure of the human body. Cadaver dissection will reinforce three-dimensional relationships discussed in lecture and each of the main organ systems will be considered using a regional approach to the body. Prerequisite: BIOL 152 or equivalent; BIOL 240, BIOL 241, or BIOL 242; and instructor consent. LEC.

BIOL 448. Kansas Plants. 3 Hours. N.
A study of common and important non-cultivated Kansas plants, with special emphasis on the ecology of the state; paleoclimatic and paleobotanical background of the central prairies and plains; present climate, physiography and vegetation; poisonous, edible, and medicinal plants; identification by means of simplified keys. Prerequisite: BIOL 100, BIOL 101, BIOL 150, or BIOL 151 and BIOL 152 or BIOL 153. LEC.

BIOL 449. Laboratory/Field Work in Human Biology. 1-3 Hours. AE61 / N.
Faculty supervised laboratory or field research for Human Biology majors. Students design and complete a research project in collaboration with a Human Biology faculty member. (Same as ANTH 449, PSYC 449, and SPLH 449.) Prerequisite: Consent of instructor and Human Biology major. FLD.

BIOL 454. Brain Diseases and Neurological Disorders. 3 Hours. N.
Major brain diseases and neurological disorders such as stroke, Alzheimer’s Disease, Parkinson’s Disease, Huntington’s Disease, Multiple Sclerosis, Epilepsy, Schizophrenia, etc., will be discussed in terms of the etiology, molecular, and cellular basis of potential therapeutic interventions. Graduate students are required to present original research paper assigned by the instructor to the class in addition to other assignments for all the students enrolled. Prerequisite: BIOL 150, or consent of instructor. LEC.

BIOL 461. Biodiversity of the Rainforest. 3 Hours. N.
An introduction to birds, bats, and plants of the rainforest, with emphasis on general characteristics of each of the taxa and their relationship to the tropical ecosystem, as well as their particular anatomy, ecology, behavior, and diversity. Field work focuses on identification of birds and bats (at species level), plants (at family level), and on capturing and preservation techniques. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

BIOL 463. Introduction to Ornithology of the Tropics. 4 Hours. N.
A theory and practice course on birds. Course covers morphology, reproduction, evolution, ecology, and behavior, as well as systematics of Costa Rican birds. Course includes field work on bird identification. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

BIOL 465. Marine Biology. 4 Hours. N.
A theory and practice course on biotic relations, the role of organisms and marine biodiversity. It covers basic marine principles and physico-chemical processes (temperature, salinity, dissolved oxygen, nutrients, and pH in the water) and their effect on the abundance, and horizontal and vertical distribution of marine organisms. Course includes field work on data collection. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

BIOL 467. Marine Resources Management. 3 Hours. N.
A theory and practice course which focuses on the techniques used for monitoring the growth of fish, shrimp, and mollusks, with the purpose of understanding the variables that could produce the best yields. The course covers ecology (population growth, competition, predators, ecosystem dynamics), and fishery biology (growth, fish yield, capture efficiency) applicable in the field experiments. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

BIOL 468. Fresh Water Ecology. 4 Hours. N.
A theory and practice class on the study of rivers and lagoons. It includes systematics of rivers, lagoons, and reservoirs. Course includes theory and field work to monitor physical (stream topography, flow, edge vegetation), chemical (nutrients, temperature, pH levels, dissolved oxygen), and biological (collecting and identification of aquatic insects) conditions in rivers. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and
BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

BIOL 477. Ecology and Global Change. 3 Hours. N.
Humans influence both natural and managed ecosystems. This course studies the effects of climate change, land-use change, and reductions in biodiversity on ecosystems. Emphasis is placed on how biological and physical processes may be perturbed by human influences. Topics include the greenhouse effect, species extinctions, human disease expansion, and the effects of global change on agricultural productivity. A combination of lectures and discussion address issues from a scientific basis and link these ecological issues to our everyday lives and society as a whole. Prerequisite: BIOL 152, BIOL 153, or equivalent, or permission of instructor. LEC.

BIOL 480. Biology and Diversity of Parasites. 3 Hours. N.
Introductory lecture course to the field of Parasitology. Provides basic knowledge about the morphology and biology of parasitic animals. Coverage includes a diversity of protozoan and metazoan groups parasitizing animals, including humans (e.g., malaria, amoebas, hookworms, tapeworms). Some emphasis is given to groups of parasites of particular medical and/or economic importance. Selected principles of parasitism are introduced. Prerequisite: BIOL 152 or BIOL 153, or permission of instructor. LEC.

BIOL 481. Parasitology Laboratory. 1 Hour. U.
Laboratory course in the study of protozoan and metazoan parasites of animal, including humans, emphasizing their diversity, classification, morphology, and identification. One three-hour laboratory each week. Prerequisite: Concurrent or prior enrollment in BIOL 480. LAB.

BIOL 494. Introduction to Mammalogy. 3 Hours.
A study of mammals, with emphasis on evolution, biogeography, systematics, and natural history. Lectures, laboratory, and field study. Prerequisite: BIOL 152 or 153 or permission of instructor. LEC.

BIOL 499. Introduction to Honors Research. 2 Hours. N.
Intended for sophomores planning to enroll in the Biology Honors Program. Students interested in pursuing Biology Honors discuss with Biology faculty members the rationale, methods, and interpretations of research being carried out in individual faculty labs to learn how scientific research is conducted. Prerequisite: At least 17 credit hours of college level natural sciences coursework or consent of instructor. LEC.

BIOL 500. Biology of Insects. 3 Hours. N.
Lectures and demonstrations providing an introduction to the study of insects, including general classification, structure, phylogeny, identification, development, physiology, behavior, ecology, and relations to human affairs. Prerequisite: BIOL 152, 153, or equivalent, or permission of instructor. LEC.

BIOL 502. Laboratory in Insect Biology and Diversity. 2 Hours. U.
Laboratory and field studies of insects, emphasizing their diversity, classification, ecological relationships, morphology, and behavior. Course provides practical application of principles covered in BIOL 500. Prerequisite: Concurrent or prior enrollment in BIOL 500 or the equivalent. LAB.

BIOL 503. Immunology. 3 Hours. N.
Lectures on the nature and mechanisms of natural and acquired resistance including humoral and cellular immunity. Characteristics of antigens and antibodies and of their interaction; ontogeny and cellular basis of immune responsiveness, hypersensitivity; specific immunologic tolerance. Not open to those with credit in BIOL 524. Prerequisite: BIOL 400 or BIOL 401, or consent of instructor. LEC.

BIOL 504. Immunology Laboratory. 2 Hours. U.
Laboratory designed to complement BIOL 503. Prerequisite: BIOL 503, or BIOL 503 concurrently. LAB.

BIOL 505. Social Insects. 3 Hours. N.
Lectures and laboratory demonstrations on presocial and social insects, specifically termites, ants, wasps, and bees. Emphasis will be placed on evolution of social behavior and the place of social insects in sociobiology. Prerequisite: BIOL 152, BIOL 153, or equivalent. LEC.

BIOL 506. Pathogenic Microbiology. 3 Hours. N.
Lectures. Characteristics and mechanisms of pathogenic microorganisms and disease processes. Elements of host-parasite interactions. Not open to freshmen or sophomores. Prerequisite: BIOL 503, or consent of instructor. LEC.

BIOL 507. Pathogenic Microbiology Laboratory. 2 Hours. U.
Laboratory to complement BIOL 506. Cultivation of pathogenic microorganisms, diagnostic procedures, and experiments to demonstrate various aspects of microbial pathogenicity and host responses. Prerequisite: BIOL 402 and BIOL 506 (or concurrent enrollment) or consent of instructor. LAB.

BIOL 509. Biology of Spiders. 3 Hours. N.
An introduction to the evolution, anatomy, physiology, behavior, and ecology of spiders and other arachnids. Special topics include the action of spider venoms; the composition and uses of silks; courtship and mating; predation; social behavior; and the role of spiders in natural and agricultural ecosystems. Concurrent enrollment in BIOL 511 is encouraged. Prerequisite: BIOL 152 , BIOL 153 or permission of instructor. LEC.

BIOL 510. Comparative Anatomy. 5 Hours. N.
Structure, function, and evolution of the vertebrates. Lectures and laboratory study. A course designed for zoologists. Prerequisite: BIOL 100, BIOL 101, BIOL 150, or BIOL 151 and BIOL 152 or BIOL 153. LEC.

BIOL 511. Biology of Spiders Laboratory. 1 Hour. U.
Topics will include comparative biology of arachnid orders (spiders, scorpions, harvestmen, mites, and others), external and internal anatomy of spiders, identification of common spider families and genera, and spider behavior. Students will be required to make a small collection (collect, preserve, and identify specimens). Prerequisite: BIOL 509; concurrent enrollment is preferred. LAB.

BIOL 512. General Virology. 3 Hours. N.
Lectures and discussions covering the basic nature and characteristics of viruses from a general biological point of view: viruses of bacteria, animals and plants, physical-chemical properties; host cell-viral interactions; mode of replication of DNA and RNA viruses, tumor viruses. Prerequisite: BIOL 400, BIOL 401 or consent of instructor. LEC.

BIOL 513. Virology Laboratory. 2 Hours. U.
Experiments involving cultivation, quantitation, and identification of animal viruses, continuous cell culture and primary chicken embryo culture techniques. Molecular biology techniques are used to demonstrate the steps in virus replication. The value of viruses as tools to understand normal cellular processes is emphasized in experiments which demonstrate the relative simplicity of viruses and the relative complexity of eukaryotic cells. Demonstrations include transformation of cells by tumor viruses and electron microscopy of virus particles. Prerequisite: BIOL 402 and BIOL 512, or consent of instructor. LAB.

BIOL 514. Principles of Ecology, Honors. 3 Hours. N.
Honors section of BIOL 414 for students with superior academic records. Course covers core concepts on the ecology of individuals, populations, communities, and ecosystems. Relative to BIOL 414, topics are presented
in greater depth with increased student participation and stronger emphasis on the primary scientific literature. Prerequisite: BIOL 100, BIOL 101, BIOL 150, or BIOL 151 and BIOL 152 or BIOL 153. Open only to students admitted to the University Honors Program or by consent of instructor. LEC.

**BIOL 516. Microbial Physiology. 3 Hours. N.**
Elements of microbial physiology. Carbohydrate metabolism; enzymes and coenzymes; microbial nutrition; quantitative problems in microbial physiology; a survey of microbial metabolic types. Prerequisite: BIOL 400 or BIOL 612 and BIOL 402, and five hours of organic chemistry. LEC.

**BIOL 517. Microbial Physiology Laboratory. 2 Hours. U.**
Laboratory designed to complement BIOL 516. Prerequisite: BIOL 516, or BIOL 516 concurrently. LAB.

**BIOL 518. Microbial Genetics. 3 Hours. N.**
Bacteria and viruses as models of genetic systems. Mutagenesis and repair. Transformation, transductions, and recombination. Molecular biology of gene expression. Prerequisite: An introductory microbiology course. LEC.

**BIOL 519. Microbial Genetics Laboratory. 2 Hours. U.**
Laboratory designed to complement BIOL 518. Prerequisite: BIOL 402, BIOL 518, or BIOL 518 concurrently. LAB.

**BIOL 520. Marine Biology. 3 Hours. N.**
This introductory course covers biological, physical, and chemical ocean sciences, with an emphasis on ecological aspects. In addition to this Lawrence campus course, students may enroll for a supplementary 1 credit field trip class to a Caribbean coral reef island offered in December or January. Prerequisite: BIOL 414 or permission of the instructor. LEC.

**BIOL 521. Insect Systematics. 4 Hours. N.**
A study of the diversity of insects, including the classification of all living and fossil orders and the more common families primarily on the basis of external morphology. The biology, ecology, phylogeny, and geological history of each order is covered. Includes both lectures and laboratory exercises. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 500, BIOL 502 or equivalent, or permission of instructor. LEC.

**BIOL 525. Aquatic Entomology. 4 Hours. N.**
Designed to enable students to develop skill in the area of identification of aquatic insects and to gain a detailed comprehension of their community structure and dynamics. The external morphology of all aquatic orders is covered, followed by consideration of specific physiological and behavioral adaptations that facilitate an aquatic existence. Includes both lectures and laboratory exercises. Requirements include making a collection of aquatic insects. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 414 or BIOL 500. LEC.

**BIOL 526. Insect Physiology and Internal Morphology. 3 Hours. N.**
Mechanisms and integration of the internal life-supporting systems of insects, emphasizing the interdependence of structure and function. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 408 and BIOL 500, or permission of instructor. LEC.

**BIOL 528. External Morphology of Insects. 4 Hours. N.**
A study of external structure common to all insect orders, with detailed comparative laboratory studies of representative species. Includes both lectures and laboratory exercises. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 500, BIOL 502 or equivalent, or permission of instructor. LEC.

**BIOL 529. Immature Insects. 3 Hours. N.**
The classification, structure, and ecological distribution of immature insects, especially larvae of Holometabola. Includes both lectures and laboratory exercises. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 502 or permission of instructor. LEC.

**BIOL 533. Biology of Fungi. 4 Hours. N.**
A study of the major groups of fungi from slime molds to mushrooms. Emphasis on their activities in natural substrates, isolation techniques, parasitic and mutualistic relationships with other organisms, uses in research, industrial applications, production of mycotoxins and poisons, and physiological, genetic and reproductive behavior. Lectures, laboratory, and field trips. Prerequisite: BIOL 100, BIOL 101, BIOL 150, or BIOL 151 and BIOL 152 or BIOL 153. LEC.

**BIOL 536. Cell Structure and Function (Honors). 3 Hours. N.**
BIOL 536 is the honors version of BIOL 416. Completion of this class will satisfy the BIOL 416 requirement. Open to students in the Honors program or by permission of instructor. Prerequisite: BIOL 350 or consent of instructor. LEC.

**BIOL 540. General Invertebrate Zoology. 4 Hours. N.**
Phylogeny, physiology, and embryology; evolutionary processes; characteristics of major ecological groupings. Laboratory will consider major taxonomic categories with emphasis on functional morphology and its evolutionary modifications. Prerequisite: BIOL 152 or BIOL 153. LEC.

**BIOL 545. Evolution of Development. 3 Hours. N.**
An advanced course designed to expose students to evolutionary change in the developmental patterning of plant and animal form. This course integrates multiple biological disciplines including phylogenetics, comparative morphology, molecular evolution and developmental genetics to explore biodiversity at a mechanistic level. Topics range from issues surrounding homology assessment to empirical examples of how changes in gene expression or function may have shaped morphological diversity. Prerequisite: BIOL 350 or equivalent. LEC.

**BIOL 550. General Plant Physiology. 3 Hours. N.**
The principal physiological processes of higher plants including photosynthesis, respiration, water relations, mineral nutrition, and factors associated with morphogenesis. Prerequisite: BIOL 408 or consent of instructor. LEC.

**BIOL 556. Histology. 3 Hours. N.**
Study of detailed microscopic anatomy of cells, tissues, and organs of mammals. Examples are drawn from normal and abnormal tissue, histochemistry, and electron microscopy. Lecture and demonstrations. A course in anatomy and physiology is highly recommended. Prerequisite: BIOL 152 or BIOL 153. LEC.

**BIOL 570. Introduction to Biostatistics. 3 Hours. N.**
Statistical concepts related to biological problems. Topics include the scientific method, data representation, descriptive statistics, elementary probability distributions, estimation and hypothesis testing, emphasizing the analysis of variation. Prerequisite: College algebra and ten hours of natural science. LEC.

**BIOL 571. Introduction to Biostatistics Laboratory. 2 Hours. U.**
Introductory statistical analyses on microcomputers. Data entry and export; simple graphs and exploratory data analysis; descriptive statistics; sampling; point and interval estimation; one and two sample t-tests; Chi-square; regression and correlation; analysis of variance; and nonparametric methods. Prerequisite: BIOL 570 or equivalent (may be taken concurrently). LAB.
BIOL 582. Principles of Biogeography. 3 Hours. N.
An introduction to the study of the distribution of life on earth. Covers geographical patterns of species diversity and the processes that give rise to those patterns: speciation, extinction, dispersal, vicariance, continental drift, ecological interactions, and phylogeny. Topics are presented within the framework of evolutionary history and include discussion of the biology of species on islands, terrestrial biomes, altitudinal zonation of species, latitudinal species gradients, historical factors governing species distributions, macroevolutionary trends in the fossil record, and application of modern molecular techniques for testing biogeographical hypotheses. Prerequisite: BIOL 152 or 153 and past or concurrent enrollment in BIOL 412, 413, 414, or 550; or permission of Instructor. LEC.

BIOL 583. Herpetology. 3 Hours. N.
A study of amphibians and reptiles. This lecture course will explore the taxonomic diversity of amphibians and reptiles, and current areas of active research in herpetology. Topics will be considered within a phylogenetic framework, and include discussion on systematics, biogeography, tetrapod origins, skeletal systems, growth, circulatory system, locomotion, thermal and water regulation, hibernation, ecology, sexual behavior, parental care, and mimicry. LEC.

BIOL 592. Ichthyology. 4 Hours. N.
A study of fishes. Lecture topics include the structure and adaptations of fishes to the aquatic environment and a survey of major fish groups with emphasis on their evolution and biogeography. Laboratory topics include a survey of fish diversity using specimens and the use of keys to identify fishes, with emphasis on the Kansas fish fauna. This course meets with BIOL 792. Students taking this course at the 700 level will have additional work required of them. Prerequisite: BIOL 152 and/or BIOL 413. LEC.

BIOL 593. Ornithology. 3 Hours. N.
A lecture and laboratory course on the biology, evolution, and diversity of birds. Prerequisite: BIOL 412 (or BIOL 413), or permission of instructor. LEC.

BIOL 594. Forest Ecosystems. 3 Hours.
Students learn basic concepts of forest productivity, forest water relations, forest hydrology, nutrient cycling, through soils and vegetation, nutrient uptake, carbon cycling, decomposition, linkages to aquatic ecosystems, and agents of disturbance to these cycles. The class spends a significant part of the semester exploring forest soil profiles and the challenges they present to different forest ecosystems. We discuss the function of forested ecosystems in a global context and identify and understand smaller-scale processes that drive forest function. Prerequisite: CHEM 135 or CHEM 195 or CHEM 175. LEC.

BIOL 595. Human Genetics. 3 Hours. N.
A lecture course providing balanced coverage of Mendelian and molecular genetics of humans; includes discussions and presentations on current issues in human and medical genetics. Prerequisite: BIOL 350. LEC.

BIOL 598. Research Methods. 3 Hours. N.
An introduction for pre-service teachers to the tools used by scientists to solve scientific problems. Topics include design of experiments and interpretation of their results, use of statistics, mathematical modeling, laboratory safety, ethical treatment of human subjects, writing scientific papers, giving oral presentations, and obtaining data from the scientific literature. Open only to students in the UCanTeach program. LEC.

BIOL 599. Senior Seminar: ______. 1 Hour. AE61 / N.
A synthesis and discussion of current trends in a discipline or disciplines related to one of the degrees offered in the biological sciences. Emphasis is placed on providing seniors with an appreciation of the discipline’s state-of-the-art and on developing skills for success in the next stage of a career in the biological sciences. Topics depend on the associated degree program. Prerequisite: Must be taken in the final year of a degree and students must have completed most of the course work required for one of the degrees in the biological sciences. LEC.

BIOL 600. Introductory Biochemistry, Lectures. 4 Hours. N.
Designed to offer the essentials of the chemistry of the constituents of living organisms and the changes these constituents undergo (during life processes) in the human body and other living forms. Prerequisite: BIOL 150 or BIOL 151 and one semester of organic chemistry. LEC.

BIOL 601. Principles of Biochemistry Laboratory. 2 Hours.
Theory and methods in the development of protein separation and purification, enzyme structure/function, and enzyme kinetics derived from primary literature searches and readings. Prerequisite or Co-requisite: BIOL 600; or consent of instructor. LAB.

BIOL 602. Plant Ecology. 3 Hours. N.
Introduction to basic concepts, focused at community and species level. Architectural ecomorphology of plants and their physiological responses to physical factors: solar radiation, climate, and soils. Plant succession as an interaction among species differing in ecomorphology and life style. Classification and ordination of plant communities: practice and theory. Other topics include: species diversity and lognormal distribution as to abundance classes; species/area relations and theory of island biogeography; allelochemic defenses; genecology; paleoecology. Prerequisite: BIOL 414 or consent of instructor. Concurrent enrollment in parallel laboratory, BIOL 607, recommended. LEC.

BIOL 603. Systematic Botany. 3 Hours. N.
A lecture/laboratory course providing hands-on experience with plant identification, a history of plant classification, the principles of nomenclature and character analysis, the basics of systematics theory, and a phylogenetically-oriented introduction to vascular plant diversity. Prerequisite: BIOL 413 or equivalent. LEC.

BIOL 606. Ecological Plant Physiology. 3 Hours. N.
Physiological responses of higher plants to environmental factors are discussed. Major topics are: water relations, heat transfer, resistance to water and temperature stress, dormancy, photoperiodism, photosynthesis and respiration under natural conditions, and effects of environmental pollution. Prerequisite: BIOL 408 or consent of instructor. LEC.

BIOL 607. Field and Laboratory Exercises in Plant Ecology. 2 Hours. U.
Introduction to quantitative analysis of plant communities and correlated environmental parameters; field and/or laboratory measurements of ecophysiological traits and comparative ecomorphology of principal species. Prerequisite: BIOL 414. Concurrent enrollment in parallel lecture, BIOL 602, recommended, but not required. LAB.

BIOL 609. Current Progress in Microbiology. 1 Hour. U.
A seminar course which will focus on current research in microbiology. A term paper will be required of each student. May be repeated for credit. Required of all majors in the senior year. Prerequisite: Two courses in microbiology. LEC.

BIOL 611. Molecular Systematics and Evolution. 4 Hours. N.
An introduction to the use of molecular data in systematics and population biology. Topics include: evolution of genes and proteins; properties of mitochondrial DNA, chloroplast DNA, ribosomal RNA genes, protein-coding genes, and repetitive DNAs; laboratory methods for data collection; and data analysis. Prerequisite: BIOL 350. BIOL 550 or equivalent is recommended. LEC.

BIOL 612. Fundamentals of Microbiology. 3 Hours. NB / N.
Lectures. Fundamental principles of microbiology with emphasis in physical and chemical properties of the bacterial cell; microbial
metabolism, cultivation, growth and death of bacteria; microbial genetics; pathogenesis and immunity, industrially important microorganisms. Meets with BIOL 400, but students will be given additional and more advanced assignments, and will carry higher expectations. Prerequisite: BIOL 150 or BIOL 151 and two semesters of college chemistry, or consent of instructor. LEC.

**BIOL 613. Biology of Honeybees. 3 Hours. N.**
Social organization, evolution, behavior, morphology, communication, pollination biology, and ecology of honeybees. Experience will be gained with colony dynamics and behavior while working with bees in the field. Prerequisite: BIOL 152, BIOL 153, or consent of instructor. LEC.

**BIOL 616. Medical Entomology. 3 Hours. N.**
A study of the major human diseases transmitted by arthropods with emphasis on the biology and ecology of vectors, vector feeding mechanisms as related to disease transmission, epidemiology of arthropod-borne diseases, and the impact of arthropod-borne diseases on humans. Laboratory work on recognition of vector species, information sources, and use of taxonomic keys. Prerequisite: BIOL 152 or BIOL 153 and a course in microbiology or consent of instructor. LEC.

**BIOL 622. Paleontology. 3 Hours. N.**
A study of the structure and evolution of ancient life; the nature and diversity of life through time; the interactions of ancient organisms with their environments and the information that the study of fossils provides about ancient environments; the use of fossils to determine the ages of rocks and the timing of past events in earth history; and the patterns of extinction through time. (Same as GEOL 521.) Prerequisite: BIOL 100, BIOL 101, BIOL 152, BIOL 153, GEOL 105, or GEOL 304. LEC.

**BIOL 623. Paleontology Laboratory. 1 Hour. U.**
Laboratory course in the study of fossils with emphasis on the practice of paleontology and the morphology of ancient organisms. (Same as GEOL 523.) LAB.

**BIOL 625. Behavioral Ecology and Sociobiology. 3 Hours. N.**
The role of natural selection in animal behavior, and the influence of behavior on population biology and social dynamics of animal species. Topics include: game theory and optimization as applied to animal behavior; altruism, cooperation and competition; kin recognition and interactions; group formation and dynamics, dominance, aggression, and territoriality; feeding strategies; reproductive behavior including mate choice, parental care, and mating systems. Prerequisite: BIOL 152; either BIOL 350, BIOL 412 or BIOL 414 recommended; or consent of instructor. LEC.

**BIOL 630. Conservation and Wildlife Biology. 3 Hours. N.**
Examination of the concepts and processes involved in conservation of plant and animal populations and communities. Topics to be covered include conservation of endangered species, problems with invasions of exotic species and habitat fragmentation, wildlife management, and design of nature reserves. Prerequisite: BIOL 414, BIOL 412 strongly recommended. LEC.

**BIOL 636. Biochemistry I. 3 Hours. N.**
First semester of a two-semester lecture course in introductory biochemistry. Emphasis upon the physical structure of macromolecules and membranes, enzyme structure/function, and enzyme kinetics. Prerequisite: CHEM 335 or consent of instructor. LEC.

**BIOL 637. Introductory Biochemistry Laboratory. 2 Hours. U.**
The laboratory portion of BIOL 600 or 636. Experiments have been selected to introduce the student to cell constituents and biochemical reactions. One four-hour laboratory and one-hour lecture each week. Prerequisite: BIOL 600 or BIOL 636, or concurrent enrollment. LAB.

**BIOL 638. Biochemistry II. 3 Hours. N.**
Second semester of a two-semester lecture course in introductory biochemistry. Emphasis upon the metabolism of carbohydrates, lipids, amino acids, proteins, and nucleic acids. Prerequisite: BIOL 636. LEC.

**BIOL 639. Advanced Biochemistry Laboratory. 2 Hours. U.**
The laboratory portion of BIOL 638. One four-hour laboratory and a one-hour lecture each week. Experiments have been selected to familiarize students with experimental biochemical techniques using state-of-the-art methodology. Prerequisite: BIOL 637 and 638 (BIOL 638 may be taken concurrently). LAB.

**BIOL 640. The Biology and Evolution of Fossil Plants. 3 Hours. N.**
A lecture course in which fossil plants, protists and fungi are examined throughout geologic time. Emphasis will be directed at paleoecology, biogeography and the stratigraphic distribution and composition of ancient floras. (Same as GEOL 528.) Prerequisite: BIOL 413 or permission of instructor. LEC.

**BIOL 641. Laboratory in Paleobotany. 1 Hour. U.**
An examination of selected fossil plants throughout geological time and the techniques used to study them; laboratory will include identification and the use of plant fossils in biostratigraphy. (Same as GEOL 529.) Prerequisite: BIOL 413 or permission of instructor. Must be taken concurrently with BIOL 640. LAB.

**BIOL 644. Comparative Animal Physiology. 3 Hours. N.**
Lecture and discussion of the basic mechanism of organic maintenance and integration; a comparative treatment of the uniformities and diversity of animal function; emphasis on environmental adaptations and evolutionary relationships. Prerequisite: BIOL 408, five hours of organic chemistry, and one year of college physics, or consent of instructor. LEC.

**BIOL 646. Mammalian Physiology. 4 Hours. N.**
Lectures and demonstrations. An intermediate course in the functions, mechanisms and interactions of mammalian organ systems. Discussions span topics from molecular to whole animal functions. Required for pharmacy students and strongly recommended for students planning advanced work in any area of physiology. The student is assumed to have the knowledge and ability to utilize their math and science background. Prerequisite: Five hours of organic chemistry, a course of college physics. LEC.

**BIOL 647. Mammalian Physiology Laboratory. 2 Hours. U.**
Laboratory experiments in representative areas of mammalian physiology designed to complement BIOL 646. Not open to students with credit in BIOL 247. Prerequisite or Co-requisite: BIOL 646. LAB.

**BIOL 648. Systematics and Macroevolution. 3 Hours. N.**
An introduction to the theory of macroevolution and the fundamental principles of systematics. Intended for students planning to pursue advanced studies in organismal biology, evolution, and/or systematics. Topics in macroevolution will include hierarchy theory, species concepts, speciation and species selection. Methods of phylogenetic estimation will be discussed and include parsimony, Maximum likelihood and Bayesian inference. Evolutionary studies utilizing phylogenies including tests of homology, studies of character evolution, and biogeography will be discussed. An overview of classification and nomenclature will also be provided. Prerequisite: BIOL 412 or equivalent. LEC.

**BIOL 650. Advanced Neurobiology. 3 Hours. N.**
The course builds an in depth knowledge about basic mechanisms of synaptic communication among nerve cells and their targets, and the structure and function of nervous systems. Topics include nervous system development and synapse formation, structure and function of neurons, physiological and molecular basis of synaptic communication between neurons, mechanisms of synaptic plasticity involved in learning and
memory, sensory systems (vision, auditory, vestibular, motor reflexes and pain), processing of neural information at cellular and system levels, synapse regeneration and diseases of the nervous system. Prerequisite: BIOL 435 (Introduction to Neurobiology), or consent of instructor. LEC.

BIOL 652. Comparative Animal Behavior. 3 Hours. N.
A comparative analysis of behavior as an adaptive mechanism; emphasis on ontogenetic and evolutionary aspects of behavior. Prerequisite: BIOL 152 or BIOL 153, and PSYC 104, or consent of instructor. LEC.

BIOL 654. Comparative Animal Behavior, Laboratory. 1 Hour. U.
Laboratory and field phase of BIOL 652. Students may elect sections according to their special interests. Prerequisite: Prior or concurrent enrollment in BIOL 652. LAB.

BIOL 655. Behavioral Genetics. 3 Hours. N.
A survey of behavioral genetics in animals and humans. Emphasis is on how the methods and theories of quantitative, population and molecular genetics can be applied to individual and group differences in animals. Behaviors covered may include circadian rhythms, foraging, courtship, learning and memory, anxiety, social structures and human behaviors. Prerequisite: BIOL 350 or consent of instructor. LEC.

BIOL 656. Ecosystem Ecology. 3 Hours. N.
An introduction to the patterns and processes that affect terrestrial ecosystems. Emphasis is placed on understanding nutrient cycles (e.g., carbon nitrogen phosphorous), hydrologic cycles, and patterns of net primary productivity. The role of both natural and anthropogenic disturbances in structuring terrestrial ecosystems is examined in the context of global land-use patterns. Discussion of current research literature will be expected. (Same as EVRN 656.) Prerequisite: BIOL 414 and CHEM 130. LEC.

BIOL 661. Ecology of Rivers and Lakes. 3 Hours. N.
Study of the ecology and structure of creeks, rivers, ponds, lakes, and wetlands as well as some of the major human impacts. Prerequisite: One year of biology or permission of the instructor. BIOL 414 recommended. LEC.

BIOL 662. Aquatic Ecology Laboratory. 2 Hours. U.
A field and laboratory course introducing biological, physical, and chemical characteristics of lentic (ponds and lakes) and lotic (creeks and rivers) habitats. Students learn sampling and monitoring techniques and how to classify aquatic biota at higher taxonomic levels. Co- or prerequisite: CHEM 130 or CHEM 190 or CHEM 170, and BIOL 661. LAB.

BIOL 664. Vertebrate Biology. 3 Hours. N.
A laboratory course emphasizing principles of systematics and identification and the behavioral ecology of local vertebrate animals. Prerequisite: BIOL 152, BIOL 153 or consent of instructor. LAB.

BIOL 667. Chemical Communication in Sex, Feeding, and Fighting. 3 Hours. N.
The course focuses on the role of chemical information molecules in the interrelationships among organisms, with particular attention to interactions (a) within and between animal species, (b) within and between plant species, (c) between animals and plants, (d) between predators and prey, and (e) between parasites and hosts. Prerequisite: BIOL 100 or BIOL 101 or BIOL 152 or BIOL 153 or consent of instructor. LEC.

BIOL 668. Evolutionary Ecology. 3 Hours. N.
Emphasis will be on the themes that interface ecology and evolutionary studies. Topics will include selection theory; reproductive, foraging, and sex allocation problems; coevolution; patterns or morphological and behavioral adaptations; competition, predation, and population regulation. Special attention will be given to the philosophy and practice of resolving unanswered questions in evolutionary ecology. Prerequisite: BIOL 412 or permission of instructor. LEC.

BIOL 669. Biology of Freshwater Invertebrates. 3 Hours. N.
A lecture, field, and laboratory course examining the classification, biological characteristics, and ecology of invertebrates in lotic and lentic habitats. Major groups of benthic and planktonic invertebrates will be studied, including aquatic insects, crustaceans, molluscs, and others. Prerequisite: BIOL 540, BIOL 660, BIOL 661, or BIOL 663, or permission of instructor. LEC.

BIOL 672. Gene Expression. 3 Hours. N.
A study of the structure and expression of genes in prokaryotes and eukaryotes. Emphasis on the mechanisms of DNA, RNA, and protein biosynthesis. Prerequisite: A course in biochemistry or consent of instructor. LEC.

BIOL 673. Cellular and Molecular Neurobiology. 3 Hours.
Mechanisms of neuronal function and development will be considered at the cellular and molecular levels. Synaptic mechanisms of learning and memory, modulation of transmitter release, and the molecular basis of neurodegenerative disorders will also be discussed. Prerequisite: BIOL 435, BIOL 646, or permission of instructor. LEC.

BIOL 676. Mammalian Neuroanatomy. 3 Hours. N.
Lectures, video tape demonstrations, and laboratory dissection of mammalian nervous system with some attention to human material. Major emphasis on nervous system structure as it relates to function. For neurobiology and pre-health science majors. Prerequisite or Corequisite: A course in neurobiology (BIOL 435, BIOL 650), or permission of the instructor. LAB.

BIOL 688. The Molecular Biology of Cancer. 3 Hours. N.
The basic concepts of molecular biology are examined and used to probe the process by which a normal cell becomes a cancer cell. The course investigates DNA damage and repair, chemical carcinogenesis, gene cloning and manipulation, the control of gene expression in eukaryotes, tumor viruses, the roles of oncogenes and tumor suppressor genes in carcinogenesis, and cancer therapy. Prerequisite: BIOL 350 and BIOL 416; or BIOL 536; or consent of instructor. LEC.

BIOL 694. The Art of Becoming a Professional Scientist. 3 Hours. N.
Discusses aspects of graduate education that are directed at students entering graduate school and that focus on how to be successful in the post PhD phases of a career, but that must be initiated early in the graduate student program of study. One three hour discussion per week. Senior standing and planning on entering graduate school. LEC.

BIOL 695. Animal Communication and Sensory Ecology. 3 Hours. N.
Lectures and discussion sessions. A study of the propagation and perception of olfactory, acoustic, and visual signals produced by animals in the context of communication. Both physiological and evolutionary perspectives will be treated. Prerequisite: A course in behavior or consent of instructor. LEC.

BIOL 699. Biology Honors Research Colloquium. 1 Hour. AE61 / U.
Students pursuing Honors in Biology will meet weekly to discuss, both formally and informally, their honors research. Background information and experimental approaches of the research will be examined and critiqued. Prerequisite: Enrollment in Biology Honors program and consent of instructor. LEC.

BIOL 700. Conservation Principles and Practices. 3 Hours.
This course will acquaint the future museum professional with problems in conserving all types of collections. Philosophical and ethical approaches will be discussed, as well as the changing practices regarding conservation techniques. Emphasis will be placed on detection and
identification of causes of deterioration in objects made of organic and inorganic materials, and how these problems can be remedied. Storage and care of objects will also be considered. (Same as AMS 714, GEOL 780, HIST 722 and MUSE 706.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

BIOL 701. Topics in: _____ 1-3 Hours.
Advanced courses on special topics in biology, given as need arises. Lectures, discussions, readings, laboratory, or field work. Students may select sections according to their special interests. LEC.

BIOL 702. Laboratory Practice: Radiation Safety Procedures. 0.75 Hours.
An introduction to the basic properties of radioisotopes, and the fundamental safety practices needed for the safe use of low levels of radioactive materials. Risks associated with radiation exposures and applicable state and federal regulations are discussed. (Normally the content of the first ten hours of BIOL 703.) Prerequisite: Senior standing in one of the sciences. LAB.

BIOL 703. Radioisotopes and Radiation Safety in Research. 1.25 Hour.
An introduction to the properties of radioactive materials, radiations, and their interaction with matter, methods of radiation detection and measurement, protective measures, applicable state and federal regulations, design and implementation of safety management systems in the research laboratory, design of tracer experiments, and the risks associated with radiation exposure. Prerequisite: BIOL 702 or concurrent enrollment in BIOL 702, algebra and two semesters of either physics or chemistry. LEC.

BIOL 704. Research Animal Methods. 3 Hours.
Lectures, discussions, and laboratory sessions. Selection of proper animal models for specific research studies. Varies external influences that alter research data. Routine techniques including restraint, sample collection, injection, anesthesia and euthanasia. Prevention and handling of common research animal problems or diseases. Proper and humane animal care as defined by the Federal Animal Welfare Act. Prerequisite: Senior or graduate standing in one of the biological sciences or permission of instructor. LEC.

BIOL 706. Current Trends in Curation and Collection Management. 2 Hours.
Seminar course to provide students with a working knowledge of the primary issues and current trends in building, administration, and care of scientific collections. Topics include permits, collecting, accessioning, cataloging, preservation, preventive conservation, and access to collections and data. The course format consists of readings, lectures, guest speakers, discussions, and visits to scientific collections on campus. (Same as MUSE 710.) LEC.

BIOL 708. External Morphology of Insects. 4 Hours.
A study of external structure common to all insect orders, with detailed comparative laboratory studies of representative species. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 500, BIOL 502 or equivalent, or permission of instructor. LEC.

BIOL 709. Immature Insects. 3 Hours.
The classification, structure, and ecological distribution of immature insects, especially larvae of Holometabola. Includes both lectures and laboratories. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 502 or consent of instructor. LEC.

BIOL 710. Insect Development. 3 Hours.
A study of the embryonic and postembryonic development of insects. Emphasis is placed on developmental physiology of the early embryonic stages, the morphogenesis of organ systems, and the action of hormones in postembryonic development. Laboratory includes demonstrations and histological and experimental work. Prerequisite: Consent of instructor or BIOL 500. LEC.

BIOL 711. Insect Systematics. 4 Hours. N.
A study of the diversity of insects, including the classification of all living and fossil orders and the more common families primarily on the basis of external morphology. The biology, ecology, phylogeny, and geological history of each order will be covered. Includes both lectures and laboratory exercises. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 500 and BIOL 502 or equivalent, or permission of instructor. LEC.

BIOL 712. Evolutionary Biology - Graduate. 3 Hours.
A thorough survey of evolutionary biology. Topics include: the history of evolutionary thought, genetics and the nature of variation, adaptation, speciation, coevolution, macroevolution, the comparative method, and the history of life. Prerequisite: BIOL 350 or equivalent or consent of instructor. LEC.

BIOL 714. Community and Ecosystem Ecology. 3 Hours.
Study of factors determining distribution of organisms, community structures, energy flow in ecosystems, and functional analysis of ecosystems. Discussion periods will include reading from current scientific literature. Prerequisite: Intended for graduate students in biology who did not have an undergraduate course in community ecology. Consent of instructor. LEC.

BIOL 716. Insect Physiology and Internal Morphology. 3 Hours.
Mechanisms and integration of the internal life-supporting systems of insects, emphasizing the interdependence of structure and function. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 408 and BIOL 500, or permission of instructor. LEC.

BIOL 717. Insect Ecology and Behavior. 3 Hours.
Lectures and laboratory demonstrations. A study of insect population dynamics, life history strategies, co-evolutionary interactions, foraging, and reproductive and social behaviors. Approaches from basic population biology and behavioral ecology are emphasized. Prerequisite: A course in ecology or behavior, or consent of instructor. LEC.

BIOL 718. Laboratory in Molecular Biology. 3 Hours.
Practical experience in recombinant DNA technology and molecular cloning. Given concurrent with BIOL 418. Prerequisite: BIOL 416 or course in biochemistry or microbiology. Training in radiation safety preferred. LAB.

BIOL 719. Light and Electron Microscopy. 3 Hours.
A lecture and laboratory class emphasizing the theoretical and practical use of light microscopes and scanning and transmission electron microscopes. A variety of approaches using light microscopy will be employed, including brightfield, phase, fluorescence, DIC, polarization, and darkfield optics. A variety of techniques will be used to prepare specimens and view them using scanning and transmission electron microscopy. Video and computer-aided analysis of images as well as conventional photographic techniques will be included. Prerequisite: Permission of instructor. LEC.

BIOL 720. Scientific Illustration. 3 Hours.
Lectures, demonstrations, and studio participation. Instruction in the preparation of illustrations for scientific publications, theses, and oral and poster presentations. Emphasis on basic drafting and layout skills,
and pen and ink and tone renderings intended for publication. Attention
given to preparation of photographs for publication and oral presentations.
Instruction provided in use of specialized optical equipment for drawing.
Prerequisite: Upper division or graduate standing and permission of
instructor. LEC.

BIOL 721. Microbial Genetics. 3 Hours.
Bacteria and viruses as models of genetic systems. Mutagenesis and
repair. Transformation, transductions, and recombination. Molecular
biology of gene expression. This course is the graduate-level section of
BIOL 518 and MCRB 510. Graduate students will be assigned additional
and more advanced studies. Prerequisite: An introductory microbiology
course or permission of instructor. LEC.

BIOL 725. Aquatic Entomology. 4 Hours.
Identification of aquatic insects and detailed study of their community
structure and dynamics. The external morphology of all aquatic orders
will be covered, followed by consideration of specific physiological and
behavioral adaptations that facilitate an aquatic existence. Includes
both lectures and laboratory exercises. Requirements include making a
collection of aquatic insects. The course is offered at the 500 and 700
levels, with additional assignments at the 700 level. Prerequisite: BIOL
414 or BIOL 500 or permission of instructor. LEC.

BIOL 742. Plant Population Biology. 3 Hours.
A survey of the major areas of plant population ecology and genetics
including competition, demography, pollination ecology, gene flow, natural
selection and mating systems. Each topic is introduced by a lecture and is
further explored by discussion of the current literature. Prerequisite: BIOL
412 or equivalent. LEC.

BIOL 743. Population Genetics. 3 Hours.
Description and discussion of genetic variation in natural populations. The
effects and interaction of selection, migration, mutation, mating systems,
and finite population size on the maintenance of genetic variation.
Discussion of the interface with evolution and population ecology.
Prerequisite: BIOL 404 and BIOL 412 or equivalent. LEC.

BIOL 745. Laboratory in Experimental Ecology. 3 Hours.
A series of seven laboratory modules emphasizing quantitative methods
and experimental analysis. Each module requires data collection analysis,
and written interpretation. Modern instrumentation, including use of
microcomputers, is emphasized. Topics include ecological modeling, ecological genetics, physiological ecology, community structure, mating
reproduction and precipitation and soil chemistry. Prerequisite: BIOL
412 or BIOL 414. LAB.

BIOL 746. Principles of Systematics. 4 Hours.
Lectures: historical and philosophical foundations of modern systematics;
theory and practice of classifications; character analysis; phylogeny
reconstruction; formulation and testing of systematic hypotheses;
species concepts and speciation; the interface between systematics
and evolutionary theory, particularly the origins of asymmetric diversity
patterns, macroevolution, adaptation, coevolution, and the evolution of
higher taxa; roles of paleontological, ontogenetic, biochemical, and
molecular data in systematics; and biogeography. Laboratory work:
practical applications of nomenclature, development of keys, descriptions
and systematic revisions, character analysis, phylogeny reconstruction,
hypothesis testing, interpretation of biogeographic patterns. (Three hours
lecture and two hours laboratory per week.) Prerequisite: BIOL 628 or
equivalent. Intended for graduate students planning to specialize in
systematics. LEC.

BIOL 747. Quantitative Genetics. 3 Hours.
A discussion of genetic traits for which individual gene differences do
not separate a population into qualitatively distinct groups. Includes
the estimation of heritability, genetic determination, and number of loci,
and a study of selection theory. Prerequisite: BIOL 404 or BIOL 412 or
equivalent and a course in statistics. LEC.

BIOL 749. Topics in Stable Isotopes in the Natural Sciences.: 2-3 Hours.
Isotopic compositions of substances provide powerful insights into many
topics in the natural sciences. Applications of isotopic analyses of carbon,
hydrogen, oxygen, and nitrogen to selected research topics such as plant
resource use, food web analysis, paleoecology, paleoalid reconstruction,
hydrology, and soils genesis will be examined. Knowledge of isotope
chemistry is not required. (Concepts necessary to understand pertinent
articles will be taught during the first class meetings.) May be repeated.
(Same as GEOG 749.) LEC.

BIOL 750. Advanced Biochemistry. 3 Hours.
The structures and dynamics of proteins and nucleic acids will be
developed in terms of well-understood examples which will also be used
to discuss the function of major classes of proteins. The application of
structural and dynamical principles to biological membranes and their
function will also be discussed. Prerequisite: BIOL 807 and BIOL 808, a
general biochemistry course, or permission of instructor. LEC.

BIOL 751. Plant Communities of North America. 3 Hours.
Physiognomic and floristic analysis of the vegetation, with emphasis on
the Southwest; distribution of communities in relation to climate,
substratum, and disturbance; recognition of dominant elements
of vegetation through study of specimens and illustrative material.
Prerequisite: BIOL 602. LEC.

BIOL 752. Cell Biology. 3 Hours.
A lecture course emphasizing biochemical, developmental, and molecular
aspects of cell structure and function. Prerequisite: BIOL 807 and BIOL
808, or BIOL 416 or BIOL 536, or permission of instructor. LEC.

BIOL 753. Advanced Genetics. 3 Hours.
An advanced course in modern genetic analysis of eukaryotes. Course
material will consist mainly of primary literature in the field of genetics.
Topics covered include: genomic structure and genome projects; nature of
mutations; mutant analysis; genetic recombination and mapping; analysis of
genetic function; genetic buffering; RNAi and epigenetics; and the
genetics of model organisms. This course is meant for graduate students
in the Molecular Biosciences and Genetics programs. Prerequisite: BIOL
807 and BIOL 808, or a course in genetics and a course in biochemistry,
or permission of the instructor. LEC.

BIOL 754. Brain Diseases and Neurological Disorders. 3 Hours.
Major brain diseases and neurological disorders such as stroke,
Alzheimer’s Disease, Parkinson’s Disease, Huntington’s Disease, Multiple
Sclerosis, Epilepsy, Schizophrenia, etc., will be discussed in terms
of the etiology, molecular, and cellular basis of potential therapeutic
interventions. Graduate students are required to present original research
paper assigned by the instructor to the class in addition to the other
assignments for all the students enrolled. Prerequisite: BIOL 150, or
consent of instructor. LEC.

BIOL 755. Mechanisms of Development. 3 Hours.
Molecular aspects of differential gene function, signal transduction,
and cell polarity in the regulation of morphogenesis. Prerequisite: BIOL
807 and BIOL 808 for graduate students; BIOL 417 or equivalent for
undergraduate students; or permission of instructor. LEC.

BIOL 756. Cell and Tissue Culture Laboratory. 3 Hours.
An introduction to current laboratory methods of cell and tissue culture,
intended to provide an understanding of and substantial experience in
several aspects of animal cell growth, cell synchrony, cell nutrition, the
production and selection of mutant cell lines, the production and use of
heterokaryons and interspecific hybrids, cell transformation in vitro, the
cultivation and characterization of differentiated cells in culture, enzyme
induction, and cell karyotyping. LAB.

BIOL 757. Carcinogenesis and Cancer Biology. 3 Hours.
This course surveys the field of cancer research. The major goal is
to introduce the breadth of cancer research while, at the same time,
providing sufficient depth to allow the student to recognize problems in
cancer and to design experiments which study cancer biology. Toward
that end, the student should (at the conclusion of the course) be able
to: define cancer, identify and discuss its causes; identify and discuss
the genetic basis for cancer development and progression; discuss the
theoretical basis for cancer therapy design and efficacy testing; discuss
the biochemical, molecular and cellular events involved in the natural
history of major human neoplasms. Prerequisite: Permission of instructor. LEC.

BIOL 767. The Vegetation of the Earth. 3 Hours.
A discussion of the world’s vegetation in its natural condition and as
affected by man. Included are aspects of its economic and cultural
usefulness and the problem of its preservation. Prerequisite: BIOL 634.
LEC.

BIOL 768. Plant Molecular Biology. 3 Hours.
Gene expression in chloroplasts, mitochondria, and plant nuclei, and
regulatory interactions among these genomes. Special topics include
the molecular biology of the photosynthetic apparatus, nitrogen fixation, stress
and development, viruses and viroids, transposable genetic elements
and gene evolution, and gene transfer and plant genetic engineering.
Prerequisite: A course in biochemistry, cell or molecular biology, or
permission of instructor. LEC.

BIOL 770. Plant Biochemistry. 3 Hours.
A detailed study of plant biochemistry with emphasis on metabolic and
regulatory processes particularly characteristic or unique in plants.
Prerequisite: BIOL 600 or equivalent. LEC.

BIOL 772. Gene Expression. 3 Hours.
A study of the structure and expression of genes in prokaryotes and
eukaryotes. Emphasis on the mechanisms of DNA, RNA, and protein
biosynthesis. This course meets concurrently with BIOL 672 and is open
to graduate students seeking a more rigorous treatment of techniques
in molecular biology that students receive in BIOL 672. Prerequisite: A course in biochemistry or consent of instructor. LEC.

BIOL 775. Chemistry of the Nervous System. 3 Hours.
A detailed study of the molecular aspects of nerve transmission will
be covered with special emphasis on the uptake, storage, release,
biosynthesis and metabolism of specific neurotransmitters. Drugs
affecting these processes and current research on receptor isolation
and receptor mechanisms will be discussed from a chemical viewpoint.
( Same as CHEM 775, MDCM 775, NURO 775, PTX 775, and PHCH 775. )
Prerequisite: BIOL 600 or equivalent or consent of instructor. LEC.

BIOL 777. Integrative and Developmental Neurobiology. 3 Hours.
Cellular processing of neural information both at the local level and in
long distance integration. Local computing functions, and integration of
these functions among the various areas to produce coherent movement
and perceptions will be discussed. A description of forces guiding the
development of the nervous system to form a coherent working system
in both invertebrate and vertebrate animals will be presented, as will
determinants of brain sexual dimorphism. Prerequisite: An upper level
course in physiology or BIOL 520. LEC.

BIOL 780. Fisheries. 2 Hours.
Philosophy and practice of conservation as it applies to major world
fisheries. Species principally utilized, factors affecting production,
methods for appraisal and management of stocks. Historical and
prospective roles of the fisheries in relation to human food supplies and
recreational needs. Prerequisite: BIOL 412. LEC.

BIOL 781. Fisheries, Laboratory. 2 Hours.
Training in field and laboratory techniques for fishery research and
management. Prerequisite: Concurrent or prior enrollment in BIOL 780.
LAB.

BIOL 782. Principles of Biogeography. 3 Hours.
A synthesis of historical and ecological biogeography of plants and
animals, treating vicariance, dispersal, and community patterns; lectures;
readings, discussions. A course in systematics and a course in ecology
are recommended. LEC.

BIOL 783. Herpetology. 3 Hours. N.
A study of amphibians and reptiles. This lecture course will explore the
taxonomic diversity of amphibians and reptiles, and current areas of active
research in herpetology. Topics will be considered within a phylogenetic
framework, and include discussion on systematics, biogeography,
tetrapod origins, skeletal systems, growth, circulatory system, locomotion,
thermal and water regulation, hibernation, ecology, sexual behavior,
parental care, and mimicry. Students taking the course at the 700 level
will have additional work required of them. Prerequisite: BIOL 152
Principles of Organismal Biology, and/or BIOL 413 History and Diversity of
Organisms. LEC.

BIOL 784. Introduction to Museum Public Education. 3 Hours.
Consideration of the goals of an institution’s public education services,
developing programs, identifying potential audiences, developing
audiences, and funding. Workshops and demonstrations are designed
for students to gain practical experience working with various programs
and developing model programs. (Same as AMS 797, GEOL 784, HIST
721, and MUSE 705.) Prerequisite: Museum Studies student, Indigenous
Nations Studies student, or consent of instructor. LEC.

BIOL 785. Museum Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museums
as organizations; accounting, budget cycles, personnel management,
and related topics will be presented using, as appropriate, case studies
and a simulated museum organization model. (Same as AMS 731, GEOL
783, HIST 728, and MUSE 701.) Prerequisite: Museum Studies student,
Indigenous Nations Studies student, or consent of instructor. LEC.

BIOL 786. Fundamentals of Tropical Biology. 1-8 Hours.
The tropical environment and biota; ecologic relations, communities
and evolution in the tropics. Primarily a field course, taught in Costa Rica; two
sessions per year, February-March, July-August. FLD.

BIOL 787. Introduction to Museum Exhibits. 3 Hours.
This course will consider the role of exhibits as an integrated part of
museum collection management, research, and public service. Lecture
and discussion will focus on issues involved in planning and producing
museum exhibits. Laboratory exercises will provide first hand experience
with basic preparation techniques. Emphasis will be placed on the
management of an exhibit program in both large and small museums in
the major disciplines. (Same as AMS 700, GEOL 781, HIST 723, and
MUSE 703.) Prerequisite: Museum Studies student, Indigenous Nations
Studies student, or consent of instructor. LEC.

BIOL 788. The Nature of Museums. 3 Hours.
The purpose of this course is to provide an overview of the kinds of
museums, their various missions, and their characteristics and potentials
as research, education, and public service institutions responsible for
collections of natural and cultural objects. (Same as AMS 720, GEOL
782, HIST 720, and MUSE 702.) Prerequisite: Museum Studies student,
Indigenous Nations Studies student, or consent of instructor. LEC.
BIOL 789. Field Course in Entomology. 1-6 Hours.
Field experiences in various habitats, with an emphasis in ecology, systematics, behavior, and collection techniques. FLD.

BIOL 790. Paleontology of Lower Vertebrates. 3 Hours.
General account of the osteology, geological distribution, and evolution of the principal groups of fishes, amphibians, reptiles, and birds. Lectures and laboratory. (Same as GEOL 725.) LEC.

BIOL 791. Paleontology of Higher Vertebrates. 3 Hours.
Evolution of mammals, and anatomical modifications involved in the process as ascertained from the fossil record. Lectures and laboratory. (Same as GEOL 726.) LEC.

BIOL 792. Ichthyology. 4 Hours.
A study of fishes. Lecture topics include the structure and function of fishes; the adaptations of fishes to the aquatic environment; and a survey of major fish groups with emphasis on evolutionary relationships and biogeography. Laboratory topics include a survey of fishes using specimens, and the use of keys to identify fishes with emphasis on the Kansas fish fauna. A research paper using primary scientific literature is required. Prerequisite: Graduate standing or permission of the instructor. LEC.

BIOL 794. Mammalogy. 3 Hours.
A study of mammals, with emphasis on systematics, biogeography, and natural history. Lectures, laboratory, and field study. Prerequisite: BIOL 100 or BIOL 413. LEC.

BIOL 795. Biology of Amphibians. 3 Hours.
Evolutionary biology of amphibians with emphasis on systematics, morphology, development, reproductive strategies, and distribution; lectures and laboratory. Prerequisite: BIOL 664 or permission of instructor. LEC.

BIOL 796. Biology of Reptiles. 3 Hours.
Evolutionary biology of reptiles with emphasis on systematics, morphology, reproductive strategies, and distribution; lectures and laboratory. Prerequisite: BIOL 664 or permission of instructor. LEC.

BIOL 797. Field Course in Vertebrate Paleontology. 3-6 Hours.
Training in the techniques of collecting vertebrate fossils, description and interpretation of the stratigraphy of fossiliferous sediments, and interpretation of the adequacy and bias of samples. FLD.

BIOL 798. Principles and Practices of Museum Collection Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museum collections, their associated data, and their use in scholarly research; cataloging, storage, fumigation, automated information management and related topics will be presented for museums of art, history, natural history and anthropology. (Same as AMS 730, GEOL 785, HIST 725, and MUSE 704.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

BIOL 799. Natural History Museum Apprenticeship. 1-6 Hours.
Provides directed, practical experience in collection care and management, public education, exhibits and administration with emphases to suit the particular requirements of each student. Full time for one semester or half time for two semesters. (Same as AMS 799, ANTH 799, GEOL 723, HIST 799, and MUSE 799.) FLD.

BIOL 801. Topics in: ____. 1-3 Hours.
Advanced courses on special topics in biology, given as need arises. Lectures, discussing readings, laboratory or field work. Students may select sections according to their special interests. LEC.

BIOL 802. The Art of Becoming a Professional Scientist. 3 Hours.
Discusses aspects of graduate education that are directed at the post PhD phases of a career, but that must be initiated early in the graduate student program of study. One 3-hour discussion per week. LEC.

BIOL 804. Scientific Integrity: Molecular Biosciences. 1 Hour.
This course introduces aspects and issues associated with being an ethical, responsible, and professional research scientist. Included topics are professional practices, regulations, and rules that define the responsible and ethical conduct of research. Graduate students will become familiar with and prepare to navigate through challenges that occur during a career in research science. The format of individual classes is expected to incorporate both instruction and discussion. Prerequisite: Admission to the graduate program in Molecular Biosciences, or consent of instructor. LEC.

BIOL 806. Major Patterns in Insect Evolution. 3 Hours.
Extensive reading and discussion of the primary literature on topics relating to major patterns in the evolutionary history of insects, including the fossil history of insects, the monophyly of arthropods, the origin of wings, the changing role of insects in ecological communities, the origins of social behavior, modes and mechanisms of speciation, and patterns of species diversity. Assigned readings require a solid background in evolutionary theory and insect biology, especially morphology, development, and classification. Prerequisite: Permission of instructor. LEC.

BIOL 807. Graduate Molecular Biosciences. 6 Hours.
An introduction to the advanced study of biochemistry, microbiology, genetics, cell and developmental biology, and neurobiology for all Molecular Biosciences graduate students. Topics can include macromolecular structure, metabolism, kinetics and thermodynamics, bioinformatics, prokaryotic and eukaryotic genetic mechanisms, cell structure and function, signal transduction, basic and pathogenic bacteriology, immunology, virology, membrane potentials, synaptic transmission, and sensory neurophysiology. Prerequisite: Admission to the graduate program in Molecular Biosciences, or consent of instructor. LEC.

BIOL 809. Graduate Molecular Biosciences for Medicinal Chemists. 4 Hours.
An introduction to the advanced study of biochemistry, microbiology, and neurobiology for graduate students in Medicinal Chemistry. Prerequisite: Admission to the graduate program in Medicinal Chemistry and consent of instructor. LEC.

BIOL 810. Seminar in Biochemistry. 1 Hour.
Presentation and discussion of specific areas of recent research in biochemistry. This course may be taken more than once. LEC.

BIOL 811. Advanced Molecular and Cellular Immunology. 2 Hours.
Covers recent advances in immunochemistry and immunobiology. Topics include structure and function of antibodies, hybridoma systems, idiotypes, induction and regulation of the immune response through cell interactions and cytokine action, and the role of immune activity in disease states such as hypersensitivity, autoreactivity, and cancer. Prerequisite: BIOL 807 and BIOL 808, or an introductory course in immunology, or consent of instructor. LEC.

BIOL 812. Mechanisms of Host-Parasite Relationships. 2 Hours.
Emphasis is on virulence factors of microorganisms and the host response to infection. Topics will include pathogenesis of intracellular and extracellular parasites, bacterial adhesins, and toxins, and the role of innate and acquired immunity in host resistance and the response to infection. Prerequisite: BIOL 807 and BIOL 808, or a course in biochemistry, or consent of instructor. LEC.
BIOL 813. Advanced Bacterial Physiology. 2 Hours.
The intermediary reactions catalyzed by the bacterial cell during energy-requiring processes. Thermodynamic considerations of these processes are discussed. Knowledge of calculus is recommended. Prerequisite: BIOL 807 and BIOL 808, or a course in microbiology and a course in biochemistry, or consent of instructor. LEC.

BIOL 814. Advanced Molecular Virology. 2 Hours.
The course concentrates on evaluation of current literature concerning all aspects of molecular biology, biochemical characterization, and pathogenic mechanisms involved in host-virus interactions. Students will be expected to present articles and participate in discussions. Prerequisite: BIOL 807 and BIOL 808, or a course in microbial genetics and a course in virology, or consent of instructor. LEC.

BIOL 815. Advanced Molecular Genetics. 2 Hours.
A literature-based course that covers recent advances in microbial molecular genetics. Topics include transcription, translation, mutagenesis and repair, genetic exchange mechanisms, and regulation of gene expression. Prerequisite: BIOL 807 and BIOL 808, or a course in microbial genetics, or consent of instructor. LEC.

BIOL 818. Techniques in Molecular Biosciences. 2 Hours.
This course provides an introduction to common techniques used for research strategies in molecular biosciences. The course will cover common techniques in cell biology, biochemistry, microbiology, and neurobiology. Information will be presented in lectures and through practical demonstrations. This course is primarily intended for first year graduate students in the Department of Molecular Biosciences. Prerequisite: Enrollment in the Molecular Biosciences Graduate Program or consent of instructor. LAB.

BIOL 840. Scientific Communication. 2 Hours. N.
Principles of English communication skills for the professional scientist. The course explores the form, function, and practice (including ethics) of scientific communication, emphasizing elements of writing and speech that are important to clarity and precision. The course covers written and verbal communication of primary research results as well as composing correspondence, a curriculum vitae, reviews, etc. Prerequisite: Graduate standing. LEC.

BIOL 841. Biometry I. 5 Hours.
The application of statistical methods to data from various fields of biological research. Special emphasis is placed on practical computational procedures. Prerequisite: College algebra. LEC.

BIOL 842. Biometry II. 3 Hours.
This course is primarily devoted to special advanced topics in analysis of variance, analysis of covariance and regression analysis. Polynomial regression and multiple linear regression will be presented as will the general linear model. Elementary matrix algebra will be developed as needed. Prerequisite: BIOL 841. LEC.

BIOL 847. Phylogenetics. 3 Hours.
An introduction to the theory and practice of phylogenetic systematics. Includes principles of character analysis including determination of homology and determination of character polarity, testing alternate phylogenetic trees, and reconstructing trees using computer techniques. Also includes principles of constructing phylogenetic classifications and the nature of taxa in the phylogenetic system. Other topics, such as the nature of species and principles of biogeography are included. Prerequisite: Twenty hours natural history. LEC.

BIOL 848. Phylogenetic Methods. 4 Hours.
A survey of methods for inferring phylogenetic trees from character data and using phylogenies to address evolutionary questions. Lectures will present the relevant theory and algorithmic description of methods.

Computer lab will familiarize students with software that implements the analyses discussed in lecture. Intended for graduate students specializing in systematics. Prerequisite: BIOL 845 and BIOL 841 or consent of instructor. LEC.

BIOL 872. Gene Expression II. 3 Hours.
Second semester of a two-semester lecture course on gene expression. Emphasis on control of gene expression at the transcriptional and post-transcriptional levels. Prerequisite: BIOL 772 or consent of instructor. LEC.

BIOL 888. Topics in Evolutionary Morphology. 2 Hours.
Presentation and discussion by graduate students and faculty of selected topics centering on observed changes in structure and function of organisms from a phylogenetic point of view. Presentation will include results of original research when possible and appropriate, and otherwise, will be based on syntheses of recent literature. RSH.

BIOL 890. Advanced Study in Microbiology. 1-10 Hours.
Original investigation by students at the master's degree level. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Ten or more hours of microbiology and consent of department. RSH.

BIOL 895. Human Genetics. 3 Hours.
A lecture course providing balanced coverage of Mendelian and molecular genetics of humans; includes discussions and presentations on current issues in human and medical genetics. Prerequisite: A course in genetics. LEC.

BIOL 899. Master's Thesis. 1-10 Hours.
Research which is to be incorporated into an M.A. thesis. Not more than ten hours may be earned. Graded on a satisfactory/unsatisfactory basis. THE.

BIOL 901. Graduate Seminar in Biochemistry and Biophysics. 1 Hour.
Advanced course examining current research topics in biochemistry and biophysics. Extensive student/faculty interaction is emphasized utilizing lectures, class discussion of assigned readings of research reports, and oral presentations. Prerequisite: Enrollment in graduate school, and departmental admission. LEC.

BIOL 902. Graduate Seminar in Molecular, Cellular, and Developmental Biology. 1 Hour.
Advanced course examining current research topics in molecular, cellular, and developmental biology. Extensive student/faculty interaction is emphasized utilizing lectures, class discussion of assigned readings of research reports, and oral presentations. Prerequisite: Enrollment in graduate school, and departmental permission. SEM.

BIOL 903. Graduate Seminar in Neurobiology. 1 Hour.
Advanced course examining current research topics in neurobiology. Extensive student/faculty interaction is emphasized utilizing lectures, class discussion of assigned readings of research reports, and oral presentations. Prerequisite: Enrollment in graduate school, and departmental permission. LEC.

BIOL 904. Graduate Seminar in Microbiology. 1 Hour.
Advanced course examining current research topics in microbiology. Extensive student/faculty interaction is emphasized utilizing lectures, class discussion of assigned readings of research reports, and oral presentations. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Enrollment in graduate school, and departmental permission. RSH.

BIOL 905. Advanced Molecular Genetics. 1-3 Hours.
A review of current literature in molecular genetics. RSH.
BIOL 906. Advanced Genetics. 1-3 Hours.
May be repeated for credit up to six hours. Review of current literature and genetic theory of selected topics such as population, molecular, quantitative, and physiological genetics. RSH.

BIOL 911. Research Topics in Plant Physiology and Biochemistry. 1-6 Hours.
Directed research on selected topics. Prerequisite: BIOL 770 or equivalent. RSH.

BIOL 918. Modern Biochemical and Biophysical Methods. 4 Hours.
This course emphasizes the use of techniques for solving problems of structure and function of biological macromolecules. Students will complete several modules that consist of lectures relating to theory and practical aspects of each methodological approach, and apply these techniques to solving a specific problem. Students will submit a paper describing the resulting data and conclusions. Prerequisite: BIOL 807, BIOL 808, and BIOL 818, or permission of instructor. LEC.

BIOL 925. Research Grant Proposal Preparation. 3 Hours.
This course introduces the basics of preparing a successful scientific grant application. Topics to be covered include how to develop a novel, fundable project, scientific writing and grantsmanship, and what criteria reviewers consider in evaluating grants. The course will be a mix of instruction and class discussion. Prerequisite: Admission to the graduate program in Molecular Biosciences, or consent of instructor. LEC.

BIOL 930. Ultrastructure and Cellular Mechanisms. 3 Hours.
Two lectures and one seminar-recitation. A detailed consideration of electron microscopic analyses of cell structure as related to cell function. Prerequisite: BIOL 416. LEC.

BIOL 943. Multivariate Data Analysis. 3 Hours.
Matrix formulation of multivariate models and data. Specific methods covered include Principal Components Analysis, Factor Analysis, Multiple Group Discriminant Analysis and Canonical Analysis, and Canonical Correlation Analysis. Prerequisite: BIOL 842 or knowledge of elementary matrix algebra. LEC.

BIOL 944. Topics in Quantitative Ecology: ______. 1-3 Hours.
Presentation and discussion by instructor and students of mathematical and statistical concepts in ecology. Topics are selected from texts or sets of readings. LEC.

BIOL 950. Evolutionary Mechanisms. 3 Hours.
Reading and discussions of evolutionary mechanisms from the genetic, ecologic, and systematic viewpoints. Prerequisite: BIOL 412. LEC.

BIOL 952. Introduction to Molecular Modeling. 3 Hours.
Introduction to theory and practice of contemporary molecular modeling, including molecular mechanics, molecular dynamics, computer graphics, data analysis, use of structure and sequence databases, docking, and homology modeling. Weekly computer laboratory section aimed at allowing participants to pursue independent research projects that incorporate modeling aspects. Lectures, laboratory manuals, program descriptions, and technical notes are presented on course web page. (Same as MDCM 952.) Prerequisite: Graduate standing or consent of instructor. LEC.

BIOL 968. Seminar in Vegetation Geography. 2-3 Hours.
(Same as GEOG 937.) LEC.

BIOL 985. Advanced Study. 1-10 Hours.
Individual investigations; laboratory, field or museum; or reading assignments in specialized topics not ordinarily treated in other courses. Graded on a satisfactory/unsatisfactory basis. RSH.

BIOL 999. Doctoral Dissertation. 1-12 Hours.
Original research that is to be incorporated into a Ph.D. dissertation. Graded on a satisfactory/unsatisfactory basis. THE.

BTEC 300. Introduction to Biotechnology. 3 Hours. N.
Review of techniques used in food, agricultural, pharmaceutical, industrial, and environmental biotechnology. Role of regulatory agencies during the discovery, development, and manufacture of new medical devices, biotechnology, biomedical, and pharmaceutical products. Guest presentations in biotechnology. Prerequisite: BIOL 416. LEC.

BTEC 330. Biotechnology Regulation and Documentation Processes. 3 Hours. N.
Current good manufacturing practices (GMP) as they apply in the biotechnology workplace. History, rationale, purpose, and GMP requirements applicable to the manufacturing, packaging, labeling, testing, and control of pharmaceutical products, and consequences of inaction. Prerequisite: BTEC 300. LEC.

BTEC 340. Biotechnology Research Methods and Applications. 3 Hours. N.
Introduction to fermentation and protein chemistry. Theory behind laboratory techniques and overview of industrial scale expression systems. Bacterial cell culture techniques, principles of fermenter operation and purification, documentation procedures, important tasks for clean room operations, including sanitization, sterilization, cleaning procedures, calibration, and environmental monitoring. Prerequisite: BTEC 300; BIOL 600. LEC.

BTEC 341. Principles of Bioprocessing Laboratory I. 1 Hour. N.
Laboratory sessions involve use of microbial expression vectors, fermentation systems, and large-scale purification of recombinant protein. Includes bacterial cell culture techniques, principles of bioreactor/fermentation operations and purification techniques, and calibration. Primary goal of this course is to provide students with an advanced background in bacterial upstream and downstream biotechnology. Prerequisite: BTEC 300; BTEC 340 or concurrent enrollment in BTEC 340. LAB.

BTEC 405. Microbial Genetics Laboratory. 4 Hours. N.
Research projects center on using molecular genetics to examine the biology of the bacterium Pseudomonas aeruginosa, an opportunistic pathogen often found in the lungs of cystic fibrosis patients. Students engage in independent projects to probe various aspects of P. aeruginosa physiology such as antibiotic resistance, phase variation, toxin production, secondary metabolite production, twitching motility, swarming behaviors, and more. Projects aim to discover the molecular basis for these processes using both classical and new, cutting-edge techniques. These include plasmid manipulation, genetic complementation, mutagenesis, PCR, DNA sequencing, enzyme assays, and gene expression studies. Prerequisite: BIOL 350; BIOL 402. LAB.

BTEC 424. Independent Study in Biotechnology. 1-3 Hours. N.
Independent project at a related bioscience industry partner or faculty in selected topics of current translational research interest. May be undertaken only with the consent of the major advisor who will guide the research after determining objectives with the interested industry partner or faculty. Prerequisite: Consent of instructor. INDI.

BTEC 440. Biotechnology Research Methods and Applications II. 3 Hours. N.
Theory and practicum behind laboratory techniques and overview of industrial scale expression systems of insect or mammalian protein chemistry. Cell culture techniques, principles of bioreactor operation and purification, documentation procedures, important tasks for clean room operations, including sanitization, sterilization, cleaning procedures,
calibration, and environmental monitoring are evaluated. Prerequisite: BTEC 340; BTEC 341. LEC.

BTEC 441. Principles of Bioprocessing Laboratory II. 1 Hour. N.
Mammalian cell culture techniques, principles of bioreactor operations and purification techniques, and calibration. The primary goal of this course is to provide students with an advanced background in mammalian upstream and downstream biotechnology. Prerequisite: BTEC 341; BTEC 440 or concurrent enrollment in BTEC 440. LAB.

BTEC 450. Applied Bioinformatics. 3 Hours. N.
Overview of the fields of bioinformatics and genomics. Topics, tools, issues and current trends in these and related fields are discussed. Principles and practical application of bioinformatics tools in molecular biology and genetics are evaluated. The haploid human genome occupies a total of just over 3 billion DNA base pairs. This information is not contained in books, but stored in electronic databases. Computational biology utilizes infer function by comparative analysis. This course is designed for life scientists from all fields to introduce them to the power of bioinformatics and enable them to access and utilize biological information in databases for their own research. Prerequisite: BTEC 300; BIOL 570 or MATH 365 or PSYC 210. LEC.

BTEC 460. Introduction to Quality Control/Quality Assurance in Biotechnology. 3 Hours. N.
Quality control techniques, assurance issues, and management methods. Quality in design and planning, in the constructed project, and in production of goods and services. Prerequisite: BTEC 330. LEC.

BTEC 475. Bioseparations Laboratory. 2 Hours. N.
Develop novel and effective strategies for extraction and purification of recombinant and native biomolecules by understanding constraints posed by the biological system and the products. Research projects are geared toward developing cost-effective processes for recovery of industrial and biopharmaceutical products derived from a variety of native and/or transgenic sources. Prerequisite: BTEC 405; BTEC 441. LAB.

BTEC 494. Selected Topics in Biotechnology. 1 Hour. N.
Course work varies with the topic of the seminar. The preparation and presentation of oral reports on selected topics from recent translational research literature. Students may choose one interest group each semester, but may enroll in a given interest group only once. May be repeated for credit when topics vary. Prerequisite: BTEC 300 and approval of instructor. LEC.

BTEC 501. Ethical Issues in Biotechnology. 1 Hour. N.
Student investigations and discussions of current controversial issues in biotechnology. This course emphasizes thinking about new technologies in a rational and thoughtful way. Prerequisite: BTEC 300. LEC.

BTEC 541. Gene Expression Analysis: Microarrays. 2 Hours. N.
This course reviews current theory, techniques, instrumentation, troubleshooting, analysis tools, and advanced protocols for microarray analysis. Students have the opportunity to utilize skills learned during lecture in a laboratory environment. At the conclusion of this course, students understand microarray experimental design, its tools, and analysis of generated data. Prerequisites: BTEC 300. LAB.

BTEC 542. Protein Expression in Insect Cells. 2 Hours. N.
Introduction to the insect cells expression system, and its advantages and disadvantages. Introduction to expression of recombinant proteins with baculovirus. Outline of antibody and antibody fragments as well as other complex proteins. Basic techniques used for growth and maintenance of insect cell cultures. The lab portion of the course provides students with practical experience in protein expression techniques in the insect cells expression system. Prerequisite: BTEC 300. LAB.

BTEC 545. RNA Interference and Model Organisms. 2 Hours. N.
Introduction and history of RNA interference technology. Principles, mechanism, and applications of RNA interference in model organisms. Laboratory sessions include RNA interference-mediated silencing of genes in plants, C. elegans, and mammalian cell culture. Prerequisite: BTEC 300. LAB.

BTEC 547. Bioanalytical Lab. 2 Hours. N.
Analytical methods used for testing biotherapeutics are examined. Emphasis is placed on assessing protein concentration, purity, identity and activity. The importance of sample processing, throughput and level of validation are explored as samples from upstream processing, downstream processing and final bulk are interrogated. Students also learn key concepts used to validate the performance of analytical methods. Prerequisite: BTEC 300. LAB.

BTEC 599. Biotechnology Capstone Experience. 3 Hours. N.
Supervised internship at a biotech company; or an independent thesis; or honors thesis with Honors Program. Prerequisite: BTEC 441 and approval of instructor. FLD.

Master of Arts in Ecology and Evolutionary Biology, Botany, or Entomology

Ecology and Evolutionary Biology Graduate Programs

The department comprises a large number of biologists with a variety of research interests. 3 broad overlapping themes capture the interests and activities in EEB — biodiversity and macroevolution, ecology and global change biology, and evolutionary mechanisms. The department offers graduate study leading to Master of Arts and Doctor of Philosophy degrees in botany, entomology, and ecology and evolutionary biology. General information about the department and its faculty, current graduate students, admission, and financial support may be found on the department’s website (http://www2.ku.edu/~eeb).

Neotropical biodiversity is a special area of concentration among EEB faculty. Many faculty members have courtesy appointments in the Latin American Area Studies Program, which fosters multidisciplinary research in Latin America across the campus. KU is a member of the Organization for Tropical Studies, and many faculty members and students participate in advanced, field-oriented OTS courses. Graduate students can receive fellowships for courses, e.g. BIOL 786 Fundamentals of Tropical Biology, or research projects in Costa Rica. Other EEB faculty have research concentrations in Asia, Africa, Antarctica, and elsewhere, creating a genuinely global reach for EEB research activities.

(B.A. and B.S. degree programs in biology are listed under Biology Undergraduate Programs (p. 1171).)

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions.
Required Course Work
Most course work requirements are identified during the student's preliminary advisory committee meeting. Students are expected to take graduate-level courses (or have equivalent knowledge) in ecology, evolution, and systematics. A student's advisory committee may add course requirements during annual meetings. Listed below are specific course requirements for all master's students in the EEB department:

1. Students must complete BIOL 701 Topics in Responsible Scholarship & Teaching Effectiveness during the first year of graduate education in the fall semester. Students are expected to attend departmental seminars in subsequent semesters.
2. Students must complete BIOL 801 Current Research in Ecology and Evolutionary Biology Seminar during the first year of graduate study in the spring semester.
3. Students must complete a graduate-level course in statistics, typically fulfilled by completing BIOL 841 Biometry I. Alternatively, students may demonstrate equivalent background knowledge.
4. Students pursuing Option I (Thesis) must complete a minimum of 1 credit hour of BIOL 899 Master's Thesis.

Master's students must meet a credit-hour-completion requirement. Those in the thesis program must complete a minimum of 30 graduate-level credit hours with no more than 10 of the 30 from enrollment in thesis, research, or advanced study hours. Those in the nonthesis program must complete a minimum of 36 graduate level credit hours with no more than 12 of the 36 from enrollment in thesis, research, or advanced study hours.

Students seeking an M.A. in botany must take a graduate-level course in at least 2 of the following 3 areas:

1. Plant ecology
2. Plant systematics or morphology
3. Plant development or physiology

Students seeking an M.A. in entomology must take BIOL 500 Biology of Insects and BIOL 502 Laboratory in Insect Biology and Diversity, unless they have taken equivalent courses. Students who have taken a course equivalent to BIOL 502 elsewhere still are encouraged to take BIOL 502 to familiarize themselves with the local insect fauna. In addition, students must take at least 1 of the following courses: BIOL 708 External Morphology of Insects, BIOL 711 Insect Systematics, or BIOL 716 Insect Physiology and Internal Morphology.

Master's Defense for Option I (Thesis) Students
During the final semester of enrollment, students pursuing the Option I (Thesis) master's degree must present the results of thesis research in a public forum and complete a thesis defense. The thesis presentation should follow the standard departmental seminar format. The master's thesis defense consists of a substantive test of the student's knowledge of the field and the thesis topic, with approximately 50 percent of the time devoted to questions in the general examination realm, covering the full breadth of the candidate's field of study (i.e., general knowledge of ecology and evolutionary biology). At the discretion of the student and advisor, the exam may be held on the same day as the thesis presentation, or the events may be held on separate days. The defense examining committee must be composed of 3 members of the Graduate Faculty, the majority of which must be tenured, or tenure-track EEB faculty with regular or dissertation status on the Graduate Faculty. In some cases it may be possible for committee members...
to attend the examination via mediated means such as tele/video-conferencing (for details view the exam attendance policy statement [http://www.policy.ku.edu/graduate-studies/oral-exam-attendance]). To pass the thesis defense, a student must receive a majority of passing votes from the examining committee. **Students must contact the EEB graduate coordinator 3 weeks prior to the anticipated presentation and defense** to request departmental and College permission to schedule the events.

Students planning to defend a master’s thesis must submit copies of the thesis to the entire examining committee and to the GPC no less than 2 weeks (or longer if requested by the student’s committee) in advance of the planned defense. The thesis should meet general formatting regulations [http://clas.ku.edu/coga/graduation/master’s](http://clas.ku.edu/coga/graduation/master’s).

**Master’s Final Examination for Option II (Nonthesis) Students**

During the final semester of enrollment in course work when nonthesis program activities are nearing completion, students pursuing the **Option II (Nonthesis)** master’s degree must successfully complete a general oral examination. The examination’s structure is similar to that of the doctoral oral comprehensive examination; however, the examination is shorter, and depth and breadth of knowledge required of the student are less comprehensive than expected of a successful doctoral aspirant. The examining committee must be comprised of at least 3 members of the Graduate Faculty, the majority of which must be tenured or tenure-track EEB faculty with regular or dissertation status on the Graduate Faculty. In some cases it may be possible for committee members to attend the examination via mediated means such as tele/video conferencing (for details view the attendance policy statement [http://www.policy.ku.edu/graduate-studies/oral-exam-attendance]). To pass the master’s final examination, a student must receive a majority of passing votes from the examining committee. **Students must contact the EEB graduate coordinator 3 weeks prior to the anticipated examination** to request departmental and College permission to schedule the event.

**Research**

Upon completion of their work, students in M.A. **Option I (Thesis)** must submit a thesis reporting original research. The committee-approved thesis must be submitted electronically to Graduate Studies. Instructions for formatting and submitting the electronic thesis are online [http://www.ku.edu/electronic-thesis-and-dissertation](http://www.ku.edu/electronic-thesis-and-dissertation). The thesis also must be submitted to the department as a PDF document. Paper copies of the title and acceptance pages containing the signatures of the examining committee members must be submitted to both the College and the department.

Students in M.A. **Option II (Nonthesis)** must conduct research with 1 or more faculty members involving work on a research problem that requires use of literature, and laboratory or field techniques. Nonthesis students must submit a comprehensive written report to the advisory committee. Examples of research problems that could be the basis of the written report include a literature review of a critical issue in a scientific discipline, original research, or other creative activity approved by the advisory committee. The committee-approved report must be submitted to the department as a PDF document. A paper copy of the title page containing signatures of the advisory committee members also must be submitted.

**Time Constraints**

A student beginning graduate study with only a bachelor’s degree should complete all work for the master’s degree within 2 or 3 years of initial enrollment at KU. A student beginning graduate study with a master’s degree in the biological sciences should complete all work for the doctoral degree within 4 to 5 years of initial enrollment at KU. A student beginning graduate study with only a bachelor’s degree in the biological sciences should complete all work for the doctoral degree within 5 or 6 years.

The maximum tenure for EEB graduate students varies according to degree program. Master’s students are allowed a maximum of 4 years to complete the degree program, and doctoral students are allowed 8 years. If a student earns both an M.A. and a Ph.D. from KU, he or she has a total of 10 years to complete both degrees. Petitions to extend the time limits must be approved by the student’s advisory committee and forwarded to the EEB Graduate Program Committee for consideration before being forwarded to the College for final approval.

As required by the university, doctoral students must complete the equivalent of at least 3 academic years of full-time graduate study. This may include the time spent earning a master’s degree.

**Doctor of Philosophy in Ecology and Evolutionary Biology, Botany, or Entomology**

**Ecology and Evolutionary Biology Graduate Programs**

The department comprises a large number of biologists with a variety of research interests. 3 broad overlapping themes capture the interests and activities in EEB — biodiversity and macroevolution, ecology and global change biology, and evolutionary mechanisms. The department offers graduate study leading to Master of Arts and Doctor of Philosophy degrees in botany, entomology, and ecology and evolutionary biology. General information about the department and its faculty, current graduate students, admission, and financial support may be found on the department’s website [http://www2.ku.edu/~eeb](http://www2.ku.edu/~eeb).

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(B.A. and B.S. degree programs in biology are listed under Biology Undergraduate Programs (p. 1171).)

**Admission to Graduate Studies**

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to
Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

The departmental graduate admissions committee reviews the record of each applicant. Admission is based on background, preparation, test scores, and academic performance. The committee considers each candidate’s overall undergraduate record in the context of the institution(s) from which the record was received. A graduate student should have a broad undergraduate background in natural science and math, including calculus, physics, chemistry, organismal biology, genetics, ecology, and evolutionary biology. Faculty recommendations, honors, awards, undergraduate research experience, publications, and professional experience also are considered. Enthusiasm, scientific expertise, and clarity of writing as evidenced by the applicant’s essay are particularly important.

A bachelor’s degree or equivalent and a minimum overall grade-point average of 3.0 on a 4.0 scale is required for regular admission. The master’s degree is not a prerequisite for entering a Ph.D. program. Domestic applicants must provide a certified score report from the Graduate Record Examination for the general test (scores from the GRE biology subject test are optional). Non-native English speakers must provide evidence of English proficiency, typically in the form of certified scores from the Test of English as a Foreign Language or from the International English Language Testing System. For more details on admission requirements, visit the EEB website (http://www2.ku.edu/~eeb).

Applicants are encouraged to correspond with one or more faculty members before and during the application process, because students cannot be admitted without a faculty sponsor. Interested students are encouraged to visit campus to meet faculty members and graduate students. Graduate school is critically important in beginning a career, and the choice of a program in which to enroll should be made carefully.

The number of students admitted is limited. Qualified candidates may be denied admission because of lack of a faculty sponsor, financial support, or research facilities.

Applications and supplemental materials may be submitted online. Applications from underrepresented groups are encouraged. For a detailed description of the application process, visit the EEB website (http://www2.ku.edu/~eeb). All application materials for fall admission must be received no later than December 1. Only complete applications are considered. Send inquiries to the graduate coordinator.

Ph.D. Degree Requirements: Ecology and Evolutionary Biology, Botany, or Entomology

Required Course Work

Most course work requirements for EEB graduate students are identified during the student’s preliminary advisory committee meeting. Students are expected to take graduate-level courses (or have equivalent knowledge) in ecology, evolution, and systematics. A student’s advisory committee may add course requirements to a student’s degree program during annual meetings. Listed below are specific course requirements for all doctoral students in the EEB department:

1. Students must complete BIOL 701 Topics in Responsible Scholarship & Teaching Effectiveness during the first year of graduate education in the fall semester. They are expected to attend departmental seminars in subsequent semesters.
2. Students must complete the BIOL 801 Current Research in Ecology and Evolutionary Biology seminar course during the first year of graduate study in the spring semester.
3. Students must complete a graduate-level course in statistics, typically fulfilled by completing BIOL 841 Biometry I. Alternatively, students may demonstrate equivalent background knowledge.
4. Students pursuing the doctorate must complete at least 1 credit hour of BIOL 999 Doctoral Dissertation.

In addition, students seeking a Ph.D. in botany must take a specialty seminar focusing on a plant-related topic and must complete a graduate-level course in each of the following 3 areas:

1. Plant ecology
2. Plant systematics or morphology
3. Plant development or physiology

Students seeking a Ph.D. in entomology must take BIOL 500 Biology of Insects and BIOL 502 Laboratory in Insect Biology and Diversity unless they have taken equivalent courses. Students who have taken a course equivalent to BIOL 502 elsewhere still are encouraged to take BIOL 502 to familiarize themselves with the local insect fauna. In addition, students must take all 3 of the following courses: BIOL 708 External Morphology of Insects, BIOL 711 Insect Systematics, and BIOL 716 Insect Physiology and Internal Morphology.

Assistantships

Doctoral students must complete at least 2 semesters of half-time supervised teaching, curatorial, or research assistantships. Alternative experiences may be approved by the student’s advisory committee.

Research Skills and Responsible Scholarship

Before proceeding to the Comprehensive Oral Examination, doctoral students must fulfill the Research Skills and Responsible Scholarship requirement. This requirement has 2 components: (1) training in responsible scholarship pertinent to the field of research; and (2) obtaining research skills pertinent to the field of research. Upon completion of any portion of the research skills and responsible scholarship requirement, students must contact the EEB graduate coordinator to complete documentation. Note that students are not allowed to schedule the comprehensive oral examination for the doctorate until the graduate coordinator has received documentation of the completion of this requirement.

Responsible Scholarship: Training in responsible scholarship is part of the curriculum for BIOL 701 Topics in Responsible Scholarship and Teaching Effectiveness. Completion of this course fulfills the responsible scholarship portion.

Research Skills: Doctoral students can fulfill the research skills component in one of 4 ways:

1. Exhibiting reading knowledge of 2 foreign languages
2. Exhibiting fluency in a foreign language
3. Exhibiting reading knowledge of 1 foreign language and fulfilling the requirements of 1 other research skill
4. Fulfilling the requirements of 2 research skills
1. Reading Knowledge of a Foreign Language

Students without prior experience must enroll in a 3-credit-hour reading course in a major modern language and achieve a final grade of A or B. Students with prior knowledge of a language may choose instead to translate, in a set amount of time, a pre-approved passage from the scientific literature in that language. Approval of the foreign language requirement must be obtained from the instructor of the reading course, from an appropriate representative of a language department, or from a qualified individual from EEB or another department. In EEB, Professors Town Peterson and Jorge Soberon are qualified to test Spanish reading knowledge, and Professor Rudolf Jander is qualified to test German.

2. Fluency in a Foreign Language

Fluency in reading, writing, and speaking a language that is not native to the student is determined by a faculty member who is fluent in the chosen language. Whenever possible, a qualified faculty member from the department should make the determination; otherwise, the student should contact the appropriate language department to identify a qualified individual. The faculty member must submit a letter to the EEB graduate program committee indicating that the student is fluent.

If the student is not a native English speaker, the student’s committee may determine fluency in reading, writing, and speaking English. Following the committee’s determination, the student’s advisor must provide a letter to the EEB graduate program committee indicating that the student is fluent.

3. Other Research Skills

Other research skills may be attained either through course work or through completion of a project. In either case, the skill must be approved in advance of its completion by the EEB Graduate Program Committee. A list of previously approved skills appears in the EEB Graduate Student Handbook (http://www2.ku.edu/~eeb). Other courses or projects can be added to this list by petitioning the EEB graduate program committee for pre-approval.

Students with no prior experience using the chosen research skill should take a course recommended by the department; students with experience might choose to develop a project. A qualified faculty member must approve the choice of a project. Upon completion, a letter that describes the project and is signed by the supervising faculty member should be submitted to the departmental graduate coordinator for documentation purposes.

Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current policies on Doctoral Research Skills and Responsible Scholarship are listed in the KU Policy Library.

Residence Requirement

Graduate Studies requires all doctoral students to complete 2 terms, which may include 1 summer session, in full-time resident study at KU. See the EEB Graduate Student Handbook (http://www2.ku.edu/~eeb) for details.

Comprehensive Oral Examination

The comprehensive oral examination tests the breadth of a student’s knowledge and explores the student’s ability to synthesize information and think critically. The examination should include, but is not limited to, questions relating to ecology, evolution, and systematics, as well as information about general biology. Examinations are conducted in English. Students are recommended to take the examination within four semesters of entering the program and are expected to complete the examination within six semesters. To be eligible to take the examination, both the research skills and responsible scholarship and doctoral residence requirements must be fulfilled and documented. All doctoral aspirants must prepare a dissertation proposal that follows the National Science Foundation Doctoral Dissertation Improvement Grant model. The dissertation proposal must be submitted to all members of the examination committee for review and approval at least 2 weeks before the examination. Students must contact the EEB graduate coordinator 3 weeks before the anticipated examination to request departmental and College permission to schedule the event.

A successful pass of the comprehensive oral examination is considered valid by the university for 5 years. Doctoral candidates who do not complete the dissertation within 5 years may be required to take the examination again to demonstrate current knowledge in the field.

Research Progress, Final Oral Examination, and Dissertation Defense

After passing the comprehensive oral examination and advancing to degree candidacy, doctoral students are expected to focus on completing original research and writing of the dissertation. Although opportunities for taking valuable courses may arise, the majority of a doctoral candidate’s enrollment should be in dissertation credits (BIOL 999 Doctoral Dissertation).

It is generally expected that the dissertation should be completed two to three years after advancing to candidacy. During these years, the student should continue to meet with his or her advisory committee on an annual basis to receive guidance on research progress. Committee membership should follow university requirements.
When the student and the faculty advisor are able to reasonably predict when the dissertation research and writing will be done, the dissertation defense and final oral examination may be scheduled. At least 5 months must have elapsed between successful completion of the oral examination and the date of the defense. Students must contact the EEB Graduate coordinator at least 3 weeks prior to the anticipated defense date to request departmental and university approval of the defense.

A complete dissertation must be provided to the EEB Graduate Program Committee and to the student's entire dissertation committee no less than 2 weeks (or longer if requested by the student's committee) in advance of the planned defense. All members of the dissertation committee are required to read and comment on the work. 3 members are designated readers and provide a more detailed review. The dissertation must be written to meet general university regulations (http://www.graduate.ku.edu/electronic-thesis-and-dissertation).

The dissertation defense and final oral examination include a presentation of the candidate's dissertation as a formal, public lecture. Whenever possible, the presentation should be part of the regular departmental seminar series. The presentation is followed by a question period, after which the final oral examination committee meets with the student for further discussion of the dissertation. A majority vote of the committee is required for the student to pass the examination; 80 percent of the committee must agree to award a student Honors. Both the dissertation and the presentation are considered in the decision. In some cases it may be possible for committee members to attend the defense and examinations via mediated means such as tele/video-conferencing (for details view the exam attendance policy statement (http://www.policy.ku.edu/graduate-studies/oral-exam-attendance)). After passing the final oral examination, the student will make any corrections to the dissertation that are required. The final version will be submitted for approval to the department and the University.

Time Constraints
A student beginning graduate study with only a bachelor's degree should complete all work for the master's degree in 2 or 3 years after initial enrollment at KU. A student beginning graduate study with a master's degree in the biological sciences should complete all work for the doctoral degree within 4 or 5 years. A student beginning graduate study with only a bachelor's degree in the biological sciences should complete all work for the doctoral degree within 5 or 6 years.

The maximum tenure for EEB graduate students varies according to degree program. Master's students are allowed a maximum of 4 years to complete the degree program, and doctoral students are allowed 8 years. If a student earns both an M.A. and a Ph.D. from KU, he or she has a total of 10 years to complete both degrees. Petitions to extend the time limits must be approved by the student's advisory committee and forwarded to the EEB Graduate Program Committee for consideration before being forwarded to the College for final approval.

As required by the university, doctoral students must complete the equivalent of at least 3 academic years of full-time graduate study. This may include the time spent earning a master's degree.

Department of Economics
Why study economics?
Because it will give you the tools you need to understand our increasingly interconnected world.

Undergraduate Programs
The study of economics offers students insight into some of the most fundamental issues facing societies today: what goods and services should we produce, how should they be produced, and how should they be distributed around the world? Economics is outstanding preparation for a career in finance, business, policy analysis, international relations, or any other field that requires rigorous analytic thinking. It also makes an excellent foundation for graduate study in economics, business, law, political science, or public administration.

Courses for Nonmajors
ECON 104 is recommended for students who want only an introductory course. Students planning to teach social sciences should consult the School of Education. Students who plan to enter the School of Business in the junior year should consult the School of Business. Students who plan to enter the School of Journalism should consult the School of Journalism and Mass Communications.

Graduate Programs
The economics department offers a Master of Arts degree and a Doctor of Philosophy degree and, in conjunction with the School of Law, a program in which one can earn the Master of Arts and Juris Doctor degrees. These programs help students prepare for careers in education, government, and business.

Courses
ECON 104. Introductory Economics. 4 Hours. SF GE3S / S.
An introduction to modern economics designed primarily for students who do not plan to major in economics. Topics include economic history, the operation of economic institutions, and the formation and execution of economic policies to meet the current problems of the domestic and international economy. Course may be offered in lecture or online format. Prerequisite: MATH 101 or MATH 104, or eligibility for MATH 115 or MATH 121. LEC.

ECON 105. Introductory Economics, Honors. 4 Hours. SF GE3S / S.
An introduction to modern economics designed primarily for students who do not plan to major in economics. Topics include economic history, the operation of economic institutions, and the formation and execution of economic policies to meet the current problems of the domestic and international economy. Prerequisite: Consent of the Economics Department and MATH 101 or MATH 104, or eligibility for MATH 115 or MATH 121. LEC.

ECON 110. The Economics of Globalization. 3 Hours. SF AE42 / S.
The course emphasizes the application of economic methods of analysis to the public policy issues that globalization creates. Topics covered may include the following: winners and losers from trade; links between trade and labor markets; links between trade and foreign investment; the international financial system and exchange rates; outsourcing and multinational corporations; international institutions and regional trade agreements. LEC.

ECON 142. Principles of Microeconomics. 3 Hours. SF GE3S / S.
An analytical introduction to microeconomics. Topics include theory of markets, public policy, international trade, economic efficiency, and equity. Prerequisite: MATH 101 or MATH 104, or eligibility for MATH 115 or MATH 121. LEC.
ECON 143. Principles of Microeconomics, Honors. 3 Hours. SF GE3S / S.
An honors section of ECON 142. An analytical introduction to microeconomics. Topics include theory of markets, public policy, international trade, economic efficiency, and equity. Prerequisite: Consent of the Economics Department and MATH 101 or MATH 104, or eligibility for MATH 115 or MATH 121. LEC.

ECON 144. Principles of Macroeconomics. 3 Hours. SF GE3S / S.
An analytical introduction to macroeconomics. Topics include determination of aggregate income, employment, inflation, exchange rates, and the role of fiscal and monetary policy in dealing with unemployment, inflation, and economic growth. Prerequisite: MATH 101, MATH 104, or eligibility for MATH 115 or MATH 121. LEC.

ECON 145. Principles of Macroeconomics, Honors. 3 Hours. SF GE3S / S.
An honors section of ECON 144. An analytical introduction to macroeconomics. Topics include determination of aggregate income, employment, inflation, exchange rates, and the role of fiscal and monetary policy in dealing with unemployment, inflation, and economic growth. Prerequisite: Consent of the Economics Department and MATH 101, MATH 104, or eligibility for MATH 115 or MATH 121. LEC.

ECON 177. First Year Seminar: .... 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Economics. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

ECON 250. Study Abroad Topics in: .... 1-5 Hours. S.
This course is designed for the study of special topics in economics at the freshman/sophomore level. Coursework must be arranged by the office of KU Study Abroad and approved by the Economics Department. This course may be repeated for credit if content varies. LEC.

ECON 310. Topics in Applied Economics: .... 3 Hours. S.
(Topic, instructor, and specific prerequisites to be announced in the Schedule of Classes.) This course will focus on an area of applied economics of current interest. This course cannot be used to fulfill the elective course requirements for the Economics major or the Economics minor. LEC.

ECON 450. Study Abroad Topics in: .... 1-5 Hours. S.
This course is designed for the study of special topics in economics at the junior/senior level. Coursework must be arranged by the office of KU Study Abroad, approved by the Economics Department, and may count as an economics elective for economics majors. This course may be repeated for credit if content varies. LEC.

ECON 496. Research in Economics. 1-3 Hours. AE61 / S.
A directed reading and research course for economics majors. The course involves the preparation of a research paper under the supervision of a faculty member whose area of interest and specialization corresponds with the area of study selected by the student. Prerequisite: Approval of major adviser and selected faculty member. IND.

ECON 497. Senior Research Honors. 1-3 Hours. AE61 / S.
Open to seniors in the College who have a grade-point average of 3.5 or above in economics and a grade-point average of 3.25 or above in all courses. A directed reading and research course for qualifying seniors. Involves preparation of a research paper under the supervision of a faculty member whose area of interest and specialization corresponds with the area of study selected by the student. Prerequisite: Approval of major adviser and selected faculty member. IND.

ECON 498. Oswald Undergraduate Seminar in Economics. 3 Hours. S.
Examine issues in economics of contemporary interest. Enrollment is limited to current Oswald, Boynton, and Pritchard scholarship holders. May be repeated for credit, but does not fulfill the elective course requirements for the Economics major or minor. Prerequisite: ECON 520, ECON 522, and permission of department. LEC.

ECON 505. History of Economic Analysis. 3 Hours. S.
The history of intellectual efforts to understand economic phenomena and the impact of these efforts on the social and economic development of the modern world. Prerequisite: ECON 104 or ECON 142 and ECON 144. LEC.

ECON 510. Energy Economics. 3 Hours. S.
The application of basic economic concepts and methods to the analysis of energy markets, regulation, and policies. Topics covered include energy trends and projections, economic growth and resource exhaustion, the organization and regulation of fossil fuel industries, nuclear power and non-conventional energy technologies, the world oil market, energy conservation, environmental pollution, and national energy policies in the U.S. and other developed as well as developing countries. Prerequisite: ECON 142 and ECON 144 or permission of instructor. LEC.

ECON 515. Income Distribution and Inequality. 3 Hours. AE41 / S.
An analysis of the distribution of income and wealth in the United States and a few other developed countries. The concepts of economic inequality, economic justice, statistical measures of inequality and their applications will be discussed. Various theories of income distribution (e.g., Ricardian, Marxian, neoclassical, and neo-Keynesian) will be covered. Prerequisite: ECON 142 and ECON 144. LEC.

ECON 516. Income Distribution and Inequality, Honors. 3 Hours. AE41 / H.
This course examines the definition and impact of social and economic inequality. Beginning with a review of economic and philosophical perspectives of inequality, the course considers the measurement of inequality, current trends in U.S. and international inequality, and policies designed to eliminate inequality. The course requires both writing and quantitative analysis and includes a term paper. Students should be comfortable with methods of quantitative social science. The Honors section is taught as a seminar where philosophical perspectives on inequality are debated and discussed. Prerequisite: ECON 142 and ECON 144. Open only to students who have been admitted to the University Honors Program, or by consent of instructor. LEC.

ECON 520. Microeconomics. 3 Hours. S.
The theory of consumption, production, pricing, and resource allocation. Not open for credit to students with credit in ECON 524. Prerequisite: ECON 142 and ECON 144. LEC.

ECON 521. Microeconomics Honors. 3 Hours. S.
The theory of consumption, production, pricing, and resource allocation. Prerequisite: ECON 142 and ECON 144 and consent of department. LEC.

ECON 522. Macroeconomics. 3 Hours. S.
The theory of national income and employment, the analysis of aggregate demand, the general degree of utilization of productive resources, the general level of prices, and related questions of policy. Prerequisite: ECON 142 and ECON 144. LEC.

ECON 523. Macroeconomics Honors. 3 Hours. S.
The theory of national income and unemployment, the analysis of aggregate demand, the general degree of utilization of productive resources, the general level of prices, and related questions of policy. Prerequisite: ECON 142 and ECON 144 and consent of department. LEC.
ECON 526. Introduction to Econometrics. 3 Hours. S.
An introduction to the statistical analysis of economic data and its application to economic inquiry. Includes extensive use of statistical software. Prerequisite: ECON 142, ECON 144, and MATH 526 or equivalent. LEC.

ECON 530. American Economic Development. 3 Hours. H.
An introductory study of the development of the American economy from colonial times to the present. Investigates long-term trends in output, population, and output per capita, as well as short-term fluctuations, and the variables and institutions that determined these fluctuations and trends. (Same as HIST 628.) Prerequisite: ECON 104 or ECON 142 and ECON 144. LEC.

ECON 535. Economic History of Europe. 3 Hours. S.
An introductory study of European economic history from the Middle Ages to the 1980s. Investigates the sources of economic growth, and the interaction between economic forces and social institutions. Topics covered will include the rise of commerce, the agricultural and industrial revolutions, imperialism, the Great Depression, and European recovery after World War II. (Same as HIST 528.) Prerequisite: ECON 104 or ECON 142 and ECON 144. LEC.

ECON 536. Economic Issues of the European Union. 3 Hours. S.
A survey of the economies of the European Union, with a focus on the economic development of the member states since World War II, and an examination of the various economic issues confronting them today. (Same as EURS 536.) Prerequisite: ECON 104 or ECON 144. LEC.

ECON 540. Recent American Economic History. 3 Hours. S.
An empirically oriented examination of the American economy designed to apply economic concepts to a wide variety of topics such as monetary and fiscal policy, income distribution, the Great Depression, poverty, population growth, the defense sector, education, research and development, technological change, and industrial organization. Prerequisite: ECON 104 or ECON 142 and ECON 144. LEC.

ECON 550. Environmental Economics. 3 Hours. U.
This course provides an overview of the theory and empirical practice of economic analysis as it applies to environmental issues. Topics include externalities (a type of market failure), the valuation of nonmarket goods, the practice of benefit-cost analysis, and the efficiency and cost effectiveness of pollution control policies. Most importantly, the course permits students to perform economic field research, using state-of-the-art techniques in a manner accessible to undergraduate students. (Same as EVRN 550.) Prerequisite: ECON 104 or ECON 142. LEC.

ECON 560. Economic Systems. 3 Hours. S.
Critical analysis of economic theories underlying such economic systems as capitalism, different types of socialism, communism, and fascism. Comparative study of economic planning, production, distribution, price formation, economic institutions, and forms of government in countries under different economic systems. Prerequisite: ECON 104 or ECON 142 and ECON 144. LEC.

ECON 562. The Russian Economy. 3 Hours. S/W.
An analytical survey of Russian economic development, with emphasis on the structure and operation of the Russian economy and transition issues. Prerequisite: ECON 104 or ECON 142 and consent of instructor. LEC.

ECON 563. Current Economic Issues of East Europe. 3 Hours. S.
An institutional and theoretical analysis of the issues arising from the transition from a command economy to a free market-oriented economy. With emphasis on the former Soviet Union, topics will include: assessment of the central planning experience; changes in property rights and their effect on resource allocation; market mechanisms and how they work when market institutions are at the formative stage; and public interest under privatization. Prerequisite: ECON 142 and ECON 144. LEC.

ECON 564. Topics in Applied Economics. __________ 3 Hours. S.
This course will focus on an area of applied economics of current interest. This course can be used to fulfill the elective course requirement for the Economics major. Prerequisite: ECON 142 and ECON 144. LEC.

ECON 570. Economics for Management Decisions. 3 Hours. S.
Economic analysis of the firm with emphasis on managerial decisions in a business environment. Topics include supply and demand with applications, consumer behavior, quantitative demand analysis, production and cost, transactions costs and the organization of the firm, strategic decisions in alternative market environments, risk and uncertainty, imperfect information, and project evaluation. Prerequisite: ECON 142. LEC.

ECON 582. Economic Development. 3 Hours. S.
An introduction to economic growth and development in high and low income countries, problems of development, and development policy. Prerequisite: ECON 104 or ECON 142. LEC.

ECON 583. Economic Issues of East Asia. 3 Hours. S.
This course will study the economics of the East Asian countries, especially China, Japan, Korea, and Taiwan. Topics to be covered include economic growth, development and change, international trade, inflation, unemployment, income distribution, and urbanization. Emphasis will be on the post World War II period. Prerequisite: ECON 104 or ECON 142 and ECON 144. ECON 522 recommended. LEC.

ECON 584. Economic Development of Latin America. 3 Hours. S.
This course explores development strategies followed in the countries of Latin America and the Caribbean, and analyzes current debates over development strategy. Topics covered include: debt, structural adjustment, and multilateral lending agencies; trade policy, and regional or hemispheric integration; state intervention in the economy; the role of elites; environmental degradation and sustainable development; land reform and agricultural policy; transnational enterprises and foreign investment; women in work and the household; migration (rural-urban, and international); and grassroots development projects. Prerequisite: ECON 104 or ECON 144. LEC.

ECON 585. Economic Issues in China. 3 Hours. S.
This course will study the Chinese economy, especially during the post-1979 reform period, and its relationship to the development of the Greater China Circle (China, Hong Kong, and Taiwan). Topics to be covered include economic development during the pre-1979 reform period, economic reform, and its impacts on China, Hong Kong, Taiwan, and lessons from the Chinese economic reforms. Prerequisite: ECON 142 and ECON 144. LEC.

ECON 587. Economic Development of Africa. 3 Hours. S.
This course studies current economic issues facing African countries. It studies the general characteristics of several African economies and examines the impact of economic development policies, including those of international organizations, on the economies of Africa. Topics include poverty, income inequality, debt, foreign investment policies, trade policies, and government regimes. Prerequisite: ECON 104 or ECON 142 and ECON 144. LEC.

ECON 590. Game Theory. 3 Hours. S.
Analysis of strategic choice problems. Firms, voters, bargainers, animals, sports competitors, and persons in everyday life choose alternative options with the outcomes depending on the choices of one or more other similar decision makers. Strategies of rational choices will be derived and
analyzed in economic and other environments. Prerequisite: ECON 142.
LEC.

ECON 600. Money and Banking. 3 Hours. S.
The basic principles of money, credit, and banking and their relation to prices and business fluctuations; a study of commercial and central banking and the problems of credit control. Prerequisite: ECON 522. LEC.

ECON 604. International Trade. 3 Hours. S.
An introduction to the nonmonetary theory of international trade, the cause and pattern of trade, the gains from trade, and the contemporary issues in international economic policy. Prerequisite: ECON 520 or ECON 524. LEC.

ECON 605. International Finance. 3 Hours. S.
This course surveys theories of exchange rate and balance of payments determination. Included are the elasticity approach, Keynesian models, and the monetary approach. The mechanics of foreign exchange trading, balance of payments accounting, and the working of the international monetary system are also discussed. Prerequisite: ECON 522. LEC.

ECON 609. Sports Economics. 3 Hours. S.
The course covers the microeconomics of the sports industry. Topics include analysis of teams, leagues, players, incomes, strategies, history, and government policy. Prerequisite: ECON 520 or permission of instructor. LEC.

ECON 610. Resource Economics and Environmental Policy. 3 Hours.
Survey of the economics of natural resources, designed to introduce the student to the economic models and analytical methods commonly used in natural resource problems and policy issues. Topics covered include environmental pollution and regulation, environmental case studies and applications of cost-benefit analysis, theoretical models, policy issues in the utilization of renewable and nonrenewable resources, sustainable development, and global environmental problems. Prerequisite: ECON 520 or ECON 524 or permission of instructor. LEC.

ECON 620. Elements of Mathematical Economics. 3 Hours. S.
Selected aspects of economic theory with emphasis on those parts where the spirit of mathematical analysis, rather than dexterity, is utilized. The simplification of the subject matter is accomplished by stressing complete treatment of special cases such as a two commodity-two individual world. Prerequisite: ECON 520 or ECON 524 and MATH 116 or MATH 121. LEC.

ECON 622. Public Finance. 3 Hours. S.
A general introduction to the science of public finance. Topics covered include public expenditures, public revenues and public credit, and the shifting and incidence of taxation. Prerequisite: ECON 520 or ECON 524. LEC.

ECON 630. Industrial Organization and Antitrust Policy. 3 Hours. S.
An examination of the structure, conduct and performance of American industry applying the concepts and techniques of economic analysis. Topics covered include the theories of monopoly, competition and oligopoly, concentration, barriers to entry, price-fixing and other restrictive practices, mergers, technological change, and public regulation. The course will also focus on the historical development of American antitrust law. Prerequisite: ECON 520 or ECON 524. LEC.

ECON 631. Economics of Regulation. 3 Hours. S.
This course studies topics in the economic effects of industry regulation by administrative agencies as a substitute for market competition. Topics include various theories of regulatory behavior, the theory of natural monopoly, the economic effects of rate of return regulation on the performance of electric utilities, and the effects of recent social and environmental regulation. Prerequisite: ECON 520 or ECON 524. LEC.

ECON 635. Science and Technology in Economic Growth. 3 Hours. S.
An analytical and historical exploration of the roles that science and technology have played in the economic growth of industrial societies. This course will examine the forces that have shaped the rate and direction of technological change, and the impact of technological change on Western living standards. Topics covered will include factors influencing the pace of innovation, the diffusion of new technologies, international technology transfers, growth accounting, and models of aggregate economic growth. Prerequisite: ECON 520 or ECON 524. LEC.

ECON 640. Labor Economics. 3 Hours. S.
Analysis of labor markets and differences in wage rates and incomes. Topics include returns to education and training, labor unions, unemployment, anti-poverty programs, and other government policies influencing the labor market. Prerequisite: ECON 520 or ECON 524. LEC.

ECON 650. Labor Economics. 3 Hours. S.
This course provides a nontechnical introduction to optimal resource allocation from the societal point of view as well as alternative individual mechanisms for achieving such an optimum. Prerequisite: ECON 520 or ECON 524. LEC.

ECON 660. Economic Growth. 3 Hours. S.
This course studies growth with an emphasis on national evidence and macroeconomic policy issues. Classic and modern growth theories are developed and evaluated on the basis of how well they fit empirical evidence. Theories are developed in which productivity growth results from endogenous changes in technology or in the efficiency with which factors are utilized. The fundamental factors that affect productivity are examined, and they may include government policies, income inequality, geography, climate, resources and other factors. Prerequisite: ECON 522. LEC.

ECON 670. Survey of Microeconomics. 3 Hours.
A comprehensive survey of microeconomics, including the theories of consumption, production, distribution, pricing, and resource allocation. Prerequisite: ECON 520 and MATH 116 or MATH 121; and completion of ECON 142 and ECON 144, ECON 520, and ECON 522 with a grade-point average of at least 3.0 or graduate standing. LEC.

ECON 701. Survey of Macroeconomics. 3 Hours.
A comprehensive survey of the modern theory of national income determination with particular emphasis on the foundation of macroeconomic models and their empirical implementation. Prerequisite: ECON 522 and MATH 116 or MATH 121. LEC.

ECON 705. Development of Economic Thought. 3 Hours.
The development of economic thought from the time of the physiocrats through the modern period. Consideration is given to the works of the English Classical school, the school of Vienna, the historical school, the Lausanne school, and Cambridge school. In addition, the development of economic thought in the United States during the period is treated. Prerequisite: ECON 520 and ECON 522. LEC.

ECON 715. Elementary Econometrics. 3 Hours.
An elementary analysis of the problems of estimation, prediction, and hypothesis testing in the context of general linear, stochastic difference equation and simultaneous equations models. Applications of econometric theory to practical economic problems will be emphasized. Prerequisite: DSCI 301 or its equivalent; MATH 116 or MATH 121; and completion of ECON 142 and ECON 144, ECON 520, and ECON 522 with a grade-point average of at least 3.00 (B) or graduate standing. LEC.

ECON 716. Econometric Forecasting. 3 Hours.
An analysis of econometric forecasting techniques, including time-series models, single-equation regression models, and multiple-
equation regression models. The course will examine forecasts of (a) macroeconomic variables, such as interest rates, investment, GNP, and the rate of inflation; and (b) market variables, such as price and quantity. Prerequisite: ECON 715 or ECON 817. LEC.

ECON 730. Topics in Industrial Organization. 3 Hours.
Advanced study of recent research in applied microeconomics and business behavior. Topics include vertical integration, collusion, multi-plant and multi-product operations, regulated industries, tying arrangements, and the empirical links between monopoly power and profitability. Prerequisite: ECON 630 or equivalent. LEC.

ECON 735. Science and Technology in Economic Growth. 3 Hours.
An analytical and historical exploration of the roles that science and technology have played in the economic growth of industrial societies. Topics covered include factors influencing the pace and character of technological innovation, national systems of innovation, the diffusion of new technologies, measurement of the benefits of new technologies, and the role of technology in various growth theories. Prerequisite: ECON 520, or ECON 524, or consent of instructor. LEC.

ECON 740. Theory of Economic Growth and Development. 3 Hours.
Advanced study of the theory of economic growth and development. Recent growth models, theory of underdevelopment, programming, policies and plans for development. Prerequisite: ECON 520 and ECON 522. LEC.

ECON 741. Economic Planning. 3 Hours.
A study of the techniques employed in the preparation of a national economic plan and of the policies required for its implementation. Special attention is given to the purposes of a plan, development strategies, investment requirements, and project appraisal. The development plans of several countries are examined to illustrate problems of planning economic development. Prerequisite: ECON 520 and ECON 522. LEC.

ECON 750. The Theory of International Finance. 2-3 Hours.
This course examines the modern, financial-asset market approach to exchange rate determination as well as dynamic exchange rate models. Possible topics may include exchange rate overshooting, exchange rate crises, and international policy coordination. Prerequisite: ECON 605 and MATH 116. LEC.

ECON 760. The Theory of Public Finance. 3 Hours.
An analysis of governmental fiscal activity and its economic effects with emphasis on the determination and incidence of budget policy. Prerequisite: ECON 520 and ECON 522; ECON 622 recommended. LEC.

ECON 761. Public Sector: Urban and Regional Finance. 3 Hours.
An analysis of the American state and local finance scene with special emphasis on urban and regional tax and expenditure problems and issues. Prerequisite: ECON 520 and ECON 522; ECON 622 recommended. LEC.

ECON 765. Advanced American Economic Development. 3 Hours.
A study of the process of economic growth as it has occurred in the American economy, with emphasis on 19th century developments. The structural changes that accompanied growth and the impact of technological change are among the major topics considered. Prerequisite: ECON 520, ECON 522 and ECON 530, or consent of instructor. LEC.

ECON 766. Economic History. 3 Hours.
The development of market economies and economic institutions. The course will focus on Europe, but will include comparisons with other developed nations. Topics include: long-run economic growth, the rise of capitalistic agriculture and industry, the causes and consequences of technological change; changes in income distribution and economic organization; and the social and cultural effects of economic change. Prerequisite: ECON 520, ECON 522, and ECON 535 or ECON 530, or consent of instructor. LEC.

ECON 768. The Industrial Revolution. 3 Hours.
An examination of the development of the industrialization of England and its impact on the North Atlantic economy. Consideration will be given to the effects of demographic and technical changes upon economic structure and the changing economic relationships between nations. Prerequisite: ECON 520 and ECON 522 or consent of instructor. LEC.

ECON 769. Financial Economics. 3 Hours.
An introduction to the economic analysis of choice under uncertainty and asset pricing theory. Topics include the general equilibrium Arrow-Debreu model of complete markets; capital asset pricing model; stochastic dominance; portfolio frontiers; mutual fund separation theorems; arbitrage pricing theory; valuation of derivative securities. Both single-period models and multi-period models will be discussed. Students should have some background in elementary linear algebra, calculus, and probability theory. Prerequisite: DSCI 301 and ECON 700 or equivalent. LEC.

ECON 770. Economics of the Labor Market. 3 Hours.
A theoretical and empirical analysis of labor supply and demand, human capital, information and labor mobility, unemployment, discrimination, and union behavior and influence. Prerequisite: ECON 520, and MATH 121 or MATH 115 and MATH 116. LEC.

ECON 790. Game Theory and Applications. 3 Hours.
This course covers basic game theory and applications. Topics covered include strategic games with complete information, Bayesian games (with incomplete information), extensive games with perfect information, and extensive games with imperfect information. Equilibrium concepts covered include Nash equilibrium, mixed-strategy Nash equilibrium, rationalizability, Bayesian Nash equilibrium, sub-game perfect Nash equilibrium, and sequential equilibrium. Depending on availability of time, additional topics may include strictly competitive games and repeated games. The course may include diverse applications such as in business strategy, auctions, voting, international trade, military conflicts, contracts, regulation, and industrial organization. Prerequisite: MATH 122 and MATH 526. LEC.

ECON 791. Game Theory and Applications II. 3 Hours.
This course is a continuation of game theory and applications (ECON 790). Topics may include rationality and common knowledge, multi-stage games and repeated games, coalitional games and the core, and sequential rationality, including possible applications such as signaling, reputation, and information transmission. Additional topics may include, among others, strictly competitive games and repeated games. The course may include diverse applications within and outside economics. Perquisite: ECON 790 or consent of instructor LEC.

ECON 800. Optimization Techniques I. 3 Hours.
Economic models involving the maximization of a scalar (vector) function subject to equality and inequality constraint where the variables are in a finite dimensional Euclidean space. Characterization of optimal points by way of first and second order derivatives and by way of saddle points. Duality theorems of mathematical programming. Prerequisite: Consent of instructor. LEC.

ECON 801. Microeconomics I. 3 Hours.
An advanced course in price and distribution theory. Prerequisite: ECON 800 or consent of instructor. LEC.

ECON 802. Microeconomics II. 3 Hours.
The study of the operation of the economic system taking into account the diversity of goods and services. Primary attention is centered upon the competitive economy. A study is made of the existence, uniqueness,
stability, and comparative statics of equilibrium positions. In addition, a study is made of ways of evaluating alternative states of the economy in terms of systems of value judgments. This includes a discussion of the Arrow Impossibility Theorem; the notion of a Pareto-satisfactory process is introduced and the relationship between Pareto-optimal states and competitive equilibrium positions is studied. Prerequisite: ECON 801. LEC.

ECON 803. Growth Theory. 3 Hours.
The study of Harrod-Domar growth models; the Solow model; Uzawa’s two sector model; n-sector growth models; the Ranis-Fei development models; and other application of growth theory to public policy. Prerequisite: ECON 700 and ECON 701. LEC.

ECON 805. Teaching Methods in Economics. 3 Hours.
The goal of the course is to enhance undergraduate student learning by refining and expanding the teaching techniques in the teaching assistant’s arsenal. The course starts by discussing and illustrating the importance of setting the tone on the first day of class. Then the course turns to ways of creating intellectually exciting lectures and discussion sections. Active learning comes next as the course presents techniques to involve actively the students in their learning experience. Then the course examines ways for recognizing and broadening our teaching styles to include different learning styles. The course also discusses the evaluation of students by emphasizing the importance of matching the assessment of students with course objectives. This course will not assume any prior teaching experience. Prerequisite: Consent of instructor. LEC.

ECON 809. Optimization Techniques II. 3 Hours.
Economic models involving the maximization of an integral (a vector of integrals) subject to differential equality (inequality), integral equality (inequality), and finite equality (inequality) constraints. Characterization of optimal paths by way of first and second derivatives. Existence of optimal paths. Prerequisite: Consent of instructor. LEC.

ECON 810. Macroeconomics I. 3 Hours.
A survey of basic macroeconomic models, including Classical and Keynesian as well as more recent ones. Topics also cover monetary and fiscal stabilization policies, the role of rational expectations, and basic behavioral equations. Tradeoffs of inflation and unemployment are examined both theoretically and empirically. Prerequisite: ECON 809 or consent of instructor. LEC.

ECON 811. Macroeconomics II. 3 Hours.
Structure of dynamic models and intertemporal optimization. Monetary and real business cycle theories and long-run economic growth. Microeconomic foundations of macroeconomics, theories of explicit and implicit contracts, and implications of overlapping generations models. Prerequisite: ECON 810. LEC.

ECON 817. Econometrics I. 3 Hours.
An intensive study of the general linear model and distribution theory associated with the multivariate normal: stochastic difference equation; autocorrelation, errors in variables. Prerequisite: MATH 628. LEC.

ECON 818. Econometrics II. 3 Hours.
The study of estimation and hypothesis testing within the context of the stochastic simultaneous equations model. Prerequisite: ECON 817. LEC.

ECON 820. Applied General Equilibrium. 3 Hours.
A study of numerical applications of Walrasian general equilibrium theory to problems in public finance, international trade, and macroeconomics. The Arrow-Debreu model will be reviewed with emphasis on the use of Kakutani’s fixed point theorem to prove existence of equilibrium. Fixed point algorithms used to solve the general equilibrium model will be studied. The Shoven-Whalley method for introducing taxes into the general equilibrium model will be discussed and extended to open economy models with tariffs and quotas. Finally, dynamic macroeconomic models will be studied and financial assets will be introduced in perfect foresight models. Prerequisite: ECON 801. LEC.

ECON 825. Tutorial. 0 Hours.
This course is designed to provide extra assistance for graduate students in economics. RSH.

ECON 830. Game Theory and Industrial Organization. 3 Hours.
A comprehensive introduction to game theory and the theory of industrial organization. Basic game theoretic concepts will be discussed in the context of static games, games of incomplete information, and dynamic games. These concepts will be applied to the theory of industrial organization. Topics may include mechanism design, market failure, monopoly, imperfect competition and oligopoly, limit pricing, predatory pricing, innovation and technical change, advertising and signaling theory, collusion and coordination, regulation under incomplete information, agency and auditing problems, incentives in hierarchies, job market signaling, insurance markets, nonlinear pricing and monopoly, and bargaining and long term relations. Prerequisite: ECON 801 and 802. RSH.

ECON 831. Economics of Regulation. 3 Hours.
This course provides an analytical introduction to the study of the economic rationale for and effects of government regulation of industry. Special emphasis will be placed on public utility regulation. Prerequisite: ECON 700. LEC.

ECON 835. Comparative Economic Systems. 3 Hours.
Comparative studies of the organization, operation, and performance of economic systems. Theoretical issues involving the comparison of different economic systems will be covered. Theoretical characterizations of different economic systems such as capitalist economies, socialist economies, and centrally planned economies, will be developed. Case studies of economic institutions and economic performance in various countries will be examined. Prerequisite: ECON 700 and ECON 701. LEC.

ECON 840. Microeconomic Issues in Development Economics. 3 Hours.
This course will examine the process and policies of economic development from a microeconomic perspective. Selected topics may include: the use of input-output matrices in development planning; price controls and corrections for their allocative distortions; international trade policies; transformations from planned to market economies; labor markets and labor mobility; and capital markets and capital mobility. LEC.

ECON 842. Theory of Economic Planning. 3 Hours.
Formal construction of the foundations of economic planning with emphasis on concise discussion of the logic behind the techniques utilized in economic planning. Topics that will be studied include: social welfare, short-term planning, price guided planning procedures, non-price guided planning procedures, long-term planning objectives, and characteristics of optimal plans. Prerequisite: ECON 802 or consent of instructor. LEC.

ECON 844. Macroeconomic Issues in Development Economics. 3 Hours.
This course will examine the process and policies of economic development from a macroeconomic perspective. Topics will include the theory of growth in the dual economy, the role of foreign trade in economic development, inflation and stabilization in developing economies, the problem of foreign debt, the relationship between financial and real development, and various development policies. Prerequisite: ECON 810 or consent of instructor. LEC.

ECON 850. The Advanced Theory of International Finance. 3 Hours.
This is an advanced course in international finance. Possible topics include optimizing, equilibrium models of exchange rate determination,
empirical tests of international asset-pricing models, international policy coordination, and properties of different international monetary arrangements. Prerequisite: ECON 811. LEC.

ECON 851. The Theory of International Trade. 3 Hours.
The study of the pure theory of international trade; factor-price equalization, trade and welfare, general equilibrium in the international economy, comparative statics, and stability conditions. Prerequisite: ECON 700 and ECON 701. LEC.

ECON 855. Natural Resources. 3 Hours.
Advanced analysis of the economic relationships between natural resources, population, and environment. Emphasis is on the analytical techniques useful for solving the economic problems of natural resource allocation over time. Prerequisite: ECON 700. LEC.

ECON 860. Advanced Public Finance. 3 Hours.
A rigorous treatment of the economics of the public sector. Emphasis will be placed on government expenditure and taxation. Possible topics include tax incidence, optimal taxation, dynamic analysis of fiscal policy, public goods, and cost benefit analysis. Prerequisite: ECON 801 or permission of instructor. LEC.

ECON 866. Selected Problems in American Economic History. 3 Hours.
A critical study of selected aspects of American economic history with particular emphasis upon the testing of hypotheses that have been advanced to explain the growth and development of the American economy. Prerequisite: ECON 766. LEC.

ECON 869. Advanced Financial Economics. 3 Hours.
This course presents an analysis of financial markets and instruments, together with the quantitative tools essential for research in the field. The material will be presented in a discrete time setting and will stress the link between financial economics and equilibrium theory. Topics will include securities pricing in the absence of arbitrage, the theory of risk and utility in the basic portfolio problem, mean variance analysis and the CAPM, the Martingale properties of security prices, restricted participation, asymmetric information, and recent research results. Prerequisite: ECON 802 or consent of instructor. LEC.

ECON 870. Applied Microeconomics. 3 Hours.
This course introduces students to the data and empirical methods used in the fields of applied economics such as labor economics, public finance, and industrial organization. The course will focus on how to adjust for self-selection and identify causal relationships in applied microeconomics fields. Topics covered include economic data and statistical programming, instrumental variables, difference-in-differences, regression discontinuity, count data, sample selection, treatment effects, and duration models. Attention will be given to the suitability of the methods to the research question under consideration. Each topic will emphasize the proper application of the methods using the standard textbook treatment as well as assigned papers that examine the basic economic issues, the econometric techniques, and the applications to data. Prerequisite: ECON 817 and ECON 818, or consent of instructor. ECON 915 is recommended. LEC.

ECON 880. Selected Topics in Economic Theory. 1-3 Hours.
An advanced course in economic theory that will study selected topics in economic theory such as consumer theory, linear economics, decision theory, stability of economic equilibrium, comparative statics, etc. Prerequisite: Consent of instructor. LEC.

ECON 899. Master’s Thesis. 1-10 Hours.
THE.

ECON 901. Advanced Economic Theory I. 3 Hours.
Advanced study of current general equilibrium analysis, the mathematical tools involved in such analysis, and some applications to other branches of economic theory. Prerequisite: ECON 802 and ECON 810. LEC.

ECON 902. Advanced Economic Theory II. 3 Hours.
A continuation of the advanced study of general equilibrium analysis. Prerequisite: ECON 901. LEC.

ECON 910. Economic Theory Seminar-Workshop. 1-3 Hours.
This seminar-workshop is designed to study advanced research topics in the areas of microeconomic and macroeconomic theory, and also provide assistance in the preparation and development of the dissertations of Ph.D. candidates in these areas of specialization. LEC.

ECON 911. Applied Macroeconomics. 3 Hours.
An advanced exploration of the microeconomic foundations of macroeconomics, neoclassical macroeconomics with and without money, Keynesian and neo-Keynesian macroeconomics, and economic stabilization, inflation, and unemployment. Prerequisite: ECON 802 and ECON 810. LEC.

ECON 912. Advanced Macroeconomics. 3 Hours.
An analysis of economic policy in dynamic economic models. The effects of various policies on the equilibrium, stability, and adjustment paths of the models will be considered. Both open and closed economies will be analyzed. Prerequisite: ECON 810. MATH 320 is recommended. LEC.

ECON 913. Monetary Economics. 3 Hours.
This course examines how money, monetary policy, and monetary institutions influence the macroeconomy. Modern theories of money demand are presented and critiqued. The function of commercial banks, non-bank financial intermediaries, and central banks in the money supply process is addressed. Interrelationships between the tools, the instruments, the operating procedures, the intermediate targets, and the goals of policy are examined. Additional topics may include the monetary transmission mechanism, the effect of uncertainty on optimal policy decisions, the rules versus discretion debate, the monetary implications of fiscal policy, the term structure of interest rates, the causes and consequences of bank runs and financial panics, and the optimal method of constructing weighted monetary aggregates. Prerequisite: ECON 811 or consent of instructor. LEC.

ECON 915. Advanced Econometrics I. 3 Hours.
The study of selected topics in applied cross-section econometrics for uses mainly in applied microeconomics, public finance, and labor economics. Topics include traditional econometrics of production and demand, latent variable models, panel data studies, probabilistic choice models, censored and truncated models, sample selection, disequilibrium models, duration studies, and semi- and non-parametric models. Prerequisite: ECON 818, or consent of instructor. LEC.

ECON 916. Advanced Econometrics II. 3 Hours.
A study of selected topics in applied time-series econometrics for use mainly in applied macroeconomics, international finance, and development economics. Topics include empirical applications of ARCH models, VAR models (study of impulse response function and variance decomposition), unit-root cointegration and long memory models. Bayesian unit root analysis, estimation and inference of dynamic general equilibrium models, model calibration and simulation are also possible topics of this course. Prerequisite: ECON 818, or consent of instructor. LEC.

ECON 917. Advanced Econometrics III. 3 Hours.
A study of structural and nonlinear time series approaches to econometric modeling and inference. The course emphasizes techniques needed to use economic theory in system-wide econometrics. Emphasis is placed
on selection of functional form for approximation to theoretical functions and the use of duality theorems for derivation of the resulting econometric systems of equation. Inference with those models will be by nonlinear parametric, semi-parametric, and nonparametric methods. Prerequisite: ECON 818. LEC.

**ECON 918. Financial Economics. 3 Hours.**
This course is designed to provide a variety of new econometric tools useful to investigate financial data. It discusses how to measure and forecast financial volatility using models such as Stochastic Volatility, multivariate GARCH, and Dynamic Conditional Correlation models. It also covers Dynamic Factor models and State Space models, which can be used in many financial data analyses. The course will be particularly helpful for the students preparing dissertations in the field of finance, macro-finance, monetary economics, international finance, and development economics. It will also benefit the students interested in more practical use of tools in the field such as financial risk management, insurance, and commercial banking. Prerequisite: ECON 818. ECON 916 is recommended. LEC.

**ECON 920. Econometrics Seminar-Workshop. 1-3 Hours.**
This seminar-workshop is designed to study advanced research topics in the area of econometric theory and application, and also provide assistance in the preparation and development of the dissertations of Ph.D. candidates in this area of specialization. LEC.

**ECON 925. Economic Dynamics. 3 Hours.**
A study of the concepts of equilibrium and stability in various economic frameworks; static economies, changing economies, and disaggregated and aggregated economies. Prerequisite: ECON 802. LEC.

**ECON 930. Economic History Seminar-Workshop. 1-3 Hours.**
This seminar-workshop is designed to study advanced research topics in the area of economic history, and also provide assistance in the preparation and development of the dissertations of Ph.D. candidates in this area of specialization. LEC.

**ECON 940. Economic Seminar-Workshop in: ____. 1-3 Hours.**
This seminar-workshop is designed to study advanced research topics in the specified area of applied economics (public finance, monetary analysis, environment-energy, economic growth and development, urban economics, health care economics, natural resources, labor-manpower, international trade and finance, comparative economic systems, Soviet economics), and also provide assistance in the preparation and development of the dissertations of Ph.D. candidates in a specific area of applied economics. LEC.

**ECON 950. Special Problems in Economics. 1-3 Hours.**
LEC.

**ECON 955. Advanced Topics in Natural Resources. 3 Hours.**
Rigorous analysis of an Arrow-Debreu economy with natural resources and extensions (including optimal growth, planning procedures, and uncertainty). Investigation of current research topics in theoretical and applied resource economics. Required course for Ph.D. candidates writing dissertations in natural resources. Prerequisite: Consent of instructor. ECON 927 recommended. RSH.

**ECON 970. Advanced Labor Economics. 3 Hours.**
A survey of recent labor economics research. Topics include labor supply and demand, human capital investment, and unemployment. Prerequisite: ECON 770. LEC.

**ECON 999. Doctoral Dissertation. 1-10 Hours.**
THE.

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**Bachelor of Arts and Bachelor of General Studies in Economics**

**Why study economics?**
Because it will give you the tools you need to understand our increasingly interconnected world.

**Economics Majors**
The economics department offers 3 degrees.

- The B.A. or B.G.S. major in economics is designed for the majority of students who will go on to professional graduate schools or into the work force.
- The Bachelor of Science degree in economics is designed for the student interested in going to graduate school in economics or a closely related field. It requires the minimum amount of preparation in economics and mathematics required to be successful in graduate study. Students interested in pursuing a Ph.D. in economics are strongly urged to double major in economics and mathematics.

**First- and Second-Year Preparation**
Students considering an economics major should enroll in ECON 142 (or ECON 143) Principles of Microeconomics or ECON 144 (or ECON 145) Principles of Macroeconomics no later than the end of the sophomore year. Students should also have completed at least 1 course in the calculus sequence (MATH 115 or MATH 121) by the end of the sophomore year.

**Requirements for the B.A. or B.G.S. Major**

**Economics Core Knowledge and Skills (15)**
Majors must complete a course in each of the following areas:

- Principles of Microeconomics. Satisfied by:
  - ECON 142
  - or ECON 143

- Principles of Macroeconomics. Satisfied by:
  - ECON 144
  - or ECON 145

**Microeconomics. Satisfied by:**
- ECON 520
- or ECON 521

**Macroeconomics. Satisfied by:**
- ECON 522
- or ECON 523

**Introduction to Econometrics. Satisfied by:**
- ECON 526
- or ECON 715

**Economics Required Electives (6)**
Majors must complete 2 courses (6 hours) in economics outside of the core courses at the 500-level or above.

**Economics Required Capstone Elective Courses (9)**
Majors must complete 3 courses (9 hours) in economics outside of the core courses at the 600-level or above.
Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 30 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major. (At least 3 of the required elective courses must be taken from the KU Department of Economics.)

Major Junior/Senior Hours
Satisfied by a minimum of 24 hours from junior/senior courses (300+) in the major. At least 9 hours of the required elective courses must be taken from the KU Department of Economics.)

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/ Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Major Junior/Senior Major Attempts
Summary includes American Studies junior/senior (300+) hours attempted, including F's and incompletes.

Graduation Plan

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please work with your major advisor to discuss a 4-year plan for economics.

Departmental Honors

Graduation with honors in economics is limited to undergraduate majors who have fulfilled these requirements:

1. Completed all economics major requirements and achieved a grade-point average of 3.5 or above in all economics courses and an overall average of 3.25 or above at the time of graduation.
2. Completed ECON 497 Senior Research Honors.
3. Submitted and defended a research paper before at least 3 faculty members of the Department of Economics.

Honors candidates should consult the department honors coordinator before enrolling the first semester of the senior year and file a declaration of intent form with the coordinator at that time.

Bachelor of Science in Economics

Why study economics?

Because it will give you the tools you need to understand our increasingly interconnected world.

Economics Majors

The economics department offers 3 degrees.

- The Bachelor of Science degree in economics is designed for the student interested in going to graduate school in economics or a closely related field. It requires the minimum amount of preparation in economics and mathematics required to be successful in graduate study. Students interested in pursuing a Ph.D. in economics are strongly urged to double major in economics and mathematics.
- The B.A. or B.G.S. major in economics is designed for the majority of students who will go on to professional graduate schools or into the work force.

First- and Second-Year Preparation

Economics Prerequisite or Co-Requisite Knowledge

Majors must complete courses as specified in each of the following two areas. These hours do not contribute to the minimum number of hours required for the major.

College Algebra or Pre-Calculus (3)
Satisfied by:
- MATH 101 College Algebra 3
  or MATH 104 Precalculus Mathematics

Calculus I (5)
Satisfied by:
- MATH 121 Calculus I (Students may complete MATH 115 and MATH 116 prior to completing MATH 122.) 5

Calculus II (5)
Satisfied by:
- MATH 122 Calculus II 5

Vector Calculus (3)
Satisfied by:
- MATH 223 Vector Calculus 3
  or MATH 243 Vector Calculus, Honors

Elementary Linear Algebra (2)
Satisfied by:
- MATH 290 Elementary Linear Algebra 2
  or MATH 291 Elementary Linear Algebra, Honors

Statistics (3)
Satisfied by:
- MATH 526 Applied Mathematical Statistics I 3
  or DSCI 202 Statistics

Economics General Education Requirements

Written Communication - Core Skill and Critical Inquiry

Composition (0)
Satisfied by one of the following. Requirement must be completed during initial term of admission at KU.
- ENGL 101 Composition
- ACT English score of 27 or above or SAT English score of 600 or above
- AP English Literature & Composition score of 3 or above
  Equivalent transfer course

Critical Reading and Writing (0)
Satisfied by one of the following. Requirement must be completed within the first academic year at KU.
ENGL 102  Critical Reading and Writing
or ENGL 105  Freshman Honors English

AP English Literature & Composition score of 4 or above
Equivalent transfer course

Sophomore Reading and Writing II (0)
Satisfied by:
ENGL 203  Topics in Reading and Writing: _____
or ENGL 205  Freshman-Sophomore Honors Proseminar: _____
ENGL 209  Introduction to Fiction
ENGL 210  Introduction to Poetry
ENGL 211  Introduction to the Drama

AP English Literature & Composition score of 5 or above
Equivalent transfer course

Western Civilization - Exploration of One's Own and Diverse Culture.
(Advising Alert: Requires sophomore-level standing. Courses at other universities may have the same title but may not meet this requirement.)

Western Civilization I - Ancient, Medieval & Early Modern Periods of Western Civilization (3)
Satisfied by:
HWC 204  Western Civilization I  3
or HWC 114  Western Civilization I Honors

Western Civilization II - Modern Western Civilization (3)
Satisfied by:
HWC 205  Western Civilization II  3
or HWC 115  Western Civilization II Honors

Humanities - Understanding the Human Condition. Satisfied by completing 3 courses at least 1 of the following categories: historical studies (requirement code HT), literature and the arts (requirement code HL), and philosophy and religion (requirement code HR). Approved courses may be searched for availability through the Kyou portal.

Social and Behavioral Sciences - Understanding Society and Behavior. Satisfied by completing 3 courses at least one in 1 of the following categories: individual behavior (requirement code SI), culture and society (requirement code SC), or public affairs (requirement code SF). Approved courses may be searched for availability through the Kyou portal.

Natural Science & Mathematics - Understanding the Natural World.
Satisfied by completing 1 course in 3 of the 4 requirement codes: biological sciences (requirement code NB), earth sciences (requirement code NE), mathematical sciences (requirement code NM), and physical sciences (requirement code NP). Approved courses may be searched for availability through the Kyou portal. The purpose of this requirement is to expose students to several disciplines in an effort to help them make informed choices regarding potential majors or minors. Principal courses should be completed early in the curriculum.

Requirements for the B.S. Degree

Economics Core Knowledge and Skills (18)
Majors must complete a course in each of the five following areas:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 142</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 143</td>
<td>Principles of Microeconomics, Honors</td>
<td></td>
</tr>
<tr>
<td>ECON 144</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 145</td>
<td>Principles of Macroeconomics, Honors</td>
<td></td>
</tr>
</tbody>
</table>

Graduation with honors in economics is limited to undergraduate majors who have fulfilled these requirements:

1. Completed all economics major requirements and achieved a grade-point average of 3.5 or above in all economics courses and an overall average of 3.25 or above at the time of graduation.
2. Completed ECON 497 Senior Research Honors.
3. Submitted and defended a research paper before at least 3 faculty members of the Department of Economics.

Honors candidates should consult the department honors coordinator before enrolling the first semester of the senior year and file a declaration of intent form with the coordinator at that time.

Departmental Honors

ECON 700  Survey of Microeconomics  3
or ECON 715  Elementary Econometrics  3

Economics Required Electives (18)
Majors must complete 6 courses (18 hours) in economics outside of the core courses at the 500-level or above.

1  ECON 700 and ECON 715 are offered only in the fall semester

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 36 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major. (At least 3 of the required elective courses must be taken from the KU Department of Economics.)

Major Junior/Senior Hours
Satisfied by a minimum of 24 hours from junior/senior courses (300+) in the major. (At least 9 hours of the required elective courses must be taken from the KU Department of Economics.)

Economics Required Electives (18)
Minor in Economics

Why study economics?

Because it will give you the tools you need to understand our increasingly interconnected world.

Requirements for the Minor

Economics Minor Course Requirements (6)

Students selecting this minor must complete courses as specified in each of the following areas:

College Algebra or Pre-Calculus Prerequisite. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 105</td>
<td>Introduction to Topics in Mathematics</td>
</tr>
<tr>
<td>MATH 111</td>
<td>Matrix Algebra, Probability, and Statistics</td>
</tr>
<tr>
<td>MATH 115</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH 121</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH 365</td>
<td>Elementary Statistics</td>
</tr>
<tr>
<td>BIOL 570</td>
<td>Introduction to Biostatistics</td>
</tr>
</tbody>
</table>

AP Calculus (AB or BC) score of 3 or above

AP Statistics score of 3 or above

Equivalent transfer course

Principles of Microeconomics. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 142</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>ECON 143</td>
<td>Principles of Microeconomics, Honors</td>
</tr>
</tbody>
</table>

Principles of Macroeconomics. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 144</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>ECON 145</td>
<td>Principles of Macroeconomics, Honors</td>
</tr>
</tbody>
</table>

Economics Required Electives. Majors must complete 4 ECON courses (12 hours) at the junior/senior level (300+).

Minor Hours & Major GPA

While completing all required courses, minors must also meet each of the following hour and grade-point average minimum standards:

**Minor Hours**

Satisfied by 18 hours of minor courses.

**Minor Junior/Senior (300+) Hours in Residence**

Satisfied by a minimum of 9 hours of junior/senior (300+) resident credit in the minor.

**Minor Junior/Senior Hours**

Satisfied by a minimum of 12 hours of junior/senior courses (300+) in the minor.

**Minor Graduation GPA**

Satisfied by a minimum of a 2.0 KU GPA in all department courses in the minor. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Master of Arts in Economics

Financial Aid

Visit the Graduate Studies website for information about funding opportunities (http://www.graduate.ku.edu/funding-opportunities) for graduate students at KU.

Financial Aid and Scholarships (http://affordability.ku.edu/steps/index.shtml) administers grants, loans, and need-based financial aid.

Facilities and Services

In addition to KU computing and library facilities, students in the M.A. and Ph.D. programs may use the department's computer laboratory, which provides access to a variety of databases and econometric software packages useful for economics research.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

Applicants to the M.A. and M.A./J.D. programs should have taken a minimum of 2 courses in calculus (6 to 10 semester hours) and a statistics course. Students with little background in economics may be advised to take ECON 520 Microeconomics and/or ECON 522 Macroeconomics and/or ECON 526 Introduction to Econometrics as preparation for M.A. courses. ECON 520, ECON 522, and ECON 526 do not count toward completion of M.A. degree requirements.

Applications submitted before May 1 receive first consideration for fall or summer admission. Applications submitted before November 1 receive first consideration for spring admission.

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the department:

**The University of Kansas**
**Department of Economics**
**Graduate Secretary**
**Snow Hall**
**1460 Jayhawk Blvd., Room 415**
**Lawrence, KS 66045-7514**

English Proficiency and Test of English as a Foreign Language or International English Language Testing System Scores

An applicant who has graduated with a baccalaureate degree or higher from an accredited institution of higher education in the U.S., U.K., Australia or Canada (excepting Quebec) automatically meets the English
language proficiency requirement. All other students whose native language is not English are required to provide evidence of English language proficiency. The university accepts TOEFL and IELTS scores. The required scores are listed below.

<table>
<thead>
<tr>
<th>Test</th>
<th>Required Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOEFL (paper)</td>
<td>All part scores at least 53</td>
</tr>
<tr>
<td>TOEFL (CBT)</td>
<td>All part scores at least 20</td>
</tr>
<tr>
<td>TOEFL (IBT)</td>
<td>Reading, Listening, and Writing part scores at least 20 5.5</td>
</tr>
<tr>
<td>IELTS</td>
<td>Minimum overall score 6.0 with no part score below</td>
</tr>
</tbody>
</table>

M.A. Degree Requirements

The Master of Arts degree program serves students with little previous background in economics as well as students who majored in economics as undergraduates. The program provides maximum flexibility for students to pursue their own special interests.

Candidates for the M.A. degree must complete a minimum of 30 semester hours of graduate work, including 9 hours of required core classes (ECON 700, ECON 701, ECON 715). At least 18 hours, including the required core courses, must be in economics; but students may take up to 12 hours in related areas, such as business administration, computer science, political science, or mathematics, subject to the approval of the M.A. advisor. No more than 9 hours of economics classes may be taken at the 500 and 600 levels. At initial enrollment, each candidate must discuss a preliminary plan of study with his or her graduate advisor. This plan may be revised over time.

Thesis and Nonthesis Options

Candidates may pursue either a thesis or a nonthesis track. Students electing the thesis track must complete 24 hours of formal course work and 6 hours of thesis under the direction of a thesis supervisor. This work is to be devoted to the completion of a satisfactory thesis. An oral examination is held on completion of the thesis. Students electing the nonthesis track must complete 30 hours of formal course work.

Written Comprehensive Examination

All candidates for the M.A. degree, including students enrolled in the M.A./J.D. program, must demonstrate proficiency in the application of economic theory through a written examination taken during the last semester of enrollment.

Plan of Study

Most M.A. students complete the program in 2 academic years. Unless they must complete prerequisites, new M.A. students enroll in ECON 700 Survey of Microeconomics and ECON 715 Elementary Econometrics and 1 elective during the first fall semester. In the first spring semester, M.A. students enroll in ECON 701 Survey of Macroeconomics and 2 electives. Enrollments in subsequent semesters are electives until 30 credit hours are complete.

M.A.-J.D. Degree Program

Why study economics?

Because it will give you the tools you need to understand our increasingly interconnected world.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

M.A.-J.D. Degree Program

In this program a student can earn both the Juris Doctor (p. 760) and the Master of Arts in economics in 3 years and 1 summer session. The requirements for the combined degree are as follows:

1. Admission to the M.A.-J.D. degree program must be approved by the School of Law (http://www.law.ku.edu), the Department of Economics (http://www.economics.ku.edu), and the College of Liberal Arts and Sciences (http://clas.ku.edu).
2. The program requires 100 credit hours of course work, of which 82 hours must be completed in the law school and 18 hours in the Department of Economics. The department gives credit toward the M.A. degree for 12 hours of pertinent work in the law school, and the law school counts 8 credit hours in economics toward the J.D. degree. The 8 hours of economics courses that count toward the J.D. degree can be chosen from certain courses numbered 500-799 and from all 800-900 level courses. Prerequisites continue to apply, as does the requirement that all students seeking the M.A. degree must have taken several foundation courses that do not count toward a graduate degree in economics: microeconomics, macroeconomics, and calculus. In addition, ECON 700, ECON 701, and ECON 715 must be included in the M.A. program. The student takes only law classes the first year and spreads out the 18 hours of credit in economics in the following semesters (e.g., one course per semester).
3. The M.A.-J.D. degree is a nonthesis degree in economics. A written comprehensive examination in economics is required of all candidates for the M.A.-J.D. degree.

Doctor of Philosophy in Economics

Financial Aid

Financial aid may be awarded in the form of Graduate Teaching Assistantships or Graduate Research Assistantships. First consideration for financial aid is given to applications received before February 1. To be considered for GTAs, international students must include a score from the Test of Spoken English or a TOEFL-iBT examination that includes a speech component. A minimum iBT speaking score of 24 or an IELTS speaking score of 8 or a score of 50 on the TSE or SPEAK tests.

Visit the Graduate Studies website for information about funding opportunities (http://www.graduate.ku.edu/funding-opportunities) for graduate students at KU.
Financial Aid and Scholarships (http://affordability.ku.edu/steps/index.shtml) administers grants, loans, and need-based financial aid.

Facilities and Services

In addition to KU computing and library facilities, students in the M.A. and Ph.D. programs may use the department's computer laboratory, which provides access to a variety of databases and econometric software packages useful for economics research.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

Applicants to the Ph.D. program should have taken 3 courses in calculus (12 to 15 semester hours) and a course in linear algebra.

Applications submitted before February 1 receive first consideration for financial aid for fall admission. Applications may continue to be submitted until May 1 for fall admission. Applications submitted before November 1 receive first consideration for spring admission.

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the department:

The University of Kansas
Department of Economics
Graduate Secretary
Snow Hall
1460 Jayhawk Blvd., Room 415
Lawrence, KS 66045-7514

Students whose native language is not English usually have difficulty in the program unless their English is excellent. The university accepts TOEFL and IELTS scores. The required scores are listed below.

<table>
<thead>
<tr>
<th>TOEFL (paper)</th>
<th>TOEFL (CBT)</th>
<th>TOEFL (IBT)</th>
<th>IELTS</th>
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</thead>
<tbody>
<tr>
<td>All part scores at least 53</td>
<td>All part scores at least 20</td>
<td>Reading, Listening, and Writing part scores at least 20</td>
<td>Minimum overall score 6.0 with no part score below 5.5</td>
</tr>
</tbody>
</table>

Ph.D. Degree Requirements

Course Requirements

In addition to meeting general requirements, the Ph.D. candidate in economics must complete a minimum of 54 credit hours of course work, at least 48 of which must be in economics.

1. All Ph.D. candidates must complete these core courses in economic theory and quantitative methods:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 800</td>
<td>Optimization Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>ECON 801</td>
<td>Microeconomics I</td>
<td>3</td>
</tr>
<tr>
<td>ECON 802</td>
<td>Microeconomics II</td>
<td>3</td>
</tr>
<tr>
<td>ECON 809</td>
<td>Optimization Techniques II</td>
<td>3</td>
</tr>
<tr>
<td>ECON 810</td>
<td>Macroeconomics I</td>
<td>3</td>
</tr>
<tr>
<td>ECON 811</td>
<td>Macroeconomics II</td>
<td>3</td>
</tr>
<tr>
<td>ECON 817</td>
<td>Econometrics I</td>
<td>3</td>
</tr>
<tr>
<td>ECON 818</td>
<td>Econometrics II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 727</td>
<td>Probability Theory</td>
<td>3</td>
</tr>
<tr>
<td>MATH 728</td>
<td>Statistical Theory</td>
<td>3</td>
</tr>
</tbody>
</table>

2. Course work beyond these required core courses is a matter of choice for the student in consultation with his or her graduate advisor. The graduate advisor develops a program to assist the student in specialized interests. Each program must include a sufficiently broad range of topics in economics to prepare the student for comprehensive examinations.

Qualifying Examinations

Ph.D. degree aspirants must pass written qualifying examinations in microeconomics and macroeconomics after completion of the core courses in these areas, ordinarily at the beginning of the fourth semester of full-time study. A student who does not pass a qualifying examination may be permitted 1 retake, ordinarily at the end of the fourth semester of full-time study.

Fields of Specialization

Each student must demonstrate competence in at least 2 fields of specialization in economics by completing 2 courses in each of these areas. Current fields of specialization include financial economics, economic development, industrial organization, international economics, labor economics, econometrics, economic history, economic theory, and macroeconomics.

Seminar-Workshops and Responsible Scholarship

Beginning in the third year of the program, each student must enroll in ECON 910 and attend the weekly department seminars for 6 continuous semesters. Every doctoral student is required to have training in responsible scholarship pertinent to economics research. Each semester there will be a 90-minute seminar on this topic led by either a faculty member or a visiting speaker.

Third-Year Paper

Each student must complete a third-year seminar paper. This would typically be in one of the fields of specialization. Usually the third-year paper becomes part of the student’s doctoral dissertation.

Comprehensive Oral Examination

Upon completion of most of the course work and other requirements for the doctoral degree, inclusive of research skills and residence requirements, the student must prepare a dissertation proposal under the direction of a thesis advisor and pass a comprehensive oral examination related to the dissertation proposal.
Dissertation

Following the comprehensive oral examinations, the candidate must organize and write a dissertation on his or her chosen topic under the supervision of a dissertation committee.

Final Oral Examination

The candidate must defend the dissertation successfully in a final oral examination.

Plan of Study

Year 1

<table>
<thead>
<tr>
<th></th>
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<th>Hours</th>
<th>Spring</th>
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Year 2

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Year 3

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Year 4

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<th>Spring</th>
<th>Hours</th>
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<tbody>
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<td>Elective/Specialization</td>
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<tr>
<td>Elective/Specialization</td>
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<td>ECON 999</td>
<td>6-9</td>
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<td>ECON 999</td>
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<td></td>
<td>7-12</td>
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</table>

Total Hours: 66-78

1 If needed.

Department of English

Why study English language and literature?

Because reading and writing shape the world.

KU’s English Department is at the core of the humanities, highlighting the “human” through our individual, one-on-one interactions with our students, our emphasis on community and global engagement, and our abiding interest in our shared humanity through the stories of others. We seek to challenge the mind and to engage the imagination of our students, to teach them to ask questions and to seek for answers. We encourage them to grapple with the complexity of a culturally and commercially interconnected world and the global networks and processes of cultural exchange. We believe that words and ideas will shape the world. We teach our students life-long skills, so that they learn to write clearly, creatively, and effectively—discovering themselves even as they lay a solid foundation for professional success.

A commitment to teaching and learning.

Our department is renowned for its tradition of excellence in teaching. The vast majority of our undergraduate classes have 20-35 students, and much of the class time is dedicated to active learning and engagement with texts and ideas. In the last ten years, faculty members in the department of English have won ten Kemper Fellowships for Excellence in Teaching, two Chancellors Club Teaching Professorships, a Career Achievement Teaching Award, and a wide variety of other university-level teaching and advising awards, and the department as a whole received the Center of Teaching Excellence (CTE) award for Department Excellence in Teaching at the University of Kansas.

A variety of career and life paths.

English students at all levels graduate to a variety of careers, including law, teaching, scholarship, publishing, library science, and journalism—as well as medicine, politics, design, and any number of other fields that value clear communication, interpretive skill, and critical and creative thinking.

Engaged and innovative scholarship.

KU’s English Department has several core strengths that cross tracks and periods, including Global and Cross-Cultural Approaches; Literature, Rhetoric, and Social Action; Diversity Studies; Language, Literature and Science; and Popular Expressive Forms.

In the KU English Department, students work closely with nationally-renowned writers and researchers. Our faculty have won national awards that recognize excellence in research, including grants from the National Endowment for the Humanities, the American Philosophical Society, and the Newberry Library, among others. English Department faculty members have also received major research funding from the University of Kansas, including the Hall Center for the Humanities Research fellowships and Keeler Intra-University Fellowships for interdisciplinary work. Undergraduate students can work one-on-one with faculty mentors in the Honors Program, McNair Scholars Program, and Dean’s Scholars Program, as well as through independent Directed Studies. Advanced graduate students have the opportunity to work collaboratively with faculty members as research assistants.

Undergraduate Programs

The English major prepares undergraduates for engagement with the world through language by helping them

- to cultivate the craft of writing in a variety of rhetorical contexts,
- to read and interpret a broad range of texts,
- to develop and sustain critical arguments, and
- to produce independent research.

The major is crafted to ensure students’ familiarity with

- written forms and genres;
- a range of literary histories and writers;
- multiple regional and historical contexts of literature and language;
- the theories, methodologies, and terminology of English Studies; and
• the relationship between literature, language, and the larger culture.

Courses for Non-majors
Many English courses fulfill KU Core requirements; see catalog course listings for details. All students are encouraged to take a 200-level English course before enrolling in 300+ level English courses. For students following University requirements prior to Fall 2013, please consult the principal and non-Western course lists. English principal courses under the Literature and the Arts heading are designated HL. Prospective English teachers in the public schools should consult the requirements of the School of Education.

Transfer Credit
English undergraduate majors may take up to 6 hours out of residence with the prior approval of the Director of Undergraduate Studies.

Double Majors
Double majors within the College or dual-degree programs are encouraged.

Placement in English courses
In general, entering KU students should enroll in ENGL 101, with the following exceptions:

ACT English Scores:
• 31-36 — Enroll in ENGL 105. 1/2 of KU Core Goal 2.1 (Written Communication, 6 hours) complete; ENGL 102 or ENGL 105 + an additional KU Core Goal 2.1 course will fulfill CLAS BA-specific writing requirement.
• 27-30 — Enroll in ENGL 102 and petition for honors placement for possible admittance to ENGL 105. 1/2 of KU Core Goal 2.1 complete; ENGL 102 + an additional KU Core Goal 2.1 course will fulfill CLAS BA-specific writing requirement.
• 00-26 — Enroll in ENGL 101. ENGL 101 + ENGL 102 fulfill KU Core Goal 2.1 and CLAS BA-specific writing requirement.

SAT Verbal Scores:
• 650 or higher — Enroll in ENGL 105. 1/2 of KU Core Goal 2.1 complete; ENGL 105 + an additional KU Core Goal 2.1 course will fulfill CLAS BA-specific writing requirement.
• 600-649 — Enroll in ENGL 102 and petition for honors placement for possible admittance to ENGL 105. 1/2 of KU Core Goal 2.1 complete; ENGL 102 or ENGL 105 + an additional KU Core Goal 2.1 course will fulfill CLAS BA-specific writing requirement.
• 00-599 — Enroll in ENGL 101. ENGL 101 + ENGL 102 fulfill KU Core Goal 2.1 and CLAS BA-specific writing requirement.

Advanced Placement Scores — Literature and Composition Exam:
• AP 5 — Exemption from KU Core Goal 2.1 and from CLAS BA-specific writing requirement; 6 hours credit given.
• AP 4 — Enroll in ENGL 205; 3 hours of credit given. 1/2 of KU Core Goal 2.1 complete. ENGL 205 satisfies both KU Core Goal 2.1 and CLAS BA-specific writing requirement.
• AP 3 — Enroll in ENGL 105 or ENGL 102*. No credit is given for ENGL 101 or ENGL 102. 1/2 of KU Core Goal 2.1 complete; ENGL 102 or ENGL 105 + an additional KU Core Goal 2.1 course will fulfill CLAS BA-specific writing requirement.

Advanced Placement Scores — Language and Composition Exam:
• AP 4 or 5 — Enroll in ENGL 205; 3 hours of credit given. ENGL 205 satisfies both KU Core Goal 2.1 and CLAS BA-specific writing requirement.
• AP 3 — Enroll in ENGL 105 or ENGL 102*. No credit is given for ENGL 101 or ENGL 102. 1/2 of KU Core Goal 2.1 complete; ENGL 102 or ENGL 105 + an additional KU Core Goal 2.1 course will fulfill CLAS BA-specific writing requirement.

International Baccalaureate Scores:
• IB 6 or 7 — 6 hours of credit is given for ENGL 101 and ENGL 102. Exemption from KU Core Goal 2.1 and from CLAS BA-specific writing requirement; 6 hours credit given.
• IB 5 — Enroll in ENGL 102. 1/2 of KU Core Goal 2.1 complete; ENGL 102 or ENGL 105 + an additional KU Core Goal 2.1 course will fulfill CLAS BA-specific writing requirement.

*If you choose to take ENGL 102, you will need to petition if you want to enroll in ENGL 205 next. You could also choose to take ENGL 203, or ENGL 209, ENGL 210, or ENGL 211 for a second English course, or another KU Core Goal 2.1 course to fulfill the KU Core and the CLAS BA-specific requirements.

Graduate Programs
The department offers a full graduate program, leading to the Master of Arts (Literature, Literature & Literary Theory, Rhetoric & Composition, and English Language Studies), Master of Fine Arts in Creative Writing, and Doctor of Philosophy degrees with specializations in Literature, Composition and Rhetoric, and Creative Writing.

Courses
ENGL 50. Basic Writing Skills. 3 Hours. U.
A review of the basic skills of written English, with emphasis on sentence-level grammar. Recommended for all students who score 16 or below on the ACT English test. May be repeated for credit. LEC.

ENGL 101. Composition. 3 Hours. GE21 / U.
Instruction and practice in writing in a variety of rhetorical contexts, including academic ones. LEC.

ENGL 102. Critical Reading and Writing. 3 Hours. GE21 / U.
Builds upon the instruction in writing of ENGL 101, emphasizing critical thinking through careful, thoughtful reading and writing. Also instructs in the evaluation and use of secondary sources. Prerequisite: Completion of ENGL 101 or its equivalent, or an ACT score of 27-31, or an SAT score of 600-649, or an AP exam score of 3 on either the Literature and
ENGL 105. Freshman Honors English. 3 Hours. GE21 / U.
Study of significant works of world literature. The primary aims are to
develop reading and writing skills and to introduce the students to
works of literature drawn from a variety of genres and historical periods.
Prerequisite: An ACT score of 31-36, or an SAT score of 650 or higher,
or an AP exam score of 3 on either the Literature and Composition exam
or the Language and Composition exam, or membership in the University
Honors Program. LEC.

ENGL 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing
current issues in English. Course is designed to meet the critical
thinking learning outcome of the KU Core. First-Year Seminar topics
are coordinated and approved by the Office of First-Year Experience.
Prerequisite: First-time freshman status. LEC.

ENGL 200. Study Abroad Topics in: _____. 1-6 Hours. H.
This course is designed for the study of special topics in English.
Coursework is completed through a KU study abroad program. Available
only to KU study abroad participants. May be repeated for credit if
content varies. Does NOT fulfill any part of the Freshman-Sophomore
requirement. LEC.

ENGL 203. Topics in Reading and Writing: ____. 3 Hours. GE11/
GE21/GE3H / H.
In-depth reading and writing on a significant topic, theme, or genre.
Includes a variety of textual types or a range of historical periods.
Continued practice in critical reading and writing. May include but will not
be limited to writing in literary genres. Prerequisite: Completion of ENGL
101 and ENGL 102, or their equivalent. LEC.

ENGL 205. Freshman-Sophomore Honors Proseminar: ____. 3
Hours. GE11/GE21/GE3H / H.
Study of a major movement, topic, or theme in literature and culture.
The primary aims are to further develop reading and writing skills and to
consider significant cultural and artistic issues. Prerequisite: ENGL 105 or
an AP exam score of 4 on either the Literature and Composition exam or
the Language and Composition exam. LEC.

ENGL 209. Introduction to Fiction. 3 Hours. GE11/GE21/GE3H / H.
In-depth reading of and writing about prose fiction with emphasis on
critical analysis of a variety of narrative types from different historical
periods. Prerequisite: Completion of ENGL 101 and ENGL 102, or their
equivalent. LEC.

ENGL 210. Introduction to Poetry. 3 Hours. GE11/GE21/GE3H / H.
In-depth reading of and writing about poetry with emphasis on critical
analysis of a variety of forms and techniques used in poems from different
historical periods. Prerequisite: Completion of ENGL 101 and ENGL 102, or their
equivalent. LEC.

ENGL 211. Introduction to the Drama. 3 Hours. GE11/GE21/GE3H / H.
Study of plays selected to familiarize the student with dramatic
masterpieces and with the drama as a literary type. Prerequisite:
Completion of ENGL 101 and ENGL 102, or their equivalent. LEC.

ENGL 300. The Bible, the Classics, and Modern Literature. 3 Hours.
H.
An introduction to the nature and function of literature, emphasizing
Biblical, Classical, and other major cultural traditions and their influence
on British and American literature. Some ancient and modern works will
be studied in conjunction. Prerequisite: Prior completion of the KU Core
Written Communication requirement. Recommended: Prior completion of
one 200-level English course. LEC.

ENGL 301. Topics in British Literature to 1800: ____. 3 Hours. H.
Study of British literary works before 1800. Topics may focus on a
particular genre, theme, topic, historical period, author, or group of
authors. May be repeated for credit as the topic changes. Prerequisite:
Prior completion of the KU Core Written Communication requirement.
Recommended: Prior completion of one 200-level English course. LEC.

ENGL 302. Topics in British Literature Since 1800: ____. 3 Hours. H.
Study of British literary works since 1800. Topics may focus on a
particular genre, theme, topic, historical period, author, or group of
authors. May be repeated for credit as the topic changes. Prerequisite:
Prior completion of the KU Core Written Communication requirement.
Recommended: Prior completion of one 200-level English course. LEC.

ENGL 305. World Indigenous Literatures. 3 Hours. NW AE42 / H.
A survey of contemporary world indigenous literatures that includes
those from North America, Australia, New Zealand, the South Pacific, the
Arctic, and Latin America. Texts are in English (original or translation).
Genres studied include the novel, poetry, and drama, supplemented by
works from the oral tradition, the visual arts, and film. (Same as ISP 305.)
Prerequisite: Prior completion of the KU Core Written Communication
requirement. Recommended: Prior completion of one 200-level English
course. LEC.

ENGL 306. Global Environmental Literature. 3 Hours. H.
An examination of a variety of literary and other representations of human
and non-human environments and environmentalism. Particular attention
will be paid to how race, gender, class, sexuality, and geography produce
and are produced by these representations. Prerequisite: Prior completion
of the KU Core Written Communication requirement. Recommended:
Prior completion of one 200-level English course. LEC.

ENGL 308. Introduction to Literary Criticism and Theory. 3 Hours.
GE3H / H.
Study of significant problems in literary interpretation and methodology,
in which basic critical principles and approaches are systematically
examined and applied. These approaches might include, but are not
limited to, feminism, Marxism, deconstruction, psychoanalysis, and
cultural studies. Prerequisite: Prior completion of the KU Core Written
Communication requirement. Recommended: Prior completion of one
200-level English course. LEC.

ENGL 309. The British Novel. 3 Hours. HL / H.
Study of five or more significant novels representative of developments
in the British novel of the eighteenth, nineteenth, and twentieth centuries.
Prerequisite: Prior completion of the KU Core Written Communication
requirement. Recommended: Prior completion of one 200-level English
course. LEC.

ENGL 310. Literary History I. 3 Hours. H.
A study of literature in English, including major forms and movements,
from the medieval period to Romanticism. Prerequisite: Prior completion
of the KU Core Written Communication requirement. Recommended:
Prior completion of one 200-level English course. LEC.

ENGL 312. Major British Writers to 1800. 3 Hours. H.
Outstanding works of British literature, from the earliest times to the close
of the eighteenth century, studied in chronological sequence and with
some attention to the characteristics of the various periods of English
literary history embraced. Prerequisite: Prior completion of the KU Core
Written Communication requirement. Recommended: Prior completion of
one 200-level English course. LEC.

ENGL 314. Major British Writers after 1800. 3 Hours. H.
Outstanding works of British literature, from 1800 to the present, studied
in chronological sequence and with some attention to the characteristics
of the various periods of English literary history embraced. Prerequisite:
Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

**ENGL 315. Studies in British Literature. 3 Hours. HL AE42 / H.**
For students enrolled in the annual summer Study Abroad program, an interdisciplinary program conducted with other humanities departments. British literature is studied in the context of visits to relevant sites such as London, the Lake District, and Edinburgh. Prerequisite: Prior completion of the KU Core Written Communication requirement. Approval for enrollment in the Summer Institute through the Study Abroad office is required. Recommended: Prior completion of one 200-level English course. LEC.

**ENGL 316. Introduction to Major American Writers. 3 Hours. H.**
Outstanding works of American literature, studied in chronological sequence and with some attention paid to the characteristics of the various periods of American literary history embraced. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

**ENGL 317. Topics in American Literature to 1865: ______. 3 Hours. H.**
Study of American literary works before 1865. Topics may focus on a particular genre, theme, topic, historical period, author, or group of authors. May be repeated for credit as the topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

**ENGL 318. Topics in American Literature Since 1865: ______. 3 Hours. H.**
Study of American literary works since 1865. Topics may focus on a particular genre, theme, historical period, author, or group of authors. May be repeated for credit as the topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

**ENGL 320. American Literature I. 3 Hours. H.**
From the beginnings to 1865, with emphasis on the major writers and movements. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

**ENGL 322. American Literature II. 3 Hours. H.**
From 1865 to the present, with emphasis on the major writers and movements. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

**ENGL 323. Twentieth Century Literature and Culture. 3 Hours. H.**
The study of British and American literature, emphasizing important figures and movements since World War I. On occasion, the study of literature will be enriched with an investigation of other arts, such as music, film, and painting. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

**ENGL 324. Contemporary Authors: ______. 3 Hours. H.**
Study of one or more recent British and/or American authors. (Different authors in different semesters.) May be repeated for credit as the topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

**ENGL 325. Recent Popular Literature. 3 Hours. HL / H.**
Study of recent best sellers or other works of popular interest. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

**ENGL 326. Introduction to African Literature. 3 Hours. NW AE42 / H.**
Reading, analysis, and discussion of contemporary fiction, poetry, and drama from sub-Saharan Africa. Brief attention is paid to historical development and to traditional literature. (Same as AAAS 332.) Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

**ENGL 327. Studies in Twentieth-Century Drama: ______. 3 Hours. H.**
A survey of major twentieth-century playwrights and theatre groups, to be selected by the instructor. May be repeated for credit as the topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

**ENGL 328. Literature and Film: ______. 3 Hours. H.**
The comparative study of the literary and film treatments of a particular topic or theme, with special attention to the generic qualities of literature and film. May be repeated for credit as the topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

**ENGL 330. Literary History II. 3 Hours. H.**
A study of literature in English, including major forms and movements, from the Romantics to the present. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

**ENGL 331. Chaucer. 3 Hours. H.**
Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

**ENGL 332. Shakespeare. 3 Hours. H.**
A study of ten to fourteen of Shakespeare’s plays. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

**ENGL 333. Major Authors: ______. 3 Hours. H.**
Study of one or two major British and/or American authors. Different authors in different semesters. May be repeated for credit as the topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

**ENGL 336. Jewish American Literature and Culture. 3 Hours. AE41 / H.**
An examination of Jewish American literature and culture from the 18th century to the present. Materials may include a broad range of literary genres as well as folklore, music, film, and visual art. (Same as JWSH 336.) Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

**ENGL 337. Introduction to U.S. Latino/a Literature. 3 Hours. AE41 / H.**
An historical survey of literature by U.S. Latino/a writers of Mexican, Puerto Rican, Cuban, Dominican, and Central/South American descent. Various genres, including oral forms such as corridos as well as novels, poetry, essays, and autobiographical writing, will be considered. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.
ENGL 338. Introduction to African-American Literature. 3 Hours. AE41 / H.
An introduction to prominent works of African-American literature from the 18th century to the present as well as to the basic approaches to study and principles of this body of work, including its connection with African sources. Literature will include a wide variety of genres, and course materials may be supplemented by folklore, music, film, and visual arts. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 339. Introduction to Caribbean Literature. 3 Hours. AE42 / H.
Reading, analysis, and discussion of fiction, poetry, and drama from the Caribbean, including a small selection of Spanish, French, and Dutch Antillean works in translation. (Same as AAAS 333.) Prerequisite: ENGL 102 and one 200-level course in English or consent of instructor. LEC.

ENGL 340. Topics in U.S. Ethnic Literature: _____ 3 Hours. AE41 / H.
A study of literature by authors from one or more ethnic groups within the U.S., including but not limited to Asian American, African American, American Indian, Jewish American, Italian American, U.S. Latina/o. Different topics in different semesters. May be repeated for credit as topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 341. American Literature of Social Justice. 3 Hours. H.
An examination of U.S. literature that addresses situations of political and economic oppression or repression with the potential function of enlisting readers sympathies in a project of social justice. The course focuses on U.S. literary texts dealing with social injustice and the curtailment of human and civil rights and addresses debates surrounding cultural authority and authenticity, identity politics, attempts to represent the voice of the “oppressed,” revision of strategies used in slave narrative or in testimonio, and ethical and rhetorical appeals to an assumed readership. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 351. Fiction Writing I. 3 Hours. H.
A study of narrative techniques and practice in the writing of fiction. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 352. Poetry Writing I. 3 Hours. H.
A study of prosody and practice in the writing of verse. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 353. Screenwriting I. 3 Hours. H.
An introduction to the practice of writing and evaluating scripts for film. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 354. Playwriting I. 3 Hours. H.
An introduction to the practice of writing and evaluating scripts for stage. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 355. Nonfiction Writing I. 3 Hours. H.
An introduction to the literary techniques of nonfiction and practice in the writing of one or more of the genre’s subtypes, such as the personal essay, the familiar essay, the lyric essay, the memoir, nature writing, or travel writing. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 359. English Grammar. 3 Hours. U.
A course in traditional English grammar for students who wish to understand and be able to analyze English sentence structure. Students might apply the course to studies of style (their own or other authors’), rhetorical analysis, literary interpretation, or teaching. This course may be offered in either lecture or online format. Prerequisite: Prior completion of the KU Core Written Communication requirement. LEC.

ENGL 360. Advanced Composition: _____ 3 Hours. H.
The principles of effective composition, as applied to a specific topic such as critical writing, expository writing, pre-legal English, book reviewing, etc. May be repeated for credit as topic varies. Prerequisite: Prior completion of the KU Core Written Communication requirement. LEC.

ENGL 361. Professional Writing: _____ 3 Hours. H.
Principles of writing for specific professional contexts, which might include such areas as business writing, legal writing, and literary or arts reviewing, etc. May be repeated for credit as topic varies. Prerequisite: Prior completion of the KU Core Written Communication requirement. LEC.

ENGL 362. Foundations of Technical Writing. 3 Hours. H.
Introduces students to the principles of technical communication. Students learn to organize, develop, write, and revise various technical documents (e.g., letters, manuals, presentations, proposals, reports, resumes, websites) often needed in business, engineering and scientific settings. Includes an introduction to technical-writing software. This course fulfills the prerequisite for English 562 and English 564. Prerequisite: Prior completion of the KU Core Written Communication requirement. LEC.

ENGL 363. English Language: _____ 3 Hours. H.
Introduces students to rhetoric and composition, a field that investigates questions about the nature, processes, teaching and historical, social and cultural contexts of writing. Students learn to organize, develop, write, and revise various technical documents (e.g., letters, manuals, presentations, proposals, reports, resumes, websites) often needed in business, engineering and scientific settings. Includes an introduction to technical-writing software. This course fulfills the prerequisite for English 562 and English 564. Prerequisite: Prior completion of the KU Core Written Communication requirement. LEC.

ENGL 380. Introduction to Rhetoric and Composition. 3 Hours. GE3H / H.
Introduces students to rhetoric and composition, a field that investigates questions about the nature, processes, teaching and historical, social and cultural contexts of writing. Students learn to organize, develop, write, and revise various technical documents (e.g., letters, manuals, presentations, proposals, reports, resumes, websites) often needed in business, engineering and scientific settings. Includes an introduction to technical-writing software. This course fulfills the prerequisite for English 562 and English 564. Prerequisite: Prior completion of the KU Core Written Communication requirement. LEC.

ENGL 385. The Development of Modern English. 3 Hours. H.
An introduction to the history of the English language, with special attention to general structural changes throughout its history, especially changes in vocabulary and meaning, and past influences of other languages upon present usage. Prerequisite: Prior completion of the KU Core Written Communication requirement. LEC.

ENGL 387. Introduction to the English Language. 3 Hours. HL GE3H / H.
A survey of the English language, its historical development, and its grammatical structure. Prerequisite: Prior completion of the KU Core Written Communication requirement. LEC.

ENGL 390. Studies in: _____ 3 Hours. H.
A study of a specialized theme or topic in English studies. May be repeated for credit as the topic changes. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ENGL 400. Teaching and Tutoring Writing. 3 Hours. U.
Students explore theories and strategies of teaching and tutoring writing across academic disciplines. They learn more about themselves as writers as they build a repertoire of writing techniques useful in their
The development of science fiction as a literary genre, and as a literature of ideas for a future-oriented society. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 507. Science, Technology, and Society: Examining the Future through a Science-Fiction Lens. 3 Hours. AE61 / H.
Science and technology offer many benefits to individuals and societies, yet they also present many challenges. This course explores the past, present, and possible future effects of science and technology on society through readings and discussions of nonfiction articles in conjunction with science-fiction stories and novels. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 508. Contemporary Literary Theory. 3 Hours. AE61 / H.
Study of selected works of literary theory and of current issues in literary studies. The course is designed for advanced undergraduates who intend to continue their study of literature in graduate school and for new graduate students who require a grounding in literary theory. According to Each instructor's interest, the course may survey contemporary literary theory or may focus on a particular topic (e.g., authorship, canon formation, creativity, metaphor, narrative, rhetoric) or on a theoretical position (e.g., cultural studies, deconstruction, feminism, historicism, Marxism, psychoanalysis). A student may repeat the course with the permission of the appropriate director. Prerequisite: Completion of three junior-senior courses in English (or their equivalent) or graduate standing. LEC.

ENGL 520. History of the Book. 3 Hours. AE61 / H.
Brief history of writing materials and handwritten books; history of printed books from the fifteenth century as part of cultural history; technical progress and aesthetic change. (Same as HIST 500.) LEC.

ENGL 521. Advanced Topics in British Literature 1800: _______. 3 Hours. AE61 / H.
A study of texts written before 1800. May be organized around a particular genre, historical period, a group of writers, or a theme. May be repeated for credit as topic varies. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 522. Advanced Topics in British Literature After 1800: _______. 3 Hours. AE61 / H.
A study of texts written after 1800. May be organized around a particular genre, historical period, group of writers, or a theme. May be repeated for credit as topic varies. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 525. Shakespeare: _______. 3 Hours. AE61 / H.
Intensive study of selected works. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 530. Irish Literature and Culture: _______. 3 Hours. AE61 / H.
Study of topics in Irish literature and culture. Topics may focus on a particular genre, theme, historical period or group of authors. May be repeated for credit as the topic changes. (Same as EURS 512.) Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 531. James Joyce. 3 Hours. AE61 / H.
A study of the major works of James Joyce, with the majority of the semester dedicated to Ulysses. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 532. Whitman and Dickerson. 3 Hours. AE61 / H.
A study of selected works of Walt Whitman and Emily Dickinson. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.
ENGL 533. William Faulkner. 3 Hours. H.
A study of selected works of William Faulkner. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 534. Major Authors (Capstone): _____. 3 Hours. H.
Study of one or two major authors. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 536. Readings in the Holocaust. 3 Hours. AE61 / H.
An examination of Holocaust literature, which may include fiction, nonfiction, poetry, drama, and film. Theoretical concerns may include such issues as memory, trauma, representation, imagination, exile, alienation, silence, the body and emotions, and intergenerational transmission. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 551. Fiction Writing II. 3 Hours. AE61 / H.
Continuation of ENGL 351. May be repeated for undergraduate credit up to a total of six hours. Prerequisite: ENGL 351 or equivalent. LEC.

ENGL 552. Poetry Writing II. 3 Hours. AE61 / H.
Continuation of ENGL 352. May be repeated for undergraduate credit up to a total of six hours. Prerequisite: ENGL 352 or its equivalent. LEC.

ENGL 553. Screenwriting II. 3 Hours. AE61 / H.
A continuation of ENGL 353. May be repeated for undergraduate credit up to a total of six hours. Prerequisite: ENGL 353 or its equivalent. LEC.

ENGL 554. Playwriting II. 3 Hours. AE61 / H.
A continuation of ENGL 354. May be repeated for undergraduate credit up to a total of six hours. Prerequisite: ENGL 354 or its equivalent. LEC.

ENGL 555. Nonfiction Writing II. 3 Hours. AE61 / H.
Continuation of ENGL 355. May be repeated for undergraduate credit up to a total of six hours. Prerequisite: ENGL 355 or its equivalent. LEC.

ENGL 560. British Literature of the 20th Century: _____. 3 Hours. AE61 / H.
Study of twentieth-century literary works. Topics may focus on a particular genre, theme, historical period or group of authors. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 562. Advanced Technical Writing I. 3 Hours. AE61 / H.
Stresses research methods in technical communication and simulates on-the-job training through live interviews and other forms of research. Students master the relevant software tools and begin to develop a technical-writing portfolio. Prerequisite: ENGL 362. LEC.

ENGL 563. Advanced Technical Writing and Editing. 3 Hours. AE61 / H.
Students apply the principles of communicating business, scientific, and technical information to targeted readers. Concentration on the varying writing styles for online documents, proposals, reports, specifications, journal articles, and larger documents, as appropriate to their audience. Simulates an internship and helps students further develop a technical-writing or -editing portfolio. Students provide weekly status reports and a final report detailing their learning experience and present it to an appropriate technical communication class to help other students better understand the field. Prerequisite: Instructor permission. LEC.

ENGL 564. Advanced Technical Editing I. 3 Hours. AE61 / H.
Students learn to use specialized vocabulary and editing tools such as proofreaders’ marks, style guides, and standard editorial reference material; and they practice how to identify and correct common problems. Students usually work with writers in other technical writing courses, learning to work productively with other peoples’ print and online documents. Students practice taking editing tests and develop a technical-editing portfolio. Prerequisite: ENGL 362. LEC.

ENGL 565. The Gothic Tradition. 3 Hours. H.
This course explores and defines the Gothic tradition in British and American literature from its beginnings in the late eighteenth century to more recent twentieth-century texts in literature and film. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 566. American Literary Environmentalism. 3 Hours. AE61 / H.
An examination of representations of nature and human/nature relations and their political, social and environmental consequences, with a special focus on the 19th and 20th centuries, including the writings of transcendentalists and conservationists, slave narratives, scientific writing on toxicity and other topics, and environmental justice literature. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 556. American Indian Literature: _____. 3 Hours. AE61 / H.
A study of American, British, or comparative drama from the late nineteenth century to the present. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 570. Topics in American Literature: _____. 3 Hours. AE61 / H.
Different topics in different semesters. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 571. American Indian Literature: _____. 3 Hours. NW AE41/ AE61 / H/W.
The study of a wide range of American Indian literature, from various tribes and in a variety of genres. Satisfies the non-western culture course requirement. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 572. Women and Literature: _____. 3 Hours. AE61 / H.
Different topics in different semesters. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 573. U.S. Latina/o Literature: _____. 3 Hours. AE41/AE61 / H.
A study of the literature written by U.S. Latina/o writers of Mexican, Puerto Rican, Cuban, Dominican, and other Central/South American descent, in a variety of genres. Attention is given to the cultural and historical contexts of the literature and to the specificity of particular U.S. Latina/o groups. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 574. African American Literature: _____. 3 Hours. AE41/AE61 / H.
A study of the literature written by African Americans from the pre-Civil War period to the present. Emphasis upon specific historical periods in the development of African American literature as well as on a critical analysis of major autobiographical, poetic, and fictional works. May be
ENGL 575. Literature of the American South. 3 Hours. AE61 / H. A survey of fiction, non-fiction, poetry, and drama written by selected writers of the American South from the pre-Civil War period to the present. The course will emphasize the critical analysis of individual texts as well as the cultural and historical context of the works. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 576. Advanced Topics in American Literature to 1865: ______. 3 Hours. AE61 / H. Study of American literary works before 1865. Topics may focus on a particular genre, theme, topic, historical period, author, or group of authors. May be repeated for credit as the topic changes. (Same as AMS 554.) Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 577. Advanced Topics in American Literature Since 1865: ______. 3 Hours. AE61 / H. Study of American literary works after 1865. Topics may focus on a particular genre, theme, topic, historical period, author, or group of authors. May be repeated for credit as the topic changes. (Same as AMS 555.) Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 578. Poetry, 1900-1945. 3 Hours. AE61 / H. A Study of English-language poetry of the early twentieth century. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 579. Poetry since 1945. 3 Hours. AE61 / H. A study of English-language poetry from the mid-twentieth century to the present. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 580. Rhetoric and Writing: ______. 3 Hours. AE61 / H. A study of selected broad topics in rhetoric and writing, including such topics as the rhetoric of law, the rhetoric of education, persuasion in literature, literacy, and rhetorical genres. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 581. English Language Studies: ______. 3 Hours. AE61 / H. A study of selected topics in English language studies (e.g., World Englishes, Language and Literary Style, and The Secret Life of English Words). May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 582. American English. 3 Hours. AE61 / H. A study of the structure, history, and varieties of the English language in the United States from the period of colonization to the present. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 590. Studies in: ______. 1-3 Hours. AE61 / H. A study of a specialized theme or topic in English studies. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of the first-and second-year English requirement or its equivalent, and at least one 300- or 400-level ENGL course; or permission of instructor. LEC.

ENGL 592. Survey of: ______. 3 Hours. AE61 / H. A broad view of major works and authors in a particular period, genre, or mode. May be repeated for credit as the topic varies. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 596. Technical Communication Internship. 1-3 Hours. AE61 / H. Practical experience in the use of technical-writing or editing skills in supervised professional settings for which the student normally does not receive pay. A 1-3 hour internship requires 40-120 hours of documented on-site work in one semester (40 hours per credit). Credit hours are graded on a satisfactory/unsatisfactory basis, according to a written recommendation from the student’s workplace manager, student work logs and self-evaluation, and an oral report. Prerequisite: Advanced Technical Writing I (English 562) and permission of instructor. LEC.

ENGL 598. Honors Proseminar: ______. 3 Hours. AE61 / H. Directed reading and participation in small discussion groups, each formed to consider a specific and limited subject during the semester. Written work will be required, and will be judged on both content and form. The course is part of a departmental program leading to Honors in English. Prerequisite: Admission must be approved by the departmental director of undergraduate studies. LEC.

ENGL 599. Honors Essay. 3 Hours. AE61 / H. Independent study, culminating in a substantial essay prepared under the direction of a member of the Department of English who is a specialist in the area of the student’s interest. Prerequisite: Admission must be approved by the departmental director of undergraduate studies. LEC.

ENGL 610. The Literature of England to 1500. 3 Hours. AE61 / H. A survey of the literature of medieval England (in translation). Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 620. Renaissance English Literature: ______. 3 Hours. AE61 / H. A broad view of literary works written between 1485 and 1660. Surveys may be offered with focus on a particular genre (poetry, drama, or prose), historical period (16th- or 17th-century literature), or group of authors (women writers). May be repeated for credit as topic varies. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 633. Milton. 3 Hours. AE61 / H. A close reading of Paradise Lost, Paradise Regained, Samson Agonistes, and the minor poems, with illustrative selections of prose. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 640. British Literature, 1600-1800: ______. 3 Hours. AE61 / H. Study of literary works from the Restoration and eighteenth century. Topics may focus on a particular genre, theme, historical period or group of authors. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 650. Romantic Literature: ______. 3 Hours. AE61 / H. Study of literary works from the British Romantic period. Topics may focus on a particular genre, theme, historical period or group of authors. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 655. Victorian Literature: ______. 3 Hours. AE61 / H. Study of literary works from the Victorian period. Topics may focus on a particular genre, theme, historical period or group of authors. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.
ENGL 660. Ecocriticism. 3 Hours. H.
A study of the relationship between various modes of representation and environmentalism. Particular attention paid to the intersection between ecocriticism and other forms of contemporary literary theory, including, for example, critical race studies, poststructuralism, postcolonial theory, gender and sexuality studies, class-based criticism, and animal theory. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 674. African Literature: ____. 3 Hours. NW AE42/AE61 / H.
An advanced study of a topic, genre, or area of written and/or oral African literature. Emphasis is placed on the critical analysis of major works, as well as their cultural and historical contexts. The course also addresses central critical and theoretical debates in the field. May be repeated for credit as the topic changes. Prerequisite: At least one 300- or 400-level English course, or permission of instructor. LEC.

ENGL 690. Studies in: ____. 3 Hours. AE61 / H.
A study of a major topic of concern to English literature. May be repeated for credit as the topic changes. Capstone course. Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

ENGL 707. Literary Criticism to 1800. 3 Hours.
An introduction to the major writings of literary criticism, in their historical context, from Plato and Aristotle to Samuel Johnson. LEC.

ENGL 708. Literary Criticism after 1800. 3 Hours.
An introduction to modern criticism, in its historical context, from Wordsworth and Coleridge to the present. The emphasis will be on major critics and predominant schools. LEC.

ENGL 709. Critical Theory: Problems and Principles: ____. 3 Hours.
Study of a topic (such as mimesis, influence, deconstruction) that is important in critical theory. May be repeated for credit as topic varies. LEC.

ENGL 710. Introduction to Old English. 3 Hours.
A study of the grammatical features of the earliest form of written English, with readings in Old English prose and poetry. LEC.

ENGL 712. Beowulf. 3 Hours.
Prerequisite: An introductory course in Old English. LEC.

ENGL 714. Middle English Literature. 3 Hours.
Reading of selected works in Middle English (exclusive of the works of Chaucer). LEC.

ENGL 720. Chaucer: ____. 3 Hours.
Intensive study of either the Canterbury Tales or Troilus and Criseyde and the earlier poems. May be repeated for credit up to a maximum of six hours. LEC.

ENGL 725. Shakespeare: ____. 3 Hours.
Intensive study of selected plays. May be repeated for credit as the topic changes. LEC.

ENGL 730. Topics in Early Modern Literature: ____. 3 Hours.
Intensive study of texts written between 1485 and 1800. The course may be organized around a particular genre (poetry, prose, drama), historical period (e.g. Elizabethan literature), a major author (e.g. Milton), group of authors (e.g. women writers), or theme (e.g. literature and politics 1660-1800). Students will be expected to read and apply relevant criticism and theory as well as study primary texts. May be repeated for credit as topic varies. LEC.

ENGL 750. British Literature of the 19th Century: ____. 3 Hours.
Intensive study of British literary works of the 1800s. Topics may focus on a particular genre, theme, historical period or group of authors. May be repeated for credit as the topic changes. LEC.

ENGL 751. Fiction Writing Ill. 1-3 Hours.
Practice in the writing of fiction under the direction of a member of the department working in conjunction with one or more writers in residence. Membership is limited to students who submit, well in advance enrollment, manuscripts showing unusual ability. May be repeated for credit. LEC.

ENGL 752. Poetry Writing Ill. 1-3 Hours.
Practice in the writing of poetry under the direction of a member of the department working in conjunction with one or more writers in residence. Membership is limited to students who submit, well in advance of enrollment, manuscripts showing unusual ability. May be repeated for credit. LEC.

ENGL 753. Writers Workshop. 1-3 Hours.
An intensive course in writing prose fiction and/or verse. Criticism (NEW) of manuscripts through group meetings and individual conferences with the instructor. Membership limited to students who submit manuscripts showing special ability in at least one of the creative writing forms. May be repeated for credit. LEC.

ENGL 756. Forms: ____. 3 Hours.
A study of literary works belonging to a particular genre or to multiple genres (fiction, nonfiction, poetry, drama etc), either in a particular form (short story, essay, sonnet, etc.), concerned with a particular topic, or illustrative of a particular element of craft (voice, point of view, character development, etc. ). Intended primarily for creative- writing students with an interest in developing their skills at reading as writers. May be repeated for credit as the topic varies. LEC.

ENGL 757. Speculative Fiction Writing Workshop. 3 Hours.
An intensive, 2-week course in writing speculative fiction, including genres such as slipstream, magical realism, fantasy, horror, and science fiction. The course is part of the Center for the Study of Science Fiction Summer Institute. Application period: January 1 - April 15. Application includes note to instructor expressing interest and one story. May be repeated for credit with instructor’s permission. LEC.

ENGL 760. British Literature of the 20th Century: ____. 3 Hours.
Intensive study of British literary works written during the 20th century. Topics may focus on a particular genre, theme, historical period or group of authors. May be repeated for credit as the topic changes. LEC.

ENGL 764. Modern Irish Literature: ____. 3 Hours.
Intensive study of topics in modern Irish literature. Topics may focus on a particular genre, theme, historical period or group of authors. May be repeated for credit as the topic changes. LEC.

ENGL 770. Studies in Modern Drama: ____. 3 Hours.
Reading of selected works in modern and contemporary drama. May be repeated for credit as the topic changes. LEC.

ENGL 774. Topics in Literatures of Africa and the African Diaspora: ____. 3 Hours.
An intensive study of the literatures of Africa and/or African diaspora (people of African descent dispersed around the world). This course will focus on the major characteristics of a particular period, genre, mode, and/or theme in literatures such as African, Caribbean, Afro-Brazilian, African American, African Canadian, Black British. Critical theories pertinent to writers and their work will be covered. Topics may include...
studies in drama, poetry, or the novel; migration narratives; literature of a particular era, such as the Harlem Renaissance, Negritude, or the Black Arts Movement; representations of gender, etc. As topics vary by semester, the course may be repeated for credit. (Same as AAAS 774.) LEC.

ENGL 776. American Literature to 1900: ______. 3 Hours. Intensive study of North American literary works before 1900. Topics may focus on a particular genre, theme, historical period or group of authors. May be repeated for credit as the topic changes. LEC.

ENGL 777. American Literature after 1900: ______. 3 Hours. Intensive study of North American literary works after 1900. Topics may focus on a particular genre, theme, historical period or group of authors. May be repeated for credit as the topic changes. LEC.

ENGL 779. U.S. Poetries Since 1900. 3 Hours. A colloquium for graduate students, sampling the range of poetries and poetics produced in the United States in the twentieth and twenty-first centuries. LEC.

ENGL 780. Composition Studies. 3 Hours. This course surveys the field of composition studies, examining major issues and theories in the study of writing. The course may include theories from classical to contemporary rhetoric, composition theory from the twentieth century, and the most current debates in the study of writing. LEC.

ENGL 781. Criticism and the Teaching of Literature. 3 Hours. A survey of selected critical theories and of the applicability of those theories to the teaching of literature. LEC.

ENGL 785. History of the English Language. 3 Hours. Historical study of the phonology, morphology, syntax, vocabulary, and semantics of English; the relation between linguistic and cultural change. LEC.

ENGL 787. Modern English Grammar. 3 Hours. A study of contemporary English: phonology, morphology, syntax, and usage. The emphasis is structural, but "traditional" grammar is referred to for contrast, example, and clarification. LEC.

ENGL 790. Studies in: ______. 3 Hours. Examination of a significant topic in literature or the English language. May be repeated for credit as the topic varies. LEC.

ENGL 800. Methods, Theory, and Professionalism. 3 Hours. Acquaintance with resources and practice in techniques that are essential to other graduate courses. Major concerns include the writing and documentation of scholarly papers; basic reference and bibliographical aids; critical approaches to literature and literary historiography; and the place of language and rhetoric in English studies today. LEC.

ENGL 801. Study and Teaching of Writing. 3 Hours. A survey of major concepts and issues in the study of writing, especially as applied to teaching composition. Practices in writing pedagogy are also discussed, and students' teaching of composition is observed and explored. Required of and enrollment limited to new teachers of English 101. May not be repeated for credit toward graduate degree. FLD.

ENGL 802. Practicum in the Teaching of College English. 1 Hour. A course concerned primarily with the pedagogy of literature and writing about literature. Includes weekly group meetings, individual conferences, and class visitations. Required of and enrollment limited to new teachers of English 102. May not be repeated for credit toward graduate degree. Course graded on a satisfactory/unsatisfactory basis. FLD.

ENGL 803. Practicum in the Teaching of Creative Writing. 1 Hour. A course for graduate teaching assistants pursuing the M.F.A. or Ph.D. with emphasis in Creative Writing. Normally taken in the third year. Concerns primarily the pedagogy of creative writing: workshop techniques, approaches to conferencing, revision strategies, and the like. Includes weekly group meetings as well as class visitations and individual conferences. May not be repeated for credit towards graduate degree. Graded on a satisfactory/unsatisfactory basis. Prerequisite: ENGL 801 and 802. FLD.

ENGL 880. Topics in Composition Studies and Rhetoric: ______. 3 Hours. Examination of selected topics in composition and rhetoric, such as literary studies, genre theory, dialogism, or writing across the curriculum. May be repeated for credit as the topic changes. Prerequisite: ENGL 780 or equivalent. LEC.

ENGL 885. Writing Center Theory and Administration. 3 Hours. This course explores theories motivating writing center administration and practice. Students will investigate the multiple functions of writing centers, from writing labs associated with college composition instruction, to decentralized resources for writing faculty teaching writing across the disciplines, to elementary, secondary, and community support centers for writers, to online administrative perspective, design a research study and propose actions such as creating policy, developing curricula, designing materials, or conducting assessments. (Same as LAS 700.) Prerequisite: LAS 400, ENGL 400, or consent of instructor. LEC.

ENGL 896. Internship. 1-3 Hours. Practical experience under professional supervision in editing, theatrical production, and other activities relevant to the completion of an advanced degree in English. FLD.

ENGL 897. Preparation for the M.A. Examination. 1-3 Hours. An independent reading course for students preparing to take the M.A. examination. The grade in the course will be an S or U, as determined by performance on the examination. Prerequisite: Consent of the Director of Graduate Studies. RSH.

ENGL 899. M.A./M.F.A. Thesis. 1-15 Hours. Graded on a satisfactory/unsatisfactory basis. THE.

ENGL 904. Seminar in Composition Theory: ______. 3 Hours. Intensive study of one or more theoretical aspects of composition in English (e.g., rhetoric, text grammar, stylistics). Prerequisite: ENGL 800. LEC.

ENGL 905. Seminar in the English Language: ______. 3 Hours. Close study of the English language in a particular period. Prerequisite: ENGL 800. LEC.

ENGL 908. Seminar in Literary Criticism: ______. 3 Hours. Close study of one or more major critics, of a major critical school, or of a topic important in literary criticism. Prerequisite: ENGL 800. LEC.

ENGL 915. Seminar in Medieval English Literature: ______. 3 Hours. Study may center on either Old or Middle English language and literature. Prerequisite: ENGL 800. LEC.

ENGL 916. Seminar in Chaucer: ______. 3 Hours. Prerequisite: ENGL 800. LEC.

ENGL 920. Seminar in Renaissance English Literature: ______. 3 Hours. Close study of one or two major authors or of a group of related works. Prerequisite: ENGL 800. LEC.

ENGL 926. Seminar in Shakespeare: ______. 3 Hours. Prerequisite: ENGL 800. LEC.
Because reading and writing shape the world.

Why study English language and literature?
Because reading and writing shape the world.

ENGL 932. Seminar in Milton: _____ 3 Hours.
Prerequisite: ENGL 800. LEC.

ENGL 940. Seminar in Restoration and 18th Century British Literature: _____ 3 Hours.
One or two authors are read closely, or a group of related works is studied.
Prerequisite: ENGL 800. LEC.

ENGL 950. Seminar in 19th Century British Literature: _____ 3 Hours.
Concentrated study of one or two major figures, or a group of significant writers, or an aspect of the literary scene.
Prerequisite: ENGL 800. LEC.

ENGL 960. Seminar in 20th Century British Literature: _____ 3 Hours.
Concentrated study of one or two authors, or a group of significant writers, or an aspect of the literary scene.
Prerequisite: ENGL 800. LEC.

ENGL 970. Seminar in American Literature: _____ 3 Hours.
Concentrated study of one or two authors or of historical periods or important movements.
Prerequisite: ENGL 800. LEC.

ENGL 974. Seminar in Literatures of Africa and the African Diaspora: _____ 3 Hours.
Advanced study in a topic related to literature, language, and cultures of Africa and the African Diaspora, such as a concentrated study of one or two authors, a group of significant writers, an historical period or important movement, or an aspect of the literary or cultural scene of Black writing.
May be repeated for credit as the topic varies.

ENGL 980. Seminar In: _____ 3 Hours.
Advanced study in a topic related to literature, language, theory, or a special skill such as analytical bibliography or editing.
Prerequisite: ENGL 800. LEC.

ENGL 997. Preparation for the Comprehensive Examination. 1-12 Hours.
An independent reading course for students preparing to take the Ph.D. comprehensive examination. May normally be taken in the semester or summer session immediately preceding the semester in which the comprehensive examination is taken. Does not count toward the residence requirement. Graded on a satisfactory/unsatisfactory basis.
Prerequisite: Consent of the Director of Graduate Studies. RSH.

ENGL 998. Investigation and Conference: _____ 1-6 Hours.
Individual work in (a) language, (b) literature, (c) composition, or (d) the teaching of English, by properly qualified graduate students under the direction of appropriate members of the Graduate Faculty as assigned by the Graduate Director. Limited to 6 hours of credit toward the M.A. or Ph.D. degree; only on three-hour enrollment may substitute for a formal course in satisfying a field distribution requirement. Normally offered for only up to three credit hours in any one enrollment. Permission of the supervising faculty member and of the Graduate Director required for enrollment. RSH.

ENGL 999. Doctoral Dissertation. 1-12 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

KU’s English Department is at the core of the humanities, highlighting the “human” through our individual, one-on-one interactions with our students, our emphasis on community and global engagement, and our abiding interest in our shared humanity through the stories of others. We seek to challenge the mind and to engage the imagination of our students, to teach them to ask questions and to seek for answers. We encourage them to grapple with the complexity of culturally and commercially interconnected world and the global networks and processes of cultural exchange. We believe that words and ideas will shape the world. We teach our students life-long skills, so that they learn to write clearly, creatively, and effectively—discovering themselves even as they lay a solid foundation for professional success.

A commitment to teaching and learning.
Our department is renowned for its tradition of excellence in teaching. The vast majority of our undergraduate classes have 20-35 students, and much of the class time is dedicated to active learning and engagement with texts and ideas. In the last ten years, faculty members in the department of English have won ten Kemper Fellowships for Excellence in Teaching, two Chancellors Club Teaching Professorships, a Career Achievement Teaching Award, and a wide variety of other university-level teaching and advising awards, and the department as a whole received the Center of Teaching Excellence (CTE) award for Department Excellence in Teaching at the University of Kansas.

A variety of career and life paths.
English majors graduate to a variety of careers, including law, teaching, scholarship, publishing, library science, and journalism—as well as medicine, politics, design, and any number of other fields that value clear communication, interpretive skill, and critical and creative thinking.

Engaged and innovative scholarship.
KU’s English Department has several core strengths that cross tracks and periods, including Global and Cross-Cultural Approaches; Literature, Rhetoric, and Social Action; Diversity Studies; Language, Literature and Science; and Popular Expressive Forms.

At the KU English Department, students work closely with nationally-recognized writers and researchers. Our faculty have won national awards that recognize excellence in research, including grants from the National Endowment for the Humanities, the American Philosophical Society, and the Newberry Library, among others. English Department faculty members have also received major research funding from the University of Kansas, including the Hall Center for the Humanities Research fellowships and Keeler Intra-University Fellowships for interdisciplinary work. Undergraduate students can work one-on-one with faculty mentors in the Honors Program, McNair Scholars Program, and Dean’s Scholars Program, as well as through independent Directed Studies.

Undergraduate Admission
Admission to KU
All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the
Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

Undergraduate First- and Second-Year Preparation

Prospective English majors and minors are encouraged to complete their KU Core Goal 2.1 requirements and their BA degree-specific written communication requirements with English Department coursework (i.e., ENGL 101, 102 or 105, and 200-level ENGL courses). Students are strongly encouraged to take a 200-level English course before taking 300- and 400-level coursework in English. Prospective English majors are encouraged to consult with the Director or Associate Director of Undergraduate Studies in order to declare the major, review major and degree requirements, and become familiar with departmental opportunities.

Requirements for the B.A. or B.G.S. Major

The major in English requires 30 hours (33 for Honors English), of which 3 hours may be an appropriate 200-level English course. The Department offers three tracks in the major, with an Honors variation of each: General; Creative Writing; and Rhetoric, Language, and Writing.

As part of these 30 hours (33 for Honors English), all English majors must choose courses from each of the following 7 categories:

1. Individual Authors or Movements
2. Literary Theory
3. English Language or Rhetoric
4. Transcultural Approaches to Language, Literature, or Writing
5. Writing
6. Forms and Genres
7. Literary History (2 courses)

Note: courses may be listed in more than one category, but may only count in one category for an individual student. 2 courses must be at the 500 level or above (i.e., a capstone course); one additional course must be focused language, literature, or writing before 1850 (see course list at the bottom of this page). See Additional Requirements section of each track for requirements specific to that track.

General Track

General Track, category requirements:

1. Individual Authors or Movements (3)
   - ENGL 301 Topics in British Literature to 1800: _____
   - ENGL 302 Topics in British Literature Since 1800: _____
   - ENGL 315 Studies in British Literature
   - ENGL 317 Topics in American Literature to 1865: _____
   - ENGL 318 Topics in American Literature Since 1865: _____
   - ENGL 324 Contemporary Authors: _____
   - ENGL 325 Recent Popular Literature
   - ENGL 327 Studies in Twentieth-Century Drama: _____
   - ENGL 331 Chaucer
   - ENGL 332 Shakespeare
   - ENGL 334 Major Authors: _____
   - ENGL 340 Topics in U.S. Ethnic Literature: _____
   - ENGL 479 The Literature of: _____
   - ENGL 521 Advanced Topics in British Literature 1800: _____
   - ENGL 522 Advanced Topics in British Literature After 1800: _____
   - ENGL 530 Irish Literature and Culture: _____
   - ENGL 531 James Joyce
   - ENGL 532 Whitman and Dickerson
   - ENGL 533 William Faulkner
   - ENGL 534 Major Authors (Capstone): _____
   - ENGL 560 British Literature of the 20th Century: _____
   - ENGL 565 The Gothic Tradition
   - ENGL 567 Modern Drama: _____
   - ENGL 568 American Literary Environmentalism
   - ENGL 570 Topics in American Literature: _____
   - ENGL 571 American Indian Literature: _____
   - ENGL 573 U.S. Latina/o Literature: _____
   - ENGL 574 African American Literature: _____
   - ENGL 575 Literature of the American South
   - ENGL 576 Advanced Topics in American Literature to 1865: _____
   - ENGL 577 Advanced Topics in American Literature Since 1865: _____
   - ENGL 578 Poetry, 1900-1945
   - ENGL 579 Poetry since 1945
   - ENGL 610 The Literature of England to 1500
   - ENGL 620 Renaissance English Literature: _____
   - ENGL 633 Milton
   - ENGL 640 British Literature, 1600-1800: _____
   - ENGL 650 Romantic Literature: _____
   - ENGL 655 Victorian Literature: _____
   - ENGL 674 African Literature: _____

2. Literary Theory (3)
   - ENGL 308 Introduction to Literary Criticism and Theory
   - ENGL 508 Contemporary Literary Theory
   - ENGL 660 Ecocriticism

3. English Language or Rhetoric (3)
ENGL 359 | English Grammar
ENGL 380 | Introduction to Rhetoric and Composition
ENGL 385 | The Development of Modern English
ENGL 387 | Introduction to the English Language
ENGL 580 | Rhetoric and Writing: ______
ENGL 581 | English Language Studies: ______
ENGL 587 | American English

4. Transcultural Approaches to Language, Literature, or Writing (3)

ENGL 305 | World Indigenous Literatures
ENGL 306 | Global Environmental Literature
ENGL 326 | Introduction to African Literature
ENGL 336 | Jewish American Literature and Culture
ENGL 337 | Introduction to U.S. Latino/a Literature
ENGL 338 | Introduction to African-American Literature
ENGL 339 | Introduction to Caribbean Literature
ENGL 340 | Topics in U.S. Ethnic Literature: ______
ENGL 341 | American Literature of Social Justice
ENGL 360 | Advanced Composition: ______ (as Pura Vida: Travel Writing and the Costa Rica Experience) only counts in this category.
ENGL 492 | The London Review
ENGL 571 | American Indian Literature: ______
ENGL 572 | Women and Literature: ______
ENGL 573 | U.S. Latina/o Literature: ______
ENGL 574 | African American Literature: ______
ENGL 674 | African Literature: ______

5. Writing (3) note: students not pursuing the Creative Writing Track may only count one creative writing workshop toward the major; creative writing workshops noted below.

ENGL 203 | Topics in Reading and Writing: ______
ENGL 205 | Freshman-Sophomore Honors Proseminar: ______
ENGL 209 | Introduction to Fiction
ENGL 210 | Introduction to Poetry
ENGL 211 | Introduction to the Drama
ENGL 351 | Fiction Writing I (creative writing workshop)
ENGL 352 | Poetry Writing I (creative writing workshop)
ENGL 353 | Screenwriting I (creative writing workshop)
ENGL 354 | Playwriting I (creative writing workshop)
ENGL 355 | Nonfiction Writing I (creative writing workshop)
ENGL 360 | Advanced Composition: ______
ENGL 361 | Professional Writing: ______
ENGL 362 | Foundations of Technical Writing
ENGL 400 | Teaching and Tutoring Writing
ENGL 492 | The London Review
ENGL 551 | Fiction Writing II (creative writing workshop)
ENGL 552 | Poetry Writing II (creative writing workshop)
ENGL 553 | Screenwriting II (creative writing workshop)
ENGL 554 | Playwriting II (creative writing workshop)
ENGL 555 | Nonfiction Writing II (creative writing workshop)
ENGL 599 | Honors Essay

6. Forms and Genres (3) note: students not pursuing the Creative Writing Track may only count one creative writing workshop toward the major; creative writing workshops noted below.

ENGL 209 | Introduction to Fiction
ENGL 210 | Introduction to Poetry
ENGL 211 | Introduction to the Drama
ENGL 309 | The British Novel
ENGL 327 | Studies in Twentieth-Century Drama: ______
ENGL 351 | Fiction Writing I (creative writing workshop)
ENGL 352 | Poetry Writing I (creative writing workshop)
ENGL 353 | Screenwriting I (creative writing workshop)
ENGL 354 | Playwriting I (creative writing workshop)
ENGL 355 | Nonfiction Writing I (creative writing workshop)
ENGL 360 | Advanced Composition: ______
ENGL 506 | Science Fiction
ENGL 551 | Fiction Writing II (creative writing workshop)
ENGL 552 | Poetry Writing II (creative writing workshop)
ENGL 553 | Screenwriting II (creative writing workshop)
ENGL 554 | Playwriting II (creative writing workshop)
ENGL 555 | Nonfiction Writing II (creative writing workshop)
ENGL 559 | Poetry since 1945

7. Literary History: 2 courses (6)

ENGL 312 | Major British Writers to 1800 & ENGL 322 and American Literature II
ENGL 320 | American Literature I & ENGL 314 and Major British Writers after 1800
ENGL 310 | Literary History I & ENGL 330 and Literary History II
ENGL 312 | Major British Writers to 1800 & ENGL 330 and Literary History II
ENGL 320 | American Literature I & ENGL 330 and Literary History II
ENGL 310 | Literary History I & ENGL 332 and American Literature II

Total Hours 24
Additional 6 hours of English electives

Additional Requirements, General Track:

- One course (3 hours) in addition to 7. (Literary History) must focus on literature before 1850. *See course list at the bottom of this page. (p. ___)
- Two courses (6 hours) must be capstone courses, i.e., at the 500 level or above.
• 27 hours must be at the junior/senior level.
• One 200-level course may count toward major requirements. No 100-level ENGL courses count toward major requirements.

Notes:
• Only 1 (3 credits) creative writing workshop (fiction writing, nonfiction writing, poetry writing, screen writing or playwriting) may be applied as a major course for students not pursuing the creative writing track.
• Up to 6 credits combined of ENGL 494 (Research Internship) or ENGL 495 (Directed Study) may be applied as major electives.
• Up to 3 credit hours of ENGL 496 (Internship) or ENGL 497 (Service Learning Internship) may be applied as a major elective.

Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 30 hours of major courses (33 for Honors English).

Major Hours in Residence
Satisfied by a minimum of 24 hours of KU resident credit in the major; exceptions by permission of Director of Undergraduate Studies only.

Major Junior/Senior Hours
Satisfied by a minimum of 24 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Creative Writing Track
Creative Writing Track, category requirements:

1. Individual Authors or Movements (3)

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<td>Shakespeare</td>
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<td>ENGL 334</td>
<td>Major Authors:</td>
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<td>ENGL 340</td>
<td>Topics in U.S. Ethnic Literature:</td>
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<td>ENGL 479</td>
<td>The Literature of:</td>
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<td>ENGL 532</td>
<td>Whitman and Dickerson</td>
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2. Literary Theory (3)

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<tr>
<td>ENGL 308</td>
<td>Introduction to Literary Criticism and Theory</td>
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<td>ENGL 508</td>
<td>Contemporary Literary Theory</td>
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<td>ENGL 660</td>
<td>Ecocriticism</td>
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3. English Language or Rhetoric (3)

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<td>ENGL 387</td>
<td>Introduction to the English Language</td>
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<tr>
<td>ENGL 580</td>
<td>Rhetoric and Writing:</td>
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4. Transcultural Approaches to Language, Literature, or Writing (3)

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<td>ENGL 306</td>
<td>Global Environmental Literature</td>
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<td>ENGL 326</td>
<td>Introduction to African Literature</td>
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<td>ENGL 340</td>
<td>Topics in U.S. Ethnic Literature:</td>
</tr>
<tr>
<td>ENGL 341</td>
<td>American Literature of Social Justice</td>
</tr>
<tr>
<td>ENGL 360</td>
<td>Advanced Composition: (as Pura Vida: Travel Writing and the Costa Rica Experience) only</td>
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<tr>
<td></td>
<td>Pura Vida: Travel Writing and the Costa Rica Experience currently counts in this category</td>
</tr>
<tr>
<td>ENGL 492</td>
<td>The London Review</td>
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</tbody>
</table>
### The University of Kansas

ENGL 571 American Indian Literature:

ENGL 572 Women and Literature:

ENGL 573 U.S. Latina/o Literature:

ENGL 574 African American Literature:

ENGL 674 African Literature:

#### 5. Writing (3)

<table>
<thead>
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<tbody>
<tr>
<td>ENGL 351</td>
<td>Fiction Writing I</td>
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<td>Poetry Writing I</td>
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</tr>
<tr>
<td>ENGL 360</td>
<td>Advanced Composition:</td>
</tr>
<tr>
<td>ENGL 492</td>
<td>The London Review</td>
</tr>
<tr>
<td>ENGL 551</td>
<td>Fiction Writing II</td>
</tr>
<tr>
<td>ENGL 552</td>
<td>Poetry Writing II</td>
</tr>
<tr>
<td>ENGL 553</td>
<td>Screenwriting II</td>
</tr>
<tr>
<td>ENGL 554</td>
<td>Playwriting II</td>
</tr>
<tr>
<td>ENGL 555</td>
<td>Nonfiction Writing II</td>
</tr>
<tr>
<td>ENGL 495</td>
<td>Directed Study: (in Creative Writing: only one may count toward major)</td>
</tr>
<tr>
<td>ENGL 496</td>
<td>Internship</td>
</tr>
<tr>
<td>ENGL 497</td>
<td>Service Learning Internship</td>
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<td>Fiction Writing II</td>
</tr>
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<td>Poetry Writing II</td>
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<td>ENGL 553</td>
<td>Screenwriting II</td>
</tr>
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<td>Playwriting II</td>
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<tr>
<td>ENGL 555</td>
<td>Nonfiction Writing II</td>
</tr>
<tr>
<td>ENGL 492</td>
<td>The London Review</td>
</tr>
</tbody>
</table>

#### Additional requirements, Creative Writing Track:

- One course (3 hours) in addition to 7. (Literary History) must focus on literature before 1850. *See course list at the bottom of this page. (p. )*
- Two courses (6 hours) must be capstone courses, i.e., at the 500 level or above; at least one creative writing workshop at the 500 level or above is required for creative writing majors.
- Creative writing students must complete workshops in at least two genres. For the purposes of the Creative Writing Tracks, genres are 1) fiction; 2) poetry; 3) playwriting, screenwriting, and/or scriptwriting; and 4) creative non-fiction.
- 27 hours must be at the junior/senior level.
- No 100-level ENGL courses count toward major requirements.

### Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

#### Major Hours

Satisfied by 30 hours of major courses (33 for Honors English).

#### Major Hours in Residence

Satisfied by a minimum of 24 hours of KU resident credit in the major; exceptions by permission of Director of Undergraduate Studies only.

#### Major Junior/Senior Hours

Satisfied by a minimum of 24 hours from junior/senior courses (300+) in the major.

#### Major Junior/Senior Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

### Rhetoric, Language, and Writing Track

#### Additional Creative Writing courses: (6)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 351</td>
<td>Fiction Writing I</td>
</tr>
<tr>
<td>ENGL 352</td>
<td>Poetry Writing I</td>
</tr>
<tr>
<td>ENGL 353</td>
<td>Screenwriting I</td>
</tr>
<tr>
<td>ENGL 354</td>
<td>Playwriting I</td>
</tr>
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</table>

**Total Hours**: 24

**Rhetoric, Language, and Writing Track**

#### 1. Individual Authors or Movements (3)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ENGL 301</td>
<td>Topics in British Literature to 1800:</td>
</tr>
<tr>
<td>ENGL 302</td>
<td>Topics in British Literature Since 1800:</td>
</tr>
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</table>

**Total Hours**: 6
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENGL 315</td>
<td>Studies in British Literature (Note: may count for one but not both British literature requirement)</td>
</tr>
<tr>
<td>ENGL 317</td>
<td>Topics in American Literature to 1865: _____</td>
</tr>
<tr>
<td>ENGL 318</td>
<td>Topics in American Literature Since 1865: _____</td>
</tr>
<tr>
<td>ENGL 324</td>
<td>Contemporary Authors: _____</td>
</tr>
<tr>
<td>ENGL 325</td>
<td>Recent Popular Literature</td>
</tr>
<tr>
<td>ENGL 327</td>
<td>Studies in Twentieth-Century Drama: _____</td>
</tr>
<tr>
<td>ENGL 331</td>
<td>Chaucer</td>
</tr>
<tr>
<td>ENGL 332</td>
<td>Shakespeare</td>
</tr>
<tr>
<td>ENGL 334</td>
<td>Major Authors: _____</td>
</tr>
<tr>
<td>ENGL 340</td>
<td>Topics in U.S. Ethnic Literature: _____</td>
</tr>
<tr>
<td>ENGL 479</td>
<td>The Literature of: _____</td>
</tr>
<tr>
<td>ENGL 521</td>
<td>Advanced Topics in British Literature 1800: _____</td>
</tr>
<tr>
<td>ENGL 522</td>
<td>Advanced Topics in British Literature After 1800: _____</td>
</tr>
<tr>
<td>ENGL 530</td>
<td>Irish Literature and Culture: _____</td>
</tr>
<tr>
<td>ENGL 531</td>
<td>James Joyce</td>
</tr>
<tr>
<td>ENGL 532</td>
<td>Whitman and Dickerson</td>
</tr>
<tr>
<td>ENGL 533</td>
<td>William Faulkner</td>
</tr>
<tr>
<td>ENGL 534</td>
<td>Major Authors (Capstone): _____</td>
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<tr>
<td>ENGL 560</td>
<td>British Literature of the 20th Century: _____</td>
</tr>
<tr>
<td>ENGL 565</td>
<td>The Gothic Tradition</td>
</tr>
<tr>
<td>ENGL 567</td>
<td>Modern Drama: _____</td>
</tr>
<tr>
<td>ENGL 568</td>
<td>American Literary Environmentalism</td>
</tr>
<tr>
<td>ENGL 570</td>
<td>Topics in American Literature: _____</td>
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<tr>
<td>ENGL 571</td>
<td>American Indian Literature: _____</td>
</tr>
<tr>
<td>ENGL 572</td>
<td>Women and Literature: _____</td>
</tr>
<tr>
<td>ENGL 573</td>
<td>U.S. Latina/o Literature: _____</td>
</tr>
<tr>
<td>ENGL 574</td>
<td>African American Literature: _____</td>
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<tr>
<td>ENGL 575</td>
<td>Literature of the American South</td>
</tr>
<tr>
<td>ENGL 576</td>
<td>Advanced Topics in American Literature to 1865: _____</td>
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<tr>
<td>ENGL 577</td>
<td>Advanced Topics in American Literature Since 1865: _____</td>
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<tr>
<td>ENGL 578</td>
<td>Poetry, 1900-1945</td>
</tr>
<tr>
<td>ENGL 579</td>
<td>Poetry since 1945</td>
</tr>
<tr>
<td>ENGL 610</td>
<td>The Literature of England to 1500</td>
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<td>ENGL 620</td>
<td>Renaissance English Literature: _____</td>
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<tr>
<td>ENGL 633</td>
<td>Milton</td>
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<tr>
<td>ENGL 640</td>
<td>British Literature, 1600-1800: _____</td>
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<td>ENGL 650</td>
<td>Romantic Literature: _____</td>
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<td>ENGL 655</td>
<td>Victorian Literature: _____</td>
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<td>ENGL 674</td>
<td>African Literature: _____</td>
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<tr>
<td>ENGL 359</td>
<td>English Grammar</td>
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<tr>
<td>ENGL 380</td>
<td>Introduction to Rhetoric and Composition</td>
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<tr>
<td>ENGL 385</td>
<td>The Development of Modern English</td>
</tr>
<tr>
<td>ENGL 387</td>
<td>Introduction to the English Language</td>
</tr>
<tr>
<td>ENGL 580</td>
<td>Rhetoric and Writing: _____</td>
</tr>
<tr>
<td>ENGL 581</td>
<td>English Language Studies: _____</td>
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<tr>
<td>ENGL 587</td>
<td>American English</td>
</tr>
<tr>
<td>ENGL 305</td>
<td>World Indigenous Literatures</td>
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<tr>
<td>ENGL 306</td>
<td>Global Environmental Literature</td>
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<tr>
<td>ENGL 336</td>
<td>Jewish American Literature and Culture</td>
</tr>
<tr>
<td>ENGL 337</td>
<td>Introduction to U.S. Latino/a Literature</td>
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<tr>
<td>ENGL 338</td>
<td>Introduction to African-American Literature</td>
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<tr>
<td>ENGL 339</td>
<td>Introduction to Caribbean Literature</td>
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<td>ENGL 340</td>
<td>Topics in U.S. Ethnic Literature: _____</td>
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<tr>
<td>ENGL 341</td>
<td>American Literature of Social Justice</td>
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<tr>
<td>ENGL 360</td>
<td>Advanced Composition: _____ (as Pura Vida: Travel Writing and the Costa Rica Experience)</td>
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<tr>
<td>ENGL 492</td>
<td>The London Review</td>
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<tr>
<td>ENGL 571</td>
<td>American Indian Literature: _____</td>
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<tr>
<td>ENGL 572</td>
<td>Women and Literature: _____</td>
</tr>
<tr>
<td>ENGL 573</td>
<td>U.S. Latina/o Literature: _____</td>
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<td>African American Literature: _____</td>
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<td>ENGL 674</td>
<td>African Literature: _____</td>
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<tr>
<td>ENGL 308</td>
<td>Introduction to Literary Criticism and Theory or ENGL 508 Contemporary Literary Theory</td>
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<td>ENGL 508</td>
<td>Contemporary Literary Theory</td>
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<tr>
<td>ENGL 660</td>
<td>Ecocriticism</td>
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<td>Global Environmental Literature</td>
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<td>Jewish American Literature and Culture</td>
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<td>ENGL 338</td>
<td>Introduction to African-American Literature</td>
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<td>ENGL 339</td>
<td>Introduction to Caribbean Literature</td>
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<td>ENGL 340</td>
<td>Topics in U.S. Ethnic Literature: _____</td>
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<td>Advanced Composition: _____ (as Pura Vida: Travel Writing and the Costa Rica Experience)</td>
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<td>American Indian Literature: _____</td>
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<td>ENGL 572</td>
<td>Women and Literature: _____</td>
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<tr>
<td>ENGL 573</td>
<td>U.S. Latina/o Literature: _____</td>
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<tr>
<td>ENGL 574</td>
<td>African American Literature: _____</td>
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<td>African Literature: _____</td>
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<td>ENGL 358</td>
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<td>American Indian Literature: _____</td>
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<td>Women and Literature: _____</td>
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<td>ENGL 573</td>
<td>U.S. Latina/o Literature: _____</td>
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<td>ENGL 574</td>
<td>African American Literature: _____</td>
</tr>
<tr>
<td>ENGL 674</td>
<td>African Literature: _____</td>
</tr>
<tr>
<td>ENGL 308</td>
<td>Introduction to Literary Criticism and Theory or ENGL 508 Contemporary Literary Theory</td>
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<tr>
<td>ENGL 508</td>
<td>Contemporary Literary Theory</td>
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<tr>
<td>ENGL 660</td>
<td>Ecocriticism</td>
</tr>
<tr>
<td>ENGL 359</td>
<td>English Grammar</td>
</tr>
<tr>
<td>ENGL 380</td>
<td>Introduction to Rhetoric and Composition</td>
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<tr>
<td>ENGL 385</td>
<td>The Development of Modern English</td>
</tr>
<tr>
<td>ENGL 387</td>
<td>Introduction to the English Language</td>
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</table>

2. Literary Theory (3)

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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENGL 308</td>
<td>Introduction to Literary Criticism and Theory or ENGL 508 Contemporary Literary Theory</td>
</tr>
<tr>
<td>ENGL 508</td>
<td>Contemporary Literary Theory</td>
</tr>
<tr>
<td>ENGL 660</td>
<td>Ecocriticism</td>
</tr>
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</table>

3. English Language or Rhetoric (3)

<table>
<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ENGL 359</td>
<td>English Grammar</td>
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<tr>
<td>ENGL 380</td>
<td>Introduction to Rhetoric and Composition</td>
</tr>
<tr>
<td>ENGL 385</td>
<td>The Development of Modern English</td>
</tr>
<tr>
<td>ENGL 387</td>
<td>Introduction to the English Language</td>
</tr>
</tbody>
</table>

4. Transcultural Approaches to Language, Literature, or Writing (3)

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENGL 305</td>
<td>World Indigenous Literatures</td>
</tr>
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<td>ENGL 306</td>
<td>Global Environmental Literature</td>
</tr>
<tr>
<td>ENGL 336</td>
<td>Jewish American Literature and Culture</td>
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<tr>
<td>ENGL 337</td>
<td>Introduction to U.S. Latino/a Literature</td>
</tr>
<tr>
<td>ENGL 338</td>
<td>Introduction to African-American Literature</td>
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<tr>
<td>ENGL 339</td>
<td>Introduction to Caribbean Literature</td>
</tr>
<tr>
<td>ENGL 340</td>
<td>Topics in U.S. Ethnic Literature: _____</td>
</tr>
<tr>
<td>ENGL 341</td>
<td>American Literature of Social Justice</td>
</tr>
<tr>
<td>ENGL 360</td>
<td>Advanced Composition: _____ (as Pura Vida: Travel Writing and the Costa Rica Experience)</td>
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<tr>
<td>ENGL 492</td>
<td>The London Review</td>
</tr>
<tr>
<td>ENGL 571</td>
<td>American Indian Literature: _____</td>
</tr>
<tr>
<td>ENGL 572</td>
<td>Women and Literature: _____</td>
</tr>
<tr>
<td>ENGL 573</td>
<td>U.S. Latina/o Literature: _____</td>
</tr>
<tr>
<td>ENGL 574</td>
<td>African American Literature: _____</td>
</tr>
<tr>
<td>ENGL 674</td>
<td>African Literature: _____</td>
</tr>
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</table>

5. Writing (3) note: students not pursuing the Creative Writing Track may only count one creative writing workshop toward the major; creative writing workshops noted below.

<table>
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<td>Topics in Reading and Writing: _____</td>
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<tr>
<td>ENGL 209</td>
<td>Introduction to Fiction</td>
</tr>
<tr>
<td>ENGL 210</td>
<td>Introduction to Poetry</td>
</tr>
<tr>
<td>ENGL 211</td>
<td>Introduction to the Drama</td>
</tr>
<tr>
<td>ENGL 351</td>
<td>Fiction Writing I creative writing workshop</td>
</tr>
<tr>
<td>ENGL 352</td>
<td>Poetry Writing I creative writing workshop</td>
</tr>
<tr>
<td>ENGL 353</td>
<td>Screenwriting I creative writing workshop</td>
</tr>
<tr>
<td>ENGL 354</td>
<td>Playwriting I creative writing workshop</td>
</tr>
<tr>
<td>ENGL 355</td>
<td>Nonfiction Writing I creative writing workshop</td>
</tr>
<tr>
<td>ENGL 360</td>
<td>Advanced Composition: _____</td>
</tr>
<tr>
<td>ENGL 361</td>
<td>Professional Writing: _____</td>
</tr>
<tr>
<td>ENGL 362</td>
<td>Foundations of Technical Writing</td>
</tr>
<tr>
<td>ENGL 400</td>
<td>Teaching and Tutoring Writing</td>
</tr>
<tr>
<td>ENGL 492</td>
<td>The London Review</td>
</tr>
<tr>
<td>ENGL 551</td>
<td>Fiction Writing II creative writing workshop</td>
</tr>
<tr>
<td>ENGL 552</td>
<td>Poetry Writing II creative writing workshop</td>
</tr>
<tr>
<td>ENGL 553</td>
<td>Screenwriting II creative writing workshop</td>
</tr>
<tr>
<td>ENGL 554</td>
<td>Playwriting II creative writing workshop</td>
</tr>
<tr>
<td>ENGL 555</td>
<td>Nonfiction Writing II creative writing workshop</td>
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<tr>
<td>ENGL 598</td>
<td>Honors Proseminar: _____</td>
</tr>
<tr>
<td>ENGL 599</td>
<td>Honors Essay</td>
</tr>
</tbody>
</table>

6. Forms and Genres (3) note: students not pursuing the Creative Writing Track may only count one creative writing workshop toward the major; creative writing workshops noted below.

<table>
<thead>
<tr>
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<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 209</td>
<td>Introduction to Fiction</td>
</tr>
</tbody>
</table>
ENGL 210  Introduction to Poetry  
ENGL 211  Introduction to the Drama  
ENGL 309  The British Novel  
ENGL 327  Studies in Twentieth-Century Drama: ______  
ENGL 351  Fiction Writing I creative writing workshop  
ENGL 352  Poetry Writing I creative writing workshop  
ENGL 353  Screenwriting I creative writing workshop  
ENGL 354  Playwriting I creative writing workshop  
ENGL 355  Nonfiction Writing I creative writing workshop  
ENGL 360  Advanced Composition: ______  
ENGL 361  Professional Writing: ______  
ENGL 362  Foundations of Technical Writing  
ENGL 359  English Grammar  
ENGL 400  Teaching and Tutoring Writing  
ENGL 494  Research Internship  
or ENGL 495  Directed Study: ______  
ENGL 496  Internship  
or ENGL 497  Service Learning Internship  
ENGL 351  Fiction Writing II creative writing workshop  
ENGL 352  Poetry Writing II creative writing workshop  
ENGL 353  Screenwriting II creative writing workshop  
ENGL 354  Playwriting II creative writing workshop  
ENGL 355  Nonfiction Writing II creative writing workshop  
ENGL 367  Modern Drama: ______  
ENGL 368  Poetry, 1900-1945  
ENGL 369  Poetry since 1945  

7. Literary History: 2 courses (6)  
ENGL 312  Major British Writers to 1800  
& ENGL 322  and American Literature II  
ENGL 320  American Literature I  
& ENGL 314  and Major British Writers after 1800  
ENGL 310  Literary History I  
& ENGL 330  and Literary History II  
ENGL 312  Major British Writers to 1800  
& ENGL 330  and Literary History II  
ENGL 320/330  American Literature I  
ENGL 310  Literary History I  
& ENGL 314  and Major British Writers after 1800  
ENGL 310  Literary History I  
& ENGL 322  and American Literature II  

Rhetoric, Language, and Writing courses (9 hours of the courses listed below, taken in addition to the RLW course taken in category 3 above; 3 of the 9 hours may be taken in category 6 or other categories as appropriate) (6)  
ENGL 351  Fiction Writing I creative writing workshop  
ENGL 352  Poetry Writing I creative writing workshop  
ENGL 353  Screenwriting I creative writing workshop  
ENGL 354  Playwriting I creative writing workshop  
ENGL 355  Nonfiction Writing I creative writing workshop  
ENGL 359  English Grammar  
ENGL 360  Advanced Composition: ______  
ENGL 361  Professional Writing: ______  
ENGL 362  Foundations of Technical Writing  
ENGL 359  English Grammar  
ENGL 400  Teaching and Tutoring Writing  
ENGL 494  Research Internship  
or ENGL 495  Directed Study: ______  
ENGL 496  Internship  
or ENGL 497  Service Learning Internship  
ENGL 351  Fiction Writing II creative writing workshop  
ENGL 352  Poetry Writing II creative writing workshop  
ENGL 353  Screenwriting II creative writing workshop  
ENGL 354  Playwriting II creative writing workshop  
ENGL 355  Nonfiction Writing II creative writing workshop  
ENGL 580  Rhetoric and Writing: ______  
ENGL 581  English Language Studies: ______  
ENGL 587  American English  

Total Hours 6

Additional requirements, Rhetoric, Language, and Writing Track:  
- One course (3 hours) in addition to 7. (Literary History) must focus on literature before 1850. *See course list at the bottom of this page (p. ).  
- Two courses (6 hours) must be capstone courses, i.e., at the 500 level or above.  
- 27 hours must be at the junior/senior level.  
- One 200-level course may count toward major requirements. No 100-level ENGL courses count toward major requirements.

Note:  
- Only 1 (3 credits) creative writing workshop (fiction writing, nonfiction writing, poetry writing, screen writing or playwriting) may be applied as a major course for students not pursuing the creative writing track.

Major Hours & Major GPA  
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours  
Satisfied by 30 hours of major courses (33 for Honors English).

Major Hours in Residence  
Satisfied by a minimum of 24 hours of KU resident credit in the major; exceptions by permission of Director of Undergraduate Studies only.

Major Junior/Senior Hours  
Satisfied by a minimum of 24 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA  
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).
The vast majority of our undergraduate classes have 20-35 students, and our department is renowned for its tradition of excellence in teaching. Solid foundation for professional success.

Teach our students life-long skills, so that they learn to write clearly, effectively, and creatively, and as they lay a foundation for professional success.

Because reading and writing shape the world.

KU’s English Department is at the core of the humanities, highlighting the “human” through our individual, one-on-one interactions with our students, our emphasis on community and global engagement, and our abiding interest in our shared humanity through the stories of others. We seek to challenge the mind and to engage the imagination of our students, to teach them to ask questions and to seek for answers. We encourage them to grapple with the complexity of a culturally and commercially interconnected world and the global networks and processes of cultural exchange. We believe that words and ideas will shape the world. We teach our students life-long skills, so that they learn to write clearly, creatively, and effectively—discovering themselves even as they lay a solid foundation for professional success.

A commitment to teaching and learning.

Our department is renowned for its tradition of excellence in teaching. The vast majority of our undergraduate classes have 20-35 students, and much of the class time is dedicated to active learning and engagement with texts and ideas. In the last ten years, faculty members in the department of English have won ten Kemper Fellowships for Excellence in Teaching, two Chancellors Club Teaching Professorships, a Career Achievement Teaching Award, and a wide variety of other university-level teaching and advising awards, and the department as a whole received the Center of Teaching Excellence (CTE) award for Department Excellence in Teaching at the University of Kansas.

A variety of career and life paths.

The Literature, Language, and Writing program at the Edwards campus helps to prepare undergraduate students for a variety of professions, including law, scholarship, publishing, library science, and marketing—as well as any number of other fields that value clear communication, interpretive skill, and critical and creative thinking.

Undergraduate Admission

Admission to KU

All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

Requirements for the B.A. or B.G.S.

Literature, Language, and Writing Major

KU Edwards Campus

The undergraduate program in literature, language, and writing is offered in its entirety only at the KU Edwards Campus (http://edwardscampus.ku.edu), 12600 Quivira Rd., Overland Park, KS 66213. This program is designed for students who have earned an associate’s degree or equivalent hours and wish to complete the upper-level courses necessary for a bachelor’s degree.

Literature, Language, and Writing Program

The program includes professional writing courses. Internship opportunities may be pursued as credit toward the major, offering

Departmental Honors

To be admitted to the English Honors major program, an undergraduate must have earned a 3.25 overall grade-point average, and a 3.5 grade-point average in English courses.

Honors English majors must complete at least 1 section of ENGL 598 Honors Proseminar: _____ and ENGL 599 Honors Essay. This requirement, in effect, adds 3 hours of capstone-level coursework to the student’s emphasis.

Bachelor of Arts and Bachelor of General Studies in Literature, Language, and Writing

Why study English language and literature?

Because reading and writing shape the world.

*Courses that fulfill the additional pre-1850 requirement (in addition to any relevant course taken for category 7):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 301</td>
<td>Topics in British Literature to 1800: _____</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 310</td>
<td>Literary History I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 312</td>
<td>Major British Writers to 1800</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 317</td>
<td>Topics in American Literature to 1865: _____</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 320</td>
<td>American Literature I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 331</td>
<td>Chaucer</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 332</td>
<td>Shakespeare</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 521</td>
<td>Advanced Topics in British Literature 1800: _____</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 525</td>
<td>Shakespeare: _____</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 565</td>
<td>The Gothic Tradition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 610</td>
<td>The Literature of England to 1500</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 620</td>
<td>Renaissance English Literature: _____</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 633</td>
<td>Milton</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 640</td>
<td>British Literature, 1600-1800: _____</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 650</td>
<td>Romantic Literature: _____</td>
<td>3</td>
</tr>
</tbody>
</table>
students the opportunity to develop communication skills in specific professional contexts.

In today’s rapidly changing work environment, employers are seeking people who can deal with concepts and abstractions, who are imaginative and creative, and who have good communication and people skills. A degree in English can help develop these skills, and it is good preparation for a variety of advanced professional degrees in areas such as business and law. English majors pursue a range of careers including editing, technical writing, advertising and public relations, teaching, market research, retail management, teaching English as a second language, nonprofit fund-raising and/or advocacy, Web design, speech writing, sales, video production, script reading, radio and television, and many others. Some career paths require an advanced degree or specialized post-graduate training, but an undergraduate degree in English is an excellent base from which to explore career options.

Contact the CLAS undergraduate advisor on the Edwards Campus, Dan Mueller, dmueller@ku.edu, 864-8659 (from Lawrence) or 913-897-8659 (outside of Lawrence) for more information.

**Requirements for the B.A. or B.G.S. Major**

**Course Requirements**

**Literature, Language and Writing Core Knowledge and Skills (12)**

Majors must complete a total of 4 courses (12 hours) satisfying the 12 distribution indicated in each of the following 3 areas:

**Literature Before 1900.** Satisfied by two courses (6 hours) from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 301</td>
<td>Topics in British Literature to 1800: _____</td>
</tr>
<tr>
<td>ENGL 309</td>
<td>The British Novel</td>
</tr>
<tr>
<td>ENGL 312</td>
<td>Major British Writers to 1800</td>
</tr>
<tr>
<td>ENGL 314</td>
<td>Major British Writers after 1800</td>
</tr>
<tr>
<td>ENGL 315</td>
<td>Studies in British Literature</td>
</tr>
<tr>
<td>ENGL 316</td>
<td>Introduction to Major American Writers</td>
</tr>
<tr>
<td>ENGL 317</td>
<td>Topics in American Literature to 1865: _____</td>
</tr>
<tr>
<td>ENGL 320</td>
<td>American Literature I</td>
</tr>
<tr>
<td>ENGL 322</td>
<td>American Literature II</td>
</tr>
<tr>
<td>ENGL 331</td>
<td>Chaucer</td>
</tr>
<tr>
<td>ENGL 332</td>
<td>Shakespeare</td>
</tr>
<tr>
<td>ENGL 521</td>
<td>Advanced Topics in British Literature 1800: _____</td>
</tr>
<tr>
<td>ENGL 525</td>
<td>Shakespeare</td>
</tr>
<tr>
<td>ENGL 532</td>
<td>Whitman and Dickerson</td>
</tr>
<tr>
<td>ENGL 565</td>
<td>The Gothic Tradition</td>
</tr>
<tr>
<td>ENGL 568</td>
<td>American Literary Environmentalism</td>
</tr>
<tr>
<td>ENGL 576</td>
<td>Advanced Topics in American Literature to 1865: _____</td>
</tr>
<tr>
<td>ENGL 610</td>
<td>The Literature of England to 1500</td>
</tr>
<tr>
<td>ENGL 620</td>
<td>Renaissance English Literature: _____</td>
</tr>
<tr>
<td>ENGL 633</td>
<td>Milton</td>
</tr>
<tr>
<td>ENGL 640</td>
<td>British Literature, 1600-1800: _____</td>
</tr>
<tr>
<td>ENGL 650</td>
<td>Romantic Literature: _____</td>
</tr>
<tr>
<td>ENGL 655</td>
<td>Victorian Literature: _____</td>
</tr>
</tbody>
</table>

**British Literature.** Satisfied by one course (3 hours) from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 301</td>
<td>Topics in British Literature to 1800: _____</td>
</tr>
<tr>
<td>ENGL 302</td>
<td>Topics in British Literature Since 1800:</td>
</tr>
<tr>
<td>ENGL 309</td>
<td>The British Novel</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 312</td>
<td>Major British Writers to 1800</td>
</tr>
<tr>
<td>ENGL 314</td>
<td>Major British Writers after 1800</td>
</tr>
<tr>
<td>ENGL 315</td>
<td>Studies in British Literature</td>
</tr>
<tr>
<td>ENGL 331</td>
<td>Chaucer</td>
</tr>
<tr>
<td>ENGL 332</td>
<td>Shakespeare</td>
</tr>
<tr>
<td>ENGL 521</td>
<td>Advanced Topics in British Literature 1800: _____</td>
</tr>
<tr>
<td>ENGL 522</td>
<td>Advanced Topics in British Literature After 1800: _____</td>
</tr>
<tr>
<td>ENGL 525</td>
<td>Shakespeare: _____</td>
</tr>
<tr>
<td>ENGL 530</td>
<td>Irish Literature and Culture: _____</td>
</tr>
<tr>
<td>ENGL 560</td>
<td>British Literature of the 20th Century: _____</td>
</tr>
<tr>
<td>ENGL 565</td>
<td>The Gothic Tradition</td>
</tr>
<tr>
<td>ENGL 610</td>
<td>The Literature of England to 1500</td>
</tr>
<tr>
<td>ENGL 620</td>
<td>Renaissance English Literature: _____</td>
</tr>
<tr>
<td>ENGL 633</td>
<td>Milton</td>
</tr>
<tr>
<td>ENGL 640</td>
<td>British Literature, 1600-1800: _____</td>
</tr>
<tr>
<td>ENGL 650</td>
<td>Romantic Literature: _____</td>
</tr>
<tr>
<td>ENGL 655</td>
<td>Victorian Literature: _____</td>
</tr>
<tr>
<td>ENGL 690</td>
<td>Studies in: _____</td>
</tr>
</tbody>
</table>

*American Literature.* Satisfied by one course (3 hours) from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 316</td>
<td>Introduction to Major American Writers</td>
</tr>
<tr>
<td>ENGL 320</td>
<td>American Literature I</td>
</tr>
<tr>
<td>ENGL 322</td>
<td>American Literature II</td>
</tr>
<tr>
<td>ENGL 325</td>
<td>Recent Popular Literature</td>
</tr>
<tr>
<td>ENGL 336</td>
<td>Jewish American Literature and Culture</td>
</tr>
<tr>
<td>ENGL 337</td>
<td>Introduction to U.S. Latino/a Literature</td>
</tr>
<tr>
<td>ENGL 338</td>
<td>Introduction to African-American Literature</td>
</tr>
<tr>
<td>ENGL 340</td>
<td>Topics in U.S. Ethnic Literature: _____</td>
</tr>
<tr>
<td>ENGL 341</td>
<td>American Literature of Social Justice</td>
</tr>
<tr>
<td>ENGL 532</td>
<td>Whitman and Dickerson</td>
</tr>
<tr>
<td>ENGL 533</td>
<td>William Faulkner</td>
</tr>
<tr>
<td>ENGL 568</td>
<td>American Literary Environmentalism</td>
</tr>
<tr>
<td>ENGL 570</td>
<td>Topics in American Literature: _____</td>
</tr>
<tr>
<td>ENGL 571</td>
<td>American Indian Literature: _____</td>
</tr>
<tr>
<td>ENGL 574</td>
<td>African American Literature: _____</td>
</tr>
<tr>
<td>ENGL 575</td>
<td>Literature of the American South</td>
</tr>
<tr>
<td>ENGL 576</td>
<td>Advanced Topics in American Literature to 1865: _____</td>
</tr>
<tr>
<td>ENGL 577</td>
<td>Advanced Topics in American Literature Since 1865: _____</td>
</tr>
<tr>
<td>ENGL 578</td>
<td>Poetry, 1900-1945</td>
</tr>
<tr>
<td>ENGL 579</td>
<td>Poetry since 1945</td>
</tr>
</tbody>
</table>

**Writing or English Language Required Electives (9)**

Majors must complete a total of 3 courses (9 hours) of writing and/or English language courses.

**English Required Elective (9)**
Majors must complete 3 courses (9 hours) of junior/senior level ENGL courses. Up to 6 credits combined of ENGL 494 (Research Internship) or ENGL 495 (Directed Study) may be applied as major electives; they may not count as English core equivalents. Up to 3 credit hours of ENGL 496 (Internship) or ENGL 497 (Service Learning Internship) can be applied as major elective credit. In addition, the following courses offered in other CLAS departments may be selected: HWC 304, HWC 308, HWC 312, FMS 373, FMS 773, THR 709.

Total Hours 30

**Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 30 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**
Satisfied by a minimum of 30 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Departmental Honors**

To be admitted to the English Honors major program, an undergraduate student must have earned a 3.25 overall grade-point average, and a 3.5 grade-point average in English courses. The student should declare an English major, if enrolled in the College of Liberal Arts and Sciences, or an English concentration, if enrolled in the School of Business or the School of Education.

Honors English majors must complete at least 1 section of ENGL 598 Honors Proseminar: ______ and ENGL 599 Honors Essay. This requirement, in effect, adds 3 hours of capstone-level coursework to the student’s emphasis.

**Minor in English**

**Why study English language and literature?**

Because reading and writing shape the world.

KU’s English Department is at the core of the humanities, highlighting the “human” through our individual, one-on-one interactions with our students, our emphasis on community and global engagement, and our abiding interest in our shared humanity through the stories of others. We seek to challenge the mind and to engage the imagination of our students, to teach them to ask questions and to seek for answers. We encourage them to grapple with the complexity of a culturally and commercially interconnected world and the global networks and processes of cultural exchange. We believe that words and ideas will shape the world. We teach our students life-long skills, so that they learn to write clearly, creatively, and effectively—discovering themselves even as they lay a solid foundation for professional success.

**A commitment to teaching and learning.**

Our department is renowned for its tradition of excellence in teaching. The vast majority of our undergraduate classes have 20-35 students, and much of the class time is dedicated to active learning and engagement with texts and ideas. In the last ten years, faculty members in the department of English have won ten Kemper Fellowships for Excellence in Teaching, two Chancellors Club Teaching Professorships, a Career Achievement Teaching Award, and a wide variety of other university-level teaching and advising awards, and the department as a whole received the Center of Teaching Excellence (CTE) award for Department Excellence in Teaching at the University of Kansas.

**A variety of career and life paths.**

The English minor is an excellent complement to any major or professional degree. English students graduate to a variety of careers, including law, teaching, scholarship, publishing, library science, and journalism—as well as medicine, business, politics, design, and any number of other fields that value clear communication, interpretive skill, and critical and creative thinking.

**Engaged and innovative scholarship.**

KU’s English Department has several core strengths that cross tracks and periods, including Global and Cross-Cultural Approaches; Literature, Rhetoric, and Social Action; Diversity Studies; Language, Literature and Science; and Popular Expressive Forms.

At the KU English Department, students work closely with nationally-renowned writers and researchers. Our faculty have won national awards that recognize excellence in research, including grants from the National Endowment for the Humanities, the American Philosophical Society, and the Newberry Library, among others. English Department faculty members have also received major research funding from the University of Kansas, including the Hall Center for the Humanities Research fellowships and Keeler Intra-University Fellowships for interdisciplinary work. Undergraduate students can work one-on-one with faculty mentors in the Honors Program, McNair Scholars Program, and Dean’s Scholars Program.

**Requirements for the Minor**

The minor in English requires students to complete 18 hours of English coursework in one of two tracks: **Regular or Creative Writing.**

**Requirements for the English Minor, Regular Track**

18 hours, of which 12 hours must be selected from 4 of the following categories that comprise the common requirements of the English major, and of which at least 15 must be jr/sr hours. No more than 1 creative writing course may count for the regular track. ENGL 494, 495, 496, and 497 may not be applied to English minor requirements.

**Categories:**

1. Individual Authors or Movements
2. Literary Theory
3. English Language or Rhetoric
4. Transcultural Approaches to Language, Literature, or Writing
5. Writing
6. Forms and Genres
7. Literary History

For full course lists for each category, see the General Track of the English Major (http://catalog.ku.edu/liberal-arts-sciences/english/ba-bgs-english/#Gen).

Requirements for the Creative Writing Track of the English Minor

18 hours, of which 12 hours must be creative writing workshops (see below) in at least two genres, and of which at least 15 must be jr/sr hours. For the purposes of the creative writing tracks of the major and minor, genres are 1) fiction; 2) poetry; 3) playwriting, screenwriting, and/or scriptwriting; and 4) non-fiction. At least one workshop must be at the 500 level or above. ENGL 494, 495, 496, and 497 may not be applied to English minor requirements.

Creative Writing workshops:
ENGL 351 Fiction Writing I (3)
ENGL 352 Poetry Writing I (3)
ENGL 353 Screenwriting I (3)
ENGL 354 Playwriting I (3)
ENGL 355 Nonfiction Writing I (3)
ENGL 360 Advanced Composition: _____ (3)
ENGL 492 The London Review (3)
ENGL 551 Fiction Writing II (3)
ENGL 552 Poetry Writing II (3)
ENGL 553 Screenwriting II (3)
ENGL 554 Playwriting II (3)
ENGL 555 Nonfiction Writing II (3)
FMS 373 Intermediate Screenwriting (3)

Minor Hours & Minor GPA

While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 12 hours of KU resident credit in the minor.

Minor Junior/Senior Hours
Satisfied by a minimum of 15 hours from junior/senior courses (300+) in the minor.

Minor Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses (300+) in the minor. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator.

Master of Arts in English

Why study English language and literature?

Because reading and writing shape the world.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

To be admitted to any of the department’s graduate degree tracks, a student must have a strong undergraduate record, particularly in the humanities. A grade-point average of at least 3.3 on a 4.0 scale normally is required. College courses should include at least 18 hours of junior/senior work in literature. Applicants are expected to have some familiarity with British and American literary history and the work of the major writers in English. Applicants for graduate work in literary studies and rhetoric-composition studies should be able to demonstrate, with writing samples, their ability to produce advanced analytical and interpretive scholarly writing. Candidates for admission must submit Graduate Record Examination scores in support of their applications. For complete admission information, see the English department website (http://www.english.ku.edu/graduate/applying_for_admission.shtml).

All applicants must submit their graduate application online (http://www.graduate.ku.edu). All supplemental materials (transcripts, writing samples, letters of recommendation, etc.) may be attached electronically and submitted with the online application. Those who cannot submit supplemental materials electronically may mail them to the department:

The University of Kansas
Department of English
Graduate Applications
Wescoe Hall
1445 Jayhawk Blvd., Room 3001
Lawrence, KS 66045-7594

M.A. Degree Requirements

While continuously enrolled, a student has a total of 7 years to complete the master’s degree; however, the expected time to degree is 2.5 to 3 years. The candidate’s program should be arranged in consultation
with the director of graduate studies or a member of the departmental committee on graduate studies.

Students who elect to write a master's thesis must enroll in ENGL 899. M.A. candidates in Options 1a, 1b, 2a and 2b must take at least 18 hours of their course work, in addition to ENGL 800, at the 700, 800, and 900 levels.

**Option 1a—Literature**

1. A total of 30 hours in English courses carrying graduate credit. No more than 6 hours may be taken at the 600 level. At least 6 hours must be taken at the 900 or seminar level. ENGL 998 does not count as a seminar or 900-level class. Exam option students will take 9 conventional courses (27 hours), plus 3 hours of ENGL 897 (exam preparation hours) or another elective course. Thesis option students will take 8 conventional courses (24 hours), plus 6 hours of ENGL 899 (MA or MFA thesis hours).

2. 3 hours (1 course) on Methods or Theory appropriate to different areas of focus in Literary Studies: ordinarily 708, 709, 800, or another course appropriately designated by the Graduate Director. A 998 (Directed Reading) directly focused on questions of methods and theory can fulfill this requirement if approved by the Graduate Director.

3. 3 hours (1 course) on Pedagogy: the 801-802 sequence (required for TAs), 780, or other appropriate course as approved by the Graduate Director.

4. 18 (6 courses with thesis option) or 21 (7 courses with exam option) distribution hours to be selected in consultation with advisors (Graduate Director during first year and thereafter advisors with whom students plan to move toward exam or thesis options). At least 1 course must be pre-1700; at least 1 must be 1700-1900; and at least 1 must be after 1900. 2 courses (6 hours) outside the department may be included in the 18 distribution hours with approval of the Graduate Director.

5. Exam option (3 hours): the student will generally enroll in 3 hours of ENGL 897 (exam preparation hours) and must pass a 90-minute oral exam based on a 30-item exam list of literary and/or theoretical texts, including at least 6 items pre-1700; at least 6 items post-1800; and at least 12 items in theory. The student may opt to enroll in 1 additional 3-hour elective course instead of ENGL 897.

6. Thesis Option (6 hours): The student must enroll in 6 hours of ENGL 899 (MA or MFA thesis hours) over 2 semesters of thesis work: (1) a first semester of work with the thesis director leading to polished proposal with a bibliography; and (2) a thesis semester of writing leading to defense of finished thesis.

**Option 2a—Rhetoric and Composition**

1. A total of 30 hours in English courses carrying graduate credit. No more than 6 hours may be taken at the 600 level. At least 6 hours must be taken at the 900 or seminar level. ENGL 998 does not count as a seminar or 900-level class. Exam option students will take 9 conventional courses (27 hours), plus 3 hours of ENGL 897 (exam preparation hours) or another elective course. Thesis option students will take 8 conventional courses (24 hours), plus 6 hours of ENGL 899 (MA or MFA thesis hours).

2. 3 hours (1 course) on Methods or Theory appropriate to different areas of focus in Rhetoric and Composition, ordinarily 780 (Composition Studies), or another course appropriately designated by the Graduate Director. A 998 (Directed Reading) directly focused on questions of methods and theory can fulfill this requirement if approved by the Graduate Director.

3. 3 hours (1 course) on Pedagogy: the 801-802 sequence (required for TAs), 780, 781, or other appropriate course as approved by the Graduate Director.

4. 18 (6 courses with thesis option) or 21 (7 courses with exam option) distribution hours to be selected in consultation with advisors (Graduate Director during first year and thereafter advisors with whom students plan to move toward exam or thesis options). At least 6 hours in English Language Studies courses (including at least 1 seminar) beyond the courses used to fulfill requirements 2 (Methods and Theory) and 3 (Pedagogy).

5. 6 hours of elective courses

6. For students selecting the exam option, 6 hours in second exam area (rhetoric and composition, literature, literary theory), including at least 1 seminar.

7. 2 courses (6 hours) outside the department may be included in the 18 distribution hours with approval of the Graduate Director.
8. Exam option (3 hours): The student will generally enroll in 3 hours of ENGL 897 (exam preparation hours) and must pass a 90-minute oral exam based on 2 lists developed in consultation with advisors: a) a 15-item exam list of works in English Language Studies, and b) a 15-item exam list of works in a second area: literature, literary theory, or rhetoric and composition. The student may opt to enroll in 1 additional 3-hour elective course instead of ENGL 897.

9. Thesis Option (6 hours): The student must enroll in 6 hours of ENGL 899 (MA or MFA thesis hours) over 2 semesters of thesis work: (1) a first semester of work with the thesis director leading to polished proposal with a bibliography; and (2) a thesis semester of writing leading to defense of finished thesis.

Option 2b—English Language Studies

1. A total of 30 hours in English courses carrying graduate credit. No more than 6 hours may be taken at the 600 level. At least 6 hours must be taken at the 900 or seminar level. ENGL 998 does not count as a seminar or 900-level class. Exam option students will take 9 conventional courses (27 hours), plus 3 hours of ENGL 897 (exam preparation hours) or another elective course. Thesis option students will take 8 conventional courses (24 hours), plus 6 hours of ENGL 899 (MA or MFA thesis hours).

2. 3 hours (1 course) on Methods or Theory appropriate to different areas of focus in Rhetoric and Composition, ordinarily 780 (Composition Studies), or another course appropriately designated by the Graduate Director. A 998 (Directed Reading) directly focused on questions of methods and theory can fulfill this requirement if approved by the Graduate Director.

3. 3 hours (1 course) on Pedagogy: the 801-802 sequence (required for TAs), 780, or other appropriate course as approved by the Graduate Director.

4. 18 (6 courses with thesis option) or 21 (7 courses with exam option) distribution hours (6 courses) to be selected in consultation with advisors (Graduate Director during first year and thereafter advisors with whom students plan to move toward exam or thesis options). At least 6 hours in Rhetoric and Composition courses (including at least 1 seminar) beyond the courses used to fulfill requirements 2 (Methods and Theory) and 3 (Pedagogy).

5. 6 hours of elective courses

6. For students selecting the exam option, 6 hours in second exam area (rhetoric and composition specialty, English language studies, literature, literary theory), including at least 1 seminar

7. 2 courses (6 hours) outside the department may be included in the 18 distribution hours with approval of the Graduate Director.

8. Exam option (3 hours): The student will generally enroll in 3 hours of ENGL 897 (exam preparation hours) and must pass a 90-minute oral exam based on 2 lists developed in consultation with advisors: a) a 15-item exam list of works in rhetoric and composition, and b) a 15-item exam list of works in a second area: literature, literary theory, English Language Studies, or specialty within rhetoric and composition. The student may opt to enroll in 1 additional 3-hour elective course instead of ENGL 897.

9. Thesis Option (6 hours): The student must enroll in 6 hours of ENGL 899 (MA or MFA thesis hours) over 2 semesters of thesis work: (1) a first semester of work with the thesis director leading to polished proposal with a bibliography; and (2) a thesis semester of writing leading to defense of finished thesis.

Master of Fine Arts in Creative Writing

Why study English language and literature?

Because reading and writing shape the world.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

To be admitted to any of the department’s graduate degree tracks, a student must have a strong undergraduate record, particularly in the humanities. A grade-point average of at least 3.3 on a 4.0 scale normally is required. Creative writing applicants need to submit writing samples that demonstrate an advanced level of writing skills in their respective genres. Candidates for admission must submit Graduate Record Examination scores in support of their applications. For complete admission information, see the English department website (http://www.english.ku.edu/graduate/applying_for_admission.shtml).

All applicants must submit their graduate application online (http://www.graduate.ku.edu). All supplemental materials (transcripts, writing samples, letters of recommendation, etc.) may be attached electronically and submitted with the online application. Those who cannot submit supplemental materials electronically may mail them to the department:

The University of Kansas
Department of English
Graduate Applications
Wescoe Hall
1445 Jayhawk Blvd., Room 3001
Lawrence, KS 66045-7594

Master of Fine Arts in Creative Writing Degree Requirements

Requirements for the M.F.A. in Creative Writing (http://www2.ku.edu/~englishmfa) include

1. 4 graduate courses (12 hours) in literature, English or American.
2. 4 graduate courses (12 hours) in creative writing.
3. No more than 2 classes (6 hours) may be taken at the 600-level.
4. 7 to 9 hours in electives or practica, chosen from graduate courses in the Department of English, or approved courses in another department.
Doctor of Philosophy in English

Why study English language and literature?
Because reading and writing shape the world.

Admission to Graduate Studies
An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission
To be admitted to any of the department’s graduate degree tracks, a student must have a strong undergraduate record, particularly in the humanities. A grade-point average of at least 3.3 on a 4.0 scale normally is required. Applicants are expected to have some familiarity with British and American literary history and the work of the major writers in English. Most importantly, applicants for graduate work in literary studies and rhetoric-composition studies should be able to demonstrate, with writing samples, their ability to produce advanced analytical and interpretive scholarly writing. Similarly, creative writing applicants need to submit writing samples that demonstrate an advanced level of writing skills in their respective genres. Candidates for admission must submit Graduate Record Examination scores in support of their applications. For complete admission information, see the English department website (http://www.english.ku.edu/graduate/applying_for_admission.shtml).

All applicants must submit their graduate application online (http://www.graduate.ku.edu). All supplemental materials (transcripts, writing samples, letters of recommendation, etc.) may be attached electronically and submitted with the online application. Those who cannot submit supplemental materials electronically may mail them to the department:

The University of Kansas
Department of English
Graduate Applications
Wescoe Hall
1445 Jayhawk Blvd., Room 3001
Lawrence, KS 66045-7594

Ph.D. Requirements: Literature and Creative Writing

1. At least 24 hours of credit in appropriate formal graduate courses beyond the M.A. or M.F.A. At least 15 hours (in addition to introduction to ENGL 800 if not taken for the M.A.) of this course work must be taken from among courses offered by the Department of English at the 700 level and above. ENGL 997 and ENGL 999 credits cannot be included among the 24 hours. Students may petition to take up to 6 hours outside the department.

2. Required courses: ENGL 800 and 2 seminars (courses numbered 900 or above) offered by the Department of English at KU beyond the M.A. ENGL 998 does not fulfill this requirement. Students with master’s degrees earned elsewhere may be required by the director of graduate studies, acting on behalf of the graduate committee, to take additional course work.

3. A reading knowledge of 1 of the following languages: French, German, Greek, Hebrew, Italian, Japanese, Latin, Russian, Old English, or Spanish, and completion of the Responsible Scholarship and Research Skills requirement (usually fulfilled with ENGL 800).

4. ENGL 999, Dissertation (at least 12 hours).

5. A comprehensive examination, to be completed after satisfaction of formal course requirements. This examination, which has both written and oral components, consists of 3 areas of study.

6. In the semester following the comprehensive examination, a 90-minute review of the dissertation proposal, which is to provide formal direction for the dissertation.

7. At least 1 year of supervised quarter-time teaching for qualified candidates except for those who do not plan to undertake teaching careers or who have already had extensive teaching experience.


Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current policies on Doctoral Research Skills and Responsible Scholarship are listed in the KU Policy Library.

Ph.D. Requirements: Composition and Rhetoric, M.A. to Ph.D., standard track

1. At least 24 hours of credit in appropriate formal graduate courses beyond the M.A. or M.F.A. At least 15 hours (in addition to introduction to ENGL 800 if not taken for the M.A.) of this course work must be taken from among courses offered by the Department of English at the 700 level and above. ENGL 997 and ENGL 999 credits cannot be included among the 24 hours. Students may petition to take up to 6 hours outside the department.

2. An introduction to the field: either ENGL 800 or ENGL 780.

3. 2 seminars (courses numbered 900 or above) offered by the Department of English at KU beyond the M.A. ENGL 998 does not fulfill this requirement.

4. A reading knowledge of 1 of the following languages: French, German, Greek, Hebrew, Italian, Japanese, Latin, Russian, Old English, or Spanish, and completion of the Responsible Scholarship and Research Skills requirement (usually fulfilled with ENGL 800).

5. ENGL 999, Dissertation (at least 12 hours).

Ph.D. in English Degree Requirements

Students entering the program with the B.A. have, while being continuously enrolled, 10 years to complete the M.A. and Ph.D. combined. Students entering with the M.A. have 7 years to complete the Ph.D.; however, the expected time to degree is 6-7 years for the M.A. plus Ph.D., and 4-5 years for the Ph.D.
6. A comprehensive examination, to be completed after satisfaction of formal course requirements. This examination, which has both written and oral components, consists of three areas of study.

7. In the semester following the comprehensive examination, a 90-minute review of the dissertation proposal, which is to provide formal direction for the dissertation.

8. At least 1 year of supervised quarter-time teaching for qualified candidates except for those who do not plan to undertake teaching careers or who have already had extensive teaching experience.


Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current policies on Doctoral Research Skills and Responsible Scholarship are listed in the KU Policy Library.

Ph.D. Requirements: Composition and Rhetoric, B.A. to Ph.D. accelerated track

Each student admitted to the Ph.D. program in composition and rhetoric is assigned a graduate advisor from among the faculty in composition and rhetoric, who will help the student plan an initial course of study. After the first semester, students may ask other faculty members in the field to serve as their graduate advisors, depending on availability. The students and their graduate advisors together design and monitor a coherent program of study, individualized to serve each student’s goals within current expectations for a Ph.D. in composition and rhetoric. As an interdisciplinary field, study in composition and rhetoric might involve work in other departments, programs, or schools as well as English, including, for example, communication studies, linguistics, education, psychology, American studies, women’s studies, or history.

Each student’s individualized program of study must meet the minimum requirements detailed below.

1. At least 36 hours of credit in appropriate formal graduate courses beyond the B.A. At least 30 hours of this course work must be taken from among courses offered at the 700 level and above. ENGL 997 and ENGL 999 credit hours cannot be included among the 36 hours.

2. Students in this specialization may take up to 12 hours outside the department without petition, with written approval by the students’ graduate advisors. Students may petition to take more hours outside the department, with the approval of their graduate advisors, and provided they can demonstrate how the courses fit within their programs of study.

3. A course on methods, theory, and professionalism: Either ENGL 800 Introduction to Graduate Study in English or ENGL 780 Composition Studies

4. A reading knowledge of one of the following languages: French, German, Greek, Hebrew, Italian, Japanese, Latin, Russian, Old English, or Spanish, and completion of the Responsible Scholarship and Research Skills requirement (usually fulfilled with ENGL 800).

5. At least 3 seminars (numbered 900 or above) offered by the Department of English at the University of Kansas, at least 2 of which should be in composition and rhetoric. ENGL 998 does not fulfill this requirement.

6. ENGL 999 Dissertation (at least 12 hours).

7. A comprehensive examination, to be completed after satisfaction of formal course requirements. This examination, which has both written and oral components, consists of 3 areas of study.

8. In the semester following the comprehensive examination, a 90-minute review of the dissertation proposal, which is to provide formal direction for the dissertation.

9. At least 1 year of supervised quarter-time teaching for qualified candidates except for those who do not plan to undertake teaching careers or who have already had extensive teaching experience.

10. A dissertation of substantial merit.


Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current policies on Doctoral Research Skills and Responsible Scholarship are listed in the KU Policy Library.

Environmental Studies Program

Why study environmental studies?

The KU Environmental Studies Program provides a rigorous interdisciplinary education and stimulates exchange concerning the environment from natural science, social science, and humanities perspectives.

Undergraduate Programs

This interdisciplinary major gives students a fundamental knowledge of the human environment, the dimensions of human impact on the environment, and holistic approaches to solving problems resulting from this impact. The human environment includes all facets of human activity affecting the environment, such as philosophical and ethical issues, environmental resource use and misuse, population biology, and the chemistry of the atmosphere.

Electives

The goals of the program are

1. To provide a holistic view of the environment, one in which the synergistic nature of perturbations, natural and anthropogenic, can be understood and

2. To provide the technical and evaluative skills for active participation in an environmental career.

The environment is the central theme around which a liberal arts education is focused.

Students may declare an interest in environmental studies or a major in environmental studies by filling out the appropriate forms. CLAS Interest Code and Major Declaration forms are available from College Student Academic Services (http://clas.ku.edu/undergrad), 109 Strong Hall, or in the environmental studies office. Students are strongly encouraged to declare an environmental studies major as soon as possible.

Electives provide the opportunity to specialize, and these can be chosen by consulting the various pathways in the major (http://www.kumc.edu/school-of-medicine/pathology.html), which contain a list of faculty members associated with the pathway who are available to help decide on electives and environmental careers. An elective approval form must be submitted to 109 Strong Hall before a student is allowed to graduate. Forms may be obtained from the environmental studies office. Except for study abroad, a maximum of 8 hours of nonclassroom course work may be counted toward electives (e.g., internship or research).
Exceptions and Substitutions
All substitutions must be approved by a student’s environmental studies faculty advisor. A student must submit a requirement substitution form to the environmental studies faculty advisor. Forms can be obtained from the environmental studies office.

Internships
Internships allow majors to develop new skills and test their abilities and educational backgrounds. Students can assess their career objectives in professional settings. Internships are done in city, county, state, and federal agencies and in environmental organizations and private companies or agencies. Students are encouraged to participate at the end of the sophomore or junior year. Completion of an internship by the end of the junior year provides an opportunity to make career changes and final elective selections before the senior year. It is not possible to participate in an internship after graduation. The applicant must have a grade-point average of 2.5 or above, must have completed 12 hours of required environmental studies courses, and must have a suitable internship opportunity. A maximum of 3 hours may be applied to the 12 hours of required electives.

The Professional Science Masters professional graduate degree is designed for graduates of bachelor’s programs in physical/natural sciences, environmental studies, civil/environmental engineering or related fields who are currently employed in private firms, public agencies, and not-for-profit organizations that address a range of environmental issues. Key foci in the science curriculum of this program are environmental impact assessment; soils, water, and ecosystems science; geospatial analysis; environmental health and policy; and an understanding of environmental law and policy and the regulatory environment.

The P.S.M. degree is a unique professional degree grounded in natural science, technology, engineering, mathematics and/or computational sciences and designed to prepare students for direct entry into a variety of career options in industry, business, government, or non-profit organizations. P.S.M. programs prepare graduates for high-level careers in science that have a strong emphasis on such skill areas as management, policy, entrepreneurship, communication and project management. P.S.M. programs consist of 2 years of academic training in an emerging or interdisciplinary area, along with a professional component that may include internships and “cross-training” in workplace skills.

Courses

EVRN 103. Environment and History. 3 Hours. H.
Nature is our oldest home and newest challenge. This course surveys the environmental history of the earth from the extinction of the dinosaurs to the present with a focus on the changing ecological role of humans. It analyzes cases of ecological stability, compares cultural attitudes toward nature, and asks why this ancient relationship seems so troubled. (Same as HIST 103.) LEC.

EVRN 140. Global Environment I: The Discovery of Environmental Change. 5 Hours. GE3N / U.
This interdisciplinary course and laboratory sections survey the foundations of environmental understanding and the process of scientific discovery from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the history of environmental systems and life on earth, the discovery of biotic evolution, ecological change, and climate change. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to earth systems and the development of environmental understanding using historical and present-day examples. (Same as GEOG 140 and HIST 140.) LEC.

EVRN 142. Global Environment II: The Ecology of Human Civilization. 5 Hours. GE3S / U.
This interdisciplinary course and its laboratory sections survey the history of humanity’s relationship with the natural world over the long term from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the evolution of Homo sapiens and cultural systems; the development of hunter, gatherer, fisher, agricultural, and pastoral lifeways; the ecology of colonialism and industrial civilization, and the emergence of ideological and ethical perspectives on the relationship between nature and culture. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to the humanity’s engagement with the global environment using historical and present-day examples. (Same as GEOG 142 and HIST 142.) LEC.

EVRN 144. Global Environment I: Discovery of Environmental Change, Honors. 5 Hours. U.
This interdisciplinary course surveys the foundations of environmental understanding and the process of scientific discovery from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the history of environmental systems and life on earth, the discovery of biotic evolution, ecological change, and climate change. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to earth systems and the development of environmental understanding using historical and present-day examples. (Same as GEOG 144 and HIST 144.) Open only to students admitted to the University Honors Program or by permission of instructor. LEC.

EVRN 145. Global Environment II: The Ecology of Human Civilization, Honors. 5 Hours. U.
This interdisciplinary course and its laboratory sections survey the history of humanity’s relationship with the natural world over the long term from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the evolution of Homo sapiens and cultural systems; the development of hunter, gatherer, fisher, agricultural, and pastoral lifeways; the ecology of colonialism and industrial civilization, and the emergence of ideological and ethical perspectives on the relationship between nature and culture. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to the humanity’s engagement with the global environment using historical and present-day examples. (Same as GEOG 145 and HIST 145.) Open only to students admitted to the University Honors Program or by permission of instructor. LEC.

EVRN 148. Scientific Principles of Environmental Studies. 3 Hours. NB GE3N / N.
This course presents an overview of our understanding of environmental processes and issues. Topics include scientific principles, resource issues, pollution and global change, among others. This course gives students a rigorous understanding of interactions between humans and their environment and provides students with a scientific basis for making informed environmental decisions. (Same as GEOG 148.) LEC.

EVRN 149. Scientific Principles of Environmental Studies, Honors. 3 Hours. NB GE3N / N.
This course presents an overview of our understanding of environmental processes and issues. Topics include scientific principles, resource issues, pollution and global change, among others. This course gives
students a rigorous understanding of interactions between humans and their environment and provides students with a scientific basis for making informed environmental decisions. An honors section of EVRN 148, designed for superior students. (Same as GEOG 149.) Prerequisite: Membership in the University Honors Program or approval of instructor required. LEC.

**EV RN 150. Environment, Culture and Society. 3 Hours. SC GE3S / S.** An introduction to geographic approaches to the study of the environment, emphasizing societal and cultural factors that influence human interaction with the biosphere, hydrosphere, lithosphere, and atmosphere. The course involves analysis of a broad range of contemporary environmental issues from the local to global scales. (Same as GEOG 150.) LEC.

**EV RN 177. First Year Seminar: ______. 3 Hours. GE11 / U.** A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Environmental Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**EV RN 200. Study Abroad Topics In: _____. 1-6 Hours. S.** This course is designed for the study of special topics in Environmental Studies. Coursework must be arranged through the Office of Study Abroad. May be repeated for credit if content varies. LEC.

**EV RN 304. Environmental Conservation. 3 Hours. NE GE3S / N.** A survey of current methods of describing and modeling the function, structure, and productivity of natural and anthropogenically modified earth resource systems, along with a discussion of contemporary views of what constitutes a natural landscape. Fundamental natural science principles about the interplay among lithospheric, atmospheric, hydrospheric, and biospheric components of earth systems are emphasized. Uses of natural resources, including fossil fuels, minerals, and water, are described with attention to the earth's total energy budget. Human activities that affect preservation, conservation, and multiple uses of earth regions receive attention. Systems under stress through population and other contemporary forces serve as examples. (Same as GEOG 304.) LEC.

**EV RN 320. Environmental Policy Analysis. 3 Hours. N.** An historical and analytical study of the formulation, implementation, and consequences of environmental policy in the United States. Attention will be directed at relevant interest groups, issues specific to both rural and urban populations, relationships between national policies and international organizations concerned with environmental problems. Prerequisite: EVRN 148/GEOG 148; and EVRN 103/HIST 103, EVRN 347/HIST 347 or EVRN 150/GEOG 150. LEC.

**EV RN 332. Environmental Law. 3 Hours. U.** An introduction to how the American legal process improves, transforms, and damages the natural environment. Emphasizes and compares shifting responsibilities of legal forces and institutions; judges and litigants, legislators and statutes, agencies and administrations, and citizens and regulated entities. Prerequisite: EVRN 148 and EVRN 103/HIST 103, EVRN 347/HIST 347 or EVRN 150/GEOG 150. LEC.

**EV RN 335. Introduction to Soil Geography. 4 Hours. N.** The course focuses on the properties and processes of soils as they occur in their environment. The student is introduced to the nature of soil as it functions as a body; genesis of soils; properties of soil solids, especially colloids; soil chemical composition, properties, and reactions; interaction between solid, liquid, and gaseous components in soils; plant-soil-water relationships; biological interactions with soil; classification of soils; and the distribution of soils on the landscape. Not open to students who have taken GEOG 535 or EVRN 535. (Same as GEOG 335.) Prerequisite: GEOG 104 or GEOL 101 or consent of instructor; BIOL 100 and CHEM 130 or CHEM 190 recommended. LEC.

**EV RN 336. Ethics, Ideas and Nature. 3 Hours. H.** This course examines the ethical frameworks developed for thinking about, using, and protecting the natural world. Examples of topics include indigenous approaches to nature, the history of ecological ideas, environmental movements, the role of the state in managing resources, utilitarianism and progressivism, environmental lawmaking, wilderness advocacy, nature and theology, the rights of nature, and environmental justice. Students are introduced to the theories of duty ethics, justice ethics, utilitarianism, and rights ethics, and required to apply ethical reasoning to contemporary and historical environmental issues. Multiple perspectives on the history of human interactions with nature demonstrate the importance of reflecting upon the value systems inherent in human-centered environmental ethics and nature-centered environmental ethics. (Same as HIST 336.) LEC.

**EV RN 338. Permaculture Design. 6 Hours. N.** Students learn how a local, sustainable design system known as permaculture design creates an ecologically sound and economically viable way of living. The course consists of lecture, field, and permaculture sessions. Lecture topics include food security, permaculture ethics, ecological principles, system design, sustainable soils, food production, food forests, earth works, and construction of human habitats. LEC.

**EV RN 347. Environmental History of North America. 3 Hours. H.** A survey of changes in the landscape and in people's perceptions of the natural world from 1500 to present. Topics include agroecology, water and energy, the impact of capitalism, industrialism, urbanization, and such technologies as the automobile and the origins of conservation. (Same as HIST 347.) LEC.

**EV RN 371. Environmental Geopolitics. 3 Hours. S.** This course examines how human relationships with the biophysical world are politicized. Examines key contributions to debates surrounding environmental security, resource conflicts, and related issues, as well as geopolitical assumptions on which these debates build. (Same as GEOG 371.) LEC.

**EV RN 385. Environmental Sociology. 3 Hours. S.** This course invites students to study society and its impact on the environment. Environmental problems are social problems. This course will address such items as social paradigms, theories, inequalities, movements, and research. (Same as SOC 385.) LEC.

**EV RN 410. Geospatial Analysis. 3 Hours. N.** Focuses on applications of geospatial technologies to environmental issues using case study examples and data, and provide students with a foundational skill-set in geographic information systems, remote sensing, and GPS techniques. Prerequisite: EVRN/GEOG 148/149; EVRN/HIST 103, EVRN/GEOG 150 or EVRN/HIST 347. LEC.

**EV RN 420. Topics in Environmental Studies: ______. 1-6 Hours. N.** Courses on special topics in Environmental Science and/or Policy. These courses may be lecture, discussions, or readings. Students may enroll in more than one interest group but may enroll in a given interest group only once. LEC.

**EV RN 425. Global Water Scarcity. 3 Hours. S.** Though natural factors are introduced, this course focuses primarily on the human factors that contribute to global water scarcity. This course also discusses the consequences of water scarcity and its effects on society. Prerequisite: EVRN 148 or permission of instructor. LEC.
EVRN 433. Biogeography Field and Laboratory Techniques. 3 Hours. N.
This course provides undergraduate students with practical experience in field data collection techniques and laboratory data analysis methods. During the first half of the semester, students work in the field using a variety of methods to measure such vegetation characteristics as: cover, density, biomass, leaf area, and canopy architecture. Students gain experience in the use of field instruments including a spectroradiometer, and techniques for quantifying biophysical attributes of vegetation. During the later part of the course, students learn to summarize their field data and examine relationships between the vegetation attributes and measurements made using remote sensing instruments. Recommended: GEOG 316 or an introductory statistics equivalent. (Same as GEOG 433.) FLD.

EVRN 460. Field Ecology. 3 Hours. N.
Provides practical experience in the characterization of a diversity of ecosystem types; lakes, streams, forests, and prairies. This course is writing intensive, and designed for Environmental Studies majors. Prerequisite: EVRN/GEOG 148/149; EVRN/HIST 103, EVRN/HIST 347 or EVRN/GEOG 150; Senior standing. Restricted to declared Environmental Studies majors. FLD.

EVRN 490. Internship in Environmental Studies. 1-8 Hours. AE61 / N.
Supervised practical experience in a specific environmental area of interest. The advisor will schedule regular meetings to evaluate progress and provide assistance. A written summary of the internship experience and evaluation will be prepared independently by the student, a representative of the cooperating agency, and the advisor. Total credit may not exceed 8 hours. Prerequisite: Junior standing and consent of program director. Restricted to declared Environmental Studies majors. Restricted to students with a 2.5 overall GPA or above. FLD.

EVRN 510. Advanced Environmental Applications in Geospatial Techniques. 3 Hours. H/N.
This course focuses on applying advanced geospatial mapping and analysis techniques to "real-world" environmental issues. Course content may include lecture/lab time on advanced geospatial topics; a major class project, small-group projects, or individual projects; or half-semester internships with state agencies or campus entities that will culminate in an individual project. The specific nature of projects will be driven largely by student interest and ability, as well as agency-center needs. Prerequisite: EVRN 410 or equivalent course; or permission of the instructor. LEC.

EVRN 519. Sociology of Global Food. 5 Hours. U.
The Sociology of Global Food offers a critical examination of the global food system since the Industrial Revolution. Topics include the industrialization of agriculture, sustainable agriculture, and the role of food and agriculture in organizing society. This course discusses the emergence of current debates around food and agriculture including food activism, technological developments, human/environment relationships, and labor issues. There is a lab component to this course. (Same as SOC 519.) Prerequisite: Junior standing. LEC.

EVRN 526. Remote Sensing of the Environment I. 4 Hours. N.
Introduction to study of the environment through air photos and satellite imagery, including principles of remote sensing, interactions of electromagnetic energy with the atmosphere and earth's surface, aerial photography, satellite systems, and sensors (electro-optical, thermal, and radar). Emphasis in the latter part of the course is on such applications as global monitoring, land cover mapping, forestry, agriculture, and oceanography. Laboratory emphasizes visual interpretation of aerial photography and satellite imagery and an introduction to digital image processing in the department's NASA Earth Science Remote Sensing Laboratory. (Same as GEOG 526.) Prerequisite: MATH 101 or equivalent. GEOG 358 recommended. LEC.

EVRN 528. Environmental Justice and Public Policy. 3 Hours. S.
This course provides an overview of environmental justice, both as a social movement and as a public policy initiative. Environmental justice examines the distribution of environmental externalities across different socio-economic and racial groups. We will discuss several different public policy areas that have been impacted by the environmental justice movement: hazardous waste facility siting, urban redevelopment and Brownfields, transportation policy, and Native American sovereignty. We will also touch upon international environmental policy in an environmental justice context. Throughout the course we will evaluate empirical issues in studying environmental justice. (Same as POLS 528.) Prerequisite: POLS 306, or a statistics class, or consent of instructor. LEC.

EVRN 535. Soil Geography. 5 Hours. N.
A broad study of the principles and properties of soils and their distribution on the landscape. Topics covered include: pedology, clay mineralogy, soil physics, soil chemistry, management of soils, soil biology, taxonomy, and soil geomorphology. Laboratory section and a field project are required. Not open to students who have taken GEOG 335 or EVRN 335. (Same as GEOG 535.) Prerequisite: GEOG 104 or GEOL 101 or consent of the instructor; BIOL 100 and CHEM 130 or CHEM 190 recommended. LEC.

EVRN 538. Soil Chemistry. 3 Hours. N.
This course examines the chemical properties and processes of soils and methods of evaluation. Topics include solubility, mineral solubility, soil colloidal behavior, ion exchange, surface complexation, soil salinity and sodicity, soil acidity, oxidation-reduction reactions, and kinetics of soil chemical processes. (Same as GEOG 538.) Prerequisite: GEOG 335 or GEOG 535 or EVRN 335 or EVRN 535, CHEM 135 or CHEM 195, MATH 121, PHYS 114, or consent of the instructor. LEC.

EVRN 542. Ethnobotany. 3 Hours. S.
Course will involve lectures and discussion of Ethnobotany - the mutual relationship between plants and traditional people. Research from both the field of anthropology and botany will be incorporated in this course to study the cultural significance of plant materials. The course has 7 main areas of focus: 1) Methods in Ethnobotanical Study; 2) Traditional Botanical Knowledge - knowledge systems, ethnolinguistics; 3) Edible and Medicinal Plants of North America (focus on North American Indians); 4) Traditional Phytochemistry - how traditional people made use of chemical substances; 5) Understanding Traditional Plant Use and Management; 6) Applied Ethnobotany; 7) Ethnobotany in Sustainable Development (focus on medicinal plant exploration by pharmaceutical companies in Latin America). (Same as ANTH 582.) Prerequisite: ANTH 104, ANTH 382, GEOG 335, GEOG 358 recommended. LEC.

EVRN 550. Environmental Economics. 3 Hours. U.
This course provides an overview of the theory and empirical practice of economic analysis as it applies to environmental issues. Topics include externalities (a type of market failure), the valuation of nonmarket goods, the practice of benefit-cost analysis, and the efficiency and cost effectiveness of pollution control policies. Most importantly, the course permits students to perform economic field research, using state-of-the-art techniques in a manner accessible to undergraduate students. (Same as ECON 550.) Prerequisite: ECON 104, ECON 140, or ECON 142. LEC.

EVRN 553. Comparative Environmental Politics. 3 Hours. S.
This course compares environmental politics and policies across a number of countries, including those in North America, Western Europe, East Asia, and Latin America. (Same as POLS 553.) LEC.
EVRN 562. United States Environmental History in the 20th Century. 3 Hours. H.
Americans dramatically changed the natural world between 1900 and 2000. This course asks how transformed environments shaped the American experience during a century of technological innovation, democratic renewal, economic expansion, global conflict, and cultural pluralism. Topics include food and markets, energy and transportation, law and politics, protest and resistance, suburbanization, and environmentalism’s fate in a global information era. (Same as HIST 562.) LEC.

EVRN 563. U.S. Environmental Thought in the 20th Century. 3 Hours. H.
Explores both leading and dissident ideas that Americans have had about the natural world since 1900. Broad chronological periods are explored in some depth, including the Progressive Era, New Deal, Cold War, the Sixties, and the Reagan Eighties. The course uses articles and books, as well as visual and aural forms of communication. Commercial speech, as well as scholarly and literary works, are considered. (Same as HIST 563.) Prerequisite: EVRN 148 or HIST 129, or by permission of instructor. LEC.

EVRN 611. Water Quality, Land Use, and Watershed Ecosystems. 3 Hours. N.
Water quality issues are integrated with land use planning and the development of watershed management strategies. Interrelationships among the hydrologic cycle, atmospheric deposition, nutrient transformations and pesticide use are examined in regards to stream, lake, and groundwater quality. Prerequisite: CHEM 110 or CHEM 130 and BIOL 414, or consent of instructor. LEC.

EVRN 615. Capstone Project. 3 Hours. AE61 / N.
The capstone project provides students with a broad-based, interdisciplinary educational experience and allows them to integrate and synthesize the knowledge they have gained in their environmental studies major. It rejoins the cohort that has separately pursued the BA/BGS and BS tracks and places them in situations in which they address real world environmental issues with a team approach and produce professionally meaningful analytical reports. Prerequisite: Junior standing; EVRN 320, EVRN 332, and EVRN 460. Restricted to declared Environmental Studies majors. LEC.

EVRN 616. Environmental Impact Assessment. 3 Hours. N.
This course provides an overview of environmental laws and regulations. Additional focus is given to the process described in the National Environmental Policy Act (NEPA). Students will learn when NEPA is triggered, the difference between Environmental Impact Statements (EIS) and Environmental Assessments (EIA), and how to write an EIS/EIA. Prerequisite: An introductory course in environmental law, or consent of instructor. LEC.

EVRN 620. Environmental Politics and Policy. 3 Hours. S.
Analysis of environmental politics and the formulation and implementation of environmental policy. Examines the history and development of environmental politics as well as current trends. Themes include interest groups, business interests, political institutions, and specific environmental policy issues. (Same as POLS 624.) LEC.

EVRN 624. Independent Study. 1-9 Hours. AE61 / N.
A research course, in any of the fields of environmental studies, consisting of either experimental research, original policy analysis, or the preparation of an extensive paper based on library investigation. Project topic to be agreed upon in advance with supervising faculty member. Prerequisite: Consent of instructor. IND.

EVRN 625. Honors Research in Environmental Studies. 3 Hours. AE61 / N.
A course giving eligible majors the opportunity to earn Departmental Honors by engaging in an intensive program of study leading to an original piece of research. Prerequisite: Senior standing, approval of the Environmental Studies Program, the Honors Project Director, and an overall 3.25 cumulative grade point average during the semester of enrollment. Restricted to declared Environmental Studies majors. IND.

EVRN 628. The Politics of Public Health. 3 Hours. S.
This course examines the social, institutional and political context of public health policy in the United States. We will examine factors that shape the nation’s public health, explore the role of government in reducing risk and promoting well being, and analyze the major institutions responsible for monitoring, protecting and promoting general public health. Themes include the social determinants of health, health disparities, emerging infectious diseases, food safety, transportation, and environmental health. (Same as POLS 628.) Prerequisite: POLS 110 and POLS 306 are recommended. LEC.

EVRN 635. Soil Physics. 3 Hours. N.
Provides theoretical and practical foundations for understanding physical properties and processes of variably-saturated porous media. Focus is on the transport, retention, and transformation of water, heat, gas, and solutes through the soil. We examine modern vadose zone measurement methods, analytical tools, and numerical models for data collection and interpretation. (Same as GEOL 335.) Prerequisite: GEOL 335 or EVRN 335; or GEOG 535 or EVRN 535, and MATH 121, PHYS 114; or consent of instructor. LEC.

EVRN 656. Ecosystem Ecology. 3 Hours. N.
An introduction to the patterns and processes that affect terrestrial ecosystems. Emphasis is placed on understanding nutrient cycles (e.g., carbon nitrogen phosphorous), hydrologic cycles, and patterns of net primary productivity. The role of both natural and anthropogenic disturbances in structuring terrestrial ecosystems is examined in the context of global land-use patterns. Discussion of current research literature will be expected. (Same as BIOL 656.) Prerequisite: BIOL 414 and CHEM 130. LEC.

EVRN 700. Colloquium. 1 Hour.
Topics of current interest in environmental studies. May be repeated for credit for different topics. LEC.

EVRN 701. Climate Change, Ecological Change and Social Change. 3 Hours.
This interdisciplinary graduate seminar examines the history of climate change from natural and physical science, social science, and humanities perspectives. The class explores the ways that different disciplines approach understanding climate change and its impact on natural and human systems and how these understandings have changed over time. The course is team-taught by faculty from the natural and physical sciences, social sciences, humanities, and professional schools, and will include faculty guest speakers from KU and off-campus. Students will write a research paper on a climate change topic of their choice that reflects the historical and interdisciplinary approaches of the seminar. A goal of the seminar is to assemble student papers for presentation and possible publication. Prerequisite: Consent of instructor. LEC.

EVRN 702. Energy, Ecology and Community in Kansas. 3 Hours.
This interdisciplinary graduate seminar examines the role of climate in shaping energy, ecology, and community in Kansas from natural and physical science, social science, and/or humanities perspectives. The class will combine lectures, group projects, and field research to understand the ways that climate change and energy production are reshaping the human and natural systems in Kansas and the Great
Plains. The course is team-taught by faculty from the natural and physical science, social science, humanities and professional schools, and will include faculty guest speakers from KU and off-campus. LEC.

**EVRN 720. Topics in Environmental Studies: _____, 1-6 Hours.**
Courses on special topics in Environmental Studies. These courses may be lecture, seminars, or readings. Students may enroll in more than one interest group but may enroll in a given interest group only once. LEC.

**EVRN 730. Environmental Toxicology. 3 Hours.**
Examines the effects of toxic chemicals on individuals, populations, communities and ecosystems. Topics include major classes of pollutants, movement, distribution and fate of pollutants in the environment, mechanisms of action, toxicity testing, and environmental assessment. LEC.

**EVRN 745. Environmental Data Analysis and Statistics. 3 Hours.**
Survey of common statistical methods for analyzing environmental data. Includes techniques for environmental monitoring, impact assessment, and site reclamation, as well as methods for handling censored data, time series, and spatial analysis. Sampling design, data interpretation, and presentation of statistical results will be emphasized. Prior coursework or practical experience in statistics is expected. Prerequisite: Permission of instructor. LEC.

**EVRN 815. Professional Science Masters Capstone. 3 Hours.**
A culminating experience to develop a workforce project, producing a written report and presented orally to a committee that includes an industry member. Students will develop an applied workforce project in the student’s place of employment for full time employees or an internship for full time students. The students will document their project in a written report and present their project to the Environmental Studies faculty (2), and the student’s employer or representative if practical. LEC.

**EVRN 915. Capstone. 3 Hours.**
The goal of this research seminar is to discuss individual students’ research, culminating in the completion of a paper in Environmental Studies for presentation at a professional meeting and/or publication in a professional journal. SEM.

### Bachelor of Arts and Bachelor of General Studies in Environmental Studies

#### Why study environmental studies?

The KU Environmental Studies Program provides a rigorous interdisciplinary education and stimulates exchange concerning the environment from natural science, social science, and humanities perspectives.

### Requirements for the B.A. or B.G.S. Major

**Environmental Studies Introduction to Science and Culture (16-18)**

Majors must complete both of the following:

- Global Environment I: The Discovery of Environmental Change. Satisfied by:
  - EVRN 140 Global Environment I: The Discovery of Environmental Change
  - or EVRN 144 Global Environment I: Discovery of Environmental Change, Honors

**Global Environment II: The Ecology of Civilization. Satisfied by:**

- EVRN 142 Global Environment II: The Ecology of Human Civilization
- or EVRN 145 Global Environment II: The Ecology of Human Civilization, Honors

**Research Methods. Satisfied by one of the following:**

- UBPL 538 Environmental Planning Techniques
- ECON/EVRN 550 Environmental Economics
- EVRN/GEOG 433 Biogeography Field and Laboratory Techniques
- EVRN 410 Geospatial Analysis
- EVRN 510 Advanced Environmental Applications in Geospatial Techniques
- GEOL 351 Environmental Geology
- GEOG 510 Human Factors

**Statistics. Satisfied by one of the following:**

- MATH 365 Elementary Statistics
- GEOG 316 Methods of Analyzing Geographical Data
- BIOL 570 Introduction to Biostatistics

**Environmental Studies Core Knowledge and Skills (12)**

Majors must complete a course in each of the following areas:

- Environmental Policy Analysis. Satisfied by:
  - EVRN 320 Environmental Policy Analysis 3
- Environmental Law. Satisfied by:
  - EVRN 332 Environmental Law 3
- Field Ecology. Satisfied by:
  - EVRN 460 Field Ecology 3
- Capstone Experience. Satisfied by:
  - EVRN 615 Capstone Project 3

**Environmental Studies Required Electives/Options (0)**

Majors must select an option or design their own. Self-designed emphases must be approved in their entirety by an environmental studies advisor and the undergraduate studies director before implementation. Each option requires 4 courses at the 300+ level.

### Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**

Satisfied by 40 hours of major courses.

**Major Hours in Residence**

Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**

Satisfied by a minimum of 30 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**

Satisfied by a minimum of 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/ Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).
Graduation Plan
With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please work with your major advisor to discuss a 4-year plan in environmental studies.

Departmental Honors
To graduate with honors in environmental studies, an undergraduate must maintain a minimum overall grade-point average of 3.25 and 3.5 in the major. The student must also complete an individual honors research project in cooperation with a faculty mentor. This project normally represents 2 semesters of original work, the completion of 3 credit hours of EVRN 624 Independent Study, and 3 credit hours of EVRN 625 Honors Research in Environmental Studies. All 6 hours may be applied to the 12 hours of environmental studies electives required for the major. Upon completion of the research project, honors candidates are required to present the results of their work at the department’s Undergraduate Research Colloquium.

Bachelor of Science in Environmental Studies

Why study environmental studies?
The KU Environmental Studies Program provides a rigorous interdisciplinary education and stimulates exchange concerning the environment from natural science, social science, and humanities perspectives.

Requirements for the B.S. Degree

General Education Requirements
In addition to degree and major requirements, all students must complete the KU Core.

Environmental Studies Prerequisite or Co-requisite Knowledge
Mathematics (0)
Majors must complete the following:
- Calculus. Satisfied by one of the following:
  - MATH 115 Calculus I
  - MATH 116 and Calculus II
  - MATH 121 Calculus I
- Statistics. Satisfied by one of the following:
  - MATH 365 Elementary Statistics
GEOG 316 Methods of Analyzing Geographical Data
BIOL 570 Introduction to Biostatistics
Supporting Laboratory Science (0)
Majors must complete one of the following:
- Principles of Physical Geography and Intro Lab to in Physical Geography. Satisfied by:
  - GEOG 104 Principles of Physical Geography
  - GEOG 105 and Introductory Laboratory in Physical Geography
- Introduction to Geology. Honors and Geological Fundamentals Laboratory. Satisfied by:

Geology (0)
Introductions to Geology and Geological Fundamentals Laboratory. Satisfied by:
- GEOL 102 The Way The Earth Works, Honors
  - GEOL 103 and Geology Fundamentals Laboratory

Biochemistry and Biotechnology (0)
Majors must complete the following:
- Principles of Molecular and Cellular Biology. Satisfied by:
  - BIOL 150 Principles of Molecular and Cellular Biology
  - BIOL 151 Principles of Molecular and Cellular Biology, Honors
- Principles of Organismal Biology. Satisfied by:
  - BIOL 152 Principles of Organismal Biology
  - BIOL 153 Principles of Organismal Biology, Honors
- Principles of Ecology. Satisfied by:
  - BIOL 414 Principles of Ecology

Environmental Studies Core Requirements
Environmental Studies Introduction to Science and Culture (10)
Majors must complete both of the following:
- Global Environment I: The Discovery of Environmental Change. Satisfied by one of the following:
  - EVRN 140 Global Environment I: The Discovery of Environmental Change
  - EVRN 144 Global Environment I: Discovery of Environmental Change, Honors
- Global Environment II: The Ecology of Civilization. Satisfied by one of the following:
  - EVRN 142 Global Environment II: The Ecology of Human Civilization
  - EVRN 145 Global Environment II: The Ecology of Human Civilization, Honors

Environmental Studies Core Knowledge and Skills (12)
Majors must complete a course in each of the following areas:
- Environmental Policy Analysis. Satisfied by:
  - EVRN 320 Environmental Policy Analysis
  - EVRN 332 Environmental Law
- Field Ecology. Satisfied by:
  - EVRN 460 Field Ecology
- Capstone Experience. Satisfied by:
  - EVRN 615 Capstone Project
Environmental Studies Required Electives/Options (0)
Majors must select an option or design their own. Self-designed emphases must be approved in their entirety by an environmental studies advisor and the undergraduate studies director before implementation. Each option requires 4 courses at the 300+ level.

Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 32 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 24 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Departmental Honors
To graduate with honors in environmental studies, an undergraduate must maintain a minimum overall grade-point average of 3.25 and 3.5 in the major. The student must also complete an individual honors research project in cooperation with a faculty mentor. This project normally represents 2 semesters of original work, the completion of 3 credit hours of EVRN 624 Independent Study, and 3 credit hours of EVRN 625 Honors Research in Environmental Studies. All 6 hours may be applied to the 12 hours of environmental studies electives required for the major. Upon completion of the research project, honors candidates are required to present the results of their work at the department’s Undergraduate Research Colloquium.

Minor in Environmental Studies
Why study environmental studies?
The KU Environmental Studies Program provides a rigorous interdisciplinary education and stimulates exchange concerning the environment from natural science, social science, and humanities perspectives.

Requirements for the Minor
Environmental Studies Minor Core (15-20)
Principals of Environmental Studies. Satisfied by 1 of the following options:

Global Environment I. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>EVRN 140</td>
<td>Global Environment I: The Discovery of Environmental Change</td>
</tr>
<tr>
<td>or EVRN 144</td>
<td>Global Environment I: Discovery of Environmental Change, Honors</td>
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Scientific Principles of Environmental Studies. Satisfied by one of the following:

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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>EVRN/GEOG 148</td>
<td>Scientific Principles of Environmental Studies</td>
</tr>
<tr>
<td>or EVRN/GEOG 149</td>
<td>Scientific Principles of Environmental Studies, Honors</td>
</tr>
</tbody>
</table>

Environmental History and Culture. Satisfied by 1 of the following options:

<table>
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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>EVRN 142</td>
<td>Global Environment II: The Ecology of Human Civilization</td>
</tr>
<tr>
<td>or EVRN 145</td>
<td>Global Environment II: The Ecology of Human Civilization, Honors</td>
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Environment and History. Satisfied by:

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<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>EVRN/HIST 103</td>
<td>Environment and History</td>
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Environment, Culture, and Society. Satisfied by:

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<th>Course</th>
<th>Title</th>
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<tr>
<td>EVRN/GEOG 150</td>
<td>Environment, Culture and Society</td>
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Environmental History of North America. Satisfied by:

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<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>EVRN/HIST 347</td>
<td>Environmental History of North America</td>
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Environmental Policy Analysis. Satisfied by:

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<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>EVRN 320</td>
<td>Environmental Policy Analysis</td>
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<tr>
<td>or EVRN 332</td>
<td>Environmental Law</td>
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</table>

Research Methods. Satisfied by 1 of the following options:

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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>EVRN 410</td>
<td>Geospatial Analysis</td>
</tr>
</tbody>
</table>
| Field Ecology. Satisfied by:
| EVRN 460 | Field Ecology |
| Environmental Economics. Satisfied by:
| ECON/EVRN 550 | Environmental Economics |

Principles of Geographic Information Systems. Satisfied by:

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<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>GEOG 358</td>
<td>Principles of Geographic Information Systems</td>
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</table>

Biogeography Field and Laboratory Techniques. Satisfied by:

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<th>Title</th>
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<tbody>
<tr>
<td>EVRN/GEOG 433</td>
<td>Biogeography Field and Laboratory Techniques</td>
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Environmental Planning Techniques. Satisfied by:

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<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>UBPL 538</td>
<td>Environmental Planning Techniques</td>
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Environmental Geology. Satisfied by:

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<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 351</td>
<td>Environmental Geology</td>
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</table>

Environmental Studies elective at the Junior/Senior Level. Satisfied by 1 additional EVRN course at the Junior/Senior Level (300+).

Minor Hours & Minor GPA
While completing all required courses, minors must also meet each of the following hour and grade-point average minimum standards:

Minor Hours
Satisfied by 18 hours of major courses.

Minor Hours in Residence
Satisfied by a minimum of 9 junior/senior (300+) hours of KU resident credit in the major.

**Minor Junior/Senior Hours**
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

**Minor Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the minor. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator [http://clas.ku.edu/undergrad/tools/gpa].

**Professional Science Masters in Environmental Assessment**

The Professional Science Masters professional graduate degree is designed for graduates of bachelor’s programs in physical/natural sciences, environmental studies, civil/environmental engineering or related fields who are currently employed in private firms, public agencies, and not-for-profit organizations that address a range of environmental issues. Key foci in the science curriculum of this program are environmental impact assessment; soils, water, and ecosystems science; geospatial analysis; environmental health and policy; and an understanding of environmental law and policy and the regulatory environment.

The Professional Science Master’s (PSM) is a relatively new interdisciplinary graduate degree that combines advanced coursework in science with a set of professional skills courses (project management, technical writing/communications, financial management), and a capstone/internship experience.

**Admission to Graduate Studies**

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Entering students are expected to have a B.S. degree in geography or in related physical science, earth science, mathematics, or engineering disciplines. Applicants should have a minimum Grade Point Average (GPA) of 3.0 on a 4.0 scale. Applicants with a GPA of less than 3.0 may be considered for admission on a probationary or provisional status. Entering students will be expected to have studied quantitative methods. Graduate Record Examination scores (verbal, quantitative and analytical) are required of all applicants.

The admissions requirements for the Professional Science Masters with a concentration in Environmental Assessment are as follows:

1. A 3.0 or higher grade point average (on a 4.0 scale)
2. GRE scores on the verbal and quantitative sections
3. Bachelor’s degree from an accredited institution
4. Submission of a letter of interest and at least two letters of recommendation
5. The student must have an undergraduate background of at least 20 semester hours in the natural and applied sciences
6. International students must also meet the English proficiency, visa/I20, and financial support requirements

All PSMs must include a core of business, communication, and project management skills.

**P.S.M. Core (12)**
- PMGT 824 Project Cost Estimation, Analysis, and Control 3
- ENTR 701 Starting Your Own Business 3
- COMS 730 Writing and Speaking for Decision Makers 3
- Accounting Course (selected in consultation with Graduate Advisor) 3

**Concentration (12)**
- EVRN 538 Soil Chemistry 3
- EVRN 611 Water Quality, Land Use, and Watershed Ecosystems 3
- EVRN 616 Environmental Impact Assessment 3
- EVRN 620 Environmental Politics and Policy 3

**Related Electives (6)**
Choose 2 courses
- EVRN 510 Advanced Environmental Applications in Geospatial Techniques
- EVRN 535 Soil Geography
- EVRN 656 Ecosystem Ecology
- EVRN 730 Environmental Toxicology
- EVRN 745 Environmental Data Analysis and Statistics

**Capstone (3)**
- EVRN 815 Professional Science Masters Capstone 3

Total Hours 33

1 Elective courses will be determined by advisor and student

**European Studies Program**

**Why study European studies?**

Because European studies broaden, deepen, and strengthen through interdisciplinary study a student’s knowledge and understanding of the enduring importance of our transatlantic partners, the Europeans.

**Undergraduate Programs**

The degree in European Studies is available as a co-major in conjunction with a bachelor’s degree major in another academic discipline. Students take advantage of this option by combining the co-major with modern European languages & literatures, History, Philosophy, and Global & International Studies. The co-major also can be combined with a bachelor’s degree in a professional school, such as business or
journalism. The European Studies co-major provides students with a solid foundation in the cultures, politics, languages, and history of Europe in preparation for graduate studies and/or careers in a wide variety of international fields. Studying with KU faculty in the broader disciplines such as social sciences, humanities, the arts, and business will enable students to increase their awareness and understanding of Europe’s past, present, and future and its significant role in our increasingly globalized world. The program offers personalized advising, interdisciplinary flexibility, diverse course offerings, opportunities to conduct research, frequent co-curricular activities, and many options for studying and completing internships abroad.

Courses

**EURS 150. Study Abroad Topics in European Studies: ______. 1-5 Hours. U.**

This course is designed for the study of special topics in European Studies at the 100-level (Freshman/Sophomore level). Coursework must be arranged through the KU Office of Study Abroad and approved by a faculty advisor in European Studies. May be repeated for credit if content varies. LEC.

**EURS 177. First Year Seminar: ______. 3 Hours. GE11 / U.**

A limited-enrollment, seminar course for first-time freshmen, addressing current issues in European Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**EURS 302. European Culture and Society 1945 to Present. 3 Hours. HT AE42 / H.**

The course provides historical, cultural, and political overviews of Europe since 1945 with particular emphasis on the contribution of French and Italian culture and society. The course emphasizes Europe’s contribution to Western intellectual thought, social movements, arts and literature, and global society. (Same as HWC 302.) LEC.

**EURS 329. History of War and Peace. 3 Hours. HL / H.**

A study of the changing nature of warfare and the struggle to bring about peace. Topics include pacifism, the “military revolution” that created the first professional armies; the development of diplomatic immunity, truces, and international law; the peace settlements of Westphalia, Utrecht, Vienna, Versailles, San Francisco; the creation of peace movements and peace prizes; the evolution of total war, civil war; and guerrilla warfare involving civilians in the twentieth century; the history of the League of Nations and United Nations; and the rise of intergovernmental and non-governmental organizations. (Same as HWC 302.) LEC.

**EURS 350. Study Abroad Topics in: ______. 1-5 Hours. H.**

This course is designed for the study of special topics in European Studies at the Junior/Senior level. Coursework must be arranged through the KU Office of Study Abroad and approved by a faculty advisor in European Studies. May be repeated for credit if content varies. LEC.

**EURS 430. European Civilization in World Context: ______. 3 Hours. HL AE42/GE3H / H.**

An introduction to the literature of encounter between European and non-European civilizations, drawing on both Western and non-Western sources. The course may include European interactions with areas such as the Mediterranean Basin, Sub-saharan Africa, South and East Asia, and the Americas. World areas and historical periods chosen for study will vary from semester to semester according to the interest and field of the instructor. Not open to freshmen. (Same as HWC 430.) Prerequisite: HWC 114 or HWC 204 and HWC 115 or HWC 205. LEC.

**EURS 435. Islam in Europe. 3 Hours. AE42 / H.**

Investigation of Muslim migration into Europe and day-to-day interactions of Muslims with other European populations. This is an integrated study of historical, political, religious and economic influences that determine Muslim experience in contemporary European culture. (Same as HWC 435.) LEC.

**EURS 500. Seminar in European Studies. 3 Hours. AE42/AE61 / H.**

Provides an interdisciplinary approach to the study of modern European civilization. By discussing both classic and contemporary, controversial readings each week and writing several papers during the semester, students acquire an understanding of the development of modern European culture and society and Europe’s contemporary problems. Topics for discussions and papers are drawn from the following subjects: the economic and political integration of European states; modernism and anti-modernism in European culture; imperialism, migration, and ethnic and racial division in European society; democracy versus dictatorship; American-European relations; mass culture, urban development, and the welfare state; and contrasts and comparisons between European Cultures—East and West, North and South. Seminar discussions are led by invited European Studies faculty as well as the instructor or instructors. Required of all European Studies majors. Prerequisite: Junior standing or consent of instructor. LEC.

**EURS 501. Senior Thesis in European Studies. 3 Hours. AE61 / H.**

European Studies majors will do research and write a substantial paper on a topic in the culture, economy, history, or politics of Europe. Topics will be approved by the European Studies Committee. Students will work with an advisor chosen from among the European Studies faculty and with the European Studies Coordinator. The majority of the students’ work will be done independently with their advisors, but students will meet with the European Studies Coordinator several times as a class to report on their progress and present their final drafts. Required of all European Studies majors. Prerequisite: Completion of EURS 500 and 15 hours toward the Co-Major. IND.

**EURS 502. Senior Honors Thesis in European Studies. 3 Hours. AE61 / H.**

Open to European Studies majors doing their senior thesis for Honors. Prerequisite: Completion of EURS 500, 15 hours toward the Co-Major, and approval of Honors thesis by European Studies Committee. Completion of or concurrent enrollment in EURS 501. IND.

**EURS 503. Europe Today. 3 Hours. S.**

This intensive, interdisciplinary seminar focuses on current social, political, and economic changes in Europe. Topics include European integration and the European Union, the conflict between nationalism and European consciousness, NATO and U.S.-European relations, and international business in Europe. The seminar will include guest lectures from an international array of scholars, political officials, and business representatives, as well as site visits to their institutions and companies. The seminar takes place in Brussels, Belgium, and enrollment is restricted to students accepted in the KU Summer Institute for European Studies study abroad program. LEC.

**EURS 505. Studies in Exile Literature. 3 Hours. H.**

A multidisciplinary study of selected literary, scholarly, and creative works produced by those Europeans forced into exile, emphasizing their impact on culture and society both in Europe and in those countries in which the exiles resided. Examples: exile during the Nazi dictatorship in Germany (1933-1945), during Cold War crises (Berlin 1960, Prague 1968). LEC.

**EURS 506. Culture and Politics of the Cold War in Western Europe. 3 Hours. H.**

An interdisciplinary overview of the Cold War period (1945-1985) focusing on Western European dimensions of the problem, based on the view that
the Cold War structured political institutions, cultures, and societies in enduring ways that continue to be relevant today. LEC.

EURS 507. Research in European Collections. 1-3 Hours. H.
This course allows students in the European Studies Co-Major and related disciplines to receive credit for research related to European Collections in one or more of the following institutions: Watson and Spencer Research Libraries, the Dole Institute, the Eisenhower and Truman Presidential Libraries, the U.S. Army Combined Arms Research and Foreign Military Studies Office at Fort Leavenworth, the Linda Hall Library in Kansas City, and the Winston Churchill Collection at the Westminster College Library in Fulton, Missouri. May be taken in place of EURS 501 by European Studies Honors Students if taken for three credit hours. Permission of instructor necessary. IND.

EURS 508. Politics and Economics of Cultural Production in Western Europe. 3 Hours. H.
Artists and intellectuals in their relation to state and society. This course is designed to introduce students (1) to the role European artists and intellectuals have often played in the arena of politics and (2) to the privileged place cultural production (arts, literature, media) occupies in the formation of various European identities and economies. LEC.

EURS 509. Introduction to the Study of Southern European Societies. 3 Hours. H.
Social, historical, and economic study of Southern European societies with emphasis on modern period. Relevant to the study of European integration and EU enlargement. Consideration of the distinctive southern Mediterranean societies from the perspective of their collective identity as a regional economic and geopolitical bloc. LEC.

EURS 510. Scandinavian Life and Civilization. 3 Hours. H.
This course is designed to impart a general knowledge of life in Denmark, Finland, Iceland, Norway, and Sweden with emphasis on social and cultural conditions, against a geographical and historical background, from the Viking Age to the present. Slides and other illustrated materials. (Same as SCAN 570.) LEC.

EURS 511. Topics in European Studies: ______. 3 Hours. H.
A study of significant themes, movements, or problems in European history, literature, politics, society, or culture. May also relate European issues to issues in other world areas (Africa, North America, Asia, etc.) May be repeated for credit when topic varies. LEC.

EURS 512. Irish Literature and Culture: ______. 3 Hours. H.
Study of topics in Irish literature and culture. Topics may focus on a particular genre, theme, historical period, or group of authors. May be repeated for credit as the topic changes. (Same as ENGL 530.) Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

EURS 536. Economic Issues of the European Union. 3 Hours. S.
A survey of the economies of the European Union, with a focus on the economic development of the member states since World War II, and an examination of the various economic issues confronting them today. (Same as ECON 536) Prerequisite: ECON 104 or ECON 144. LEC.

EURS 550. Classics of Peace Literature. 3 Hours. HL AE51/AE61 / H.
A study of influential proposals for world peace from Erasmus' The Complaint of Peace (1516) to the 1995 Hague Appeal for World Peace. Selected writings by such authors as Erasmus, Hugo Grotius, Jean-Jacques Rousseau, Immanuel Kant, Henry Thoreau, Henri Dunant, Berthe von Suttner, Woodrow Wilson, Mahatma Gandhi, and Martin Luther King, Jr., are considered. (Same as PCS 550.) Prerequisite: HWC 204 or HWC 205. LEC.

EURS 565. The Literature of Human Rights. 3 Hours. H.
Examines in literature, art, and film from about 1800 to the present, both sides of the ongoing debate surrounding the idea that all human persons possess inalienable rights because all persons possess intrinsic value as persons, value independent of race, gender, caste or class, wealth, age, sexual preference, etc. Anti- and pro-rights proponents are paired and studied with equal care. (Same as PCS 565.) LEC.

EURS 580. Directed Study. 1-3 Hours. AE61 / H.
Independent study and directed reading on special topics. Permission of the instructor who will supervise the student’s work is required. LEC.

EURS 581. Discussion Section in French. 1 Hour. U.
The 1 credit hour course represents a foreign language discussion section to be attached to a major 3-credit hour EURS course (example: EURS 500). Foreign language discussion sections are an integral part of the KULAC program envisaged to reinforce foreign language proficiency. LEC.

EURS 582. Discussion Section in German. 1 Hour. U.
The 1 credit hour course represents a foreign language discussion section to be attached to a major 3-credit hour EURS course (example: EURS 500). Foreign language discussion sections are an integral part of the KULAC program envisaged to reinforce foreign language proficiency. LEC.

EURS 583. Discussion Section in Italian. 1 Hour. U.
The 1 credit hour course represents a foreign language discussion section to be attached to a major 3-credit hour EURS course (example: EURS 500). Foreign language discussion sections are an integral part of the KULAC program envisaged to reinforce foreign language proficiency. LEC.

EURS 584. Discussion Section in Spanish. 1 Hour. U.
The 1 credit hour course represents a foreign language discussion section to be attached to a major 3-credit hour EURS course (example: EURS 500). Foreign language discussion sections are an integral part of the KULAC program envisaged to reinforce foreign language proficiency. LEC.

EURS 604. The European Union. 3 Hours. H.
The European Union, the union of 27 European countries, is a culmination of a long history of European unity. The European Union now encompasses population and economic strength rivalling that of the United States. This course examines selected topics in the history of European integration and the political, legal, economic, and social implications of the present European Union as well as its relations with the United States and other regions of the world. LEC.

FARS 110. Elementary Farsi I. 5 Hours. U.
Vocabulary acquisition, pronunciation, grammar, and writing. Course includes reading of simple texts. Five hours of class per week. LEC.

FARS 120. Elementary Farsi II. 5 Hours.
Continuation of FARS 110. Vocabulary acquisition, pronunciation, grammar, and writing. Course includes reading of simple texts. Five hours of class per week. Prerequisite: FARS 110 or departmental permission. LEC.

FARS 210. Intermediate Farsi I. 3 Hours. U.
A continuation of FARS 210. Course emphasizes oral and written work in Farsi. Systematic review of grammar and introduction to reading in cultural texts. Prerequisite: FARS 120 or departmental permission. LEC.

FARS 220. Intermediate Farsi II. 3 Hours. U.
A continuation of FARS 210. Course emphasizes oral and written work in Farsi. Systematic review of grammar and introduction to reading in cultural texts. Prerequisite: FARS 210 or departmental permission. LEC.
FARS 310. Advanced Farsi I. 3 Hours. U.
Enhancement of speaking, comprehension, reading and writing abilities in Farsi. Readings from Farsi literature introduced. Prerequisite: FARS 220 or placement exam that establishes a level of proficiency in Farsi suited to Advanced Farsi I. LEC.

FARS 320. Advanced Farsi II. 3 Hours. U.
Enhancement of speaking, comprehension, reading and writing abilities in Farsi. Readings from Farsi literature introduced. Prerequisite: FARS 310 or placement exam that establishes a level of proficiency in Farsi suited to Advanced Farsi II. LEC.

GIST 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Global International Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

GIST 201. Topics in: ____. 1-3 Hours. U.
An interdisciplinary study of international topics. Designed especially for freshmen and sophomores. May be repeated for credit if content varies. LEC.

GIST 202. Topics in South Asian Studies: ____. 1-3 Hours. U.
An interdisciplinary study of topics related to South Asia. Designed especially for freshmen and sophomores. May be repeated for credit if content varies. LEC.

GIST 203. Topics in Middle Eastern Studies: ____. 1-3 Hours. U.
An interdisciplinary study of topics related to the Middle East. Designed especially for freshmen and sophomores. May be repeated for credit if content varies. LEC.

GIST 250. Introduction to Globalization. 3 Hours. S.
Along with an overview of the origins and historical development of globalization, the course addresses various aspects of the growth of transnational economic, cultural, institutional, and political interconnections, including the implications of rapidly-developing information technology and social media, international security in a transnational world, and the issues related to the movement of goods, people (immigration), images, ideas, and institutional forms across national borders. LEC.

GIST 301. Introduction to Global and International Studies. 3 Hours. S.
This course provides an overview to the major ways and themes involved in the study of world cultures, politics, and societies as applied by disciplines in the social sciences. Topics such as the construction and maintenance of cultures, comparative political systems, global and regional economies, popular culture, gender and the environment will be covered through their manifestations in particular regional and global contexts. LEC.

GIST 350. Study Abroad Topics in: ____. 1-5 Hours. U.
This course is designed for the study of special topics in global and international studies at the junior/senior level. Course work must be arranged through the KU Office of Study Abroad and approved by a faculty adviser in Global and International Studies. May be repeated for credit if content varies. LEC.

GIST 424. Nationalism(s) in Turkey. 3 Hours. S.
This course analyzes the major variations in nationalist paradigms existing in contemporary Turkey, including conservative nationalism, secular nationalism, religious (Islam) nationalism, and Kurdish nationalism. Through the lens of seminal theories on the origins, development, and types of nationalism and the relevant historical background of the Turkish Republic, we explore how these competing visions of “the nation” and “homeland” have changed, fragmented, and manifested themselves in everyday Turkish politics and society. LEC.

GIST 493. Directed Readings. 3 Hours. U.
Individual and supervised readings in a selected area of international studies. Course is repeatable with permission of the program director. LEC.

GIST 495. Global Internship. 3 Hours. U.
Semester-long internship with a business or organization located abroad or that provides a global or international working context for the interning student. A term paper is required. Prerequisite: Consent of instructor. FLD.

GIST 501. Topics in: ____. 1-3 Hours. U.
An interdisciplinary study of international topics. Designed especially for juniors and seniors. May be repeated for credit if content varies. LEC.

GIST 502. Advanced Topics in South Asian Studies: ____. 1-3 Hours. U.
An interdisciplinary study of topics related to South Asia. May be repeated for credit if content varies. Prerequisite depends on specific topic offered. LEC.

GIST 503. Advanced Topics in Middle East Studies: ____. 3 Hours. U.
An interdisciplinary study of topics related to the Middle East. May be repeated for credit if content e depends on specific topic offered. LEC.

GIST 530. Politics and Society in the Contemporary Persianate World. 3 Hours. S.
This course examines the major currents of political developments and their linkages with religion, culture and civil society in Turkey, Iran, Afghanistan, Pakistan and India since the late nineteenth century. During the “pre-modern” period, all these countries formed part of “the Persianate world,” a region that extended from the Iranian plateau to the Balkans, Central Asia and the Indian subcontinent, mostly under the Turkic administrations, and tied together by trade, Islam, and Persian as the lingua franca. The dissemination of modern Western political thought and nationalism during the colonial period led to nation-states and the end of the linguistic domination of Persian in the region. Though each of these nation-states ultimately took a different trajectory, they each were faced with similar challenges that offer the basis for interesting comparisons between them. This course explores the trajectories of these countries in regard to the relations between the state, religion, and politics, various strands of nationalism, pluralism, religious and ethnic minorities, social equality, and democratization. Prerequisite: GIST 301 or POLS 150. LEC.

GIST 535. Literature and Society in the Contemporary Middle East. 3 Hours. H.
This course offers a general introduction to the modern Middle Eastern literatures in English translation. Through analyses of selected short stories and novels from Arabic, Turkish and Persian literature, the students develop an understanding of the issues that shape everyday life in the Contemporary Middle East. The course investigates issues of nation and national identity, war, ethnicity, class, religion, and gender and sexuality. We use a variety of paradigms, namely nationalist, Marxist, feminist, and Islamist, to provide a theoretical framework for discussion of the selected works. No prior knowledge of Arabic, Turkish or Persian language is needed. Prerequisite: GIST 301. LEC.

GIST 610. Interdisciplinary Methods for Global Contexts. 3 Hours. S.
An introduction to a variety of widely-employed quantitative and qualitative research methods in the social sciences and humanities, including methods such as statistical analysis, ethnography, and content analysis. LEC.
GIST 624. Social Movements in the Middle East. 3 Hours. S.
Using the major theories and approaches comparatively applied to social movements around the world, this course critically analyzes historical and existing cases of social movements and "nonmovements" in the Middle East. We cover examples of Islamism (and post-Islamist), women's, nationalist, democratic, youth and labor movements and their impact on the region. Contextual factors like technology and social networking, regime type, institutions, and socioeconomic structures are also considered for their role in supporting or inhibiting collective action. Prerequisite: GIST 301 or POLS 150. LEC.

GIST 684. International Law: The State and the Individual. 3 Hours. S.
International law has assumed an increasingly significant role in international life. This course examines major issues in international law including (but not limited to): the changing status and role of the state; rights of minorities and self-determination; the environment; and human rights. The course examines the central questions and the relevant international legal principles associated with each issue. Prerequisite: POLS 170. LEC.

GIST 685. International Law: Laws of Armed Conflict. 3 Hours. S.
This course examines the principles, roles, and functions of international law in the conduct of war. As the course reviews the development and application of the basic rules of armed conflict, several current issues and conflicts are addressed including: the legitimate use of force; the proper definitions of combatants and civilians; actions that constitute war crimes, the legality of new weapons technology, and, if the laws of armed conflict apply to the current "war on terrorism." Prerequisite: POLS 170. LEC.

GIST 698. Capstone Seminar. 3 Hours. AE61 / H.
A seminar designed to introduce students to the theory and practice of global and international studies. A research paper will be required. May not be repeated for credit. Prerequisite: 12 hours of junior/senior level and above courses that satisfy requirements for the major. LEC.

GIST 699. Capstone Seminar, Honors. 3 Hours. AE61 / H.
A seminar designed to introduce honors students to the theory and practice of global and international studies. A research paper will be required. May not be repeated for credit. Prerequisite: 12 hours of junior/senior level and above courses that satisfy requirements for the major. LEC.

GIST 701. Approaches to International Studies. 3 Hours.
This course examines various approaches to the study of cultures, politics, and societies in their global and international contexts through the exploration of a series of exemplary works of global/international research from a variety of disciplines (eg. anthropology, sociology, political science, economics, geography, history, etc.). The course will cover the major contributions of these disciplines in their approaches to global questions and themes and will provide a multi-disciplinary framework within which students can begin exploring their own global and international research questions. The course also provides an introduction to the major regions and many of the themes that students will be able to specialize in during the course of the MA program. LEC.

GIST 702. Globalization. 3 Hours.
A central issue in international studies is globalization, the increasing interconnectedness of societies and economies. This course examines globalization from an historical and contemporary perspective. Major topics include (but are not necessarily limited to) the historical expansion of the West since 1500, the growth of international economic institutions, conflict among global cultures, the future of state sovereignty, and the challenges of economic integration. LEC.

GIST 703. The World Economy. 3 Hours.
An introduction to international trade and finance, theories of economic development, and international economic structures. Not appropriate for economics majors. LEC.

GIST 704. Global Cultures and Societies. 3 Hours.
Examination of the components of culture, economic and political anthropology, major global cultural areas, and the impact of cultural differences as expressed through language, literature, religion, thought, and motivation in cross-cultural communications. LEC.

GIST 705. Globalization in History. 3 Hours.
A study of the increasing interaction among world societies since 1500 and an investigation of the long-term developments behind current world problems. Major topics include Western expansion since 1500, the spread of state sovereignty, the formation of a world economy, and the spread of international institutions. Current issues will vary, but may include environmental crises, human rights, migration, free trade and the spread of consumer culture, ethnicity and nationalism, and international intervention within states. (Same as HIS 705.) LEC.

GIST 706. Comparative Governments. 3 Hours.
Survey of different governmental structures in the contemporary world and the ways these countries have confronted issues such as modernization and development, economic security, ethnic pluralism and conflict, and globalization. LEC.

GIST 710. Interdisciplinary Research Methods for Global Contexts. 3 Hours.
This course addresses the challenges for students engaged in research in an interdisciplinary and international context. The course will take issues for research and place them within the structure of a research design process, including formulation of a general question, the appropriation of theory, the grounding of a literature review, and the posing of a testable research question and/or hypothesis. Students will also be exposed to research methodologies and how these manifest themselves through the logic of the disciplines—such as anthropology, sociology, geography, political science, history and literature. With a final thesis project design in mind, students will be expected to be expected to be able to utilize the research tools of accessing secondary analytical data, archival research, SPSS, ArcView and methods such as survey construction, implementation, and analysis, interviews, content analysis, dicourse analysis, case study, and GIS. Prerequisite: GIST 701 or consent of instructor. LEC.

GIST 750. Topics in International Studies: ______. 3 Hours.
A study of one or more selected topics in international studies. Course may be taken more than once. LEC.

GIST 793. Directed Readings. 1-5 Hours.
Individual and supervised readings in a selected area of international studies. Course is repeatable with permission of the program director. LEC.

GIST 888. Contemporary China Studies. 3 Hours.
This course will review and analyze the current literature on China's social and political development, including a wide range of topics within political science. There is a rich body of literature within each topic such as civil society in China, legal reform, political culture, nationalism, gender issues, ethnicity, political behavior, elections, economic development, and inequality. This course will introduce key literature within each topic focusing on the debates among China scholars as well as how these debates fit in the general field of political science. (Same as EALC 888 and POLS 888.) Prerequisite: POLS 668 or permission of the instructor. LEC.
GIST 897. Examination Preparation. 1 Hour.
Independent study in preparation for the Comprehensive M.A. examination. Graded on satisfactory/unsatisfactory basis. May be repeated. LEC.

GIST 898. Thesis Writing. 3 Hours.
This course guides MA students through the crafting of their academic or professional thesis. The students begin the course with a literature review and data/research completed, and they will be directed through in-class workshops and deadlines with the intention to produce a full draft of their thesis. Students may choose to draft a thesis that fits either academic conventions for a similar body of research, or they may develop a body of research whose target would be a business or professional audience. Course is designed to assist students in the development of theses with varying methodologies, methods, and audiences on global and international topics. Prerequisite: GIST 710. THE.

GIST 899. Thesis. 1-6 Hours.
Enrollment for writing thesis for master’s degree. THE.

HEBR 110. Elementary Israeli Hebrew I. 5 Hours. U.
A beginning course in modern Israeli Hebrew. Essentials of grammar, syntax and conversational practice; elementary reading and writing. Note: Students with other previous experience in Hebrew must take a placement exam. LEC.

HEBR 120. Elementary Israeli Hebrew II. 5 Hours. U.
A continuation of HEBR 110. Note Students with other previous experience in Hebrew must take a placement exam. Prerequisite: HEBR 110. LEC.

HEBR 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Hebrew. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

HEBR 210. Intermediate Israeli Hebrew I. 3 Hours. U.
Further development of language skills: listening comprehension, oral efficiency, intermediate grammar and syntax, reading and writing. Note: Students with other previous experience in Hebrew must take a placement exam. Prerequisite: HEBR 120. LEC.

HEBR 220. Intermediate Israeli Hebrew II. 3 Hours. U.
A continuation of HEBR 210. Note: Students with other previous experience in Hebrew must take a placement exam. Prerequisite: HEBR 210. LEC.

HEBR 230. Biblical Hebrew. 3 Hours. U.
This course introduces students to the grammatical structure and vocabulary of biblical Hebrew. It includes basic biblical passages for students to translate into English and analyze. LEC.

HEBR 240. Biblical Hebrew II. 3 Hours. U.
This is a continuation of Hebrew 230. It continues the study of the grammatical structure and vocabulary of biblical Hebrew, and includes biblical texts for students to translate and analyze. Prerequisite: HEBR 230 or permission of the instructor. LEC.

HEBR 340. Advanced Israeli Hebrew I. 3 Hours. U.
Advanced study of Modern Hebrew. This course is designed to strengthen linguistic skills, enrich vocabulary, and further the study of grammar and syntax. Not open to native speakers of Hebrew. Prerequisite: HEBR 220 or permission of the instructor. LEC.

HEBR 350. Advanced Israeli Hebrew II. 3 Hours. U.
Continued advanced study of modern Hebrew. Not open to native speakers of Hebrew. Prerequisite: HEBR 340 or permission of the instructor. LEC.

HEBR 395. Study Abroad Topics in Hebrew: ______. 3-6 Hours. H.
This course is designed for the study abroad of special topics in Hebrew at the junior/senior level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

HEBR 410. Studies in Modern Hebrew Literature. 3 Hours. H.
An introduction to Hebrew literature from the nineteenth century to the present day. The course emphasizes the development of basic interpretive skills and the understanding of basic literary movements, genres, and concepts. Not open to native speakers of Hebrew. Prerequisite: HEBR 220 or equivalent. LEC.

HEBR 420. Studies in Modern Hebrew. 3 Hours. U.
This course is designed to help students achieve fluency in speaking, listening, and writing Modern Hebrew. Not open to native speakers of Hebrew. Prerequisite: HEBR 220 or equivalent. LEC.

HEBR 490. Independent Study. 1-3 Hours. U.
Intensive reading or research under faculty supervision. Not open to native speakers of Hebrew. Prerequisite: HEBR 220 or equivalent. IND.

HNDI 110. Beginning Hindi I. 5 Hours. U.
An introduction to modern standard Hindi that emphasizes acquisition of basic language skills (speaking, comprehension, reading and writing) through a combination of lecture, drill, and work with the Devanagari script. LEC.

HNDI 120. Beginning Hindi II. 5 Hours. U.
A continuation of Beginning Hindi I that builds on basic skills of speaking and comprehension, and the writing and reading of the Devanagari script developed in Beginning Hindi I. Prerequisite: HNDI 110 or placement exam that establishes a level of proficiency in Hindi suited to Beginning Hindi II. LEC.

HNDI 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Hungarian. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

HNDI 210. Intermediate Hindi I. 3 Hours. U.
Further development of language skills: listening comprehension, oral efficiency, intermediate grammar and syntax, reading and writing. Note: Students with other previous experience in Hindi must take a placement exam. Prerequisite: HNDI 110 or placement exam that establishes a level of proficiency in Hindi suited to Intermediate Hindi I. LEC.

HNDI 220. Intermediate Hindi II. 3 Hours. U.
A continuation of Intermediate Hindi I that builds on basic skills of speaking and comprehension, and the writing and reading of the Devanagari script developed in Intermediate Hindi I. Prerequisite: HNDI 120 or placement exam that establishes a level of proficiency in Hindi suited to Intermediate Hindi II. LEC.

HNDI 301. Topics in Hindi Culture, Language and Literature: ______. 3 Hours. U.
Investigation of special topics on Hindi culture, language and literature at the undergraduate level. May be repeated for credit when topic varies. LEC.

HNDI 310. Advanced Hindi I. 3 Hours. U.
Enhancement of speaking, comprehension, reading and writing abilities in Hindi. Readings are introduced from representative genres of Hindi.
literature. Prerequisite: HNDI 220 or placement exam that establishes a level of proficiency in Hindi suited to Advanced Hindi I. LEC.

**HNDI 320. Advanced Hindi II. 3 Hours. U.**
Enhancement of speaking, comprehension, reading and writing abilities in Hindi. Readings are introduced from representative genres of Hindi literature. Prerequisite: HNDI 310 or placement exam that establishes a level of proficiency in Hindi suited to Advanced Hindi II. LEC.

**JWSH 107. Living Religions of the West. 3 Hours. HR / H.**
A basic introduction to the major religious traditions of the Near East, Europe, and the Americas, with an emphasis on their development through the modern period and their expressions in contemporary life. Not open to students who have taken REL 109. (Same as REL 107.) LEC.

**JWSH 124. Understanding the Bible. 3 Hours. HR / H.**
An introduction to the literature of the Bible, exploring the relationships among the various types of literature present and the function of each type in the history and religious life of the people who produced and used them. Cannot be taken concurrently with REL 311 or JWSH 321 or REL 315. Not open to students who have taken REL 125 or JWSH 125. (Same as REL 124.) LEC.

**JWSH 125. Understanding the Bible, Honors. 3 Hours. HR / H.**
An introduction to the literature of the Bible, exploring the relationships among the various types of literature present and the function of each type in history and religious life of the people who produced and used them. Open only to students in the University Honors Program or by permission of instructor. Not open to students who have taken REL 124 or JWSH 124. (Same as REL 125.) LEC.

**JWSH 177. First Year Seminar: ______. 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Jewish Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**JWSH 300. Topics in Jewish Studies: ______. 3 Hours. H.**
Examination of special topics in Jewish Studies. May be repeated if topic varies. LEC.

**JWSH 311. Narratives of Jewish Life. 3 Hours. HL AE42 / H.**
The course focuses on the narratives through which Jews made sense of their lives under the impact of the forces of modernity, beginning in the "old world," and moving through the 19th century and into the 20th. The goal is to analyze how the imagination of Jewish writers was captured by the changes in social structures such as new educational, residential and occupational opportunities, leading to increased interactions with the gentile society. Students read and discuss literary works based in the shetl in revolutionary Russia, and in America. We will also look at memoirs and letters written by ordinary Jews. All assigned texts will be in English. LEC.

**JWSH 315. The Spanish Inquisition. 3 Hours. H.**
A broad historical study of the Spanish Inquisition from 1478 to its afterlife in modern culture, including its use in political debates and its depiction in popular culture. Topics include anti-Semitism, the nature of the inquisitorial investigation, the use of torture, censorship and the relationship between the Inquisition, the Spanish monarchy and other religious and lay authorities. Taught in English. Will not count toward the Spanish major. (Same as HIST 325 and SPAN 302.) LEC.

**JWSH 318. Jews and Slavs in Eastern Europe. 3 Hours. H.**
Jews and Slavs have shared territory from the Middle Ages to the present day. The contact between these culturally and linguistically distinct groups have shaped many centuries of Eastern European history - from the extreme violence of the pogroms to long periods of peaceful coexistence and cooperation. "Jews and Slavs" examines the history and cultural geography of Slavic-Jewish contact from the perspectives of both groups. Through literature, film, journalism, and folklore, students learn about the profound influence Jews and Slavs have had on each other, the uneasy feelings that accompanied their interactions, and the creative and fascinating impact their interaction had on both cultures. (Same as SLAV 318.) LEC.

**JWSH 321. Religion of Ancient Israel. 3 Hours. H.**
A study of the development of the Hebrew Bible from its earliest stages of oral tradition to its canonization with an emphasis on the relationship of the historical, intellectual, and cultural contexts shaping that development. (Same as REL 311.) Prerequisite: REL 124 or JWSH 124 or permission of instructor. LEC.

**JWSH 325. Introduction to Judaism. 3 Hours. H.**
Analyzes a selection of the core texts, teachings, and practices of Jewish religious traditions in terms of classical and contemporary understanding. (Same as REL 325.) LEC.

**JWSH 327. Jewish Secular Culture. 3 Hours. HL AE42 / H.**
By examining the modern concept of Yiddishkeit (Jewishness), this course explores Jewish secularism as a set of modern intellectual, literary, and cultural practices that redefined the relationship between the secular and religious in literature, music, theatre, art, humor, and foodways. This interdisciplinary course draws on theoretical approaches from history, cultural studies, religious studies, folklore, and linguistics to examine the different secularizing cultural practices of the Jews in Central and Eastern Europe, as well as in North America. LEC.

**JWSH 336. Jewish American Literature and Culture. 3 Hours. H.**
An examination of Jewish American literature and culture from the 17th century to the present. Materials may include a broad range of literary genres as well as folklore, music, film, and visual art. (Same as ENGL 336.) Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

**JWSH 338. Languages of the Jews. 3 Hours. H.**
From the beginning, Jewish history and culture is closely tied to language, from Hebrew and Aramaic to the languages of diaspora such as Yiddish and Ladino. Focusing on issues of language in society, this course will survey the languages spoken by the Jews throughout their long history in diverse communities around the world. We will learn about Hebrew as a spoken and a sacred language, examine how Jewish languages are born and die, and discuss the resurrection of Modern Hebrew in the state of Israel. All readings are in English. No prior knowledge of languages or linguistics is required. (Same as LING 338.) LEC.

**JWSH 339. Languages of the Jews, Honors. 3 Hours. H.**
Honors version of JWSH 338 or LING 338. Languages of the Jews. Prerequisite: Membership in the University Honors Program or consent of instructor. (Same as LING 339.) LEC.

**JWSH 340. Topics in Modern Jewish Literature: ______. 3 Hours.**
This course treats Jewish literature in English or English translation in the 20th and 21st centuries either as a broad survey or according to specific themes. May be repeated for credit. LEC.

**JWSH 343. The Holocaust in History. 3 Hours. H.**
The systematic murder of the Jews of Europe by the Nazis during World War II is one of the most important events of modern history. This course studies the Holocaust by asking about its place in history. It compares other attempted genocides with the Holocaust and examines why most historians argue that it is unique. Other topics covered include the reasons the Holocaust occurred in Europe when it did, the changing role of anti-
Semitism, and the effects of the Holocaust on civilization. The course also discusses why some people have sought to deny the Holocaust. The course concludes by discussing the questions people have raised about the Holocaust and such issues as support for democracy, the belief in progress, the role of science, and the search for human values which are common to all societies. (Same as HIST 343.) LEC.

JWSH 350. Contemporary Jewish Identities. 3 Hours. SC / H.
This course explores the variety of ways in which American Jews create Jewish identities as individuals and groups. It traces the emergence of the various current divisions within Judaism: Reform Judaism (which by definition, implies Orthodoxy), then Conservative Judaism, and then the later development of Reconstructionist Judaism. The course also explores other contemporary options for being Jewish: cultural Jews, secular Jews, unaffiliated Jews, religious Jews, and gay or lesbian or transgendered Jews. LEC.

JWSH 361. Jewish Film. 3 Hours. H.
An examination of the cultural history of the Jews through films that explore Jewish themes, including but not limited to: issues of tradition and modernity, religion and secularism, immigration, gender, Zionism, anti-Semitism, and the Holocaust. Films studied may be in English and in foreign languages (with English subtitles) like Yiddish, Hebrew, and Russian. LEC.

JWSH 395. Study Abroad Topics in Jewish Studies: _______. 3-6 Hours. H.
This course is designed for the study of special topics in Jewish Studies at the junior/senior level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

JWSH 490. Directed Study in Jewish Studies. 3 Hours. AE61 / H.
Intensive reading or research under faculty supervision. Prerequisite: Consent of instructor. IND.

JWSH 491. Directed Study in Jewish Studies, Honors. 3 Hours. AE61 / H.
Honors version of JWSH 490. Intensive reading or research under faculty supervision. Prerequisite: Membership in the University Honors Program or consent of instructor. IND.

JWSH 523. The Dead Sea Scrolls. 3 Hours. H.
A study of the archeological evidence and texts from the Dead Sea area that provide primary evidence for Jewish religious belief and practice in the Greek and Roman periods (ca. 250 B.C.E. - 135 C.E.). (Same as REL 523.) Prerequisite: REL 124 or JWSH 124 or consent of instructor. LEC.

JWSH 525. Jews and Christians. 3 Hours. H.
This course examines the ways Jews and Christians have interacted and characterized one another at various points in their histories. Special emphasis is placed on the gradual separation of the two religious traditions in the 1st-4th centuries. (Same as REL 525.) Prerequisite: A previous course in Religious Studies or Jewish Studies; or consent of instructor. LEC.

JWSH 526. Jewish History and Literature in the Greek and Roman Periods. 3 Hours. H.
The history and literature of the Jewish people from the hellenistic period (late fourth century B.C.E. to the codification of the Mishnah 210 C.E.). Select texts from the Hebrew Bible, the so-called apocrypha and pseudepigrapha, the Qumran scrolls, Philo, Josephus, related early Christian texts, and Rabbinic texts will be studied. (Same as REL 526.) Prerequisite: REL 124 or JWSH 124 or permission of instructor. LEC.

JWSH 560. Classical and Contemporary Jewish Thought. 3 Hours. H.
An introduction to individual Jewish thinkers and collective projects from Philo to the present, including The Talmud and Midrash, Middle Age and Early Modern Jewish philosophical and Talmudic rationalism and mysticism. Considers such thinkers as Spinoza, Cohen, Soloveitchik, Rosenzweig, and Levinas. (Same as REL 560.) Prerequisite: A previous course in Religious Studies or Jewish Studies; or consent of instructor. LEC.

JWSH 570. Studies in Judaism. 3 Hours. H.
A study of the major intellectual sources of the Jewish tradition from the Mishna, Talmud, Midrash, prayerbook, philosophers, the Zohar, and the Shulchan Aruch. (Same as REL 570.) Prerequisite: A course in Religious Studies or Jewish Studies numbered 300 or above. LEC.

JWSH 572. Jewish Folklore. 3 Hours. H.
Jewish folklore is extraordinarily rich and varied. From folktales to riddles, from legends about the exalted rabbis to irreverent jokes, folklore is central to the Jewish way of life. This course traces the extent to which oral elements appear in traditional Jewish literary texts such as the Bible; read and discuss folktales, and examine minor genres such as proverbs, riddles and jokes. Topics include the supernatural beings of Jewish folklore dybbuks, seductive female demons, and golems. Students acquire theoretical tools with which to analyze folklore (Jewish or otherwise), read stories, watch movies, and collect samples of folklore from informants. LEC.

JWSH 573. Jewish Folklore, Honors. 3 Hours. H.
Honors version of JWSH 572. Jewish folklore is extraordinarily rich and varied. From folktales to riddles, from legends about the exalted rabbis to irreverent jokes, folklore is central to the Jewish way of life. This course traces the extent to which oral elements appear in traditional Jewish literary texts such as the Bible; read and discuss folktales, and examine minor genres such as proverbs, riddles and jokes. Topics include the supernatural beings of Jewish folklore dybbuks, seductive female demons, and golems. Students acquire theoretical tools with which to analyze folklore (Jewish or otherwise), read stories, watch movies, and collect samples of folklore from informants. Open only to students in the University Honors Program or by permission of instructor. LEC.

JWSH 600. Advanced Topics in Jewish Studies: _______. 3 Hours. H.
Examination of advanced topics in Jewish Studies. May be repeated if topic varies. Prerequisite: Consent of instructor. LEC.

JWSH 650. Service Learning in Jewish Studies. 3 Hours. S.
This course, to be taken in the junior or senior year, is designed to give students the opportunity to apply the knowledge, concepts, and ideas gained in courses in Jewish studies to real-life situations in appropriate agencies and organizations. Open to students in the Jewish Studies program. Prerequisite: Permission of instructor. FLD.

Co-Major in European Studies

Why study European studies?

European studies broaden, deepen, and strengthen, through interdisciplinary study, a student’s knowledge and understanding of the enduring importance of our transatlantic partners, the Europeans.

First- and Second-Year Preparation

To complete the requirements for the degree in 4 years, prospective co-majors are encouraged to complete all general education and language requirements no later than fall semester of the junior year. Students should begin study of a western European language other than English or Russian as early as possible. For more information, contact the
Europe, Studies Advising Specialist, Laura Leonard, 785-864-3500, laleonard@ku.edu.

During their first and second years, students are required to enroll in HIST 115 and in an additional course from the list below:

Choose 1 of the following: 3-4

- ECON 104 Introductory Economics
- ECON 144 Principles of Macroeconomics
- ECON 145 Principles of Macroeconomics, Honors
- GEOG 100 World Regional Geography
- GEOG 102 Principles of Human Geography
- POLS 150 Introduction to Comparative Politics
- POLS 151 Introduction to Comparative Politics Honors
- POLS 170 Introduction to International Politics
- POLS 171 Introduction to International Politics Honors
- HA 100 Introduction to Western Art History
- PHIL 180 Introduction to Social and Political Philosophy

Note: Enrollment in the above courses counts toward College principal course distribution requirements in the humanities and social sciences.

Note: European Studies co-majors are strongly encouraged to study abroad and should discuss this opportunity with the Advising Specialist or Academic Director early in their undergraduate career.

Admission to the Co-Major

Admission Requirements

1. Second-semester sophomore or junior standing.
2. Declared major in a department or admission to a professional school.

Requirements for the Co-Major

European Studies Prerequisites or Co-requisites (18)

Students selecting this co-major must complete the following:

French Revolution to the Present: Europe 1789–Present. Satisfied by:

- HIST 115 French Revolution to the Present: Europe 1789-Present 3

Interdisciplinary Perspective. Satisfied by one course from the following:

- ECON 104 Introductory Economics
- ECON 144 Principles of Macroeconomics
- GEOG 100 World Regional Geography
- GEOG 102 Principles of Human Geography
- POLS 150 Introduction to Comparative Politics
- POLS 151 Introduction to Comparative Politics Honors
- POLS 170 Introduction to International Politics
- POLS 171 Introduction to International Politics Honors
- HA 100 Introduction to Western Art History
- PHIL 180 Introduction to Social and Political Philosophy

Students selecting this co-major must complete the following:

Second Language Skills (3 hours). Students must complete one semester beyond the College general education second language requirement (completion of a fourth-semester course) in a modern western European language (Danish, Dutch, French, German, Hungarian, Italian, Portuguese, Polish, Spanish, Swedish).

Seminar in European Studies. Satisfied by one of the following: 3

- EURS 500 Seminar in European Studies
- EURS 503 Europe Today

Upper-Division General European Studies Required Electives. Satisfied by three approved courses (9 hours), two of which must be from different departments. The following list is not exhaustive; visit the European Studies website or speak with the undergraduate advisor each semester for a complete list of approved general European Studies courses:

- ARCH 542 History of Architecture III: Modern
- ARCH 665 History of Urban Design
- ECON 535 Economic History of Europe
- ECON/EURS 536 Economic Issues of the European Union
- ECON 563 Current Economic Issues of East Europe
- EURS 302 European Culture and Society 1945 to Present
- EURS/HIST/PCS 329 History of War and Peace
- EURS 503 Europe Today
- EURS 505 Studies in Exile Literature
- EURS 506 Culture and Politics of the Cold War in Western Europe
- EURS 507 Research in European Collections
- EURS 508 Politics and Economics of Cultural Production in Western Europe
- EURS 509 Introduction to the Study of Southern European Societies
- EURS 511 Topics in European Studies: _______ (when covering 2 or more countries)
- EURS 604 The European Union
- HA 533 European Art 1789-1848: Gender and Revolution
- HA 564 European Art, 1900-1945
- HA 565 Art Since 1945
- HIST 334 The Great War: The History of World War I
- HIST 340 The History of the Second World War
- HIST 343 The Holocaust in History
- HIST 380 Revolutionary Europe: The People in Arms
- HIST 527 Recent European History, 1870 to the Present
- HIST 528/ECON 535 Economic History of Europe
- HIST 529 Intellectual History of 19th Century Europe
- HIST 533 The History of Women and the Family in Europe, from 1500 to the Present
- HWC/EURS 430 European Civilization in World Context: _______
- IBUS 400 Special Topics in International Business: _______
- IBUS 410 Introduction to International Business
- PCS/EURS 550 Classics of Peace Literature
- PHIL 560 Nineteenth Century Philosophy
<table>
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<tr>
<th>Upper-Division National or Regional European Studies Requirements (0)</th>
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<td>Satisfied by two approved country- or region-specific courses (6</td>
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<td>hours), two of which must cover two different countries or regions.</td>
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<td>This list is not exhaustive; go to the European Studies website</td>
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<td>or speak with the undergraduate advisor each semester for a</td>
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<td>complete list of approved upper-division national or regional</td>
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<td>European Studies courses.</td>
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<td>ARCH 632</td>
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<td>ARCH 690</td>
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Note: This list is not exhaustive. Visit the European Studies website or the program office each semester for a complete list of upper-division national or regional European Studies courses.

Capstone-Final Senior Course
In the senior year, students complete one of the following options:

Option A: Senior Thesis in European Studies. Satisfied by EURS 501. A semester-long independent research project under the supervision of a faculty thesis director. Students should contact Lorie A. Vanchena, Academic Director of European Studies, vanchena@ku.edu, before registering for EURS 501.

Option B. Two additional upper-division European Studies courses. Satisfied by general European or country-specific electives chosen from the course lists above.

Junior/Senior (300+) European studies courses. Satisfied by 2 courses (6 hours) of general European or country-specific electives chosen from the course lists above.

Courses taken during a study abroad program in Europe may fulfill co-major requirements. Students should consult the Advising Specialist for European Studies about study abroad credit before their program departure.

Co-Major Hours & Major GPA
While completing all required courses, co-majors must also meet each of the following hour and grade-point average minimum standards:

Co-Major Hours
Satisfied by 24 hours of co-major courses.

Major Hours in Residence
Satisfied by a minimum of 24 hours of KU resident credit in the co-major.

Major Junior/Senior Hours
Satisfied by a minimum of 24 hours from junior/senior courses (300+) in the co-major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of
study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

No more than 12 hours may be shared between a 27-hour European studies co-major and another major.

Departmental Honors

Honors in European Studies is open to co-majors who have earned, both at the time of entry into the program and at graduation, overall grade-point averages of 3.25 or higher and of 3.5 or higher in European studies. A student must complete all co-major requirements, including EURS 502 Senior Honors Thesis in European Studies, with a grade of A.

The senior honors thesis affords exceptional students the opportunity to work closely with an individual faculty member on a specific research project over an extended period of time, usually two semesters. The senior honors thesis may be combined with EURS 501 Senior Thesis in European Studies, substantially increasing the length and scope of the final thesis, or the senior honors thesis may be a separate extension of the senior thesis.

A student in EURS 502 must defend the thesis in a 1-hour oral examination with faculty. The examination committee is composed of 3 faculty members, 1 of whom must be the thesis director. The student selects the committee members in consultation with the thesis director. Students should consult Dr. Lorie A. Vanchena, Academic Director of European Studies, vanchena@ku.edu, early in their junior year.

Study Abroad

The European Studies program strongly encourages students to enroll in one of KU’s many study abroad programs in Europe.

European Studies participates in the Humanities and Western Civilization semester abroad program in Paris and Florence.

Summer language institutes offering upper-division courses in language of literary study may also qualify for European Studies co-major or minor credit. Contact a program advisor in the Office of Study Abroad (http://www.studyabroad.ku.edu), 108 Lippincott Hall, 785-864-3742.

Minor in European Studies

Why study European studies?

European studies broaden, deepen, and strengthen, through interdisciplinary study, a student’s knowledge and understanding of the enduring importance of our transatlantic partners, the Europeans.

Requirements for the Minor

Students selecting this minor must complete the following:

<table>
<thead>
<tr>
<th>European Studies Minor Core Knowledge and Skills (18)</th>
<th>3</th>
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<tr>
<td>Second Language Skills. (3 hours) Students must complete one semester beyond the College general education, second language requirement (which is the completion of a fourth-semester course) in a modern western European language (Danish, Dutch, French, German, Hungarian, Italian, Portuguese, Polish, Spanish, or Swedish).</td>
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</tbody>
</table>

Foundational Course: Seminar in European Studies. Satisfied by:

<table>
<thead>
<tr>
<th>EURS 500 Seminar in European Studies</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>EURS 503 Europe Today</td>
<td></td>
</tr>
<tr>
<td>1 approved modern European history course</td>
<td>3</td>
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</tbody>
</table>

European Studies Minor Electives. 9

Select three of the following options:

| 1 approved European politics course |
| 1 approved European economics or business course |
| 1 approved general European culture or history course |

A current list of approved courses for the minor is available on the European Studies website and from the Program's Advising Specialist and Academic Director.

Note: No more than 1 course may be counted both in the minor and another degree or minor program.

Minor Hours & Minor GPA

Minor Hours

Satisfied by 18 hours of minor courses.

Minor Junior/Senior (300+) Hours in Residence

Satisfied by a minimum of 9 junior/senior (300+) hours of KU resident credit in the minor.

Minor Junior/Senior Hours

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in all departmental courses in the minor. GPA calculations include all courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Department of Film and Media Studies

Why study film and media?

The Department of Film and Media Studies unites the inquiry of the academic with the practice and technique of the artist. Scholars and filmmakers work and study together in an environment of mutual encouragement and collegiality.

Undergraduate Programs

The department offers Bachelor of Arts and Bachelor of General Studies degrees, as well as a minor in film and media studies.
Courses for Nonmajors

The department offers many courses open to nonmajors who wish to learn more about film and media, including but not limited to:

- **FMS 100** Introduction to the Film Medium 3
- **FMS 200** Film and Media Aesthetics 3
- **FMS 311** History of the American Sound Film 3
- **FMS 314** History of African-American Images in Film 3
- **FMS 380** American Popular Culture of: _____ 3

These 5 courses also fulfill a College principal course requirement.

Graduate Programs

The department offers graduate programs culminating in a Master of Arts degree in Film and Media Studies and/or a Doctor of Philosophy degree in Film and Media Studies.

Courses

**FMS 100. Introduction to the Film Medium. 3 Hours. HL / H.**

Study of film as a visual art. Focus on communicative transaction between film viewer and film maker. Learning to read basic signs, syntaxes, and structures of cinematic language. Direct analysis of selected films. LEC.

**FMS 177. First Year Seminar: _____ 3 Hours. GE11 / U.**

A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Film and Media Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**FMS 200. Film and Media Aesthetics. 3 Hours. HL GE3H / H.**

An introduction to film and media aesthetics, including basic film/media theories and their practical applications. Students will be introduced to the concepts of time, space, composition, movement, editing, light, color, and sound. A key feature of the course will be a practical emphasis on learning how to see creatively by applying elements of design, camera lens and sound recording principles. Examples of these aspects of film and associated media will be examined and discussed in depth. Should be taken before or concurrently with FMS 275 or FMS 276. LEC.

**FMS 204. Study Abroad Topics in: _____. 1-6 Hours. H.**

This course is designed for the study of special topics in Film at the freshman/sophomore level. Credit for coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

**FMS 273. Basic Screenwriting. 3 Hours. H.**

An introduction to the craft and principles of screenwriting, from inspiration to writing a complete first act. Emphasis on factors relevant to the creation of a treatment and a screenplay. Prerequisite: Consent of instructor. LEC.

**FMS 275. Basic Video Production. 3 Hours. H.**

Theory and practice of video production with emphasis on preproduction planning, scripting, directing, lighting, camera operation and audio. Lecture-laboratory. Prerequisite: FMS 100, completion of or concurrent enrollment in FMS 200, and consent of instructor. LEC.

**FMS 276. Basic Film Production. 3 Hours. H.**

An introduction to 16mm film techniques and structures, requiring construction of brief, individually produced fictive-narrative films employing classical continuity. Lecture-laboratory. Prerequisite: FMS 100 and consent of instructor. LEC.

**FMS 302. Undergraduate Studies Seminar in: _____. 1-3 Hours. H.**

Course organized any given semester to examine a particular studies topic or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. LEC.

**FMS 303. Undergraduate Production Seminar in: _____. 1-3 Hours. H.**

Course organized any given semester to study a particular production topic or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. LEC.

**FMS 304. Study Abroad Topics in: _____. 1-6 Hours. H.**

This course is designed for the study of special topics in Film at the junior/senior level. Credit for course work must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

**FMS 307. Undergraduate Film/Media Internship. 1-6 Hours. H.**

Supervised study with an approved film/media company or project. May be repeated for credit. No more than six hours may be applied to the B.A. or B.G.S. degrees. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Consent of instructor and at least seven hours credit in the department. FLD.

**FMS 310. History of the Silent Film. 3 Hours. H.**

A survey of the artistic, economic and sociological development of the narrative cinema with emphasis on the American studio system, German Expressionism, and Soviet Expressive Realism. Analysis of selected films. LEC.

**FMS 311. History of the American Sound Film. 3 Hours. HL / H.**

A study of the artistic, economic, and sociological development of the American sound film with emphasis on the studio system, major directors, genres, and the impact of television. Analysis of selected films. LEC.

**FMS 312. History of the International Sound Film to 1950. 3 Hours. H.**

A survey of the artistic, economic, and sociological development of the international sound film 1929 to 1950. Emphasis on European National Cinemas. LEC.

**FMS 313. History of the International Sound Film Post 1950. 3 Hours. H.**

A survey of the artistic, economic, and sociological development of the international sound film from 1950 to the present. Emphasis on Free Cinema, New Wave, and other emerging post-war cinemas. LEC.

**FMS 314. History of African-American Images in Film. 3 Hours. HL AE41 / H.**

A history and critical assessment of the diverse images of African-Americans in American cinema and the impact of those images on American society. Screenings of feature and independent films, including those by African-Americans. LEC.

**FMS 315. Survey of Japanese Film. 3 Hours. NW AE42 / H.**

This course surveys the major developments in and critical approaches to twentieth-century Japanese film. Focusing mostly on narrative films, Survey of Japanese Film introduces students to basic methodological issues in Japanese film history, especially questions of narrative, genre, stardom, and authorship. We examine Japanese cinema as an institution located within specific contexts focusing on the ways in which this institution shapes gender, class, ethnic, and national identities. This course examines how patterns of distribution, exhibition, and reception have influenced film aesthetics and film style over the last century. Through secondary readings, lectures, and discussions students critically examine how Japanese cinema as an institution both responds to and intervenes in the social, cultural, and political history of twentieth century
Japan. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. (Same as EALC 315.) LEC.

**FMS 316. Cinemas of the Southern Cone: Argentina, Chile, and Uruguay. 3 Hours. AE41 / H.**
This course will examine the cinemas of three neighboring South American countries to find similar themes and some differences between them historically, politically, and culturally. Themes will include: gender and nation, political repression during dictatorship, globalization and the cinema, youth culture in the Southern Cone, and representations of race and ethnicity, immigration and identity in contemporary cinema. Other themes in common are financing issues, such as co-production agreements, film production under the regional trade pact Mercosur and issues of circulation, distribution and marketing of national films. Most films will be feature length narrative, but a few documentaries will be shown. May be taken as FMS 716, but with additional requirements. LEC.

**FMS 317. Race and the American Documentary. 3 Hours. H.**
This course surveys a range of documentaries in which race is a key part. There are two class objectives: the first is to broaden the students' knowledge of American social history and culture, especially around issues of identity, representation and race. The second is to heighten the students' critical skills as viewers of films in general. A complete film or portion is screened at each class session, preceded by an introductory lecture, and a follow-up discussion. Readings from a variety of scholarly texts are excerpted for student review prior to a particular class. LEC.

**FMS 318. Anti-war Film. 3 Hours. H.**
An overview and exploration of the history of anti-war film and media themes to show how attitudes regarding war and political policy can be affected by positive and negative depictions of conflict. Course includes analysis of selected films. LEC.

**FMS 320. Adaptation from Stage to Screen. 3 Hours. H.**
In an increasingly global media economy, adaptation study offers an enterprising model for the cross-pollination of texts across historical, national, and cultural boundaries. Although this course focuses more specifically on adaptations and adaptation processes involving theatrical events and cinematic properties, this larger view should be kept in mind. The course will consist of readings, screenings, and presentations by faculty in the Department Film and Media Studies and the Department of Theatre addressing theoretical issues, case studies, and intertextual considerations, and an historical overview of theatre-film interaction. LEC.

**FMS 345. New Media and Society. 3 Hours. H.**
Students will be introduced to major themes and debates in digital media studies and apply critical approaches for understanding new media practices, technologies, and theories. In addition to readings and lectures, students will engage in a variety of digital activities and participate in production-oriented projects. By the end of this course students will gain a foundational understanding of historical and emerging relationships between new media (internet, cell phones, digital games, etc.) and society, acquire key digital skills, and experience a variety of new media texts and services. This course is offered at the 300 and 700 levels, with additional assignments at the 700 level. LEC.

**FMS 373. Intermediate Screenwriting. 3 Hours. H.**
Emphasis on writing a full-length screenplay. Explores genre, character, dialogue, and the development of a personal writing style. Prerequisite: FMS 273 and consent of instructor (students will be selected based on writing samples). LEC.

**FMS 374. Animation. 3 Hours. H.**
A survey that combines animation history, theory, and production by examining animated works of all kinds and exploring various styles utilizing both hands-on techniques and digital animation programs. Lecture-laboratory. LEC.

**FMS 375. Intermediate Video Production. 3 Hours. H.**
Theory and practice of longer-form video production with emphasis on scripting, talent coordination and editing in preproduction, production and postproduction. Lecture-laboratory. Prerequisite: FMS 275 and consent of instructor. LEC.

**FMS 376. Cinematography. 3 Hours. H.**
Theory and practice of cinematography, with emphasis on creation of film, video, and digital imagery. Prerequisite: FMS 275 or FMS 276, and consent of instructor. LEC.

**FMS 377. Post-Production. 3 Hours. H.**
Students become familiar with techniques and processes in film and video post-production including, but not limited to, editing, sound, post-production management, marketing, and distribution. This course is offered at the 300 and 700 levels, with additional assignments at the 700 level. Prerequisite: FMS 275 and consent of instructor. LEC.

**FMS 380. American Popular Culture of: _____. 3 Hours. HL / H.**
An interdisciplinary examination of popular cultural forms and their relationships with the social, political and economic dynamics of America, with emphasis on film, media, music, literature (including magazines and newspapers) and the graphic arts. The decade or other specific topic to be studied changes as needs and resources develop. May be repeated for credit for different decades or topics. LEC.

**FMS 401. Undergraduate Professional Development Seminar. 1 Hour. H.**
Provides an overview of opportunities for professional development in Film and Media Studies, and helps students plan goals for their education through an understanding of professional practices. The course also covers practical exercises in professional development, including writing resumes, finding internships and entry-level work, and other aspects of establishing a career in Film and Media Studies. Prerequisite: FMS 275 or equivalent. Open to FMS Majors only. Graded satisfactory/unsatisfactory. LEC.

**FMS 407. Undergraduate Film/Media Service Learning Internship. 1-6 Hours. H.**
Supervised study with an approved government agency, established non-profit organization, school, or community-based partner to produce a professional-level film and/or media project in the public interest. Community work should meet the needs of the community-based organization and the education goals set by the student, instructor, and community-based partner; be in direct service, indirect service, policy analysis, research, and/or advocacy work; engage the student with individuals or communities of need and with issues related to social justice, community development, and/or access to resources. May be repeated for credit. No more than six hours may be applied to the B.A. or B.G.S. degrees. Graded satisfactory/unsatisfactory. Prerequisite: Consent of instructor and at least 22 credit hours in the department. FLD.

**FMS 410. Race, Class, and Gender in Visual Culture. 3 Hours. H.**
Examines the way in which race, class, and gender are represented through visual culture, historically and in the present. The study of visual culture analyzes the way in which visual images communicate systems of beliefs, contribute to identity formation, and have an influence on our thinking about race, class, and gender. Course looks at visual objects, i.e., film, television, photography, art, advertisements, and theatre as well as visual practices, i.e., in public and private spaces. LEC.

**FMS 411. Television Studies. 3 Hours. H.**
A historical, theoretical and critical survey of U.S. television from 1945 to the present from the public's perspective, with emphasis on the early
influences of radio (e.g., Federal regulation and sponsorship), film and theatre; TV's rapid rise as the U.S. public's prime source of entertainment, news and information; TV's rise as a key cultural, economic and political phenomenon; TV's more recent accommodations to the forces of globalization, new technologies/media, and new business models through convergence. Discussion and screening of representative TV texts as seen against the backdrop of the theories and critical views of TV scholars ranging from Raymond Williams and John Fiske to Henry Jenkins. LEC.

FMS 412. Cyberculture Studies. 3 Hours. H.
Historically there has been a tendency to approach new media technologies and their proliferation as either utopic or dystopic. Cyberculture studies has been no exception. Students will work toward a comprehensive understanding of cybertecture as emergent computer networks forming around and constructing entertainment, knowledge, business, community, and identity. Cybertecture will be examined as the constant (re)organizing of virtual and physical relationships as well as the reorganization of media production, distribution and consumption. The variety of opportunities for computer-mediated human interaction such as social networks, virtual worlds, blogs, and games will be examined as cybertecture transposes online and offline relationships and practices. LEC.

FMS 413. Asian Media Studies. 3 Hours. H.
This course examines new and emerging media in East Asia and how the media industries of East Asia function. Using recent scholarship and industry data on contemporary cybertecture, music studies, and television industries of East Asia we examine how such factors as globalization, post-colonialism, censorship, emerging technology, and national media legislation affect regional and transnational media industries in Japan, South Korea, and Mainland China/Taiwan/Hong Kong. (Same as EALC 413.) LEC.

FMS 414. Kansas Art, History, and Popular Culture. 3 Hours. H.
An overview of the art and cultural history of Kansas (and Kansas City) from territorial days to the present. Emphasis is placed on key issues, figures and events. A general familiarity with American history is recommended. May be taken as FMS 714, but with additional requirements. (Same as HA 584.) LEC.

FMS 475. Advanced Video Production. 3 Hours. H.
Special projects in video production, using both studio and remote locations. Prerequisite: FMS 375 and consent of instructor. LEC.

FMS 477. Sound Design. 3 Hours. H.
Students will study and produce film and video work with an emphasis on sound design theory and practice. Course projects consist of several short works in response to readings and screenings, which include a survey of sound in cinema, internet and radio. Students will also become conversant with related equipment, software and techniques. Prerequisite: FMS 275 and consent of instructor. LEC.

FMS 478. Experimental Production. 3 Hours. H.
Students will produce experimental film and video projects, including installation art and performance art pieces, in both collaborative and a collaborative production modes. Practical production aspects of historical experimental works will be studied, with emphasis on creation of works inspired by these earlier artists and their work. Unorthodox video and film production concepts and modes will also be studied and used in the creation of original works. The incorporation of experimental elements in the creation of mainstream works, and the creation of such projects, will also be a key area of study and experimentation. By pushing their individual creative limits, students will gain an appreciation for the experimental film and video genre, as well as an expansion of their production skills. Prerequisite: FMS 275 and consent of instructor. LEC.

FMS 479. Broadcast Documentary Production. 3 Hours. H.
This is a hands-on production course in which students will research, plan and produce short-form non-fiction documentaries. The class is dedicated to training young professionals in the principles, skills, techniques, habits and practices of documentary production. We will focus also on the aesthetics of our craft and the documentary form. The objective is to ground students in the fundamental skills of good non-fiction storytelling-conceptualization, research, story structure, theme development, writing, producing and directing. The goal is the production of several short-form compositions (videos) where storytelling is employed to communicate a concept or idea effectively. Students will form into teams to research, develop and produce a course-long short-form documentary. Prerequisite: FMS 275 and consent of instructor. LEC.

FMS 480. Music Video Production. 3 Hours. H.
This course will cover elements of the history, aesthetics, and business of music video and music video production. Students will view and discuss many different types of music videos, and will learn how to classify and critique these videos in a professional manner. Students will gain familiarity with the genres, themes, forms, and iconography of music video; an understanding of the place of music video in media culture; an exploration of the ideological, cultural, and historical contexts of music video; and an ability to create or assist in the creation of professional-quality music videos. Prerequisite: FMS 275 and consent of instructor. LEC.

FMS 498. Honors Seminar. 2-6 Hours. AE61 / H.
Study may be directed toward either (a) reading for integration of knowledge and insight in film and media, or (b) original research (i.e., investigation of a specific problem in film and media). Six hours maximum credit. Prerequisite: Consent of Departmental Honors Coordinator. LEC.

FMS 499. Directed Study in Film. 1-6 Hours. AE61 / H.
Investigation of a special topic or project selected by the student with advice, approval, and supervision by an instructor. Such study may take the form of directed reading or special research. Individual reports and conferences. A maximum of six hours credit may be counted toward a degree. Prerequisite: At least seven hours credit in the department and consent of instructor. IND.

FMS 530. Classical Film/Media Theory. 3 Hours. H.
Comprehensive examination of most significant theories and theorists of film. Organized around specific questions, e.g., what qualities make film art unique, and how is film related to other visual and literary arts? Class discussion, individual projects. Prerequisite: FMS 100 or equivalent (determined by instructor). LEC.

FMS 531. Contemporary Concepts in Media Studies. 3 Hours. H.
This course emphasizes a theoretical understanding of media and media production skills. It is a critical cultural study of the media, focusing on the relationships between media representations and society. Students explore different conceptual perspectives on the role and power of visual media in society in influencing social values, political beliefs, identities and behaviors; analyze specific media texts, such as film and television shows; and examine the dynamics of how class, gender, generation, and race influence the production and reception of media. LEC.

FMS 540. Cuban Cinema. 3 Hours. H.
This course explores Cuban cinema from 1959 to the present day. Special attention is paid to the representations of Cuban history, cultural politics, and the political-economic conditions of production in Cuba. In addition, the Cuban-American community and their contributions or reactions to Cuban film are discussed. Through readings, lectures, discussion, and viewing Cuban films, the class examines a variety of topics related to Cuban cinema, history, and contemporary concerns. This course is
offered at the 500 and 800 levels, with additional assignments at the 800 level. Prerequisite: Junior standing. LEC.

**FMS 541. Asian Film. 3 Hours. NW AE42 / H.**
Seminar on various national film cultures of East and Southeast Asia. Representative films are studied from formal, stylistic, and socio-historic perspectives. Addresses the impact of key cultural, economic, and political issues on each film industry. Class discussion, reports, and individual research papers. The course is offered at the 500 and 800 levels, with additional assignments at the 800 level. (Same as EALC 541.) Prerequisite: Junior status. LEC.

**FMS 542. Latin American Film. 3 Hours. H.**
The course explores the national cinemas and film industries of various nations in Latin America, as well as films made by Indigenous and Chicano/a filmmakers. Films are analyzed both as artistic works (formal qualities, cinematic styles, and influences) and as documents that provide windows to the socio-historical context of the nation. The course focuses on the political-economic factors surrounding the production of Latin American national cinema (the role of the state, coproductions, film markets). Prerequisite: Junior status. May be taken as FMS 842. There will be additional requirements for graduate students taking FMS 842. LEC.

**FMS 543. Contemporary Japanese Film. 3 Hours. NW AE42 / H.**
Seminar on the major developments in the contemporary (1980-present) Japanese film industry examining how filmmaking practices and film criticism have been influenced by such issues as transnationalism, postcolonialism, critical race theory, postmodernism, and new media. We survey recent industrial and stylistic trends as well as key critical debates. Class discussion, reports, and individual research papers. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. (Same as EALC 543.) Prerequisite: Junior status. LEC.

**FMS 544. African Film. 3 Hours. NW / H.**
A critical study of Africa and its peoples as depicted in films. The aesthetic, cultural, economic, political, historical, and ideological aspects of African films are examined. (Same as AAAS 555.) LEC.

**FMS 585. Capstone in Film and Media Studies. 3 Hours. H.**
This course integrates the knowledge and skills acquired across the curriculum of Film Media Studies including primarily academic studies, but also production and other related disciplines to enable the student to demonstrate achievement through the production of a major creative research project. Prerequisite: Must be admitted to the Film and Media Studies B.A. or B.G.S. degree. Must have completed one FMS production course. Must have Departmental permission to enroll. LEC.

**FMS 592. Documentary Film and Video. 3 Hours. H.**
An historical and theoretical survey of that major genre of film and video typically termed "documentary." The course will trace the main historical developments from documentary's beginnings through contemporary innovations. Prerequisite: FMS 100 and FMS 310, FMS 311, or consent of instructor. LEC.

**FMS 593. Experimental Film and Video. 3 Hours. H.**
A history of experimental film and video through an examination of major artists, movements, theories, and films/tapes. Prerequisite: FMS 100 and FMS 310, or consent of instructor. LEC.

**FMS 620. International Women Filmmakers. 3 Hours. H.**
This course examines films made by women around the world. Mainstream and independent fiction, documentary, and experimental works will be screened and discussed. The objectives of the course are: 1) to learn the variety of films made by women and the conditions of their production, distribution reception, 2) to interrogate the idea of women's cinema as `counter-cinema'. We will acquire tools for analyzing films in terms of economic, aesthetic, cultural, and political circumstance by women of different countries, classes, races, ethnicities, genders, and sexual preferences. LEC.

**FMS 621. American Film Criticism. 3 Hours. H.**
An analysis of the evolution, methods and impact of American film criticism as practiced by such critics as James Agee, Robert Warshow, Andrew Sarris, John Simon, Pauline Kael, Stanley Kauffman, and Dwight Macdonald. Prerequisite: FMS 310 or FMS 311. LEC.

**FMS 673. Problems in Basic Screenwriting. 3 Hours. U.**
The principles of screenwriting are developed through scene writing and analysis culminating in the writing and structure of a full-length, three-act screenplay. In addition to the class sessions taught with FMS 275 Basic Screenwriting, separate consultations and specific research assignments for graduate students in FMS 673 are also required. LEC.

**FMS 675. Problems in Basic Video Production. 3 Hours. U.**
Theory and practice of single-camera video production with emphasis on preproduction planning, scripting, directing, lighting, camera operation and audio. In addition to the class sessions taught with FMS 275 Basic Video Production, separate consultations and specific research assignments for graduate students in FMS 675 are also required. Lecture-laboratory. LEC.

**FMS 676. Problems in Basic Film Production. 3 Hours. U.**
An introduction to 16mm film techniques and structures, requiring construction of brief, individually produced fictive-narrative films employing classical continuity. In addition to the class sessions taught with FMS 275 Basic Video Production, separate consultations and specific research assignments for graduate students in FMS 676 are also required. Lecture-laboratory. LEC.

**FMS 702. Graduate Seminar in: _____. 1-3 Hours.**
Course organized any given semester to study particular subject matter or to take advantage of special competency by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. SEM.

**FMS 704. Study Abroad Topics in: _____. 1-6 Hours.**
This course is designed for the study of special topics in Film. Credit for coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

**FMS 707. Film/Media Internship. 3-12 Hours.**
Study with an approved film or media company. Emphasis may be in one or all of the following areas: acting, directing, or promotion management. No more than six hours may be applied to an M.A. degree. Course will be graded satisfactory/unsatisfactory. Prerequisite: Consent of instructor. FLD.

**FMS 714. Kansas Art, History and Popular Culture. 3 Hours.**
An overview of the art and cultural history of Kansas (and Kansas City) from territorial days to the present. Emphasis is placed on key issues, figures and events. A general familiarity with American history is recommended. In addition to the lecture sessions taught in tandem with FMS 414, additional research component, lecture presentation, and class meeting are also required. LEC.

**FMS 715. Survey of Japanese Film. 3 Hours.**
This course surveys the major developments in patterns of distribution, exhibition, and reception and their influence on film aesthetics in twentieth century Japanese film. Through secondary readings, lectures, and discussions students will examine how Japanese cinema, as an institution, responds to and intervenes in the social, cultural, and political history of twentieth century Japan. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. (Same as EALC 715.) LEC.
FMS 716. Cinemas of the Southern Cone: Argentina, Chile, and Uruguay. 3 Hours.
This course will examine the cinemas of three neighboring South American countries to find similar themes and some differences between them historically, politically, and culturally. Themes will include: gender and nation, political repression during dictatorship, globalization and the cinema, youth culture in the Southern Cone, and representations of race and ethnicity, immigration and identity in contemporary cinema. In addition to the lecture sessions taught in tandem with FMS 316, additional research component, lecture presentation, and class meeting are also required. LEC.

FMS 717. Race and the American Documentary. 3 Hours.
This course will survey a range of documentaries in which race is a key part of the film’s text. There are two class objectives: to broaden the student’s knowledge of American social history and culture, especially around issues of identity, representation and race, and to heighten the student’s ability as a critical viewer of films. This course will include: film viewing, scholarly readings, and lectures. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. LEC.

FMS 718. Anti-war Films. 3 Hours.
An overview and exploration of the history of the portrayal of anti-war film and media themes to show how anti-war attitudes and political policy can be affected by positive and negative depictions of conflict. Analysis of selected films. FMS 318 and FMS 718 will meet concurrently, though separate consultations and specific research assignments for FMS 718 are also required. LEC.

FMS 743. Contemporary Japanese Film. 3 Hours.
Seminar on the major developments in the contemporary (1980-present) Japanese film industry examining how filmmaking practices and film criticism have been influenced by such issues as transnationalism, postcolonialism, critical race theory, postmodernism, and new media. We will survey recent industrial and stylistic trends as well as key critical debates. Class includes discussion, reports, and individual research papers. This course is offered at the 500 and 700 levels, with additional assignments at the 700 level. (Same as EALC 743.) SEM.

FMS 745. New Media and Society. 3 Hours.
Students will be introduced to major themes and debates in digital media studies and apply critical approaches for understanding new media practices, technologies, and theories. In addition to readings and lectures, students will engage in a variety of digital activities and participate in production-oriented projects. By the end of this course students will gain a foundational understanding of historical and emerging relationships between new media (internet, cell phones, digital games, etc.) and society, acquire key digital skills, and experience a variety of new media texts and services. This course is offered at the 300 and 700 levels, with additional assignments at the 700 level. LEC.

FMS 773. Problems in Intermediate Screenwriting. 3 Hours.
The principles of screenwriting are developed through scene writing and analysis culminating in the writing and structuring of a full-length, three act screenplay. In addition to the class sessions taught with FMS 373 Intermediate Screenwriting, separate consultations and specific research assignments for graduate students in FMS 773 are also required. LEC.

FMS 774. Animation. 3 Hours.
A survey that combines animation history, theory, and production by examining animated works of all kinds and exploring various styles utilizing both hands-on techniques and digital animation programs. This course is offered at the 300 and 700 levels, with additional assignments at the 700 level. Lecture-laboratory LEC.

FMS 775. Problems in Intermediate Video Production. 3 Hours.
Theory and practice of multiple-camera video production with emphasis on preproduction planning, scripting, directing, lighting, camera operation, and audio. In addition to the class sessions taught with FMS 375 Intermediate Video Production, separate consultations and specific research assignments for graduate students in FMS 775 are also required. Lecture-laboratory. LEC.

FMS 776. Problems in Cinematography. 3 Hours.
Theory and practice of cinematography, with emphasis on creation of film, video, and digital imagery. FMS 776 meets concurrently with FMS 376; students enrolled in the graduate-level course will have separate consultations and specific research assignments. Lecture-laboratory. Prerequisite: Consent of instructor and FMS 675 or FMS 676. LEC.

FMS 777. Post-Production. 3 Hours.
Students will become familiar with techniques and processes in film and video post-production including, but not limited to, editing, sound, post-production management, marketing, and distribution. This course is offered at the 300 and 700 levels, with additional assignments at the 700 level. Prerequisite: Consent of instructor. LEC.

FMS 800. Introduction to Graduate Study in Film/Media. 3 Hours.
Major emphasis is placed upon the principles of research, bibliographical data, and research methods useful in film and television. The course should be taken at the beginning of the graduate student’s program. LEC.

FMS 801. Professional Development Seminar. 1 Hour.
Preparation and training for faculty careers in film and related fields, including research skills and methods, responsible scholarship, teaching, and service. Other topics vary from semester to semester. May be repeated for credit. SEM.

FMS 802. Master’s Projects. 3-6 Hours.
Advanced creative projects which may be elected by master’s degree candidates in lieu of thesis. RSH.

FMS 810. Development of the Silent Film. 3 Hours.
Intensive study of the artistic, economic, and sociological development of the silent narrative film with emphasis on the evolution of the American studio system, German Expressionism, and Soviet Expressive Realism. LEC.

FMS 811. Development of the American Sound Film. 3 Hours.
Intensive study of the artistic, economic, and sociological development of the American sound film with emphasis on the studio system, major directors, genres, and the impact of television. LEC.

FMS 813. Development of the International Sound Film. 3 Hours.
Intensive study of the artistic, economic, and sociological development of the international sound film with emphasis on the cinemas of England, France, Italy, Germany, Sweden, and Eastern Europe. LEC.

FMS 814. Development of African-American Images in Film. 3 Hours.
A history and critical assessment of the development of diverse images of African-Americans in American cinema and the impact of those images of American society. Screenings of feature and independent films, including those by African-Americans. In addition to the lecture/screening sessions taught in tandem with FMS 314, a separate discussion section and specific research assignments for graduate students enrolled in FMS 814 are also required. LEC.

FMS 840. Cuban Cinema. 3 Hours.
This course explores Cuban cinema from 1959 to the present day. Special attention will be paid to the representations of Cuban history, cultural politics, and the political-economic conditions of production in Cuba. In addition, the Cuban-American community and their contributions or reactions to Cuban film will be discussed. Through readings, lectures,
discussion, and viewing Cuban films, the class will examine a variety of topics related to Cuban cinema, history, and contemporary concerns. This course is offered at the 500 and 800 levels, with additional assignments at the 800 level. LEC.

FMS 841. Asian Film. 3 Hours.
Seminar on various national film cultures of East and Southeast Asia. Representative films are studied from formal, stylistic, and socio-historic perspectives. Addresses the impact of key cultural, economic and political issues on each film industry. Class includes discussion, reports, and individual research papers. This course is offered at the 500 and 800 levels, with additional assignments at the 800 level. (Same as EALC 841.) SEM.

FMS 842. Latin American Film. 3 Hours.
The course explores the national cinemas and film industries of various nations in Latin America, as well as films made by indigenous and Chicano/a filmmakers. Films are analyzed both as artistic works (formal qualities, cinematic styles, and influences) and as documents that provide windows to the socio-historical context of the nation. The course focuses on the political-economic factors surrounding the production of Latin American national cinema (the role of the state, co-productions, film markets). LEC.

FMS 852. Survey of Film and Media History. 3 Hours.
This seminar will be primarily international in scope and will concentrate on the following: technological and production issues relating to the transition in 1927-1931 of silent to sound film; the constructions of national identity, including those of recently emerging cultures; a comparison and contrast of the censorial agencies in America and abroad; and current revisionist perspectives on received film and media history. SEM.

FMS 863. Survey of Documentary and Experimental Film and Media. 3 Hours.
Surveys the important historical and theoretical issues pertinent to both the documentary and experimental approaches as expressed in film, video and new technologies. Includes major documentary and experimental genres, directors, national schools, artistic movements, and landmark works. Screenings reflect a chronology from origins to present-day. LEC.

FMS 864. Classical Film and Media Theory. 3 Hours.
This seminar is a comprehensive survey of the major classical film and media theories and theorists, such as Munsterberg, Eisenstein, Arnhem, Bazin, and Adorno. Organized around specific questions, e.g.: What qualities differentiate film and media from other art and communications forms? What qualities do film and media share with other art and communication forms? What qualities differentiate film from other forms of media such as television? Readings from primary sources stressed. Class discussion, individual research papers. SEM.

FMS 865. Contemporary Film and Media Theory. 3 Hours.
This seminar is a study of the theories applied to the study of film and media since the 1970s moving through structuralism, and into the posts: - structuralism, -modernism, -colonialism, and beyond. Within these broad paradigms some of the theories examined in depth are cinesemiotics, Marxism, cinematic apparatus, feminist film theory, reception theory, new media and virtual reality. SEM.

FMS 875. Problems in Advanced Video Production. 3 Hours.
Special projects in video production, using both studio and remote locations. In addition to the class sessions taught with FMS 475 Advanced Video Production, separate consultations and specific research assignments for graduate students in FMS 875 are also required. Prerequisite: FMS 775 or consent of instructor. LEC.

FMS 880. Development of American Popular Culture in the: _____ 3 Hours.
Intensive interdisciplinary examination of popular culture forms and their relationships with the social, political, and economic dynamics of America in a specific decade, with emphasis on film, broadcasting, theatre, music literature (including magazines and newspapers), and the graphic arts. Decade to be studied changes as resources and needs develop. LEC.

FMS 887. Film and the Public. 3 Hours.
A study of the actual and implied responsibilities of film and video to the public, as seen in regulations, self-regulatory codes, and the critical literature of the field. Prerequisite: Consent of instructor. LEC.

FMS 888. Special Problems in Film History and Criticism. 1-4 Hours. RSH.

FMS 895. Intensive Film Project Seminar. 1-4 Hours. RSH.
The student plans and executes an intensive special project which requires the professional skills of investigation and performance appropriate to radio, television and/or film. May be repeated for credit up to a maximum of six credit hours. (This seminar is to the special project program what "thesis" is to the traditional program.) RSH.

FMS 897. Practicum in Film. 1-3 Hours.
Various approaches to the illustration of principles of production in film and/or video through the supervision of laboratory exercises and subsequent evaluation by the Theatre and Film graduate faculty. FL.

FMS 898. Investigation and Conference (for Master’s Students). 1-8 Hours.
Directed research and experimentation in film or media. Limited to eight hours credit toward the Master's degree. RSH.

FMS 899. Master’s Thesis. 1-6 Hours.
THE.

FMS 902. Film Seminar in: ______. 3 Hours.
A graduate seminar devoted to selected historical, theoretical, or critical issues. Prerequisite: Consent of instructor. LEC.

FMS 998. Investigation and Conference (for Doctoral Students). 1-8 Hours.
RSH.

FMS 999. Doctoral Dissertation. 1-12 Hours.
THE.

Bachelor of Arts and Bachelor of General Studies in Film and Media Studies

Why study film and media?
The Department of Film and Media Studies unites the inquiry of the academic with the practice and technique of the artist. Scholars and filmmakers work and study together in an environment of mutual encouragement and collegiality.

First-Year Preparation
Students considering a major in film and media studies should enroll in FMS 100 and complete all courses required for admission to the major within the first 3 semesters.
Admission to the Major

Admission Requirements

Courses Required

Introduction to the Film Medium. Satisfied by:
FMS 100 Introduction to the Film Medium 3

Film and Media Aesthetics. Satisfied by:
FMS 200 Film and Media Aesthetics 3

American Popular Culture of: _____ . Satisfied by:
FMS 380 American Popular Culture of: _____ 3

Admission GPA

Satisfied by a minimum GPA of 2.5 on a 4.0 scale in required admission courses designated above. University Course Repeat Policy will apply.

Apply to the Major

Application Term

Students should apply to the major during the semester in which major admission criteria will be completed; normally no later than 60 hours, or for transfer students, during the initial term at KU. Application to this major after completion of 60 hours, or the initial KU term for transfer students, will likely delay graduation.

Application Process

Students with the film and media studies interest code who are enrolled in the second admissions class are contacted by the department and invited to a major admissions orientation mid-semester. Attendance at an orientation is necessary to be admitted to the film and media studies department. Admission occurs at the end of the semester once the 2.5 grade-point average in FMS 100, FMS 200, and FMS 380 is confirmed.

Film and Media Studies Programs

Film/video production experience is provided through course work at Oldfather Studios. B.A. and B.G.S. requirements are quite different, so it is important to check with a department advisor. The B.A. in film and media studies introduces students to the overall field of film and media studies and prepares them for graduate study. The B.G.S. in film and media studies prepares students broadly in film/video production.

Requirements for the B.A. Major

Film and Media Studies Core Knowledge and Skills (16)

Majors must complete the following courses:

FMS 100 Introduction to the Film Medium Admission requirements. Must receive a 2.5 cumulative GPA. 3

FMS 200 Film and Media Aesthetics Admission requirements. Must receive a 2.5 cumulative GPA. 3

FMS 380 American Popular Culture of: _____ Admission requirements. Must receive a 2.5 cumulative GPA. 3

FMS 345 New Media and Society 3

FMS 401 Undergraduate Professional Development Seminar 1

FMS 530 Classical Film/Media Theory 3

Film and Media Studies Required Electives (12)

Majors must complete a course in each of the following areas:

Documentary or Experimental Film. Satisfied by one of the following: 3

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<tbody>
<tr>
<td>FMS 592</td>
<td>Documentary Film and Video</td>
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<td>FMS 593</td>
<td>Experimental Film and Video</td>
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Cultural Studies. Satisfied by one of the following: 3

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<tr>
<td>FMS 314</td>
<td>History of African-American Images in Film</td>
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<td>FMS 315</td>
<td>Survey of Japanese Film</td>
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<td>FMS 316</td>
<td>Cinemas of the Southern Cone: Argentina, Chile, and Uruguay</td>
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FMS 620 International Women Filmmakers

Production. Satisfied by one of the following: 3

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<tr>
<td>FMS 273</td>
<td>Basic Screenwriting</td>
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<td>FMS 275</td>
<td>Basic Video Production</td>
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<td>FMS 374</td>
<td>Animation</td>
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Film History. Satisfied by one of the following: 3

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<tr>
<td>FMS 310</td>
<td>History of the Silent Film</td>
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<td>FMS 311</td>
<td>History of the American Sound Film</td>
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<td>FMS 312</td>
<td>History of the International Sound Film to 1950</td>
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<td>FMS 313</td>
<td>History of the International Sound Film Post 1950</td>
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<tr>
<td>FMS 621</td>
<td>American Film Criticism</td>
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Capstone: (3)

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMS 585</td>
<td>Capstone in Film and Media Studies</td>
</tr>
</tbody>
</table>

Film and Media Electives (6)

Satisfied by 6 hours from courses in the Film & Media Studies department (any course with an FMS prefix) 6

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours

Satisfied by 37 hours of major courses.

Major Hours in Residence

Satisfied by a minimum of 15 hours of KU resident credit in the major, of which 8 must be at the junior/senior (300+) level.

Major Junior/Senior Hours

Satisfied by a minimum of 22 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Graduation Plan

With careful planning and commitment to a full-time course load, you can graduate in 4 years. For details please consult the department.

Requirements for the B.G.S. Major

Film and Media Studies Core Knowledge and Skills (16)

Majors must complete a course in each of the following areas:

FMS 100 Introduction to the Film Medium Admission requirements. Must receive a 2.5 cumulative GPA. 3

FMS 317 Film and Media Aesthetics 3

FMS 318 Cultural Studies 3

FMS 319 Production 3

FMS 320 Film History 3

FMS 622 American Film Criticism 3

Film and Media Electives (6)

Satisfied by 6 hours from courses in the Film & Media Studies department (any course with an FMS prefix) 6
The University of Kansas

FMS 200  Film and Media Aesthetics Admissions requirements. Must receive a 2.5 cumulative GPA.  

FMS 380  American Popular Culture of: _____ Admissions requirements. Must receive a 2.5 cumulative GPA.  

FMS 275  Basic Video Production  
FMS 401  Undergraduate Professional Development Seminar  
FMS 530  Classical Film/Media Theory  

Film and Media Studies Required Electives (15)

Majors must complete a course in each of the following:  

Documentary or Experimental Film. Satisfied by one of the following:  
FMS 592  Documentary Film and Video  
FMS 593  Experimental Film and Video  

Screenwriting, Film Criticism, or Media. Satisfied by one of the following:  
FMS 273  Basic Screenwriting  
FMS 345  New Media and Society  
FMS 621  American Film Criticism  

Film History. Satisfied by one of the following:  
FMS 310  History of the Silent Film  
FMS 311  History of the American Sound Film  
FMS 312  History of the International Sound Film to 1950  
FMS 313  History of the International Sound Film Post 1950  

Majors must complete two courses in the following area:  

Intermediate Production. Satisfied by two of the following:  
FMS 373  Intermediate Screenwriting  
FMS 374  Animation  
FMS 375  Intermediate Video Production  
FMS 376  Cinematography  
FMS 377  Post-Production  
FMS 477  Sound Design  
FMS 478  Experimental Production  
FMS 479  Broadcast Documentary Production  
FMS 480  Music Video Production  

Capstone: (3)  
FMS 585  Capstone in Film and Media Studies  

Film and Media Studies Electives (6)

Satisfied by 6 hours elected from courses in the Film & Media Studies department (any course with an FMS prefix).

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 40 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major, of which 8 must be at the junior/senior (300+) level.

Major Junior/Senior Hours
Satisfied by a minimum of 22 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Departmental Honors

An undergraduate interested in honors in film and media studies must present a written declaration of intention to the department’s honors coordinator as early as possible in the junior or senior year. The following are required:

1. A grade-point average at the time of declaration and at graduation of at least 3.25 overall and 3.5 in film and media studies courses.
2. Six hours in FMS 498 Honors Seminar. Enrollment in this course must be approved by the honors coordinator. Students in the honors seminar work under the direction of one instructor for each semester. The instructor conducts an examination at the end of each semester’s work and assigns a grade. Credit only is given to students who complete the work assigned for any semester but do not complete the requirements for honors. Students may change area of interest or instructor at the beginning of a semester with the consent of the honors coordinator.
3. Satisfactory performance in a final oral examination given approximately one month before graduation.

Minor in Film and Media Studies

Why study film and media?
The Department of Film and Media Studies unites the inquiry of the academic with the practice and technique of the artist. Scholars and filmmakers work and study together in an environment of mutual encouragement and collegiality.

Requirements for the Minor

Students selecting this minor must complete the following:

FMS 100  Introduction to the Film Medium  
FMS 380  American Popular Culture of: _____  

Film History. Satisfied by one of the following:  
FMS 310  History of the Silent Film  
FMS 311  History of the American Sound Film  
FMS 312  History of the International Sound Film to 1950  
FMS 313  History of the International Sound Film Post 1950  

Theory and Criticism. Satisfied by one of the following:  
FMS 530  Classical Film/Media Theory  
FMS 531  Contemporary Concepts in Media Studies  

Film and Video. Satisfied by one of the following:  
FMS 592  Documentary Film and Video  
FMS 593  Experimental Film and Video  

Film Studies. Satisfied by one of the following:  
FMS 302  Undergraduate Studies Seminar in: _____
<table>
<thead>
<tr>
<th>FMS 542</th>
<th>Latin American Film</th>
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</thead>
<tbody>
<tr>
<td>FMS 621</td>
<td>American Film Criticism</td>
</tr>
</tbody>
</table>

## Minor Hours & Minor GPA

While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

### Minor Hours

Satisfied by 18 hours of minor courses.

### Minor Hours in Residence

Satisfied by a minimum of 9 hours of KU resident credit in the minor.

### Minor Junior/Senior Hours

Satisfied by a minimum of 15 hours from junior/senior courses (300+) in the minor.

## Master of Arts in Film and Media Studies

### Why study film and media?

The Department of Film and Media Studies unites the inquiry of the academic with the practice and technique of the artist. Scholars and filmmakers work and study together in an environment of mutual encouragement and collegiality.

## Graduate Admission

### Graduate Admission Criteria

#### M.A. Degree

To be admitted, a student ordinarily is expected to have a Graduate Record Examination score of at least 160 (verbal), 144 (quantitative), and 4.5 analytical writing.

#### Ph.D. Degree

To be admitted, a student ordinarily is expected to have a Graduate Record Examination score of at least 160 (verbal), 144 (quantitative), and 4.5 analytical writing. Applicants also must have a grade-point average of at least 3.2 for undergraduate and at least 3.5 for graduate work, and a master’s degree acceptable to the graduate faculty. Deficiencies in a student’s background may require make-up work.

## How to Apply (Graduate Level)

### Deadlines

To apply for admission in the fall term, please submit all application materials for admission no later than

- **January 1** to be considered for funding
- **February 15** to be considered without funding

The department does not admit new students in the spring or summer terms.

### Online Submission of Application and Fee

Submit your application fee and graduate application online (http://www.graduate.ku.edu).

### Application Materials

Graduate Record Examination scores should be sent directly from the Educational Testing Service. For routing, the institution code is 6871; the department code is 4505. Check with your GRE Examination Center (http://www.ets.org/gre) to be certain your scores will arrive at KU by the application deadline.

The items listed below should be submitted online with the application and/or mailed to this address:

- **The University of Kansas**
  **Department of Film and Media Studies**
  **Attn: Graduate Secretary**
  **Oldfather Studios**
  **1621 W. 9th St.**
  **Lawrence, KS 66044-2488**

  - An official transcript, sent directly to KU, from every previous college or university attended (copies issued to students are not accepted).
  - 3 recent letters of recommendation, 2 of which should be from your current or former teachers. Each letter of recommendation must be accompanied by Graduate Letter of Recommendation Form. Completed letters with accompanying forms may be sent directly to the department by your recommenders, uploaded with your application, or included (in signed and sealed envelopes) with the rest of the materials you send us.
  - A current résumé of academic and artistic experiences.
  - A statement of personal goals that explains why you want to pursue graduate study.
  - A writing sample (no more than 15 pages) that demonstrates your ability to theorize, analyze, and synthesize scholarly information. (Please do not send theses, DVDs, CDs, jump drives, or videotapes.)
  - International students must provide TOEFL scores (http://policy.ku.edu/graduate-studies/english-proficiency-international-students) and the international I-20 Request Form.

### M.A. Degree Requirements

The Master of Arts in film and media is an academic degree, but students are expected to complete 6 hours in film and video production. All M.A. students must write a thesis as the culmination of the degree.

To be admitted, a student ordinarily is expected to have a Graduate Record Examination score of at least 160 (verbal), 144 (quantitative), and 4.5 analytical writing.

To complete the M.A., the student must sustain a grade-point average of 3.0 or higher through 33 graduate credit hours.

### Requirements for the M.A. in Film and Media Studies

A total of 33 hours is required.

#### Core Courses (15)

<table>
<thead>
<tr>
<th>FMS 800</th>
<th>Introduction to Graduate Study in Film/Media</th>
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<tbody>
<tr>
<td>(taken the first semester in residence)</td>
<td>3</td>
</tr>
</tbody>
</table>
Studies:
FMS 864 Classical Film and Media Theory 3
FMS 865 Contemporary Film and Media Theory 3

Production. Select two of the following:
FMS 673 Problems in Basic Screenwriting 3
FMS 675 Problems in Basic Video Production 3
FMS 676 Problems in Basic Film Production 3

Area of Concentration (12)
Select 12 hours of courses from one of the following 4 categories:

A. History and Theory
FMS 841 Asian Film 3
FMS 842 Latin American Film 3
FMS 862 Survey of Film and Media History 3
FMS 863 Survey of Documentary and Experimental Film and Media 3
FMS 902 Film Seminar in: _____ (an appropriate seminar) 3
1 elective in film history or theory 3

B. International Film and Media
FMS 841 Asian Film 3
FMS 842 Latin American Film 3
FMS 862 Survey of Film and Media History 3
1 elective chosen with the graduate advisor from the film and culture sequences offered, for example, by French and Italian or African and African-American studies, or an appropriate FMS 902 Film Seminar in: _____ (3)

C. Practical Criticism
FMS 621 American Film Criticism 3
FMS 880 Development of American Popular Culture in the: _____ (1 elective from the sequence in American Popular Culture) 3
Select one elective of the following: 3
FMS 841 Asian Film 3
FMS 842 Latin American Film 3
FMS 862 Survey of Film and Media History 3
FMS 863 Survey of Documentary and Experimental Film and Media 3
FMS 902 Film Seminar in: _____ (an appropriate seminar)

D. Theory and Practice of Production
Select two electives of the following: 6
FMS 675 Problems in Basic Video Production 3
FMS 676 Problems in Basic Film Production 3
FMS 773 Problems in Intermediate Screenwriting 3
Select two electives of the following: 6
FMS 841 Asian Film 3
FMS 842 Latin American Film 3
FMS 862 Survey of Film and Media History 3
FMS 863 Survey of Documentary and Experimental Film and Media 3

Master's Thesis
FMS 899 Master's Thesis 6

All courses should be selected in consultation with the advisor.

Doctor of Philosophy in Film and Media Studies

Why study film and media?
The Department of Film and Media Studies unites the inquiry of the academic with the practice and technique of the artist. Scholars and filmmakers work and study together in an environment of mutual encouragement and collegiality.

Graduate Admission

Graduate Admission Criteria

M.A. Degree
To be admitted, a student ordinarily is expected to have a Graduate Record Examination score of at least 160 verbal, 144 quantitative, and 4.5 analytical writing.

Ph.D. Degree
To be admitted, a student ordinarily is expected to have a Graduate Record Examination score of at least 600 (verbal), 500 (quantitative), and 4.5 (analytical writing). Applicants also must have a grade-point average of at least 3.2 for undergraduate and at least 3.5 for graduate work, and a master’s degree acceptable to the graduate faculty. Deficiencies in a student’s background may require make-up work.

How to Apply (Graduate Level)

Deadlines
To apply for admission in the fall term, please submit all application materials for admission no later than

• January 1 to be considered for funding
• February 15 to be considered without funding

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Department of Film and Media Studies
Attn: Graduate Secretary
Oldfather Studios
1621 W. 9th St.
Lawrence, KS 66044-2488

- An official transcript, sent directly to KU, from every previous college or university attended (copies issued to students are not accepted).
- 3 recent letters of recommendation, 2 of which should be from your current or former teachers. Each letter of recommendation must be accompanied by Graduate Letter of Recommendation Form. Completed letters with accompanying forms may be sent directly to the department by your recommenders, uploaded with your application, or included (in signed and sealed envelopes) with the rest of the materials you send us.
- A current résumé of academic and artistic experiences.
- A statement of personal goals that explains why you want to pursue graduate study.
- A writing sample (no more than 15 pages) that demonstrates your ability to theorize, analyze, and synthesize scholarly information. (Please do not send theses, DVDs, CDs, jump drives, or videotapes.)
- International students must provide TOEFL scores (http://policy.ku.edu/graduate-studies/english-proficiency-international-students) and the international I-20 Request Form.

Ph.D. Degree Requirements
The Ph.D. is an academic degree, but students are expected to complete 6 hours in film and video production.

To be admitted, a student ordinarily is expected to have a Graduate Record Examination score of at least 160 (verbal), 144 (quantitative), and 4.5 analytical writing. The applicant also must have a grade-point average of at least 3.2 for undergraduate and at least 3.5 for graduate work and a master’s degree acceptable to the graduate faculty. Deficiencies in background may require make-up work.

Ph.D. Degree in Film and Media Studies
The degree requires 60 hours not including language proficiency. Please meet with your advisor or graduate director each semester to assess your progress.

Core Requirements
24 hours of core courses are required. Doctoral students in film and media studies must take a core of courses aimed at strengthening methodological, historical, and theoretical grounding. 1 course must be taken in non-Western/indigenous film; 2 graduate-level production courses are required, and 2 courses in FMS 902 Film Seminar are mandatory.

Elective Requirements
9 hours of electives are required. Elective courses focus on the academic study of history, international cinema, popular culture, and film criticism. These courses are selected with a graduate advisor to reflect the student’s special interest. The advisor may increase the number of hours, depending on the student’s academic needs.

Production Requirements
6 hours of production courses are required. Production courses give students an understanding of the production process in making film, video, or animation pieces. On graduation, doctoral students can perform as competent artisans in addition to research scholars. Production courses are selected with a graduate advisor to reflect the student’s specific interest. The advisor may increase the number of hours, depending on the student’s academic needs.

Secondary Field Requirements
9 hours of secondary field courses at the graduate level from outside the Department of Film and Media Studies, are chosen to assist the student in writing the dissertation. They are related to the student’s proposed area of specialization. Examples include English; history; women, gender, and sexuality studies; American studies; education; and social welfare.

Research Skills and Responsible Scholarship Requirements
KU requires all doctoral students to meet the Research Skills requirement before proceeding to comprehensive exams. Compliance with this policy requires all graduate students to receive training in responsible scholarship pertinent to the field of research and obtain research skills pertinent to the doctoral level of research in their field(s). Research Skills requirements may be satisfied by taking either FMS 902 : Research Methods and Applications of New Media or FMS 902 : Visual Methods. Students may also elect to demonstrate proficiency in one foreign language for conducting research.

Comprehensive Examination
2 publishable papers are due at the time of the examination. The examination includes written responses to questions in history, theory, production, and literature/criticism, followed by an oral examination.

Dissertation
18 hours of dissertation credit are required. The finished dissertation must constitute a palpable contribution to knowledge in the candidate’s chosen field. After its completion, an oral defense must be held no less than 4 weeks before the graduation deadline. The committee consists of 1 chair, 3 departmental members, and an outside member.

Ph.D. in Film and Media Studies Program of Study

<table>
<thead>
<tr>
<th>Core (24)</th>
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<tbody>
<tr>
<td>FMS 800</td>
<td>Introduction to Graduate Study in Film/Media</td>
<td>3</td>
</tr>
<tr>
<td>FMS 801</td>
<td>Professional Development Seminar (1 hour/3 semesters)</td>
<td>3</td>
</tr>
<tr>
<td>FMS 862</td>
<td>Survey of Film and Media History</td>
<td>3</td>
</tr>
<tr>
<td>FMS 863</td>
<td>Survey of Documentary and Experimental Film and Media</td>
<td>3</td>
</tr>
<tr>
<td>FMS 864</td>
<td>Classical Film and Media Theory</td>
<td>3</td>
</tr>
<tr>
<td>FMS 865</td>
<td>Contemporary Film and Media Theory</td>
<td>3</td>
</tr>
<tr>
<td>FMS 902</td>
<td>Film Seminar in: _____ (Special Topics)</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one graduate-level non-Western/indigenous film course

<table>
<thead>
<tr>
<th>Electives (9)</th>
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<tbody>
<tr>
<td>FMS 621</td>
<td>American Film Criticism</td>
<td></td>
</tr>
<tr>
<td>FMS 702</td>
<td>Graduate Seminar in: _____</td>
<td></td>
</tr>
<tr>
<td>FMS 814</td>
<td>Development of African-American Images in Film</td>
<td></td>
</tr>
<tr>
<td>FMS 841</td>
<td>Asian Film</td>
<td></td>
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</tbody>
</table>
Undergraduate French

The Department of French & Italian offers a comprehensive undergraduate program in French language, literature, and culture, as well as Francophone literature and culture from around the world. In addition to first and second year courses in basics of grammar and conversation, advanced undergraduate courses in composition, literature, and culture are offered every semester. We offer a summer study abroad option in Paris, and a full semester study abroad program in Angers. Our summer and semester-long study abroad programs in Paris and Angers offer a wide variety of levels to students at all stages of linguistic competence. The major prepares students for a variety of careers in teaching or in graduate studies, as well as in fields such as interpreting, international business, art, art history, and travel. We encourage applicants from traditional and non-traditional backgrounds to investigate French as a major or as a minor field.

Undergraduate Italian

The Department of French & Italian offers a comprehensive undergraduate program in Italian language, literature, and culture, leading to the BA in French with the Italian Option or to the Minor in Italian. Italian offers courses in basic grammar, composition and conversation, literature and culture. The course sequence Italy and the Italians (ITAL 335-336) is also offered via ITV at the Edwards Campus in Kansas City. Our summer study abroad program in Florence offers a wide variety of levels to students at all stages of linguistic competence. The major prepares students for a variety of careers in teaching or in graduate studies, as well as in fields such as interpreting, international business, art, art history, architecture, and travel. We encourage applicants from traditional and non-traditional backgrounds to enrich their time at KU through the study of Italian.

Graduate French

The Department of French & Italian offers the M.A. and Ph.D. degrees in French and Francophone language, literature, and culture. Graduate study is supported through teaching assistantships offered to qualified candidates, who receive thorough training in language instruction. Excellent facilities, strong library holdings, and a faculty dedicated to both teaching and research assure students of a challenging and professional graduate preparation.

Undergraduate Programs

Course work in the Department of French and Italian gives undergraduates a valuable and useful linguistic tool; offers cultural training for students specializing in other fields; trains majors in the literature, culture, and civilization of France and Italy; and prepares prospective language teachers. The department welcomes qualified students from all disciplines, regardless of major.

Placement

In general, placement depends on the overall proficiency of the student and on what was accomplished in previous French or Italian courses. A student entering KU with no previous French should enroll in FREN 110. A student entering KU with no previous Italian should enroll in ITAL 107, ITAL 110, or ITAL 155.

Students with past course work/experience in French should take the online French placement examination offered through the Ermal Garinger Academic Resource Center (http://www2.ku.edu/~egarc) at KU. Once the student has the placement score, he or she should contact the French language coordinator in the Department of French and Italian to determine which French course is appropriate for his or her level. A student who has four years of high school French and wants to continue the study of French beyond the language requirement generally enrolls in FREN 300 or FREN 326, depending on the placement examination results. Students who feel they are sufficiently prepared to test out of the language requirement may contact the department office to arrange to take a French proficiency test.

Any student with past course work or experience in Italian should contact the Italian program director in the Department of French and Italian to determine which Italian course is appropriate for his or her level.

Retroactive Credit

Students with no prior college or university French or Italian course credit are eligible for retroactive credit according to this formula:

- 9 hours of retroactive credit are awarded to a student with 4 years of high school French or Italian who enrolls initially at KU in a third-semester French or Italian course (FREN 230 or FREN 231 or ITAL 230) and receives a grade of C– or higher.
- 6 hours of retroactive credit are awarded to a student with 3 or 4 years of high school French or Italian who enrolls initially at KU in a fourth-semester French or Italian course (FREN 240 or FREN 241 or ITAL 240) and receives a grade of C– or higher.
- 3 hours of retroactive credit are awarded to a student with 2 or 3 years of high school French or Italian who enrolls initially at KU in a first-semester French or Italian course (FREN 110 or ITAL 110) and receives a grade of C– or higher.

## Department of French and Italian

Why study French, Italian, and Francophone studies?

French, Italian, and Francophone studies ensure that our students succeed in an interconnected world.

Undergraduate French

The Department of French & Italian offers a comprehensive undergraduate program in French language, literature, and culture, as well as Francophone literature and culture from around the world. In addition to first and second year courses in basics of grammar and conversation, advanced undergraduate courses in composition, literature, and culture are offered every semester. We offer a summer study abroad option in Paris, and a full semester study abroad program in Angers. Our summer and semester-long study abroad programs in Paris and Angers offer a wide variety of levels to students at all stages of linguistic competence. The major prepares students for a variety of careers in teaching or in graduate studies, as well as in fields such as interpreting, international business, art, art history, and travel. We encourage applicants from traditional and non-traditional backgrounds to investigate French as a major or as a minor field.

Undergraduate Italian

The Department of French & Italian offers a comprehensive undergraduate program in Italian language, literature, and culture, leading to the BA in French with the Italian Option or to the Minor in Italian. Italian offers courses in basic grammar, composition and conversation, literature and culture. The course sequence Italy and the Italians (ITAL 335-336) is also offered via ITV at the Edwards Campus in Kansas City. Our summer study abroad program in Florence offers a wide variety of levels to students at all stages of linguistic competence. The major prepares students for a variety of careers in teaching or in graduate studies, as well as in fields such as interpreting, international business, art, art history, architecture, and travel. We encourage applicants from traditional and non-traditional backgrounds to enrich their time at KU through the study of Italian.

Graduate French

The Department of French & Italian offers the M.A. and Ph.D. degrees in French and Francophone language, literature, and culture. Graduate study is supported through teaching assistantships offered to qualified candidates, who receive thorough training in language instruction. Excellent facilities, strong library holdings, and a faculty dedicated to both teaching and research assure students of a challenging and professional graduate preparation.

Undergraduate Programs

Course work in the Department of French and Italian gives undergraduates a valuable and useful linguistic tool; offers cultural training for students specializing in other fields; trains majors in the literature, culture, and civilization of France and Italy; and prepares prospective language teachers. The department welcomes qualified students from all disciplines, regardless of major.

Placement

In general, placement depends on the overall proficiency of the student and on what was accomplished in previous French or Italian courses. A student entering KU with no previous French should enroll in FREN 110. A student entering KU with no previous Italian should enroll in ITAL 107, ITAL 110, or ITAL 155.

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Retroactive Credit

Students with no prior college or university French or Italian course credit are eligible for retroactive credit according to this formula:

- 9 hours of retroactive credit are awarded to a student with 4 years of high school French or Italian who enrolls initially at KU in a third-semester French or Italian course (FREN 230 or FREN 231 or ITAL 230) and receives a grade of C– or higher.
- 6 hours of retroactive credit are awarded to a student with 3 or 4 years of high school French or Italian who enrolls initially at KU in a fourth-semester French or Italian course (FREN 240 or FREN 241 or ITAL 240) and receives a grade of C– or higher.
- 3 hours of retroactive credit are awarded to a student with 2 or 3 years of high school French or Italian who enrolls initially at KU in a first-semester French or Italian course (FREN 110 or ITAL 110) and receives a grade of C– or higher.
Courses for Nonmajors

All courses are open to nonmajors who meet requirements. Candidates for the B.S. degree in education who want to major or minor in French (p. 346) should consult the School of Education. Special concentrations in French and Italian are also available through business and journalism.

Graduate Program in French

The Department of French and Italian offers a comprehensive graduate program (M.A. and Ph.D.) in French and Francophone language, literature, and culture. Our faculty (http://www.frenchitalian.ku.edu/ faculty) is dynamic, professionally active, and committed to excellence in scholarship and teaching. Although the major emphasis of teaching and research is French and Francophone literature, the department also offers courses in literary theory, cultural studies, and film. The department offers a balanced emphasis on all periods from medieval through twentieth and twenty-first centuries. Our students represent a diverse group, and we encourage equally applicants from traditional and nontraditional backgrounds. Excellent facilities, strong library holdings, and a faculty dedicated to both teaching and research assure students of a challenging and professional graduate preparation. Please visit the Graduate Program page (https://frenchitaliandev.drupal.ku.edu/graduate-teaching) of our departmental website for additional information.

Departmental Funding

While it is not guaranteed, the department does its best to provide funding in the form of Graduate Teaching Assistantship (GTA) appointments to all incoming graduate students. GTA appointments are awarded for the academic year and come with:

- a competitive academic year (9 month) salary
- a 100% tuition waiver for all courses at KU
- payment of up to 3 hours of student fees
- optional University-subsidized group health insurance

The appointments are guaranteed based on performance for up to 3 years for M.A. students, 5 years for Ph.D. students and 6 years for students who receive both an M.A. and a Ph.D. at The University of Kansas. GTAs in the department receive thorough training in language instruction, close mentoring, and the opportunity to teach French at a variety of levels, providing them with a strong base of teaching experience upon entering the job market. Additional information about teaching for the department is available on the Graduate Funding page (https://frenchitaliandev.drupal.ku.edu/overview-5) of the departmental website.

Additional Funding

Other funding opportunities for graduate students include the Office of Study Abroad’s Springer award; the department’s Cornell, Mahieu, and Magerus fellowships; awards for research abroad; and French university exchanges.

Visit the Graduate Studies website for additional information about funding opportunities (http://www.humanities.ku.edu/funding-opportunities) for graduate students at KU.

Financial Aid and Scholarships (http://affordability.ku.edu/steps/index.shtml) administers grants, loans, and need-based financial aid.

Courses

FREN 100. French for Reading Knowledge. 3 Hours. U.
Special course for candidates for advanced degrees in other departments. Fundamentals of grammar and reading of material of medium difficulty. Intended primarily for graduate students, but open also to seniors planning graduate study. Does not satisfy any part of the undergraduate language requirement. Prerequisite: previous study of French. Conducted in English. LEC.

FREN 104. Elementary French, Overseas. 1-5 Hours. U.
Basic language instruction in French for beginners participating in study abroad programs in France or a French-speaking country. Graded satisfactory/unsatisfactory. LEC.

FREN 107. Elementary French I for the Professional Schools. 3 Hours.
Essentials of French grammar; practice in speaking, reading, and writing French. Introduction to French business culture. Three hours of class per week. This course does not satisfy the College of Liberal Arts and Sciences foreign language requirement. LEC.

FREN 108. Elementary French II for the Professional Schools. 3 Hours. U.
Essentials of French grammar; practice in speaking, reading, and writing French. Introduction to French business culture. Three hours of class per week. This course does not satisfy the College of Liberal Arts and Sciences foreign language requirement. Prerequisite: FREN 107 or equivalent. LEC.

FREN 109. Elementary French III for the Professional Schools. 3 Hours. U.
Essentials of French grammar; practice in speaking, reading, and writing French. Introduction to French business culture. Three hours of class per week. This course does not satisfy the College of Liberal Arts and Sciences foreign language requirement. Prerequisite: FREN 108 or equivalent. LEC.

FREN 110. Elementary French I. 5 Hours. U.
Five hours of class per week. A balanced approach stressing understanding, speaking, reading, and writing. LEC.

FREN 120. Elementary French II. 5 Hours. U.
Five hours of class per week. A balanced approach stressing understanding, speaking, reading, and writing. Prerequisite: FREN 110 or by departmental permission. LEC.

FREN 152. France and the French. 3 Hours. HL AE42/GE3H / H.
A comprehensive, interdisciplinary survey of French culture that may include topics ranging from the earliest times to the present, with particular attention to literature, the arts, thought, politics, society, food, and customs. Taught in English. Does not fulfill any requirement in the French major or minor. LEC.

FREN 177. First Year Seminar: __________. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in French. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

FREN 230. Intermediate French I. 3 Hours. U.
Third-semester course stressing oral and written work in French; systematic review of grammar and introduction to reading in cultural texts. (See also FREN 231, FREN 234.) Prerequisite: FREN 120 or by departmental permission. LEC.
FREN 231. Intermediate French I, Honors. 3 Hours. U.
Similar in approach and content to FREN 230; smaller class size; open to students who had done very good to excellent work in previous French classes. Prerequisite: Grade of B or A in FREN 120 or departmental permission. LEC.

FREN 234. Intermediate French I and II. 6 Hours. U.
One-semester course meeting five times a week for six hours credit. Material same as in FREN 230 and FREN 240. (FREN 234, FREN 240, FREN 241--each completes foreign language requirement.) Prerequisite: FREN 240 or by departmental permission. LEC.

FREN 240. Intermediate French II. 3 Hours. U.
Continuation of FREN 230. (FREN 234, FREN 240, FREN 241--each completes foreign language requirement.) (See also FREN 241.) Prerequisite: FREN 230, FREN 231, or by departmental permission. LEC.

FREN 241. Intermediate French II, Honors. 3 Hours. U.
Similar in approach and content to FREN 240; smaller class size; open to students who have done very good to excellent work in previous French classes. Prerequisite: A grade of A in FREN 230 or FREN 231, or departmental permission. LEC.

FREN 300. Intensive Review of French Grammar. 3 Hours. H/W.
Designed to provide essential skills for advanced courses. Prerequisite: FREN 240, FREN 240, FREN 241, or by departmental permission. LEC.

FREN 310. French Phonetics. 3 Hours. GE3S / H/W.
A course in practical phonetics with exercises stressing rhythm, intonation, and individual sounds. Prerequisite: FREN 240, FREN 241, or by departmental permission. LEC.

FREN 315. Le Francais Pratique. 1-6 Hours. H/W.
Supplementary non-major language course that can be a sequel to the first four semesters of French. Primarily for students studying abroad. Covers vocabulary study, oral exercises, discussion of texts, writing, and free conversation. Prerequisite: FREN 230/231 or FREN 240, FREN 240/241. LEC.

FREN 326. Introduction to French Literature. 3 Hours. HL AE42/GE3H / H.
Analysis of selected texts from various genres; special emphasis on explication de texte. Prerequisite: FREN 300 (or with FREN 300), or by departmental permission. LEC.

FREN 330. French Language and Civilization I. 3 Hours. H.
A study of French grammar, conversation, and composition, with selected aspects of French civilization. Available to participants in the Summer Language Institutes, and selected Study Abroad programs. LEC.

FREN 340. French Language and Civilization II. 3 Hours. H.
A study of French grammar, conversation, and composition, with selected aspects of French civilization. Available to participants in the Summer Language Institutes, and selected Study Abroad Programs. LEC.

FREN 350. Applied French Grammar and Composition I. 3 Hours. H/W.
Systematic grammar review with extensive practice in writing French. Prerequisite: FREN 300 or FREN 326. LEC.

FREN 352. French for Journalism and Business. 3 Hours. H/W.
Practical acquisition of skills necessary to understand the language of journalism and business. Prerequisite: FREN 300. LEC.

FREN 375. Intermediate French Conversation. 3 Hours. H/W.
Three meetings per week. Guided discussions designed to increase fluency, improve pronunciation, and acquire vocabulary. Sections limited to twelve students. May be designated a KULAC class at the discretion of the instructor. Prerequisite: FREN 300 or concurrent enrollment in FREN 300. LEC.

FREN 376. Advanced French Conversation. 3 Hours. H/W.
Three meetings per week. Guided discussions designed to increase fluency, improve pronunciation, and knowledge of French culture and language. Classes have centered around topics such as the French Revolution, the Arts, Renaissance Festivals, and French cinema. Sections limited to twelve students. May be designated a KULAC class at the discretion of the instructor. Prerequisite: FREN 375. LEC.

FREN 401. Paris, City of Lights and Legends. 3 Hours. HL AE42/GE3H / H.
An exploration of the French capital from its origins to present as emblem and icon of the social, literary, cultural, and political development of the French nation and of French ideals. Topics include great persons, events, works, symbols, and myths since the founding of the city to the present. Taught in English. Does not fulfill any requirement in the French major or minor. LEC.

FREN 405. French Literature in Translation. 3 Hours. HL AE42/GE3H / H.
Readings and discussions of representative great masterpieces of French literature from the medieval Arthurian romances and chansons de geste to the present, with particular emphasis on the question of the interrelations of form and content. Includes such authors as Rabelais, Montaigne, Racine, Molire, Voltaire, Balzac, Flaubert, Baudelaire, Proust, Gide, Camus, and Beckett. Conducted in English. A reading knowledge of French is extremely useful but not a requirement. LEC.

FREN 406. Introduction to French Culture Through Film. 3 Hours. AE42/GE3H / H/W.
Discussion of great masterpieces of French film from the silent era to the present, with a particular emphasis on how film portrays and conveys important aspects of French culture past and present. The works of a variety of film-makers may be covered, and may include among others Georges Melles, Jean Vigo, Jean Renoir, Abel Gance, Rene Clair, Marcel Carne, Jean Cocteau, Alain Resnais, Jean-Luc Godard, Francois Truffaut, Agnes Varda, Louis Malle, Eric Rohmer, and Claude Berri. Films will be shown in French with subtitles in English. Knowledge of French is useful, but not required. LEC.

FREN 410. Survey of French Culture I. 3 Hours. AE42/GE3H / H/W.
A survey of the historical, philosophical, literary, and artistic development of France, from the beginning through the 17th century. Prerequisite: FREN 300 and FREN 326. May be designated a KULAC class at the discretion of the instructor. LEC.

FREN 420. Survey of French Culture II. 3 Hours. AE42/GE3H / H/W.
Continuation of FREN 410, from the 18th century to the present. Prerequisite: FREN 300 and FREN 326. May be designated a KULAC class at the discretion of the instructor. LEC.

FREN 430. La France d’Aujourd’Hui. 3 Hours. AE42/GE3H / H/W.
Social, political, and economic trends from 1939 to present, with emphasis on period since 1968. Prerequisite: FREN 300 and FREN 326. May be designated a KULAC class at the discretion of the instructor. LEC.

FREN 431. French-Speaking World (Outside France). 3 Hours. AE42/GE3H / H/W.
Cultures of the some 235 million persons in the five world areas whose everyday and/or official language is French: Canada; Caribbean (e.g., Haiti, Guadeloupe, Martinique); Europe (e.g., Belgium, Switzerland); Africa and Indian Ocean (23 former French or Belgian colonies); Pacific (e.g., Tahiti, New Caledonia). Also French-speaking settlers in the United States (Louisiana, South Carolina, New England, Kansas). French presence in Indo-China and the Near East. Prerequisite: FREN 300 and
FREN 326. (May be taken concurrently with FREN 300 and/or FREN 326.) May be designated a KULAC class at the discretion of the instructor. LEC.

FREN 432. Francophone African Literature. 3 Hours. NW AE42/GE3H / H/W.

This course is an introduction of 20th Century African literature written in French, covering selected works by major authors from both sub-Saharan Africa and the Maghreb. Attention will be given primarily to the novel, although some poetry will also be read. Topics and themes include negritude, African identity in the wake of colonialism, Islam, and women's writing. Classes will be conducted in English. Students may read the texts in French or in translation. (Same as AAAS 432.) Prerequisite: ENGL 102 and a 200-level English course. LEC.

FREN 440. Studies in French Culture: ______. 3 Hours. H/W.

Representative topics are: History of Paris, Role of Women in French Literature and Culture, Interrelationships of the Arts, French-speaking African Culture, Culture of French Canada. May be repeated for credit with departmental permission; may also be repeated as part of major in French language and culture. Prerequisite: FREN 300 and FREN 326. May be designated a KULAC class at the discretion of the instructor. LEC.

FREN 450. French Literature of the Middle Ages. 3 Hours. AE42/GE3S / H/W.

Study of the principal authors, movements, and themes of the period. Prerequisite: FREN 300 and FREN 326. LEC.

FREN 455. French Literature of the Renaissance. 3 Hours. AE42/GE3S / H/W.

Study of the principal authors, movements, and themes of the period. Prerequisite: FREN 300 and FREN 326. LEC.

FREN 460. French Literature of the Seventeenth Century. 3 Hours. AE42/GE3S / H/W.

Study of the principal authors, movements, and themes of the period. Prerequisite: FREN 300 and FREN 326. LEC.

FREN 462. French Literature of the Eighteenth Century. 3 Hours. AE42/GE3S / H/W.

Study of the principal authors, movements, and themes of the period. Prerequisite: FREN 300 and FREN 326. LEC.

FREN 465. French Literature of the 19th Century. 3 Hours. AE42 / H/W.

Study of the principal authors, movements, and themes of the period. Prerequisite: FREN 300 and FREN 326. LEC.

FREN 470. French Literature of the Twentieth Century. 3 Hours. AE42/GE3S / H/W.

Study of the principal authors, movements, and themes of the period. Prerequisite: FREN 300 and FREN 326. LEC.

FREN 480. Studies in French Literature: ______. 3 Hours. H/W.

A study of a period, theme, group of authors, or movement. Subject matter will vary; may be taken more than once if subject differs. Prerequisite: FREN 300 and FREN 326. LEC.

FREN 495. Directed Readings in French. 1-15 Hours. AE61 / U.

May be taken more than once, total credit not to exceed fifteen hours. Fields not covered by course work, and/or field of student's special interest. Conferences. Counts as humanities when taken for two or three hours. Prerequisite: Twenty-five hours of French and consent of instructor. IND.

FREN 499. Honors in French. 3 Hours. AE61 / H/W.

Various topics in French or Francophone literature or culture. May be taken more than once, total credit not to exceed nine hours. Minimum of six hours of FREN 499 required for B.A. with Honors in French. Student must discuss Honors eligibility and their topic with a faculty member before enrolling. IND.

FREN 500. Advanced French Phonetics. 3 Hours. GE3S / H/W.

Advanced theory and practice of French pronunciation. Not open to students who have taken FREN 310, except by departmental permission. Prerequisite: FREN 300 or FREN 326 or graduate standing. LEC.

FREN 530. Studies in Film: ____, 3 Hours. AE42/AE61 / H/W.

Studies in an aspect of film, a director or group of directors. Emphasis on French film. Given in French or English. LEC.

FREN 592. French Culture Through Film I, Beginnings to 1950. 3 Hours. AE42/AE61 / H/W.

A survey of the major public images of French culture as surveyed in French silent and sound film from the early 1900s through World War II and its immediate aftermath. Students will view and discuss a selection of films that address crucial aspects of French culture such as (but not limited to) gender, war and peace, daily life, art and artists, tradition and revolution, city life versus country life, social classes, moral choice, and individual freedoms. The course will include discussion of the cultural and artistic significance of major French film movements like Poetic Realism. In addition to viewing and discussing films, students will read and analyze the writings of a number of French intellectuals, writers, and artists who have had a major influence on French culture as it appears in films from 1900-1950. May be taught in French or English. For students who already have some knowledge of French culture. LEC.

FREN 593. French Culture Through Film II, 1950-Present. 3 Hours. AE42/AE61 / H/W.

A survey of the major public images of French culture as surveyed in French silent and sound film from 1950 to present. Students will view and discuss a selection of films that address crucial aspects of French culture such as (but not limited to) gender, war and peace, daily life, art and artists, tradition and revolution, city life versus country life, colonialism and post-colonialism, social classes, moral choice, and individual freedoms. The course will include discussion of the cultural and artistic significance of major French film movements like the New Wave. In addition to viewing and discussing films, students will read and analyze the writings of a number of French intellectuals, writers, and artists who have had a major influence on French culture as it appears in films from 1950-present. May be taught in French or English. For students who already have some knowledge of French culture. LEC.

FREN 600. Studies in: ______. 3 Hours. H/W.

Topics vary by semester. May be repeated for credit. Prerequisite: Departmental permission. LEC.

FREN 610. Theme et Version. 3 Hours. H/W.

Exercises in English-French and French-English translation, designed to enable the student to write with greater clarity and precision in both languages. LEC.

FREN 620. Expository French Writing. 3 Hours. H/W.

Intensive practice in writing French, designed to clarify fine points of grammar and usage and to aid the student in developing an accurate and graceful prose style. LEC.

FREN 680. Language Teaching and Advanced Conversation. 2-3 Hours. U.

A summer course designed principally for secondary school language teachers. Discussion of current theory in language acquisition integrated into an intensive oral review of French. Meets three hours daily for two weeks; includes lab. (Not applicable toward a major or graduate degree in French.) LEC.
FREN 681. Language Teaching for Oral Proficiency. 1 Hour. U.
A summer course designed principally for secondary school language teachers. Provides an orientation to proficiency-based models in foreign language instruction, national standards in the rating of foreign language proficiency, and curriculum development sessions which address issues of articulation in foreign language curricula. (Not applicable toward a major or graduate degree in French.) (Same as GERM 681 and SPAN 681.) LEC.

FREN 700. Old French. 3 Hours.
Introduction to grammar and structure through the reading of representative works. LEC.

FREN 701. History of the French Language. 3 Hours.
Major aspects of development and growth. Conducted in English. LEC.

FREN 702. Provençal. 3 Hours.
Introduction to grammar and structure of the language through a reading of representative works from the Troubadour period. LEC.

FREN 703. Structure of Modern French. 3 Hours.
Linguistic analysis of the phonological, morphological, and syntactic structure of modern French. Description in terms of current theories and models. Application of linguistic analyses to the teaching of French. LEC.

FREN 704. Methods in French Language Instruction. 3 Hours.
This course provides an overview of current and historical approaches to foreign language teaching, with reference to the instruction of French. Past and current trends and methodologies of language instruction are examined in order to acquaint students with various classroom approaches. Research findings in second language acquisition are explored and their implications discussed so as to show how these findings lead to more effective classroom practices. LEC.

FREN 720. Introduction to Graduate Studies in French. 3 Hours.
This course is an introduction to the skills required of students doing graduate degrees in French; areas covered include 1) introduction to literary theory and criticism, 2) bibliography and research methods, including database management software, 3) preparation and presentations of a research/conference paper, 4) technology training, including web design, on-line portfolio, and digital humanities, and 5) professional ethics and awareness of the academic market and alternative careers. LEC.

FREN 730. Introduction to French Poetry. 3 Hours.
A detailed introduction to versification, rhetoric, image and symbol as they apply to the study of poetry. Texts will be chosen from one or more periods of French literature and will include poems in verse and prose. Considerations and readings on the history of French poetry, on the composition of recueils, on poetic theory, and on the relation of poetry to other genres and media may be incorporated. LEC.

FREN 732. Francophone Studies. 3 Hours.
Selected movements, genres, topics in the cultures and/or literatures of the French-speaking world outside France. May be repeated for credit. LEC.

FREN 740. Medieval French Literature. 3 Hours.
Literary history of the period, with discussion of representative works read for the most part in the original old French. LEC.

FREN 750. French Literature of the Sixteenth Century. 3 Hours.
A survey of the major writers, covering Rabelais, Sceve, Louise Labe, Marguerite de Navarre, Ronsard, Du Bellay, Montaigne, and d’Aubigné. LEC.

FREN 763. French Drama of the Seventeenth Century. 3 Hours.
Development of baroque and classical French drama, with emphasis on Corneille, Molière, and Racine. LEC.

FREN 765. Nondramatic French Literature of the Seventeenth Century. 3 Hours.
Esthetics of baroque and classicism. Emphasis on Descartes, Pascal, La Rochefoucauld, Mme de Lafayette, although other authors may be studied. LEC.

FREN 770. French Literature of the Eighteenth Century. 3 Hours.
Special attention paid to Montesquieu, Voltaire, Diderot, and Rousseau; also development of novel and drama. LEC.

FREN 782. French Novel of the 19th Century. 3 Hours.
Emphasis on major novelists of the century: Balzac, Stendhal, Flaubert, and Zola. LEC.

FREN 785. French Romantic Movement. 3 Hours.
Major Romantic writers viewed in context of intellectual, esthetic, and social milieu of period 1800-1850. LEC.

FREN 787. French Post-Romanticism. 3 Hours.
Literary movements developing out of reaction to Romanticism: Realism, Naturalism, Parnassianism. LEC.

FREN 790. Contemporary French Writers. 3 Hours.
Major 20th century authors, stressing Proust, Gide, Giraudoux, Claudel, Sartre, and Camus. LEC.

FREN 792. Proust. 3 Hours.
Principal movements, structures, and tensions of A la recherche du temps perdu. LEC.

FREN 795. Investigation and Conference. 1-3 Hours.
Readings and research projects in French language, literature, and culture for students at the MA level. Directed work to fulfill needs not met by available courses. One-three hours credit in any semester. Maximum credit for M.A.: Three hours. By special departmental permission only. RSH.

FREN 799. Masters Seminar. 1 Hour.
To meet Masters degree requirement for continual enrollment. This course will be graded satisfactory/unsatisfactory. FLD.

FREN 800. Studies in: _____ . 3 Hours.
Study of topics not limited to one century. May be repeated for credit. LEC.

FREN 810. Criticism and Critical Methods. 3 Hours.
Literary criticism from historical, theoretical, and practical point of view. LEC.

Selected topics to be specified. Study of form, movements, or themes in the French Novel, not limited to one century. May be repeated for credit. LEC.

FREN 814. Studies in the French Short Story: _____ . 3 Hours.
Selected topics to be specified. Study of form and theory of the French short story, not limited to one century. May be repeated for credit. LEC.

FREN 842. Arthurian Literature in France. 3 Hours.
Origins and development of Arthurian legend; analysis of major texts. Prerequisite: FREN 700. LEC.

FREN 848. Studies in Medieval French Literature: _____ . 3 Hours.
Various movements, themes, or genres. May be repeated for credit. Prerequisite: FREN 700. LEC.

FREN 850. Early Renaissance Literature. 3 Hours.
Emphasis on Rabelais, Marguerite de Navarre, Marot, Maurice Sceve and Louise Labe. LEC.
ITAL 107. Elementary Italian Conversation I. 3 Hours.
First part of a two-course sequence (with ITAL 108) for students with no previous study of a foreign language and minimal linguistic background as well as for students in professional schools who plan to participate in study abroad programs in Italy. Offers knowledge of essential grammar and basic oral communication skills through practice in grammar, listening comprehension, and conversation. Active participation required. Completion of both ITAL 107 and ITAL 108 is equivalent to ITAL 110 and allows students to enroll in ITAL 120. LEC.

ITAL 108. Elementary Italian Conversation II. 3 Hours. U.
A continuation of ITAL 107, second part of a two-course sequence for students with no previous study of a foreign language and minimal linguistic background as well as for students in professional schools who plan to participate in study abroad programs in Italy. Offers knowledge of essential grammar and basic oral communication skills through practice in grammar, listening comprehension, and conversation. Active participation required. Completion of both ITAL 107 and ITAL 108 is equivalent to ITAL 110 and allows students to enroll in ITAL 120. Prerequisite: ITAL 107 or Italian Coordinator's approval. LEC.

ITAL 110. Elementary Italian I. 5 Hours. U.
Introduction to Italian language and culture. Essentials of grammar and practice in speaking, understanding, reading, and writing. Active participation required. Five hours of class per week. LEC.

ITAL 120. Elementary Italian II. 5 Hours. U.
Five hours of class. Reading of simple texts; diction; speaking; elementary composition. Prerequisite: ITAL 110. LEC.

ITAL 152. Studies in Italian Heritage. 3 Hours. AE41/GE11 / H.
A comprehensive, interdisciplinary survey of the ways in which the historical culture of Italy can be found in Lawrence, KS. Emphasis is on politics, sciences, philosophy, media, and immigration. Uses materials from various KU collections. Taught in English. Does not fulfill any requirement in the Italian major or minor. LEC.

ITAL 155. Intensive Basic Italian I. 3 Hours. U.
First part of a two-course sequence (with ITAL 156) for students with previous language study or strong linguistic background. Same content as ITAL 110 but accomplished in three hours of class per week. Active participation required. Prerequisite: Previous study of another language or permission of instructor. LEC.

ITAL 156. Intensive Basic Italian II. 3 Hours. U.
A continuation of ITAL 155, second part of a two-course sequence for students with previous language study or strong linguistic background. Same content as ITAL 120 but accomplished in three hours of class per week. Active participation required. Prerequisite: ITAL 155 or permission of instructor. LEC.

ITAL 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Italian. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.
ITAL 240. Intermediate Italian II. 3 Hours. U.
Continuation of ITAL 230. (ITAL 240 completes foreign language requirement.) Review and expansion of grammatical structures introduced in Elementary Italian I and II, with continued practice in speaking, understanding, reading, and writing, coordinated with the study of cultural texts. Active participation required. Prerequisite: ITAL 230. LEC.

ITAL 300. Composition and Conversation. 3 Hours. H/W.
Study of advanced grammatical structures with extensive practice in writing and conversation. Guided discussions on a variety of contemporary Italian literary, journalistic, and cinematic works. Active participation required. Prerequisite: ITAL 240 or permission of instructor. LEC.

ITAL 301. Introduction to Italian Literature I. 3 Hours. AE42/GE3S / H/W.
Representative works and trends from origins to Renaissance. Prerequisite: ITAL 240 or reading knowledge of Italian. LEC.

ITAL 302. Introduction to Italian Literature II. 3 Hours. AE42/GE3S / H/W.
Representative works and trends from 17th century to present. Prerequisite: ITAL 240 or reading knowledge of Italian. LEC.

ITAL 303. Italian Language and Civilization I. 3 Hours. U.
An advanced study of Italian grammar, conversation, composition, with selected aspects of Italian civilization. Available only to participants in the KU summer language institute or semester abroad program in Florence or Rome. Prerequisite: ITAL 240. LEC.

ITAL 304. Italian Language and Civilization II. 3 Hours. U.
An advanced study of Italian grammar, conversation, composition, with selected aspects of Italian civilization. Available only to participants in the KU summer language institute or semester abroad program in Florence or Rome. Prerequisite: ITAL 303. LEC.

ITAL 315. Advanced Composition and Conversation. 3 Hours. H/W.
Continuation of ITAL 300. Study of advanced grammatical structures with extensive practice in writing and conversation. Guided discussions on a variety of contemporary Italian literary, journalistic, and cinematic works. Active participation required. Prerequisite: ITAL 300 or permission of instructor. LEC.

ITAL 335. Italy and the Italians I. 3 Hours. HL AE42/GE3H / H.
Survey of Italian culture with study of geography, history, government, education, Roman archaeology, and music. Lecture, discussion, and supportive readings. Not open to native speakers of Italian. LEC.

ITAL 336. Italy and the Italians II. 3 Hours. GE11/GE3H/GE3S / H.
Survey of Italian culture with study of art and architecture, literary masterpieces in translation, science, culinary arts, and cinema. Lecture, discussion, and supportive readings. Not open to native speakers of Italian. LEC.

ITAL 340. Studies in Italian Culture: ____. 3 Hours. AE42 / H.
A study of particular aspects of and/or periods in Italian culture. May be repeated for credit with departmental permission. Prerequisite: ITAL 240 or permission of instructor. LEC.

ITAL 405. Italian Literature in Translation: ____. 3 Hours. AE42/GE3S / H/W.
Major works representing various movements, themes, or genres. May be repeated with departmental permission. All work done in English. LEC.

ITAL 410. 19th and 20th Century Short Stories. 3 Hours. AE42 / H/W.
A survey of representative short stories of the 19th and 20th Centuries, including Verga, Panzini, Pirandello, Guareschi, Moravia, Calvino, Landolfi, and Bigiaretti. Prerequisite: ITAL 240 or reading knowledge of Italian or permission of instructor. LEC.

ITAL 420. 19th and 20th Century Poetry. 3 Hours. AE42 / H/W.
A survey of 19th and 20th century poets and their works, including Leopardi, Pascoli, d'Annunzio, Govoni, Palazzeschi, Gozzano, Marinetti, Boccioni, Ungaretti, Montale, Quasimodo, and Pasolini. Prerequisite: ITAL 240 or reading knowledge of Italian or permission of instructor. LEC.

ITAL 430. Dante's Masterpiece. 3 Hours. AE61 / H/W.
Detailed study of Dante's epic poem with a close reading of the Inferno. Prerequisite: ITAL 300 or demonstrated knowledge of Italian. LEC.

ITAL 440. Italian Renaissance and Early Modern Literature. 3 Hours. H/W.
Detailed study of selected masterpieces of the Italian Renaissance from the 13th to the 18th centuries. Prerequisite: ITAL 300 or demonstrated knowledge of Italian. LEC.

ITAL 465. 19th and 20th Century Novels I. 3 Hours. AE42/GE3S / H/W.
With ITAL 466, a survey of representative 19th and 20th century novels including those of Manzoni, Pirandello, Svevo, Deledda, Vittorini, Moravia, Pavese, Pratolini, Buzzati, Ginzburg, and Calvino. Prerequisite: ITAL 240 or reading knowledge of Italian or permission of instructor. LEC.

ITAL 466. 19th and 20th Century Novels II. 3 Hours. AE42/GE3S / H/W.
See ITAL 465. Prerequisite: ITAL 240 or reading knowledge of Italian or permission of instructor. LEC.

ITAL 480. Studies in Italian Literature: _____. 3 Hours.
A study of a period, theme, group of authors, or cultural movement. Subject matter will vary; may be taken more than once if subject differs. Prerequisite: ITAL 300 or demonstrated knowledge of Italian. LEC.

ITAL 495. Directed Readings in Italian. 1-3 Hours. AE61 / U.
May be taken more than once, total credit not to exceed nine hours. Various fields of Italian literature. Prerequisite: Consent of instructor, given only to those having demonstrated ease in reading Italian. IND.

ITAL 499. Honors in Italian. 3 Hours. AE61 / H.
Various topics in Italian literature or culture. Minimum of three hours of Italian 499 required for a B.A. with Honors in the Italian option of the French degree. Students must discuss Honors eligibility and their topic with a faculty member before enrolling. Honors paper must be written in Italian. LEC.

ITAL 502. Dante’s Divine Comedy I. 3 Hours. AE61 / H/W.
Detailed study of Dante’s masterpiece. Attention will also be given to such matters as the development of the Italian language at Dante’s period and the relation of the Comedy to Dante’s other works. Prerequisite: Reading knowledge of Italian. LEC.

ITAL 503. Dante’s Divine Comedy II. 3 Hours. AE61 / H/W.
Continuation of ITAL 502. Prerequisite: Completion of ITAL 502. LEC.

ITAL 695. Graduate Directed Readings in Italian. 1-3 Hours. U.
May be taken more than once, total credit not to exceed nine hours. Directed readings, conferences with instructor. Prerequisite: ITAL 495 or consent of instructor. IND.

Bachelor of Arts in French

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Undergraduate Admission

Admission to KU

All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

French and Italian Programs

The department offers the major in French, an option in Italian, and an option in French and Italian studies. Prospective majors should consult the department during or before the second semester of the sophomore year.

Students pursuing a major in French or an option in Italian are encouraged to take courses in European studies, European history, art history, and philosophy, as well as English and foreign languages, literatures, and linguistics. Students often combine a major in French or the option in Italian with majors in business, humanities, journalism, the sciences, premedicine, or prelaw.

Language majors are useful in a variety of careers. The study of languages, literatures, and cultures enhances personal growth and broadens professional horizons, allowing fuller participation in an increasingly global community.

First- and Second-Year Preparation

The normal course progression for first- and second-year students considering a major in French is FREN 110, FREN 120, FREN 230, and FREN 240. FREN 230 and FREN 240 may be replaced by FREN 234. Eligible students are encouraged to enroll in honors sections of third-semester French (FREN 231) and fourth-semester French (FREN 241). FREN 300 is the prerequisite for all other 300-level courses, although FREN 300 and FREN 375 may be taken concurrently. FREN 326 is the prerequisite for all 400-level courses. The normal course progression for first- and second-year students considering the option in Italian is ITAL 110, ITAL 120, ITAL 230, and ITAL 240. Eligible students are encouraged to enroll in intensive sections of first-semester Italian (ITAL 155) and second-semester Italian (ITAL 156).

Requirements for the B.A. Major

French Option

Fourth Semester Proficiency (3)

Majors must complete courses to gain fourth semester language proficiency. These hours do not contribute to the minimum number of hours required for the major.

Fourth Semester Proficiency. Satisfied by:
FREN 240 Intermediate French II 3
or FREN 241 Intermediate French II, Honors

French Core Knowledge and Skills (12)

Majors choosing this option must complete courses as indicated in following areas:

Intensive Review of French Grammar. Satisfied by:
FREN 300 Intensive Review of French Grammar 3

Phonetics. Satisfied by:
FREN 310 French Phonetics 3
or FREN 500 Advanced French Phonetics

Introduction to French Literature. Satisfied by:
FREN 326 Introduction to French Literature 3

Applied French. Satisfied by one of the following:
FREN 350 Applied French Grammar and Composition I
FREN 352 French for Journalism and Business

Intermediate French Conversation. Satisfied by:
FREN 375 Intermediate French Conversation 3

French Literature Required Electives (0)

Satisfied by three courses (9 hours) from courses numbered FREN 423-FREN 470:
FREN 432 Francophone African Literature
FREN 450 French Literature of the Middle Ages
FREN 455 French Literature of the Renaissance
FREN 460 French Literature of the Seventeenth Century
FREN 462 French Literature of the Eighteenth Century
FREN 465 French Literature of the Nineteenth Century
FREN 470 French Literature of the Twentieth Century

Required Electives (0)

Satisfied by two courses (6 hours) from the following:
FREN 376 Advanced French Conversation
FREN 410 Survey of French Culture I
FREN 420 Survey of French Culture II
FREN 430 La France d’Aujourd’hui
FREN 431 French-Speaking World (Outside France)
FREN 440 Studies in French Culture: _____
FREN 480 Studies in French Literature: _____
FREN 530 Studies in Film: _____
FREN 592 French Culture Through Film I, Beginnings to 1950
FREN 593 French Culture Through Film II, 1950-Present
FREN 600 Studies in: _____

Majors are strongly encouraged to study abroad. Please see your advisor about this opportunity.
Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 30 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Italian Option
French and Italian Major Prerequisite (3)
Majors must complete courses to gain fourth semester language proficiency. These hours do not contribute to the minimum number of hours required for the major.

Fourth Semester Proficiency. Satisfied by:
ITAL 240 Intermediate Italian II
3

Italian Core Knowledge and Skills (6)
Majors choosing this option must complete courses as indicated in following areas:

Composition and Conversation. Satisfied by:
ITAL 300 Composition and Conversation
3
Advanced Composition and Conversation. Satisfied by:
ITAL 315 Advanced Composition and Conversation
3

Italian Literature. Satisfied by two courses (6 hours) chosen from the following:
ITAL 301 Introduction to Italian Literature I
ITAL 302 Introduction to Italian Literature II
ITAL 495 Directed Readings in Italian
ITAL 695 Graduate Directed Readings in Italian

Required Electives (0)
Satisfied by four courses (12 hours) chosen from the following:
ITAL 335 Italy and the Italians I
ITAL 336 Italy and the Italians II
ITAL 405 Italian Literature in Translation: ______
ITAL 410 19th and 20th Century Short Stories
ITAL 420 19th and 20th Century Poetry
ITAL 430 Dante’s Masterpiece
ITAL 440 Italian Renaissance and Early Modern Literature
ITAL 465 19th and 20th Century Novels I
ITAL 466 19th and 20th Century Novels II
ITAL 502 Dante’s Divine Comedy I
ITAL 503 Dante’s Divine Comedy II
ITAL 495 Directed Readings in Italian
ITAL 695 Graduate Directed Readings in Italian

1 Special permission of the Italian advisor may be required prior to enrollment.

Majors are strongly encouraged to study abroad. Please see your advisor about this opportunity.

Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 24 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

French and Italian Studies Option
Fourth Semester Proficiency (0)
Majors must complete courses to gain fourth semester language proficiency. These hours do not contribute to the minimum number of hours required for the major.

Fourth Semester Proficiency. Satisfied by:
FREN 240 Intermediate French II
3
or FREN 241 Intermediate French II, Honors
ITAL 240 Intermediate Italian II

French and Italian Studies Core Knowledge and Skills (18)
Majors choosing this option must complete courses as indicated in following areas:

French Grammar and/or Composition. Satisfied by one of the following:
FREN 300 Intensive Review of French Grammar
FREN 350 Applied French Grammar and Composition I
FREN 352 French for Journalism and Business

French Conversation. Satisfied by one of the following:
FREN 375 Intermediate French Conversation
FREN 376 Advanced French Conversation

Italian Grammar and Composition. Satisfied by two courses (6 hours):
ITAL 300 Composition and Conversation
ITAL 315 Advanced Composition and Conversation

French Literature. Satisfied by two courses:
FREN 326 Introduction to French Literature
And an additional course chosen from the following:
FREN 432 Francophone African Literature
FREN 440 Studies in French Culture: ______
FREN 450 French Literature of the Middle Ages
FREN 455 French Literature of the Renaissance
FREN 460 French Literature of the Seventeenth Century
Undergraduate students may graduate with honors in Italian by completing 3 hours of ITAL 499 and one approved 3-hour course in a relevant field in addition to the 24-hour requirement for the option. Consult the department early in the junior year. To begin honors work and to graduate with honors, students must have minimum grade-point averages of 3.25 in all courses and 3.5 in Italian.

### Summer Language Institute in Paris

The department conducts a 6-week summer institute in Paris focusing on French language and culture. Students take courses in intermediate and advanced French language at L’Etoile, a private language institute in the center of Paris. Before the stay in Paris, students spend 10 days to 2 weeks touring regions such as Normandy, Brittany, and the château country along the Loire River. Some scholarship aid is available. Consult the department (http://www.frenchitalian.ku.edu) or the Office of Study Abroad (http://www.studyabroad.ku.edu) for information.

### Summer Program in Florence, Italy

The department conducts a 4- or 8-week summer program for elementary, intermediate, or advanced students of Italian. Students take courses in language and culture at an institute where all instructors are native speakers. Students live with Italian families and usually have weekends free to travel. Consult the department (http://www.frenchitalian.ku.edu) or the Office of Study Abroad (http://www.studyabroad.ku.edu) for information.

### Semester and Year Programs in France

A semester program is available in cooperation with CIDEF, the language institute of the Université Catholique de l’Ouest in Angers. Consult the department (http://www.frenchitalian.ku.edu) or the Office of Study Abroad (http://www.studyabroad.ku.edu) for information. A faculty member from University of Kansas, or from Texas A&M University in alternate years, leads the spring semester program.

Year-long programs at French institutions are available through the International Student Exchange Program. Consult the Office of Study Abroad (http://www.studyabroad.ku.edu).

### Semester Program in Rome, Italy

The department conducts a semester program in Rome for elementary, intermediate, or advanced students. Students take courses in Italian language and culture in a private language institute. All instructors are native speakers, and students live in shared apartments with other students at the institute. Consult the Office of Study Abroad (http://www.studyabroad.ku.edu) for information.

### Departmental Honors in French

Undergraduate students may graduate with honors in French by completing 6 hours of FREN 499, intensive honors tutorials on limited areas of French or Francophone literature or culture. Consult the department early in the junior year. To begin honors work and to graduate with honors, students must have minimum grade-point averages of 3.25 in all courses and 3.5 in French.
Minor in French

Why study French, Italian, and Francophone studies?

French, Italian, and Francophone studies ensure that our students succeed in an interconnected world.

Requirements for the Minor in French

The department offers minors in both French and Italian. Consult an advisor in the appropriate language.

Minor in French

French Minor Course Requirements

<table>
<thead>
<tr>
<th>Course Requirement</th>
<th>Satisfied by</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensive Review of French Grammar (3)</td>
<td>FREN 300</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to French Literature (3)</td>
<td>FREN 326</td>
<td>3</td>
</tr>
<tr>
<td>French Minor Required Electives (0)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Four elective courses chosen from among the courses already approved for the major in French. At least two of the four electives must be at the 400 level.

Minor in Italian

Italian Minor Course Requirements

<table>
<thead>
<tr>
<th>Course Requirement</th>
<th>Satisfied by</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composition and Conversation (3)</td>
<td>ITAL 300</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Composition and Conversation (3)</td>
<td>ITAL 315</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Italian Literature I (3)</td>
<td>ITAL 301</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Italian Literature II (3)</td>
<td>ITAL 302</td>
<td>3</td>
</tr>
<tr>
<td>Italy and the Italians I (3)</td>
<td>ITAL 335</td>
<td>3</td>
</tr>
<tr>
<td>Italy and the Italians II (3)</td>
<td>ITAL 336</td>
<td>3</td>
</tr>
</tbody>
</table>

1 ITAL 340 Studies in Italian Culture: _______ and ITAL 495 Directed Readings in Italian may be taken in place of ITAL 335 and/or ITAL 336 only by permission of the Italian advisor.

Minor Hours & Minor GPA

While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 hours of junior/senior (300+) KU resident credit in the minor.

Minor Junior/Senior Hours
Satisfied by a minimum of 18 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses in the minor. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Summer Language Institute in Paris

The department conducts a 6-week summer institute in Paris focusing on French language and culture. Students take courses in intermediate and advanced French language at L’Etoile, a private language institute in the center of Paris. Before the stay in Paris, students spend 10 days to 2 weeks touring regions such as Normandy, Brittany, and the château country along the Loire River. Some scholarship aid is available. Consult the department (http://www.frenchitalian.ku.edu) or the Office of Study Abroad (http://www.studyabroad.ku.edu) for information.

Summer Program in Florence, Italy

The department conducts a 4- or 8-week summer program for elementary, intermediate, or advanced students of Italian. Students take courses in language and culture at an institute where all instructors are native speakers. Students live with Italian families and usually have weekends free to travel. Consult the department (http://www.frenchitalian.ku.edu) or the Office of Study Abroad (http://www.studyabroad.ku.edu) for information.

Semester and Year Programs in France

A semester program is available in cooperation with CIDEF, the language institute of the Université Catholique de l’Ouest in Angers. Consult the department (http://www.frenchitalian.ku.edu) or the Office of Study Abroad (http://www.studyabroad.ku.edu) for information. A faculty member from University of Kansas, or from Texas A&M University in alternate years, leads the spring semester program.

Year-long programs at French institutions are available through the International Student Exchange Program. Consult the Office of Study Abroad (http://www.studyabroad.ku.edu).

Semester Program in Rome, Italy

The department conducts a semester program in Rome for elementary, intermediate, or advanced students. Students take courses in Italian language and culture in a private language institute. All instructors are native speakers, and students live in shared apartments with other
students at the institute. Consult the Office of Study Abroad (http://www.studyabroad.ku.edu) for information.

Semester Program in Florence, Italy
The department conducts a semester program in Florence for elementary, intermediate, or advanced students. Students take courses in Italian language and culture in a private language institute. All instructors are native speakers, and students live with Italian families. Consult the Office of Study Abroad (http://www.studyabroad.ku.edu) for information.

Minor in Italian
Why study French, Italian, and Francophone studies?
French, Italian, and Francophone studies ensure that our students succeed in an interconnected world.

Requirements for the Minor in Italian
The department offers minors in both French and Italian. Consult an advisor in the appropriate language.

Minor in Italian
18 credit hours are required, as follows:

Composition and Conversation (3)
Satisfied by:
ITAL 300 Composition and Conversation 3
Advanced Composition and Conversation (3)
Satisfied by:
ITAL 315 Advanced Composition and Conversation 3
Introduction to Italian Literature I (3)
Satisfied by:
ITAL 301 Introduction to Italian Literature I 3
Introduction to Italian Literature II (3)
Satisfied by:
ITAL 302 Introduction to Italian Literature II 3
Italy and the Italians I (3)
Satisfied by:
ITAL 335 Italy and the Italians I 3
ITAL 336 Italy and the Italians II 3

1 ITAL 340 Studies in Italian Culture: _____ and ITAL 495 Directed Readings in Italian may be taken in place of ITAL 335 and/or ITAL 336 only by permission of the Italian advisor.

Summer Language Institute in Paris
The department conducts a 6-week summer institute in Paris focusing on French language and culture. Students take courses in intermediate and advanced French language at L'Etoile, a private language institute in the center of Paris. Before the stay in Paris, students spend 10 days to 2 weeks touring regions such as Normandy, Brittany, and the château country along the Loire River. Some scholarship aid is available. Consult the department (http://www.frenchitalian.ku.edu) or the Office of Study Abroad (http://www.studyabroad.ku.edu) for information.

Summer Program in Florence, Italy
The department conducts a 4- or 8-week summer program for elementary, intermediate, or advanced students of Italian. Students take courses in language and culture at an institute where all instructors are native speakers. Students live with Italian families and usually have weekends free to travel. Consult the department (http://www.frenchitalian.ku.edu) or the Office of Study Abroad (http://www.studyabroad.ku.edu) for information.

Semester and Year Programs in France
A semester program is available in cooperation with CIDEF, the language institute of the Université Catholique de l'Ouest in Angers. Consult the department (http://www.frenchitalian.ku.edu) or the Office of Study Abroad (http://www.studyabroad.ku.edu) for information. A faculty member from the University of Kansas, or from Texas A&M University in alternate years, leads the spring semester program.

Year-long programs at French institutions are available through the International Student Exchange Program. Consult the Office of Study Abroad (http://www.studyabroad.ku.edu).

Semester Program in Rome, Italy
The department conducts a semester program in Rome for elementary, intermediate, or advanced students. Students take courses in Italian language and culture in a private language institute. All instructors are native speakers, and students live in shared apartments with other students at the institute. Consult the Office of Study Abroad (http://www.studyabroad.ku.edu) for information.

Semester Program in Florence, Italy
The department conducts a semester program in Florence for elementary, intermediate, or advanced students. Students take courses in Italian language and culture in a private language institute. All instructors are native speakers, and students live with Italian families. Consult the Office of Study Abroad (http://www.studyabroad.ku.edu) for information.

Master of Arts in French
The Department of French and Italian offers a comprehensive graduate program (M.A. and Ph.D.) in French and Francophone language, literature, and culture. Our faculty (http://www.frenchitalian.ku.edu/ faculty) is dynamic, professionally active, and committed to excellence in scholarship and teaching. Although the major emphasis of teaching and research is French and Francophone literature, the department also offers courses in literary theory, cultural studies, and film. The department offers a balanced emphasis on all periods from medieval through twentieth and twenty-first centuries. Our students represent a diverse group, and we encourage equally applicants from traditional and nontraditional backgrounds. Excellent facilities, strong library holdings, and a faculty dedicated to both teaching and research assure students of a challenging and professional graduate preparation. Please visit the Graduate Program page (https://frenchitaliandev.drupal.ku.edu/overview-5) of the department website for additional information.
Departmental Funding

While it is not guaranteed, the department does its best to provide funding in the form of Graduate Teaching Assistantship (GTA) appointments to all incoming graduate students. GTA appointments are awarded for the academic year and come with:

- a competitive academic year (9 month) salary
- a 100% tuition waiver for all courses at KU
- payment of up to 3 hours of student fees
- optional University-subsidized group health insurance

The appointments are guaranteed based on performance for up to 3 years for M.A. students, and 6 years for students who receive both an M.A. and a Ph.D. at The University of Kansas. GTAs in the department receive thorough training in language instruction, close mentoring, and the opportunity to teach French at a variety of levels, providing them with a strong base of teaching experience upon entering the job market. Additional information about teaching for the department is available on the Graduate Funding page (https://frenchitaliananddrupal.ku.edu/graduate-teaching) of our departmental website.

Additional Funding

Other funding opportunities for graduate students include the Office of Study Abroad’s Springer award; the department’s Cornell, Mahieu, and Magerus fellowships; awards for research abroad; and French university exchanges.

Visit the Graduate Studies website for additional information about funding opportunities (http://www.graduate.ku.edu/funding-opportunities) for graduate students at KU.

Financial Aid and Scholarships (http://affordability.ku.edu/steps/index.shtml) administers grants, loans, and need-based financial aid.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Admission to the M.A. Program in French

In addition to the general admission requirements (http://www.graduate.ku.edu/application-process) from the Office of Graduate Studies, applicants should have the equivalent of a major in French at the B.A. level, with a minimum of 9 hours of advanced undergraduate coursework in French literature.

Submit your graduate application online (http://www.graduate.ku.edu/ku-graduate-application). For further information regarding the application process, including department-specific deadlines and required supplemental documentation, please visit the Admissions (http://www.frenchitalian.ku.edu/admission) page of the department website, or contact the department’s Graduate Program Coordinator, Morgan Swartzlander, mswartz@ku.edu.

M.A. Degree Requirements

1. 30 credit hours, including*
   - FREN 704 Methods in French Language Instruction 3
   - FREN 720 Introduction to Graduate Studies in French 3
   - FREN 810 Theme et Version 3
   - or FREN 620 Expository French Writing

   Select one of the following:
   - FREN 900 Seminar in French: _____ (2 seminars of 3 hours each) 6
   - FREN 899 M.A. Thesis

As part of the 30-hour requirement, students may also take:

- A maximum of two graduate-level courses (up to 6 hours) outside the department. (e.g. Women, Gender and Sexuality Studies, Linguistics, Art History, etc.) This selection should be determined in consultation with the Director of Graduate Studies.
- A maximum of 3 hours of FREN 795 Investigation and Conference.

*In the event that a required course cannot be offered during the time when the student completes coursework, the student will take a substitute course in consultation with the DGS.

2. A reading knowledge of a second Romance language, Greek, Latin, German, Arabic, or other relevant language.

3. Comprehensive written and oral examinations.

Handbook for Graduate Students

A detailed presentation of departmental processes and regulations is included in the department’s Graduate Student Handbook (http://www.frenchitalian.ku.edu/graduate-program-manual).

Summer Language Institute in Paris

The department conducts a 6-week summer institute in Paris focusing on French language and culture. Students take courses in intermediate and advanced French language at L’Etoile, a private language institute in the center of Paris. Before the stay in Paris, students spend 10 days to 2 weeks touring regions such as Normandy, Brittany, and the château country along the Loire River. Some scholarship aid is available. Consult the department (http://www.frenchitalian.ku.edu) or the Office of Study Abroad (http://www.studyabroad.ku.edu) for information.

Summer Program in Florence, Italy

The department conducts a 4- or 8-week summer program for elementary, intermediate, or advanced students of Italian. Students take courses in language and culture at an institute where all instructors are native speakers. Students live with Italian families and usually have weekends free to travel. Consult the department (http://www.frenchitalian.ku.edu) or the Office of Study Abroad (http://www.studyabroad.ku.edu) for information.
Semester and Year Programs in France

A semester program is available in cooperation with CIDEF, the language institute of the Université Catholique de l’Ouest in Angers. Consult the department (http://www.frenchitalian.ku.edu) or the Office of Study Abroad (http://www.studyabroad.ku.edu) for information. A faculty member from University of Kansas, or from Texas A&M University in alternate years, leads the spring semester program.

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Semester Program in Rome, Italy

The department conducts a semester program in Rome for elementary, intermediate, or advanced students. Students take courses in Italian language and culture in a private language institute. All instructors are native speakers, and students live in shared apartments with other students at the institute. Consult the department (http://www.frenchitalian.ku.edu) or the Office of Study Abroad (http://www.studyabroad.ku.edu) for information.

Graduate Study Abroad

Graduate students have the opportunity to serve as program assistants for the department’s Paris Summer Language Institute. The department also has a graduate exchange agreement with the Université de Franche-Comté, Besançon, France. The university has a Graduate Direct Exchange program with the École Supérieure de Commerce et d'Administration des Entreprises, Clermont Ferrand, France.

Doctor of Philosophy in French

The Department of French and Italian offers a comprehensive graduate program (M.A. and Ph.D.) in French and Francophone language, literature, and culture. Our faculty (http://www.frenchitalian.ku.edu/faculty) is dynamic, professionally active, and committed to excellence in scholarship and teaching. Although the major emphasis of teaching and research is French and Francophone literature, the department also offers courses in literary theory, cultural studies, and film. The department offers a balanced emphasis on all periods from medieval through twentieth and twenty-first centuries. Our students represent a diverse group, and we encourage equally applicants from traditional and nontraditional backgrounds. Excellent facilities, strong library holdings, and a faculty dedicated to both teaching and research assure students of a challenging and professional graduate preparation. Please visit the Graduate Program page (https://frenchitaliandev.drupal.ku.edu/overview-5) of the department website for additional information.

Departmental Funding

While it is not guaranteed, the department does its best to provide funding in the form of Graduate Teaching Assistantship (GTA) appointments to all incoming graduate students. GTA appointments are awarded for the academic year and come with:

- a competitive academic year (9 month) salary
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Admission to the Ph.D. Program in French

In addition to the general admission requirements (http://www.graduate.ku.edu/application-process) from the Office of Graduate Studies, applicants should have the equivalent of the M.A. in French offered at KU.

Submit your graduate application online (http://www.graduate.ku.edu/graduate-application). For further information regarding the application process, including department-specific deadlines and required supplemental documentation, please visit the Admissions (http://www.frenchitalian.ku.edu/admission) page of the department website, or contact the department’s Graduate Program Coordinator, Morgan Swartzlander, mswartz@ku.edu.

Ph.D. Degree Requirements

In addition to the general requirements for the Doctor of Philosophy (http://www.policy.ku.edu/graduate-studies/doctoral-degree-requirements), a student must complete the following departmental requirements:

1. 24 hours of post-M.A. work (exclusive of dissertation hours).
2. Ph.D. students who did not receive their MA in French at KU must complete a total of 30 post M.A. hours, including:

   - FREN 704 Methods in French Language Instruction
FREN 720 Introduction to Graduate Studies in French

*Ph.D. students who have taken equivalent courses for either or both of these requirements as part of their M.A. studies elsewhere may petition the department for a waiver of FREN 704 and/or FREN 720 to reduce the total required hours. To determine equivalency, the student must submit course materials from the previous institution. Students petitioning this requirement should first consult with the DGS.

2. 6 hours of graduate-level coursework outside the department (to be included in the required hours of PhD coursework) as an interdisciplinary minor field of concentration. Students may also apply these 6 hours of graduate-level coursework outside the department toward one of KU’s Graduate Certificates (e.g. African Studies, Women, Gender and Sexuality Studies, etc.).

3. During their last semester of coursework, Ph.D. students must enroll in 3 hours of FREN 995 Investigation and Conference, with the faculty member who typically will become the student’s dissertation director. These hours will count towards the 24 to 30 hours of post-MA coursework.

4. At least 1 year of teaching in the department

Research Skills & Responsible Scholarship Requirement

The university also requires that every doctoral student have training in responsible scholarship and research skills pertinent to the field of research and appropriate to the doctoral level. This requirement must be met before attempting the comprehensive oral exam. For French doctoral students, this requirement is met by the following:

FREN 704 Methods in French Language Instruction 3
FREN 720 Introduction to Graduate Studies in French 3

Proficiency in a second language, which can be a second Romance language, Latin, Greek, German, Arabic, or another language pertinent to the student’s career path and approved by the faculty. (Students specializing in medieval or Renaissance literature are strongly encouraged to take Latin.) Proficiency may be demonstrated by completion of the fourth-semester course (or equivalent) or by examination.

Departmental new graduate student orientation, held each Fall semester during the week prior to the first instructional week of classes.

Handbook for Graduate Students

A detailed presentation of departmental processes and regulations may be found in the department’s Graduate Student Handbook (http://www.frenchitalian.ku.edu/graduate-program-manual).

Summer Language Institute in Paris

The department conducts a 6-week summer institute in Paris focusing on French language and culture. Students take courses in intermediate and advanced French language at L’Étiole, a private language institute in the center of Paris. Before the stay in Paris, students spend 10 days to 2 weeks touring regions such as Normandy, Brittany, and the château country along the Loire River. Some scholarship aid is available. Consult the department (http://www.frenchitalian.ku.edu) or the Office of Study Abroad (http://www.studyabroad.ku.edu) for information.

Summer Program in Florence, Italy

The department conducts a 4- or 8-week summer program for elementary, intermediate, or advanced students of Italian. Students take courses in language and culture at an institute where all instructors are native speakers. Students live with Italian families and usually have weekends free to travel. Consult the department (http://www.frenchitalian.ku.edu) or the Office of Study Abroad (http://www.studyabroad.ku.edu) for information.

Semester and Year Programs in France

A semester program is available in cooperation with CIDEF, the language institute of the Université Catholique de l’Ouest in Angers. Consult the department (http://www.frenchitalian.ku.edu) or the Office of Study Abroad (http://www.studyabroad.ku.edu) for information. A faculty member from University of Kansas, or from Texas A&M University in alternate years, leads the spring semester program.

Year-long programs at French institutions are available through the International Student Exchange Program. Consult the Office of Study Abroad (http://www.studyabroad.ku.edu).

Semester Program in Rome, Italy

The department conducts a semester program in Rome for elementary, intermediate, or advanced students. Students take courses in Italian language and culture in a private language institute. All instructors are native speakers, and students live in shared apartments with other students at the institute. Consult the department (http://www.frenchitalian.ku.edu) or the Office of Study Abroad (http://www.studyabroad.ku.edu) for information.

Graduate Study Abroad

Graduate students have the opportunity to serve as program assistants for the department’s Paris Summer Language Institute. The department also has a graduate exchange agreement with the Université de Franche-Comté, Besançon, France. The university has a Graduate Direct Exchange program with the École Supérieure de Commerce et d’Administration des Entreprises, Clermont Ferrand, France.

Genetics

Genetics Graduate Program

The Genetics Program at KU offers graduate students an integrated and multidisciplinary training in genetics focused on research. Students have the opportunity to interact with a diverse faculty who use modern molecular and mathematical approaches to address many different questions in modern genetics, including molecular and developmental genetics, evolutionary and ecological genetics, and human genetics.

Genetics Program students earn a Ph.D. from a participating home department:

• Anthropology (p. 1103),
• Ecology and Evolutionary Biology (p. 1283),
• Molecular Biosciences, (p. 1554) or
• Philosophy (p. 1577).
A B.S. degree in biology (p. 1204) with a concentration in genetics is also available.

Department of Geography

Why study geography?
Because people, places, and environments interact and evolve in a changing world.

Why study atmospheric science?
The study of atmospheric processes enables us to understand human interactions with the environment.

Career Counseling
A major in geography may lead to a career in cartography, environmental analysis, physical geography, regional analysis, urban and regional planning, or to work that requires some combination of geographic subfields.

Professors in the Department of Geography (http://www.geog.ku.edu) provide career counseling. For general questions, see the undergraduate coordinator. For career counseling, see these professors:

Atmospheric Science
Donna Tucker, 417 Lindley; David Braaten, 413C Lindley; Nate Brunsell, 214A Lindley; David Rahn, 201 Lindley; David Mechem, 230 Lindley; Kees van der Veen, 203 Lindley

Cartography
George McCleary, 219D Lindley; Terry Slocum, 215 Lindley; Margaret Pearce, 404 Lindley

GIS
Xingong Li, 409 Lindley; Terry Slocum, 215 Lindley; George McCleary, 219D Lindley; Stephen Egbert, 217C Lindley; Jerome Dobson, 214 Lindley

Human and Cultural Geography
Pete Shortridge, 209 Lindley; Chris Brown, 223 Lindley; Peter Herlihy, 202 Lindley; Shannon O’Lear, 219B Lindley; So-Min Cheong, 221 Lindley; Barney Warf, 219C Lindley; Jay Johnson, 402 Lindley; Margaret Pearce, 404 Lindley; Alexander Diener, 413A Lindley

Physical and Environmental Geography
William Johnson, 420 Lindley; Johannes Feddema, 204 Lindley; Kees van der Veen, 203 Lindley; Dan Hirmas, 415A Lindley

Regional Geography and Area Studies
Chris Brown, 223 Lindley; Shannon O’Lear, 219B Lindley; So-Min Cheong, 221 Lindley; Peter Herlihy, 202 Lindley; Pete Shortridge, 209 Lindley; Jay Johnson, 402 Lindley

Remote Sensing/Environmental and Land-Use Analysis
Stephen Egbert, 217C Lindley; Jerome Dobson, 214 Lindley

Undergraduate Programs
Geography integrates information from a variety of sources to study the nature of culture areas, the emergence of physical and human landscapes, and problems of interaction between people and the environment. Mapping and other techniques for gathering and displaying spatial information are integral parts of the field.

The atmospheric science program offers undergraduates a fundamental knowledge of the atmosphere and the weather it generates. Interactions between weather phenomena and human decisions and activities give the subject important applications. Several tracks lead to a Bachelor of Science degree.

Courses for Nonmajors
All geography courses below the 500 level are open to nonmajors, as are several above that level.

Graduate Programs
Geography
The graduate curriculum emphasizes broad geographic training while encouraging in-depth commitment to specialized concentrations. Students also are encouraged to take course work outside the department that complements their degree programs. Credit-hour requirements below are considered minimums for degree programs. Programs are tailored by the student and advisor to conform to the student's interests and needs, as well as to fulfill the general degree requirements.

The central thrust of the department and the chief capabilities and interests of the faculty fall within these research-teaching areas:

1. Human geography including cultural geography, regional development, and environmental policy;
2. Geographic information science including cartography, geographic information systems, and remote sensing;
3. Physical geography including geomorphology, soils, and biogeography;
4. Regional geography including Africa, East Asia, Russia, Latin America, and the United States; and
5. Atmospheric science and climatology.

Atmospheric Science
The purpose of the program is to expand the student's knowledge of fundamental atmospheric processes and how the atmosphere interacts with other parts of the environment. Students become familiar with quantitative research methods and how these various approaches can be used to address different problems in atmospheric science. Students gain an in-depth ability to learn specific skills and apply them toward thesis work. These skills consist of, for example, statistical analysis techniques, numerical modeling, or work with atmospheric instrumentation. The breadth of the program and the diverse research topics explored by the faculty are able to accommodate students with a variety of interests.

Courses
ATMO 105. Introductory Meteorology. 5 Hours. NE GE3N / N.
A lecture and laboratory course introducing students to the atmosphere, weather and climate phenomena, and their controlling physical processes. Topics covered include: the structure of the atmosphere, energy and energy budgets, climate and climate change, air pollution, clouds and
precipitation, pressure and wind systems, severe weather, and weather forecasting, LEC.

ATMO 106. Introductory Meteorology, Honors. 5 Hours. NE GE3N / N. Honors version of ATMO 105. A lecture and laboratory course introducing students to the atmosphere, weather and climate phenomena, and their controlling physical processes. Topics covered include: the structure of the atmosphere, energy and energy budgets, climate and climate change, air pollution, clouds and precipitation, pressure and wind systems, severe weather, and weather forecasting. Prerequisite: Membership in University Honors Program or by permission of instructor. LEC.

ATMO 177. First Year Seminar: _____, 3 Hours. GE11 / U. A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Atmospheric Science. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

ATMO 220. Unusual Weather. 3 Hours. NE GE11/GE3N / N. An introductory lecture course which surveys the general principles and techniques of atmospheric science and illustrates their application through discussions of natural but unusual weather phenomena such as blizzards, hurricanes, tornados, and chinooks, of the effects of air pollution on weather, and of intentional human alteration of the atmosphere. LEC.

ATMO 310. Aviation Meteorology. 3 Hours. N. This course introduces students to meteorological events that affect aircraft operations. Aviation applications of meteorological observations including satellite and radar observations are discussed. Students learn about graphical displays of meteorological information. Numerical forecasting models and how their output is applied for aviation is also considered. Forecasting of weather events of particular interest to aviation such as ceiling, visibility, icing and turbulence is emphasized. Prerequisite: ATMO 105 or AE 245 or equivalent. LEC.

ATMO 321. Climate and Climate Change. 3 Hours. N. This course is designed to introduce students to the nature of the Earth's physical climate. It introduces the basic scientific concepts underlying our understanding of our climate system. Particular emphasis is placed on energy and water balances and their roles in evaluating climate change. The course also evaluates the impact of climate on living organisms and the human environment. Finally, past climates are discussed and potential future climate change and its impact on humans is evaluated. (Same as GEOG 321.) Prerequisite: ATMO 105 or GOG 104. LEC.

ATMO 499. Honors Course in Atmospheric Science. 2-3 Hours. AE61 / N. Open to students with nine hours of upper level credit in Atmospheric Science, an average of at least 3.5 in all Atmospheric Science courses, and an overall average of at least 3.25. Includes the preparation of an honors paper and its defense before a committee of a least two regular faculty members. LEC.

ATMO 505. Weather Forecasting. 3 Hours. N. A first course in synoptic meteorology designed to introduce students to weather analysis and forecasting through the application of hydrodynamic and thermodynamic principles to operational analysis and forecasting. Topics include analysis and interpretation of surface and upper-air observations and data from satellites, radars, and wind profilers; chart and sounding analysis; and three-dimensional, conceptual models of weather systems. The course includes student-led weather briefings and analysis exercises. Prerequisite: ATMO 105 and MATH 121 or MATH 115. LEC.

ATMO 506. Forecasting Models and Methods. 3 Hours. N. Introduction to basic numerical weather prediction methods. Computer programs are used to apply numerical methods to weather data and to evaluate dynamical processes on numerical grids. Meteorological graphics packages are used to analyze current weather data and numerical model output. Current operational numerical models and output products are discussed. Prerequisite: ATMO 505, MATH 122, and EECS 138 or EECS 168. LEC.

ATMO 515. Energy and Water Balance. 3 Hours. N. A study of the distribution and circulation of water in the air-earth system as influenced by atmospheric processes and surface conditions. The solar and terrestrial radiation budget and the water balance at the earth's surface will be applied to agricultural and urban energy and water problems. Prerequisite: ATMO 105 or EECS 138. LEC.

ATMO 521. Microclimatology. 3 Hours. N. A study of climatic environment near the earth-atmosphere interface. Consideration of rural climates in relation to agriculture and urban climates as influenced by air pollution and other factors. Emphasis is on physical processes in the lower atmosphere, distribution of atmospheric variables, the surface energy budget and water balance. (Same as GEOG 521.) Prerequisite: ATMO 105 and MATH 106 or MATH 121. LEC.

ATMO 525. Air Pollution Meteorology. 3 Hours. N. A study of background levels and concentrated sources of atmospheric pollution together with considerations of pollution buildup in urban areas as related to particular weather conditions. Inadvertent weather modifications and effects of atmospheric pollution on particular weather events and general climate will be discussed. Prerequisite: ATMO 105, MATH 121, and EECS 138. LEC.

ATMO 531. Topics in Atmospheric Science: _____, 1-3 Hours. N. An investigation of special topics in atmospheric science. May include topics in dynamic, physical or synoptic meteorology or climatology as well as related topics in earth and physical sciences. May be repeated if topic differs. LEC.

ATMO 605. Operational Forecasting. 2 Hours. N. Students enhance their forecasting expertise by preparing forecasts for presentation to the public through a variety of media. Classroom activities include weekly map discussions and analysis of current weather situations. Forecasting topics such as forecast verification, aviation forecast products, severe weather, flash floods and watches and warnings are examined. Credit for ATMO 605, ATMO 606, and ATMO 607 is limited to a total of eight hours, six of which may be counted toward a degree in atmospheric science. Prerequisite: ATMO 505. FLD.

ATMO 606. Forecasting Practicum - Private Industry. 2 Hours. AE61 / N. Practical experience in private industry working with current and/or archived meteorological data. Possibilities include the preparation of forecasts for TV stations and meteorological consulting firms, and working with environmental consulting firms to assess air pollution hazards. May be repeated two times for credit. Credit for ATMO 605, ATMO 606, and ATMO 607 is limited to a total of eight hours, six of which may be counted toward a degree in atmospheric science. Prerequisite: ATMO 605. FLD.

ATMO 607. Forecasting Intern - National Weather Service. 2 Hours. AE52/AE61 / N. Practical experience working in a National Weather Service forecasting center in analyzing weather data and preparing weather forecasts. May be repeated two times for credit. Credit for ATMO 605, ATMO 606, and ATMO 607 is limited to a total of eight hours, six of which may be counted toward a degree in atmospheric science. Prerequisite: ATMO 605. FLD.

ATMO 630. Synoptic Meteorology. 3 Hours. N. Interpretation, development, and analysis of synoptic charts. Prerequisite: ATMO 505 and ATMO 640. LEC.
ATMO 634. Physical Climatology. 3 Hours. N.
Atmospheric processes are described and discussed in relation to the climate of the earth’s surface. Such topics as the greenhouse effect, ozone depletion, and the effect of solar irradiance on climatic change will be included. The physical processes and relationships between various climatic features will be studied. Prerequisite: ATMO 505 and DSCI 301 or MATH 526. LEC.

ATMO 640. Dynamic Meteorology. 3 Hours. N.
This course introduces the student to the fundamentals of fluid dynamics necessary for understanding large scale atmospheric motions. Fundamental physical laws of conservation of mass, momentum and energy are examined and applied to atmospheric flows. Rotation in the atmosphere is examined quantitatively in terms of both circulation and vorticity. Prerequisite: MATH 223 and PHSX 214 or PHSX 212 and PHSX 236. LEC.

ATMO 642. Remote Sensing. 3 Hours.
This course is designed to prepare students to effectively use remotely sensed data in operational or research settings for further work in this field. Topics include radiation and radiation transfer applied to active and remote sensing; radiative properties of space, sun, earth and atmosphere; instrument design considerations and operational characteristics; inversion methods for temperature or concentration profiling; surface temperature measurement; cloud top height determination; rain rate and wind velocity measurement; severe weather detection; satellite photograph interpretation. Prerequisite: ATMO 680, MATH 581. LEC.

ATMO 650. Advanced Synoptic Meteorology. 3 Hours. N.
Analysis and interpretation of synoptic weather charts including treatment of numerical weather forecasting. Prerequisite: ATMO 630 and ATMO 660. LEC.

ATMO 660. Advanced Dynamic Meteorology. 3 Hours. N.
Advanced study of the atmosphere including treatment of the vorticity equation. Prerequisite: ATMO 640 and MATH 220 or MATH 320. LEC.

ATMO 680. Physical Meteorology. 3 Hours. N.
This course is designed to enhance the student’s understanding of atmospheric processes through the study of these processes at molecular through micro scales. Topics include the properties and behavior of gases; transfer processes; phase change; solar and earth radiation; cloud drop, ice crystal and precipitation formation; atmospheric electricity; stratospheric chemistry. Prerequisite: MATH 223; PHSX 214, or PHSX 212 and PHSX 236. LEC.

ATMO 690. Special Problems in Meteorology. 1-3 Hours. N.
Prerequisite: Nine hours in meteorology. IND.

ATMO 697. Seminar for Seniors. 1 Hour. AE61 / N.
Current research in atmospheric science will be discussed. May be repeated for a total of two credit hours. Prerequisite: Senior level in atmospheric science. LEC.

ATMO 699. Undergraduate Research. 2 Hours. AE61 / U.
Work on a research project under the supervision of a faculty member. Prerequisite: Nine credit hours in atmospheric science. May be taken up to three times for credit. IND.

ATMO 710. Atmospheric Dynamics. 3 Hours.
Presentation of contemporary approaches to the study of atmospheric dynamics. May include methodologies that provide insight into global, synoptic, mesoscale or microscale motions. Prerequisite: ATMO 660 or equivalent. LEC.

ATMO 720. Atmospheric Modeling. 3 Hours.
Illustration and application of contemporary approaches to mathematical and statistical description of atmospheric phenomena. Prerequisite: MATH 122, ATMO 640, ATMO 680, and a course in statistics, or consent of instructor. LEC.

ATMO 727. Atmospheric Storms. 3 Hours.
The physical processes and operating principles involved in the development and life cycles of extreme or unusual weather events including tornadoes, blizzards, lightning displays, and tropical storms. Prerequisite: EECS 138, MATH 121, and ATMO 320. LEC.

ATMO 731. Advanced Topics in Atmospheric Science: ______. 1-3 Hours.
Advanced investigation of special topics in atmospheric science. May include topics in dynamic, physical or synoptic meteorology or climatology as well as related topics in earth and physical sciences. May be repeated if topic differs. LEC.

ATMO 750. Numerical Weather Prediction. 3 Hours.
An exploration of the mathematical methods used to describe the current state of the atmosphere and to predict future states. Current operational numerical weather prediction techniques will be included. Prerequisite: ATMO 660. LEC.

ATMO 825. Seminar in Climatology. 2-3 Hours.
LEC.

ATMO 827. Seminar in Atmospheric Science. 1-3 Hours.
LEC.

ATMO 899. Master’s Thesis. 1-10 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

GEOG 100. World Regional Geography. 3 Hours. SC AE42 / S.
An introductory survey of the environmental setting, historically formative periods, and present-day issues that distinguish the major culture areas of the world. LEC.

GEOG 101. World Regional Geography, Honors. 3 Hours. SC AE42 / S.
An introductory survey of the environmental setting, historically formative periods, and present-day issues that distinguish the major culture areas of the world. Open only to students in the College Honors Program, or by consent of instructor. LEC.

GEOG 102. Principles of Human Geography. 3 Hours. SC AE42 / GE3S / S.
An examination of the relationships between humans and their environments. The course introduces students to basic concepts in human geography relating to economic activities, landscapes, languages, migrations, nations, regions, and religions. Serves as the basis for further course work in cultural, economic, political, population, and urban geography. LEC.

GEOG 103. Principles of Human Geography, Honors. 3 Hours. SC AE42/GE3S / S.
An introduction to how human societies organize space and modify the world about them. Resultant patterns on the landscape are interpreted through principles of space perception, cultural ecology, diffusion, land use, and location theory. Comparisons are made between urban and rural areas and between subsistence and commercial societies. Open to students who have been accepted into the College Honors Program. LEC.

GEOG 104. Principles of Physical Geography. 3 Hours. NE GE3N / N.
The components of the physical environment are discussed in order to familiarize the student with their distributions and dynamic nature. Major topics include the atmosphere, landforms, soils, and vegetation together with their interrelationships and their relevance to human activity. This course and GEOG 105 together satisfy the laboratory science requirement. Both courses are required for geography majors. LEC.
GEOG 105. Introductory Laboratory in Physical Geography. 2 Hours. U.
A laboratory course designed to complement GEOG 104 in satisfying the laboratory science requirement. It is required for geography majors. Laboratory exercises include a wide variety of analyses using data on the atmosphere, hydrosphere, biosphere, and lithosphere. Prerequisite: GEOG 104, which may be taken concurrently. LAB.

GEOG 107. Principles of Physical Geography, Honors. 3 Hours. NE GE3N / N.
Interactive processes among the systems of the earth are studied and discussed. Major topics include vegetation, soils, landforms, water, the atmosphere, and cycles of matter between these portions of the earth. The course includes lectures and critical discussions to address study problems in physical geography. Open only to students in the University Honors Program or by consent of the instructor. LEC.

GEOG 111. Maps and Mapping. 4 Hours. H.
How do people find their way from here to there or just around? Simple—they use maps. Maybe not maps on pieces of paper but maps in their heads: mental maps. Different people have different maps, even of the same place. Mapping is an ancient form of communication and maps have created ideas and opinions, promoted understanding and confusion. A non-technical approach to the transformation of space onto maps, to their content and structure, and their role and impact in human activity, past and present. Neither background in geography nor artistic skills are required. LEC.

GEOG 140. Global Environment I: The Discovery of Environmental Change. 5 Hours. GE3S / U.
This interdisciplinary course and laboratory sections survey the history of environmental understanding and the process of scientific discovery from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the history of environmental systems and life on earth, the discovery of biotic evolution, ecological change, and climate change. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to earth systems and the development of environmental understanding using historical and present-day examples. (Same as EVRN 140 and HIST 140.) LEC.

GEOG 142. Global Environment II: The Ecology of Human Civilization. 5 Hours. GE3S / U.
This interdisciplinary course and laboratory sections survey the history of humanity’s relationship with the natural world over the long term from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the evolution of Homo sapiens and cultural systems; the development of hunter, gatherer, fisher, agricultural, and pastoral lifeways; the ecology of colonialism and industrial civilization, and the emergence of ideological and ethical perspectives on the relationship between nature and culture. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to the humanity’s engagement with the global environment using historical and present-day examples. (Same as EVRN 142 and HIST 142.) LEC.

GEOG 144. Global Environment I: The Discovery of Environmental Change, Honors. 5 Hours. U.
This interdisciplinary course surveys the foundations of environmental understanding and the process of scientific discovery from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the history of environmental systems and life on earth, the discovery of biotic evolution, ecological change, and climate change. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to earth systems and the development of environmental understanding using historical and present-day examples. (Same as EVRN 144 and HIST 144.) Open only to students admitted to the University Honors Program or by permission of instructor. LEC.

GEOG 145. Global Environment II: The Ecology of Human Civilization, Honors. 5 Hours. U.
This interdisciplinary course and laboratory sections survey the history of humanity’s relationship with the natural world over the long term from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the evolution of Homo sapiens and cultural systems; the development of hunter, gatherer, fisher, agricultural, and pastoral lifeways; the ecology of colonialism and industrial civilization, and the emergence of ideological and ethical perspectives on the relationship between nature and culture. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to the humanity’s engagement with the global environment using historical and present-day examples. (Same as EVRN 145 and HIST 145.) Open only to students admitted to the University Honors Program or by permission of instructor. LEC.

GEOG 148. Scientific Principles of Environmental Studies. 3 Hours. NB / N.
This course presents an overview of our understanding of environmental processes and issues. Topics include scientific principles, resource issues, pollution and global change, among others. This course gives students a rigorous understanding of interactions between humans and their environment and provides students with a scientific basis for making informed environmental decisions. (Same as EVRN 148.) LEC.

GEOG 149. Scientific Principles of Environmental Studies, Honors. 3 Hours. NB / N.
This course presents an overview of our understanding of environmental processes and issues. Topics include scientific principles, resource issues, pollution and global change, among others. This course gives students a rigorous understanding of interactions between humans and their environment and provides students with a scientific basis for making informed environmental decisions. An honors section of GEOG 148 designed for superior students. (Same as EVRN 149.) Prerequisite: Membership in the University Honors Program or approval of instructor required. LEC.

GEOG 150. Environment, Culture and Society. 3 Hours. SC / S.
An introduction to geographic approaches to the study of the environment, emphasizing societal and cultural factors that influence human interaction with the biosphere, hydrosphere, lithosphere, and atmosphere. The course involves analysis of a broad range of contemporary environmental issues from the local to global scales. (Same as EVRN 150.) LEC.

GEOG 177. Frist Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Geography. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

GEOG 210. Computers, Maps, and Geographical Analysis. 3 Hours. N.
This course will introduce students to a number of different methods for the visualization, representation, and analysis of geographical phenomena. Both field and computer-based techniques will be employed to demonstrate the concept of experimental design and the collection, processing, and analysis of geographical data. Topics include: 1) the unique nature of geographic data; 2) mapping techniques and technologies; 3) geographical information systems; 4) remote
sensing (aerial photography and satellite imagery); and 5) methods of
geographical analysis (e.g., statistic and spatial modeling). LEC.

GEOG 304. Environmental Conservation. 3 Hours. NE GE3N / N.
A survey of current methods of describing and modeling the function,
structure, and productivity of natural and anthropogenically modified earth
resource systems, along with a discussion of contemporary views of what
constitutes a natural landscape. Fundamental natural science principles
about the interplay among lithospheric, atmospheric, hydrospheric, and
biospheric components of earth systems are emphasized. Uses of natural
resources, including fossil fuels, minerals, and water are described
with attention to the earth’s total energy budget. Human activities that
affect preservation, conservation, and multiple uses of earth regions
receive attention. Systems under stress through population and other
contemporary forces serve as examples. (Same as EVRN 304.) LEC.

GEOG 311. Map Conception and Development. 4 Hours. N.
An examination of the map process with emphasis on two areas: 1) the
mental map formed during interaction with the environment and 2) the
map as a physical object which emerges from mapping activity. A local
area will serve as the laboratory/environment for the mapping activity
including production and use. LEC.

GEOG 316. Methods of Analyzing Geographical Data. 4 Hours. N.
Introduces the benefits and limitations of using quantitative methods
to analyze geographical problems. Covers traditional descriptive (e.g.,
measures of central tendency) and inferential statistics (e.g., hypothesis
testing) but also inherently geographical approaches such as shape and
point pattern analysis, and spatial autocorrelation. Laboratory emphasizes
using the computer to explore and analyze geographical problems. LEC.

GEOG 319. Topics in Techniques: ______. 1-3 Hours. N.
An investigation of special topics in Techniques. May include coursework
in cartography, GIS, or remote sensing. May be repeated if topic differs.
LEC.

GEOG 321. Climate and Climate Change. 3 Hours. N.
This course is designed to introduce students to the nature of the Earth’s
physical climate. It introduces the basic scientific concepts underlying our
understanding of our climate system. Particular emphasis is placed on
energy and water balances and their roles in evaluating climate change.
The course also evaluates the impact of climate on living organisms and
the human environment. Finally, past climates are discussed and potential
future climate change and its impact on humans is evaluated. (Same as
ATMO 321.) Prerequisite: ATMO 105 or GEOG 104. LEC.

GEOG 331. Regional Geomorphology of the United States. 3 Hours.
N.
This course examines forces and processes affecting the earth’s surface,
and furthermore identifies and describes the physiographic regions that
are the result of these processes. Special efforts are made to explore
various photographic resources, satellite imagery, and internet sources
or geomorphic data from a regional perspective since there is no wholly
satisfactory text available for the course. A research paper is required.
Prerequisite: An introductory earth science course or consent of instructor.
LEC.

GEOG 332. Glaciers and Landscape. 3 Hours. N.
Elements from glaciology, geology, and climatology are merged to
examine the interactions between glaciers and their natural environments,
including the processes involved in glacier formation, the relationship
between glaciers and climate, the mechanisms of glacier flow, and
interpretation of the Earth’s glacial record. Emphasis is placed on
an interdisciplinary approach to study environmental change and
paleoclimate reconstruction. Prerequisite: GEOG 104 or GEOL 101, or
consent of instructor. LEC.

GEOG 335. Introduction to Soil Geography. 4 Hours. N.
This course focuses on the properties and processes of soils as they
occur in their environment. The student is introduced to the nature of
soil as it functions as a body; genesis of soils; properties of soil solids,
especially colloids; soil chemical composition, properties, and reactions;
interaction between solid, liquid, and gaseous components in soils; plant-
soil-water relationships; biological interactions with soil; classification
of soils; and the distribution of soils on the landscape. Not open to
students who have taken EVRN 535 or GEOG 535. (Same as EVRN
335.) Prerequisite: GEOG 104 or GEOL 101 or consent of instructor; BIOL
100 and CHEM 130 or CHEM 190 recommended. LEC.

GEOG 338. Introduction to River Systems. 3 Hours. N.
A course of fluvial geomorphology. Topics include the drainage
basin, fluvial processes, river channel adjustment and forms, human
disturbance and geomorphic response, and research methods in fluvial
geomorphology. Field trip. Prerequisite: GEOG 104. LEC.

GEOG 339. Topics in Physical Geography: ______. 1-3 Hours. N.
An investigation of special topics in Physical Geography. May
include coursework under headings of soils, vegetation, climate, or
geomorphology. May be repeated if topic differs. LEC.

GEOG 350. Physical Geography of Africa. 3 Hours. N.
This course is a survey of the basic physical features of the African
continents including structure and relief, rivers and lakes, soils and
mineral resources. It includes characteristics and processes of African
climates, and the ecology of Africa’s four major biomes: tropical rain
forest, savanna, steppe, and desert. Climatic and environmental variations
of the past, emergence of humankind, and development of pastoral and
farming systems are discussed. Contemporary environmental concerns
also include deforestation and desertification, the impacts of drought,
methods for monitoring African environments, and Africa’s prospects in a
21st century suffering from global warming. (Same as AAAS 350.) LEC.

GEOG 351. Africa’s Human Geographies. 3 Hours. NW AE42/GE3H/
GE3S / S/W.
An introduction to historical, cultural, social, political, and economic issues
in Africa from a geographic perspective. The course begins with the
historical geography of humanity in Africa, from ancient times through to
the present. Other topics include cultural dynamics, demography, health,
rural development, urbanization, gender issues, and political geography.
Case studies from Eastern and Southern Africa will be used to illustrate
major themes. (Same as AAAS 351.) LEC.

GEOG 352. Economic Geography. 3 Hours. S.
This course offers an overview of contemporary economic geography
with an underlying theme of uneven regional development. Topics
examined include: the historical context in which capitalism emerged;
the major theoretical approaches used to understand the temporal and
spatial dynamics of capitalist society; a series of case studies of different
economic sectors; and the global economy, including its development
with respect to colonialism, neocolonialism, international trade, third world
development, and population growth. LEC.

GEOG 357. History and Philosophy of Geographic Information
Science. 3 Hours. N.
An examination of the development of geographic information science
(GISci) from its roots in traditional geography, cartography, and remote
sensing to modern geographic information systems (GIS). GIS is explored
as a new scientific instrument, a "macroscope" for representing and
analyzing complex earth processes, both physical and cultural. The
societal benefits and risks of GIS are demonstrated and discussed. LEC.
GEOG 358. Principles of Geographic Information Systems. 4 Hours. N.
An introduction to computer-based analysis of spatial data. Covers basic principles of collecting, storing, analyzing, and displaying spatial data. Emphasis is on problem-solving activities using common spatial analytical techniques (e.g., map overlay). The student will gain extensive hands-on experience with state-of-the-art GIS software. LEC.

GEOG 370. Introduction to Cultural Geography. 3 Hours. GE3S / H.
Charts some of the major lines of research in cultural geography, including critical theory, political economy, poststructuralist thought, feminism, and global consumption. Through fieldwork, diverse research methods are applied to issues such as community development, cultural patterns on the landscape and global impacts on local economies. Prerequisite: GEOG 100, GEOG 101, GEOG 102 or GEOG 103; or consent of instructor. LEC.

GEOG 371. Environmental Geopolitics. 3 Hours. S.
This course examines how human relationships with the biophysical world are politicized. Examines key contributions to debates surrounding environmental security, resource conflicts, and related issues, as well as geopolitical assumptions on which these debates build. (Same as EVRN 371.) LEC.

GEOG 372. Environmental Policy. 3 Hours. N.
An historical and analytical study of the formulation, implementation, and consequences of environmental policy in the United States. Attention is directed at relevant interest groups, issues specific to both rural and urban populations, relationships between national policies and international organizations concerned with environmental problems. Prerequisite: GEOG 148 or EVRN 148; and either EVRN 103 or HIST 103, EVRN 347 or HIST 347, or GEOG150 or EVRN 150. LEC.

GEOG 375. Intermediate Human Geography. 3 Hours. S.
An examination of processes of cultural-economic interaction and patterns of human activity on a global scale. The topics cover the whole spectrum of human geography, with focus on urban-economic development, innovation and diffusion, and trade. Each week the third hour will be devoted to discussion of topics dealt with in lectures presented during the first two hours. Prerequisite: Introductory course in Geography or consent of the instructor. LEC.

GEOG 377. Urban Geography. 3 Hours. S.
This course explores the city from the multiple perspectives of its inhabitants. The cultural viewpoints of place, gender, age, and ethnicity are stressed. Traditional topics such as urban hierarchy, functions of the city, suburbanization, and ongoing changes in core and peripheral areas also receive attention. The distinctive landscapes of individual North American cities are emphasized, but examples also are drawn from throughout the world. LEC.

GEOG 379. Topics in Cultural Geography: _____ 1-3 Hours. S.
An investigation of special topics in Cultural Geography. May include coursework under headings of culture theory, material culture, language, foodways, or religion. May be repeated if topic differs. LEC.

GEOG 390. Geography of the United States and Canada. 3 Hours. S.
A study of the different physical, economic, and cultural settings in the United States and Canada which form the basis for the various forms of livelihood. Emphasis on the United States. (Same as AMS 390.)
Prerequisite: An introductory geography course or background in the United States or Canadian history, social science, or culture or consent of instructor. LEC.

GEOG 395. Environmental Issues of: _____. 3 Hours. S.
This regional geography course examines contemporary environmental issues of a particular region of the world based on the expertise of the professor. Course emphasis is on the interaction of natural, socio-economic, and cultural factors of development that give rise to environmental problems. Students learn how local, national, and international government and non-governmental stakeholders address environmental problems. Course may be repeated with different profs. LEC.

GEOG 396. East Asia. 3 Hours. NW AE42/GE3H/GE3S / S/W.
This course is an introduction to the contemporary politics, economy, and culture of Korea, China, and Japan in the context of globalization. In addition to the discussion of individual countries, the course examines the cross-cutting themes such as international relations, cultural exchange, and economic development in the region of East Asia. LEC.

GEOG 397. Geography of Kansas and the Plains. 3 Hours. S.
A study of the different physical, economic, and cultural settings in Kansas and the Plains that form the basis for various kinds of livelihood. LEC.

GEOG 399. Topics in Regional Studies: _____. 1-3 Hours. S.
An investigation of special topics in Regional Studies. May include coursework related to a specific country or region. May be repeated if topic differs. LEC.

GEOG 410. Human Biogeography, Honors. 3 Hours. N.
Principles of evolution and earth change are used to examine distributions of human populations, wealth, and resources. Readings from the current literature will be included. Lecture and discussion. (Same as BIOL 410.)
Prerequisite: BIOL 152 or 153 or GEOG 107 and membership in the University Honors Program or consent of instructor. LEC.

GEOG 418. Workshop in Production Cartography. 1-3 Hours. AE61 / N.
Theory and practice of map production and other related graphics using the latest graphic and GIS software. Projects vary but include the processes of design and production, editing and quality control, and a final printed or operational product. Involves a weekly consultation session and laboratory time in KU Cartographic GIS Services. Prerequisite: Completion of GEOG 311 and consent of instructor. IND.

GEOG 433. Biogeography Field and Laboratory Techniques. 3 Hours. N.
This course provides undergraduate students with practical experience in field data collection techniques and laboratory data analysis methods. During the first half of the semester, students work in the field using a variety of methods to measure such vegetation characteristics as: cover, density, biomass, leaf area, and canopy architecture. Students gain experience in the use of field instruments including a spectroradiometer, and techniques for quantifying biophysical attributes of vegetation. During the later part of the course, students learn to summarize their field data and examine relationships between the vegetation attributes and measurements made using remote sensing instruments. Recommended: GEOG 316 or an introductory statistics equivalent. (Same as EVRN 433.)

GEOG 458. Geographical Information Systems: _____. 1-6 Hours. N.
An introduction to the organization and components of geographic information systems and their software. Fundamental concepts and their implementation with applications to physical and human systems. LEC.

GEOG 490. Geographic Internship. 1-6 Hours. AE61 / N.
Supervised practical experience. The student submits a proposal describing the internship prior to enrollment. Upon acceptance, regularly scheduled meetings with the advisor provide assistance, guidance and evaluation of progress in the professional experience. A written summary of the experience or outcomes of the research project are prepared independently by the student, a representative of the host agency, and
the advisor. Total credit not to exceed six hours. Prerequisite: Fifteen hours of geography and permission of instructor. FLD.

GEOG 498. Special Topics in Geography: ______. 1-5 Hours. U.
Prerequisite: Fifteen hours of geography. IND.

GEOG 499. Honors Course in Geography. 2-3 Hours. AE61 / U.
Open to students with nine hours of upper level credit in geography, an average of at least 3.5 in all geography courses, and an overall average of at least 3.25. Includes the preparation of an honors paper and its defense before a committee of at least two regular faculty members. IND.

GEOG 500. Senior Capstone in Geography. 3 Hours. AE61 / N.
The capstone project provides students with a broad-based, interdisciplinary educational experience and allows them to integrate and synthesize the knowledge they have gained in their studies. The course is designed to achieve several objectives: provide an overview of geography as a unified, coherent discipline with multiple perspectives, emphasize writing and analytical skills, introduce students to a major research project that integrates elements of physical and human geography, and cultivate knowledge of future professional development. Graduate students may take this course by permission only. Prerequisite: Nine hours in Geography and status as a senior major in the department; or permission of instructor. LEC.

GEOG 510. Human Factors. 4 Hours. N.
An introduction to the concepts and theories underlying the study of human-technological systems. Human-machine interfaces and system properties and the environment are considered. Lecture-discussion sessions are supplemented by computer-supported laboratory and research activities. LEC.

GEOG 511. Intermediate Cartography: ______. 1-6 Hours. N.
An investigation of special topics in cartography. Can be repeated for different topics. Prerequisite: A course in cartography and consent of instructor. LEC.

GEOG 513. Cartographic Design. 3 Hours. S.
A study of graphic elements and their role in the physical and perceptual structure of the map image. Concepts and principles of design are stressed with particular emphasis on the figure-ground relationships, color and lettering. Prerequisite: GEOG 311. LEC.

GEOG 514. Visualizing Spatial Data. 4 Hours. N.
Students use Visual Basic or other currently prominent programming language to visualize spatial data. Early projects cover basic principles such as color manipulation and spatial transformations. Later projects involve developing more sophisticated software for data presentation, data exploration, and map animation. Prerequisite: Some experience with Visual Basic or other programming language. LAB.

GEOG 516. Applied Multivariate Analysis in Geography. 3 Hours. N.
An introduction to the application of multivariate statistical analysis in geography. Techniques covered include univariate and multivariate analysis of variance, multiple regression, logistic regression, principle components analysis, and spatial regression. Practical applications of the techniques in a geographical research context are emphasized. Students will learn how to use statistical packages such as SPSS. Prerequisite: GEOG 316 or equivalent. LEC.

GEOG 517. Data Handling and Map Symbolization. 3 Hours. N.
An analysis of methods for manipulating and symbolizing spatial data. Techniques studied include dot, choropleth, proportional symbols, and isarithmic (contour) mapping. Topics covered include data classification, the use of color, and automated methods of interpolation (triangulation, inverse distance, and kriging). Emphasis is on developing maps that can be presented to the general public, although some consideration is given to visualization software that can be utilized by individuals to explore spatial data. Prerequisite: GEOG 111 or GEOG 210 or GEOG 311. LEC.

GEOG 519. History of Cartography. 3 Hours. H.
A history of mapmaking worldwide from its origins to the present day. Emphasis on maps as historical records of evolving civilizations and cultural landscapes and methods of studying early maps. (Same as HIST 546.) LEC.

GEOG 521. Microclimatology. 3 Hours. N.
A study of climatic environments near the earth-atmosphere interface. Consideration of rural climates in relation to agriculture and urban climates as influenced by air pollution and other factors. Emphasis is on physical processes in the lower atmosphere, distribution of atmospheric variables, the surface energy budget, and water balance. (Same as ATMO 521.) Prerequisite: ATMO 105 and MATH 106 or MATH 121. LEC.

GEOG 526. Remote Sensing of Environment I. 4 Hours. N.
Introduction to study of the environment through air photos and satellite imagery, including principles of remote sensing, interactions of electromagnetic energy with the atmosphere and earth’s surface, aerial photography, satellite systems, and sensors (electro-optical, thermal, and radar). Emphasis in the latter part of the course is on such applications as global monitoring, land cover mapping, forestry, agriculture, and oceanography. Laboratory emphasizes visual interpretation of aerial photography and satellite imagery and an introduction to digital image processing in the department’s NASA Earth Science Remote Sensing Laboratory. (Same as EVRN 526.) Prerequisite: MATH 101 or equivalent. GEOG 358 recommended. LEC.

GEOG 531. Topics in Physical Geography: ______. 1-3 Hours. N.
An investigation of special topics in physical geography. May include specific course work under the headings of geomorphology, climatology, soils, vegetation, quaternary, paleoenvironments, hydrology, etc. May be repeated, if topic differs. LEC.

GEOG 532. Geoarchaeology. 3 Hours. N.
Application of the concepts and methods of the geosciences to interpretation of the archeological record. The course will focus primarily on the field aspects of geoarchaeology (e.g., stratigraphy, site formational processes, and landscape reconstruction), and to a lesser extent on the array of laboratory approaches available. (Same as ANTH 517.) Prerequisite: GEOG 104, ANTH 110, or ANTH 310. LEC.

GEOG 535. Soil Geography. 4 Hours. N.
A broad study of the principles and properties of soils and their distribution on the landscape. Topics covered include: pedology, clay mineralogy, soil physics, soil chemistry, management of soils, soil biology, taxonomy, and soil geomorphology. Laboratory section and a field project are required. Not open to students who have taken GEOG 335 or EVRN 335. (Same as EVRN 535.) Prerequisite: GEOG 104 or GEOL 101 or consent of the instructor; BIOL 104 and CHEM 130 or 190 recommended. LEC.

GEOG 537. Elements of Plant Geography. 3 Hours. N.
An introduction to spatial and temporal variation in natural plant populations and communities. Included is an introduction to methods of analysis, and an overview of structure and process in the earth’s major biomes. Prerequisite: GEOG 331; or an introductory biology/botany course and GEOG 104; or consent of instructor. LEC.

GEOG 538. Soil Chemistry. 3 Hours. N.
This course examines the chemical properties and processes of soils and methods of evaluation. Topics include solid and solution speciation, mineral solubility, soil colloidal behavior, ion exchange, surface complexation, soil salinity and sodicity, soil acidity, oxidation-reduction reactions, and kinetics of soil chemical processes. (Same as EVRN 538.) Prerequisite: GEOG 335 or GEOG 535 or EVRN 335 or EVRN
GEOG 541. Geomorphology. 4 Hours. N.
A critical study of land forms in relation to tectonics, climatic environment, and geologic processes. The use of geomorphic methods in the interpretation of Cenozoic history is emphasized. Laboratory exercises in analysis of field observations, maps, and photographs. Required field trip and fee. (Same as GEOL 541.) Prerequisite: GEOL 101 and GEOL 103, GEOL 104 and GEOG 105, or GEOL 103 and GEOL 304. LEC.

GEOG 550. Environmental Issues in Africa. 3 Hours. S.
Acquaints students with the complexities of debates on environmental problems in Sub-Saharan Africa. Topics addressed may include deforestation, desert expansion, wildlife conservation, soil erosion, climate change, coral reef destruction, water resources development, mangrove preservation, the environmental effects of war, industrialization, and urbanization. Class presentations and projects synthesize the perspectives of both human and physical geography. (Same as AAAS 551.) Prerequisite: GEOG 104 or permission of instructor. LEC.

GEOG 552. Topics in Urban/Economic Geography: ____. 1-3 Hours. S.
An investigation of special topics in urban/economic geography. May include specific course work under the headings of energy, economic development, international trade, environmental perception, housing, transportation, and migration. May be repeated. LEC.

GEOG 553. Geography of African Development. 3 Hours. NW AE42/GEOG3S / S.
Acquaints students with the values of social parameters of African agricultural and pastoral practice. Topics include customary land rights, African perspectives on the natural world, gender issues in African agriculture, and the urbanization of African cultures. The course also contrasts African views with those of Western development practitioners and donor agencies. Case studies from different countries are used to highlight the continent’s regional differences. (Same as AAAS 553.) LEC.

GEOG 556. Geography of the Energy Crisis. 3 Hours. S.
A discussion and analysis of the basic facts and causes of energy problems on a national and world scale. Examines current production, consumption, efficiency, reserves, conservation, and other energy policy options, including adjustments that will affect consumer use, national politics, and strategic issues. Prerequisite: GEOG 102 or GEOG 375. LEC.

GEOG 557. Cities and Development. 3 Hours. S.
An intermediate level course in urban geography, with an emphasis on cities in the developing world. Example cities in Latin America and the Caribbean, Sub-Saharan Africa, the Middle East, South Asia, and/or Southeast Asia may be examined. The main focus is on the intersection between urbanization and economic development, but social, political, and cultural aspects of development in cities are considered. Other topics include the geographic impacts of European colonialism, urbanization and industrialization, rural-to-urban migration, urban structure and spatial dynamics, urban planning, and environmental sustainability. (Same as AAAS 557.) LEC.

GEOG 558. Intermediate Geographical Information Systems. 4 Hours. N.
An intermediate level course in geographic information science designed for advanced undergraduate and graduate level students who already have an introductory understanding of GIS. Emphasis will be placed on the application of spatial analytical techniques to geographical problem-solving. Topics include spatial data structures, interpolation techniques, terrain analysis, cost surfaces, and database management technique. Students will apply knowledge gained in lecture and reading to natural resource, urban, and scientific applications using state-of-the-art GIS software. Prerequisite: GEOG 358 or consent of instructor. LEC.

GEOG 560. GIS Application Programming. 3 Hours. N.
This course teaches programming within Geographic Information Systems. Students learn how to customize GIS applications to automate data processing and spatial analysis through programming languages. GIS programming concepts and methods are introduced from the aspects of spatial data management and analysis covering both the vector and raster data models. Prerequisite: GEOG 558 and a course in programming languages. LEC.

GEOG 570. Geography of American Indians. 3 Hours. NW AE42/GEOG3S / S.
A survey of the culture and history of selected indigenous peoples of the Americas. Emphasis is placed on the environmental setting, the settlement and subsistence patterns, and the impact of European colonization. Discussion includes present-day ethnic and resource issues. LEC.

GEOG 571. Topics in Cultural Geography: ____. 1-3 Hours. S.
An investigation of special topics in cultural geography. May include specific course work under the headings of cultural theory and methodology, material culture, foodways, religion, and similar topics. May be repeated, if topic differs. LEC.

GEOG 572. Political Geography. 3 Hours. S.
Acquaints students with the theories and methods of political geography. Topics include geographical studies of: states, nations, and nationalism; territories and territoriality; geopolitics; and elections. Case studies from various regions of the world are included with an emphasis on the developing world. Prerequisite: GEOG 102 or equivalent or consent of instructor. LEC.

GEOG 574. Exploring Oceania. 3 Hours. S.
Acquaints students with the culture and history of Oceania including the settlement and the impacts of European and American colonialism on Australasia, Melanesia, Micronesia and Polynesia. Emphasis is placed on applying broad geographical concepts to this vast Oceanic region through the lenses of development, media and migration studies. Prerequisite: GEOG 102 or GEOG 103; or consent of instructor. LEC.

GEOG 576. Cultural Geography of the United States. 3 Hours. S.
Distributions of major culture elements including folk architecture, religion, dialect, foodways, and political behavior are systematically studied from a predominate historically perspective. These discussions are followed by a survey of the major culture regions in America. Although not absolutely necessary, familiarity with concepts treated in any of the following courses would be helpful: AMS 100, AMS 110, ANTH 108, ANTH 308, GEOG 102, or GEOG 390. (Same as AMS 576.) LEC.

GEOG 579. Geography of American Foodways. 3 Hours.
An interdisciplinary approach to food that explores the diversity of eating habits across the United States and the role of food as an indicator of cultural identity and change. Current regional and ethnic food consumption patterns are stressed. Topics include multiculturalism and regional identity, the symbiotic relationship between restaurant food and home cooking, the recent interest in farmers’ markets and organic foods, and the importance of the food industry and the popular press in setting trends. (Same as AMS 579.) LEC.

GEOG 590. Understanding Central Asia. 3 Hours. NW / S/W.
An intensive, multidisciplinary survey of Central Asia, focusing on the former Soviet republics-Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan with additional coverage of neighboring regions (the Caucasus and the Caspian basin, Afghanistan, and western China). The
course addresses the history of the region (from the Silk Road to Soviet rule), geography, religion, and the building of post-Soviet states and societies. (Same as REES 510.) LEC.

GEOG 591. Geography of Latin America. 3 Hours. SC AE42/GE3S / S/W.
A study of the different physical, economic, and cultural settings in Latin America which form the basis for the various forms of livelihood. LEC.

GEOG 592. Middle American Geography. 3 Hours. S.
This regional study of the natural environments and cultural-historical backgrounds of Mexico, Central America, and the Caribbean details the physical and historical processes that have shaped the cultural landscape. LEC.

GEOG 593. Central American Peoples and Lands. 3 Hours. S.
This is a study of the natural and cultural history of the region’s lands and peoples that focuses on the cultural geography of the surviving indigenous populations, including their culture area, culture history, cultural landscape, and cultural ecology. LEC.

GEOG 594. Geography of the Former Soviet Union. 3 Hours. S/W.
An analysis of the spatial organization of the successor states to the USSR. A study of the diverse human and natural resources, demographic, cultural, and economic conditions. Prerequisite: An introductory geography course or background in Russian-East European history, social science, or culture, or consent of instructor. LEC.

GEOG 595. Geography of Eastern Europe. 3 Hours. S/W.
A study of nations and regions of Eastern Europe, excluding Russia. Prerequisite: An introductory geography course or background in Slavic-East European history, social science, or culture or consent of instructor. LEC.

GEOG 597. Geography of Brazil. 3 Hours. S.
Study of geographic factors, physical and cultural, that are basic to understanding the historical development of Portuguese South America and the contemporary and cultural geography of Brazil. Course also includes a survey of Brazil’s South American neighbors. LEC.

GEOG 601. Indigenous Peoples of the World. 3 Hours. S.
A survey of the varied responses of global Indigenous peoples as a result of the imposition of external economic and political systems. An overview of diverse, thematic issues such as land rights, economic development, resources and cultural patrimony, languages, knowledge systems, and women’s rights from the perspectives of Indigenous societies around the world. Detailed studies of Indigenous peoples seeking recognition and protection under international law are used. (Same as ISP 601.) Prerequisite: Permission of instructor. LEC.

GEOG 635. Soil Physics. 3 Hours. N.
Provides theoretical and practical foundations for understanding physical properties and processes of variably-saturated porous media. Focus is on the transport, retention, and transformation of water, heat, gas, and solutes through the soil. We examine modern vadose zone measurement methods, analytical tools, and numerical models for data collection and interpretation. (Same as EVRN 635.) Prerequisite: GEOG 335 or EVRN 335, or GEOG 535 or EVRN 535, and MATH 121, PHSX 114; or consent of instructor. LEC.

GEOG 658. Topics in Geographic Information Science: ______. 1-6 Hours.
An investigation of special topics in geographic information science. May include specific coursework under the headings of methodology, basic research, thematic or regional applications, geographic information systems (GIS), Global Positioning System (GPS), and geostatistics. May be repeated if topic differs. LEC.

GEOG 670. Cultural Ecology. 3 Hours. S.
Investigation of the interrelations between socio-cultural systems and the natural environment, including a survey of major theories and descriptive studies. (Same as ANTH 695.) Prerequisite: An introductory course in geography or anthropology. LEC.

GEOG 710. Information Design. 3 Hours.
Concepts and principles for the organization of verbal, numerical, and graphic/spatial data and their application to the production of information displays and instruments. Examination of the evolution of the information design process from the traditional (communication system) perspective to interactive user-centered design approaches. The nature of human information processing in handling information for both visualization and analysis, with particular emphasis on decision-making and usability. Prerequisite: GEOG 510, INDD 510, PSYC 318, PSYC 685, or equivalent, or consent of instructor. LEC.

GEOG 711. Advanced Cartography: ______. 3 Hours.
An investigation of special topics in cartography. Can be repeated for different topics. Prerequisite: Consent of instructor. LEC.

GEOG 713. Practicum in Cartography. 1-6 Hours.
Experience in the organization and presentation of cartographic material in lecture, discussion, and laboratory formats. May be repeated to a total of six credits. Prerequisite: Consent of instructor. FLD.

GEOG 714. Field Experience. 3 Hours. AE61.
Working in a new environment presents problems unlike those encountered in a classroom situation. Data collection techniques and exercises discussed in this off-campus course are intended to provide experience in dealing with an unfamiliar situation. Course location is dictated by the interests and composition of the student group; offered in the first three weeks of August. Geography majors are encouraged to attend. This course is required for graduate students. Fee required. Prerequisite: Junior-senior standing and fifteen hours of geography or consent of instructor. FLD.

GEOG 715. Advanced Geostatistics. 3 Hours.
An introduction to the practical application of advanced geospatial statistical techniques. Potential topics include: spatial regression, interpolation, clustering, and advanced nonparametric statistics. Knowledge of a statistical package and GIS is assumed. Prerequisite: GEOG 516 or equivalent and GEOG 358 or equivalent. LEC.

GEOG 719. Development of Geographic Thought. 2-3 Hours.
Critical analysis of the growth of geographic thought from antiquity to the present: emphasis on structure of modern geography. Prerequisite: Twenty hours of geography or consent of instructor. LEC.

GEOG 726. Remote Sensing of Environment II. 4 Hours.
An overview of techniques for computer analysis of digital data from earth orbiting satellites for environmental applications. Topics covered include: data formats, image enhancements and analysis, classification, thematic mapping, and environmental change detection. The laboratory exercises provide hands-on experience in computer digital image processing in the department’s NASA Earth Science Remote Sensing Laboratory. Prerequisite: Introductory statistics and GEOG 526 or equivalent. LEC.

GEOG 731. Topics in Physical Geography: ______. 1-3 Hours.
An investigation of special topics in physical geography. May include specific course work under the headings of geomorphology, climatology, soils, vegetation, quaternary, paleoenvironments, hydrology, etc. May be repeated. RSH.
GEOG 733. Advanced Biogeography Field and Laboratory Techniques. 3 Hours.
This course provides graduate students with practical experience in field data collection techniques and laboratory data analysis methods. During the first half of the semester, students will work in the field using a variety of methods to measure such vegetation characteristics as: cover, density, biomass, leaf area, and canopy architecture. Students will gain experience in the use of field instruments including a spectroradiometer, and techniques for quantifying vegetation biophysical attributes. The laboratory analyses component will include: data summary, data entry, correlation, regression, MANOVA, cluster analysis, and data display, and reporting. Recommended: GEOG 516 or multivariate statistics equivalent. LEC.

GEOG 735. Soil Geomorphology. 3 Hours.
Examines the interaction of pedogenetic and geomorphic processes during the Quaternary with an emphasis on strategies and methodologies employed in soil-geomorphic studies. Group research projects incorporating field data collection and analyses are required. Prerequisite: GEOG 335 or GEOG 535 or consent of the instructor. LEC.

GEOG 741. Advanced Geomorphology. 1-3 Hours.
Detailed discussions of processes and landforms characteristic of specific environments. Considered during separate semesters will be general methodology, and fluvial, arid regions, glacial, and shoreline geomorphology. Course may be taken more than once. (Same as GEOL 741.) Prerequisite: GEOG 541. LEC.

GEOG 749. Topics in Stable Isotopes in the Natural Sciences:. 2-3 Hours.
Isotopic compositions of substances provide powerful insights into many topics in the natural sciences. Applications of isotopic analyses of carbon, hydrogen, oxygen, and nitrogen to selected research topics such as plant resource use, food web analysis, paleoecology, paleodiet reconstruction, hydrology, and soils genesis will be examined. Knowledge of isotope chemistry is not required. (Concepts necessary to understand pertinent articles will be taught during the first class meetings.) May be repeated. (Same as BIOL 749.) LEC.

GEOG 751. Analysis of Regional Development. 3 Hours.
An analytical approach to spatial organization of economic activities and aspects of growth and development. Location theory and the geography of trade and migration. A research paper is required. Prerequisite: GEOG 551, or a course in economics, or consent of instructor. LEC.

GEOG 752. Topics in Urban/Economic Geography:. 1-3 Hours.
An investigation of special topics in urban/economic geography. May include specific coursework under the headings of energy, economic development, international trade, environmental perception, housing, transportation, and migration. May be repeated. LEC.

GEOG 756. Energy Problems and the Economic-Physical Environment. 2-3 Hours.
This course investigates the economic, social, political, and environmental conditions of energy production, transport, and use: total energy consumption and mix, relations to the level and structure of the economy, substitutability of fuel and energy sources, resource endowment in an international setting. Prerequisite: GEOG 551 or a course in economics or consent of instructor. LEC.

GEOG 758. Geographic Information Science. 4 Hours.
This course integrates topics in geographical information science (GISc) with spatial analytical techniques to solve spatial problems. Focuses on the most current research in GISc and its relevance to the environmental sciences, natural resource management, and spatial decision-making. Students are expected to apply the concepts and techniques learned in this class to their own research projects. Prerequisite: GEOG 316 and GEOG 558, or consent of instructor. LEC.

GEOG 771. Topics in Cultural Geography:. 1-3 Hours.
An investigation of special topics in cultural geography. May include specific course methodology, material culture, foodways, religion, and similar topics. May be repeated. LEC.

GEOG 772. Problems in Political Geography. 3 Hours.
Case studies of regional and national power settings with particular emphasis upon the geographical analysis of political developments in unstable areas of the world. Prerequisite: GEOG 102 or GEOG 375. LEC.

GEOG 773. Humanistic Geography. 3 Hours.
A discussion and project-oriented course focused on ways of studying the character and meaning of places. Concepts examined include place image and image makers, landscapes as text, sense of place, vernacular regions, and alternate representations of space. Prerequisite: Graduate standing or fifteen hours of geography or consent of instructor. LEC.

GEOG 775. Proseminar in Population Geography. 3 Hours.
Evaluation of problem formulation data gathering, research methods, and substantive knowledge in the geography of human populations. Concurrent auditing of GEOG 575 plus an additional meeting each week is required. Prerequisite: GEOG 575 and GEOG 516, and SOC 514. LEC.

GEOG 790. North American Regions:. 3 Hours.
A detailed description and analysis of selected regions of North America. Prerequisite: An introductory geography course or background in United States or Canadian history, social science, or culture or consent of instructor. LEC.

GEOG 791. Latin American Regions:. 3 Hours.
A description and analysis of the principal sources of geographic information pertaining to portions or all of Latin America. Prerequisite: GEOG 591 or concurrent auditing of GEOG 591, or consent of instructor. LEC.

GEOG 794. Regions of the Former USSR. 3 Hours.
A description and analysis of geographic data pertaining to the successor states to the USSR. Prerequisite: Fifteen hours of Geography courses or background in Russian, East European or Middle East studies, or consent of instructor. LEC.

GEOG 795. European Regions:. 3 Hours.
Prerequisite: Fifteen hours of geography, background in specified area, or consent of instructor. LEC.

GEOG 796. Asian Regions:. 2-3 Hours.
Prerequisite: Fifteen hours in geography courses or background in Asia, or consent of instructor. LEC.

GEOG 801. Indigenous Peoples of the World. 3 Hours.
A survey of the varied responses of global Indigenous peoples as a result of the imposition of externally-dominated economic and political systems. An overview of diverse, thematic issues such as land rights, economic development, resources and cultural patrimony, languages, knowledge systems, and women’s rights from the perspectives of Indigenous societies around the world. Detailed studies of Indigenous peoples seeking recognition and protection under international law will be used. The course is offered at the 600 and 800 levels, with additional assignments at the 800 level. (Same as ISP 801.) LEC.

GEOG 802. Urban Geographic Information Systems. 3 Hours.
An advanced survey of urban GIS/LIS focusing on: (1) history; (2) the wide range of applications from Automated Mapping/Facilities Management (AM/FM) to topologically related GIS; (3) generic analytical functions in both raster and vector modalities; and (4) software employed, hardware platforms, and institutional settings. A limited experience in
the use of GIS is provided from exercises employing ARC/INFO software. Prerequisite: Some experience with DOS based computing. LEC.

GEOG 805. History of Geographic Thought. 2 Hours.
A course to familiarize students with the history and philosophy of geography as a science and humanity. The course summarizes, reviews, and explores the ongoing relevance of 2,500 years of theoretical and methodological advancements in human and physical geography. LEC.

GEOG 806. Basic Seminar. 2 Hours.
The second of two courses required of M.A. students designed to provide experience in the development of research proposals and exposure to methodologies in geography. This course deals with approaches to geographic problems, and involves individual examination of special topics which require preparation, presentation, and critical evaluation of research proposals. LEC.

GEOG 818. Problems in Production Cartography. 1-3 Hours.
Advanced instruction in the theory and practice of producing maps and other related graphics for classroom instruction and research projects. Emphasis will be on current photo-mechanical and automated techniques. Prerequisite: By appointment. Consent of instructor. LEC.

GEOG 835. Practicum in Soil Mapping and Soil Erosion. 3 Hours.
This course is designed to give graduate students field experience in soil mapping and in the evaluation of soils for loss through processes of erosion. Prerequisite: GEOG 535 or equivalent or consent of instructor. FLD.

GEOG 858. Environmental Geographic Information Systems. 4 Hours.
An introduction to the use of GIS for environmental inventory, monitoring, and modeling. This course integrates the principles of landscape ecology with the analytical tools of GIS, remote sensing, and spatial analysis. Students will be taught GIS methodologies used to address real world problems and the use of GIS spatial analysis techniques to characterize landscapes and monitor their change. Prerequisite: GEOG 316 and GEOG 558 or equivalents, multivariate analysis recommended. LEC.

GEOG 890. Geographic Internship. 1-6 Hours.
Supervised professional experience. The student submits to the program committee a proposal describing the internship prior to enrollment. Upon acceptance, regularly scheduled meetings with the advisor provide assistance, guidance and evaluation of progress in the professional experience. A written summary of the experience or outcomes of the research project are prepared independently by the student, a representative of the host agency, and the advisor. Total credit not to exceed six hours. Prerequisite: Twelve hours of graduate level geography courses and consent of program committee. FLD.

GEOG 898. Readings in Geography. 1-4 Hours.
RSH.

GEOG 899. Master’s Thesis. 1-10 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

GEOG 911. Seminar in Cartography: _____, 1-4 Hours.
Study of selected topics in cartography. Can be repeated for different topics. Prerequisite: GEOG 513 or consent of instructor. LEC.

GEOG 912. Seminar in Quantitative Methods. 2-3 Hours.
LEC.

GEOG 926. Seminar in Remote Sensing. 2-4 Hours.
Study of selected topics in remote sensing theory and application. May include independent or group research and/or development work. Topic will be specified in advance. Prerequisite: GEOG 726 or consent of instructor. LEC.

GEOG 935. Seminar in Soil Geography. 2-3 Hours.
Subject matter varies but focuses on modern concepts and trends in soil geography. Sample topics include classification, paleopedology, and soil genesis. Field trip and fee may be required. Prerequisite: GEOG 735 or consent of instructor. LEC.

GEOG 937. Seminar in Vegetation Geography. 1-3 Hours.
(Selections as BIOL 968.) LEC.

GEOG 939. Seminar in Fluvial Systems. 2-3 Hours.
Study of selected topics in and method of fluvial systems. Samples include hydraulic geometry, the nature of alluvial sediments, and basin case studies. Topic will be specified in advance. LEC.

GEOG 957. Seminar in Urban and Economic Geography. 2-3 Hours.
LEC.

GEOG 958. Seminar in Geographic Information Systems. 2-4 Hours.
Study of selected topics in analysis of digital geographic data. May include research and/or developmental work. Prerequisite: GEOG 758 or equivalent, or consent of instructor. LEC.

GEOG 970. Seminar in Cultural Geography: _____, 2-3 Hours.
Study of selected topics in the theory and method of cultural geography. Samples include religious patterns, folk architecture, and place-defining novels. Topic will be specified in advance. LEC.

GEOG 972. Seminar in Political Geography. 2-3 Hours.
Study of selected topics in the theory and method of political geography. Samples include insurgent states, electoral patterns, and political ecology. Topic will be specified in advance. Prerequisite: GEOG 772 or consent of instructor. LEC.

GEOG 975. Seminar in Population Geography. 2-3 Hours.
Study of selected geographic topics and problems dealing with the distribution of human populations. Prerequisite: GEOG 775 or consent of instructor. LEC.

GEOG 980. Seminar in Geography: _____, 1-3 Hours.
LEC.

GEOG 990. Seminar in Regional Geography: _____, 1-3 Hours.
(Selected areas to be specified.) LEC.

GEOG 998. Research in Geography. 1-5 Hours.
RSH.

GEOG 999. Doctoral Dissertation. 1-10 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

Bachelor of Arts and Bachelor of General Studies in Geography

Why study geography?

Because people, places, and environments interact and evolve in a changing world.

Why study atmospheric science?
The study of atmospheric processes enables us to understand human interactions with the environment.

Undergraduate Admission

Admission to KU

All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer
students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

**Admission to the College of Liberal Arts and Sciences**

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

**Geography Programs**

The B.A., B.G.S., and B.S. in geography provide general liberal arts enrichment, preparation for graduate work, and training for careers in geography and related fields. Geography may be combined with another program as a double major, or courses in another area may simply be added to those in geography.

**First- and Second-Year Preparation**

Students should begin the major by meeting the core requirements and preparing for major courses.

**Requirements for the B.A. or B.G.S. Major**

**Geography Core Knowledge and Skills (18)**

Majors must complete a course in each of the following areas:

- **Principles of Physical Geography.** Satisfied by:
  - GEOG 104 Principles of Physical Geography (Required 3
    Geography Courses)
  - or GEOG 107 Principles of Physical Geography, Honors

- **Introductory Laboratory in Physical Geography.** Satisfied by:
  - GEOG 105 Introductory Laboratory in Physical Geography 2

- **Principles of Human Geography.** Satisfied by:
  - GEOG 102 Principles of Human Geography 3
  - or GEOG 103 Principles of Human Geography, Honors

- **Computers, Maps and Geographical Analysis.** Satisfied by:
  - GEOG 210 Computers, Maps, and Geographical Analysis 3

- **Mapping.** Satisfied by:
  - GEOG 316 Methods of Analyzing Geographical Data 4
  - or GEOG 358 Principles of Geographic Information Systems

- **Senior Capstone in Geography.** Satisfied by:
  - GEOG 500 Senior Capstone in Geography 3
  - or GEOG 714 Field Experience

**Geography Required Elective Hours (0)**

Majors must complete five courses (15 hours) at the 200-500 level, in addition to the core above, from at least 3 of the following 4 groups, one of which must be a regional course:

- **Physical Studies.** Satisfied by:
  - GEOG 148 Scientific Principles of Environmental Studies
  - GEOG 304 Environmental Conservation
  - GEOG 321 Climate and Climate Change
  - GEOG 331 Regional Geomorphology of the United States
  - GEOG 332 Glaciers and Landscape
  - GEOG 335 Introduction to Soil Geography
  - GEOG 338 Introduction to Soil Geography
  - GEOG 339 Topics in Physical Geography:
  - GEOG 350 Physical Geography of Africa
  - GEOG 410 Human Biogeography, Honors
  - GEOG 521 Microclimatology
  - GEOG 531 Topics in Physical Geography:
  - GEOG 532 Geoarchaeology
  - GEOG 535 Soil Geography
  - GEOG 537 Elements of Plant Geography
  - GEOG 538 Soil Chemistry
  - GEOG 541 Geomorphology
  - GEOG 731 Topics in Physical Geography:
  - GEOG 735 Soil Geomorphology
  - GEOG 749 Topics in Stable Isotopes in the Natural Sciences:

- **Geographic Information Science.** Satisfied by:
  - GEOG 111 Maps and Mapping
  - GEOG 210 Computers, Maps, and Geographical Analysis
  - GEOG 311 Map Conception and Development
  - GEOG 316 Methods of Analyzing Geographical Data
  - GEOG 319 Topics in Techniques:
  - GEOG 357 History and Philosophy of Geographic Information Science
  - GEOG 358 Principles of Geographic Information Systems
  - GEOG 418 Workshop in Production Cartography
  - GEOG 433 Biogeography Field and Laboratory Techniques
  - GEOG 458 Geographical Information Systems:
  - GEOG 511 Intermediate Cartography:
  - GEOG 513 Cartographic Design
  - GEOG 514 Visualizing Spatial Data
  - GEOG 516 Applied Multivariate Analysis in Geography
  - GEOG 517 Data Handling and Map Symbolization
  - GEOG 526 Remote Sensing of Environment I
  - GEOG 558 Intermediate Geographical Information Systems
  - GEOG 560 GIS Application Programming
  - GEOG 658 Topics in Geographic Information Science:
  - GEOG 711 Advanced Cartography:
  - GEOG 713 Practicum in Cartography
  - GEOG 714 Field Experience
  - GEOG 716 Advanced Geostatistics
  - GEOG 726 Remote Sensing of Environment II
  - GEOG 733 Advanced Biogeography Field and Laboratory Techniques
  - GEOG 758 Geographic Information Science
Human Studies. Satisfied by:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>GEOG 150</td>
<td>Environment, Culture and Society</td>
</tr>
<tr>
<td>GEOG 352</td>
<td>Economic Geography</td>
</tr>
<tr>
<td>GEOG 370</td>
<td>Introduction to Cultural Geography</td>
</tr>
<tr>
<td>GEOG 371</td>
<td>Environmental Geopolitics</td>
</tr>
<tr>
<td>GEOG 375</td>
<td>Intermediate Human Geography</td>
</tr>
<tr>
<td>GEOG 377</td>
<td>Urban Geography</td>
</tr>
<tr>
<td>GEOG 379</td>
<td>Topics in Cultural Geography: _____</td>
</tr>
<tr>
<td>GEOG 510</td>
<td>Human Factors</td>
</tr>
<tr>
<td>GEOG 519</td>
<td>History of Cartography</td>
</tr>
<tr>
<td>GEOG 552</td>
<td>Topics in Urban/Economic Geography: _____</td>
</tr>
<tr>
<td>GEOG 556</td>
<td>Geography of the Energy Crisis</td>
</tr>
<tr>
<td>GEOG 557</td>
<td>Cities and Development</td>
</tr>
<tr>
<td>GEOG 570</td>
<td>Geography of American Indians</td>
</tr>
<tr>
<td>GEOG 571</td>
<td>Topics in Cultural Geography: _____</td>
</tr>
<tr>
<td>GEOG 572</td>
<td>Political Geography</td>
</tr>
<tr>
<td>GEOG 576</td>
<td>Cultural Geography of the United States</td>
</tr>
<tr>
<td>GEOG 579</td>
<td>Geography of American Foodways</td>
</tr>
<tr>
<td>GEOG 601</td>
<td>Indigenous Peoples of the World</td>
</tr>
<tr>
<td>GEOG 670</td>
<td>Cultural Ecology</td>
</tr>
<tr>
<td>GEOG 710</td>
<td>Information Design</td>
</tr>
<tr>
<td>GEOG 719</td>
<td>Development of Geographic Thought</td>
</tr>
<tr>
<td>GEOG 752</td>
<td>Topics in Urban/Economic Geography: _____</td>
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<tr>
<td>GEOG 756</td>
<td>Energy Problems and the Economic-Physical Environment</td>
</tr>
<tr>
<td>GEOG 771</td>
<td>Topics in Cultural Geography: _____</td>
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<tr>
<td>GEOG 772</td>
<td>Problems in Political Geography</td>
</tr>
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</table>

Regional Studies. Satisfied by:

<table>
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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>GEOG 351</td>
<td>Africa’s Human Geographies</td>
</tr>
<tr>
<td>GEOG 390</td>
<td>Geography of the United States and Canada</td>
</tr>
<tr>
<td>GEOG 395</td>
<td>Environmental Issues of: _____</td>
</tr>
<tr>
<td>GEOG 396</td>
<td>East Asia</td>
</tr>
<tr>
<td>GEOG 397</td>
<td>Geography of Kansas and the Plains</td>
</tr>
<tr>
<td>GEOG 399</td>
<td>Topics in Regional Studies: _____</td>
</tr>
<tr>
<td>GEOG 550</td>
<td>Environmental Issues in Africa</td>
</tr>
<tr>
<td>GEOG 553</td>
<td>Geography of African Development</td>
</tr>
<tr>
<td>GEOG 591</td>
<td>Geography of Latin America</td>
</tr>
<tr>
<td>GEOG 592</td>
<td>Middle American Geography</td>
</tr>
<tr>
<td>GEOG 593</td>
<td>Central American Peoples and Lands</td>
</tr>
<tr>
<td>GEOG 594</td>
<td>Geography of the Former Soviet Union</td>
</tr>
<tr>
<td>GEOG 595</td>
<td>Geography of Eastern Europe</td>
</tr>
<tr>
<td>GEOG 597</td>
<td>Geography of Brazil</td>
</tr>
<tr>
<td>GEOG 790</td>
<td>North American Regions: _____</td>
</tr>
<tr>
<td>GEOG 791</td>
<td>Latin American Regions: _____</td>
</tr>
<tr>
<td>GEOG 794</td>
<td>Regions of the Former USSR</td>
</tr>
<tr>
<td>GEOG 795</td>
<td>European Regions: _____</td>
</tr>
<tr>
<td>GEOG 796</td>
<td>Asian Regions: _____</td>
</tr>
</tbody>
</table>

Satisfied by 33 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior (300+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Major Junior/Senior (300+) Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Graduation Plan
With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please consult the department for details.

Departmental Honors in Geography
To be accepted as a candidate for honors, an undergraduate major must have completed at least 9 hours of upper-division credit in geography with a grade-point average of 3.5 in all geography courses and of at least 3.25 overall. In addition to outstanding work in geography, the program requires GEOG 499, an independent study course consisting of an honors paper.

The student presents the results of this paper in an oral examination to a committee of at least 2 faculty members, normally from the geography department, chaired by the GEOG 499 supervisor. To graduate with honors, the student must complete the paper and the examination and maintain the 3.5 and 3.25 grade-point averages.

Bachelor of Science in Geography

Why study geography?
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**First- and Second-Year Preparation**

Students should begin the major by meeting the core requirements and preparing for major courses.

**Requirements for the B.S. Degree**

Geography B.S. General Education Requirements

**Written Communication – Core Skill and Critical Inquiry.**

**Composition (0)**

Satisfied by one of the following. Requirement must be completed during initial term of admission at KU.

| ENGL 101   | Composition |
| ACT English score of 27 or above or SAT English score of 600 or above |
| AP English Literature & Composition score of 3 or above |

Equivalent transfer course

**Critical Reading and Writing (0)**

Satisfied by one of the following. Requirement must be completed during initial term of admission at KU.

| ENGL 102   | Critical Reading and Writing |
| or ENGL 105 | Freshman Honors English |
| AP English Literature & Composition score of 4 or above |

Equivalent transfer course

**Sophomore Reading and Writing II (0)**

Satisfied by one of the following:

| ENGL 203 or ENGL 205 | Topics in Reading and Writing: _____ or Freshman-Sophomore Honors Proseminar: _____ |
| ENGL 209   | Introduction to Fiction |
| ENGL 210   | Introduction to Poetry |
| ENGL 211   | Introduction to the Drama |
| ENGL 362   | Foundations of Technical Writing (recommended) |

**AP English Literature & Composition score of 5 or above**

Equivalent

**Communications.** Satisfied by COMS 130 (COMS 230, PHIL 148, PHIL 310 or exemption).

**History or philosophy of science.**

Select one of the following or consult undergraduate committee for approval of alternatives:

| HIST 103 | Environment and History |
| HIST 136 | Early Science to 1700 |
| HIST 305 | The Scientific Revolution |
| HIST 306 | Science and Western Culture |
| HIST 311 | Great Lives in Science |
| HIST 347 | Environmental History of North America |
| HIST 360 | Science and Religion |
| HIST 407 | History of Science in the United States |
| PHIL 370 | Moral Issues in Medicine |
| PHIL 375 | Moral Issues in Computer Technology |
| PHIL 380 | Environmental Ethics |
| PHIL 620 | Philosophy of Natural Science |
| PHIL 622 | Philosophy of Social Science |
| GEOG 357 | History and Philosophy of Geographic Information Science |

**Humanities - Understanding the Human Condition.** Satisfied by completing 2 principal courses in the humanities. Approved courses may be searched for availability through the Kyou portal.

**Social and Behavioral Sciences - Understanding Society and Behavior.** Satisfied by completing 2 principal courses in the social sciences. Approved courses may be searched for availability through the Kyou portal.

**Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**

Satisfied by 50 hours of major courses.

**Major Hours in Residence**

Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Physical Geography Option**

**Geography Prerequisite or Co-requisite Knowledge (29-31)**

Calculus I. Satisfied by one of the following:

<p>| MATH 121 | Calculus I (recommended) |</p>
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 115</td>
<td>Calculus I</td>
</tr>
<tr>
<td>Calculus II. Satisfied by one of the following:</td>
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</tr>
<tr>
<td>MATH 122</td>
<td>Calculus II (recommended)</td>
</tr>
<tr>
<td>MATH 116</td>
<td>Calculus II</td>
</tr>
<tr>
<td>Physics I. Satisfied by one of the following: 4-5</td>
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<tr>
<td>PHSX 211</td>
<td>General Physics I &amp; PHSX 216</td>
</tr>
<tr>
<td>or PHSX 114</td>
<td>College Physics I</td>
</tr>
<tr>
<td>Physics II. Satisfied by one of the following: 4-5</td>
<td></td>
</tr>
<tr>
<td>PHSX 212</td>
<td>General Physics II &amp; PHSX 236</td>
</tr>
<tr>
<td>or PHSX 115</td>
<td>College Physics II</td>
</tr>
<tr>
<td>Biology. Satisfied by: 8</td>
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<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology &amp; BIOL 152</td>
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<tr>
<td>Chemistry. Satisfied by: 10</td>
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<tr>
<td>CHEM 130</td>
<td>General Chemistry I &amp; CHEM 135</td>
</tr>
<tr>
<td>Information Technology. Satisfied by: 3</td>
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<tr>
<td>EECS 128</td>
<td>Foundations of Information Technology: _____</td>
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<tr>
<td>Geography Overview Courses (5)</td>
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<tr>
<td>Principles of Physical Geography. Satisfied by:</td>
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<tr>
<td>GEOG 104</td>
<td>Principles of Physical Geography or GEOG 107</td>
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<tr>
<td>Introductory Laboratory in Physical Geography. Satisfied by:</td>
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<tr>
<td>GEOG 105</td>
<td>Introductory Laboratory in Physical Geography 2</td>
</tr>
<tr>
<td>One course in Human or Regional Geography 3</td>
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<tr>
<td>Core System Courses (16)</td>
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<tr>
<td>Biogeography: 3</td>
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<tr>
<td>BIOL 414</td>
<td>Principles of Ecology</td>
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<tr>
<td>Climate: 3</td>
<td></td>
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<tr>
<td>GEOG 321</td>
<td>Climate and Climate Change</td>
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<tr>
<td>Geomorphology: 3</td>
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<tr>
<td>GEOG 331</td>
<td>Regional Geomorphology of the United States</td>
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<td>Soil Geography: 4</td>
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<tr>
<td>GEOG 335</td>
<td>Introduction to Soil Geography or GEOG 535</td>
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<tr>
<td>Hydrology and Glaciology: 3</td>
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<td>GEOG 332</td>
<td>Glaciers and Landscape or CE 455</td>
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<td>Techniques Courses (11)</td>
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<td>Methods of Analyzing Geographical Data. Satisfied by: 4</td>
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<tr>
<td>GEOG 316</td>
<td>Methods of Analyzing Geographical Data</td>
</tr>
<tr>
<td>Principles of Geographic Information Systems. Satisfied by: 4</td>
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<tr>
<td>GEOG 358</td>
<td>Principles of Geographic Information Systems</td>
</tr>
<tr>
<td>One 500-level or above course from GIS Studies. (GEOG 526 3</td>
<td></td>
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<tr>
<td>Remote Sensing of Environment I recommended)</td>
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<tr>
<td>Senior Capstone (3)</td>
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<tr>
<td>Satisfied by one of the following: 3</td>
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<tr>
<td>GEOG 500</td>
<td>Senior Capstone in Geography or GEOG 714</td>
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<tr>
<td>Elective Courses (9)</td>
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<td>Select two or more of the following: 6</td>
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<td>Biogeography:</td>
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<td>GEOG 537</td>
<td>Elements of Plant Geography</td>
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<td>Climate: 3</td>
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<td>GEOG 521</td>
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<td>Geomorphology: 3</td>
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<td>GEOG 532</td>
<td>Geoaethology</td>
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<td>GEOG 541</td>
<td>Geomorphology</td>
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<tr>
<td>GEOG 538</td>
<td>Soil Chemistry</td>
</tr>
<tr>
<td>GEOG 735</td>
<td>Soil Geomorphology</td>
</tr>
<tr>
<td>Other advanced courses in Physical Geography</td>
<td></td>
</tr>
<tr>
<td>Geographical Information and Analysis Option</td>
<td></td>
</tr>
<tr>
<td>Geography Prerequisite or Co-requisite Knowledge (7)</td>
<td></td>
</tr>
<tr>
<td>Calculus I. Satisfied by one of the following: 7</td>
<td></td>
</tr>
<tr>
<td>MATH 121</td>
<td>Calculus I (recommended)</td>
</tr>
<tr>
<td>MATH 115</td>
<td>Calculus I</td>
</tr>
<tr>
<td>Calculus II. Satisfied by one of the following: 7</td>
<td></td>
</tr>
<tr>
<td>MATH 122</td>
<td>Calculus II (recommended)</td>
</tr>
<tr>
<td>MATH 116</td>
<td>Calculus II</td>
</tr>
<tr>
<td>Biology and Physics. Satisfied by one of the following: 7</td>
<td></td>
</tr>
<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology &amp; BIOL 152</td>
</tr>
<tr>
<td>PHSX 114</td>
<td>College Physics I &amp; PHSX 115</td>
</tr>
<tr>
<td>Visualizing Spatial Data. Satisfied by: 4</td>
<td></td>
</tr>
<tr>
<td>GEOG 514</td>
<td>Visualizing Spatial Data</td>
</tr>
<tr>
<td>Information Technology. Satisfied by: 3</td>
<td></td>
</tr>
<tr>
<td>EECS 128</td>
<td>Foundations of Information Technology: _____</td>
</tr>
<tr>
<td>Overview Geography Courses (0)</td>
<td></td>
</tr>
<tr>
<td>Principles of Physical Geography or Scientific Principles of Environmental Studies. Satisfied by one of the following: 0</td>
<td></td>
</tr>
<tr>
<td>GEOG 104</td>
<td>Principles of Physical Geography &amp; GEOG 105</td>
</tr>
<tr>
<td>GEOG 107</td>
<td>Principles of Physical Geography, Honors &amp; GEOG 105</td>
</tr>
<tr>
<td>GEOG 140</td>
<td>Global Environment I: The Discovery of Environmental Change</td>
</tr>
<tr>
<td>Maps and Mapping or Computers, Maps, and Geographical Analysis. Satisfied by: 0</td>
<td></td>
</tr>
<tr>
<td>GEOG 111</td>
<td>Maps and Mapping or GEOG 210</td>
</tr>
<tr>
<td>Principles of Human Geography. Satisfied by: 0</td>
<td></td>
</tr>
<tr>
<td>GEOG 102</td>
<td>Principles of Human Geography or GEOG 103</td>
</tr>
<tr>
<td>2 GEOG 300+ courses. One in Physical and one in Human and/or Regional Geography</td>
<td></td>
</tr>
<tr>
<td>Core Geographic Information Science Courses (0)</td>
<td></td>
</tr>
<tr>
<td>Six courses, at least one from each category:</td>
<td></td>
</tr>
</tbody>
</table>
Cartography and Visualization. Satisfied by:
- GEOG 311 Map Conception and Development
- GEOG 513 Cartographic Design
- GEOG 517 Data Handling and Map Symbolization

Geographical Information Systems. Satisfied by:
- GEOG 358 Principles of Geographic Information Systems
- GEOG 558 Intermediate Geographical Information Systems
- GEOG 758 Geographic Information Science

Remote Sensing. Satisfied by:
- GEOG 526 Remote Sensing of Environment I
- GEOG 726 Remote Sensing of Environment II

Statistics. Satisfied by:
- GEOG 316 Methods of Analyzing Geographical Data
- GEOG 516 Applied Multivariate Analysis in Geography
- GEOG 716 Advanced Geostatistics

Senior Capstone in Geography (0)
Satisfied by:
- GEOG 500 Senior Capstone in Geography
  or GEOG 714 Field Experience

Geographic Information Science Electives (0)
Two other courses from geographic information science

Allied Field (9)
Three courses and nine hours minimum in one field (or a minor) (area studies, atmospheric science, biology, computer science, design, environmental studies, engineering, geology, psychology, urban planning).

Electives (14-23)
14-23 credit hours of any university courses.

Geography Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 50 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior (300+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Major Junior/Senior (300+) Graduation GPA
Satisfied by a minimum of 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Departmental Honors in Geography
To be accepted as a candidate for honors, an undergraduate major must have completed at least 9 hours of upper-division credit in geography with a grade-point average of 3.5 in all geography courses and of at least 3.25 overall. In addition to outstanding work in geography, the program requires GEOG 499, an independent study course consisting of an honors paper.

The student presents the results of this paper in an oral examination to a committee of at least 2 faculty members, normally from the geography department, chaired by the GEOG 499 supervisor. To graduate with honors, the student must complete the paper and the examination and maintain the 3.5 and 3.25 grade-point averages.

Bachelor of Science in Atmospheric Science

Concentration in Business
An undergraduate student may graduate from the School of Business with a concentration in atmospheric science.

Atmospheric Science Prerequisite or Co-requisite Knowledge (19-22)
Student selecting this minor must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

Computing and Programming. Satisfied by:
- EECS 138 Introduction to Computing: _____ 3

Calculus I. Satisfied by:
- MATH 121 Calculus I (or equivalent) 5
  or MATH 141 Calculus I: Honors

Calculus II. Satisfied by:
- MATH 122 Calculus II (or equivalent) 5
  or MATH 142 Calculus II: Honors

General Physics I. Satisfied by:
- PHSX 211 General Physics I 1-4
  or PHSX 213 General Physics I Honors

Introductory Meteorology (5). Satisfied by:
- ATMO 105 Introductory Meteorology 5

Atmospheric Science Required Courses (18)
Students selecting this minor must complete all of the following:

Climate and Climate Change (3). Satisfied by:
- ATMO/GEOG 321 Climate and Climate Change 3

Weather Forecasting (3). Satisfied by:
- ATMO 505 Weather Forecasting 3

Microclimatology (3). Satisfied by:
- ATMO/GEOG 521 Microclimatology 3

Air Pollution Meteorology (3). Satisfied by:
- ATMO 525 Air Pollution Meteorology 3

Dynamic Meteorology (3). Satisfied by:
- ATMO 640 Dynamic Meteorology 3

Physical Meteorology (3). Satisfied by:
- ATMO 680 Physical Meteorology 3
Undergraduate Admission

Admission to KU

All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

Degree Requirements

Advising

Students who may decide to major in atmospheric science should confer early with a departmental representative about the selection of courses.

Requirements for the B.S. Degree in Atmospheric Science

4 specialized options are available for students who plan professional careers in meteorology or atmospheric science. The general meteorology option satisfies all the traditional professional meteorology requirements for employment with the National Weather Service, airlines, or other agencies. The air pollution meteorology option meets the need for trained specialists. The hydrometeorology option may lead to a career as a meteorologist in one of the many water-related activities in private and governmental agencies. The news media forecasting option can lead to a career forecasting the weather on television or radio. The B.S. degree with any of these specialties also prepares students to begin graduate programs in meteorology or atmospheric science.

Written Communication – Core Skill and Critical Inquiry.

Composition (0)

Satisfied by one of the following. Requirement must be completed during initial term of admission at KU.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>ACT English score of 27 or above or SAT English score of 600 or above</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>AP English Literature &amp; Composition score of 3 or above</td>
</tr>
<tr>
<td>ENGL 105</td>
<td>Equivalent transfer course</td>
</tr>
</tbody>
</table>

Critical Reading and Writing (0)

Satisfied by one of the following. Requirement must be completed within the first academic year at KU.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
</tr>
<tr>
<td>ENGL 105</td>
<td>Freshman Honors English</td>
</tr>
</tbody>
</table>

AP English Literature & Composition score of 4 or above

Equivalent transfer course

Sophomore Reading and Writing II (0)

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 203</td>
<td>Topics in Reading and Writing: _____</td>
</tr>
<tr>
<td>ENGL 205</td>
<td>Freshman-Sophomore Honors Proseminar: _____</td>
</tr>
<tr>
<td>ENGL 209</td>
<td>Introduction to Fiction</td>
</tr>
<tr>
<td>ENGL 210</td>
<td>Introduction to Poetry</td>
</tr>
<tr>
<td>ENGL 211</td>
<td>Introduction to the Drama</td>
</tr>
<tr>
<td>ENGL 362</td>
<td>Foundations of Technical Writing (recommended)</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>AP English Literature &amp; Composition score of 5 or above</td>
</tr>
<tr>
<td>ENGL 105</td>
<td>Equivalent transfer course</td>
</tr>
</tbody>
</table>

Communication - Core Skills and Critical Inquiry. Satisfied by:

Completing COMS 330 and COMS 130, COMS 131 (Honors), or COMS 150.

Humanities - Understanding the Human Condition. Satisfied by completing 1 course with requirement code H. Approved courses may be searched for availability through the Kyou portal.

Social and Behavioral Sciences - Understanding Society and Behavior. Satisfied by completing 2 principal courses in the social sciences. Approved courses may be searched for availability through the Kyou portal.

Atmospheric Science Prerequisite or Co-requisite Knowledge (36-38)

Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

Computing and Programming. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EECS 138</td>
<td>Introduction to Computing: _____ (Fortran preferred; C++ and Matlab accepted)</td>
</tr>
</tbody>
</table>

Scientific Principles of Environmental Studies. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVRN 148</td>
<td>Scientific Principles of Environmental Studies</td>
</tr>
<tr>
<td>MATH 121</td>
<td>Calculus I (or equivalent)</td>
</tr>
<tr>
<td>or MATH 141</td>
<td>Calculus I: Honors</td>
</tr>
</tbody>
</table>

Calculus II. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 122</td>
<td>Calculus II (or equivalent)</td>
</tr>
<tr>
<td>or MATH 142</td>
<td>Calculus II: Honors</td>
</tr>
</tbody>
</table>

General Physics I. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 211</td>
<td>General Physics I</td>
</tr>
<tr>
<td>&amp; PHSX 216</td>
<td>and General Physics I Laboratory</td>
</tr>
<tr>
<td>PHSX 213</td>
<td>General Physics I Honors</td>
</tr>
</tbody>
</table>

General Physics II. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 212</td>
<td>General Physics II</td>
</tr>
<tr>
<td>&amp; PHSX 236</td>
<td>and General Physics II Laboratory</td>
</tr>
<tr>
<td>or PHSX 214</td>
<td>General Physics II Honors</td>
</tr>
</tbody>
</table>

Foundations of Chemistry I. Satisfied by:
CHEM 130  General Chemistry I  5
or CHEM 190  Foundations of Chemistry I, Honors

Vector Calculus. Satisfied by:
MATH 223  Vector Calculus  3
or MATH 243  Vector Calculus, Honors

Elementary Linear Algebra. Satisfied by:
MATH 290  Elementary Linear Algebra  2
or MATH 291  Elementary Linear Algebra, Honors

Applied Differential Equation. Satisfied by one of the following:
MATH 320  Elementary Differential Equations  3
or MATH 220  Applied Differential Equations

Statistics. Satisfied by:
MATH 526  Applied Mathematical Statistics I  3
or DSCI 202  Statistics

Numerical Methods. Satisfied by:
MATH 581  Numerical Methods  3

Atmospheric Science Core Knowledge and Skills (30)

Majors must complete all of the following:

Introductory Meteorology (5). Satisfied by:
ATMO 105  Introductory Meteorology  5

Climate and Climate Change (3). Satisfied by:
ATMO/GEOG 321  Climate and Climate Change  3

Weather Forecasting (3). Satisfied by:
ATMO 505  Weather Forecasting  3

Microclimatology (3). Satisfied by:
ATMO/GEOG 521  Microclimatology  3

Synoptic Meteorology (3). Satisfied by:
ATMO 630  Synoptic Meteorology  3

Dynamic Meteorology (3). Satisfied by:
ATMO 640  Dynamic Meteorology  3

Remote Sensing (3). Satisfied by:
ATMO 642  Remote Sensing  3

Advanced Dynamic Meteorology (3). Satisfied by:
ATMO 660  Advanced Dynamic Meteorology  3

Physical Meteorology (3). Satisfied by:
ATMO 680  Physical Meteorology  3

Seminar for Seniors (1). Satisfied by:
ATMO 697  Seminar for Seniors  1

Meteorology Option

Students selecting this major must select one of the following options:

General Meteorology Option

This option satisfies all the traditional professional meteorology requirements for employment with the National Weather Service, airlines, or other agencies.

Air Pollution Meteorology (3). Satisfied by:
ATMO 525  Air Pollution Meteorology  3

Operational Forecasting (2). Satisfied by:
ATMO 605  Operational Forecasting  2

Advanced Synoptic Meteorology (3). Satisfied by:
ATMO 650  Advanced Synoptic Meteorology  3

Hydrometeorology Option

This option may lead to a career as a meteorologist in one of the many water-related activities in private and governmental agencies.

Air Pollution Meteorology (3). Satisfied by:
ATMO 525  Air Pollution Meteorology  3

Operational Forecasting (2). Satisfied by:
ATMO 605  Operational Forecasting  2

Statics and Dynamics (5). Satisfied by:
CE 301  Statics and Dynamics  5

Fluid Mechanics (4). Satisfied by:
CE 330  Fluid Mechanics  4

Hydrology (3). Satisfied by:
CE 455  Hydrology  3

News Media Forecasting Option

This option can lead to a career forecasting the weather on television or radio.

Operational Forecasting (2). Satisfied by:
ATMO 605  Operational Forecasting  2

Advanced Synoptic Meteorology (3). Satisfied by:
ATMO 650  Advanced Synoptic Meteorology  3

Infomania: Information Management (3). Satisfied by:
JOUR 302  Infomania: Information Management  3

Writing for Media (3). Satisfied by:
JOUR 304  Media Writing  3

Multimedia Reporting (3). Satisfied by:
JOUR 415  Multimedia Reporting  3

Major Hours

Satisfied by 33 hours of major courses.

Major Hours in Residence

Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior (300+) Hours

Satisfied by a minimum of 30 hours from junior/senior courses (300+) in the major.

Major Junior/Senior (300+) Graduation GPA
Concentration in Business
An undergraduate student may graduate from the School of Business with a concentration in atmospheric science.

Atmospheric Science Prerequisite or Co-requisite Knowledge (19-22)
Student selecting this minor must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

Computing and Programming. Satisfied by:
EECS 138 Introduction to Computing: _____ 3
Calculus I. Satisfied by:
MATH 121 Calculus I (or equivalent) 5
or MATH 141 Calculus I: Honors
Calculus II. Satisfied by:
MATH 122 Calculus II (or equivalent) 5
or MATH 142 Calculus II: Honors
General Physics I. Satisfied by:
PHSX 211 General Physics I 1-4
or PHSX 213 General Physics I Honors
Introductory Meteorology (5). Satisfied by:
ATMO 105 Introductory Meteorology 5

Atmospheric Science Required Courses (18)
Students selecting this minor must complete all of the following:
Climate and Climate Change (3). Satisfied by:
ATMO/GEOG 321 Climate and Climate Change 3
Weather Forecasting (3). Satisfied by:
ATMO 505 Weather Forecasting 3
Microclimatology (3). Satisfied by:
ATMO/GEOG 521 Microclimatology 3
Air Pollution Meteorology (3). Satisfied by:
ATMO 525 Air Pollution Meteorology 3
Dynamic Meteorology (3). Satisfied by:
ATMO 640 Dynamic Meteorology 3
Physical Meteorology (3). Satisfied by:
ATMO 680 Physical Meteorology 3

Departmental Honors in Atmospheric Science
To be accepted as a candidate for honors, an undergraduate major must have completed at least 9 hours of upper-division credit in atmospheric science with a grade-point average of 3.5 in all atmospheric science courses and an overall average of at least 3.25. In addition, the program requires ATMO 499, an independent study course consisting of the creation of an honors paper. The student presents the results of this paper in an oral examination to a committee of a minimum of 2 faculty members, normally from the geography department, and chaired by the ATMO 499 supervisor. To graduate with honors, the student must complete the paper and the examination and maintain the 3.5 and 3.25 grade-point averages.

Minor in Geography
Why study geography?
Because people, places, and environments interact and evolve in a changing world.

Why study atmospheric science?
The study of atmospheric processes enables us to understand human interactions with the environment.

Requirements for the Minor in Geography
The department offers 2 minor options. The first is a general minor in geography. The second is specifically designed to give students a background in geographic information science. Students should carefully consider which minor best meets their academic goals before choosing one.

Geography General Option
Students selecting this minor must complete 6 GEOG courses (18 hours), 12 hours of which must be taken at the 300 level or above.

Geographic Information Science
Maps and Mapping/computers, Maps, and Geographical Analysis. Satisfied by:
GEOG 111 Maps and Mapping 4
or GEOG 210 Computers, Maps, and Geographical Analysis
Methods of Analyzing Geographical Data. Satisfied by:
GEOG 316 Methods of Analyzing Geographical Data 4
Principles of Geographic Information Systems. Satisfied by:
GEOG 358 Principles of Geographic Information Systems 4
Three additional courses from Geographic Information Science group 300-level or above.

Geography Minor Hours & Minor GPA
While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 hours of KU resident credit in the minor.

Minor Junior/Senior (300+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses in the minor. GPA calculations include all departmental courses in the
Minor in Atmospheric Science

Why study geography?
Because people, places, and environments interact and evolve in a changing world.

Why study atmospheric science?
The study of atmospheric processes enables us to understand human interactions with the environment.

Requirements for the Minor in Atmospheric Science

Student selecting this minor must complete courses as specified in each of the following areas:

**Atmospheric Science Prerequisite or Co-requisite Knowledge (11-15)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Satisfactory by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculus I</td>
<td>MATH 121 Calculus I</td>
</tr>
<tr>
<td>or Calculus I: Honors</td>
<td>MATH 141 Calculus I: Honors</td>
</tr>
<tr>
<td>Calculus II</td>
<td>MATH 122 Calculus II (or equivalent)</td>
</tr>
<tr>
<td>or Calculus II: Honors</td>
<td>MATH 142 Calculus II: Honors</td>
</tr>
<tr>
<td>General Physics I</td>
<td>PHSX 211 General Physics I</td>
</tr>
<tr>
<td>&amp; PHSX 216</td>
<td>and General Physics I Laboratory</td>
</tr>
<tr>
<td>or General Physics I Honors</td>
<td>PHSX 213 General Physics I Honors</td>
</tr>
</tbody>
</table>

**Atmospheric Science Minor Course Requirements (11)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Satisfactory by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introductory Meteorology (5)</td>
<td>ATMO 105 Introductory Meteorology</td>
</tr>
<tr>
<td>Climate and Climate Change (3)</td>
<td>ATMO/GEOG 321 Climate and Climate Change</td>
</tr>
<tr>
<td>Weather Forecasting (3)</td>
<td>ATMO 505 Weather Forecasting</td>
</tr>
</tbody>
</table>

**Atmospheric Science Required Electives (9)**

Student selecting this minor must complete three courses (9 hours) of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ATMO 521</td>
<td>Microclimatology</td>
</tr>
<tr>
<td>ATMO 525</td>
<td>Air Pollution Meteorology</td>
</tr>
<tr>
<td>ATMO 630</td>
<td>Synoptic Meteorology</td>
</tr>
<tr>
<td>ATMO 640</td>
<td>Dynamic Meteorology</td>
</tr>
<tr>
<td>ATMO 642</td>
<td>Remote Sensing</td>
</tr>
<tr>
<td>ATMO 680</td>
<td>Physical Meteorology</td>
</tr>
</tbody>
</table>

**Minor Hours & Minor GPA**

While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

**Minor Hours in Residence**
Satisfied by a minimum of 9 hours of KU resident credit in the minor.

**Minor Junior/Senior (300+) Hours**
Satisfied by a minimum of 15 hours from junior/senior courses (300+) in the minor.

**Minor Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Master of Arts in Geography

Why study geography?
Because people, places, and environments interact and evolve in a changing world.

Why study atmospheric science?
The study of atmospheric processes enables us to understand human interactions with the environment.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

Applicants without prior training in geography are welcome but are required to improve their basic knowledge of the broad divisions of geography: systematic, methodological, and regional. Courses taken to remedy deficiencies may not count toward graduate degrees. Graduate Record Examination scores (verbal, quantitative, and analytical) are required of all applicants.

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the geography department:

The University of Kansas
Department of Geography
Lindley Hall
1475 Jayhawk Blvd., Room 213
Lawrence, KS 66045-7575
Geography M.A. Degree Requirements

The program continues the general training of the undergraduate degree but also provides for concentration in preparation either for employment or further study. The student takes courses in several areas of the discipline as well as at least three courses in an acceptable concentration. The 30-credit-hour minimum for the M.A. thesis program may include 6 hours outside the department and a maximum of 6 hours for the master’s thesis. The M.A. degree requires a final oral examination. Students with 6 or more hours of Incomplete are denied permission to enroll until these hours are reduced to the allowable limit (5 hours).

Handbook for Graduate Students

Detailed information on departmental regulations is included in Policies for Graduate Study in Geography at the University of Kansas, available on the department’s website (http://www.geog.ku.edu).

Master of Science in Atmospheric Science

Why study geography?
Because people, places, and environments interact and evolve in a changing world.

Why study atmospheric science?
The study of atmospheric processes enables us to understand human interactions with the environment.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

Entering students are expected to have completed an undergraduate degree in a physical science (e.g., physics, chemistry, atmospheric science, oceanography), mathematics, or engineering and studied mathematics, including vector calculus and ordinary differential equations. Courses taken to remedy deficiencies may not count toward graduate degrees. Graduate Record Examination scores (verbal, quantitative, and analytical) are required of all applicants.

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the geography department:

The University of Kansas
Department of Geography
Lindley Hall
1475 Jayhawk Blvd., Room 213

Lawrence, KS 66045-7575

Atmospheric Science M.S. Degree Requirements

Required courses for the program include ATMO 710 Atmospheric Dynamics, ATMO 720 Atmospheric Modeling, and GEOG 716 Advanced Geostatistics. Electives include 3 credit hours in atmospheric science at the 700 level or above and 6 hours at the 500 level or above outside the geography department. A maximum of 6 hours of 500- and 600-level atmospheric science courses may be included in the program (excluding ATMO 505). The master’s thesis is a demonstration of a student’s ability to formulate an atmospheric science research problem, collect and analyze relevant data, synthesize appropriate literature, arrive at logical conclusions, and present the entire exercise in a public academic forum.

Details of the regulations on graduate study are included in the department’s Policies for Graduate Study in Atmospheric Science, available on the department’s website (http://www.geog.ku.edu).

Master of Science in Geography

Graduate Programs

Geography
The graduate curriculum emphasizes broad geographic training while encouraging in-depth commitment to specialized concentrations. Students also are encouraged to take course work outside the department that complements their degree programs. Credit-hour requirements below are considered minimums for degree programs. Programs are tailored by the student and advisor to conform to the student’s interests and needs, as well as to fulfill the general degree requirements.

The central thrust of the department and the chief capabilities and interests of the faculty fall within these research-teaching areas:

1. Human geography including cultural geography, regional development, and environmental policy;
2. Geographic information science including cartography, geographic information systems, and remote sensing;
3. Physical geography including geomorphology, soils, and biogeography;
4. Regional geography including Africa, East Asia, Russia, Latin America, and the United States; and
5. Atmospheric science and climatology.

Atmospheric Science
The purpose of the program is to expand the student’s knowledge of fundamental atmospheric processes and how the atmosphere interacts with other parts of the environment. Students become familiar with quantitative research methods and how these various approaches can be used to address different problems in atmospheric science. Students gain an in-depth ability to learn specific skills and apply them toward thesis work. These skills consist of, for example, statistical analysis techniques, numerical modeling, or work with atmospheric instrumentation. The breadth of the program and the diverse research topics explored by the faculty are able to accommodate students with a variety of interests.
Admission to Graduate Studies

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Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

Entering students are expected to have a B.S. degree in geography or in related physical science, earth science, mathematics, or engineering disciplines. Applicants should have a minimum Grade Point Average (GPA) of 3.0 on a 4.0 scale. Applicants with a GPA of less than 3.0 may be considered for admission on a probationary or provisional status.

Entering students will be expected to have studied quantitative methods. Graduate Record Examination scores (verbal, quantitative and analytical) are required of all applicants.

Applicants without prior training in geography are welcome but are required to improve their basic knowledge of the broad divisions of geography: systematic, methodological, and regional. Courses taken to remedy deficiencies may not count toward graduate degrees. Graduate Record Examination scores (verbal, quantitative, and analytical) are required of all applicants.

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The M.S. in Geography is of interest to students with a variety of different backgrounds because geography integrates concepts from various disciplines. There is also a nationwide interest in climate change, earth system science, and GIScience. Graduate study in physical geography and GIScience is quantitative in nature, and forms the core of many observational studies related to these fields of study.

The program requires a 30 credit hour minimum. Students must pass an oral examination and write a thesis. In addition, students are required to take the 2-day (non-credit) field trip before classes begin in the fall semester and GEOG 980 (Colloquium) for 1 credit hour during each of the first 2 semesters in residence at KU.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>GEOG 805</td>
<td>History of Geographic Thought</td>
<td>2</td>
</tr>
<tr>
<td>GEOG 716</td>
<td>Advanced Geostatistics</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 980</td>
<td>Seminar in Geography: ______</td>
<td>1</td>
</tr>
</tbody>
</table>

Electives 9-10

Doctor of Philosophy in Geography

Why study geography?
Because people, places, and environments interact and evolve in a changing world.

Why study atmospheric science?
The study of atmospheric processes enables us to understand human interactions with the environment.

Admission to Graduate Studies

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Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the geography department:

The University of Kansas
Department of Geography
Lindley Hall
1475 Jayhawk Blvd., Room 213
Lawrence, KS 66045-7575
Geography Ph.D. Degree Requirements

The aspirant is expected to demonstrate proficiency in research and achieve a teaching competence in geography. The student may concentrate in 1 area or may offer a concentration in a second area in the department or an outside discipline. Whatever the choice, the student develops the plan of research and study with the advice and supervision of professors in the chosen area(s) of concentration who also sit on the student’s examination and dissertation committees. A minimum of 30 hours of course and seminar work in addition to dissertation credit usually is required beyond the M.A.

Research Skills Requirement

Research skills are important elements of any graduate program and should complement the student’s research topic. Coursework necessary to meet this requirement should commence early in the program. Selection of a particular Research Skills option must be approved by the student’s advisor and student’s committee members. A student’s Research Skills requirement may be met by 1 of the following:

1. Demonstrate a reading, writing, and speaking capability in a single foreign language sufficient to enable the student to do field work without an interpreter. An examination for competence, including written and oral portions, will be conducted by the appropriate language department having expertise in that language.
2. Demonstrate a satisfactory capability in 1 research skill from the list below. The actual courses must be approved by the student’s advisor and committee members.
   a. Computer Science--complete a computer-programming course in the Department of Electrical Engineering and Computer Science (e.g., C++, Fortran, or Visual Basic) with a grade of B or higher and create a substantial computer program that illustrates a geographic application of that language. Both the course and computer program must be approved by the Computer Programming Committee of the Department of Geography.
   b. Mathematics--complete 9 hours of courses at the 500-level or above with a grade of B or higher.
   c. Statistics--complete 9 hours of courses outside the Geography Department at the 500-level or above with a grade of B or higher.
   d. An outside discipline relevant to the student’s field(s) of specialization within geography (e.g. anthropology, biology, economics, geology, history, or psychology) -- complete 9 hours of courses at the 500-level or above with a grade of B or higher (Atmospheric Science courses may be used for this option, but not courses listed or cross-listed as geography.) Students may petition the Graduate Affairs Committee to have 9 hours of courses at the 500-level or above in multiple departments fulfill this requirement.

Students whose native language is not English may, in some cases, use their native language to fulfill Research Skills but only if the language is considered an adequate research tool for their program and is endorsed by the student’s advisor and committee members. Using a native language to fulfill the Research Skills requirement must have GSC approval.

In addition, the department requires that any PhD student admitted after Fall 2011 must successfully complete the Responsible Scholarship seminar offered by the department.

Handbook for Graduate Students

Detailed information on departmental regulations is included in Policies for Graduate Study in Geography at the University of Kansas, available on the department’s website (http://www.geog.ku.edu).

Department of Geology

Why study geology?

Because its leadership role among geoscience programs advances higher learning and serves society through the discovery, dissemination, and application of knowledge.

Financial Aid

Undergraduate Scholarships

The department awards scholarships from its endowment to meritorious incoming or continuing students in geology. Scholarships also are awarded to students enrolled in Field Camp or Field Investigation. For information, contact the chair.

KU Financial Aid

All undergraduates who wish to be considered for KU financial aid must complete applications with Financial Aid and Scholarships (http://affordability.ku.edu/steps/index.shtml).

Graduate Assistantships and Scholarships

All prospective graduate students are considered for employment and financial aid. Employment may be in the form of teaching assistantships or research assistantships. Research assistantships may be supported with funds from external grants, Geology Associates endowments, the Biodiversity Institute, or the Kansas Geological Survey, which is on campus. Duties, compensation, and conditions of awards are prescribed as much as possible before enrollment. The department also receives funds from corporations and endowments to support fellowships, which permit students to enroll full time without specific research or teaching duties.

Graduate students are eligible for scholarships from the Geology Associates Program. Endowed scholarships include the Angino, Hall, Henbest, Holden, Ireland, McGee, Moore, Patterson, Peoples, and Walters scholarship funds. Other scholarships are awarded from donations from individuals and corporations. Scholarships are awarded on the basis of academic excellence; some funds are designated for protected minorities or women.

Through the Selig Fund and other donations, the department supports graduate student field work. Through the McCollum Fund and other donations, the department underwrites partially some other research expenses, such as purchase of time on analytical equipment. Funding requires an acceptable thesis or dissertation proposal. Students who have no other sources of research support are given preference. Degree-seeking students may apply for loans from the Fritz, Horner, and Johns loan funds.

Visit the Graduate Studies website for information about funding opportunities (http://www.graduated.ku.edu/funding-opportunities) for graduate students at KU.
Financial Aid and Scholarships (http://affordability.ku.edu/steps/index.shtml) administers grants, loans, and need-based financial aid.

Careers

Career Opportunities

Opportunities include environmental geology, engineering geology, and hydrogeology, as well as the oil and minerals industries, research, and teaching.

Practice as a professional geologist often requires course work and training beyond the baccalaureate level.

Licensure

Formal study of geology at an accredited college or university is a principal requirement for becoming licensed to practice geology. During the senior year, students who plan to become licensed geologists should take the Fundamentals of Geology examination, offered twice a year.

Information on registration is available from the department office or from the Kansas Board of Technical Professions. After passing the examination and after further practice, candidates can sit for the Practice of Geology examination to become licensed. Regulations for licensure may vary from state to state.

Undergraduate Programs

Geology is an interdisciplinary science that applies the principles of chemistry, physics, biology, and other fields to the study of the earth, its resources, and its natural processes. The field has many subdisciplines and specialties that offer stimulating challenges and careers. KU offers broad undergraduate programs in geology and geophysics but emphasizes research in paleontology, sedimentology, crustal evolution, hydrogeology, geobiology, seismology, applied geophysics, glaciology, and geomorphology.

Courses for Nonmajors

The department offers several courses of interest to nonmajors who wish to learn more about geology and related areas such as environmental science, oceanography, and economic resources. Principal courses include GEOL 101, GEOL 105, GEOL 121, GEOL 171, GEOL 302, and GEOL 351. GEOL 103 may be taken in conjunction with either GEOL 101 or GEOL 105 to fulfill the CLAS laboratory science requirement.

GEOL 304, GEOL 360, and GEOL 552 all offer opportunities to study more specialized aspects of the earth and do not require advanced prerequisites.

Summer Field Courses

All undergraduate degree programs require field courses during 2 summers. Students should plan to take GEOL 360 in the summer after completing the introductory course. GEOL 560 and GEOL 561 (if required by the program) ideally are taken in the summer between the junior and senior years. Substantial scholarship support is available for geology majors who enroll in those courses.

Combined Degree Programs

A student may combine an interest in geology with a degree in business, education, or journalism.

Graduate Programs

The department offers the M.S. and Ph.D. in geology but permits specialization in a number of areas of geology and in geophysics and hydrogeology. Active areas of instruction and research include geophysics, geomorphology, geochemistry, microbial biogeochemistry, paleontology, sedimentology, tectonics, and petroleum geology. Students also may work with faculty supervisors at the Kansas Geological Survey and at Kansas State University.

Courses

GEOL 101. The Way The Earth Works. 3 Hours. NE GE3N / N.

Introduction to the principles of earth science. Study of the formation, occurrence, and structure of minerals and rocks; action of streams, oceans, glaciers, and other agents in the formation and modification of the landscape; volcanism, earthquakes, and plate tectonics. Discussion of earth processes in the context of sustainable energy, environmental concerns, climate and other topical issues. This course with GEOL 103 satisfies the College laboratory science requirement. Concurrent enrollment in GEOL 103 is recommended for students taking both. Course may be offered in lecture or online format. LEC.

GEOL 102. The Way The Earth Works, Honors. 3 Hours. NE GE3N / N.

Honors section of GEOL 101. An introduction to the principles of earth science. Study of the formation, occurrence, and structure of minerals and rocks; action of streams, oceans, glaciers, and other agents in the formation and modification of the landscape; mountain building, volcanism, earthquakes, and plate tectonics. Discussion of earth processes in the context of sustainable energy, environmental concerns, climate and other topical issues. Not open to students who have taken GEOL 101. This course with GEOL 103 satisfies the College laboratory science requirement. Concurrent enrollment in GEOL 103 is recommended for students taking both. Course may be offered in lecture or online format. LEC.

GEOL 103. Geology Fundamentals Laboratory. 2 Hours. U.

A course in geologic laboratory studies. This course plus GEOL 101, GEOL 102, GEOL 105, or GEOL 106 satisfies the College laboratory science requirement. Gives students practical, hands-on experience with identifying earth materials (rocks, minerals, fossils), understanding their relationships to earth processes, understanding topographic and geologic maps, interpreting results of surficial processes, and learning about deep-earth processes such as earthquakes. Includes short field trips to see geologic structures and results of local geologic processes. This lab course may be offered in on-campus lab or online format. Prerequisite: Previous or concurrent enrollment in GEOL 101, GEOL 102, GEOL 105, or GEOL 106. LAB.

GEOL 105. History of the Earth. 3 Hours. NE GE3N / N.

An introduction to the physical and biological history of the earth, the methods used to decipher earth history, and the development of the geological sciences. This course with GEOL 103 satisfies the College laboratory science requirement. Concurrent enrollment in GEOL 103 is recommended for students taking both. Not open to students who have taken GEOL 106 or GEOL 304. LEC.

GEOL 106. History of the Earth Honors. 3 Hours. NE GE3N / N.

Honors section of GEOL 105. An introduction to the physical and biological history of the earth, the methods used to decipher earth history, and the development of the geological sciences. This course with GEOL 103 satisfies the College laboratory science requirement. Concurrent enrollment in GEOL 103 is recommended for students taking both. Not open to students who have taken GEOL 105 or GEOL 304. LEC.
GEOL 121. Prehistoric Life: DNA to Dinosaurs. 3 Hours. NB GE3N / N.
An introduction to the history of life and the origin and evolution of animals and plants during the earth’s long history. The fossil record is interpreted by applying both biological and geological principles. LEC.

GEOL 171. Earthquakes and Natural Disasters. 3 Hours. NE GE3N / N.
Addresses the subject of natural disasters with concentration on earthquake effects and their mitigation. Briefly treats volcanic eruptions, tidal waves, floods, global warming, severe weather, and catastrophic meteorite impacts from the perspective of geological and human significance. Provides a basic background into earth-science processes. LEC.

GEOL 177. First Year Seminar: _______. 3 Hours. NE GE11.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in geology. May not contribute to major requirements in geology. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

GEOL 302. Oceanography. 3 Hours. NE GE3N / N.
Basic description of oceanography: description and discussion of the ocean as a dynamic system. Relationships between and dependence upon the interactions of submarine topography, water chemistry, wave action, and biota in understanding the ocean system. Review of part that humanity plays in perturbing the natural oceanic environment. Discussions of estuarine problems as related to the sea, cultural activities, and rivers. Course may be offered in lecture or online format. Prerequisite: An introductory science course. LEC.

GEOL 304. Historical Geology. 2 Hours. N.
A summary of the measurement of time, the history of life, and the earth’s development and the tectonics and rock-forming episodes of North America. Not open to students who have taken GEOL 105, GEOL 106 or GEOL 121. Prerequisite: GEOL 101. LEC.

GEOL 311. Mineralogy and Structure of the Earth. 3 Hours. N.
Basic identification and properties of rocks and minerals in the context of whole-earth structure and evolution. Includes basic chemical equilibria for rock and mineral systems and their bearing on processes involved with formation and evolution of Earth’s crust, mantle, and core. Two lectures and one lab per week. Prerequisite: GEOL 101, CHEM 130, and eligibility for MATH 121 or MATH 115. LEC.

GEOL 312. Mineral Structures and Equilibria Laboratory. 1 Hour. U.
A laboratory to accompany GEOL 311. Presents more rigorous analysis of the structures, compositions, and chemical equilibria governing the formation and stability of common rock-forming mineral systems. Prerequisite: GEOL 311 (may be taken concurrently), CHEM 130, and eligibility for MATH 121 or MATH 115. LAB.

GEOL 315. Gemstones. 3 Hours. N.
The properties, occurrence, description, determination, and mineral affinities of gems, ornamental stones, and gem materials. LEC.

GEOL 331. Sedimentology and Surface Processes. 4 Hours. GE3N / N.
Physical, chemical, and biological processes in surface and near-surface environments applied to the recognition of the depositional environment, preservation, and alteration of sedimentary rocks. Field and laboratory study of sedimentary rocks with emphasis on interpretation of original depositional environments and alter processes affecting sedimentary rocks. Prerequisite: GEOL 101. LEC.

GEOL 351. Environmental Geology. 3 Hours. NE GE3N / N.
An introductory course dealing with the implications of geologic processes and materials for civilization. Topics to be considered include: geologic hazards such as floods, landslides, earthquakes, and volcanism; the availability of water, mineral, and energy resources; and the environmental impact of resource utilization. The importance of recognizing geologic constraints in land use planning and engineering projects is emphasized and illustrated by examples. LEC.

GEOL 360. Field Investigation. 2 Hours. N.
Summer session. A field-geology course that provides beginning geology students with an initial understanding of the nature of geological evidence in the field, the breadth of geological phenomena, and the importance of the interplay of information from many geological disciplines in solving problems. Given at various geologically diverse locations. Fee. Prerequisite: GEOL 101. LEC.

GEOL 391. Special Studies in Geology. 1-6 Hours. N.
Special reports upon subjects in which students have a particular interest. Prerequisite: Fifteen hours of geology. IND.

GEOL 399. Senior Honors Research. 2-5 Hours. AE61 / N.
Normally two to five hours in any one semester with a maximum of eight hours. An undergraduate research course, in any of the fields of geology, open by permission of the department to seniors in the College who have an average grade of B or higher in geology courses. Prerequisite: Thirty hours of geology, five of which may be taken concurrently with this course. IND.

GEOL 501. Error Analysis. 1 Hour. N.
This course covers basic error analysis as it applies to geology. The course will emphasize the description and propagation of errors in data collection and reduction. Subjects include: how to report data and associated errors, error propagation in simple and complex equations, the Normal, Gaussian, and Poisson distributions, linear and higher order regression, and X-squared test. Prerequisite: MATH 121. LEC.

GEOL 512. Igneous and Metamorphic Petrology. 3 Hours. N.
The study of minerals, rocks and fluids within the earth’s crust and mantle to elucidate their mechanisms of formation and the pressure-temperature-composition conditions within the earth. The course emphasizes equilibrium thermodynamics, phase equilibria, fractionation mechanisms, tectonic control of petrogenesis, and quantitative analysis of mineral parageneses. Prerequisite: GEOL 311 and first semester calculus, or permission of instructor. LEC.

GEOL 513. Petrology Laboratory. 1 Hour. U.
A laboratory course to accompany GEOL 512. Material covered will include the use of the polarizing microscope in study of rocks in thin sections; identification of rock-forming minerals in thin section; study of textures as guides to the crystallization process; calculations of chemical changes during fractional crystallization and partial melting. Students will also make extensive study of igneous and metamorphic rocks in hand specimens, accompanied by thin section study, with emphasis on composition, texture, and structure. Students must co-enroll in GEOL 512. Prerequisite: GEOL 312. Concurrent enrollment in GEOL 512 required. LAB.

GEOL 521. Paleontology. 3 Hours. N.
A study of the structure and evolution of ancient life; the nature and diversity of life through time; the interactions of ancient organisms with their environments and the information that the study of fossils provides about ancient environments; the use of fossils to determine the ages of rocks and the timing of past events in earth history; and the patterns of extinction through time. (Same as BIOL 622.) Prerequisite: BIOL 100 or BIOL 152 or GEOL 105 or GEOL 304. LEC.
GEOL 523. Paleontology Laboratory. 1 Hour. U.
Laboratory course in the study of fossils with emphasis on the practice of paleontology and the morphology of ancient organisms. (Same as BIOL 623.) LEC.

GEOL 528. The Biology and Evolution of Fossil Plants. 3 Hours. N.
A lecture course in which fossil plants, protists and fungi are examined throughout geologic time. Emphasis will be directed at paleoecology, biogeography and the stratigraphic distribution and composition of ancient floras. (Same as BIOL 640.) Prerequisite: BIOL 413, or permission of instructor. LEC.

GEOL 529. Laboratory in Paleobotany. 1 Hour. U.
An examination of selected fossil plants throughout geologic time and the techniques used to study them; laboratory will include identification and the use of plant fossils in biostratigraphy. (Same as BIOL 641.) Prerequisite: BIOL 413 or permission of instructor. Must be taken concurrently with GEOL 528. LAB.

GEOL 532. Stratigraphy. 4 Hours. AE61 / N.
A study of the principles of lithostratigraphy, biostratigraphy, and sequence stratigraphy. Methods of analysis of stratigraphic data focus on the interpretation of earth history. The stratigraphic record of North America is presented for evaluation of its geologic history. Three lectures and one laboratory per week. Required field trip. Prerequisite: GEOL 101, GEOL 521, and GEOL 331. LEC.

GEOL 534. Volcanology. 3 Hours. N.
Physical and geochemical volcanology. Considers relationship of tectonics and volcanism: types of magmas; rheology of lavas, pyroclastic density currents, and mass movements in volcanic environments; and interpretation of processes and conditions of formation of volcanic rocks from their field character. Field trips to ancient volcanic complexes. Prerequisite: GEOL 331 and GEOL 512, or permission of instructor. LEC.

GEOL 535. Petroleum and Subsurface Geology. 4 Hours. N.
A general study of the occurrence, properties, origin, and migration of petroleum. Studies of various oil fields and oil-bearing basins. Laboratory studies include well logs, subsurface mapping, and cross-sections. Prerequisite: GEOL 331, GEOL 562, and GEOL 572; or CPE 527, or permission of instructor. LEC.

GEOL 536. Geological Log Analysis. 1 Hour. U.
Application of well logging measurements to interpretation subsurface. LEC.

GEOL 537. Petroleum Reservoir Characterization. 3 Hours. N.
Geological, geophysical, and engineering characterization of a petroleum reservoir. Includes mapping; petrophysical, production, and pressure analysis; and numerical modeling. Considers economic analysis of steps to improve oil recovery. Students who have completed GEOL 837 may not take GEOL 537 for credit. Prerequisite: GEOL 535 and permission of instructor. LEC.

GEOL 541. Geomorphology. 4 Hours. N.
A critical study of landforms in relation to tectonics, climatic environment, and geologic processes. The use of geomorphic methods in the interpretation of Cenozoic history is emphasized. Laboratory exercises in analysis of field observations, maps, and photographs. Required field trip and fee. (Same as GEG 541.) Prerequisite: GEOL 101 and GEOL 103, GEOG 104 and GEOG 105, or GEOL 304 and GEOL 103. LEC.

GEOL 551. Engineering Geology. 3 Hours. N.
Consideration of geologic factors affecting engineering projects. Topics include: techniques of site exploration, engineering properties of soil and rock, geologic conditions important in the design of major structures, and geologic information useful in land-use planning. Prerequisite: An introductory course in geology or consent of instructor. LEC.

GEOL 552. Introduction to Hydrogeology. 3 Hours. N.
Physical description of hydrogeologic media. Elementary groundwater hydraulics: analytical and graphical solutions for steady-state application. Well hydraulics and pumping tests. Basic groundwater geology. Effects of topography and geology on regional flow systems. Field and numerical delineation and analysis of groundwater flow systems and applications. Chemical characteristics of groundwaters and their relationship to aquifer geology and hydrology. Investigations of groundwater quality and contamination. Prerequisite: Two semesters each of calculus, physics, and chemistry. LEC.

GEOL 560. Introductory Field Geology. 3 Hours. AE61 / N.
Summer session. The study of the principles of field geology and the application of field methods to solve geological problems. Includes use of topographic maps and aerial photographs for geological mapping, the study of stratigraphic methods by measuring sections, and working field trips to areas of regional geological interest. Given at the University of Kansas Geology Field Camp near Canon City, Colorado. Fee. Prerequisite: GEOL 331, GEOL 360, and GEOL 562, or consent of instructor. FLD.

GEOL 561. Field Geology. 3 Hours. N.
Summer session. The application of the principles of field geology to solve complex geological problems in the field. Given at the University of Kansas Geology Field Camp near Canon City, Colorado, or at other sites as appropriate. Fee. Prerequisite: GEOL 560. FLD.

GEOL 562. Structural Geology. 4 Hours. N.
A study of primary and secondary rock-structures and their genesis. Includes techniques of structural analysis and introduces mechanics of rock deformations. Lectures, laboratory, and required field trip. Prerequisite: GEOL 311; PHSX 111, PHSX 114, or PHSX 211 and PHSX 216; and MATH 115 or MATH 121. LEC.

GEOL 571. Natural Disasters. 2-3 Hours. N.
Scientific assessment of natural disasters with concentration on earthquake effects and their mitigation. Briefly treats volcanic eruptions, tidal waves, floods, global warming, severe weather, and catastrophic meteorite impacts in a geological and human framework. A research paper or project is required. Prerequisite: An introductory course in a physical science. LEC.

GEOL 572. Geophysics. 3 Hours. N.
Introductory study of gravitational, magnetic, seismic, electrical, and thermal properties of the earth. Measurements, interpretation, and applications to exploration, earth structure, and global tectonics. Prerequisite: An introductory course in geology; MATH 116 or MATH 122; and PHSX 115 or PHSX 212 and PHSX 236. PHSX 115 or PHSX 212 may be taken concurrently. LEC.

GEOL 573. Geodynamics and Plate Tectonics. 3 Hours. N.
Study of physical processes in the solid Earth and of geophysical approaches to studying Earth systems at regional and global scales. Topics include global potential fields, thermal regime, rheology and Earth deformation, earthquakes and seismic structure, plate motions and global tectonics. (Same as PHSX 528.) Prerequisite: An introductory course in geology; MATH 116 or MATH 122; and PHSX 115, PHSX 214, or PHSX 212 and PHSX 236. LEC.

GEOL 575. Seismic Exploration. 3 Hours. N.
Application of seismic reflection and refraction techniques to the description of near-surface geology and the exploration for energy and mineral resources. Theory of seismic information, data collection, data processing using computers, and geologic interpretation. Prerequisite: A
course in computer programming, either FORTRAN or C, which may be taken concurrently. An introductory geophysics course, such as GEOL 572. LEC.

GEOL 576. Potential Fields Exploration. 3 Hours. N.
Use of gravity, magnetic, and electrical signals in the exploration for energy and mineral resources. Elementary potential field theory, data collection methods, data analysis, and interpretation using computers. Prerequisite: A course in computer programming, either FORTRAN or C, may be taken concurrently. An introductory geophysics course, such as GEOL 572. LEC.

GEOL 577. Environmental Geophysics. 3 Hours.
Application of the methods of geophysical exploration to evaluate, mitigate, and prevent environmental problems below the surface of the earth. Development of fundamental principles and discussion of environmental case histories using seismic, gravity, magnetic, electromagnetic, electrical, and radar methods. Prerequisite: An introductory course in geology; MATH 116 or MATH 122; and PHSX 115, or PHSX 212 and PHSX 236. LEC.

GEOL 591. Topics in Geology: ______. 1-5 Hours. N.
May include lectures, discussions, readings, laboratory, and field work in geology. Will be given as needed. May be taken more than once. LEC.

GEOL 711. X-Ray Analysis. 1-2 Hours.
Introduction to the theory and practice of X-ray diffraction and X-ray fluorescence analysis as applied to geological materials. Includes safety training necessary for the operation of X-ray analytical equipment in the department. Prerequisite: GEOL 311 and PHSX 115 or PHSX 212. LEC.

GEOL 712. Microstructures and Petrofabrics. 3 Hours.
This course is geared towards developing a qualitative and quantitative understanding of the fundamentals of rock and mineral deformation necessary to interpret comprehensively microstructural data. Microstructures and petrofabrics contain a wealth of information on kinematics, rheology, and boundary conditions of deforming rocks, important information that often goes unnoticed and unused. This course builds on knowledge acquired in undergraduate structural geology and petrology courses and will give students the tools for a more rigorous and sophisticated evaluation of thin sections and quantitative microstructural and textural data. Required field trip. Prerequisite: GEOL 512 and GEOL 562; or consent of the instructor. LEC.

GEOL 713. Advanced Petrology. 1 Hour.
Advanced topics in igneous and metamorphic petrology with emphasis on chemical and isotopic modeling. Course may be repeated, as topics covered vary. LEC.

GEOL 714. Thermochronology. 3 Hours.
This advanced course is intended to provide students with an in-depth understanding of the fundamentals and an appreciation of the complexities of thermochronology. The primary focus of this course is on modern thermochronological dating methods, a quantitative understanding of noble gas diffusion, data acquisition and interpretation, numerical modeling of complex thermochronological data, and hands-on laboratory experience in the KU thermochronology facilities. Prerequisite: MATH 122 and GEOL 717; or consent of the instructor. LEC.

GEOL 715. Geochemistry. 3 Hours.
Application of chemical equilibria and kinetics to geological environments and processes, with emphasis on processes involving solution equilibria. Includes introduction to thermodynamic aspects of equilibria. Prerequisite: CHEM 188 and MATH 122. LEC.

GEOL 716. Geologic Thermodynamics. 2 Hours.
Classical thermodynamics with an emphasis on phase equilibria, solid-solution chemistry, and modeling of natural systems. Prerequisite: Second semester calculus, or permission of instructor. LEC.

GEOL 717. Geochronology. 2-4 Hours.
Principles and applications of natural radioactive systems for geochronology and cosmochronology, including use of radiogenic isotopes as geochemical tracers. Prerequisite: GEOL 512 or consent of instructor. LEC.

GEOL 718. Stable Isotope Geochemistry. 1-3 Hours.
Principles and applications of equilibria among stable isotopes in the geological environment, with emphasis on the isotopic systems of hydrogen, carbon, and oxygen. Prerequisite: GEOL 715 or consent of instructor. LEC.

GEOL 721. Micropaleontology. 3 Hours.
Systematics, paleontology, evolution, and biostratigraphy of microfossils, particularly foraminifera, ostracodes, and conodonts. Preparation of material for study. Applications of micropaleontology to geologic problems. Prerequisite: GEOL 521 or BIOL 100 or 152. LEC.

GEOL 722. Paleoecology. 3 Hours.
Principles of ecology as applied to the interpretation of past environments. Prerequisite: GEOL 521. LEC.

GEOL 723. Paleontology Museum Apprenticeship. 1-6 Hours. N.
Provides directed, practical experience in care and management of paleontology collections, public education, exhibits, and museum administration with emphasis tailored to fit the needs and interests of each student. Students should expect to spend a minimum of five hours per week for each hour in which they are enrolled. (Same as AMS 799, ANTH 799, BIOL 799, HIST 799, and MUSE 799.) FLD.

GEOL 724. Paleobiogeography. 3 Hours.
The study of the coevolution of the Earth and its biota. The class will focus on using phylogenetic approaches with fossil taxa to study how tectonic change has influenced the evolution of life and also to determine what evolutionary patterns can tell us about the nature and sequence of geological events. Prerequisite: GEOL 521, or consent of the instructor. LEC.

GEOL 725. Paleontology of Lower Vertebrates. 3 Hours.
General account of the osteology, geologic distribution, and evolution of the principal groups of fishes, amphibians, reptiles, and birds. Lectures and laboratory. (Same as BIOL 790.) Prerequisite: GEOL 105 or GEOL 304, or GEOL 521. LEC.

GEOL 726. Paleontology of Higher Vertebrates. 3 Hours.
Evolution of mammals and anatomical modifications involved in the process as ascertained from the fossil record. Lectures and laboratory. (Same as BIOL 791.) Prerequisite: GEOL 105 or GEOL 304 or GEOL 521. LEC.

GEOL 727. Macroevolution. 3 Hours.
This course will present a broad survey of topics in macroevolution including the differences between micro- and macroevolutionary patterns and processes and the manners of formulating and analyzing macroevolutionary questions. Discussions will focus on the relevance of hierarchy theory and levels of selection; an overview of species concepts, both ontological and epistemological; and an analysis of the neo-Darwinian synthesis as related to innovations in evolutionary theory. In addition, the relevance of contingency and extinction to evolutionary theory will be emphasized. LEC.
GEOL 728. Paleopedology. 3 Hours.
Paleopedology is the study of ancient soils preserved in the geologic record. The course covers concepts of paleopedology and its applications to the interpretation of paleoenvironmental, paleoclimatic, and paleohydrogeologic settings and its use in sequence stratigraphy and paleoclimatology. Prerequisite: GEOG 535, GEOL 331, or GEOL 532; or consent of the instructor. LEC.

GEOL 729. Ichnotology. 3 Hours.
Ichnotology is the study of organism-substrate interactions. The class will cover concepts and applications of ichnotology in the marine and continental realms, including the behavior of such organisms as microbes, plants, invertebrates, and vertebrates preserved in the geologic record as trace fossils. Ichnotology is applied in geology and in the petroleum industry to interpret ancient environments, hydrogeology, ecology, and climate. Prerequisite: GEOL 331, GEOL 521, or GEOL 532; or consent of the instructor. LEC.

GEOL 731. Terrigenous Depositional Systems. 4 Hours.
Processes that operate in recent sedimentary environments, responses of sediment to those processes, and criteria for determining depositional environments of ancient sedimentary rocks. Lectures, practical exercises, and field trips. Prerequisite: GEOL 331 or GEOL 532. LEC.

GEOL 732. Carbonate Depositional Systems. 3 Hours.
Patterns and processes of contemporaneous carbonate deposition and diagenesis, depositional models; applications to interpretation of carbonate rocks. Lecture, discussion, laboratory and field trips. Prerequisite: GEOL 532 (may be taken concurrently). LEC.

GEOL 741. Advanced Geomorphology. 1-3 Hours.
Detailed discussions of processes and landforms characteristic of specific environments. Considered during separate semesters will be general methodology, and fluvial, arid regions, glacial, and shoreline geomorphology. Course may be taken more than once. (Same as GEOG 741.) Prerequisite: GEOL 541. LEC.

GEOL 751. Physical Hydrogeology. 3 Hours.
Study of fluid flow in subsurface hydrologic systems. Investigation of the ground water environment including porosity, and hydraulic conductivity and their relationship to typical geologic materials. Examination of Darcy’s law and the continuity equation leading to the general flow equations. Discussion of typical hydraulic testing methods to estimate aquifer parameters in various situations and apply these to water resource problems. Study of the basic mechanisms that determine the behavior of typical regional flow systems. (Same as CE 752.) LEC.

GEOL 753. Chemical and Microbial Hydrogeology. 4 Hours.
Lecture and discussion of chemical and microbiological controls on groundwater chemistry. Topics include thermodynamic and microbiological controls on water-rock reactions; kinetics; and microbiological, chemical and isotopic tools for interpreting water chemistry with respect to chemical weathering and shallow diagenesis. Origins of water chemistry, changes along groundwater flow paths, and an introduction to contaminant biogeochemistry will be discussed through the processes of speciation, solubility, sorption, ion exchange, oxidation-reduction, elemental and isotopic partitioning, microbial metabolic processes and microbial ecology. An overview of the basics of environmental microbiology, including cell structure and function, microbial metabolism and respiration, microbial genetics and kinetics of microbial growth will be covered. (Same as CE 753.) Prerequisite: One year of chemistry, one year of calculus, one year of biology, an introductory course in hydrogeology, or consent of the instructors. LEC.

GEOL 754. Contaminant Transport. 3 Hours.
A study of the transport of conservative and non-conservative pollutants in subsurface waters. Case studies are used to illustrate and develop a conceptual understanding of such processes as diffusion, advection, dispersion, retardation, chemical reactions, and biodegradation. Computer models are developed and used to quantify these processes. (Same as CE 754.) Prerequisite: Introductory Hydrogeology or consent of instructor. LEC.

GEOL 761. Regional Field Geology. 1-5 Hours.
A detailed field study of a carefully selected area that includes features of several phases of geology. Field trip fee. Prerequisite: GEOL 561 or equivalent and departmental approval. FLD.

GEOL 763. Tectonics and Regional Geology. 3 Hours.
Topics vary with demand and include fundamental features of plate tectonics, interpretation and distribution of regional geology of mountain belts with emphasis on tectonic setting and processes, regional geology, and tectonics of selected mountain belts. Prerequisite: GEOL 562, GEOL 512, or GEOL 331, and GEOL 572. LEC.

GEOL 771. Advanced Geophysics: ____. 1-3 Hours.
Topics to vary with demand and include heat flow, wave propagation, synthetic seismograms, groundwater exploration, geothermal exploration, electrical methods in exploration, rock mechanics-tectonophysics, rock magnetism, geomagnetism, paleomagnetism, geophysical inverse theory, and others upon sufficient demand. May be repeated for different topics. (Same as PHSX 727.) Prerequisite: GEOL 572 or GEOL 573/PHSX 528 or consent of instructor. LEC.

GEOL 772. Geophysical Data Analysis. 3 Hours.
Fourier analysis, sampling theory, prediction and interpolation of geophysical data, filtering theory, correlation techniques, deconvolution. Examples will be chosen from various fields of geophysics. (Same as PHSX 722.) Prerequisite: MATH 250/AE 250/ARCE 250/CE 250/CPE 250/Eecs 250/EPHX 250/ME 250 and either GEOL 572 or GEOL 573 or PHSX 528. LEC.

GEOL 773. Seismology. 3 Hours.
General theory of seismic waves, wave field extrapolation (migration) by finite difference methods, construction of travel-time curves, reflection and attenuation of coefficients, earthquake source mechanism, distribution and forecasting of earthquakes. (Same as PHSX 723.) Prerequisite: MATH 250/AE 250/ARCE 250/CE 250/CPE 250/Eecs 250/EPHX 250/ME 250 and either GEOL 572 or GEOL 573 or PHSX 528. LEC.

GEOL 774. Finite Difference Methods for Geophysics. 2-3 Hours.
Application of finite difference methods to solve the partial differential equations that commonly occur in the study of geophysics. Representative examples will be drawn from groundwater flow, gravity and magnetics modeling, and seismic wave propagation. Emphasis will be on obtaining actual solutions for practical problems. Prerequisite: MATH 250, or MATH 320, or consent of the instructor. LEC.

GEOL 775. Near-Surface Seismology. 3 Hours.
Theoretical and applied study of all aspects of near-surface reflection, refraction, and surface-wave seismology from design and acquisition to interpretation. Prerequisite: MATH 250, GEOL 572, or consent of the instructor. LEC.

GEOL 780. Conservation Principles and Practices. 3 Hours.
This course will acquaint the future museum professional with problems in conserving all types of collections. Philosophical and ethical approaches will be discussed, as well as the changing practices regarding conservation techniques. Emphasis will be placed on detection and identification of causes of deterioration in objects made of organic and inorganic materials, and how these problems can be remedied. Storage
and care of objects will also be considered. (Same as AMS 714, BIOL 700, HIST 722 and MUSE 706.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

GEOL 781. Introduction to Museum Exhibits. 3 Hours.
This course will consider the role of exhibits as an integrated part of museum collection management, research, and public service. Lecture and discussion will focus on issues involved in planning and producing museum exhibits. Laboratory exercises will provide first hand experience with basic preparation techniques. Emphasis will be placed on the management of an exhibit program in both large and small museums in the major disciplines. (Same as AMS 720, BIOL 787, HIST 723, and MUSE 703.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

GEOL 782. The Nature of Museums. 3 Hours.
The purpose of this course is to provide an overview of the kinds of museums, their various missions, and their characteristics and potentials as research, education, and public service institutions responsible for collections of natural and cultural objects. (Same as AMS 731, BIOL 785, HIST 728, and MUSE 701.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

GEOL 783. Museum Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museums as organizations; accounting, budget cycles, personnel management, and related topics will be presented using, as appropriate, case studies and a simulated museum organization model. (Same as AMS 730, BIOL 784, HIST 721, and MUSE 705.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

GEOL 784. Introduction to Museum Public Education. 3 Hours.
Consideration of the goals of an institution’s public education services, developing programs, identifying potential audiences, developing audiences, and funding. Workshops and demonstrations are designed for students to gain practical experience working with various programs and developing model programs. (Same as AMS 730, BIOL 784, HIST 721, and MUSE 705.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

GEOL 785. Principles and Practices of Museum Collection Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museum collections, their associated data, and their use in scholarly research; cataloging, storage, fumigation, automated information management and related topics will be presented for museums of art, history, natural history and anthropology. (Same as AMS 730, BIOL 798, HIST 725, and MUSE 704.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

GEOL 791. Advanced Topics in Geology: _____. 1-5 Hours.
Selected offerings in geology. Intended primarily for graduate students and qualified seniors. May include lectures, discussions, reading, laboratory and field work. May be taken more than once. LEC.

GEOL 837. Geoscience and Petroleum Engineering. 3 Hours.
Advanced geological, geophysical, and engineering characterization of a petroleum reservoir. Includes mapping; petrophysical, production, and pressure analysis; and numerical modeling. Considers economic analysis of steps to improve recovery. Students who have completed GEOL 537 may not take GEOL 837 for credit. LEC.

GEOL 851. Field and Laboratory Methods: Physical Hydrogeology. 1 Hour.
Introduction to field and laboratory methods commonly used in physical hydrogeology. Practical experience with common water level measurement techniques, various well pumping techniques, well installation and geologic core sampling, and hydraulic testing. Prerequisite: Introductory course in hydrogeology and familiarity with computer use for data processing, or consent of instructor. FLD.

GEOL 852. Field and Laboratory Methods: Contaminant Transport. 1 Hour.
Introduction to laboratory methods for evaluating reactive transport parameters, followed by development and implementation of computer models. Students will gain experience building models starting from basic transport equations using a spreadsheet platform and, where appropriate, commercial software packages. Prerequisite: GEOL 751 (may be taken concurrently) or equivalent, or consent of the instructor. LAB.

GEOL 853. Field and Laboratory Methods: Chemical Hydrogeology. 1 Hour.
Practical experience in measuring unstable chemical parameters in groundwater, including pH, Eh, dissolved oxygen, temperature, alkalinity, specific conductance, and turbidity. Practical experience in collecting water samples for chemical analysis, choosing appropriate sample containers and preservation methods, and special techniques for collecting samples for determination of parameters sensitive to environmental changes such as oxygen level or temperature. Prerequisite: GEOL 753 (may be taken concurrently) or equivalent, or consent of the instructor. FLD.

GEOL 854. Field and Laboratory Methods: Geobiology. 1 Hour.
Practical experience in cultivating, enumerating and visualizing groundwater microorganisms. Geochemical and molecular techniques for studying microbial community diversity, biomineralization and mineral dissolution, and biodegradation of organic contaminants will be covered. Practical experience in collecting water samples for preservation of microorganisms sensitive to environmental changes such as oxygen level or temperature. Prerequisite: GEOL 753 (may be taken concurrently) or equivalent, or consent of the instructor. FLD.

GEOL 891. Special Studies in Geology. 1-5 Hours.
May be repeated. RSH.

GEOL 899. Master’s Thesis. 1-12 Hours.
THE.

GEOL 921. Advanced Invertebrate Paleontology: _____. 1-3 Hours.
Detailed study of systematics, morphology, stratigraphic distribution and paleoecology of major groups of organisms in the fossil record. Specific group or groups covered will vary according to student and faculty needs and interests. May be repeated. Prerequisite: An introductory course in invertebrate paleontology. LEC.

GEOL 932. Carbonate Petrology. 3 Hours.
Study of the physical and chemical factors important in the genesis and diagenesis of carbonate rocks. Includes the application of principles learned from research on modern marine environments to the interpretation of ancient carbonates. Various analytical techniques are covered with emphasis on thin section petrography. Prerequisite: GEOL 331 and GEOL 732. LEC.

GEOL 933. Sandstone Petrology. 3 Hours.
Description, classification, and interpretation of sedimentary rocks, emphasizing petrographic methods applied to terrigeneous rocks and interpretation of provenance of sedimentary sequences. Prerequisite: GEOL 511 and GEOL 531 or GEOL 532. LEC.

GEOL 991. Seminar in: _____. 1-5 Hours.
A review of the principles of the geological sciences. Fields considered are: geomorphology, igneous petrology, metamorphic petrology, invertebrate paleontology, groundwater, geochemistry, stratigraphy, sedimentation, micropaleontology, mineralogy, structural geology, and
Bachelor of Arts in Geology

Why study geology?

Because its leadership role among geoscience programs advances higher learning and serves society through the discovery, dissemination, and application of knowledge.

Undergraduate Admission

Admission to KU

All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

Geology Programs

The B.A. program allows many free electives for background courses in the sciences or liberal arts. The program permits study of traditional geology (with emphasis on the solid earth, the earth’s surface, or environmental geology and natural resources), environmental geology (with emphasis on water or urban environmental geology), or an individually tailored program.

Degree requirements may be altered to suit particular needs of a student upon petition to the undergraduate studies committee and in consultation with a geology faculty advisor. Special consideration is given to students with strong backgrounds in supporting sciences and students with superior records who decide to major in geology late in their programs.

First- and Second-Year Preparation

Students interested in geology should see a department advisor as soon as possible. They should enroll in mathematics, chemistry, and English in addition to Introduction to Geology and electives. Students should take GEOL 360 as soon as possible.

Advising

Developing a strong relationship with a faculty advisor helps students get the most out of their educational programs in the shortest time. Most courses for majors are offered in only one semester each year. Advisors can guide the student through complexities of the curriculum or into a specialized program.

Requirements for the B.A. Major

Geology Major Course Requirements

Geology Prerequisite or Co-requisite Knowledge (21-27)

Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

Calculus I. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>MATH 115</td>
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<tr>
<td>or MATH 121</td>
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Foundations of Chemistry I. Satisfied by:

<table>
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<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CHEM 130</td>
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</table>

Physics. Satisfied by one of the following:

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<th>Course</th>
<th>Credit Hours</th>
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<tr>
<td>PHSX 111</td>
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<tr>
<td>PHSX 114</td>
<td>1-4</td>
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<tr>
<td>PHSX 211 &amp; PHSX 216</td>
<td>2-5</td>
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Biology. Satisfied by:

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<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>BIOL 100 &amp; BIOL 102</td>
<td>4</td>
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</table>

Information Technology. Satisfied by:

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<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>EECS 128</td>
<td>3</td>
</tr>
<tr>
<td>or EECS 138</td>
<td>Introduction to Computing: _______</td>
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</tbody>
</table>

Geology Core Knowledge and Skills (24)

Majors must complete the following core courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 101</td>
<td>The Way The Earth Works</td>
</tr>
<tr>
<td>GEOL Fundamentals Laboratory. Satisfied by:</td>
<td></td>
</tr>
<tr>
<td>GEOL 103</td>
<td>Geology Fundamentals Laboratory</td>
</tr>
<tr>
<td>GEOL 311</td>
<td>Mineralogy and Structure of the Earth</td>
</tr>
<tr>
<td>Sedimentology and Surface Processes. Satisfied by:</td>
<td></td>
</tr>
<tr>
<td>GEOL 331</td>
<td>Sedimentology and Surface Processes</td>
</tr>
<tr>
<td>Field Investigation. Satisfied by:</td>
<td></td>
</tr>
<tr>
<td>GEOL 360</td>
<td>Field Investigation</td>
</tr>
<tr>
<td>Paleontology. Satisfied by:</td>
<td></td>
</tr>
<tr>
<td>GEOL 521</td>
<td>Paleontology</td>
</tr>
<tr>
<td>Introductory Field Geology. Satisfied by:</td>
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</tr>
<tr>
<td>GEOL 560</td>
<td>Introductory Field Geology</td>
</tr>
<tr>
<td>Structural Geology. Satisfied by:</td>
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<tr>
<td>GEOL 562</td>
<td>Structural Geology</td>
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</tbody>
</table>

Geology Required Electives (15)
Majors must complete a minimum of 15 hours in geology or related courses. Several possible tracks of upper-level course work are given below.

**General Geology Options**

Concentrate on traditional geology with emphasis on the solid earth and the earth’s interior, earth surface processes, or environmental geology and natural resources.

**Solid Earth (15)**
- GEOL 312 Mineral Structures and Equilibria Laboratory 1
- GEOL 512 Igneous and Metamorphic Petrology 3
- GEOL 513 Petrology Laboratory 1
- GEOL 532 Stratigraphy 4
- GEOL 572 Geophysics 3
- GEOL 573 Geodynamics and Plate Tectonics 3

**Surface Earth (17)**
- GEOL 171 Earthquakes and Natural Disasters 3
- GEOL 351 Environmental Geology 3
- GEOL 532 Stratigraphy 4
- GEOL 541 Geomorphology 4
- GEOL 722 Paleocology 3

**Geology and Natural Resources (14-19)**
- GEOL 351 Environmental Geology 3
- GEOL 391 Special Studies in Geology 1-6
- GEOL 541 Geomorphology 4
- GEOL 572 Geophysics 3
- EVRN 332 Environmental Law (prerequisite: EVRN 148) 3

**Environmental Geology Options**

Concentrate on environmental geology with emphasis on water and the environment or urban environmental geology.

**Water, Geology, and the Environment (23-28)**
- GEOL 302 Oceanography 3
- GEOL 351 Environmental Geology 3
- GEOL 391 Special Studies in Geology 1-6
- GEOL 541 Geomorphology 4
- GEOL 552 Introduction to Hydrogeology 3
- ATMO 515 Energy and Water Balance 3
- CE 477 Introduction to Environmental Engineering and Science 3
- BIOL 661 Ecology of Rivers and Lakes 3

**Urban Environmental Geology (12)**
- GEOL 351 Environmental Geology 3
- ATMO 525 Air Pollution Meteorology 3
- CE 477 Introduction to Environmental Engineering and Science 3
- GEOG 304 Environmental Conservation 3

**Other Elective Courses (16)**
- GEOL 532 Stratigraphy 4
- ATMO 105 Introductory Meteorology 5
- BIOL 414 Principles of Ecology 3
- GEOG 558 Intermediate Geographical Information Systems 4

**Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 30 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Graduation Plan**

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please consult the department for details.

**Departmental Honors**

Pursuit of departmental honors in Geology is by invitation from the Department of Geology honors coordinator.
Requirements include:
- 3.25 or higher KU GPA at graduation.
- 3.50 or higher KU geology-courses GPA at graduation.
- Completion of at least 2 credit hours of GEOL 399.
- Completion and successful defense of an honor’s thesis.
Additional requirements and more information may be obtained from the Department of Geology honors coordinator and web site.

**Bachelor of Science in Geology**

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Geology Programs

The B.S. program provides intensive training in geology and other sciences. B.S. majors may emphasize traditional geology, environmental geology (with a specialized track in hydrogeology), engineering geology, geophysics, or earth and space science licensure. The hydrogeology track, the engineering geology option, and the geophysics option combine basic training in geology with training in mathematics, engineering, physics, and geophysics. The environmental geology option combines training in geology with many different sciences.

Degree requirements may be altered to suit particular needs of a student upon petition to the undergraduate studies committee and in consultation with a geology faculty advisor. Special consideration is given to students with strong backgrounds in supporting sciences and students with superior records who decide to major in geology late in their programs.

First- and Second-Year Preparation

Students interested in geology, especially in the B.S. degree, should see a department advisor as soon as possible. They should enroll in mathematics, chemistry, and English in addition to Introduction to Geology and electives. Students should take GEOL 360 as soon as possible.

Advising

Developing a strong relationship with a faculty advisor helps students get the most out of their educational programs in the shortest time. Most courses for majors are offered in only one semester each year. Advisors can guide the student through complexities of the curriculum or into a specialized program.

Requirements for the B.S. Degree

The B.S. program provides intensive training in geology and other sciences. B.S. majors may emphasize traditional geology, environmental geology (with a specialized track in hydrogeology), engineering geology, geophysics, or earth and space science licensure. The hydrogeology track, the engineering geology option, and the geophysics option combine basic training in geology with training in mathematics, engineering, physics, and geophysics. The environmental geology option combines training in geology with many different sciences.

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General Geology Option

Written Communication - Core Skill and Critical Inquiry.

<table>
<thead>
<tr>
<th>Composition (3)</th>
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<tbody>
<tr>
<td>Satisfied by the following. Requirement must be completed during initial term of admission at KU.</td>
</tr>
<tr>
<td>ENGL 101 Composition 3</td>
</tr>
<tr>
<td>ACT English score of 27 or above or SAT English score of 600 or above</td>
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<tr>
<td>AP English Literature &amp; Composition score of 3 or above</td>
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<tr>
<td>Equivalent transfer course</td>
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Critical Reading and Writing (3)

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<th>Critical Reading and Writing 3</th>
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<tbody>
<tr>
<td>Satisfied by the following. Requirement must be completed during initial term of admission at KU.</td>
</tr>
<tr>
<td>ENGL 102 Critical Reading and Writing</td>
</tr>
<tr>
<td>or ENGL 105 Freshman Honors English</td>
</tr>
<tr>
<td>AP English Literature &amp; Composition score of 4 or above</td>
</tr>
<tr>
<td>Equivalent transfer course</td>
</tr>
</tbody>
</table>

Sophomore Reading and Writing II (15)

<table>
<thead>
<tr>
<th>Topics in Reading and Writing: _____ 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied by the following:</td>
</tr>
<tr>
<td>ENGL 203 Topics in Reading and Writing: _____</td>
</tr>
<tr>
<td>or ENGL 205 Freshman-Sophomore Honors Proseminar: _____</td>
</tr>
<tr>
<td>ENGL 209 Introduction to Fiction</td>
</tr>
<tr>
<td>ENGL 210 Introduction to Poetry</td>
</tr>
<tr>
<td>ENGL 211 Introduction to the Drama</td>
</tr>
<tr>
<td>ENGL 362 Foundations of Technical Writing</td>
</tr>
<tr>
<td>AP English Literature &amp; Composition score of 5 or above</td>
</tr>
<tr>
<td>Equivalent</td>
</tr>
</tbody>
</table>

Communications.

<table>
<thead>
<tr>
<th>Speaker-Audience Communication 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied by:</td>
</tr>
<tr>
<td>COMS 130 Speaker-Audience Communication</td>
</tr>
<tr>
<td>or COMS 150 Personal Communication</td>
</tr>
</tbody>
</table>

Humanities - Understanding the Human Condition. Satisfied by completing 2 courses (requirement code H). Approved courses may be searched for availability through the Kyou portal.

Social and Behavioral Sciences - Understanding Society and Behavior. Satisfied by completing 2 courses (requirement code S). Approved courses may be searched for availability through the Kyou portal. An introductory course in economics is recommended.

Geology Prerequisite or Co-requisite Knowledge (41-46)

Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

Calculus I. Satisfied by:

<table>
<thead>
<tr>
<th>Calculus I (Prerequisite: MATH 104; or MATH 103; or three years of college preparatory mathematics including trigonometry and a score of 28 or higher on ACT mathematics or 640 or higher on the SAT; or a qualifying score on the mathematics placement test. Students may complete MATH 115 and MATH 116 prior to completing MATH 122.) 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied by:</td>
</tr>
<tr>
<td>MATH 121 Calculus I (Prerequisite: MATH 104; or MATH 103; or three years of college preparatory mathematics including trigonometry and a score of 28 or higher on ACT mathematics or 640 or higher on the SAT; or a qualifying score on the mathematics placement test. Students may complete MATH 115 and MATH 116 prior to completing MATH 122.)</td>
</tr>
<tr>
<td>or MATH 123 Calculus I</td>
</tr>
<tr>
<td>or MATH 124 Calculus I</td>
</tr>
<tr>
<td>or MATH 125 Calculus I</td>
</tr>
<tr>
<td>or MATH 126 Calculus I</td>
</tr>
</tbody>
</table>
Calculus II. Satisfied by:
MATH 122 Calculus II 5
Chemistry. Satisfied by:
CHEM 130 General Chemistry I 10
& CHEM 135 and General Chemistry II
Physics. Satisfied by:
PHSX 211 General Physics I 2-5
& PHSX 216 and General Physics I Laboratory
PHSX 212 General Physics II 2-4
& PHSX 236 and General Physics II Laboratory
Biology. Satisfied by BIOL:
BIOL 150 Principles of Molecular and Cellular Biology 8
& BIOL 152 and Principles of Organismal Biology
Information Technology. Satisfied by one of the following:
EECS 128 Foundations of Information Technology: _____ 3
EECS 138 Introduction to Computing: _____ 3
C&PE 121 Introduction to Computers in Engineering 3

Geology Core Knowledge and Skills (40)
Majors must complete the following core courses:
Introduction to Geology. Satisfied by:
GEOL 101 The Way The Earth Works 3
Geology Fundamentals Laboratory. Satisfied by:
GEOL 103 Geology Fundamentals Laboratory 2
Mineralogy and Structure of the Earth. Satisfied by:
GEOL 311 Mineralogy and Structure of the Earth 3
Mineral Structures and Equilibria Laboratory. Satisfied by:
GEOL 312 Mineral Structures and Equilibria Laboratory 1
Sedimentology and Surface Processes. Satisfied by:
GEOL 331 Sedimentology and Surface Processes 4
Field Investigation. Satisfied by:
GEOL 360 Field Investigation 2
Igneous and Metamorphic Petrology. Satisfied by:
GEOL 512 Igneous and Metamorphic Petrology 3
Petrology Laboratory. Satisfied by:
GEOL 513 Petrology Laboratory 1
Paleontology. Satisfied by:
GEOL 521 Paleontology 3
Paleontology Laboratory. Satisfied by:
GEOL 523 Paleontology Laboratory 1
Stratigraphy. Satisfied by:
GEOL 532 Stratigraphy 4
Introductory Field Geology. Satisfied by:
GEOL 560 Introductory Field Geology 3
Field Geology. Satisfied by:
GEOL 561 Field Geology 3
Structural Geology. Satisfied by:
GEOL 562 Structural Geology 4
Geophysics or Geodynamics and Plate Tectonics. Satisfied by:
GEOL 572 Geophysics 3
or GEOL 573 Geodynamics and Plate Tectonics

Geology Required Electives (0)

Majors must complete additional courses to total at least 9 hours numbered 500 or above. This can include 3 hours of GEOL 399, GEOL 105, GEOL 304, or GEOL 121 can also count if taken before the student has completed 60 hours. Electives may include an upper-division course in statistics (MATH 365 or BIOL 570).

Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 49 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 18 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Engineering Geology Option

Written Communication - Core Skill and Critical Inquiry.

Composition (3)
Satisfied by one of the following. Requirement must be completed during initial term of admission at KU.
ENGL 101 Composition 3
ACT English score of 27 or above or SAT English score of 600 or above
AP English Literature & Composition score of 3 or above
Equivalent transfer course

Critical Reading and Writing (3)
Satisfied by one of the following. Requirement must be completed within the first academic year at KU.
ENGL 102 Critical Reading and Writing 3
or ENGL 105 Freshman Honors English
AP English Literature & Composition score of 4 or above
Equivalent transfer course

Sophomore Reading and Writing II (3)
Satisfied by one of the following:
ENGL 362 Foundations of Technical Writing 3
AP English Literature & Composition score of 5 or above
Equivalent

Communications.
Satisfied by:
COMS 130 Speaker-Audience Communication 3
or COMS 150 Personal Communication
Humanities - Understanding the Human Condition. Satisfied by completing 2 courses (requirement code S). Approved courses may be searched for availability through the Kyou portal.

Social and Behavioral Sciences - Understanding Society and Behavior. Satisfied by completing 2 courses (requirement code S). Approved courses may be searched for availability through the Kyou portal.

Geology Prerequisite or Co-requisite Knowledge (57-62)

Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

Mathematics. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td>Calculus I (Prerequisite: MATH 104; or MATH 103; or 3 years of college preparatory mathematics including trigonometry and a score of 28 or higher on ACT mathematics or 640 or higher on the SAT; or a qualifying score on the mathematics placement test.)</td>
</tr>
<tr>
<td>MATH 122</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MATH 220</td>
<td>Applied Differential Equations</td>
</tr>
<tr>
<td>MATH 290</td>
<td>Elementary Linear Algebra</td>
</tr>
</tbody>
</table>

Chemistry. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>&amp; CHEM 135</td>
<td>General Chemistry II</td>
</tr>
</tbody>
</table>

Physics. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 211</td>
<td>General Physics I</td>
</tr>
<tr>
<td>&amp; PHSX 216</td>
<td>General Physics I Laboratory</td>
</tr>
<tr>
<td>PHSX 212</td>
<td>General Physics II</td>
</tr>
<tr>
<td>&amp; PHSX 236</td>
<td>General Physics II Laboratory</td>
</tr>
</tbody>
</table>

Information Technology. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>EECS 128</td>
<td>Foundations of Information Technology: _____</td>
</tr>
<tr>
<td>EECS 138</td>
<td>Introduction to Computing: _____</td>
</tr>
<tr>
<td>C&amp;PE 121</td>
<td>Introduction to Computers in Engineering</td>
</tr>
</tbody>
</table>

Statistics. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 201</td>
<td>Statics</td>
</tr>
</tbody>
</table>

Dynamics. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 300</td>
<td>Dynamics</td>
</tr>
</tbody>
</table>

Strength of Materials. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 311</td>
<td>Strength of Materials</td>
</tr>
</tbody>
</table>

Fluid Mechanics. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 330</td>
<td>Fluid Mechanics</td>
</tr>
</tbody>
</table>

Hydrology. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 455</td>
<td>Hydrology</td>
</tr>
</tbody>
</table>

Soil Mechanics. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 487</td>
<td>Soil Mechanics</td>
</tr>
</tbody>
</table>

Geology Core Knowledge and Skills (42)

Majors must complete the following core courses:

Introduction to Geology. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 101</td>
<td>The Way The Earth Works</td>
</tr>
<tr>
<td>GEOL 103</td>
<td>Geology Fundamentals Laboratory</td>
</tr>
<tr>
<td>GEOL 105</td>
<td>History of the Earth</td>
</tr>
</tbody>
</table>

Mineralogy and Structure of the Earth. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 311</td>
<td>Mineralogy and Structure of the Earth</td>
</tr>
</tbody>
</table>

Mineral Structures and Equilibria Laboratory. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 312</td>
<td>Mineral Structures and Equilibria Laboratory</td>
</tr>
</tbody>
</table>

Sedimentology and Surface Processes. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 331</td>
<td>Sedimentology and Surface Processes</td>
</tr>
</tbody>
</table>

Environmental Geology. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 351</td>
<td>Environmental Geology</td>
</tr>
</tbody>
</table>

Field Investigation. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 360</td>
<td>Field Investigation</td>
</tr>
</tbody>
</table>

Igneous and Metamorphic Petrology. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 512</td>
<td>Igneous and Metamorphic Petrology</td>
</tr>
</tbody>
</table>

Petroleum Laboratory. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 513</td>
<td>Petroleum Laboratory</td>
</tr>
</tbody>
</table>

Geomorphology. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 541</td>
<td>Geomorphology</td>
</tr>
</tbody>
</table>

Introductory Field Geology. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 560</td>
<td>Introductory Field Geology</td>
</tr>
</tbody>
</table>

Field Geology. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 561</td>
<td>Field Geology</td>
</tr>
</tbody>
</table>

Structural Geology. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 562</td>
<td>Structural Geology</td>
</tr>
</tbody>
</table>

Geophysics or Geodynamics and Plate Tectonics. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 572</td>
<td>Geophysics</td>
</tr>
<tr>
<td>or GEOL 573</td>
<td>Geodynamics and Plate Tectonics</td>
</tr>
</tbody>
</table>

Geology or Civil Engineering Required Electives (23)

Majors must complete three additional geology or civil engineering courses, at least two of which must be from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 521</td>
<td>Paleontology</td>
</tr>
<tr>
<td>GEOL 532</td>
<td>Stratigraphy</td>
</tr>
<tr>
<td>GEOL 535</td>
<td>Petroleum and Subsurface Geology</td>
</tr>
<tr>
<td>GEOL 715</td>
<td>Geochemistry</td>
</tr>
<tr>
<td>GEOL 751</td>
<td>Physical Hydrogeology</td>
</tr>
<tr>
<td>CE 770</td>
<td>Concepts of Environmental Chemistry</td>
</tr>
<tr>
<td>CE 771</td>
<td>Environmental Chemical Analysis</td>
</tr>
</tbody>
</table>

Electives may include an upper-division course in statistics:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 365</td>
<td>Elementary Statistics</td>
</tr>
<tr>
<td>or BIOL 570</td>
<td>Introduction to Biostatistics</td>
</tr>
</tbody>
</table>

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**

Satisfied by 45 hours of major courses.

**Major Hours in Residence**

Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**

Satisfied by a minimum of 18 hours from junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of
study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Environmental Geology Option**

Written Communication - Core Skill and Critical Inquiry.

**Composition (3)**
Satisfied by one of the following. Requirement must be completed during initial term of admission at KU.

- ENGL 101 Composition 3
  - ACT English score of 27 or above or SAT English score of 600 or above
  - AP English Literature & Composition score of 3 or above
  - Equivalent transfer course

**Critical Reading and Writing (3)**
Satisfied by one of the following. Requirement must be completed within the first academic year at KU.

- ENGL 102 Critical Reading and Writing 3
  - AP English Literature & Composition score of 4 or above
  - Equivalent transfer course

**Sophomore Reading and Writing II (15)**
Satisfied by one of the following:

- ENGL 203 Topics in Reading and Writing: _____ 3
- ENGL 205 Freshman-Sophomore Honors Proseminar: _____
- ENGL 209 Introduction to Fiction 3
- ENGL 210 Introduction to Poetry 3
- ENGL 211 Introduction to the Drama 3
- ENGL 362 Foundations of Technical Writing 3
  - AP English Literature & Composition score of 5 or above
  - Equivalent transfer course

**Communications.**
Satisfied by:

- COMS 130 Speaker-Audience Communication 3
- COMS 150 Personal Communication

**Humanities - Understanding the Human Condition.** Satisfied by completing 2 courses (requirement code H). Approved courses may be searched for availability through the Kyou portal.

**Social and Behavioral Sciences - Understanding Society and Behavior.** Satisfied by completing 2 courses (requirement code S). Approved courses may be searched for availability through the Kyou portal. An introductory course in economics is recommended.

**Geology Prerequisite or Co-requisite Knowledge (43-54)**
Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

Calculus I. Satisfied by:

- MATH 121 Calculus I (Prerequisite: MATH 104; or MATH 103; or three years of college preparatory mathematics including trigonometry and a score of 28 or higher on ACT mathematics or 640 or higher on the SAT; or a qualifying score on the mathematics placement test. Students may complete MATH 115 and MATH 116 prior to completing MATH 122.) 5

Calculus II. Satisfied by:

- MATH 122 Calculus II 5

Chemistry. Satisfied by:

- CHEM 130 General Chemistry I 10
- CHEM 135 and General Chemistry II

Physics. Satisfied by:

- Select one of the following:
  - PHSX 211 General Physics I 2-5
  - PHSX 212 & PHSX 236 General Physics II Laboratory (recommended) 2-4
  - PHSX 211 & PHSX 236 General Physics I and General Physics II Laboratory 2-8

Biology. Satisfied by:

- BIOL 150 Principles of Molecular and Cellular Biology 8
- BIOL 152 and Principles of Organismal Biology

Information Technology. Satisfied by one of the following:

- EECS 128 Foundations of Information Technology: _____ 3
- EECS 138 Introduction to Computing: _____ 3
- C&PE 121 Introduction to Computers in Engineering 3

**Geology Core Knowledge and Skills (41)**
Majors must complete the following core courses:

Introduction to Geology. Satisfied by:

- GEOL 101 The Way The Earth Works 3

Geology Fundamentals Laboratory. Satisfied by:

- GEOL 103 Geology Fundamentals Laboratory 2

Mineralogy and Structure of the Earth. Satisfied by:

- GEOL 311 Mineralogy and Structure of the Earth 3

Sedimentology and Surface Processes. Satisfied by:

- GEOL 331 Sedimentology and Surface Processes 4

Environmental Geology. Satisfied by:

- GEOL 351 Environmental Geology 3

Field Investigation. Satisfied by:

- GEOL 360 Field Investigation 2

Paleontology. Satisfied by:

- GEOL 521 Paleontology 3

Stratigraphy. Satisfied by:

- GEOL 532 Stratigraphy 4

Geomorphology. Satisfied by:

- GEOL 541 Geomorphology 4

Introduction to Hydrogeology. Satisfied by:

- GEOL 552 Introduction to Hydrogeology 3

Introductory Field Geology. Satisfied by:

- GEOL 560 Introductory Field Geology 3

Structural Geology. Satisfied by:

- GEOL 562 Structural Geology 4
Geophysics. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 572</td>
<td>Geophysics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Geology Required Electives (38-43)**

Majors must complete additional courses to total at least nine hours numbered 500 or above. The following are recommended:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 391</td>
<td>Special Studies in Geology</td>
<td>1-6</td>
</tr>
<tr>
<td>GEOL 535</td>
<td>Petroleum and Subsurface Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 715</td>
<td>Geochemistry</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 751</td>
<td>Physical Hydrogeology</td>
<td>3</td>
</tr>
<tr>
<td>CE 770</td>
<td>Concepts of Environmental Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>&amp; CE 771</td>
<td>and Environmental Chemical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 535</td>
<td>Soil Geography</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 558</td>
<td>Intermediate Geographical Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 753</td>
<td>Chemical and Microbial Hydrogeology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 400</td>
<td>Fundamentals of Microbiology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Environmental Hydrogeology Track**

Besides the general program above, a specialized track in hydrogeology satisfies degree requirements. In addition to College, supporting science, and geology courses, the environmental hydrogeology track requires the following mathematics and civil engineering/physics courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 220</td>
<td>Applied Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 290</td>
<td>Elementary Linear Algebra</td>
<td>2</td>
</tr>
<tr>
<td>CE 330</td>
<td>Fluid Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>or PHSX 623</td>
<td>Physics of Fluids</td>
<td>3</td>
</tr>
</tbody>
</table>

In addition, Technical Electives (9 hours). These normally are chosen from courses numbered 500 or above in geology, physics, mathematics, chemistry, engineering or computer science. Courses numbered below 500 must be approved by a geology advisor.

**Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major Hours</strong></td>
<td>50</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Major Hours in Residence</strong></td>
<td>15</td>
<td></td>
</tr>
<tr>
<td><strong>Major Junior/Senior Hours</strong></td>
<td>45</td>
<td></td>
</tr>
<tr>
<td><strong>Major Junior/Senior Graduation GPA</strong></td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td><strong>Geology Prerequisite or Co-requisite Knowledge</strong></td>
<td>114</td>
<td></td>
</tr>
</tbody>
</table>

**Composition (3)**

Satisfied by one of the following. Requirement must be completed during initial term of admission at KU.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ACT English score of 27 or above or SAT English score of 600 or above</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AP English Literature &amp; Composition score of 3 or above</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Equivalent transfer course</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Critical Reading and Writing (3)**

Satisfied by one of the following. Requirement must be completed during initial term of admission at KU.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 105</td>
<td>Freshman Honors English</td>
<td>3</td>
</tr>
<tr>
<td>AP English Literature &amp; Composition score of 4 or above</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Equivalent transfer course</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Sophomore Reading and Writing II (15)**

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 203</td>
<td>Topics in Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 205</td>
<td>Freshman-Sophomore Honors Proseminar</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 209</td>
<td>Introduction to Fiction</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 210</td>
<td>Introduction to Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 211</td>
<td>Introduction to the Drama</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 362</td>
<td>Foundations of Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>AP English Literature &amp; Composition score of 5 or above</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Equivalent transfer course</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Humanities - Understanding the Human Condition.** Satisfied by completing 2 courses (requirement code H). Approved courses may be searched for availability through the Kyoo portal.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ACT English score of 27 or above or SAT English score of 600 or above</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AP English Literature &amp; Composition score of 3 or above</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Equivalent transfer course</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Social and Behavioral Sciences - Understanding Society and Behavior.** Satisfied by completing 2 courses (requirement code S). Approved courses may be searched for availability through the Kyoo portal. An introductory course in economics is recommended.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ACT English score of 27 or above or SAT English score of 600 or above</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AP English Literature &amp; Composition score of 3 or above</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Equivalent transfer course</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ACT English score of 27 or above or SAT English score of 600 or above</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AP English Literature &amp; Composition score of 3 or above</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Equivalent transfer course</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Geology Prerequisite or Co-requisite Knowledge (44-49)**

Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

**Calculus I. Satisfied by:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td>Calculus I (Prerequisite: MATH 104; or MATH 103; or three years of college preparatory mathematics including trigonometry and a score of 28 or higher on ACT mathematics or 640 or higher on the SAT; or a qualifying score on the mathematics placement test. Students may complete MATH 115 and MATH 116 prior to completing MATH 122.)</td>
<td>5</td>
</tr>
</tbody>
</table>

**Calculus II. Satisfied by:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 122</td>
<td>Calculus II</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vector Calculus and Elementary Linear Algebra. Satisfied by:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MATH 223</td>
<td>Vector Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MATH 290</td>
<td>Elementary Linear Algebra</td>
<td>2</td>
</tr>
<tr>
<td>Elementary Differential Equations. Satisfied by:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MATH 320</td>
<td>Elementary Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>Chemistry. Satisfied by:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
<td>10</td>
</tr>
<tr>
<td>&amp; CHEM 135</td>
<td>and General Chemistry II</td>
<td>10</td>
</tr>
</tbody>
</table>

**Geophysics Option**

**Written Communication - Core Skill and Critical Inquiry.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composition (3)</td>
<td>Satisfied by one of the following. Requirement must be completed during initial term of admission at KU.</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>PHSX 211</td>
<td>General Physics I</td>
<td>2-5</td>
</tr>
<tr>
<td>&amp; PHSX 216</td>
<td>and General Physics I Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHSX 212</td>
<td>General Physics II</td>
<td>2-4</td>
</tr>
<tr>
<td>&amp; PHSX 236</td>
<td>and General Physics II Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHSX 313</td>
<td>General Physics III</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 521</td>
<td>Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 531</td>
<td>Electricity and Magnetism</td>
<td>3</td>
</tr>
<tr>
<td>EEC 128</td>
<td>Foundations of Information Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Information Technology. Satisfied by one of the following:**

**Geology Core Knowledge and Skills (27)**

Majors must complete the following core courses:

- **Introduction to Geology. Satisfied by:**
  - GEOL 101 The Way The Earth Works 3

- **Geology Fundamentals Laboratory. Satisfied by:**
  - GEOL 103 Geology Fundamentals Laboratory 2

- **Mineralogy and Structure of the Earth. Satisfied by:**
  - GEOL 311 Mineralogy and Structure of the Earth 3

- **Sedimentology and Surface Processes. Satisfied by:**
  - GEOL 331 Sedimentology and Surface Processes 4

- **Field Investigation. Satisfied by:**
  - GEOL 360 Field Investigation 2

- **Igneous and Metamorphic Petrology. Satisfied by:**
  - GEOL 512 Igneous and Metamorphic Petrology 3

- **Introductory Field Geology. Satisfied by:**
  - GEOL 560 Introductory Field Geology 3

- **Structural Geology. Satisfied by:**
  - GEOL 562 Structural Geology 4

- **Geophysics. Satisfied by one of the following:**
  - GEOL 572 Geophysics 3

- **or GEOL 573** Geodynamics and Plate Tectonics 3

**Additional Geology Courses (12)**

- **Satisfied by completion of two of the following:**
  - GEOL 572 Geophysics 3
  - GEOL 573 Geodynamics and Plate Tectonics 3
  - GEOL 575 Seismic Exploration 3
  - GEOL 577 Environmental Geophysics 3

**Technical Required Electives (0)**

Majors must complete additional courses to total at least nine hours numbered 500 or above in geology, physics, mathematics, chemistry, engineering, or computer science. Courses numbered below 500 must be approved by a geophysics advisor.

### Major Hours & Major GPA

Majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 42 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

### Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator [here](http://clas.ku.edu/undergrad/tools/gpa).

### Earth and Space Science Licensure Option

This program fulfills the requirements for a Bachelor of Science degree in geology. The program also meets course requirements necessary to gain state licensure eligibility in earth and space science to become a secondary teacher in Kansas, but completion of the program does not guarantee the student’s licensure. This list is a guideline. Contact the geology department for further information about meeting degree and additional licensure requirements. You may also contact the UKanTeach Office for information about similar tracks resulting in eligibility for licensure in this and other science and mathematics fields.

**Written Communication - Core Skill and Critical Inquiry.**

**Composition (3)**
Satisfied by one of the following. Requirement must be completed during initial term of admission at KU.

- ENGL 101 Composition 3
  - ACT English score of 27 or above or SAT English score of 600 or above
  - AP English Literature & Composition score of 3 or above
  - Equivalent transfer course

**Critical Reading and Writing (3)**
Satisfied by one of the following. Requirement must be completed within the first academic year at KU.

- ENGL 102 Critical Reading and Writing 3
  - or ENGL 105 Freshman Honors English
  - AP English Literature & Composition score of 4 or above
  - Equivalent transfer course

**Sophomore Reading and Writing II (15)**
Satisfied by one of the following:

- ENGL 203 Topics in Reading and Writing: _____ 3
  - or ENGL 205 Freshman-Sophomore Honors Proseminar: _____
  - or ENGL 209 Introduction to Fiction 3
  - ENGL 210 Introduction to Poetry 3
  - ENGL 211 Introduction to the Drama 3
  - ENGL 362 Foundations of Technical Writing 3
  - AP English Literature & Composition score of 5 or above
  - Equivalent

**Communication.**

Satisfied by:

- COMS 130 Speaker-Audience Communication 3
  - or COMS 150 Personal Communication
Humanities - Understanding the Human Condition. Satisfied by completing 2 courses (requirement code H). Approved courses may be searched for availability through the Kyou portal.

Social and Behavioral Sciences - Understanding Society and Behavior. Satisfied by completing 2 courses (requirement code S). Approved courses may be searched for availability through the Kyou portal. An introductory course in economics is recommended.

Geology Prerequisite or Co-requisite Knowledge (32-37)

Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

Calculus I. Satisfied by:

- MATH 121 Calculus I (Prerequisite: MATH 104; or MATH 103; or three years of college preparatory mathematics including trigonometry and a score of 28 or higher on ACT mathematics or 640 or higher on the SAT; or a qualifying score on the mathematics placement test. Students may complete MATH 115 and MATH 116 prior to completing MATH 122)

Calculus II. Satisfied by:

- MATH 122 Calculus II

Chemistry. Satisfied by:

- CHEM 130 General Chemistry I
- CHEM 135 & General Chemistry II

Physics. Satisfied by:

- PHSX 211 General Physics I
- PHSX 216 & General Physics I Laboratory
- PHSX 212 General Physics II
- PHSX 236 & General Physics II Laboratory

Biology. Satisfied by:

- BIOL 150 Principles of Molecular and Cellular Biology
- BIOL 151 or BIOL 152 Principles of Molecular and Cellular Biology, Honors
- BIOL 152 or BIOL 153 Principles of Organismal Biology, Honors

Geology Core Knowledge and Skills (32)

Majors must complete the following core courses:

- Introduction to Geology. Satisfied by:
  - GEOL 101 The Way The Earth Works
- Geology Fundamentals Laboratory. Satisfied by:
  - GEOL 103 Geology Fundamentals Laboratory
- Mineralogy and Structure of the Earth. Satisfied by:
  - GEOL 311 Mineralogy and Structure of the Earth
- Sedimentology and Surface Processes. Satisfied by:
  - GEOL 331 Sedimentology and Surface Processes
- Field Investigation. Satisfied by:
  - GEOL 360 Field Investigation
- Paleontology. Satisfied by:
  - GEOL 521 Paleontology
  & GEOL 523 and Paleontology Laboratory
- Stratigraphy. Satisfied by:
  - GEOL 532 Stratigraphy
- Introduction to Hydrogeology. Satisfied by:
  - GEOL 552 Introduction to Hydrogeology

Introductory Field Geology. Satisfied by:

- GEOL 560 Introductory Field Geology

Structural Geology. Satisfied by:

- GEOL 562 Structural Geology

Space Science Core Knowledge and Skills (9)

Majors must complete the following core courses:

- ATMO 105 Introductory Meteorology
- ASTR 191 Contemporary Astronomy
- ASTR 196 Introductory Astronomy Laboratory

Earth and Space Required Electives (0)

Majors must complete one of the areas below:

Geology Focus. Satisfied by 4 hours in a geology course numbered 300 or above.

Astronomy Focus. Satisfied by 4 hours in astronomy courses numbered 300 or above. This can include three hours of ASTR 390 or GEOL 399, GEOL 105, GEOL 304, or GEOL 121 also can count if taken before the completion of 60 hours.

Research Methods (3)

Satisfied by:

- CHEM 598 Research Methods

Professional Development Course Work (2)

A minimum grade of C is required in all courses.

Liberal Arts and Sciences. Satisfied by:

- LA&S 290 Approaches to Teaching Science and Mathematics I
- LA&S 291 Approaches to Teaching Science and Mathematics II

Curriculum and Teaching (19 hours). Satisfied by:

- C&T 448 Reading and Writing across the Curriculum and 16 hours of courses approved by UKanTeach in curriculum and teaching. These should include courses such as Classroom Interactions (3), Knowing and Learning (3), Project Based Instruction (3), Student Teaching (6), and Special Topics Seminar (1).

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours

Satisfied by 58 hours of major courses.

Major Hours in Residence

Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior core courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).
Departmental Honors

Pursuit of departmental honors in Geology is by invitation from the Department of Geology honors coordinator.
Requirements include:
3.25 or higher KU GPA at graduation.
3.50 or higher KU geology-courses GPA at graduation.
Completion of at least 2 credit hours of GEOL 399.

Completion and successful defense of an honor’s thesis.
Additional requirements and more information may be obtained from the Department of Geology honors coordinator and web site.

Minor in Geology

Why study geology?

Because its leadership role among geoscience programs advances higher learning and serves society through the discovery, dissemination, and application of knowledge.

Requirements for the Minor

The minor requires 18 to 23 hours of geology courses, of which 12 hours must be junior/senior hours or higher (courses numbered 300 or above).

Geology Minor Course Requirements (5)

Students selecting this minor must complete the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 101</td>
<td>The Way The Earth Works</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 103</td>
<td>Geology Fundamentals Laboratory</td>
<td>2</td>
</tr>
</tbody>
</table>

Geology Required Electives (13)

Students selecting this minor must complete a minimum of 13 hours in geology courses. GEOL 311 and GEOL 331 are recommended because they are necessary as prerequisites for many upper-division courses.

Students must work with an advisor to select courses to complete the requirements for the minor. Students must turn in a signed Geology Minor Advising form and a Minor Declaration form to the department office, 120 Lindley Hall, before taking any courses numbered 500 or above.

Minor Hours

Satisfied by 18 hours of minor courses.

Minor in Residence

Satisfied by a minimum of 9 hours of KU resident credit in the minor.

Minor Junior/Senior Hours

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Junior/Senior Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in all departmental courses (300+) in the minor. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/ Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Master of Science in Geology

Why study geology?

Because its leadership role among geoscience programs advances higher learning and serves society through the discovery, dissemination, and application of knowledge.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

Admission is based on academic records including grade-point average and general preparedness in geology and supporting sciences, letters of recommendation, and the applicant’s stated academic and professional interests and goals. Results of the aptitude tests of the Graduate Record Examination are required. An attempt is made to balance the interests of students with the availability of faculty members to supervise them and laboratory space in which they may work. Consequently, new admissions in areas of geology that are heavily subscribed or in which the department has little expertise may be limited. As a result, some students who meet KU’s minimum standard for admission may be refused. Students who do not hold master’s degrees in geology normally are admitted to pursue the master’s degree. Students with exceptional records may be invited to study for the Ph.D. without first earning the M.S. degree.

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the department:

The University of Kansas
Department of Geology
Lindley Hall
1475 Jayhawk Blvd., Room 120
Lawrence, KS 66045-7575

M.S. Degree Requirements

Details of the regulations on graduate study are included in the department’s Ground Rules for Graduate Students, available from the department office (http://www.geo.ku.edu).

Prerequisites include credit in one year each of general biology, general chemistry, general physics, and calculus, plus junior- or senior-level courses in mineralogy, petrology, structural geology, paleontology, stratigraphy, geophysics, and a summer course in field geology. Students planning to specialize in geophysics also should have more advanced backgrounds in calculus and physics. Incoming graduate students meet with a departmental advisory review committee before enrollment to identify deficiencies and strengths and to set up curricula aimed at providing a broad background in geology at the intermediate to advanced
level during the first year. Some deficiencies may be waived at this time if they are deemed nonessential.

Geology has many subdisciplines, and the department tailors each student's curriculum to the needs of the individual. There is no departmental core curriculum or list of required courses.

**Thesis Option (M.S. Degree)**

The master's degree curriculum requires completion of 30 credit hours, including up to 6 credit hours for thesis research, and an acceptable master's thesis. The student sets the curriculum in consultation with a 3-member advisory committee selected from the Graduate Faculty and approved by the graduate advisor. Course work counted toward the degree must be distributed to provide a comprehensive general knowledge of geology in addition to specialized knowledge required for the thesis. It may include courses in departments other than geology.

Although the department does not award a master's degree in geophysics, students can specialize in geophysics at the master's level. A similar arrangement is possible in the Department of Physics and Astronomy. This specialization is overseen by a committee with representatives from the Department of Physics and Astronomy, the Kansas Geological Survey, and the Department of Geology. The committee recommends requirements for the specialty degree and coordinates educational activities in geophysics. Research is supervised by departmental faculty members as well as by adjunct faculty members who are staff members of the Kansas Geological Survey. Similar arrangements can be made for students wishing to specialize in hydrogeology or paleontology.

The student must maintain at least a 3.0 grade-point average in geology and supporting science courses and pass a final oral general examination on the areas of geology relevant to the thesis project. This examination may be repeated once, if necessary.

**Nonthesis Option (M.S. Degree)**

A student may complete an M.S. degree program based primarily on course work and specialized skills. For this degree, a minimum of 36 credit hours of graduate-level study must be completed, including two written reports based on small projects. The student determines the structure of the project in consultation with an advisory committee of 5 faculty members. A student must declare an intention to follow the nonthesis option during the first semester of graduate study. The nonthesis degree is a terminal degree and normally cannot lead to a dissertation. In addition to maintaining a 3.0 grade-point average in course work, the student must demonstrate proficiency in the areas of geology covered by the program. This is accomplished by satisfactory performance on a series of written examinations assembled and administered by the advisory committee. These constitute the final examination for the degree and may be repeated once, if necessary.

During or after the period of residence, a student who wishes to change to an M.S. (thesis) program or a Ph.D. program must petition the graduate studies committee.

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**Doctor of Philosophy in Geology**

**Why study geology?**

Because its leadership role among geoscience programs advances higher learning and serves society through the discovery, dissemination, and application of knowledge.

**Admission to Graduate Studies**

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

**Graduate Admission**

Admission is based on academic records including grade-point average and general preparedness in geology and supporting sciences, letters of recommendation, and the applicant's stated academic and professional interests and goals. Results of the aptitude tests of the Graduate Record Examination are required. An attempt is made to balance the interests of students with the availability of faculty members to supervise them and laboratory space in which they may work. Consequently, new admissions in areas of geology that are heavily subscribed or in which the department has little expertise may be limited. As a result, some students who meet KU's minimum standard for admission may be refused. Students who do not hold master's degrees in geology normally are admitted to pursue the master's degree. Students with exceptional records may be invited to study for the Ph.D. without first earning the M.S. degree.

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the department:

**The University of Kansas**
Department of Geology
Lindley Hall
1475 Jayhawk Blvd., Room 120
Lawrence, KS 66045-7575

**Ph.D. Degree Requirements**

Doctoral students can specialize in any area of faculty expertise, including hydrogeology and geophysics. Prospective Ph.D. candidates are subject to the same initial requirements as master's students. The master's degree is not a prerequisite for doctoral aspirancy. A student with good background and good performance during the first 2 semesters may be invited to proceed directly toward the doctorate.

The student's advisory committee and the student construct a curriculum that offers the best preparation for the chosen field of interest and satisfies the research skills requirement. Each student is expected to enroll in courses in supporting fields to develop a multidisciplinary...
approach to geology. The student must maintain at least a 3.0 grade-point average in geology and supporting science courses.

Research Skills & Responsible Scholarship Requirements

The university requires that every doctoral student have training in responsible scholarship and research skills pertinent to the field of research and appropriate to the doctoral level. This requirement must be met before taking the comprehensive oral exam. Doctoral students in geology meet this requirement by the following:

- Completion of GEOL 791: Ethics in the Geosciences with a grade of “B” or higher.
- With the approval of the advisory committee, the student may meet the research skills requirement by taking either a curriculum of at least 3 graduate-level courses outside the department that are relevant to the specialty, or by completing a combination of languages, research skills, and courses.

Either plan must be approved by the graduate advisor, and a list of these courses must be in the student’s file.

Please contact your advisor or the director of Graduate studies for further information about research skills and responsible scholarship, and see the current policy on Doctoral Research Skills and Responsible Scholarship in the Graduate Studies section of the online catalog and in the KU Policy Library.

Admission to Candidacy

To be admitted to Ph.D. candidacy, a student must pass an oral comprehensive examination on the specialty in geology in which the student is doing doctoral research and on other relevant areas of geology or supporting sciences. The student must prepare and have approved a research proposal based on the doctoral research project before the oral comprehensive examination. The examination is based on the material presented in the proposal and its application to geology in general. The examination is conducted by a 5-member faculty committee; 1 member of the committee must be from a KU department other than geology and is appointed by Graduate Studies on recommendation of the department. This committee is also responsible for conducting a final oral examination based on the doctoral dissertation. A 3-person committee supervises research and preparation for the dissertation.

Shared Doctoral Program with Kansas State University

The department has a shared education program whereby doctoral students may study under the direction of a faculty member of the Department of Geology at Kansas State University, with a KU faculty member as co-chair of the dissertation committee. After one year of course work in Lawrence to fulfill the residence requirement, students may enroll at Kansas State University. Degrees are awarded by KU. For specific information on departmental practices in shaping individual curricula, in controlling general examinations, and in evaluating dissertation proposals, contact the department graduate advisor.

Department of Germanic Languages and Literatures

Why study Germanic languages and literatures?

Knowledge and appreciation of the language, literature, and culture of Central Europe will help us understand our own past, present, and future and will also provide students with translingual and transcultural competence that will help them participate actively and productively in our increasingly global world.

Libraries

Special Library Collections in German

The Rainer Maria Rilke Collection comprises more than 1,200 volumes, including all first editions, critical editions, translations, bibliographies, criticism, and various materials on the reception of his works. The Collection is located in the Max Kade Center for German-American Studies.

The Engel German Library is an endowed departmental library housing an expanding collection of reference works, standard editions, basic secondary literature, current German periodicals, newspapers and magazines, as well as tape recordings, records, slides, and audio-visual equipment.

Max Kade Center for German-American Studies

The center collects materials on German culture in the United States and fosters scholarship in German-American Studies, especially dialect, literary, and interdisciplinary cultural studies, including dissertation research. The materials—10,000 books, as well as magazines, journals, and other writings—were produced or brought to this country by German-speaking immigrants and, in the 20th century, by exiles from Nazi Germany. Among the holdings are materials from the Turner societies of New York, Milwaukee and Lawrence. The center sponsors lectures, symposia, workshops, and conferences; publishes the Yearbook of German-American Studies for the Society of German-American Studies; and houses the Linguistic Atlas of Kansas German Dialects.

For information, contact James Morrison, Interim Director, Sudler House, 785-864-7343 or 7342, german@ku.edu.

Undergraduate Programs

We offer students a diverse and challenging program in the language and cultural forms of German-speaking Europe, including literature, the arts, history, business, and politics. Our program is characterized by personalized advising, interdisciplinary flexibility, co-curricular activities, and opportunities to conduct independent research and to study and undertake internships abroad. Courses at the 100, 200, and 300 levels emphasize student involvement with the aim of developing students’ use of the German language, including the ability to comprehend, interpret, and produce spoken, written, and multimedia texts in different genres. Cultural topics are integrated into instruction starting in the first semester. At the 400 and 500 levels, survey courses provide students with a broader perspective on German cultural traditions, while other advanced courses often have a thematic focus.
All of our courses except GERM 315: German Literature and the Modern Era are taught in German. Majors have the option of taking two approved courses offered by other departments that are taught in English and include significant content related to German-speaking Europe; minors may take one such course. Courses taken in departments such as the history of art, philosophy, political science, Slavic languages & literatures, sociology, and theatre will enhance students’ study of the language and cultural forms of German-speaking Europe.

Both the German major and minor can be combined with majors and minors in other departments. Many students take advantage of this opportunity and combine their study of German with linguistics, business, philosophy, European studies, and history, for example.

The department on occasion offers a 4-semester proficiency sequence in a Scandinavian language (Swedish, Danish, or Norwegian) and in Dutch. The Department of Slavic Languages & Literatures offers a 4-semester Yiddish proficiency sequence. Courses for reading knowledge in German, Danish, and Dutch are also offered, subject to availability.

Placement
Students beginning the study of German at KU should take GERM 104. Students who have studied German before should take the online German placement examination and contact the department’s placement officer, Prof. Nina Vyatkina, vyatkina@ku.edu.

Retroactive Credit
Students with no prior college or university German course credit are eligible for retroactive credit as follows:

- 3 hours of retroactive credit are awarded to a student with 2 or 3 years of high school German who initially enrolls at KU in the third-semester German course (GERM 201) and receives a grade of C or higher.
- 6 hours of retroactive credit are awarded to a student with 3 or 4 years of high school German who initially enrolls at KU in the fourth-semester German course (GERM 202) and receives a grade of C or higher.
- 9 hours of retroactive credit are awarded to a student with 4 years of high school German who initially enrolls at KU in a German course with GERM 202 as a prerequisite and receives a grade of C or higher.

Students must be actively enrolled at the university when they apply for retroactive credit. There is a flat-rate charge of $50; you will receive a bill from the Bursar’s Office after the credit has been applied to your transcript. To apply for retroactive credit, you must bring the following 3 items to the Undergraduate Advisor:

- Copy of your high school transcript, available from the Office of Admissions at the Visitor Center
- A copy of your DPR
- A note stating that you wish to apply for retroactive credit for the German course(s) that you took in high school.

Advanced Placement
KU encourages students to take Advanced Placement Examinations in any of the areas under the College Entrance Examination Board (CEEB) program. KU gives credit only in certain courses with certain scores from the AP examinations.

The results of these examinations must be sent to KU directly from CEEB. Departments may grant advanced placement and/or credit on the basis of the test scores. No college grade is assigned when advanced placement credit is given. Instead, a credit is recorded on the student’s KU record.

No fee, beyond that charged by CEEB, is assessed for such college credit or placement. For information on how Advanced Placement scores in English and mathematics affect graduation requirements and initial enrollment in all schools, see the College of Liberal Arts and Sciences Degree Requirements page and the English (p. 1317) and Mathematics (p. 1540) department pages. Contact the Office of Admissions (http://admissions.ku.edu), adm@ku.edu, for further information.

Credit by Examination
KU offers its own program of examinations for advanced credit. Applications are available online (http://www.registrar.ku.edu/forms). They must be approved by the Undergraduate Advisor and the chair of the department concerned and by the student’s dean or dean’s representative. A report of the examination taken, showing the hours of credit to be granted and the grade awarded, must be signed by the professor giving the examination, the chair, and the dean or dean’s representative.

At the discretion of each academic dean, grades of A, B, C, or D may be used to indicate degrees of achievement, or a grade of Credit may indicate satisfactory performance. No record is made of an unsatisfactory attempt. Credit by Examination grades are not included in the grade-point average that appears on the official transcript.

A fee is charged for each course. For current fee information, contact the Office of the University Registrar (http://www.registrar.ku.edu), kuregistrar@ku.edu.

Warning: Some medical schools do not accept credit by examination.

Native Speakers
Students who have completed secondary education in a German-speaking country are generally not eligible to enroll in German courses below the 400 level. The department reserves the right to disenroll such students.

Courses for Future Teachers
Candidates for the B.S. in Education majoring or minoring in German should consult the School of Education.

General Information about the Graduate Program
The Department offers the M.A. and Ph.D. degrees in Germanic Languages & Literatures. Work toward the M.A. degree consists of a traditional curriculum providing important foundational knowledge. The curriculum includes historical surveys of the major literary periods and genres, of the structure and function of German and Germanic languages, knowledge of disciplinary methodologies employed in the field, development of language capacity, and control of writing and research strategies. Building on the M.A. foundational base, the KU Ph.D. degree program encourages students to develop their particular intellectual interests in collaboration with KU faculty and their areas of specialization. The graduate program focuses on the following areas:

- German literature
- Germanic linguistics/philology
- German second-language acquisition/applied linguistics

The Doctoral Program Profile (PDF) (http://graduate.ku.edu/sites/graduate.drupal.ku.edu/files/docs/dpp/DPP_A_GERM.pdf) gives a
retrospective overview of our time-to-degree and other statistics relevant to the graduate program and graduate-student experience.

Departmental Funding

While it is not guaranteed, the department does its best to provide funding in the form of Graduate Teaching Assistantship (GTA) appointments to all incoming graduate students. GTA appointments are awarded for the academic year and come with:

- a competitive academic year (9 month) salary
- a 100% tuition waiver for all courses at KU
- payment of up to 3 hours of student fees
- optional University-subsidized group health insurance

The appointments are guaranteed based on performance for up to 3 years for M.A. students, 5 years for Ph.D. students and 6 years for students who receive both an M.A. and a Ph.D. at The University of Kansas. GTAs in the department receive thorough training in language instruction, close mentoring, and the opportunity to teach French at a variety of levels, providing them with a strong base of teaching experience upon entering the job market. Additional information about teaching for the department is available on the Graduate Funding page (https://germanic.drupal.ku.edu/gta-appointments-and-fellowships) of our departmental website.

Post-comprehensive students completing their dissertations are also eligible to apply for one of the departmental Max Kade Dissertation Fellowships.

Additional Funding

There are also university fellowships for truly outstanding students. Visit the Graduate Studies website for information about funding opportunities (http://www.graduate.ku.edu/funding-opportunities) for KU graduate students.

Contact

For inquiries concerning the graduate program, please contact:

Professor Leonie Marx (https://germanic.drupal.ku.edu/leonie-marx),
Director of Graduate Studies and/or Morgan Swartzlander (https://germanic.drupal.ku.edu/morgan-swartzlander),
Graduate Program Coordinator & Graduate Admissions Administrator.

Courses

DANE 100. Danish Reading Course. 3 Hours. U.
Special course designed to enable graduate students to develop a reading knowledge of Danish as a research skill. Enrollment for undergraduate credit is required. Does not satisfy any part of the undergraduate language requirement. Not open to native speakers of Danish. LEC.

DANE 101. Danish Reading Course II. 3 Hours. U.
Continuation of DANE 100 and introduction to reading Norwegian and Swedish. Not open to native speakers of Danish. Prerequisite: DANE 100 or equivalent. LEC.

DANE 104. Elementary Danish I. 5 Hours. U.
Essentials of grammar, practice in speaking, reading, and writing Danish. Five hours of recitation per week. Not open to native speakers of Danish. LEC.

DANE 105. Elementary Danish I, Honors. 5 Hours. H.
Course content similar to DANE 104, with additional work to expand the student’s cultural context and understanding. Not open to native speakers of Danish or students who have completed DANE 104. Prerequisite: Open only to students admitted to the University Honors Program or by permission of instructor. LEC.

DANE 108. Elementary Danish II. 5 Hours. U.
Continuation of grammar; practice in conversation, composition, and reading. Five hours of recitation per week. Not open to native speakers of Danish. Prerequisite: DANE 104 or permission of instructor. LEC.

DANE 109. Elementary Danish II, Honors. 5 Hours. H.
Course content similar to DANE 108, with additional cultural study. Not open to native speakers of Danish or students who have completed DANE 108. Prerequisite: Open to students who received a grade of A in DANE 104 or an A or B in DANE 105. LEC.

DANE 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Danish. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

DANE 212. Intermediate Danish I. 3 Hours. U.
A continuation of DANE 108. Structured grammar review, composition, conversation with readings of literary and cultural texts. Not open to native speakers of Danish. Prerequisite: DANE 108 or permission of instructor. LEC.

DANE 213. Intermediate Danish I, Honors. 3 Hours. H.
Course content similar to DANE 212, with additional cultural study. Not open to native speakers of Danish or students who have completed DANE 212. Prerequisite: Completion of DANE 108 with a grade of A, or DANE 109 with a grade of A or B. LEC.

DANE 216. Intermediate Danish II. 3 Hours. U.
A continuation of DANE 212. Structured grammar review, composition, conversation with readings of literary and cultural texts. Not open to native speakers of Danish. Prerequisite: DANE 212 or permission of instructor. LEC.

DANE 217. Intermediate Danish II, Honors. 3 Hours. H.
Course content similar to DANE 216, with additional cultural study. Not open to native speakers of Danish or students who have completed DANE 216. Prerequisite: Completion of DANE 212 with a grade of A, or DANE 213 with a grade of A or B. LEC.

DANE 220. Intensive Danish. 16 Hours. U.
This course is designed to teach speaking, reading, writing, and comprehension skills of first and second year Danish in one semester. Classes are held for four hours a day Monday through Friday (8:30 a.m. - 12:20 p.m.). There are intensive drills in grammar, integrated language lab work, and homework assignments. Not open to native speakers of Danish. Prerequisite: Admission to Danish Institute at the University of Kansas. LEC.

DTCH 100. Dutch Reading Course. 3 Hours. U.
Special course designed to enable graduate students to develop a reading knowledge of Dutch as a research skill. Enrollment for undergraduate credit is required. Does not satisfy any part of the undergraduate language requirement. Not open to native speakers of Dutch. LEC.

DTCH 101. Dutch Reading Course II. 3 Hours.
Continuation of DTCH 100. Not open to native speakers of Dutch. Prerequisite: DTCH 100 or equivalent. LEC.
DTCH 104. Elementary Dutch I. 5 Hours. U.
Essentials of grammar; practice in speaking, reading, and writing Dutch. Five hours of recitation per week. Not open to native speakers of Dutch. LEC.

DTCH 105. Elementary Dutch I, Honors. 5 Hours. U.
Similar to DTCH 104 with additional work to expand the student's cultural context and understanding. Not open to native speakers of Dutch or students who have completed DTCH 104. Prerequisite: Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

DTCH 108. Elementary Dutch II. 5 Hours. U.
Continuation of grammar, practice in conversation, composition, and reading. Five hours of recitation per week. Not open to native speakers of Dutch. Prerequisite: DTCH 104 or equivalent. LEC.

DTCH 109. Elementary Dutch II, Honors. 5 Hours. U.
Course content similar to DTCH 108, with additional cultural study. Meets 5 days a week. Not open to native speakers of Dutch. Prerequisite: Open only to students admitted to the University Honors Program or by permission of instructor. LEC.

DTCH 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Dutch. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

DTCH 212. Intermediate Dutch I. 3 Hours. U.
A continuation of DTCH 108. Structured grammar review, composition, conversation, with readings of literary and cultural texts. Three class meetings per week. Not open to native speakers of Dutch. Prerequisite: DTCH 108 or equivalent. LEC.

DTCH 213. Intermediate Dutch I, Honors. 3 Hours. U.
Course content similar to DTCH 212, with additional cultural study. Three class meetings per week. Not open to native speakers of Dutch. Prerequisite: Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

DTCH 216. Intermediate Dutch II. 3 Hours. U.
A continuation of DTCH 212. Structured grammar review, composition, conversation, with readings of literary and cultural texts. Three class meetings per week. Not open to native speakers of Dutch. Prerequisite: DTCH 212 or equivalent. LEC.

DTCH 217. Intermediate Dutch II, Honors. 3 Hours. U.
Course content similar to DTCH 216, with additional cultural study. Three class meetings per week. Not open to native speakers of Dutch. Prerequisite: Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

DTCH 453. Investigation and Conference: ______. 1-3 Hours. H/W.
Independent study and directed reading on special topics. Permission of the instructor who will supervise the student's work is required. Not open to native speakers of Dutch. IND.

GERM 100. German Reading Course I. 3 Hours. U.
A special reading course for candidates for advanced degrees in other departments, designed to aid them in obtaining a reading knowledge of German, for purposes of research. Enrollment for undergraduate credit is required. An intensive study of the fundamentals of grammar, proceeding to the reading of material of medium difficulty. Three recitations weekly. Intended primarily for graduate students, but open also to seniors planning graduate study. The course does not satisfy any part of the undergraduate language requirement. Presupposes no previous study in German. Not open to native speakers of German. LEC.

GERM 101. German Reading Course II. 3 Hours. U.
A continuation of GERM 100. Review of grammar, with emphasis on reading and translation of material of an advanced nature in the candidate's general field. Three recitations weekly. Not open to native speakers of German. LEC.

GERM 104. Elementary German I. 5 Hours. AE42 / U.
Introductory German; no previous German required. Development of students' balanced knowledge of the German language and culture, including the ability to understand and produce short spoken, written, and multimedia texts on everyday topics and to interpret, compare, and contrast German and American cultural phenomena. Emphasis on interaction. Not open to native speakers of German. Students who complete this course successfully should take GERM 201. Prerequisite: GERM 104 or placement by examination. LEC.

GERM 108. Elementary German II. 5 Hours. AE42 / U.
Continuation of GERM 104. Further development of students' balanced knowledge of the German language and culture, including the ability to understand and produce short spoken, written, and multimedia texts on everyday topics and to interpret, compare, and contrast German and American cultural phenomena. Emphasis on interaction. Not open to native speakers of German. Students who complete this course successfully should take GERM 201. Prerequisite: GERM 104 or placement by examination. LEC.

GERM 111. Introduction to German I. 3 Hours. U.
Introduction to German for special purposes; no previous German required. Provides basic familiarity with the German language, focusing on speaking and reading skills and the essentials of German grammar. Introduction to the culture of the German-speaking world. Three class hours per week; may be delivered by video conference or face-to-face. Does not satisfy any KU language requirement. LEC.

GERM 112. Introduction to German II. 3 Hours. U.
Continuation of GERM 111. Further development of basic familiarity with the German language, focusing on speaking and reading skills and the essentials of German grammar. Continued exploration of the culture of the German-speaking world. Three class hours per week; may be delivered by video conference or face-to-face. Does not satisfy any KU language requirement. Prerequisite: GERM 111 or permission of instructor. LEC.

GERM 113. Introduction to German III. 1.5 Hour. U.
Continuation of GERM 112. Further development of basic familiarity with the German language, focusing on speaking and reading skills and the essentials of German grammar. Continued exploration of the culture of the German-speaking world. Three class hours per week; may be delivered by video conference or face-to-face. Does not satisfy any KU language requirement. Prerequisite: GERM 112 or permission of instructor. LEC.

GERM 124. German Cinema in Context. 3 Hours. HL AE42 / H.
Taught in English. Screening and analysis of German films from the early 20th century to the present. Readings, lectures, and discussions on the films' sources, ideologies, techniques, and artistic achievements. Does not count toward the German major or minor. LEC.

GERM 125. German Cinema in Context (Honors). 3 Hours. HL AE42.
Course content similar to GERM 124. Taught in English. Screening and analysis of German films from the early 20th century to the present. Readings, lectures, and discussions on the films' sources, ideologies, techniques, and artistic achievements. Does not count toward German major or minor. LEC.
GERM 128. Introduction to the Arts in German-Speaking Europe. 3 Hours. H.
Taught in English. Exploration of the arts in German-speaking Europe: major cultural periods, movements, art forms, and people (artists, architects, composers, writers, filmmakers) from the Middle Ages to the present. Consideration of the arts within the larger European historical and cultural context from which they emerged. Does not count toward the German major or minor. This course is offered at the 100 and 300 levels with additional assignments at the 300-level. Not open to students who have completed GERM 328. LEC.

GERM 132. The City of Berlin in German Culture. 3 Hours. H.
Taught in English. Introduction to Berlin within the context of major German and European historical, social, intellectual, and artistic developments since 1800. Exploration of complex epochs such as the Bismarck, Nazi, Cold War, and post-unification eras through journalism, literature, sociological writings, and film. Does not count toward German major or minor. This course is offered at the 100 and 300 levels with additional assignments at the 300-level. Not open to students who have completed GERM 332. LEC.

GERM 136. The German Transatlantic Experience. 3 Hours. HT AE41 / U.
Taught in English. Introduction to the migration of German-speaking Europeans to North America, 17th century-present. Consideration of European and North American factors motivating migration, the journey to the New World, the experiences of immigrants and their descendants, and the ways in which German-speaking Europeans shaped the multicultural history of America. LEC.

GERM 148. Germanic Mythology, Religion, and Folklore. 3 Hours. H/ W.
Taught in English. Introduction to the pagan myths and beliefs of Teutonic antiquity and their survival in the popular traditions of Germanic countries, within the framework of comparative mythology, archaeology, and anthropology. Does not count toward the German major or minor. LEC.

GERM 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in German. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

GERM 201. Intermediate German I. 3 Hours. AE42 / U.
Continuation of GERM 108. Further development of students' balanced knowledge of the German language and culture, including the ability to understand and produce short spoken, written, and multimedia texts in different genres and to interpret, compare, and contrast German and American cultural phenomena. Emphasis on interaction. Not open to native speakers of German. Students who complete this course successfully should take GERM 202. Prerequisite: GERM 108 or placement by examination. LEC.

GERM 202. Intermediate German II. 3 Hours. AE42 / U.
Continuation of GERM 201. Further development of students' balanced knowledge of the German language and culture, including the ability to understand and produce short spoken, written, and multimedia texts in different genres and to interpret, compare, and contrast German and American cultural phenomena. Emphasis on interaction. Not open to native speakers of German. Students who successfully complete this course should take GERM 301. Prerequisite: GERM 201 or placement by examination. LEC.

GERM 203. Introduction to Business German: Deutsch im Berufssalltag. 3 Hours. AE42 / H.
Continuation of GERM 201; completes language proficiency sequence. Further development of students' balanced knowledge of the German language and culture, including the ability to understand and produce short spoken, written, and multimedia texts on the topics related to professional communication and to interpret, compare, and contrast German and American business cultural phenomena. Emphasis on interaction. Recommended for students planning to take GERM 352 and GERM 462. Not open to native speakers of German. Prerequisite: GERM 201 or placement by examination. LEC.

GERM 220. Special Studies in Germanic Languages. 1-5 Hours. U.
Credits awarded for elementary instruction in a Germanic language while studying abroad. Transfer credits must be arranged through the KU Office of Study Abroad, with permission from the departmental undergraduate advisor. May be repeated for credit if content varies. LEC.

GERM 222. Special Studies in German: ______. 1-3 Hours. H/W.
Credits awarded for the study of special topics in German while studying abroad. Transfer credits must be arranged through the KU Office of Study Abroad, with permission from the departmental undergraduate advisor. May be repeated for credit if content varies. LEC.

GERM 301. High Intermediate German I. 3 Hours. AE42 / H/W.
Continuation of GERM 202. Further development of students' use of German through reading and discussion of literary and non-literary texts (spoken, written, multimedia, combined with intensive grammar review. Introduction to expressive functions of German with emphasis on spoken and written communication. Not open to native speakers of German. Students who complete this course successfully should take GERM 302. Prerequisite: GERM 202 or placement by examination. LEC.

GERM 302. High Intermediate German II. 3 Hours. AE42 / H/W.
Continuation of GERM 301. Refinement and expansion of students' use of German. Reading and discussion in German of literary and non-literary texts (spoken, written, multimedia, combined with continued intensive grammar review. Emphasis on understanding German grammatical structures and acquisition of vocabulary. Not open to native speakers of German. Students who complete this course successfully should take GERM 401. Prerequisite: GERM 301 or placement by examination. LEC.

GERM 315. German Literature and the Modern Era. 3 Hours. H.
Introduction in English to German writers 1750-present. Discussion of themes such as technology, modern and postmodern developments, gender, war, politics, and culture in German-speaking Europe. Readings include works in translation by influential German writers. Open to first-year students and non-majors; qualifies for major or minor credit when taken with GERM 316, a one-hour discussion section. GERM 315 and GERM 316 are required for admission to all courses beyond GERM 402 (except GERM 444 and GERM 462). LEC.

GERM 316. Discussion Section for German Literature and the Modern Era. 1 Hour. H.
Discussion section to be taken with GERM 315: German Literature and the Modern Era. Introduction to critical German vocabulary for discussing German-language literature in its historical and cultural context. Prerequisite: GERM 202 or placement by examination. GERM 315 qualifies for major or minor credit when taken with GERM 316. LEC.

GERM 320. Border Crossings in German Culture. 3 Hours. HT AE42.
Taught in English. Exploration of writers, filmmakers, and artists who have emigrated from, or migrated to German-speaking Europe. Emphasis on both their transnational impact and their representations of border crossings. Topics may include exile communities before, during, and after
World War II and multiculturalism in contemporary Germany, Austria, and Switzerland. Does not count toward German major or minor. LEC.

GERM 324. Magic, Monsters and the Occult in German Literature. 3 Hours. HL AE42.
Taught in English. Reading and discussion of fictional and non-fictional works by German writers that address topics such as magic, monsters, the occult sciences, the Faust legend and pact with the devil, and the vampire. Consideration of the works’ influence on other nations’ literatures. Does not count toward the German major or minor. LEC.

GERM 325. Magic, Monsters, and the Occult in German Literature, Honors. 3 Hours. HL / H.
Taught in English. For centuries German scientists, philosophers and poets have produced groundbreaking literature that has featured magic, monsters and the occult sciences. German poets introduced popular themes, such as the Faust legend and the pact with the devil, and they introduced one of the most popular monsters into literature - the vampire. In this course we read and discuss fictional and nonfictional works by German authors that address these themes, and we discuss the influence that these works have had on other nations’ literatures. Does not fulfill any requirement in the German major or minor. Prerequisite: Membership in the University Honors Program or permission of instructor. LEC.

GERM 328. The Arts in German-Speaking Europe. 3 Hours. HL AE42.
Taught in English. Exploration of the arts in German-Speaking Europe: major cultural periods, movements, art forms, and people (artists, architects, composers, writers, filmmakers) from the Middle Ages to the present. Consideration of the arts within the larger European historical and cultural context from which they emerged. Does not count toward the German major or minor. This course is offered at the 100 and 300 levels with additional assignments at the 300-level. Not open to students who have completed GERM 128. LEC.

GERM 330. Topics in: ____. 3 Hours. H.
Taught in English. Interdisciplinary study of selected aspects of the society or culture of German-speaking Europe or of the European experience. Does not count toward the German major or minor. LEC.

GERM 332. Berlin in German Culture. 3 Hours. HL AE42.
Taught in English. Introduction to Berlin within the context of major German and European historical, social, intellectual, and artistic developments since 1800. Exploration of complex epochs such as the Bismarck, Nazi, Cold War, and post-unification eras through journalism, literature, sociological writings, and film. Does not count toward German major or minor. This course is offered at the 100 and 300 levels with additional assignments at the 300-level. Not open to students who have completed GERM 132. LEC.

GERM 333. German Conversation and Idioms. 3 Hours. H.
Intensive practice in conversational German with instruction in proper pronunciation as well as an introduction to idiomatic usage. Only for students in the KU Summer Language Institute in HolzKirchen, Germany. Prerequisite: GERM 202 or equivalent fourth -semester German course. LEC.

GERM 335. Love and the German Middle Ages. 3 Hours. H.
Taught in English. Introduction to German conceptions of love, marriage, and adultery in medieval and early modern German-speaking Europe. Exploration of the German contribution to discourse of love through theoretical, literary, and legal texts, as well as through visual and material culture. Examination of German discourse within the broader European context, and of similarities, differences, and continuities between medieval and modern constructs. Does not count toward German major or minor. LEC.

GERM 344. German Conversation. 3 Hours. H/W.
Further development of practical conversational skills for students with intermediate proficiency in German. Discussion of topics from everyday German life and current affairs, based on German newspapers and magazines. May be repeated but counts only once toward the major or minor. Not open to native speakers of German. Prerequisite: GERM 302. LEC.

GERM 352. Business German: Deutsch Fur Den Beruf. 3 Hours. H/W.
Extensive practice in business communication: terminology, texts and correspondence, oral practice in business situations. Not open to native speakers of German. Prerequisite: GERM 202 or placement by examination. LEC.

GERM 375. Topics in Film of German-Speaking Europe: ____. 3 Hours. H.
Examination of topics such as Expressionism, Turkish-German culture in contemporary German film, popular filmmaking, post-unification film, German literature as film, German film and national identity. Topics and periods vary. Prerequisite: GERM 302. LEC.

GERM 400. Introduction to German Literary Masterpieces. 3 Hours. H/W.
For students enrolled in the KU Summer Language Institute in Germany. Selected works of major German Language writers of the 19th and 20th centuries. Not open to native speakers of German. Prerequisite: GERM 302. LEC.

GERM 401. Advanced German I. 3 Hours. H.
Continuation of GERM 302. Expansion and refinement of proficiency in German (speaking, listening, reading, writing), increased understanding of German grammatical structures, development of a more sophisticated vocabulary, and introduction to stylistics through discussion and analysis of literary and nonliterary texts. Students successfully completing GERM 401 may take all other GERM courses at the 400 and 500 levels. Prerequisite: GERM 302. LEC.

GERM 402. Advanced German II. 3 Hours. H.
Continuation of GERM 401. Development of advanced proficiency in German through analysis and discussion of literary and nonliterary texts and practice in advanced composition. Emphasis in both discussions and papers on style and rhetoric and on developing skill in textual analysis. Focus on advanced German grammar and on style and idiomatic expression in spoken and written German. Prerequisite: GERM 401. LEC.

GERM 411. German Culture 1150-1750. 3 Hours. AE61 / H.
Exploration of major cultural periods and movements within the framework of historical and political change, with investigation of themes such as nation and national identity, founding myths, geography, and language. Study of forms of culture in German-speaking Europe, including visual art, music, literature, architecture, and the press. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 412. German Culture 1750-Present. 3 Hours. AE61 / H.
Exploration of major cultural periods and movements 1750-present within the framework of historical and political change, with investigation of themes such as nation and national identity, founding myths, geography, and language. Study of forms of culture in German-speaking Europe, including visual art, music, literature, architecture, and the press. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 444. German Conversation. 3 Hours. H/W.
Further development of practical conversational skills for students with intermediate proficiency in German. Discussion of topics from everyday German life and current affairs, based on German newspapers and magazines. May be repeated but counts only once toward the major or minor. Not open to native speakers of German. Prerequisite: GERM 302. LEC.

GERM 453. Investigation and Conference: ____. 1-3 Hours. H/W.
Independent study and directed reading on special topics. Permission of the instructor who will supervise the student’s work is required. Not open to native speakers of German. IND.
GERM 462. The German Business Environment. 3 Hours. H/W. Introduction to German business practices, including basic information about German economic and corporate life. Especially designed for students intending to participate in an internship with a German company and those who wish to enhance their knowledge of basic business German. Taught in German. Not open to native speakers of German. Prerequisite: One 300-level German course. LEC.

GERM 475. Topics in German Studies: _____. 3 Hours. H. Exploration of cultural forms such as literature, film, philosophy, social institutions, linguistics, the arts, and the press. Examination of how cultural meaning is produced and interpreted. Topics vary, and course may address topics across a narrow or broad time frame. May be repeated if content varies. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 480. Literature and Culture of German-Speaking Europe 1150-1750. 3 Hours. AE61 / H. Exploration of medieval and early modern literature within the framework of major cultural movements and historical, political, and economic change. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 481. Literature and Culture of German-Speaking Europe 1750-1830. 3 Hours. AE61 / H. Exploration of literature within the framework of major cultural movements and historical, political, and economic change. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 482. Literature and Culture of German-Speaking Europe 1830-1918. 3 Hours. AE61 / H. Exploration of literature within the framework of major cultural movements and historical, political, and economic change. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 483. Literature and Culture of German-Speaking Europe 1918-Present. 3 Hours. AE61 / H. Exploration of literature within the framework of major cultural movements and historical, political, and economic change. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 501. Advanced German III. 3 Hours. H. Focus on usage-based grammar of contemporary German. Extensive reading and analysis of grammatical structures in context and integration of form, meaning, and use. Exploration of grammatical structures using contemporary electronic textual analysis tools. Prerequisite: GERM 402. LEC.

GERM 550. German Language Seminar: History of the German Language. 3 Hours. H. Introduction to basic concepts of German philology and historical linguistics and exploration of the development of a national German language. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 560. German Language Seminar: Structure of the German Language. 3 Hours. H. This course provides an overview of the structure of modern standard German. Students will explore different levels of the linguistic system of German (including phonology, morphology, and syntax) and complete practical exercises. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 575. Topics in Genre: _____. 3 Hours. H. Study of the definition, style, form, and content of a specific literary genre in German-language literature and the social, cultural, political, and economic factors that led to its emergence. Consideration of the genre's suitability for particular writers or periods. Topic and period vary. May be repeated if content varies. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 579. Investigation and Conference: _____. 1-3 Hours. AE61 / H/W. Independent study and directed reading on special topics. Permission of the instructor who will supervise the student's work required. Prerequisite: GERM 316 and GERM 401. LEC.

GERM 580. Senior Capstone Course: German-Speaking Europe Today. 3 Hours. AE61 / H. Focus on synthesizing students' knowledge of the history, culture, and politics of German-speaking Europe 1945-present. Consideration of scholarly articles, journalism, essays, literary texts, film, and the arts on topics including cultural identity in post-unified Germany; European integration; current debates and controversies; political parties and leading political figures; role of literature, film, music, visual arts, media, and popular culture; role of universities. Required of all German majors in senior year. Prerequisite: GERM 316, GERM 401, and senior standing. LEC.

GERM 598. Research for Departmental Honors. 3 Hours. H. Research for a departmental honors project, on a topic chosen in conjunction with the faculty advisor. Emphasis on independent study and writing. Open to students with previous coursework in German at the 400 level, an overall 3.0 GPA, and at least a B+ average in advanced work in German. Prerequisite: GERM 316, GERM 401, senior standing, and permission of Undergraduate Advisor. LEC.

GERM 599. Departmental Honors Project. 3 Hours. H. Continuation of GERM 598. Course consists of completion of Departmental Honors project. Quality of project determines whether student receives credit only or Honors in German. Prerequisite: GERM 598. LEC.

GERM 614. Course in Representative Authors: _____. 3 Hours. AE61 / H. Readings and discussions in German of selected literary works by a major author (e.g., Goethe, Heine, Fontane, Brecht, Kafka, Grass, etc.). May be repeated. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416 and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC.

GERM 616. Topics in German Literature: _____. 3 Hours. AE61 / H/W. Readings and discussions in German of selected literary works on a particular topic or theme (e.g., nature, women, art and literature, etc.). May be repeated. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416, and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC.

GERM 618. Topics in German Language and Linguistics: _____. 3 Hours. AE61 / H/W. Readings and discussions in German in an area of specialized language or linguistic study (e.g., lexical fields, modern German dialects, etc.). May be repeated. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416, and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC.

GERM 620. Topics in German Culture and Folklore: _____. 3 Hours. AE61 / H/W. Readings and discussions in German on some aspect of German culture or folklore, including Landeskunde (study of contemporary Germany). May be repeated. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416, and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC.

GERM 626. Idiomatic Usage in Modern Colloquial and Literary German. 3 Hours. AE61 / H/W. Practical exercises in the systematic study of idioms and synonyms, designed to foster a more discriminating and effective usage of German.
Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416 and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC.

GERM 628. Translation into German (Advanced). 3 Hours. AE61 / H/W.
Exercises in the translation of expository and stylistically sophisticated texts from various fields. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416 and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC.

GERM 630. Advanced German Grammar. 3 Hours. AE61 / H/W.
Recommended for students intending to teach German. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416 and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC.

GERM 632. Deutscher Stil (Advanced German Composition). 3 Hours. AE61 / H/W.
Training in writing reports and seminar papers in German. Recommended for students intending to do graduate work in German. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416 and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC.

GERM 681. Language Teaching for Oral Proficiency. 1 Hour. AE61 / U.
A summer course designed principally for secondary school language teachers. Provides an orientation to proficiency-based models in foreign language instruction, national standards in the rating of foreign language proficiency, and curriculum development sessions which address issues of articulation in foreign language curricula. (Not applicable toward a major or graduate degree in German.) (Same as FREN 681 and SPAN 681.) LEC.

GERM 700. Introduction to Graduate Studies in German. 3 Hours.
An introduction to the skills required of students enrolled in graduate degree programs in German Studies; areas covered include 1) introduction to literary theory and criticism, 2) bibliography and research methods, including database management software, 3) preparation and presentations of a research/conference paper, 4) technology training, including web design, on-line portfolio, and digital humanities, and 5) professional ethics and awareness of the academic market and alternative careers. We will also be working on practical, professionally useful goals, such as how to (better) make use of technology, how to create a CV and modify it for different positions, how to write an abstract, and how to produce a conference paper. Course requirements will include a variety of smaller assignments and two larger projects, a web-based professional portfolio and an 8 to10-page conference paper. LEC.

GERM 701. Introduction to the Study of Literature. 3 Hours.
Introduction to methods of literary research and presentation of seminar papers. Exercises in the use of basic guides to the study of German language and literature, in the documentation of scholarly research, and in the writing of interpretive essays, based on reading and discussion of selected works from different periods of the departmental "Basic Reading List. LEC.

GERM 702. Tutorial-Introduction to Graduate Studies in German. 1 Hour.
This course will be taken in conjunction with German 700 Introduction to Graduate Studies in German. Students enroll in this course with a faculty mentor in the German department based on the area in which they will write their research paper for German 700. It is the purpose of this tutorial to provide in-depth guidance specific to the field of German to students throughout the semester as they write their research papers, to help them develop their analytical and responsible research skills, which will serve as a model for longer term papers and theses. RSH.

GERM 703. Methods of Literary Criticism. 3 Hours.
Differentiation of critical methods. Exercises in textual criticism. LEC.

GERM 704. German Stylistics. 3 Hours.
Stylistic analysis of literary texts; writing in German. LEC.

GERM 705. German Phonetics. 3 Hours.
A systematic study of German phonetics. Prerequisite: Graduate standing or consent of instructor. LEC.

GERM 710. Workshop for M.A. Students. 1 Hour.
Discussion of policies in the M.A. program, examinations, thesis proposals, writing of theses, grant proposals, conference presentations, publications of scholarship, and entrance into the academic job market. Required of all M.A. students in the first year in the program. Does not count toward completion of 30 hours of course work for the M.A. RSH.

GERM 711. History of the German Language. 3 Hours.
A comprehensive introduction to the basic concepts of German philology and various aspects of historical linguistics, including the nature of language and linguistic change, discoveries of the pioneer philologists of the 19th century regarding the prehistory of German, and the beginnings of a national German language. LEC.

GERM 712. The Structure of Modern Standard German. 3 Hours.
A descriptive study of the phonetics/phonology and grammar of contemporary standard German. Special emphasis on problems of teaching German to English-speaking students. LEC.

GERM 716. Topics in German Literature: _______. 3 Hours.
Intensive study of a selected topic in German literature. May be repeated. Offered only in conjunction with GERM 616 when taught by a Max Kade Distinguished Visiting Professor. Graduate students will be assigned additional work. LEC.

GERM 718. Topics in German Language and Linguistics: _______. 3 Hours.
Intensive study of a selected topic in German language and linguistics. May be repeated for credit. LEC.

GERM 721. Introduction to Middle High German Literature. 3 Hours.
The elements of Middle High German as required for reading medieval texts in the original. Intensive reading and literary study of at least one text in full. LEC.

GERM 722. Early Modern Period. 3 Hours.
Reading and discussion of major literary works of the period; combined with lectures and background readings on literary, cultural, and political history. LEC.

GERM 734. Age of Goethe. 3 Hours.
Reading and discussion of major literary works in the period; combined with lectures and background readings on literary, cultural, and political history. LEC.

GERM 736. Post-Romantic Nineteenth Century. 3 Hours.
Reading and discussion of major literary works in the period; combined with lectures and background readings on literary, cultural, and political history. LEC.

GERM 738. Twentieth Century. 3 Hours.
Reading and discussion of major literary works in the period; combined with lectures and background readings on literary, cultural, and political history. LEC.

GERM 751. Special Topics in Culture: _______. 3 Hours.
Intensive study of a selected topic in German culture. May be repeated. LEC.
GERM 753. Investigation and Conference: _____, 1-3 Hours.
To be taken only in exceptional cases. Permission of the instructor who will supervise the student’s work is required. RSH.

GERM 754. Studies in Humanism, Renaissance, and Reformation Literature: _____, 3 Hours.
LEC.

LEC.

GERM 756. Studies in Enlightenment Literature: _____, 3 Hours.
LEC.

GERM 760. Studies on Writers of the Age of Goethe: _____, 3 Hours.
LEC.

GERM 762. Studies in Romanticism: _____, 3 Hours.
LEC.

GERM 764. Studies in the Literature of the 19th Century: _____, 3 Hours.
LEC.

GERM 766. Studies in Literature since 1890: _____, 3 Hours.
LEC.

GERM 800. Seminar: Teaching German as a Second Language. 3 Hours.
Introduction to selected aspects of second-language acquisition, foreign-language pedagogy, and contrastive grammar, with the major concentration on practical guidance in teaching elementary German, in test preparation and grading, and in the use of equipment. LEC.

GERM 801. Practicum in GTAs. 1 Hour.
Discussion of matters relating to the teaching of German in specific courses. Required of all GTAs in each semester of teaching, unless enrolled in GERM 800. Does not count toward completion of 30 hours of coursework for the M.A. or 27 hours of coursework for the Ph.D. IND.

GERM 822. Survey of Medieval German Literature. 3 Hours.
Text-oriented study of the literature of 750-1500 with selected readings in the original and in translation. Prerequisite: GERM 721. LEC.

GERM 823. Readings in Middle High German Epics: _____, 3 Hours.
Reading and literary analysis of one of the following: Nibelungenlied, Erec and Iwein, Tristan, Parzival. Prerequisite: GERM 721. LEC.

GERM 824. Readings in Middle High German Lyrics. 3 Hours.
Reading and literary analysis of one of the following: Minnesangs Fruehling, Walther von der Vogelweide. Prerequisite: GERM 721. LEC.

GERM 851. Studies in Germanic Philology: _____, 3 Hours.
Topics to be announced. Emphasis on studies in etymology, semantics, vocabulary, medieval dialects, linguistic theories. Prerequisite: GERM 711. LEC.

GERM 852. Special Topics in Literature: _____, 3 Hours.
Prerequisite: GERM 701. LEC.

GERM 854. Studies in the Works of: _____, 3 Hours.
In-depth study of the work of a major author in German literature. Prerequisite: GERM 701. LEC.

GERM 855. Introduction to German Applied Linguistics. 3 Hours.
Introduction to theories and topics in German applied linguistics. SEM.

GERM 860. Introduction to Modern German Dialects. 3 Hours.
Introduction to modern German dialects, methods of dialect research and aspects of linguistic assimilation and loss as well as a survey of German-American dialects. Prerequisite: Permission of instructor required. SEM.

GERM 889. Master's Thesis. 3 Hours.
May not be repeated. THE.

GERM 900. Workshop for Ph.D. Students. 1 Hour.
Discussion of policies in the Ph.D. program, research specializations, examinations, dissertation proposals, writing of dissertations, grant proposals, conference presentations, publication of scholarship, and entrance into the academic job market. Required of all Ph.D. students in the first year in the program. Does not count toward completion of 27 hours of course work for the Ph.D. LEC.

GERM 901. Gothic. 3 Hours.
Reading of selected Gothic texts. Historical and descriptive study of Gothic phonology and grammar, with an introduction to comparative Germanic grammar. Prerequisite: GERM 711. LEC.

GERM 902. Old Saxon. 3 Hours.
Introduction to the elements of its grammar and discussion of its role in the Germanic family of languages. Selected readings from the Heliand and discussion of the entire work. Prerequisite: GERM 711. LEC.

GERM 903. Old High German. 3 Hours.
Reading and discussion of selected prose texts and poetic documents; phonological and grammatical features of the Old High German dialects. Prerequisite: GERM 711. LEC.

GERM 904. Gothic and Its Closest Relatives. 3 Hours.
A survey of the earliest Germanic languages with an emphasis on the comparative phonology and grammar of Gothic, Old High German, and Old Saxon as well as the reading of selections of major texts in those three languages. LEC.

GERM 951. Seminar in Germanic Philology: _____, 3 Hours.
LEC.

GERM 952. Seminar in Medieval German Literature: _____, 3 Hours.
LEC.

GERM 953. Investigation and Conference: _____, 1-3 Hours.
To be taken only in exceptional cases. Permission of the instructor who will supervise the student’s work is required. RSH.

GERM 954. Seminar in Humanism, Renaissance, and Reformation Literature: _____, 3 Hours.
LEC.

GERM 955. Seminar in Baroque Literature: _____, 3 Hours.
LEC.

GERM 956. Seminar in Enlightenment Literature: _____, 3 Hours.
LEC.

GERM 960. Seminar on Writers of the Age of Goethe: _____, 3 Hours.
LEC.

GERM 962. Seminar in Romanticism: _____, 3 Hours.
LEC.

GERM 964. Seminar in the Literature of the 19th Century: _____, 3 Hours.
LEC.

GERM 966. Seminar in Problems in Literature since 1890: _____, 3 Hours.
LEC.

GERM 967. Seminar in Special Topics: _____, 3 Hours.
LEC.

GERM 999. Doctoral Dissertation. 1-10 Hours.
THE.
HNGR 103. Survival Hungarian. 3 Hours. U.
Practical training for people intending to live, study, travel, or work in Hungary. Focus on conversational skills. Intensive practice in speaking and listening, with vocabulary about Hungarian geography, culture, and business. Introduction to basic grammar. Not for native speakers LEC.

HNGR 104. Elementary Hungarian I. 5 Hours. U.
Essentials of grammar, practice in speaking, reading, and writing Hungarian. Five class meetings per week. Not open to native speakers of Hungarian. Prerequisite: HNGR 108 or equivalent. LEC.

HNGR 108. Elementary Hungarian II. 5 Hours. U.
Continuation of grammar; practice in conversation, composition, and reading. Five class meetings per week. Not open to native speakers of Hungarian. Prerequisite: HNGR 108 or equivalent. LEC.

HNGR 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Hungarian. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

HNGR 212. Intermediate Hungarian I. 3 Hours. U.
A continuation of HNGR 108. Structured grammar review, composition, conversation, with readings of literary and cultural texts. Three class meetings per week. Not open to native speakers of Hungarian. Prerequisite: HNGR 108 or equivalent. LEC.

HNGR 216. Intermediate Hungarian II. 3 Hours. U.
A continuation of HNGR 212. Structured grammar review, composition, conversation, with readings of literary and cultural texts. Three class meetings per week. Not open to native speakers of Hungarian. Prerequisite: HNGR 212 or equivalent. LEC.

HNGR 453. Investigation and Conference: _____. 1-3 Hours. U.
Independent study and directed readings on special topics. Permission of the instructor who will supervise the student’s work is required. Not open to native speakers of Hungarian. Prerequisite: HNGR 216. IND.

NORW 104. Elementary Norwegian I. 5 Hours. U.
Essentials of grammar, practice in speaking, reading, and writing Norwegian. Five hours of recitation per week. Not open to native speakers of Norwegian. LEC.

NORW 108. Elementary Norwegian II. 5 Hours. U.
Continuation of grammar; practice in conversation, composition, and reading. Five hours of recitation per week. Not open to native speakers of Norwegian. Prerequisite: NORW 104 or permission of instructor. LEC.

NORW 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Norwegian. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

NORW 212. Intermediate Norwegian I. 3 Hours. U.
A continuation of NORW 108. Structured grammar review, composition, conversation with readings of literary and cultural texts. Not open to native speakers of Norwegian. Prerequisite: NORW 108 or permission of instructor. LEC.

NORW 216. Intermediate Norwegian II. 3 Hours. U.
A continuation of NORW 212. Structured grammar review, composition, conversation with readings of literary and cultural texts. Not open to native speakers of Norwegian. Prerequisite: NORW 212 or permission of instructor. LEC.

SCAN 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Scandinavian. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

SCAN 453. Investigation and Conference: _____. 1-3 Hours. U.
Independent study and directed reading on special topics. Prerequisite: Permission of instructor. IND.

SCAN 560. Scandinavia Past and Present. 3 Hours. H/W.
This course presents a historical survey of Denmark, Finland, Iceland, Norway and Sweden. In a comparative framework, the course focuses on a variety of central aspects that shaped Scandinavia from the Viking Age to the present. LEC.

SCAN 570. Scandinavian Life and Civilization. 3 Hours. H/W.
This course is designed to impart a general knowledge of life in Denmark, Finland, Iceland, Norway, and Sweden, with emphasis on social and cultural conditions, against a geographical and historical background, from the Viking age to the present. Slides and other illustrated materials. (Same as EURS 510.) LEC.

SCAN 660. Representative Authors in English. 3 Hours. H/W.
Intensive study of one or more major authors from the literatures of Scandinavia. May be repeated. LEC.

SCAN 661. Topics in Scandinavian Languages and Linguistics: _____. 3 Hours.
Intensive study of a selected topic in Scandinavian languages and linguistics. The course deals with the linguistic analysis of language rather than the acquisition of a particular language. May be repeated. Prerequisite: A course in linguistics. LEC.

SCAN 753. Investigation and Conference: _____. 1-3 Hours.
Independent study and directed reading on special topics. Permission of the instructor is required. RSH.

SCAN 906. Old Norse. 3 Hours.
Introduction to the grammar and reading of the prose literature of the "saga-age" (1100-1350). Varied selections from the literature provide the context in which the language is discussed. LEC.

SCAN 907. Readings in Old Norse Literature. 3 Hours.
Intensive discussion of a single longer saga or several shorter works, or a combination of these on a single theme. Dialectal differences between W. Norse and older Germanic dialects will be noted. Prerequisite: SCAN 906. LEC.

SWED 104. Elementary Swedish I. 5 Hours. U.
Essentials of grammar, practice in speaking, reading, and writing Swedish. Five hours of recitation per week. Not open to native speakers of Swedish. LEC.

SWED 105. Elementary Swedish I, Honors. 5 Hours. U.
Similar to SWED 104 with additional work to expand the student’s cultural context and understanding. Not open to native speakers of Swedish or students who have completed SWED 104. Prerequisite: Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

SWED 108. Elementary Swedish II. 5 Hours. U.
Continuation of grammar; practice in conversation, composition, and reading. Five hours of recitation per week. Not open to native speakers of Swedish. Prerequisite: SWED 104 or permission of instructor. LEC.
SWED 109. Elementary Swedish II, Honors. 5 Hours. U.
Course content similar to SWED 108, with additional cultural study. Meets 5 days a week. Not open to native speakers of Swedish. Prerequisite: Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

SWED 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Swedish. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

SWED 212. Intermediate Swedish I. 3 Hours. U.
A continuation of SWED 108. Structured grammar review, composition, conversation with readings of literary and cultural texts. Not open to native speakers of Swedish. Prerequisite: SWED 108 or permission of instructor. LEC.

SWED 213. Intermediate Swedish I, Honors. 3 Hours. U.
Course content similar to SWED 212, with additional cultural study. Three class meetings per week. Not open to native speakers of Swedish. Prerequisite: Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

SWED 216. Intermediate Swedish II. 3 Hours. U.
A continuation of SWED 212. Structured grammar review, composition, conversation with readings of literary and cultural texts. Not open to native speakers of Swedish. Prerequisite: SWED 212 or permission of instructor. LEC.

SWED 217. Intermediate Swedish II, Honors. 3 Hours. U.
Course content similar to SWED 216, with additional cultural study. Three class meetings per week. Not open to native speakers of Swedish. Prerequisite: Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

SWED 330. Intermediate Swedish Composition and Conversation. 3 Hours. H.
Extensive practice in writing and speaking Swedish with grammar and review and selected readings. Not open to native speakers of Swedish. Prerequisite: SWED 216 or equivalent. LEC.

Bachelor of Arts in German Studies

Why study Germanic languages and literatures?
Translingual and transcultural competence will help students participate actively and productively in our increasingly global world.

Elective Courses
A minimum of 14 credit hours at the 300, 400, and 500 levels must be completed beyond the required courses. 12 of these credit hours must be at the 400 or 500 level. In exceptional cases, undergraduates may take courses at the 600 level with permission of the Undergraduate Advisor and the instructor.

With permission of the Undergraduate Advisor, 6 credit hours at the 300, 400, or 500 levels may be counted toward the major by completing two approved courses offered by other departments with significant content related to German-speaking Europe; permission of the Undergraduate Advisor is required. A 600-level course may be counted with approval of the Undergraduate Advisor.
Germanic languages & literatures majors are strongly encouraged to study abroad and should discuss this opportunity with the Undergraduate Advisor early in their undergraduate career.

**Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and GPA minimum standards:

**Major Hours**

Satisfied by 30 hours of major courses.

**Major Hours in Residence**

At least 15 hours of coursework at the 300, 400, and 500 levels, including the senior capstone course, GERM 580, must be completed in residence at KU.

**Major Junior/Senior Hours**

Satisfied by a minimum of 30 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Graduation Plan**

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please contact the department for details.

**Departmental Honors in German**

To qualify for the B.A. in Germanic Languages & Literatures with Honors, the student must have a minimum grade point average of 3.25 overall and 3.5 in German at graduation. Students must complete an honors research project during their final year at KU. Topics are selected in consultation with the faculty project advisor from Germanic Languages & Literatures. Applications for departmental honors must be submitted by the end of the first week of classes, normally during the fall of senior year. Upon acceptance of an application, the student registers for the GERM 598 - GERM 599 sequence. The student presents the completed research project to the project advisor and two other members of the Departmental Honors Committee about one month before concluding his or her final semester at KU. A grade of B or higher in GERM 598 and GERM 599 is required for departmental honors. GERM 598 and GERM 599 may not be used to satisfy other course requirements.

**Study Abroad**

The department conducts two Summer Language Institutes in Germany for students in second-, third-, and fourth-year German. Students normally enroll for 9 credit hours and live with German families.

Juniors and seniors are encouraged to spend a semester or a full academic year at a university in Germany. Consult with the Office of Study Abroad and the Undergraduate Advisor early in your undergraduate career.

Graduating seniors may apply for Direct Exchange Program fellowships at universities in Germany. For information, consult the department (http://www2.ku.edu/~germanic) or the Office of International Programs (http://www.studyabroad.ku.edu).

**Minor in German Studies**

**Why study Germanic languages and literatures?**

Translingual and transcultural competence will help students participate actively and productively in our increasingly global world.

**Requirements for the Minor**

The minor requires 18 hours in courses numbered 300 and above. The prerequisite is completion of the proficiency sequence in German (GERM 202 or equivalent).

**German Minor Course Requirements**

**Required Courses**

After completion of GERM 202: Intermediate German II, students must complete the following two courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERM 301</td>
<td>High Intermediate German I</td>
<td>3</td>
</tr>
<tr>
<td>GERM 302</td>
<td>High Intermediate German II</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Courses**

12 additional hours at the 300, 400, and 500 levels. GERM 315 and GERM 316 are strongly encouraged because they are prerequisites for courses above GERM 402 (except GERM 444 and GERM 462).

With approval of the Undergraduate Advisor, one approved 3-credit course offered by another department or program and with significant content related to German-speaking Europe (300-500 level) may be counted toward the German minor. A 600-level course may be counted only with approval of the Undergraduate Advisor.

**Minor Hours & GPA**

While completing required courses, minors must also meet each of the following hour and grade point average minimum standards:

**Minor Hours**

Satisfied by 18 hours of minor courses.

**Minor Hours in Residence**

Satisfied by a minimum of 9 hours of junior/senior (300+) hours of KU resident credit in the minor.

**Minor Junior/Senior Hours**

Satisfied by a minimum of 18 hours from junior/senior courses (300+) in the major.

**Minor Graduation GPA**

Satisfied by a minimum of a 2.0 GPA in all departmental courses in the minor. GPA calculations include all departmental courses in the field of study.
study including Fs and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Master of Arts in Germanic Languages and Literatures

Overview

Work toward the M.A. degree consists of a traditional curriculum providing important foundational knowledge. The curriculum includes historical surveys of the major literary periods and genres, of the structure and function of German and Germanic languages, knowledge of disciplinary methodologies employed in the field, development of language capacity, and control of writing and research strategies.

Departmental Funding

While it is not guaranteed, the department does its best to provide funding in the form of Graduate Teaching Assistantship (GTA) appointments to all incoming graduate students. GTA appointments are awarded for the academic year and come with:

- a competitive academic year (9 month) salary
- a 100% tuition waiver for all courses at KU
- payment of up to 3 hours of student fees
- optional University-subsidized group health insurance

The appointments are guaranteed based on performance for up to 3 years for M.A. students, and 6 years for students who receive both an M.A. and a Ph.D. at The University of Kansas. GTAs in the department receive thorough training in language instruction, close mentoring, and the opportunity to teach French at a variety of levels, providing them with a strong base of teaching experience upon entering the job market.

Additional information about teaching for the department is available on the Graduate Funding page (https://germanic.drupal.ku.edu/gta-appointments-and-fellowships) of our departmental website.

Post-comprehensive students completing their dissertations are also eligible to apply for 1 of the departmental Max Kade Dissertation Fellowships.

Additional Funding

There are also university fellowships for truly outstanding students. Visit the Graduate Studies website for information about funding opportunities (http://www.graduate.ku.edu/funding-opportunities) for KU graduate students.

Contact

For inquiries concerning the M.A. program, please contact:

Professor Leonie Marx (https://germanic.drupal.ku.edu/leonie-marx), Director of Graduate Studies and/or Morgan Swartzlander (https://germanic.drupal.ku.edu/morgan-swartzlander), Graduate Program Coordinator & Graduate Admissions Administrator.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Germanic Languages & Literatures Graduate Admission

In addition to the general admission requirements (http://www.graduate.ku.edu/application-process) from the Office of Graduate Studies, applicants to the M.A. program in German should have the equivalent of the German Studies B.A. offered at KU.

Submit your application through the Graduate Studies Office of Admissions application system (http://www.graduate.ku.edu). For additional information regarding admissions and the application process, including deadlines, department-specific prerequisites and required supplemental documentation, please visit the graduate admission (https://germanic.drupal.ku.edu/graduate-admission) page of the department website, or contact the department Graduate Program Coordinator, Morgan Swartzlander (https://germanic.drupal.ku.edu/graduate-admission), mswartz@ku.edu.

M.A. Degree Requirements

Nonthesis Degree

1. 30 credit hours of graduate work in German (this requirement may be reduced for students in high standing), including GERM 700, GERM 702, GERM 712, and at least 1 literature course from each of the following periods:
   - Age of Goethe or Romanticism,
   - 19th century,
   - 20th century,
   - or, in exceptional cases, equivalent seminars (GERM 960 - GERM 966) must be included in the minimum. Equivalent courses may be substituted with the approval of the departmental graduate committee. The remaining 12 hours may be taken from departmental course offerings in literature, philology, and linguistics at the graduate level.
2. A reading knowledge of Danish, Dutch, or French.
3. A written and oral examination.

1 New teaching assistants normally must enroll in GERM 800 concurrently with their first semester of teaching.

Thesis Option

1. 30 credit hours of graduate work in German, of which 3 hours must be in GERM 899 (http://catalog.ku.edu/201314/allcourses?type=department&group=GERM&catalog_nbr=899&toggle=0) Master’s Thesis. This requirement may be reduced for students in high standing. GERM 701 (http://catalog.ku.edu/201314/allcourses?type=department&group=GERM&catalog_nbr=701&toggle=0), GERM 711 (http://catalog.ku.edu/201314/allcourses?type=department&group=GERM&catalog_nbr=711&toggle=0), GERM 721 (http://catalog.ku.edu/201314/allcourses?
The appointments are guaranteed based on performance for up to 3 years for M.A. students, 5 years for Ph.D. students and 6 years for students who receive both an M.A. and a Ph.D. at The University of Kansas. GTAs in the department receive thorough training in language instruction, close mentoring, and the opportunity to teach French at a variety of levels, providing them with a strong base of teaching experience upon entering the job market. Additional information about teaching for the department is available on the Graduate Funding page (https://germanic.drupal.ku.edu/gta-appointments-and-fellowships) of our departmental website.

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### Contact

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### Germanic Languages & Literatures

#### Graduate Admission

In addition to the general admission requirements (http://www.graduate.ku.edu/application-process) from the Office of Graduate Studies, applicants to the Ph.D. program in German should have the equivalent of the to the Master’s Degree in German offered at KU.

Submit your application through the Graduate Studies Office of Admissions application system (http://www.graduate.ku.edu). For additional information regarding admissions and the application process, including deadlines, department-specific prerequisites and required supplemental documentation, please visit the graduate admissions (https://germanic.drupal.ku.edu/graduate-admission) page of the Germanic Languages and Literatures website, or contact the department Graduate Program Coordinator, Morgan Swartzlander (https://germanic.drupal.ku.edu/graduate-admission), mswartz@ku.edu.

### Doctor of Philosophy in Germanic Languages and Literatures

#### Overview

Building on the M.A. foundational base, the KU Ph.D. degree program encourages students to develop their particular intellectual interests in collaboration with KU faculty and their areas of specialization. The graduate program focuses on the following areas:

- German literature
- Germanic linguistics/philology
- German second-language acquisition/applied linguistics

Ph.D. students studying literature and culture and those studying Germanic philology also benefit from the opportunity to choose a minor field of study. Students may choose a minor of up to 9 credit hours of coursework taken outside the department and chosen in consultation with their dissertation advisor. This minor may also consist of coursework combined with a project.

The Doctoral Program Profile (PDF) (http://graduate.ku.edu/sites/graduate.drupal.ku.edu/files/docs/dpp/DPP_A_GERM.pdf) gives a retrospective overview of our time-to-degree and other statistics relevant to the graduate program and graduate-student experience.

#### Departmental Funding

While it is not guaranteed, the department does its best to provide funding in the form of Graduate Teaching Assistantship (GTA) appointments to all incoming graduate students. GTA appointments are awarded for the academic year and come with:

- a competitive academic year (9 month) salary
- a 100% tuition waiver for all courses at KU
- payment of up to 3 hours of student fees
- optional University-subsidized group health insurance

New teaching assistants normally must enroll in GERM 800 concurrently with their first semester of teaching.

1. New teaching assistants normally must enroll in GERM 800 (http://catalog.ku.edu/201314/allcourses?type=department&group=GERM&catalog_nbr=800&toggle=0) concurrently with their first semester of teaching.
Ph.D. Degree Requirements

In addition to the general requirements for the Doctor of Philosophy degree concerning research skills, the oral comprehensive examination, the dissertation, and the final examination, a student must meet the following specific departmental requirements:

1. Normally a minimum of 27 credit hours (excluding GERM 999 Doctoral Dissertation) beyond that required for the M.A. For students in German Applied Linguistics, some of the courses may be taken outside of the department. Students in literature and culture and students in Germanic philology may choose a minor up to 9 credit hours of coursework outside the department in consultation with their advisor. This minor may consist of coursework combined with a project. The 9 hours of the minor are included in the required 27 credit hours. Required Courses: One research seminar in the area of specialization; Approved elective courses in the area of specialization; Approved elective courses for the outside minor area (depending on specialization); Reading knowledge in one foreign language other than German. Prior to the portfolio evaluation an approved course in a foreign language for one semester or an equivalency exam must be completed.

2. Demonstrated reading knowledge in one foreign language other than German. Students specializing in medieval philology or older literature must select Latin as the second language for reading knowledge.

3. At least 1 semester of half-time teaching or the equivalent (normally GERM 800 is required concurrently with the first semester of teaching).

4. a). A portfolio evaluation in the third semester of study after successful completion of 18 credit hours of coursework. For a detailed description of portfolio content, see the Graduate Handbook. Upon passing the portfolio evaluation and fulfilling all degree requirements, students advance to the comprehensive examination in the fourth semester of their doctoral studies. b). A comprehensive written and oral examination in the fourth semester upon completion of all required coursework (27 credit hours in German Studies; for students in German Applied Linguistics and for students with a minor option, some of the courses will be taken outside of the department) and fulfillment of all degree requirements. The comprehensive examination consists of a 2-part written departmental preliminary examination based on the student's submitted portfolio followed by an oral examination.

Research Skills & Responsible Scholarship

The University requires that every doctoral student have training in research skills pertinent to the field of research and appropriate to the doctoral level. This requirement must be met before taking the comprehensive oral exam. For Germanic Languages and Literatures doctoral students, this requirement is met by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERM 700</td>
<td>Introduction to Graduate Studies in German</td>
<td>3</td>
</tr>
<tr>
<td>GERM 702</td>
<td>Tutorial-Introduction to Graduate Studies in German</td>
<td>1</td>
</tr>
<tr>
<td>GERM 800</td>
<td>Seminar: Teaching German as a Second Language</td>
<td>3</td>
</tr>
<tr>
<td>GERM 855</td>
<td>Introduction to German Applied Linguistics</td>
<td>3</td>
</tr>
</tbody>
</table>

Demonstrated reading knowledge of French and one other modern language, Latin or Greek.

Graduate Handbook

For further details about the requirements for the Ph.D. see the department’s Graduate Handbook (https://germanic.drupal.ku.edu/graduate-handbook).

Gerontology Program

Gerontology Graduate Programs

Graduate study in gerontology at KU consists of Master of Arts and Doctor of Philosophy degrees in gerontology, along with the option for a dual-title Ph.D. in Gerontology and selected social science disciplines.

They are administered through the Gerontology Center, a component of the Schiefelbusch Institute for Life Span Studies.

The Doctor of Philosophy degree in gerontology was approved by the Kansas Board of Regents during the 1996-97 academic year. KU is one of only several universities nationwide offering the Ph.D. in gerontology. KU’s gerontology graduate program is unique in that it is an interdisciplinary research degree emphasizing social and behavioral gerontology.

Faculty affiliated with the program include members of the College of Liberal Arts and Sciences, including the School of the Arts; and the Schools of Architecture, Design and Planning; Education; Engineering; Health Professions; Law; Medicine; Music; Nursing; Pharmacy; and Social Welfare.

The graduate program in gerontology gives students a broad, advanced educational experience in gerontology. It provides a common focus for all students, yet allows each student to design a course of study most appropriate for her or his career objectives. Courses give students a multidisciplinary perspective on the issues and problems of aging, built on a strong foundation in basic research on aging. The program prepares students for academic and research careers in gerontology, as well as for professional careers in private and public institutions and agencies providing services to older individuals.

Students seeking a terminal M.A. in gerontology are not admitted; the M.A. is offered only to those pursuing a Ph.D.

Doctor of Philosophy in Gerontology

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Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Application and Admission

Any student who has completed at least a B.A. or B.S. degree at an accredited institution of higher education may apply to the Ph.D. program. Required application materials include a résumé, a personal statement of professional and educational goals in gerontology, 1 copy of all undergraduate and graduate transcripts, list of all courses taken that are relevant to gerontology, 3 letters of recommendation, and scores from the Graduate Record Examination. Applicants whose first language is not English must submit proof of proficiency in English. GRE and other scores should be from the last two years. Further information is available from the graduate advisor or on the program's website (http://www.gerontology.ku.edu).

Submit your graduate application online (http://www.gerontology.ku.edu). Send all other requested application materials to the department:

The University of Kansas
Gerontology Program
Admissions Committee
Dole Human Development Center
1000 Sunnyside Ave., Room 3090
Lawrence, KS 66045-7561

Program Requirements

For the Ph.D., the student must complete all general degree requirements, including residence, training in research skills and responsible scholarship, the written preliminary examination, the comprehensive oral examination, preparation of a dissertation, and the final oral examination.

Each student designs his or her own curriculum with the assistance of a support committee of 3 gerontology faculty members. All students are expected to acquire multidisciplinary training in gerontology by taking courses in the sociology, psychology, and biology of aging.

Students may enter the program with an acceptable master's degree from KU or another institution. The admissions committee reviews master's-level preparation for doctoral-level research. An acceptable level of preparation includes basic training in statistics, program assessment, or policy analysis and completion of an empirical research study or thesis.

Students entering the program without an acceptable master's degree must complete the M.A. in gerontology before the Ph.D.

The requirements for the M.A. in gerontology are as follows:

- Gerontology proseminar
- 6 hours of core courses in gerontology (selected from at least 2 of the following areas: biology of aging, psychology of aging, social gerontology)
- 12 hours of supplemental courses in gerontology and related fields
- 6 hours of basic statistics courses
- 3 hours of methodology
- 6 hours of thesis credit

For students who enter the program with master's degrees or who complete the M.A. in gerontology, minimum requirements for the Ph.D. are as follows:

- Gerontology proseminar
- At least 6 hours of core courses in gerontology (selected from at least 2 of the following areas: biology of aging, psychology of aging, social gerontology)
- At least 12 hours of additional supplemental courses in gerontology and related fields
- 6 hours of advanced statistics courses
- 6 additional hours of methodology
- Completion of written and oral comprehensive examination
- 6 hours of dissertation credit, completion of dissertation, and final oral examination

A list of courses meeting requirements in gerontology, statistics, and methodology is available from the graduate advisor.

Evaluation of Satisfactory Performance

The gerontology proseminar and core courses should be completed during the first 2 semesters. Students normally are expected to complete the M.A. degree in 2 years. The maximum time limit for completing all requirements for the M.A. degree is 3 years. Students normally are expected to complete the Ph.D. within 3 years of entering the program or of completing the M.A. The maximum time limit for completing all requirements for the doctoral degree is 8 years after admission to the doctoral program with an acceptable master's degree or after completion of the M.A. degree in gerontology. Students who complete the M.A. degree in gerontology at KU and subsequently begin doctoral studies have a total enrolled time of 10 years to complete both degrees.

Written Preliminary Examination

Upon completion of the M.A., a major portion of the course requirements, and the research skills and responsible scholarship requirement, each student must pass a written preliminary examination. This examination
Graduate study in gerontology at KU consists of Master of Arts and Doctor of Philosophy degrees in gerontology, along with the option for a dual-title Ph.D. in Gerontology and selected social science disciplines.

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**Graduate Application and Admission**

Any student who has completed at least a B.A. or B.S. degree at an accredited institution of higher education may apply to the Ph.D. program. Required application materials include a résumé, a personal statement of professional and educational goals in gerontology, 1 copy of all undergraduate and graduate transcripts, list of all courses taken that are relevant to gerontology, 3 letters of recommendation, and scores from the Graduate Record Examination. Applicants whose first language is not English must submit proof of proficiency in English. GRE and other scores should be from the last two years. Further information is available from the graduate advisor or on the program’s website (http://www.gerontology.ku.edu).

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**Admissions Committee**  
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**Dual-title Ph.D. Program in Gerontology**

This dual-title degree is an option available to students who have first been admitted to the doctoral program in one of these departments: Communication Studies, Psychology, and Sociology (as of January 2012). The dual-title degree allows the pursuit of a single degree that incorporates study within a traditional discipline and training in an interdisciplinary field; the student is awarded one degree (Ph.D.) with both titles identified on the diploma (e.g., “Ph.D. in Psychology and Gerontology”).

This option is designed to appeal to students who are strong in a traditional discipline but also motivated to study across disciplinary lines. In the course of study, students can avail themselves of disciplinary depth and interdisciplinary breadth. At the post-doctoral stage, dual-title graduates will have enhanced career and employment opportunities, able to claim expertise in one or both titles of their degree when seeking positions in education and research.

**Plan of Study**

The dual-title Ph.D. integrates two programs of doctoral study for students who enter doctoral study having earned a Master’s degree. To ensure integration of the fields in regard to coursework, examinations, and dissertation, the student’s principal faculty advisor must be a faculty member in both fields; or, if this is not possible, the student must have co-advisors from each of the two fields.

The student completes required coursework in the traditional discipline and required coursework in Gerontology. Many theory, methods, and content courses for each side of the pairing can jointly fulfill requirements for both programs in the dual-title degree. Nonetheless, the dual-title student may require an additional semester to fulfill requirements in both programs. Course requirements for doctoral study in Gerontology and the partner discipline are those described in the programs’ respective graduate student handbooks. The course requirements for the Gerontology Ph.D. are those listed in the preceding section under Gerontology Graduate Programs.

**Evaluation of Satisfactory Performance**

The programs’ respective graduate student handbooks likewise describe procedures for written preliminary material, the Comprehensive Oral Examination, the dissertation, and the Final Oral Examination. With the consent of advisors in both programs, any required written preliminary examinations will be harmonized between the two programs. Comprehensive oral examination: The dual-title degree student’s candidacy examination committee must be composed of faculty from the partner discipline as well as at least one faculty member from the Gerontology Program. The dual-title faculty member may be someone who is appointed in both programs. Typically, the dual-title member will participate in constructing and grading candidacy examination questions in gerontology. The comprehensive exam requirements for both programs must be met, including a defense of the prospectus for the dissertation.

Dissertation and final oral examination: The dissertation topic should integrate both fields and be defended before graduate faculty from both programs.

**Application for Admission to the Dual-title Program**

Students must enroll in the disciplinary Ph.D. program for at least one semester and be in good academic standing before applying to the dual-title Ph.D. Program. Students may inquire further about the dual-title option and admission procedures by contacting the graduate advisor of the Gerontology Doctoral Program. Before applying, students should likewise consult with their advisor in the department that admitted them to KU.

Students apply by means of a letter to Graduate Advisor of the Gerontology Doctoral Program. This letter should describe one’s professional and educational goals in gerontology and also include one’s reasons for pursuing the dual-title option. The letter should be accompanied by a resume and by a list of all courses previously taken in relevant areas such as sociology, psychology, human development, social welfare, biology, and health services. The Gerontology program may request access to recent materials that the student filed in order to apply for graduate study at KU (undergraduate and graduate transcripts, letters of recommendation, scores from the Graduate Record Examination, and, for international applicants, proof of proficiency in the English language), or the program may request updates of these materials.

If accepted to undertake the dual-title Ph.D. option, the student will select or be assigned an advisor who is a member of both programs. If this is not possible, the student must have two advisors, one from each field. The student will work with her or his advisor(s) in both programs to draft a joint plan of study that outlines the key courses and seminars that will fulfill the course requirements for both programs, to the extent that these are foreseeable. The advisor(s) will sign the joint plan of study to indicate discussion and approval of the plan.
Global and International Studies

Why study global and international studies?

Because global and international studies will give you the tools to understand the rapid and profound changes that are occurring around the world.

KU Language Across the Curriculum

KULAC is a pioneering program that seeks to equip students with real competency in a second language through a curriculum of courses and discussion sections taught in world languages in fields like business, history, politics, and the environment. KULAC classes allow you to study subjects that meet your interests (and graduation requirements) while sharpening your language skills, including the specialized vocabulary used in your career. Employers are looking for graduates who combine a disciplinary specialty with a second language proficiency and a knowledge of other cultures. KULAC makes it possible for you to develop these skills without slowing progress toward your degree. KULAC courses are open to any student who has completed at least 2 years of college-level classes in the relevant language. Courses are taught in Spanish, French, German, Italian, and Russian. There are new offerings each semester. For more information, consult the Center for Global and International Studies (http://global.ku.edu).

Undergraduate Programs

Global and international studies at KU offers an interdisciplinary program in which faculty and students think critically about some of the most fundamental issues facing societies today: population growth, politics and governance, migration, the global economy, poverty and inequality, religion, race and ethnicity, gender and sexuality, peace and conflict, and climate change. Through an investigation of these topics, global and international studies majors acquire an enriched understanding of the world today, which is not only a desirable end in itself but also a useful background for professionals whose careers may involve them in different geographical and cultural areas. A major in global and international studies is helpful for careers in journalism, foreign service, business and industry, education, law, politics and government, and social service agencies.

The degree in European Studies is available only as a co-major in conjunction with a bachelor’s degree major in another academic discipline. Students take advantage of this option by combining the co-major with modern European languages & literatures, Business, History, Philosophy, and Global & International Studies.

The co-major also can be combined with a bachelor’s degree in a professional school, such as business or journalism. The European Studies co-major provides students with a solid foundation in the cultures, politics, languages, and history of Europe in preparation for graduate studies and/or careers in a wide variety of international fields. Studying with KU faculty in the broader disciplines such as social sciences, humanities, the arts, and business, will enable students to increase their awareness and understanding of Europe’s past, present, and future and its significant role in our increasingly globalized world. The program offers personalized advising, interdisciplinary flexibility, diverse course offerings, opportunities to conduct research, frequent co-curricular activities, and many options for studying and completing internships abroad.

Graduate Programs

The Master of Arts in Global and International Studies provides an analytically sophisticated understanding of the contemporary global arena. Students pursue interests in global politics, society, and culture across a broad range of courses in the humanities and social sciences. Students develop a specialization in a world region and a topic that transcends national borders. The degree offers students the skills and knowledge to operate in a world where traditional boundaries are disappearing.

Campuses

The program is based at the KU Edwards Campus (http://edwardscampus.ku.edu). Students complete courses on the Edwards Campus and in Lawrence.

KU Edwards Campus

KU offers a variety of graduate and undergraduate programs on the KU Edwards Campus in Overland Park, Kansas. The Edwards Campus offers late-afternoon and evening classes, catering to working professionals. For more information, call the Edwards Campus at 864-8400 from Lawrence or 913-897-8400 from other locations.

Center for Global and International Studies

The Center for Global and International Studies (http://global.ku.edu) supports and promotes global and international studies at KU. In collaboration with International Programs and the area centers, CGIS works to provide a single point of contact for faculty with international expertise to help facilitate interdisciplinary research and teaching opportunities. Building on longstanding institutional strength in international studies, the center focuses on topics and themes of transnational scope and on world areas of economic and strategic importance not covered by the existing area studies centers. CGIS contributes to the preparation of students for careers in an increasingly interconnected world by housing undergraduate and graduate degrees in global and international studies, and by supporting the introduction of new course offerings and study abroad opportunities. In addition, the center offers outreach activities to K-12 teachers, businesses, and governmental agencies across the region and serves as a resource for the local and international community.

Courses

EURS 150. Study Abroad Topics in European Studies: _____ 1-5 Hours. U.
This course is designed for the study of special topics in European Studies at the 100-level (Freshman/Sophomore level). Coursework must be arranged through the KU Office of Study Abroad and approved by a faculty advisor in European Studies. May be repeated for credit if content varies. LEC.

EURS 177. First Year Seminar: _____ 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in European Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.
EURS 302. European Culture and Society 1945 to Present. 3 Hours. HT AE42 / H.
The course provides historical, cultural, and political overviews of Europe since 1945 with particular emphasis on the contribution of French and Italian culture and society. The course emphasizes Europe’s contribution to Western intellectual thought, social movements, arts and literature, and global society. (Same as HWC 302.) LEC.

EURS 329. History of War and Peace. 3 Hours. HL / H.
A study of the changing nature of warfare and the struggle to bring about peace. Topics include pacifism, the “military revolution” that created the first professional armies; the development of diplomatic immunity, truces, and international law; the peace settlements of Westphalia, Utrecht, Vienna, Versailles, San Francisco; the creation of peace movements and peace prizes; the evolution of total war, civil war; and guerrilla warfare involving civilians in the twentieth century; the history of the League of Nations and United Nations; and the rise of intergovernmental and non-governmental organizations. (Same as HIST 329 and PCS 329.) LEC.

EURS 350. Study Abroad Topics in: _____ 1-5 Hours. H.
This course is designed for the study of special topics in European Studies at the Junior/Senior level. Coursework must be arranged through the KU Office of Study Abroad and approved by a faculty advisor in European Studies. May be repeated for credit if content varies. LEC.

EURS 430. European Civilization in World Context: _____ 3 Hours. HL AE42/GE3H / H.
An introduction to the literature of encounter between European and non-European civilizations, drawing on both Western and non-Western sources. The course may include European interactions with areas such as the Mediterranean Basin, Sub-saharan Africa, South and East Asia, and the Americas. World areas and historical periods chosen for study will vary from semester to semester according to the interest and field of the instructor. Not open to freshmen. (Same as HWC 430.) Prerequisite: HWC 114 or HWC 204 and HWC 115 or HWC 205. LEC.

EURS 435. Islam in Europe. 3 Hours. AE42 / H.
Investigation of Muslim migration into Europe and day-to-day interactions of Muslims with other European populations. This is an integrated study of historical, political, religious and economic influences that determine Muslim experience in contemporary European culture. (Same as HWC 435.) LEC.

EURS 500. Seminar in European Studies. 3 Hours. AE42/AE61 / H.
Provides an interdisciplinary approach to the study of modern European civilization. By discussing both classic and contemporary, controversial readings each week and writing several papers during the semester, students acquire an understanding of the development of modern European culture and society and Europe’s contemporary problems. Topics for discussions and papers are drawn from the following subjects: the economic and political integration of European states; modernism and anti-modernism in European culture; imperialism, migration, and ethnic and racial division in European society; democracy versus dictatorship; American-European relations; mass culture, urban development, and the welfare state; and contrasts and comparisons between European Cultures—East and West, North and South. Seminar discussions are led by invited European Studies faculty as well as the instructor or instructors. Required of all European Studies majors. Prerequisite: Junior standing or consent of instructor. LEC.

EURS 501. Senior Thesis in European Studies. 3 Hours. AE61 / H.
European Studies majors will do research and write a substantial paper on a topic in the culture, economy, history, or politics of Europe. Topics will be approved by the European Studies Committee. Students will work with an advisor chosen from among the European Studies faculty and with the European Studies Coordinator. The majority of the students’ work will be done independently with their advisors, but students will meet with the European Studies Coordinator several times as a class to report on their progress and present their final drafts. Required of all European Studies majors. Prerequisite: Completion of EURS 500 and 15 hours toward the Co-Major. IND.

EURS 502. Senior Honors Thesis in European Studies. 3 Hours. AE61 / H.
Open to European Studies majors doing their senior thesis for Honors. Prerequisite: Completion of EURS 500, 15 hours toward the Co-Major, and approval of Honors thesis by European Studies Committee. Completion of or concurrent enrollment in EURS 501. IND.

EURS 503. Europe Today. 3 Hours. S.
This intensive, interdisciplinary seminar focuses on current social, political, and economic changes in Europe. Topics include European integration and the European Union, the conflict between nationalism and European consciousness, NATO and U.S.-European relations, and international business in Europe. The seminar will include guest lectures from an international array of scholars, political officials, and business representatives, as well as site visits to their institutions and companies. The seminar takes place in Brussels, Belgium, and enrollment is restricted to students accepted in the KU Summer Institute for European Studies study abroad program. LEC.

EURS 505. Studies in Exile Literature. 3 Hours. H.
A multidisciplinary study of selected literary, scholarly, and creative works produced by those Europeans forced into exile, emphasizing their impact on culture and society both in Europe and in those countries in which the exiles resided. Examples: exile during the Nazi dictatorship in Germany (1933-1945), during Cold War crises (Berlin 1960, Prague 1968). LEC.

EURS 506. Culture and Politics of the Cold War in Western Europe. 3 Hours. H.
An interdisciplinary overview of the Cold War period (1945-1985) focusing on Western European dimensions of the problem, based on the view that the Cold War structured political institutions, cultures, and societies in enduring ways that continue to be relevant today. LEC.

EURS 507. Research in European Collections. 1-3 Hours. H.
This course allows students in the European Studies Co-Major and related disciplines to receive credit for research related to European Collections in one or more of the following institutions: Watson and Spencer Research Libraries, the Dole Institute, the Eisenhower and Truman Presidential Libraries, the U.S. Army Combined Arms Research and Foreign Military Studies Office at Fort Leavenworth, the Linda Hall Library in Kansas City, and the Winston Churchill Collection at the Westminster College Library in Fulton, Missouri. May be taken in place of EURS 501 by European Studies Honors Students if taken for three credit hours. Permission of instructor necessary. IND.

EURS 508. Politics and Economics of Cultural Production in Western Europe. 3 Hours. H.
Artists and intellectuals in their relation to state and society. This course is designed to introduce students (1) to the role European artists and intellectuals have often played in the arena of politics and (2) to the privileged place cultural production (arts, literature, media) occupies in the formation of various European identities and economies. LEC.

EURS 509. Introduction to the Study of Southern European Societies. 3 Hours. H.
Social, historical, and economic study of Southern European societies with emphasis on modern period. Relevant to the study of European integration and EU enlargement. Consideration of the distinctive southern Mediterranean societies from the perspective of their collective identity as a regional economic and geopolitical bloc. LEC.
EURS 510. Scandinavian Life and Civilization. 3 Hours. H.
This course is designed to impart a general knowledge of life in Denmark, Finland, Iceland, Norway, and Sweden with emphasis on social and cultural conditions, against a geographical and historical background, from the Viking Age to the present. Slides and other illustrated materials. (Same as SCAN 570.) LEC.

EURS 511. Topics in European Studies: ______. 3 Hours. H.
A study of significant themes, movements, or problems in European history, literature, politics, society, or culture. May also relate European issues to issues in other world areas (Africa, North America, Asia, etc.) May be repeated for credit when topic varies. LEC.

EURS 512. Irish Literature and Culture: ______. 3 Hours. H.
Study of topics in Irish literature and culture. Topics may focus on a particular genre, theme, historical period, or group of authors. May be repeated for credit as the topic changes. (Same as ENGL 530.) Prerequisite: Prior completion of at least one 300- or 400-level English course. LEC.

EURS 536. Economic Issues of the European Union. 3 Hours. S.
A survey of the economics of the European Union, with a focus on the economic development of the member states since World War II, and an examination of the various economic issues confronting them today. (Same as ECON 536) Prerequisite: ECON 104 or ECON 144. LEC.

EURS 550. Classics of Peace Literature. 3 Hours. HL. AE51/AE61 / H.
A study of influential proposals for world peace from Erasmus' The Complaint of Peace (1516) to the 1995 Hague Appeal for World Peace. Selected writings by such authors as Erasmus, Hugo Grotius, Jean-Jacques Rousseau, Immanuel Kant, Henri Thoreau, Henri Dunant, Berthe von Suttner, Woodrow Wilson, Mahatma Gandhi, and Martin Luther King, Jr., are considered. (Same as PCS 550.) Prerequisite: HWC 204 or HWC 205. LEC.

EURS 565. The Literature of Human Rights. 3 Hours. H.
Examines in literature, art, and film from about 1800 to the present, both sides of the ongoing debate surrounding the idea that all human persons possess inalienable rights because all persons possess intrinsic value as persons, value independent of race, gender, caste or class, wealth, age, sexual preference, etc. Anti- and pro-rights proponents are paired and studied with equal care. (Same as PCS 565.) LEC.

EURS 580. Directed Study. 1-3 Hours. AE61 / H.
Independent study and directed reading on special topics. Permission of the instructor who will supervise the student's work is required. LEC.

EURS 581. Discussion Section in French. 1 Hour. U.
The 1 credit hour course represents a foreign language discussion section to be attached to a major 3-credit hour EURS course (example: EURS 500). Foreign language discussion sections are an integral part of the KULAC program envisaged to reinforce foreign language proficiency. LEC.

EURS 582. Discussion Section in German. 1 Hour. U.
The 1 credit hour course represents a foreign language discussion section to be attached to a major 3-credit hour EURS course (example: EURS 500). Foreign language discussion sections are an integral part of the KULAC program envisaged to reinforce foreign language proficiency. LEC.

EURS 583. Discussion Section in Italian. 1 Hour. U.
The 1 credit hour course represents a foreign language discussion section to be attached to a major 3-credit hour EURS course (example: EURS 500). Foreign language discussion sections are an integral part of the KULAC program envisaged to reinforce foreign language proficiency. LEC.

EURS 584. Discussion Section in Spanish. 1 Hour. U.
The 1 credit hour course represents a foreign language discussion section to be attached to a major 3-credit hour EURS course (example: EURS 500). Foreign language discussion sections are an integral part of the KULAC program envisaged to reinforce foreign language proficiency. LEC.

EURS 604. The European Union. 3 Hours. H.
The European Union, the union of 27 European countries, is a culmination of a long history of European unity. The European Union now encompasses population and economic strength rivalling that of the United States. This course examines selected topics in the history of European integration and the political, legal, economic, and social implications of the present European Union as well as its relations with the United States and other regions of the world. LEC.

FARS 110. Elementary Farsi I. 5 Hours. U.
Vocabulary acquisition, pronunciation, grammar, and writing. Course includes reading of simple texts. Five hours of class per week. LEC.

FARS 120. Elementary Farsi II. 5 Hours.
Continuation of FARS 110. Vocabulary acquisition, pronunciation, grammar, and writing. Course includes reading of simple texts. Five hours of class per week. Prerequisite: FARS 110 or departmental permission. LEC.

FARS 210. Intermediate Farsi I. 3 Hours. U.
A continuation of FARS 120. Course emphasizes oral and written work in Farsi. Systematic review of grammar and introduction to reading in cultural texts. Prerequisite: FARS 120 or departmental permission. LEC.

FARS 220. Intermediate Farsi II. 3 Hours. U.
A continuation of FARS 210. Course emphasizes oral and written work in Farsi. Systematic review of grammar and introduction to reading in cultural texts. Prerequisite: FARS 210 or departmental permission. LEC.

FARS 310. Advanced Farsi I. 3 Hours. U.
Enhancement of speaking, comprehension, reading and writing abilities in Farsi. Readings from Farsi literature introduced. Prerequisite: FARS 220 or placement exam that establishes a level of proficiency in Farsi suited to Advanced Farsi I. LEC.

FARS 320. Advanced Farsi II. 3 Hours. U.
Enhancement of speaking, comprehension, reading and writing abilities in Farsi. Readings from Farsi literature introduced. Prerequisite: FARS 310 or placement exam that establishes a level of proficiency in Farsi suited to Advanced Farsi II. LEC.

GIST 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Global International Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

GIST 201. Topics in: ______. 1-3 Hours. U.
An interdisciplinary study of international topics. Designed especially for freshmen and sophomores. May be repeated for credit if content varies. LEC.

GIST 202. Topics in South Asian Studies: ______. 1-3 Hours. U.
An interdisciplinary study of topics related to South Asia. Designed especially for freshmen and sophomores. May be repeated for credit if content varies. LEC.

GIST 203. Topics in Middle Eastern Studies: ______. 1-3 Hours. U.
An interdisciplinary study of topics related to the Middle East. Designed especially for freshmen and sophomores. May be repeated for credit if content varies. LEC.
GIST 250. Introduction to Globalization. 3 Hours. S.
Along with an overview of the origins and historical development of globalization, the course addresses various aspects of the growth of transnational economic, cultural, institutional, and political interconnections, including the implications of rapidly-developing information technology and social media, international security in a transnational world, and the issues related to the movement of goods, people (immigration), images, ideas, and institutional forms across national borders. LEC.

GIST 301. Introduction to Global and International Studies. 3 Hours. S.
This course provides an overview to the major ways and themes involved in the study of world cultures, politics, and societies as applied by disciplines in the social sciences. Topics such as the construction and maintenance of cultures, comparative political systems, global and regional economies, popular culture, gender and the environment will be covered through their manifestations in particular regional and global contexts. LEC.

GIST 350. Study Abroad Topics in: ____. 1-5 Hours. U.
This course is designed for the study of special topics in global and international studies at the junior/senior level. Course work must be arranged through the KU Office of Study Abroad and approved by a faculty adviser in Global and International Studies. May be repeated for credit if content varies. LEC.

GIST 424. Nationalism(s) in Turkey. 3 Hours. S.
This course analyzes the major variations in nationalist paradigms existing in contemporary Turkey, including conservative nationalism, secular nationalism, religious (Islamic) nationalism, and Kurdish nationalism. Through the lens of seminal theories on the origins, development, and types of nationalism and the relevant historical background of the Turkish Republic, we explore how these competing visions of "the nation" and "homeland" have changed, fragmented, and manifested themselves in every Turkish politics and society. LEC.

GIST 493. Directed Readings. 3 Hours. U.
Individual and supervised readings in a selected area of international studies. Course is repeatable with permission of the program director. LEC.

GIST 495. Global Internship. 3 Hours. U.
Semester-long internship with a business or organization located abroad or that provides a global or international working context for the intern. A term paper is required. Prerequisite: Consent of instructor. FLD.

GIST 501. Topics in: ____. 1-3 Hours. U.
An interdisciplinary study of international topics. Designed especially for juniors and seniors. May be repeated for credit if content varies. LEC.

GIST 502. Advanced Topics in South Asian Studies: ____. 1-3 Hours. U.
An interdisciplinary study of topics related to South Asia. May be repeated for credit if content varies. Prerequisite depends on specific topic offered. LEC.

GIST 503. Advanced Topics in Middle East Studies: ____. 3 Hours. U.
An interdisciplinary study of topics related to the Middle East. May be repeated for credit if content e depends on specific topic offered. LEC.

GIST 530. Politics and Society in the Contemporary Persianate World. 3 Hours. S.
This course examines the major currents of political developments and their linkages with religion, culture and civil society in Turkey, Iran, Afghanistan, Pakistan and India since the late nineteenth century. During the "pre-modern" period, all these countries formed part of "the Persianate world," a region that extended from the Iranian plateau to the Balkans, Central Asia and the Indian subcontinent, mostly under the Turkic administrations, and tied together by trade, Islam, and Persian as the lingua franca. The dissemination of modern Western political thought and nationalism during the colonial period led to nation-states and the end of the linguistic domination of Persian in the region. Though each of these nation-states ultimately took a different trajectory, they each were faced with similar challenges that offer the basis for interesting comparisons between them. This course explores the trajectories of these countries in regard to the relations between the state, religion, and politics, various strands of nationalism, pluralism, religious and ethnic minorities, social equality, and democratization. Prerequisite: GIST 301 or POLS 150. LEC.

GIST 535. Literature and Society in the Contemporary Middle East. 3 Hours. H.
This course offers a general introduction to the modern Middle Eastern literatures in English translation. Through analyses of selected short stories and novels from Arabic, Turkish and Persian literature, the students develop an understanding of the issues that shape everyday life in the Contemporary Middle East. The course investigates issues of nation and national identity, war, ethnicity, class, religion, and gender and sexuality. We use a variety of paradigms, namely nationalist, Marxist, feminist, and Islamist, to provide a theoretical framework for discussion of the selected works. No prior knowledge of Arabic, Turkish or Persian language is needed. Prerequisite: GIST 301. LEC.

GIST 610. Interdisciplinary Methods for Global Contexts. 3 Hours. S.
An introduction to a variety of widely-employed quantitative and qualitative research methods in the social sciences and humanities, including methods such as statistical analysis, ethnography, and content analysis. LEC.

GIST 624. Socio Movements in the Middle East. 3 Hours. S.
Using the major theories and approaches comparatively applied to social movements around the world, this course critically analyzes historical and existing cases of social movements and "nonmovements" in the Middle East. We cover examples of Islamist (and post-Islamist), women’s, nationalist, democratic, youth and labor movements and their impact on the region. Contextual factors like technology and social networking, regime type, institutions, and socioeconomic structures are also considered for their role in supporting or inhibiting collective action. Prerequisite: GIST 301 or POLS 150. LEC.

GIST 684. International Law: The State and the Individual. 3 Hours. S.
International law has assumed an increasingly significant role in international life. This course examines major issues in international law including (but not limited to): the changing status and role of the state; rights of minorities and self-determination; the environment; and human rights. The course examines the central questions and the relevant international legal principles associated with each issue. Prerequisite: GIST 301 or POLS 150. LEC.

GIST 685. International Law: Laws of Armed Conflict. 3 Hours. S.
This course examines the principles, roles, and functions of international law in the conduct of war. As the course reviews the development and application of the basic rules of armed conflict, several current issues and conflicts are addressed including: the legitimate use of force; the proper definitions of combatants and civilians; actions that constitute war crimes, the legality of new weapons technology, and, if the laws of armed conflict apply to the current "war on terrorism." Prerequisite: GIST 170. LEC.

GIST 698. Capstone Seminar. 3 Hours. AE61 / H.
A seminar designed to introduce students to the theory and practice of global and international studies. A research paper will be required. May
not be repeated for credit. Prerequisite: 12 hours of junior/senior level and above courses that satisfy requirements for the major. LEC.

GIST 699. Capstone Seminar, Honors. 3 Hours. AE61 / H.
A seminar designed to introduce honors students to the theory and practice of global and international studies. A research paper will be required. May not be repeated for credit. Prerequisite: 12 hours of junior/senior level and above courses that satisfy requirements for the major. LEC.

GIST 701. Approaches to International Studies. 3 Hours.
This course examines various approaches to the study of cultures, politics, and societies in their global and international contexts through the exploration of a series of exemplary works of global/international research from a variety of disciplines (eg. anthropology, sociology, political science, economics, geography, history, etc.). The course will cover the major contributions of these disciplines in their approaches to global questions and themes and will provide a multi-disciplinary framework within which students can begin exploring their own global and international research questions. The course also provides an introduction to the major regions and many of the themes that students will be able to specialize in during the course of the MA program. LEC.

GIST 702. Globalization. 3 Hours.
A central issue in international studies is globalization, the increasing interconnectedness of societies and economies. This course examines globalization from an historical and contemporary perspective. Major topics include (but are not necessarily limited to) the historical expansion of the West since 1500, the growth of international economic institutions, conflict among global cultures, the future of state sovereignty, and the challenges of economic integration. LEC.

GIST 703. The World Economy. 3 Hours.
An introduction to international trade and finance, theories of economic development, and international economic structures. Not appropriate for economics majors. LEC.

GIST 704. Global Cultures and Societies. 3 Hours.
Examination of the components of culture, economic and political anthropology, major global cultural areas, and the impact of cultural differences as expressed through language, literature, religion, thought, and motivation in cross-cultural communications. LEC.

GIST 705. Globalization in History. 3 Hours.
A study of the increasing interaction among world societies since 1500 and an investigation of the long-term developments behind current world problems. Major topics include Western expansion since 1500, the spread of state sovereignty, the formation of a world economy, and the spread of international institutions. Current issues will vary, but may include environmental crises, human rights, migration, free trade and the spread of consumer culture, ethnicity and nationalism, and international intervention within states. (Same as HIST 705.) LEC.

GIST 706. Comparative Governments. 3 Hours.
Survey of different governmental structures in the contemporary world and the ways these countries have confronted issues such as modernization and development, economic security, ethnic pluralism and conflict, and globalization. LEC.

GIST 710. Interdisciplinary Research Methods for Global Contexts. 3 Hours.
This course addresses the challenges for students engaged in research in an interdisciplinary and international context. The course will take issues for research and place them within the structure of a research design process, including formulation of a general question, the appropriation of theory, the grounding of a literature review, and the positing of a testable research question and/or hypothesis. Students will also be exposed to research methodologies and how these manifest themselves through the logic of the disciplines—such as anthropology, sociology, geography, political science, history and literature. With a final thesis project design in mind, students will be expected to be expected to be able to utilize the research tools of accessing secondary analytical data, archival research, SPSS, ArcView and methods such as survey construction, implementation, and analysis, interviews, content analysis, discourse analysis, case study, and GIS. Prerequisite: GIST 701 or consent of instructor. LEC.

GIST 750. Topics in International Studies: _____ 3 Hours.
A study of one or more selected topics in international studies. Course may be taken more than once. LEC.

GIST 793. Directed Readings. 1-5 Hours.
Individual and supervised readings in a selected area of international studies. Course is repeatable with permission of the program director. LEC.

GIST 888. Contemporary China Studies. 3 Hours.
This course will review and analyze the current literature on China’s social and political development, including a wide range of topics within political science. There is a rich body of literature within each topic such as civil society in China, legal reform, political culture, nationalism, gender issues, ethnicity, political behavior, elections, economic development, and inequality. This course will introduce key literature within each topic focusing on the debates among China scholars as well as how these debates fit in the general field of political science. (Same as EALC 888 and POLS 888.) Prerequisite: POLS 688 or permission of the instructor. LEC.

GIST 897. Examination Preparation. 1 Hour.
Independent study in preparation for the Comprehensive M.A. examination. Graded on satisfactory/unsatisfactory basis. May be repeated. LEC.

GIST 898. Thesis Writing. 3 Hours.
This course guides MA students through the crafting of their academic or professional thesis. The students begin the course with a literature review and data/research completed, and they will be directed through in-class workshops and deadlines with the intention to produce a full draft of their thesis. Students may choose to draft a thesis that fits either academic conventions for a similar body of research, or they may develop a body of research whose target would be a business or professional audience. Course is designed to assist students in the development of theses with varying methodologies, methods, and audiences on global and international topics. Prerequisite: GIST 710. THE.

GIST 899. Thesis. 1-6 Hours.
Enrollment for writing thesis for master’s degree. THE.

HEBR 110. Elementary Israeli Hebrew I. 5 Hours. U.
A beginning course in modern Israeli Hebrew. Essentials of grammar, syntax and conversational practice; elementary reading and writing. Note: Students with other previous experience in Hebrew must take a placement exam. LEC.

HEBR 120. Elementary Israeli Hebrew II. 5 Hours. U.
A continuation of HEBR 110. Note Students with other previous experience in Hebrew must take a placement exam. Prerequisite: HEBR 110. LEC.

HEBR 177. First Year Seminar: _____ 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Hebrew. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics
HINDI 110. Beginning Hindi I. 5 Hours.
An introduction to modern standard Hindi that emphasizes acquisition of basic language skills (speaking, comprehension, reading and writing) through a combination of lecture, drill, and work with the Devanagari script. LEC.

HINDI 120. Beginning Hindi II. 5 Hours.
A continuation of Beginning Hindi I that builds on basic skills of speaking and comprehension, and the writing and reading of the Devanagari script developed in Beginning Hindi I. Prerequisite: HNDI 110 or placement exam that establishes a level of proficiency in Hindi suited to Beginning Hindi II. LEC.

HINDI 210. Intermediate Hindi I. 3 Hours.
Enhancement of speaking, comprehension, reading and writing abilities in modern standard Hindi, with emphasis on grammar. Readings will be introduced from representative genres of Hindi literature. Prerequisite: HINDI 120 or placement exam that establishes a level of proficiency in Hindi suited to Intermediate Hindi I. LEC.

HINDI 220. Intermediate Hindi II. 3 Hours.
Enhancement of speaking, comprehension, reading and writing abilities in modern standard Hindi, with emphasis on grammar. Readings will be introduced from representative genres of Hindi literature. Prerequisite: HINDI 210 or placement exam that establishes a level of proficiency in Hindi suited to Intermediate Hindi II. LEC.

HINDI 301. Topics in Hindi Culture, Language and Literature: ____. 3 Hours.
Investigation of special topics on Hindi culture, language and literature at the undergraduate level. May be repeated for credit if topic varies. LEC.

HINDI 310. Advanced Hindi I. 3 Hours.
Enhancement of speaking, comprehension, reading and writing abilities in Hindi. Readings are introduced from representative genres of Hindi literature. Prerequisite: HINDI 220 or placement exam that establishes a level of proficiency in Hindi suited to Advanced Hindi I. LEC.

HINDI 320. Advanced Hindi II. 3 Hours.
Enhancement of speaking, comprehension, reading and writing abilities in Hindi. Readings are introduced from representative genres of Hindi literature. Prerequisite: HINDI 310 or placement exam that establishes a level of proficiency in Hindi suited to Advanced Hindi II. LEC.

JWSH 107. Living Religions of the West. 3 Hours. HR / H.
A basic introduction to the major religious traditions of the Near East, Europe, and the Americas, with an emphasis on their development through the modern period and their expressions in contemporary life. Not open to students who have taken REL 109. (Same as REL 107.) LEC.

JWSH 124. Understanding the Bible. 3 Hours. HR / H.
An introduction to the literature of the Bible, exploring the relationships among the various types of literature present and the function of each type in the history and religious life of the people who produced and used them. Cannot be taken concurrently with REL 311 or JWSH 321 or REL 315. Not open to students who have taken REL 125 or JWSH 125. (Same as REL 124.) LEC.

JWSH 125. Understanding the Bible, Honors. 3 Hours. HR / H.
An introduction to the literature of the Bible, exploring the relationships among the various types of literature present and the function of each type in history and religious life of the people who produced and used them. Open only to students in the University Honors Program or by permission of instructor. Not open to students who have taken REL 124 or JWSH 124. (Same as REL 125.) LEC.

JWSH 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Jewish Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.
JWSH 300. Topics in Jewish Studies: ___. 3 Hours. H.
Examination of special topics in Jewish Studies. May be repeated if topic varies. LEC.

JWSH 311. Narratives of Jewish Life. 3 Hours. HL AE42 / H.
The course focuses on the narratives through which Jews made sense of their lives under the impact of the forces of modernity, beginning in the "old world," and moving through the 19th century and into the 20th. The goal is to analyze how the imagination of Jewish writers was captured by the changes in social structures such as new educational, residential and occupational opportunities, leading to increased interactions with the gentile society. Students read and discuss literary works based in the shell in revolutionary Russia, and in America. We will also look at memoirs and letters written by ordinary Jews. All assigned texts will be in English. LEC.

JWSH 315. The Spanish Inquisition. 3 Hours. H.
A broad historical study of the Spanish Inquisition from 1478 to its afterlife in modern culture, including its use in political debates and its depiction in popular culture. Topics include anti-Semitism, the nature of the inquisitorial investigation, the use of torture, censorship and the relationship between the Inquisition, the Spanish monarchy and other religious and lay authorities. Taught in English. Will not count toward the Spanish major. (Same as HIST 325 and SPAN 302.) LEC.

JWSH 318. Jews and Slavs in Eastern Europe. 3 Hours. H.
Jews and Slavs have shared territory from the Middle Ages to the present day. The contact between these culturally and linguistically distinct groups has shaped many centuries of Eastern European history - from the extreme violence of the pogroms to long periods of peaceful coexistence and cooperation. "Jews and Slavs" examines the history and cultural geography of Slavic-Jewish contact from the perspectives of both groups. Through literature, film, journalism, and folklore, students learn about the profound influence Jews and Slavs have had on each other, the uneasy feelings that accompanied their interactions, and the creative and fascinating impact their interaction had on both cultures. (Same as SLAV 318.) LEC.

JWSH 321. Religion of Ancient Israel. 3 Hours. H.
A study of the development of the Hebrew Bible from its earliest stages of oral tradition to its canonization with an emphasis on the relationship of the historical, intellectual, and cultural contexts shaping that development. (Same as REL 311.) Prerequisite: REL 124 or JWSH 124 or permission of instructor. LEC.

JWSH 325. Introduction to Judaism. 3 Hours. H.
Analyzes a selection of the core texts, teachings, and practices of Jewish religious traditions in terms of classical and contemporary understanding. (Same as REL 325.) LEC.

JWSH 327. Jewish Secular Culture. 3 Hours. HL AE42 / H.
By examining the modern concept of Yiddishkeit (Jewishness), this course explores Jewish secularism as a set of modern intellectual, literary, and cultural practices that redefined the relationship between the secular and religious in literature, music, theatre, art, humor, and foodways. This interdisciplinary course draws on theoretical approaches from history, cultural studies, religious studies, folklore, and linguistics to examine the different secularizing cultural practices of the Jews in Central and Eastern Europe, as well as in North America. LEC.

JWSH 336. Jewish American Literature and Culture. 3 Hours. H.
An examination of Jewish American literature and culture from the 17th century to the present. Materials may include a broad range of literary genres as well as folklore, music, film, and visual art. (Same as ENGL 336.) Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

JWSH 338. Languages of the Jews. 3 Hours. H.
From the beginning, Jewish history and culture is closely tied to language, from Hebrew and Aramaic to the languages of diaspora such as Yiddish and Ladino. Focusing on issues of language in society, this course will survey the languages spoken by the Jews throughout their long history in diverse communities around the world. We will learn about Hebrew as a spoken and a sacred language, examine how Jewish languages are born and die, and discuss the resurrection of Modern Hebrew in the state of Israel. All readings are in English. No prior knowledge of languages or linguistics is required. (Same as LING 338.) LEC.

JWSH 339. Languages of the Jews, Honors. 3 Hours. H.
Honors version of JWSH 338 or LING 338. Languages of the Jews. Prerequisite: Membership in the University Honors Program or consent of instructor. (Same as LING 339.) LEC.

JWSH 340. Topics in Modern Jewish Literature: ___. 3 Hours. H.
This course treats Jewish literature in English or English translation in the 20th and 21st centuries either as a broad survey or according to specific themes. May be repeated for credit. LEC.

JWSH 343. The Holocaust in History. 3 Hours. H.
The systematic murder of the Jews of Europe by the Nazis during World War II is one of the most important events of modern history. This course studies the Holocaust by asking about its place in history. It compares other attempted genocides with the Holocaust and examines why most historians argue that it is unique. Other topics covered include the reasons the Holocaust occurred in Europe when it did, the changing role of anti-Semitism, and the effects of the Holocaust on civilization. The course also discusses why some people have sought to deny the Holocaust. The course concludes by discussing the questions people have raised about the Holocaust and such issues as support for democracy, the belief in progress, the role of science, and the search for human values which are common to all societies. (Same as HIST 343.) LEC.

JWSH 350. Contemporary Jewish Identities. 3 Hours. SC / H.
This course explores the variety of ways in which American Jews create Jewish identities as individuals and groups. It traces the emergence of the various current divisions within Judaism: Reform Judaism (which by definition, implies Orthodoxy), then Conservative Judaism, and then the later development of Reconstructionist Judaism. The course also explores other contemporary options for being Jewish: cultural Jews, secular Jews, unaffiliated Jews, religious Jews, and gay or lesbian or transgendered Jews. LEC.

JWSH 361. Jewish Film. 3 Hours. H.
An examination of the cultural history of the Jews through films that explore Jewish themes, including but not limited to: issues of tradition and modernity, religion and secularism, immigration, gender, Zionism, anti-Semitism, and the Holocaust. Films studied may be in English and in foreign languages (with English subtitles) like Yiddish, Hebrew, and Russian. LEC.

JWSH 395. Study Abroad Topics in Jewish Studies: ___. 3-6 Hours. H.
This course is designed for the study of special topics in Jewish Studies at the junior/senior level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

JWSH 490. Directed Study in Jewish Studies. 3 Hours. AE61 / H.
Intensive reading or research under faculty supervision. Prerequisite: Consent of instructor. IND.
JWSH 491. Directed Study in Jewish Studies, Honors. 3 Hours. AE61 / H.
Honors version of JWSH 490. Intensive reading or research under faculty supervision. Prerequisite: Membership in the University Honors Program or consent of instructor. IND.

JWSH 523. The Dead Sea Scrolls. 3 Hours. H.
A study of the archeological evidence and texts from the Dead Sea area that provide primary evidence for Jewish religious belief and practice in the Greek and Roman periods (ca. 250 B.C.E. - 135 C.E.). (Same as REL 523.) Prerequisite: REL 124 or JWSH 124 or consent of instructor. LEC.

JWSH 525. Jews and Christians. 3 Hours. H.
This course examines the ways Jews and Christians have interacted with and characterized one another at various points in their histories. Special emphasis is placed on the gradual separation of the two religious traditions in the 1st-4th centuries. (Same as REL 525.) Prerequisite: A previous course in Religious Studies or Jewish Studies; or consent of instructor. LEC.

JWSH 526. Jewish History and Literature in the Greek and Roman Periods. 3 Hours. H.
The history and literature of the Jewish people from the hellenistic period (late fourth century B.C.E. to the codification of the Mishnah 210 C.E.). Select texts from the Hebrew Bible, the so-called apocrypha and pseudepigrapha, the Qumran scrolls, Philo, Josephus, related early Christian texts, and Rabbinic texts will be studied. (Same as REL 526.) Prerequisite: REL 124 or JWSH 124 or permission of instructor. LEC.

JWSH 560. Classical and Contemporary Jewish Thought. 3 Hours. H.
An introduction to individual Jewish thinkers and collective projects from Philo to the present, including The Talmud and Midrash, Middle Age and Early Modern Jewish philosophical and Talmudic rationalism and mysticism. Considers such thinkers as Spinoza, Cohen, Soloveitchik, Rosenzweig, and Levinas. (Same as REL 560.) Prerequisite: A previous course in Religious Studies or Jewish Studies; or consent of instructor. LEC.

JWSH 570. Studies in Judaism. 3 Hours. H.
A study of the major intellectual sources of the Jewish tradition from the Mishna, Talmud, Midrash, prayerbook, philosophers, the Zohar, and the Shulchan Aruch. (Same as REL 570.) Prerequisite: A course in Religious Studies or Jewish Studies numbered 300 or above. LEC.

JWSH 572. Jewish Folklore. 3 Hours. H.
Jewish folklore is extraordinarily rich and varied. From folktales to riddles, from legends about the exalted rabbis to irreverent jokes, folklore is central to the Jewish way of life. This course traces the extent to which oral elements appear in traditional Jewish literary texts such as the Bible: read and discuss folktales, and examine minor genres such as proverbs, riddles and jokes. Topics include the supernatural beings of Jewish folklore dybbuks, seductive female demons, and golems. Students acquire theoretical tools with which to analyze folklore (Jewish or otherwise), read stories, watch movies, and collect samples of folklore from informants. Open only to students in the University Honors Program or by permission of instructor. LEC.

JWSH 600. Advanced Topics in Jewish Studies: ____. 3 Hours. H.
Examination of advanced topics in Jewish Studies. May be repeated if topic varies. Prerequisite: Consent of instructor. LEC.

JWSH 650. Service Learning in Jewish Studies. 3 Hours. S.
This course, to be taken in the junior or senior year, is designed to give students the opportunity to apply the knowledge, concepts, and ideas gained in courses in Jewish studies to real-life situations in appropriate agencies and organizations. Open to students in the Jewish Studies program. Prerequisite: Permission of instructor. FLD.

Bachelor of Arts in Global and International Studies

Why study global and international studies?
Because global and international studies will give you the tools to understand the rapid and profound changes that are occurring around the world.

First- and Second-Year Preparation
To complete the requirements for the degree in 4 years, prospective majors are strongly urged to complete all general education and language requirements no later than the end of the fall semester of the junior year and the general requirements for the major from the options listed below. For more information, contact the Center for Global and International Studies advising specialist in 318 Blake Hall.

Admission to the Major
Admission Requirements
Students are admitted to the major by application. Applications are available in 318 Blake Hall.

Course Requirements
1. Fourth-semester proficiency language course (or demonstrated proficiency).
2. GIST 301 - Introduction to Global and International Studies.
3. One course from the following list:
   - ABSC 150 Community Leadership 3
   - ANTH 108 Introduction to Cultural Anthropology 3-4
   - ANTH 109 Introduction to Cultural Anthropology, Honors
   - ANTH 308 Introduction to Cultural Anthropology 3-4
   - ANTH 160 The Varieties of Human Experience 3
   - ANTH 360 The Varieties of Human Experience 3
   - ECON 104 Introductory Economics 4
   - ECON 105 Introductory Economics, Honors
   - ECON 144 Principles of Macroeconomics 3
   - ECON 145 Principles of Macroeconomics, Honors
   - GEOG 102 Principles of Human Geography 3
   - GEOG 103 Principles of Human Geography, Honors
   - GIST 250 Introduction to Globalization 3
   - HIST 308 Key Themes in Modern Global History 3
Grade-Point Average Requirements

A minimum grade-point average of 2.70 is required.

Grade-Point Average Calculation. The admission grade-point average calculation includes all designated admission courses. It may not include all KU course work. KU’s course repeat policy applies to the grade-point average calculation. If a student has taken more than the minimum number of course options in the application term, grades received in any designated admission course requirement up to and including that term may be computed in the grade-point average for admission consideration. Only course grades from repeated lower-level courses, meeting the standards of the KU course repeat policy (https://documents.ku.edu/policies/governance/USRR.htm#art2sect2), are omitted from the grade-point average calculation.

Application Process

1. Complete the application form and attach a current ARTS form.
2. Submit the completed application to the Center for Global and International Studies (http://global.ku.edu), 318 Blake Hall, by the deadline. Students are strongly urged to complete all admission requirements and apply to the major by the beginning of the junior year.

Application Term

Declaration of the Global and International Studies Major should occur in the term in which designated admission requirements will be initially completed; normally no later than 60 hours, or for transfer students, normally during the initial term at KU. Application to this major after completion of 60 hours, or the initial term for transfer students, will likely delay graduation.

Requirements for the B.A. Major

Global & International Studies Core Knowledge and Skills. (One course from the following list, plus GIST 301. These courses must be completed prior to the declaration of the major.)

Select one course from the following list:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ABSC 150</td>
<td>Community Leadership</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 108</td>
<td>Introduction to Cultural Anthropology</td>
<td>3-4</td>
</tr>
<tr>
<td>or ANTH 109</td>
<td>Introduction to Cultural Anthropology, Honors</td>
<td></td>
</tr>
<tr>
<td>ANTH 308</td>
<td>Introduction to Cultural Anthropology</td>
<td>3-4</td>
</tr>
<tr>
<td>ANTH 160</td>
<td>The Varieties of Human Experience</td>
<td>3</td>
</tr>
<tr>
<td>or ANTH 360</td>
<td>The Varieties of Human Experience</td>
<td></td>
</tr>
<tr>
<td>ECON 104</td>
<td>Introductory Economics</td>
<td>4</td>
</tr>
<tr>
<td>or ECON 105</td>
<td>Introductory Economics, Honors</td>
<td></td>
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<tr>
<td>ECON 144</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
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</tbody>
</table>

or ECON 145 Principles of Macroeconomics, Honors

GEOG 100 World Regional Geography

GIST 250 Introduction to Globalization

HIST 308 Key Themes in Modern Global History

POLS 150 Introduction to Comparative Politics

POLS 170 Introduction to International Politics

REL 106 Living Religions of the East

REL 107 Living Religions of the West

SOC 130 Comparative Societies

or SOC 131 Comparative Societies, Honors

Introduction to Global and International Studies, Satisfied by:

GIST 301: Introduction to Global and International Studies (3 hours)

Additional Language. (3-5 hours/ 1 unit) Satisfied by:

Completion of one additional foreign language course (3 hours) beyond the 4th semester proficiency language requirement (300 level or above), or any available additional language course (3-5 hours).

The Capstone Research Coursework (6 hours/ 2 units) Satisfied by the completion of the following two courses:

Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>GIST 610</td>
<td>Interdisciplinary Methods for Global Contexts</td>
<td>3</td>
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<tr>
<td>or GIST 699</td>
<td>Capstone Seminar, Honors</td>
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<td></td>
<td>Students must complete GIST 301 prior to taking this course.</td>
<td></td>
</tr>
</tbody>
</table>

Regional Experience. (9 hours/3 units) Majors must take 3 courses on one of the following regions of the world: Africa; the Middle East; Asia; Latin America and the Caribbean; Western Europe; and Russia, Eastern Europe and Central Asia. Of these 9 hours, a minimum of 6 must be at the 300 level or above and at least 3 of these must be taken from a regional overview course listed with the respective regions below.

Africa (9)

Satisfied by completing one of the following courses and two additional approved courses about Africa.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS 542</td>
<td>The History of Islam in Africa</td>
<td></td>
</tr>
<tr>
<td>AAAS 305</td>
<td>Modern African History</td>
<td></td>
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<tr>
<td>AAAS 300</td>
<td>African Traditional Religion and Thought</td>
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</tr>
</tbody>
</table>

The Middle East (9)

Satisfied by completing one of the following courses and two additional approved courses about the Middle East.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 328</td>
<td>The Modern Middle East</td>
<td></td>
</tr>
<tr>
<td>POLS 661</td>
<td>Politics of the Middle East</td>
<td></td>
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</tbody>
</table>

Asia (9)
Satisfied by completing one of the following courses and two additional approved courses about Asia.

- **EALC 331** Studies In: ______
- **EALC 380** Popular Cultures of East Asia
- **EALC 656** Government and Politics of East Asia

**Latin America & the Caribbean (9)**

Satisfied by completing the following course and two additional approved courses about Latin America and the Caribbean.

- **LAA 300** Interdisciplinary Themes in Latin American Studies

**Western Europe (9)**

Satisfied by completing one of the following courses and two additional approved courses about Western Europe.

- **EURS 302** European Culture and Society 1945 to Present
- **EURS 503** Europe Today
- **EURS 604** The European Union

**Russia, Eastern Europe, & Central Asia (9)**

Satisfied by completing one of the following courses and two additional approved courses about Russia, Eastern Europe and Central Asia.

- **REES 492** Research Methods in Russian, East European, and Eurasian Studies
- **REES 220** Societies and Cultures of Eurasia
- **REES 110** Understanding Russia and Eastern Europe

**Global & International Studies Substantive Specialization.** Students must take 3 courses in one of the specialization fields. The content of these courses must be global, trans-regional or relating to countries and regions outside of the student’s regional specialization. Of these 9 hours, a minimum of 6 must be at the 300 level of above.

**Comparative Political & Social Systems (9)**

Satisfied by completing 3 approved courses in comparative political and social systems.

**International Business and the Global Economy (9)**

Satisfied by completing 3 approved courses about the global economy.

**Culture, Ethnicity, and Belief (9)**

Satisfied by completing 3 approved courses about culture, ethnicity, and belief systems.

**Literature, Popular Culture, and the Arts in the Global Context (9)**

Satisfied by completing 3 approved courses about literature, popular culture, and/or the arts in the global context.

**Gender & Sexuality in the Global Context (9)**

Satisfied by completing 3 approved courses about gender and sexuality in the global context.

**The Global Environment (9)**

Satisfied by completing 3 approved courses about the global environment.

**NOTE:** Students may not use the same class to fulfill both a regional expertise and a substantive specialization requirement. Not all courses which satisfy the regional expertise and substantive specialization requirements will be offered every year. Students may petition to have a course not on the list count toward the regional expertise or substantive specialization requirements. Petition forms can be downloaded from the website (http://global.ku.edu/academics/major.shtml) and should be submitted to the undergraduate advisor.

**Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**

Satisfied by 33 hours of major courses.

**Major Hours in Residence**

Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**

Satisfied by a minimum of 21 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Graduation Plan**

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please consult the department for details.

**Departmental Honors**

Departmental Honors. To graduate with honors in global and international studies, students must complete all requirements for the major plus GIST 699, Honors Capstone with a 3.5 grade-point average in the major and a 3.25 cumulative grade-point average. The honors seminar allows students to receive individualized assistance from a faculty member while they write their thesis.

To enroll in the program, students must have a 3.5 grade-point average in the courses making up the global and international studies major and a 3.25 cumulative grade-point average. Students must obtain approval of their research topic by a faculty member affiliated with the Center for Global and International Studies who will serve as their thesis director. Each student who completes an honor’s thesis must defend it in an oral examination before a thesis committee of three faculty members. The student’s thesis director chairs and chooses the committee in consultation with the student and the center director.
Co-Major in European Studies

Why study global and international studies?

Because global and international studies will give you the tools to understand the rapid and profound changes that are occurring around the world.

Why study European studies?

European Studies, through interdisciplinary study, broadens, deepens, and strengthens a student’s knowledge and understanding of the enduring importance of our transatlantic partners, the Europeans.

Undergraduate Admission

Admission to KU

All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

First- and Second-Year Preparation

To complete the requirements for the degree in 4 years, prospective co-majors are encouraged to complete all general education and language requirements no later than fall semester of the junior year. Students should begin study of a western European language other than English or Russian as early as possible. For more information, contact the European Studies undergraduate advisor, Laura Leonard, 785-864-3500, laleonar@ku.edu.

During their first and second years, students are strongly encouraged to enroll in HIST 115 French Revolution to the Present: Europe 1789-Present (3) plus 1 additional course from the list below:

- ECON 104 Introductory Economics 4
- ECON 144 Principles of Macroeconomics 3
- GEOG 100 World Regional Geography 3
- GEOG 102 Principles of Human Geography 3
- POLS 150 Introduction to Comparative Politics 3
- or POLS 151 Introduction to Comparative Politics Honors 3
- or POLS 170 Introduction to International Politics 3
- or POLS 171 Introduction to International Politics Honors 3
- HA 100 Introduction to Western Art History 3
- PHIL 180 Introduction to Social and Political Philosophy 3

Note: Enrollment in the above courses counts toward College principal course distribution requirements in the humanities and social sciences.

Note: European Studies co-majors are strongly encouraged to study abroad and should discuss this opportunity with the undergraduate advisor early in their undergraduate career.

Admission to the Co-Major

Admission Requirements

1. Second-semester sophomore or junior standing.
2. Declared major in a department or admission to a professional school.

Requirements for the Co-Major

European Studies Prerequisites or Co-requisites

Students selecting this co-major must complete the following:

French Revolution to the Present: Europe 1789–Present. Satisfied by:

- HIST 115 French Revolution to the Present: Europe 1789–Present 3

Interdisciplinary Perspective. Satisfied by 1 course from the following: 3-4

- ECON 104 Introductory Economics
- ECON 144 Principles of Macroeconomics
- or ECON 145 Principles of Macroeconomics, Honors
- GEOG 100 World Regional Geography
- GEOG 102 Principles of Human Geography
- POLS 150 Introduction to Comparative Politics
- or POLS 151 Introduction to Comparative Politics Honors
- POLS 170 Introduction to International Politics
- or POLS 171 Introduction to International Politics Honors
- HA 100 Introduction to Western Art History
- PHIL 180 Introduction to Social and Political Philosophy

Note: Enrollment in the above courses counts toward College principal course distribution requirements in the humanities and social sciences.

Note: Students should begin study of a western European language other than English or Russian as early as possible. European Studies co-majors are strongly encouraged to study abroad and should discuss this opportunity with the undergraduate advisor early in their undergraduate career.

Students selecting this co-major must complete the following:
Second Language Skills (3)

Students must complete one semester beyond the College general education second language requirement (which is the completion of a fourth-semester course) in a modern western European language (Danish, Dutch, French, German, Hungarian, Italian, Portuguese, Polish, Spanish, or Swedish).

Foundational Course: Seminar in European Studies (3)

Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EURS 500 Seminar in European Studies</td>
<td>3</td>
</tr>
<tr>
<td>or EURS 503 Europe Today</td>
<td></td>
</tr>
</tbody>
</table>

Upper-Division General European Studies Required Electives (9)

Satisfied by three approved courses (9 hours), two of which must be from different departments (The following list is not exhaustive; go to the European Studies website or speak with the undergraduate advisor each semester for a complete list of approved general European Studies courses):

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ARCH 542 History of Architecture III: Modern</td>
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<tr>
<td>ARCH 665 History of Urban Design</td>
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<tr>
<td>ECON 535 Economic History of Europe</td>
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<tr>
<td>ECON/EURS Economic Issues of the European Union 536</td>
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<tr>
<td>ECON 563 Current Economic Issues of East Europe</td>
<td></td>
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<tr>
<td>EURS 302 European Culture and Society 1945 to Present</td>
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<tr>
<td>EURS/HIST/PCS 329 History of War and Peace</td>
<td></td>
</tr>
<tr>
<td>EURS 503 Europe Today</td>
<td>3</td>
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<tr>
<td>EURS 505 Studies in Exile Literature</td>
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<tr>
<td>EURS 506 Culture and Politics of the Cold War in Western Europe</td>
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<td>EURS 507 Research in European Collections</td>
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<tr>
<td>EURS 508 Politics and Economics of Cultural Production in Western Europe</td>
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<tr>
<td>EURS 509 Introduction to the Study of Southern European Societies</td>
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<tr>
<td>EURS 511 Topics in European Studies:_____ (when covering 2 or more countries)</td>
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<tr>
<td>EURS 604 The European Union</td>
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<tr>
<td>HA 533 European Art 1789-1848: Gender and Revolution</td>
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<tr>
<td>HA 564 European Art, 1900-1945</td>
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<td>HA 565 Art Since 1945</td>
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<tr>
<td>HIST 334 The Great War: The History of World War I</td>
<td></td>
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<td>HIST 340 The History of the Second World War</td>
<td></td>
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<tr>
<td>HIST 343 The Holocaust in History</td>
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<tr>
<td>HIST 380 Revolutionary Europe: The People in Arms</td>
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<tr>
<td>HIST 527 Recent European History, 1870 to the Present</td>
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<tr>
<td>HIST 528/ECON 535 Economic History of Europe</td>
<td></td>
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<tr>
<td>HIST 529 Intellectual History of 19th Century Europe</td>
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<tr>
<td>HIST 533 The History of Women and the Family in Europe, from 1500 to the Present</td>
<td></td>
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<tr>
<td>HWC/EURS 430 European Civilization in World Context:_____</td>
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</tr>
<tr>
<td>IBUS 400 Special Topics in International Business:_____ (Business in the European Union)</td>
<td></td>
</tr>
<tr>
<td>IBUS 410 Introduction to International Business</td>
<td></td>
</tr>
</tbody>
</table>

Upper-Division National or Regional European Studies Required Electives (6)

Satisfied by two approved courses (6 hours), two of which must cover two different countries or regions (this list is not exhaustive; go to the European Studies website or speak with the undergraduate advisor each semester for a complete list of approved upper-division national or regional European Studies courses):

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 560 Nineteenth Century Philosophy</td>
<td></td>
</tr>
<tr>
<td>PHIL 592 Contemporary Continental Philosophy</td>
<td></td>
</tr>
<tr>
<td>POLS 652 Politics in Europe</td>
<td></td>
</tr>
<tr>
<td>POLS 655 Politics of East-Central Europe</td>
<td></td>
</tr>
<tr>
<td>POLS 663 Protest and Revolution</td>
<td></td>
</tr>
<tr>
<td>POLS 669 Topics in Comparative Politics:_____ (when covering Europe, among other regions)</td>
<td></td>
</tr>
<tr>
<td>POLS 681 Comparative Foreign Policy</td>
<td></td>
</tr>
<tr>
<td>POLS 689 Topics in International Relations: (when covering Europe, among other regions)</td>
<td></td>
</tr>
<tr>
<td>SOC 500 Sociological Theory</td>
<td></td>
</tr>
<tr>
<td>SOC 530 Industrial Revolution and Capitalist Development</td>
<td></td>
</tr>
<tr>
<td>SOC 780 Advanced Topics in Sociology:_____ (when covering comparative social policy between the United States and Europe)</td>
<td></td>
</tr>
<tr>
<td>THR 526 History of Theatre II</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 632 Contemporary French Architecture</td>
<td></td>
</tr>
<tr>
<td>ARCH 690 Architecture Study Abroad (France, Italy, Germany, or United Kingdom)</td>
<td></td>
</tr>
<tr>
<td>ENGL 309 The British Novel</td>
<td></td>
</tr>
<tr>
<td>ENGL 314 Major British Writers after 1800</td>
<td></td>
</tr>
<tr>
<td>ENGL 315 Studies in British Literature</td>
<td></td>
</tr>
<tr>
<td>ENGL 324 Contemporary Authors:_____ (when British or Irish)</td>
<td></td>
</tr>
<tr>
<td>ENGL 327 Studies in Twentieth-Century Drama:_____ (when at least 50 percent British/Irish)</td>
<td></td>
</tr>
<tr>
<td>ENGL 332 Shakespeare</td>
<td></td>
</tr>
<tr>
<td>ENGL 334 Major Authors:_____ (when British or Irish)</td>
<td></td>
</tr>
<tr>
<td>ENGL 479 The Literature of:_____ (when British or Irish)</td>
<td></td>
</tr>
<tr>
<td>ENGL 530/ EURS 512 Irish Literature and Culture:_____</td>
<td></td>
</tr>
<tr>
<td>EURS 509 Introduction to the Study of Southern European Societies</td>
<td></td>
</tr>
<tr>
<td>EURS 510 Scandinavian Life and Civilization</td>
<td></td>
</tr>
<tr>
<td>EURS 511 Topics in European Studies:_____ (when country-specific)</td>
<td></td>
</tr>
<tr>
<td>EURS 512/ENGL 530 Irish Literature and Culture:_____</td>
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<tr>
<td>FREN 152 France and the French (taught in English)</td>
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<tr>
<td>FREN 326 Introduction to French Literature</td>
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<tr>
<td>FREN 470 French Literature of the Twentieth Century</td>
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</tr>
<tr>
<td>GERM 462 The German Business Environment</td>
<td></td>
</tr>
<tr>
<td>HA 530 Renaissance Art in Italy: The 15th Century</td>
<td></td>
</tr>
<tr>
<td>HA 534 Art in France 1848-1900: Modernisms</td>
<td></td>
</tr>
<tr>
<td>HA 600 Biography of a City:_____ (European city only)</td>
<td></td>
</tr>
<tr>
<td>HIST 341 Hitler and Nazi Germany</td>
<td></td>
</tr>
</tbody>
</table>
### Co-Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Co-Major Hours**
Satisfied by 24 hours of co-major courses.

**Major Hours in Residence**
Satisfied by a minimum of 24 hours of KU resident credit in the co-major.

**Major Junior/Senior Hours**
Satisfied by a minimum of 24 hours from junior/senior courses (300+) in the co-major.

**Major Junior/Senior Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

No more than 12 hours may be shared between a 27-hour European studies co-major and another major.

### Departmental Honors

Honors in European Studies is open to co-majors who have earned, both at the time of entry into the program and at graduation, overall grade-point averages of 3.25 or higher and of 3.5 or higher in European Studies. A student must complete all co-major requirements, including EURS 502 Senior Honors Thesis in European Studies, with a grade of A.

The senior honors thesis affords exceptional students the opportunity to work closely with an individual faculty member on a specific research project over an extended period of time, usually two semesters.

EURS 502 Senior Honors Thesis may be combined with EURS 501 Senior Thesis in European Studies, substantially increasing the length and scope of the final thesis, or the senior honors thesis may be a separate extension of the senior thesis.

A student in EURS 502 must defend the thesis in a 1-hour oral examination with faculty. The examination committee is composed of 3 faculty members, 1 of whom must be the thesis director. The student selects the committee members in consultation with the thesis director. Students should consult a program advisor early in the junior year.

The European Studies program strongly encourages students to enroll in one of KU's many study abroad programs in Europe.

European Studies participates in the Humanities and Western Civilization semester abroad program in Paris and Florence.

Summer language institutes offering upper-division courses in language or literature study may also qualify for European Studies co-major or minor credit. Contact a program advisor in the Office of Study Abroad (http://www.studyabroad.ku.edu), 108 Lippincott Hall, 785-864-3742.

### Minor in European Studies

#### Why study global and international studies?

Because global and international studies will give you the tools to understand the rapid and profound changes that are occurring around the world.

#### Why study European studies?

European Studies, through interdisciplinary study, broadens, deepens, and strengthens a student's knowledge and understanding of the enduring importance of our transatlantic partners, the Europeans.

### Requirements for the Minor

Students selecting this minor must complete the following:
Global and International Studies Minor

Why study global and international studies?

Because global and international studies will give you the tools to understand the rapid and profound changes that are occurring around the world.

Why study European studies?

European Studies, through interdisciplinary study, broadens, deepens, and strengthens a student's knowledge and understanding of the enduring importance of our transatlantic partners, the Europeans.

Requirements for the Minor

Students selecting this minor must complete the following:

GIST Minor Core Requirements

Global & International Studies Core Knowledge and Skills. Satisfied by completion of GIST 301, and one course from the following list:

- GIST 301 Introduction to Global and International Studies 3
- and one of the following:
  - ABSC 150 Community Leadership 3
  - ANTH 108 Introduction to Cultural Anthropology 3-4
  - or ANTH 109 Introduction to Cultural Anthropology, Honors
  - or ANTH 308 Introduction to Cultural Anthropology
  - ANTH 160 The Varieties of Human Experience
  - or ANTH 360 The Varieties of Human Experience

- ECON 104 Introductory Economics 4
- or ECON 105 Introductory Economics, Honors
- or ECON 144 Principles of Macroeconomics 3
- or ECON 145 Principles of Macroeconomics, Honors
- GIST 301 Introduction to Global and International Studies 3
- GEOG 102 Principles of Human Geography 3
- or GEOG 103 Principles of Human Geography, Honors
- GIST 250 Introduction to Globalization 3
- HIST 308 Key Themes in Modern Global History 3
- or POLS 150 Introduction to Comparative Politics 3
- or POLS 151 Introduction to Comparative Politics Honors
- POLS 170 Introduction to International Politics 3
- or POLS 171 Introduction to International Politics Honors
- REL 106 Living Religions of the East 3
- or REL 107 Living Religions of the West
- SOC 130 Comparative Societies 3
- or SOC 131 Comparative Societies, Honors

GIST Regional Expertise. Global & International Studies Regional Expertise Requirement (6 hours/2 courses). Students must take 2 courses on one of the following regions of the world: Africa; the Middle East; Asia; Latin America and the Caribbean; Western Europe; and Russia, Eastern Europe and Central Asia. Of these 6 hours, a minimum of 3 must be at the 300 level or above and at least 3 of these must be taken from a regional overview course listed with the respective regions below. Additional courses may be appropriate to fulfill the Regional Expertise and the Substantive Specialization requirement if approved by the Center for Global and International Studies.

- Africa (6 Required). Satisfied by completing either AAAS 542, AAAS 305 or AAAS 300 and 1 additional approved course about Africa.
- The Middle East (6 Required). Satisfied by completing either HIST 328 or POLS 661 and 1 additional approved course about the Middle East.
- Asia (6 Required). Satisfied by completing either EALC 331, EALC 380 or EALC 656 and 1 additional approved course about Asia.
- Latin America & the Caribbean (6 Required). Satisfied by completing LAA 300 and 1 additional approved course about Latin America and the Caribbean.
- Western Europe (6 Required). Satisfied by completing either EURS 302, EURS 503, or EURS 604 and 1 additional approved course about Western Europe.
Russia, Eastern Europe, & Central Asia (6 Required). Satisfied by completing either REES 492, REES 220, or REES 110 and 1 additional approved course about Russia, Eastern Europe and Central Asia.

GIST Substantive Specialization
Global & International Studies Substantive Specialization Requirement (6 hours/2 courses). Students must take 2 courses in one of the specialization fields. The content of these courses must be global, trans-regional or relating to countries and regions outside of the student’s regional specialization.

- Comparative Political & Social Systems. Satisfied by 2 approved courses in comparative political and social systems.
- International Business and the Global Economy. Satisfied by 2 approved courses about the global economy.
- Literature, Popular Culture, and the Arts in the Global Context. Satisfied by 2 approved courses about literature, m popular culture, and/or the arts in the global context.
- Culture, Ethnicity, and Belief. Satisfied by 2 approved courses about culture, ethnicity, and belief systems.
- Gender & Sexuality in the Global Context. Satisfied by 2 approved courses about gender and sexuality in the global context.
- The Global Environment. Satisfied by 2 approved courses about the global environment.

Global & International Studies Minor Foreign Language
Global & International Studies Foreign Language Course. Satisfied by completing one additional foreign language course (3 hours) beyond the 4th semester proficiency language requirement (300 level or above); or any available additional language course (3-5 hours).

Minor Hours & Minor GPA
While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

- Minor Hours
  Satisfied by 18 hours of minor courses.

- Minor Hours in Residence
  Satisfied by a minimum of 9 hours of KU resident credit in the minor.

- Minor Junior/Senior Hours
  Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

- Minor Graduation GPA
  Satisfied by a minimum of a 2.0 KU GPA in all departmental courses (300+) in the minor. GPA calculations include all courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Minor in Jewish Studies
We offer an undergraduate minor and courses in Jewish Studies, Hebrew, and Yiddish, as well as co-sponsor courses in a variety of other units.

Among the oldest of academic interdisciplinary studies, dating back to the 19th century, Jewish studies explores Judaism, the Jewish people and culture, and their role in the shaping of human experience. The subject matter of Jewish studies makes it relevant to every department and program in the humanities and social sciences. The breadth of Jewish studies is extensive, with a strong foundation in biblical scholarship and the ancient world combined with more recent study of European, American, Mediterranean and Middle Eastern history. It can involve the study of almost every discipline -- religion, literature, folklore, sociology, anthropology, psychology, political science, philosophy, modern and ancient languages, art, music, film and theatre, law, social welfare, and women’s, cultural, and American studies. Jewish studies can benefit students exploring their own identity or pursuing an interest in Western civilization. Jewish studies prepares students for graduate school; for careers in Jewish agencies, federations, and community centers or for pre-professional training. The Jewish studies minor can be readily integrated with several KU majors and programs, such as American studies, English, history, or religious studies.

Requirements for the Minor

Jewish Studies Minor Course Requirements

Student selecting this minor must complete a course in each of the following areas:

**Jewish Studies (0)**
- Jewish Culture or History. Satisfied by one course, for example one of the following: (12)
  - JWSH 300: Topics in Jewish Studies: Israeli Politics in Society 3
  - JWSH 311 Narratives of Jewish Life 3
  - JWSH 327 Jewish Secular Culture 3
- **Jewish Religion. Satisfied by one course, for example one of the following: (12)**
  - JWSH 300: Topics in Jewish Studies: The Story of the Talmud 3
  - JWSH 321 Religion of Ancient Israel 3
  - JWSH 325 Introduction to Judaism 3

**Electives. Satisfied by: (12)**

- Any other JWSH course or appropriate cross-listed or cross-referenced courses in other units. (see below)
- 6 credit hours in Yiddish (YDSH) and/or in Hebrew (HEBR) at the 200-level or above may count among these 12 credit hours.
- More HEBR or YDSH courses may be approved for the minor upon petition.

**Minor Hours & Minor GPA**
While completing all required courses, minors must also meet each of the following hour and grade-point average minimum standards:

- **Minor Hours**
  Satisfied by 18 hours of minor courses.

- **Minor Hours in Residence**
  Satisfied by a minimum of 9 hours of KU resident credit in the minor.

- **Minor Junior/Senior (300+) Hours**
  Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

- **Minor Graduation GPA**
  Satisfied by a minimum of a 2.0 KU GPA in all courses in the minor. GPA calculations include all courses in the field of study including F’s and
repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

### Courses Offered in the Jewish Studies Program

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>JWSH 124</td>
<td>Understanding the Bible</td>
<td>3</td>
</tr>
<tr>
<td>JWSH 125</td>
<td>Understanding the Bible, Honors</td>
<td>3</td>
</tr>
<tr>
<td>JWSH 177</td>
<td>First Year Seminar: ______</td>
<td>3</td>
</tr>
<tr>
<td>JWSH 300</td>
<td>Topics in Jewish Studies: ______</td>
<td>3</td>
</tr>
<tr>
<td>JWSH 311</td>
<td>Narratives of Jewish Life</td>
<td>3</td>
</tr>
<tr>
<td>JWSH 318</td>
<td>Jews and Slavs in Eastern Europe</td>
<td>3</td>
</tr>
<tr>
<td>JWSH 321</td>
<td>Religion of Ancient Israel</td>
<td>3</td>
</tr>
<tr>
<td>JWSH 325</td>
<td>Introduction to Judaism</td>
<td>3</td>
</tr>
<tr>
<td>JWSH 327</td>
<td>Jewish Secular Culture</td>
<td>3</td>
</tr>
<tr>
<td>JWSH 339</td>
<td>Languages of the Jews, Honors</td>
<td>3</td>
</tr>
<tr>
<td>JWSH 340</td>
<td>Topics in Modern Jewish Literature:</td>
<td>3</td>
</tr>
<tr>
<td>JWSH 343</td>
<td>The Holocaust in History</td>
<td>3</td>
</tr>
<tr>
<td>JWSH 350</td>
<td>Contemporary Jewish Identities</td>
<td>3</td>
</tr>
<tr>
<td>JWSH 361</td>
<td>Jewish Film</td>
<td>3</td>
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<tr>
<td>JWSH 395</td>
<td>Study Abroad Topics in Jewish Studies:</td>
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<tr>
<td>JWSH 490</td>
<td>Directed Study in Jewish Studies</td>
<td>3</td>
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<tr>
<td>JWSH 491</td>
<td>Directed Study in Jewish Studies, Honors</td>
<td>3</td>
</tr>
<tr>
<td>JWSH 523</td>
<td>The Dead Sea Scrolls</td>
<td>3</td>
</tr>
<tr>
<td>JWSH 525</td>
<td>Jews and Christians</td>
<td>3</td>
</tr>
<tr>
<td>JWSH 526</td>
<td>Jewish History and Literature in the Greek and Roman Periods</td>
<td>3</td>
</tr>
<tr>
<td>JWSH 560</td>
<td>Classical and Contemporary Jewish Thought</td>
<td>3</td>
</tr>
<tr>
<td>JWSH 570</td>
<td>Studies in Judaism</td>
<td>3</td>
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<tr>
<td>JWSH 572</td>
<td>Jewish Folklore</td>
<td>3</td>
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<td>JWSH 573</td>
<td>Jewish Folklore, Honors</td>
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<tr>
<td>JWSH 600</td>
<td>Advanced Topics in Jewish Studies: ______</td>
<td>3</td>
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<tr>
<td>JWSH 650</td>
<td>Service Learning in Jewish Studies</td>
<td>3</td>
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<tr>
<td>HEBR 110</td>
<td>Elementary Israeli Hebrew I</td>
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<tr>
<td>HEBR 120</td>
<td>Elementary Israeli Hebrew II</td>
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<tr>
<td>HEBR 177</td>
<td>First Year Seminar: ______</td>
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<tr>
<td>HEBR 210</td>
<td>Intermediate Israeli Hebrew I</td>
<td>3</td>
</tr>
<tr>
<td>HEBR 220</td>
<td>Intermediate Israeli Hebrew II</td>
<td>3</td>
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<tr>
<td>HEBR 230</td>
<td>Biblical Hebrew</td>
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<tr>
<td>HEBR 240</td>
<td>Biblical Hebrew II</td>
<td>3</td>
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<tr>
<td>HEBR 340</td>
<td>Advanced Israeli Hebrew I</td>
<td>3</td>
</tr>
<tr>
<td>HEBR 350</td>
<td>Advanced Israeli Hebrew II</td>
<td>3</td>
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<tr>
<td>HEBR 410</td>
<td>Studies in Modern Hebrew Literature</td>
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<tr>
<td>HEBR 420</td>
<td>Studies in Modern Hebrew</td>
<td>3</td>
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<tr>
<td>HEBR 490</td>
<td>Independent Study</td>
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</tr>
<tr>
<td>YDSH 104</td>
<td>Elementary Yiddish I</td>
<td>5</td>
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<tr>
<td>YDSH 108</td>
<td>Elementary Yiddish II</td>
<td>5</td>
</tr>
<tr>
<td>YDSH 177</td>
<td>First Year Seminar: ______</td>
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</tr>
<tr>
<td>YDSH 212</td>
<td>Intermediate Yiddish I</td>
<td>3</td>
</tr>
<tr>
<td>YDSH 216</td>
<td>Intermediate Yiddish II</td>
<td>3</td>
</tr>
<tr>
<td>YDSH 300</td>
<td>Studies in Yiddish: ______</td>
<td>3</td>
</tr>
<tr>
<td>YDSH 395</td>
<td>Study Abroad Topics in Yiddish: _____</td>
<td>3-6</td>
</tr>
<tr>
<td>YDSH 490</td>
<td>Independent Study</td>
<td>1-3</td>
</tr>
</tbody>
</table>

### Cross-Referenced Courses

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMS 344</td>
<td>Case Study in American Studies: ______ (Jewish-American Literature and Culture (service-learning course only))</td>
<td>3</td>
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<tr>
<td>AMS 494</td>
<td>Topics in: ______ (Jewish-American Literature and Culture)</td>
<td>1-4</td>
</tr>
<tr>
<td>AMS 494</td>
<td>Topics in: ______ (Blacks and Jews in the United States)</td>
<td>1-4</td>
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<td>AMS 696</td>
<td>Studies in: ______ (Biography of a City: Jerusalem: 3000 Year History)</td>
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<tr>
<td>ANTH 465</td>
<td>Genocide and Ethnocide</td>
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<td>ENGL 203</td>
<td>Topics in Reading and Writing: ______ (Holocaust Literature)</td>
<td>3</td>
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<tr>
<td>ENGL 336</td>
<td>Jewish American Literature and Culture</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 536</td>
<td>Readings in the Holocaust</td>
<td>3</td>
</tr>
<tr>
<td>HIST 341</td>
<td>Hitler and Nazi Germany</td>
<td>3</td>
</tr>
<tr>
<td>HIST 343</td>
<td>The Holocaust in History</td>
<td>3</td>
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<tr>
<td>HIST 503</td>
<td>The Ancient History of the Near East</td>
<td>3</td>
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<tr>
<td>HIST 660</td>
<td>Biography of a City: ______ (Jerusalem: 3,000 Year History)</td>
<td>3</td>
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<tr>
<td>HIST 661</td>
<td>Palestine and Antiquity</td>
<td>3</td>
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<tr>
<td>REL 107</td>
<td>Living Religions of the West</td>
<td>3</td>
</tr>
<tr>
<td>REL 311</td>
<td>Religion of Ancient Israel</td>
<td>3</td>
</tr>
<tr>
<td>REL 315</td>
<td>History and Literature of Early Christianity</td>
<td>3</td>
</tr>
<tr>
<td>REL 325</td>
<td>Introduction to Judaism</td>
<td>3</td>
</tr>
<tr>
<td>REL 326</td>
<td>Introduction to the Talmud and Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>REL 500</td>
<td>Readings in Non-English Religious Texts</td>
<td>1-4</td>
</tr>
<tr>
<td>REL 523</td>
<td>The Dead Sea Scrolls</td>
<td>3</td>
</tr>
<tr>
<td>REL 525</td>
<td>Jews and Christians</td>
<td>3</td>
</tr>
<tr>
<td>REL 560</td>
<td>Classical and Contemporary Jewish Thought</td>
<td>3</td>
</tr>
<tr>
<td>REL 570</td>
<td>Studies in Judaism</td>
<td>3</td>
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<tr>
<td>REL 761</td>
<td>Seminar in Western Religious Thought: ______ (Talmud and Philosophy)</td>
<td>3</td>
</tr>
<tr>
<td>THR 302</td>
<td>Undergraduate Seminar in: ______ (Theatre &amp; Genocide)</td>
<td>3</td>
</tr>
<tr>
<td>THR 380</td>
<td>Popular Culture: ______ (Jewish-American Popular Culture)</td>
<td>3</td>
</tr>
<tr>
<td>or JWSH 300</td>
<td>Topics in Jewish Studies: ______</td>
<td></td>
</tr>
</tbody>
</table>

### Master of Arts in Global and International Studies

**Why study global and international studies?**

Because global and international studies will give you the tools to understand the rapid and profound changes that are occurring around the world.
Why study European studies?
European Studies, through interdisciplinary study, broadens, deepens, and strengthens a student’s knowledge and understanding of the enduring importance of our transatlantic partners, the Europeans.

Admission to Graduate Studies
An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission
KU Edwards Campus
Students are admitted for both fall and spring semesters. Applicants must submit the following materials:

1. An application with appropriate application fee,
2. 1 official transcript from each institution of higher education attended for undergraduate and graduate work,
3. A 500- to 1,000-word essay outlining relevant experiences and reasons for pursuing this degree,
4. A current résumé,
5. 3 letters of recommendation sent directly from the references, and
6. Graduate Record Examination scores (Law School Admission Test or Graduate Management Admission Test results are acceptable substitutes).

International students also must submit Test of English as a Foreign Language scores for an examination taken within the past 2 years, unless they hold degrees from English-speaking institutions.

All materials must be received before the application can be evaluated. More information about the application process can be found on the program’s website (http://global.ku.edu). In general, to enter this program, a student must have a bachelor’s degree from an accredited institution with at least a 3.0 grade-point average on a 4.0 scale; admitted students typically have grade-point averages well above 3.0. Materials are reviewed by a subcommittee of the program advisory committee, which also considers the applicant’s overall record and prospects for success.

Submit your graduate application (http://www.graduated.ku.edu) and fee online. Send all other application materials to the following address:

The University of Kansas Edwards Campus
Global and International Studies Applications
Attn: Lesley Owens
12600 Quivera Road
Overland Park, KS 66213

The M.A. Degree Requirements
KU Edwards Campus
The Master of Arts in Global and International Studies is a 33-credit-hour degree. All students complete 3 required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIST 701</td>
<td>Approaches to International Studies</td>
<td>3</td>
</tr>
<tr>
<td>GIST 702</td>
<td>Globalization</td>
<td>3</td>
</tr>
<tr>
<td>GIST 710</td>
<td>Interdisciplinary Research Methods for Global</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Contexts</td>
<td></td>
</tr>
</tbody>
</table>

The first two courses (GIST 701, GIST 702) should be taken early in the program while GIST 710 should be taken in the 2nd year or later. In addition to the three required courses, students must then complete 7 graduate-level elective courses (21 credit hours).

These electives form 2 coherent clusters: One cluster must be around a world region, such as the Middle East, Africa, Asia, Latin America, Russia and Eurasia, or Western Europe. The other cluster must focus to be offered will be “Middle East and North Africa.”

The new concentration, called the Foreign Affairs Studies (FAS) concentration, will allow a student to focus on a specific world area while earning the Global and International Studies MA. The first world area focus to be offered will be “Middle East and North Africa.”

The FAS concentration is designed to meet the needs of Army Foreign Affairs Officers (FAOs), but it is also expected to attract civilian students with comparable language training and in-country experience. It will allow such well-prepared students to deepen and diversify their area expertise and, because it will be an intensive program that will run fall-spring-summer, it will allow FAOs to complete the MA within the 12-month constraint set by the Army’s FAO program.

<table>
<thead>
<tr>
<th>Required (9)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GIST 701</td>
<td>Approaches to International Studies</td>
<td>9</td>
</tr>
<tr>
<td>GIST 710</td>
<td>Interdisciplinary Research Methods</td>
<td></td>
</tr>
<tr>
<td></td>
<td>for Global Contexts</td>
<td></td>
</tr>
<tr>
<td>GIST 898</td>
<td>Thesis Writing</td>
<td></td>
</tr>
<tr>
<td>Concentration (12)</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Electives (9)</td>
<td>3 regionally-relevant courses</td>
<td>9</td>
</tr>
<tr>
<td>Total Hours</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>
Thesis Option
Students electing to write a thesis must have their thesis project proposal approved by their thesis advisor and either the Center Director or the Center’s Graduate Coordinator. Following project approval, the student must also enroll in the thesis writing course (GIST 898) and complete a significant original research project approved by a faculty committee.

Nonthesis Option
Students pursuing the nonthesis option are still required to take GIST 710 and must complete an additional 3 credit hours that correspond to one of their two coherent clusters. In the final semester, the student must successfully complete a written examination over the core course content and the student’s regional and topic concentrations as well as an oral examination.

Regional Specializations
These courses give students substantial knowledge about a selected region of the world. Up to 3 language courses (9 hours) at or above the 500 level may count toward this requirement. Regional specializations usually correspond to one of the regions below, which are regularly covered by KU’s area studies programs:

- Africa
- East Asia
- Latin America
- Middle East and North America
- Eastern Europe, Russia and Eurasia
- Western Europe

A student may petition to focus on a region that does not correspond to these regional boundaries, like South Asia, for instance. The petition is granted only if the program committee and director are assured that the student has a qualified academic advisor with expert knowledge of that area and relevant course options are available.

Topic Specialization
Topic specialization courses allow the student to develop an understanding of a particular issue of interest that reaches across national and regional borders. Topics might include gender and development, international conflict, intercultural communication, international politics, globalization, international business, global urbanization, peace studies, or another topic approved by the director. The courses below are examples of electives that might be used in some of these areas; each student works with an advisor to identify appropriate courses.

International Culture and Communications focuses on issues of culture, ethnicity, diversity, and cross-cultural communications and examines how various cultures around the world deal with outside influences and define themselves as distinctive societies. Sample courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS 560</td>
<td>Race, Gender, and Post-Colonial Discourses</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 674</td>
<td>Political Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>COMS 647</td>
<td>Issues in Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 774</td>
<td>Topics in Literatures of Africa and the African Diaspora: _____</td>
<td>3</td>
</tr>
<tr>
<td>FMS 813</td>
<td>Development of the International Sound Film</td>
<td>3</td>
</tr>
</tbody>
</table>

International Politics and Policies addresses foreign policy, comparative public policy, general theories of international relations and comparative politics, and current global issues. Sample courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS 554</td>
<td>Contemporary Health Issues in Africa</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 571</td>
<td>Violence, Aggression, and Terrorism in the Modern World</td>
<td>3-4</td>
</tr>
<tr>
<td>ANTH 674</td>
<td>Political Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;T 864</td>
<td>International Issues in the K-12 Classroom</td>
<td>3</td>
</tr>
<tr>
<td>POLS 670</td>
<td>United States Foreign Policy</td>
<td>3</td>
</tr>
<tr>
<td>POLS 673</td>
<td>International Organization</td>
<td>3</td>
</tr>
<tr>
<td>POLS 774</td>
<td>International Law</td>
<td>3</td>
</tr>
<tr>
<td>SOC 672</td>
<td>Sociology of War and Peace</td>
<td>3</td>
</tr>
</tbody>
</table>

International Business and Economics offers a foundation in global business and economics, economic history, and political economy. Sample courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 835</td>
<td>Comparative Economic Systems</td>
<td>3</td>
</tr>
<tr>
<td>HIST 509</td>
<td>Multinational Corporations: The Role of Money and Power</td>
<td>3</td>
</tr>
<tr>
<td>HIST 528/</td>
<td>Economic History of Europe</td>
<td>3</td>
</tr>
<tr>
<td>ECON 535</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IBUS 700</td>
<td>Managing in a Global Environment</td>
<td>1</td>
</tr>
<tr>
<td>IBUS 701</td>
<td>International Business</td>
<td>2</td>
</tr>
</tbody>
</table>

Department of History

Studying history at the University of Kansas will expand your mind. Our course offerings introduce students to medieval witches and Samurai warriors, conspiracy cranks and Native American prophets, Chairman Mao and the Black Panthers. Students can take courses on the history of sexuality, or, if that isn’t exciting enough, courses on natural disasters, wars, and plagues. With 35 tenured and tenure-track faculty, the Department of History covers the globe.

But studying history is more than just an entertaining adventure. Training in historical research, analysis, and writing develops skills that are essential in our information economy, and this preparation is especially useful to students planning to pursue graduate training and careers in law, public policy, journalism, education, and a universe of other possibilities, as our recent undergraduate and graduate alumni throughout the world can attest.

The Department of History at KU offers an outstanding undergraduate program with approximately 250 majors and an additional group of History minors. These students are taught by faculty who consistently win awards for their teaching as well as their research. Beyond the introductory level, class sizes are small, including two required seminars that are capped at fifteen students each, and the optional Senior Honors Thesis, which features direct one-on-one advising with a faculty mentor.

Our graduate program has consistently ranked in the top 25 among public research universities. With an average of 80 graduate students enrolled, we are primarily a doctoral program, granting Ph.D. degrees in standard geographical areas such as the United States, Europe, Asia, Africa, the Middle East, and Latin America, as well as in thematic fields such as...
military, environmental, and gender and sexuality. Recent Ph.D. recipients have gone on to tenure-track positions at research universities, liberal arts colleges, junior colleges, and a variety of non-academic careers.

Finally, faculty in the Department of History are nationally and even internationally known for their research. The books and articles they have published just in the last two years are too numerous to list here, but you can scroll through the faculty page to gain a sense of their significance shaping our knowledge about the world. Their productivity plays an important role in helping KU maintain its position in the prestigious American Association of Universities.

Take some time to search through our website. You’ll find information about our programs, our courses, and our prolific faculty, and you can hear the voices of undergraduates and graduate students who have passed through the Department. Please feel free to contact any of the administrative staff, faculty, and faculty officers with your questions.

Undergraduate Programs

The History Department at the University of Kansas is particularly distinguished in undergraduate teaching. Previous honors include the Excellence in Undergraduate Advising Award from the College of Liberal Arts and Sciences.

In addition, many History faculty members have won individual awards for their teaching, such as the Kemper Prize and Distinguished Professor awards. The department as a whole ranks well above the University average in student evaluations.

- Faculty (http://www.history.ku.edu/%7Ehistory/faculty) in the department are often nationally and internationally recognized leaders in their field, and they bring this advanced knowledge to bear on their teaching.
- Courses (http://www.catalogs.ku.edu/undergraduate/majors/History.pdf) in the department are usually small, and the larger courses always include Teaching Assistants, so students can receive individual attention and feedback on their work.
- Flexibility is a given in the department: students have only two required courses—a course on historical methods and a senior research seminar—and a choice of concentrating on any of ten fields, as well as the opportunity to design their own major. The department and faculty also have links to interdisciplinary work in Environmental Studies, African and African-American Studies, Indigenous Nations Studies, and other area studies programs.
- Resources for history research at KU are rich. Watson and Anschutz libraries help make up a major research library collection, and the Spencer Library offers such resources as the Wilcox Collection on extremist politics, the University Archives, and major collections in British history, among others.
- For more information, see the History Major Program Description (http://www.history.ku.edu/under/pdfs/UG%20Major%20Hand %20Out.pdf).

Courses for Nonmajors

The department offers courses that span time (from ancient to contemporary history) and space (North and South America, Europe, Asia, and Africa). The department offers courses in social history, including the history of women and the family, African-American and Native American history, and topical courses in such areas as politics, diplomacy, war and society, culture, the environment, ideas, cities, economics, and religion. History courses are cross-listed with a variety of departments and programs.

Graduate Programs

The Department of History (http://www.history.ku.edu/about.shtml) at the University of Kansas is a dynamic place, with a proud tradition of training scholars from across the globe who have transformed the practice of history. The program offers major or minor concentrations in the areas of United States, African American, Modern European, British & Imperial, Russian/East European, East Asian, Latin American, African, Medieval, Women and Gender, Military, and Environmental History. KU offers its graduate students great flexibility in their choice of fields, as defined both by traditional geographical and chronological parameters and thematic topics. Students also have the opportunity to take coursework outside the department in fields such as Public History, Museum Studies, Environmental Studies, and the History of Medicine.

Primarily a doctoral program, the Department currently enrolls approximately 80 graduate students from throughout the United States and the world, including Japan, China, Peru, and Russia. Our students make up a very diverse group, and we encourage applicants from traditional and non-traditional backgrounds.

For statistics regarding our program, please see our Doctoral Program Profile (http://www.granduate.ku.edu/sites/graduate.drupal.ku.edu/files/docs/dpp/DPP_A_HIST.pdf), which demonstrates our success at funding and placing current and recent graduates.

Courses

HIST 101. Introduction to History: ____. 3 Hours. HT GE11 / H.
An introduction to the study of history. The course will expose the student to the major issues and methods of historical study. This will be done through the study of a specific historical period or topical area. In the study of this period or topic, students will be introduced to schemes of interpretation, critical readings and analysis, primary sources, and evaluation of evidence. LEC.

HIST 102. Introduction to History, Honors: ____. 3 Hours. HT / H.
An introduction to the study of history. The course will expose the student to the major issues and methods of historical study. This will be done through the study of a specific historical period or topical area. In the study of this period or topic, students will be introduced to schemes of interpretation, critical readings and analysis, primary sources, and evaluation of evidence. Prerequisite: Membership in the College Honors Program or consent of department. LEC.

HIST 103. Environment and History. 3 Hours. H.
Nature is our oldest home and newest challenge. This course surveys the environmental history of the earth from the extinction of the dinosaurs to the present with a focus on the changing ecological role of humans. It analyzes cases of ecological stability, compares cultural attitudes toward nature, and asks why this ancient relationship seems so troubled. (Same as EVRN 103.) LEC.

HIST 104. Introduction to African History. 3 Hours. NW GE11/GE3H / H/W.
An introduction to important historical developments in Africa mainly south of the Sahara. Topics will include early history, empires, kingdoms, and city-states, the slave trade, southern Africa, partition and colonialism, the independence era, military and civilian governments, and liberation movements. Approaches will include literature, the visual arts, politics, economics, and geography. (Same as AAAS 105.) LEC.
HIST 105. Introduction to Ancient Near Eastern and Greek History. 3 Hours. NW GE3H / H/W.
A general survey of the political, social, and economic developments of Mesopotamia, Egypt, Asia Minor, and Greece from Paleolithic times to 323 B.C. LEC.

HIST 106. Introduction to Roman History. 3 Hours. H/W.
A general survey of the political, social, and economic developments of ancient Rome from 753 B.C. to 475 A.D. LEC.

HIST 107. Introduction to the Ancient World. 3 Hours. H.
This course covers the history of the ancient Near East, Greece and Rome with emphasis on the origins of agriculture, writing, cities, empires, and democracy. Students will be introduced to schemes of interpretation, critical readings, and analysis, primary sources, and evaluation of evidence. LEC.

HIST 108. Medieval History. 3 Hours. HT GE11 / H/W.
The history of Europe from the Barbarian Invasions to the beginning of the 16th century. LEC.

HIST 111. Introduction to African History, Honors. 3 Hours. NW / H/ W.
An intensive version of AAAS 105/HIST 104. An introduction to important historical developments in Africa, mainly south of the Sahara. Topics include early history, empires, kingdoms and city-states, the slave trade, southern Africa, partition and colonialism, the independence era, military and civilian governments, and liberation movements. Approaches include literature, the visual arts, politics, economics, and geography. Open only to students in the University Honors Program or by consent of instructor. (Same as AAAS 115.) LEC.

HIST 112. Introduction to British History. 3 Hours. H.
This course will introduce students to the concepts, issues, and methods of historical study, at the same time as it explores the main processes and events which shaped the history of Britain and its imperial dependencies. Students will be introduced to the nature and validity of different historical interpretations, and to the purpose and merit of historical writings. LEC.

HIST 113. Europe 1500-1789, Honors. 3 Hours. HT / H.
An introduction to early modern European history, with emphasis on the cultural, political, economic, and social processes and events which helped to shape the modern world: The renaissance, the rise of the nation states, the Reformation, absolutism, and constitutionalism, the Enlightenment, and the coming of the French Revolution. Not open to students who have taken HIST 114. This Honors course is a Humanities Historical Studies Principal Course. Prerequisite: Membership in the College Honors Program or consent of department. LEC.

HIST 114. Renaissance to Revolution: Europe 1500-1789. 3 Hours. HT GE11 / H/W.
An introduction to early modern European history, with emphasis on the cultural, political, economic, and cultural forces which have helped to shape the modern world. The renaissance, the rise of nation states, the Reformation, absolutism and constitutionalism, the Enlightenment, and the coming of the French Revolution. LEC.

HIST 115. French Revolution to the Present: Europe 1789-Present. 3 Hours. HT GE11/GE3H / H/W.
An introduction to recent European history, with emphasis on the social, political, economic, and cultural forces which have helped to create the Europe of today: the French Revolution, the romantic movement, the revolutions of 1848, nationalism, imperialism, Communism, and two World Wars, the cold war, and its aftermath. LEC.

HIST 116. French Revolution to the Present: Europe 1789 to Present, Honors. 3 Hours. HT GE11/GE3H / H.
An introduction to recent European history, with emphasis on the social, political, economic, and cultural forces which have helped to create the Europe of today: The French Revolution, the romantic movement, the revolutions of 1848, nationalism, imperialism, Communism, and two World Wars, the cold war and its aftermath. Not open to students who have taken HIST 115. This Honors course is a Humanities Historical Studies Principal Course. Prerequisite: Membership in the College Honors Program or consent of department. LEC.

HIST 117. Russia, an Introductory History. 3 Hours. HT / H/W.
A survey of the evolution of Russia from its origins to the present. The focus will be on the interaction of government and society and on internal and external pressures affecting modernization and reform, revolution, and territorial expansion. LEC.

HIST 118. History of East Asia. 3 Hours. NW AE42 / H/W.
A survey of the history of China, Japan, Korea, and other cultures in East Asia from premodern to modern times. Students are introduced to the major currents of East Asian history and historical methods used to study them. Not open to students with credit in upper division East Asian history. LEC.

HIST 119. History of East Asia, Honors. 3 Hours. NW AE42 / H/W.
A survey of the history of China, Japan, Korea, and other cultures in East Asia from premodern to modern times. Students are introduced to the major currents of East Asian history and historical methods used to study them. Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

HIST 120. Colonial Latin America. 3 Hours. NW AE42/GE3H / H/W.
The principal focus is on the evolution and analysis of societies, economies, and religions of native American peoples, the impact of Spanish and Portuguese conquests and settlement, government, trade and culture upon native civilizations, the influence of African population and culture, and the creole nature of the resulting society in the colonial period. Changes in the society and economy which presaged the movements for independence are also discussed. LEC.

HIST 121. Modern Latin America. 3 Hours. HT GE3H / W.
Students are introduced to historical analysis within the context of the emergence of national identities and the process of modernization in the region. It also discusses key processes such as urbanization and industrialization and examines social movements for reform or revolution in the 20th Century. The course compares social, cultural, economic, and political changes across a variety of countries since 1810, giving particular attention to the legacies of colonialism. In this way the course deals with interpretations of the processes and movements and major issues of Latin American historiography. LEC.

HIST 122. Colonial Latin America, Honors. 3 Hours. NW AE42/GE3H / H/W.
The principal focus is on the evolution and analysis of societies, economies, and religions of native American peoples, the impact of Spanish and Portuguese conquests and settlement, government, trade and culture upon native civilizations, the influence of African population and culture, and the creole nature of the resulting society in the colonial period. Changes in the society and economy which presaged the movements for independence are also discussed. Prerequisite: Membership in the College Honors Program or permission of instructor. LEC.

HIST 123. Modern Latin America, Honors. 3 Hours. HT GE3H / W.
Similar in content to HIST 121. Students are introduced to historical analysis within the context of the emergence of national identities and
the process of modernization in the region. The course compares social, cultural, economic, and political changes across a variety of countries since 1810, giving particular attention to the legacies of colonialism. It also discusses key processes such as urbanization and industrialization and examines social movements for reform and revolution in the 20th century. In this way the course deals with interpretations of these processes and movements and major issues of Latin American historiography. Prerequisite: Membership in the University Honors Program or permission of instructor. LEC.

HIST 124. Latin American Culture and Society. 3 Hours. SC / S.
An introduction to the interdisciplinary study of Latin America, as manifest in the arts and literature, history, and in environmental, political, economic, and social realities. Explores and critiques the principal themes and methodologies of Latin American Studies, with an aim towards synthesizing contributions from several different disciplines. Emphasizes the unique insights and perspectives made possible by interdisciplinary collaboration and provides students with the basic knowledge base for understanding Latin America today. (Same as LAA 100.) LEC.

HIST 128. History of the United States Through the Civil War. 3 Hours. HT GE3H / H.
A historical survey of the United States from the peopling of the continent through the Civil War. This survey is designed to reflect the diversity of the American experience, to offer the student a chronological perspective on the history of the United States, and to explore the main themes, issues, ideas, and events which shaped that history. LEC.

HIST 129. History of the United States After the Civil War. 3 Hours.
HT GE3H / H.
A historical survey of the American people from Reconstruction to the present. This survey is designed to reflect the diversity of the American experience, to offer the student a chronological perspective on the history of the United States, and to explore the main themes, issues, ideas, and events that shaped American history. LEC.

HIST 130. History of the United States Through the Civil War, Honors. 3 Hours. HT GE3H / H.
A historical survey of the United States from the peopling of the continent through the Civil War. This survey is designed to reflect the diversity of the American experience, to offer the student a chronological perspective on the history of the United States, and to explore the main themes, issues, ideas, and events which shaped that history. Not open to students who have taken HIST 128. Prerequisite: Membership in the College Honors Program or consent of department. LEC.

HIST 131. History of the United States After the Civil War, Honors. 3 Hours. HT GE3H / H.
A historical survey of the American people from Reconstruction to the present. This survey is designed to reflect the diversity of the American experience, to offer the student a chronological perspective on the history of the United States, and to explore the main themes, issues, ideas, and events which shaped that history. Not open to students who have taken HIST 129. Prerequisite: Membership in the College Honors Program or consent of department. LEC.

HIST 136. Early Science to 1700. 3 Hours. H.
Surveys the Western scientific tradition from roots in ancient Egypt, Mesopotamia, and Greece to the Scientific Revolution in seventeenth-century Europe. Focuses on the theoretical, methodological, and institutional development of the physical and bio-medical sciences. Addresses interactions of science with the technological, religious, philosophical, and social dimensions of Western culture. LEC.

HIST 137. History of Modern Science. 3 Hours. H.
Surveys the history of science from the seventeenth century to the present with study of the changing theoretical, institutional, and social character of the scientific enterprise. Addresses physical, biological, and social sciences with attention to the chemical revolution at the turn of the nineteenth century, evolutionary biology, the new physics of the early twentieth century, and the professionalization of social science. Relates scientific changes to historical developments in technology, religion, national traditions in Europe and the USA, and non-Western cultures. LEC.

HIST 140. Global Environment I: The Discovery of Environmental Change. 5 Hours. GE3H / U.
This interdisciplinary course and laboratory sections survey the foundations of environmental understanding and the process of scientific discovery from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the history of environmental systems and life on earth, the discovery of biotic evolution, ecological change, and climate change. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to earth systems and the development of environmental understanding using historical and present-day examples. (Same as EVRN 140 and GEOG 140.) LEC.

HIST 142. Global Environment II: The Ecology of Human Civilization. 5 Hours. GE3H / U.
This interdisciplinary course and its laboratory sections survey the history of humanity's relationship with the natural world over the long term from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the evolution of Homo sapiens and cultural systems; the development of hunter, gatherer, fisher, agricultural, and pastoral lifeways; the ecology of colonialism and industrial civilization, and the emergence of ideological and ethical perspectives on the relationship between nature and culture. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to the humanity's engagement with the global environment using historical and present-day examples. (Same as EVRN 142 and GEOG 142) LEC.

HIST 144. Global Environment I: The Discovery of Environmental Change, Honors. 5 Hours. U.
This interdisciplinary course surveys the foundations of environmental understanding and the process of scientific discovery from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics include the history of environmental systems and life on earth, the discovery of biotic evolution, ecological change, and climate change. Laboratory sections apply the principles and methodologies of the humanities, physical, life and social sciences to earth systems and the development of environmental understanding using historical and present-day examples. (Same as GEOG 144 and EVRN 144.) Open only to students admitted to the University Honors Program or by permission of instructor. LEC.

HIST 145. Global Environment II: The Ecology of Human Civilization, Honors. 5 Hours. U.
This interdisciplinary course and its laboratory sections survey the history of humanity’s relationship with the natural world over the long term from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences. Key topics will include the evolution of Homo sapiens and cultural systems; the development of hunter, gatherer, fisher, agricultural, and pastoral lifeways; the ecology of colonialism and industrial civilization, and the emergence of ideological and ethical perspectives on the relationship between nature and culture. Laboratory sections apply the principles and methodologies
of the humanities, physical, life and social sciences to the humanity’s
engagement with the global environment using historical and present-day
examples. (Same as EVRN 145 and GEOG 145.) Open only to students
in the University Honors Program or by permission of instructor. LEC.

HIST 160. Introduction to West African History. 3 Hours. NW AE42/
GE3H / H.
This course treats West African history through the first part of the 20th
century. The student is provided with a perspective on the major historical
patterns that gave rise to West Africa’s development as an integral part
of world history. Special attention is paid to anthropological geographical,
and technological developments that influenced West African political and
socioeconomic changes. (Same as AAAS 160.) LEC.

HIST 177. First Year Seminar: ____. 3 Hours. HT GE11.
A limited-enrollment, seminar course for first-time freshmen, organized
around current issues in history. May not contribute to major requirements
in history. First year seminar topics are coordinated and approved through
the Office of First Year Experiences. Prerequisite: First-time freshman
status. LEC.

HIST 250. Study Abroad Topics in: ____. 1-5 Hours. H.
This course is designed for the study of special topics in History at the
freshman/sophomore level. Coursework must be arranged through the
Office of KU Study Abroad. May be repeated for credit if content varies.
LEC.

HIST 300. Modern African History. 3 Hours. NW AE42 / H/W.
A survey of social, political, and economic developments during the
colonial era and independence struggles, followed by a closer
examination of the contemporary experience in a selected country or
region. (Same as AAAS 305.) LEC.

HIST 301. The Historian’s Craft. 3 Hours. H.
This course introduces students to the practice and methods of the study
of history and serves as the gateway to the major. Students learn (1) to
think historically; (2) to understand how historians construct and write
about the past through narratives, theory and analytical discussion;
(3) to critically evaluate historical arguments and the material used to
substantiate those arguments, including an introduction to the process
of peer review; (4) to develop writing and research skills including the
interpretation of primary sources; and (5) to master professional standards
of presenting their findings. This course is required of all history majors
and is a prerequisite for HIST 696 Seminar in: ____. Prerequisite:
Open only to declared History majors or by consent of instructor. LEC.

HIST 302. The Historian’s Craft, Honors. 3 Hours. H.
This course introduces students to the practice and methods of the study
of history and serves as the gateway to the major. Students learn (1) to
think historically; (2) to understand how historians construct and write
about the past through narratives, theory and analytical discussion;
(3) to critically evaluate historical arguments and the material used to
substantiate those arguments, including an introduction to the process
of peer review; (4) to develop writing and research skills including the
interpretation of primary sources; and (5) to master professional standards
of presenting their findings. This course, or HIST 301 - its non-honors
equivalent, is required of all history majors and is a prerequisite for HIST
696 Seminar in: ____. Prerequisite: Open only to students admitted to the University Honors Program or by consent of the
instructor. (Same as AAAS 307.) LEC.

HIST 303. Sin Cities. 3 Hours. H.
This course offers a comparative global introduction to the history of the
modern city by looking at the ways in which certain metropoli developed
an attractive underbelly of decadence at the same time as they sought to
be centers of refined and orderly cosmopolitan life. The course examines

topics such as popular culture, gambling, prostitution, crime, violence,
nightlife, tourism, and corruption in the context of the increased social
mobility that characterized the beginning of the industrial age and that has
extended into the 21st century. Students investigate the changing relation
between work and leisure, spectacle and consumerism, and urban space
and the struggle for order. LEC.

HIST 304. 1642, 1688, 1776: Three British Revolutions. 3 Hours. H.
Explains and analyzes the three revolutions in the English-speaking world
which, more than any others, are held to have laid the foundations of
modernity. Themes discussed include social, intellectual, and political
developments, structures, and conflicts. 1642 and 1688 are treated in
the setting of England’s relations with Scotland and Ireland, and against
the background of European wars of religion. 1776 is analyzed in a
transatlantic context as a civil war within the wider British polity. LEC.

HIST 305. The Scientific Revolution. 3 Hours. H.
Describes and analyzes the factors producing a Scientific Revolution in
ear-modern Europe. Focuses on fundamental changes in astronomy-
cosmology, physics, and biology from Copernicus to Newton. Examines
the emergence of experimental method as an essential part of Western
science. Portrays the development of new forms of scientific organization
and the cultural frameworks that bore and shaped them. Surveys the
various interpretations of this period expressed by current historians of
science. LEC.

HIST 306. Science and Western Culture. 3 Hours. H.
Analyzes the institutional, social, technological, and political
circumstances of science in the Western tradition. Examines the place
of science in pre-modern European settings. Emphasizes the shifting
centers of national scientific prominence since the seventeenth century
from Italy to Britain to France to Germany to the USA. LEC.

HIST 307. Modern African History, Honors. 3 Hours. NW AE42 / H.
An intensive version of HIST 300. A survey of social, political, and
economic developments during the colonial era and independence
struggles, followed by a closer examination of the contemporary experience in a selected country or region. Open only to students
admitted to the University Honors Program, or by consent of the
instructor. (Same as AAAS 307.) LEC.

HIST 308. Key Themes in Modern Global History. 3 Hours. H.
A comparative historical analysis of major global developments from
the late 15th century to the present. Some of the themes likely to be
explored are empire-building, contact between cultures and colonial social
relations; the attraction of cities, their role in a global economy and the
shift to an urban world; and the impact of capitalism and industrialization
on social organization including conflict between classes and changes in
the nature of work. Students learn ways of interpreting primary historical
documents and comparing historical investigations across time and
space. Not open to students who have completed HIST 100. LEC.

HIST 309. History of Chemistry. 3 Hours. H.
Birth of modern chemical science from roots in Greek natural philosophy,
alchemy, Renaissance medicine, and technology. The Chemical
Revolution of Lavoisier and Dalton. Maturity of chemistry in the19th and
20th centuries, along with an examination of the growth of chemical
institutions and the rise of chemical industry. Emphasis on developments
from the 18th century to the present. (Same as CHEM 309.) LEC.

HIST 310. American Culture, 1600-1876. 3 Hours. H.
An examination of the major historical shifts, trends, and conflicts that
have shaped the multicultural nature of life in the United States from the
initial European settlements to 1876. In addition to tracing developments
in literature, architecture, drama, music, and the visual arts, this course
will investigate patterns and changes in the popular, domestic, and
HIST 311. Great Lives in Science. 3 Hours. H.
This course examines the lives of selected great scientists. Lectures and biographical readings deal with scientists who lived in the period between the seventeenth century and the present. Through comparative biography, the course assesses the theoretical, methodological, institutional, and social development of modern science. LEC.

HIST 312. American Culture, 1877 to the Present. 3 Hours. H.
An examination of the major historical shifts, trends, and conflicts that have shaped the multicultural nature of life in the United States from 1877 to the present. In addition to tracing developments in literature, architecture, drama, music and the visual arts, this course investigates patterns and changes in the popular, domestic, and material culture of everyday life in America. (Same as AMS 312.) LEC.

HIST 313. Conspiracies and Paranoia in American History. 3 Hours. H.
The theme of conspiracy is a recurring motif in American history. This course uses a case-study method to revisit episodes such as the Salem witch trials, the movement against freemasonry, the Slave Power conspiracy, and more recent obsessions such as UFOs and the assassination of John F. Kennedy to explain why so many Americans have embraced conspiracy theories to explain mysterious events and dramatic social change. The course will rely on primary accounts, fiction, and film, as well as secondary historical literature, to examine both “real” and “imaginary” conspiracies and their effects on the politics, culture, and society of the United States. LEC.

HIST 314. Globalization: History and Theory. 3 Hours. H.
Explores the rise of global capitalism in the 19th and 20th centuries, contemporary debates about 21st century globalization, and the role of globalization in our everyday lives. Questions considered include: Is globalization an incremental process that has been going on for centuries, or is it a dramatic new force reshaping the post-Cold War world? Is it a cultural and social process or an economic and political one? Or is it all of these things? Not open to students who have completed HIST 315. LEC.

HIST 315. Globalization: History and Theory Honors. 3 Hours. H.
Explores the rise of global capitalism in the 19th and 20th centuries, contemporary debates about 21st century globalization, and the role of globalization in our everyday lives. Questions considered include: Is globalization an incremental process that has been going on for centuries, or is it a dramatic new force reshaping the post-Cold War world? Is it a cultural and social process or an economic and political one? Or is it all of these things? Not open to students who have completed HIST 314. Open only to students in the College Honors Program or consent of instructor. LEC.

HIST 316. Ministers and Magicians: Black Religions from Slavery to the Present. 3 Hours. H.
This course examines the history and diversity of African American religious expression from slavery until the present, emphasizing both mainstream and alternative faiths. It covers the religious world views of enslaved Africans, and examines faiths inside and outside of Christianity. Topics may include: independent black churches, magical practices, the Holiness and Pentecostal movements, black Islam, religious freemasonry, and esoteric faiths. The class emphasizes the influence of gender, class, race, migration, and urbanization on black religion. (Same as AAAS 316 and AMS 316.) LEC.

HIST 317. African American Women: Colonial Era to the Present. 3 Hours. AE41 / H.
This interdisciplinary course covers the history of African American women, beginning in West and Central Africa, extending across the Middle Passage into the Americas, and stretching through enslavement and freedom into the 21st century. The readings cover their experiences through secondary and tertiary source materials, as well as autobiographies and letters, plays and music, and poems, novels, and speeches. (Same as AAAS 317, AMS 317, and WGSS 317.) LEC.

HIST 319. History, Women, and Diversity in the U.S.. 3 Hours. AE41 / H.
This survey course explores the history of being female in America through a focus on the ways differences in race, sexuality, ethnicity, class, and life cycle have shaped various aspects of women’s lives. Themes to be explored could include, but are not limited to: social and political activism; intellectual developments; family; women’s communities; work; sexuality; and culture. LEC.

HIST 320. From Goddesses to Witches: Women in Premodern Europe. 3 Hours. HT GE11/GE3H / H.
This course examines the social, cultural, and political contexts of women’s spirituality and their relations to gender relations in Europe from about 30,000 B.C.E. to the 16th century Protestant Reformation. Lectures move both chronologically and topically, covering such subjects as goddess-worshiping cultures, women’s roles in Christian and Jewish societies, symbols of women, and male attitudes toward women. Students will be able to participate in weekly discussions of primary and secondary source readings about women. (Same as WGSS 320.) LEC.

HIST 321. From Mystics to Feminists: Women’s History in Europe 1600 to the Present. 3 Hours. HT AE42/GE11/GE3H / H.
This survey of women’s history in Europe looks at changing patterns of women’s economic roles and family structures in preindustrial and industrial society, the importance of women in religious life, cultural assumptions underlying gender roles, and the relationship of women to political movements, including the rise of feminism. (Same as WGSS 321.) LEC.

HIST 324. History of Women and the Body. 3 Hours. H.
This course examines different notions about women and their bodies from a historical perspective. It discusses the arguments and circumstances that have shaped women’s lives in relation to their bodies, and women’s responses to those arguments and circumstances. This course covers a wide geographical and chronological spectrum, from Ancient societies to the present, from Latin America and the Middle East, to North America and Western Europe. (Same as WGSS 324.) LEC.

HIST 325. The Spanish Inquisition. 3 Hours. H.
A broad historical study of the Spanish Inquisition from 1478 to its afterlife in modern culture, including its use in political debates and its depiction in popular culture. Topics include anti-Semitism, the nature of the inquisitorial investigation, the use of torture, censorship and the relationship between the Inquisition, the Spanish monarchy and other religious and lay authorities. Taught in English. Will not count toward the Spanish major. (Same as JWSH 315 and SPAN 302.) LEC.

HIST 326. Native American Civilizations and their European Conquerors. 3 Hours. NW AE42/GE11/GE3H / H/W.
The societies, economies, and cultures of Native American peoples in Brazil, Peru, Mexico, and the Southwestern United States will provide the main focus of this course to understand the culture and values of those who preceded the Europeans in the Americas. European culture is also examined, including the motivations for exploration and conquest. The details of the particular conquests and how they affected the resulting
HIST 327. The Premodern Middle East. 3 Hours. NW AE42 / H.
A survey of the history of the Middle East from the origins of Islam in the seventh century to the rise and consolidation of the Ottoman Empire in the eighteenth century. Lectures and discussions focus on diversity within the Middle East at the height of the Islamic empires. Topics include the life of Muhammad and early Islamic communities, expansion of Islam into Asia, Africa and Europe, intellectual strength in the medieval period, and the everyday lives of women, Christians, Jews and other minority groups. LEC.

HIST 328. The Modern Middle East. 3 Hours. NW AE42 / H.
A survey of the history of the Middle East from 1800 to the present. Lectures and discussions focus on diversity within the Middle East over two centuries of major political and cultural change. Topics include causes for the decline of the Ottoman Empire, debates over modernization, European imperialism and the formation of nation-states, twentieth century cultural revolutions and women's activism, the Arab-Israeli conflict, and the revival of Islamic social movements. LEC.

HIST 329. History of War and Peace. 3 Hours. HL / H.
A study of the changing nature of warfare and the struggle to bring about peace. Topics include pacifism, the "military revolution" that created the first professional armies; the development of diplomatic immunity, truces, and international law; the peace settlements of Westphalia, Utrecht, Vienna, Versailles, and San Francisco; the creation of peace movements and peace prizes; the evolution of total war, civil war, and guerrilla warfare involving civilians in the twentieth century; the history of the League of Nations and United Nations; and the rise of intergovernmental and non-governmental organizations. (Same as EURS 329 and PCS 329.) LEC.

HIST 330. Revolt and Revolution in Early Modern Europe. 3 Hours. H.
A study of forces giving rise to riots, rebellions, and revolution in Western Europe from 1600-1790. The course will examine social and ideological aspects of famines, religious persecution, taxation, war, landlord-peasant relations, and the increasing power of kings. LEC.

HIST 331. Atlantic Societies, 1450-1800: A Comparative History of European Colonization. 3 Hours. H.
This course offers a comparative history of the European (Portuguese, Spanish, French, English, and Dutch) colonization of the Americas. It examines the interaction among peoples and cultures across the Atlantic, from the age of European exploration to the start of the independence movements in the Americas. Themes that will receive special attention include: comparing patterns of colonization, the forging of American societies of European, Native American, and African cultures, the slave trade, and the history of sugar production. LEC.

HIST 332. Eurometro: Visions of the European Metropolis, 1849-1939. 3 Hours. H.
This course investigates the interrelated symbols of the European metropolis during the "Age of Great Cities", from the filth of the sewers to the "filthiness" of prostitution. Students investigate gender and class in the metropolis by exploring a few stereotypes: the juvenile delinquent, the woman on the street, and the flaneur. The course format stresses discussion of common texts, including short readings of literature from the period and historical scholarship. Students also analyze contemporary photographs, art, architecture, and advertising. LEC.

HIST 333. The Great War: The History of World War I. 3 Hours. H.
A historical survey of the causes, course, and consequences of the conflict, 1878-1919, stressing its socio-economic dimensions as well as its political ramifications and military aspects. Considerable use will be made of visual aids. No prerequisites. LEC.

HIST 334. Ethics, Ideas, and Nature. 3 Hours. AE51 / H.
This course examines the ethical frameworks developed for thinking about, using, and protecting the natural world. Examples of topics include indigenous approaches to nature, the history of ecological ideas, environmental movements, the role of the state of managing resources, utilitarianism and progressivism, environmental lawmaking, wilderness advocacy, nature and theology, the rights of nature, and environmental justice. Students are introduced to the theories of duty ethics, justice ethics, utilitarianism, and right ethics, and required to apply ethical decision making to contemporary and historical environmental issues. Multiple perspectives on the history of human interactions with nature demonstrate the importance of reflecting upon the value systems inherent in human-centered environmental ethics and nature-centered environmental ethics. (Same as EVRN 336.) LEC.

HIST 335. History, Ethics, Modernity. 3 Hours. H.
This course will examine the question "How has human dignity been preserved or violated in the modern age?" Cast in a global framework, some of the probable themes are the history of human rights; the moral universe of genocide; the (in)significance of industrial work; the shifting status of the poor and the colonized and their treatment by the state and society; the impact of changing technology on ethics in war, peace and the environment; and the violation of dignity as a factor in collective resistance. LEC.

HIST 336. African American Urban Community and Class in the Midwest. 3 Hours. H.
This course provides historical perspective on African Americans and the politics of economic class within black urban spaces from the end of Reconstruction to the post-World War II era. It focuses on the development of an upwardly mobile urban black middle class, and impoverished black urban "underclass," since the 1960s. Students are encouraged to have taken one of three courses: AAAS 104, AAAS 106, or AAAS 306. (Same as AAAS 328.) LEC.

HIST 340. The History of the Second World War. 3 Hours. H.
A survey of the origins, course, and consequences of the war, 1930-1945. Political, economic, military, and social aspects will be dealt with in the context of their global effects. Extensive use will be made of motion pictures and other media. LEC.

HIST 341. Hitler and Nazi Germany. 3 Hours. H/W.
An examination of the rise of Hitler and Nazism, beginning with the breakdown of 19th century culture in the First World War and continuing through the failure of democracy under the Weimar Republic. The course will also discuss the impact of Nazism on Germany and how Nazism led to the Second World War and the Holocaust. LEC.

HIST 343. The Holocaust in History. 3 Hours. H.
The systematic murder of the Jews of Europe by the Nazis during World War II is one of the most important events of modern history. This course studies the Holocaust by asking about its place in history. It compares other attempted genocides with the Holocaust and examines why most historians argue that it is unique. Other topics covered include the reasons the Holocaust occurred in Europe when it did, the changing role of anti-Semitism, and the effects of the Holocaust on civilization. The course also discusses why some people have sought to deny the Holocaust. The course concludes by discussing the questions people have raised about the Holocaust and such issues as support for democracy, the belief in progress, the role of science, and the search for human values which are common to all societies. (Same as JWSH 343.) LEC.

HIST 345. Hard Times: The Depression Years in America, 1929-1941. 3 Hours. H.
An analysis of the experiences of the American people during the Great Depression. Attention will also be given to the global dimensions of the
crisis, socioeconomic dislocation, cultural and institutional change, and
the impact of the Asian and European wars. LEC.

**HIST 346. Law and Society in America. 3 Hours. H.**
Law and lawyers have powerfully shaped American values and
institutions. This course explores law’s impact on American society from
the age of European colonization through present. Topics include liberty,
public order, race and ethnicity, the family, property, speech, environment,
and self-government. The course also examines the changing images of
lawyers and the law over time. Course materials include not just statutes
and court decisions, but literature, imagery, and popular culture materials.
LEC.

**HIST 347. Environmental History of North America. 3 Hours. H.**
A survey of changes in the landscape and in people’s perceptions of the
natural world from 1500 to present. Topics include agroecology, water
and energy, the impact of capitalism, industrialism, urbanization, and such
technologies as the automobile, and the origins of conservation. (Same as
EVRN 347.) LEC.

**HIST 348. History of the Peoples of Kansas. 3 Hours. H.**
A survey of culture and society in Kansas from prehistory to the present.
Topics include Native American life, Euro-American resettlement,
Bleeding Kansas and the Civil War, agricultural settlement, urbanization
and industrialization, depression and recovery, and modern Kansas
in transition. Emphasis in the course will be on social and economic
conditions, the experience of ethnic and racial groups, inter-racial
relations, and the role of women. LEC.

**HIST 350. The Korean War, 1950-1953. 3 Hours. H.**
An examination of the origins, pattern of development, and legacy of
this still unsettled conflict, which in many ways set the tone for the entire
post-1945 era of the Cold War. Points of emphasis will include the
motives and policies of the major participants (Koreans, Americans,
Chinese, and Soviets), as well as the effects of the war on their domestic
politics and foreign policy positions. LEC.

**HIST 351. American Indian and White Relations to 1865. 3 Hours. H.**
This course provides an intensive survey of the Indians of North America
from Prehistory to 1865, and focuses on ancient indigenous cultures, early
European-Indian relations and the impact of European culture upon the
indigenous peoples of North America. (Same as HWC 348, ISP 348.)
LEC.

**HIST 352. American Indians Since 1865. 3 Hours. H.**
This course examines American Indian/White relations from
reconstruction to the present. It surveys the impact of westward expansion
and cultural changes brought about by the Civil War, forced education,
intermarriage, the Dawes Act, the New Deal, the World Wars, termination,
relocation and stereotypical literature and movies. The class also
addresses the Red Power and AIM movements, as well as indigenous
efforts to decolonize and to recover and retain indigenous knowledge.
After learning about the past from both Native and non-Native source
materials, students will multiple perspectives about historical events and
gain understandings of diverse world views, values, and responses to
adversity. (Same as HWC 350 and ISP 350.) LEC.

**HIST 353. Indigenous Peoples of North America. 3 Hours. NW AE41 /
H/W.**
This course surveys the history of the first peoples to inhabit North
America from prehistory to present. Commonly and collectively referred
to as American Indians, indigenous peoples include a diverse array of
nations, chiefdoms, confederacies, tribes, and bands, each of which
has its own unique cultures, economies, and experiences in dealing
with colonial and neocolonial powers. This class seeks to demonstrate
this diversity while at the same time providing an understanding of the
common struggle for political and cultural sovereignty that all indigenous
nations face. Indigenous nations that have developed a relationship with
the United States will receive primary focus, but comparative reference
will be made to First Nations of Canada. LEC.

**HIST 354. Spanish Borderlands in North America. 3 Hours. AE51 / H.**
The Northern frontier provinces of the Viceroyalty of New Spain from their
exploration and occupation by Spain until their absorption by the United
States. LEC.

**HIST 355. U.S. Borderlands Since 1848. 3 Hours. H.**
This course discusses issues associated with the Mexican borderlands
region after conquest and acquisition by the United States. Themes
include race relations, immigration, labor, economics, politics, culture,
and the environment. We discuss how the region was incorporated into
the United States, and how this relationship is evolving. We also examine
the notion of a borderlands region and whether or not this is a valid
characterization for Kansas. LEC.

**HIST 358. The Vietnam War. 3 Hours. H.**
This course is a survey of the Vietnam War. It covers the early
days of Cold War, 1945-54, and all phases of the Vietnam War: the
advisory phase (1955-64); the Americanization phase (1965 -68); the
Vietnamization Phase (1969-73); and the final phase, the Vietnam Civil
War, 1972-75. This course covers the causes, course, conduct, and
consequences of the war and in so doing provides a political, military, and
social history of the war. LEC.

**HIST 360. Science and Religion. 3 Hours. H.**
The interaction and significant confrontations between science and
religion will be considered together with the religious responses to science
and technology. LEC.

**HIST 362. The American Way of War Since World War II. 3 Hours. H.**
This course is a survey of American Military History from World War II to
current military operations. It covers the Cold War, the Korean War,
the Vietnam War, both Persian Gulf wars, the global war on terrorism, and
the war in Afghanistan. The course examines the causes, course, conduct,
and consequences of the wars and covers advances in technology and
doctrine, civil-military relations, foreign policy, and inter-service rivalry,
providing a political, military, and cultural history of the wars. LEC.

**HIST 365. Invention of the Tropics. 3 Hours. H.**
This course surveys the history of the tropical environment and its
peoples from Europe’s first encounter to today’s ecotourism boom. It
focuses on portrayals of the tropics in historical travel accounts and films.
Through these sources, we seek to understand how science, technology,
and tourism have been used, in turn, as instruments of progress and
destruction, tools of empire and national liberation. Case studies are
drawn from Latin America, Africa, Oceania, and Asia. LEC.

**HIST 366. Old Regime and Revolution in France, 1648-1799. 3 Hours.
H.**
This course explores the political, social, and cultural system of early
modern France. It culminates with study of the collapse of monarchy and
establishment of republican government during the French Revolution.
LEC.

**HIST 367. Magic and Superstition in European History. 3 Hours. H.**
This course traces the changing role and understanding of magic in
European culture, religion, politics and science from the late Middle Ages
through the early 20th century. Topics may include alchemy, miracles,
magical healing, witchcraft, monsters and demonic possession, LEC.

**HIST 368. A History of Afro-Latin America. 3 Hours. H.**
This course examines the history of Africans and their descendants
in Latin America. In this region, Africans could be found serving as
militia commanders, laboring as skilled tradesmen, running their own businesses, working as household servants, and toiling on plantations. Students will study the varied experiences of these men and women across colonial and national boundaries. Topics include: acculturation/Creolization, manumission, family formation, social networks, economic roles, political mobilization, and interaction with indigenous peoples. LEC.

HIST 369. Colonialism and Revolution in the Third World, Honors. 3 Hours. NW AE42 / H.
This course will study the structure and dynamics of colonialism and neo-colonialism in the third world beginning in the 19th Century and continuing to the 1980s. It will also examine responses to these systems, from small-scale resistance to nationalist revolutions. Attention will be given to the relationship between ideology and collective behavior. Case studies will be drawn from Africa, Asia, and Latin America. Prerequisite: Membership in the University Honors Program or permission of instructor. LEC.

HIST 370. Violence and Conflict in Latin American History. 3 Hours. H.
This course treats the history of Latin America since the European conquest through the prism of violence and social conflict. It traces the roots of the region’s social collapse during the twentieth century to political and cultural factors in the colonial and early national periods. Using films and literature in addition to historical texts, the course discusses the sources of nationalism, civil wars, banditry, urbanization, violent dissent, military dictatorships, human rights abuses and guerrilla insurgencies as well as the political uses of violence made by different social groups. LEC.

HIST 371. The Cultural History of Modern Latin America. 3 Hours. H.
This course explores themes such as the evolution of national identities, the conflict between the city and the countryside, exile, the surrealism imagination and the cultural resistance against foreign influences through an examination of the literature, film, art, music, religions and popular and material culture of 19th and 20th century Latin America. LEC.

HIST 372. Violence and Conflict in Latin American History, Honors. 3 Hours. H/W.
This course treats the history of Latin America since the European conquest through the prism of violence and social conflict. It traces the roots of the region’s social collapse during the twentieth century to political and cultural factors in the colonial and early national periods. Using films and literature in addition to historical texts, the course discusses the sources of nationalism, civil wars, banditry, urbanization, violent dissent, military dictatorships, human rights abuses and guerrilla insurgencies as well as the political uses of violence made by different social groups. Not open to students who have taken HIST 370. Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

HIST 373. The Supreme Court and Religious Issues in the United States. 3 Hours. H.
Historical study of the interpretation of the religion clauses of the First Amendment with special reference to the questions of establishment, the free exercise of religion, freedom of religious belief, worship, and action, and religion and the public schools. Not open to freshmen. (Same as REL 373.) LEC.

HIST 375. The Supreme Court and Religious Issues in the United States, Honors. 3 Hours. H.
Historical study of the interpretation of the religion clauses of the First Amendment with special reference to the questions of establishment, the free exercise of religion, freedom of religious belief, worship, and action, and religion and the public schools. Open only to students in the University Honors Program or by permission of the instructor. (Same as REL 375.) LEC.

HIST 376. The Cultural History of Modern Latin America. 3 Hours. H.
For students enrolled in the annual summer Study Abroad program. This course examines some of the main events and trends in British history, from the earliest times to recent British history. The specific historical themes investigated will depend upon the instructor. The course can be taken only via enrollment in the KU British Summer Institute in the Humanities. Prerequisite: Approval for enrollment in the Summer Institute through the Study Abroad office. LEC.

HIST 377. Everyday Communism in Eastern Europe. 3 Hours. H.
This course investigates through film, literature, memoirs, photography, architecture, and scholarship the experience of ordinary citizens under Soviet-style communism in Eastern Europe. We study the ways people supported, resisted, opposed, and merely got by under state socialism from the late 1940s to the collapse of Communism in 1989. LEC.

HIST 378. Beyond the Iron Curtain: Soviet Perspectives on the Cold War. 3 Hours. AE42 / H.
This course reimagines the Cold War through Soviet eyes, challenging assumptions and offering less familiar perspectives on a global conflict. Analyzing Soviet and American mass media, popular culture, declassified documents, and personal stories, students investigate the following: Who started the Cold War, and who won it? Was it a time of relative peace or paranoia? How did the two sides view each other and did espionage help them know each other better? How did people and culture sometimes cross the iron curtain? What were the Soviets doing in places like Latin America and the Middle East? And why were both sides so concerned with Olympic athletes, ballet defectors, and cosmonauts? LEC.

HIST 379. Revolutionary Europe: The People in Arms. 3 Hours. H/W.
A survey of the political, social, economic and cultural transformation of Europe in a century of turmoil, from the Old Regime through the liberal and national revolts of 1848, the Paris Commune and the Russian Revolution. LEC.

HIST 380. Themes in British History. 3 Hours. H.
A study of a specialized theme or topic in History. May be repeated for credit when topic varies. LEC.

HIST 381. Topics in (Honors): ______. 3 Hours. H.
A study of a specialized theme or topic in History. May be repeated for credit when topic varies. Open only to students admitted to the University Honors Program. Prerequisite: Permission of instructor. LEC.

HIST 382. Huns, Turks, and Mongols: The Nomad Factor in Asian History. 3 Hours. NW / H/W.
This course introduces the history of major nomadic powers in Eurasian Steppe and their impact in the world from the first Millennium BCE to around 1500 AD. The main topics include the culture of the Scythians, the Hun and Xiongnu confederacy, the Mongol conquest, and the Turkish empires in Central and West Asia. It investigates the natural and human forces that shape the identities of the nomads and their changing images in history. LEC.

HIST 383. The Silk Road. 3 Hours. H.
A comprehensive introduction to the cultural influence and material exchange among major civilizations along the Silk Road. It covers the period of more than one thousand years between the 2nd and the 15th centuries CE, during which time forces wielded by the Persians, the Chinese, the Indians, the Tibetans and the Mongols shaped the geopolitical landscape of the vast region that spreads from the Caspian Sea to the Gobi Desert. Students explore the role of the Silk Road in the formation of the religious and ethnic identities of these civilizations, as well as their perceptions towards one another. Along with textual materials, the course uses extensive visual and musical materials to present interesting phenomena, such as Sogdian burial practice, Arab accounts of Tang
China, Nestoril Christianity at the Mongol court, and Marco Polo’s journey to the East. The course begins and concludes with discussion of the contemporary significance of the Silk Road as a historical category. LEC.

HIST 394. Made in China: Chinese Business History. 3 Hours. H.
This course examines the development of business in China since 1900. Topics include the rise of industrialism, the role of foreign investment, China’s role in the global market place, the relationship between business and the state, state-run enterprises, factory life, entrepreneurialism, building a domestic market for industrial goods, advertising, consumerism, and economic nationalism LEC.

HIST 397. From Mao to Now: China’s Red Revolution. 3 Hours. NW AE42/GE11 / H.
This course on China’s Communist revolution considers the evolution of Maoism, or Chinese Communism, from its ideological origins through its implementation during and after the Chinese Communist revolution. It examines major Maoist movements such as Land Reform, the Great Leap Forward, the Cultural Revolution, and the cult of Mao. It further considers the globalization of Maoism by examining examples of other Maoist revolutions and revolutionaries in places like Cambodia, Peru, and Nepal. LEC.

HIST 398. Introduction to History of Japan: Anime to Zen. 3 Hours. NW / H/W.
This course provides a foundation for study of Japanese history. It combines lectures on the scope of Japanese history over the past 2,000 years with discussions of topics key to the development of Japanese civilization such as religion and literature. We analyze how different media, such as film, Japanese animation (anime), and art can be used as historical sources, and how these shape our understanding of Japan. Students hone their ability to analyze both thematic and historical questions through writing assignments and discussions. LEC.

HIST 399. The Samurai. 3 Hours. NW AE42/GE11 / H/W.
Japan’s warrior class, the samurai, dominated politics and society for more than half of Japan’s recorded history. This course traces the history of the samurai from their origins to the dissolution of their class in 1877, examining their military role, philosophy, and cultural contributions. It also considers continued references to the “spirit of the samurai” in the twentieth century. LEC.

HIST 401. Case Studies in: ____. 2-3 Hours. H.
Examination of a limited aspect of a general subject; other aspects of the same subject may be offered other semesters. LEC.

HIST 402. Roman Military History. 3 Hours. H.
The Defense of the Roman Frontiers. This course emphasizes the development of the frontiers of the Roman empire from Caesar to the late second century. It includes the origins of the Germans and their society, the Celtic background, and the relationship between the emperor and the army. LEC.

HIST 404. Technology: Its Past and Its Future. 3 Hours. H.
An examination of the role of technology and its influence on society. The historical development of technology will be traced up to modern times with an emphasis on its relations to the humanities. Attention will be given to the future of different branches of technology and alternative programs for their implementation. (Same as ENGR 304.) LEC.

HIST 407. History of Science in the United States. 3 Hours. H.
Traces the evolution of a scientific tradition in American culture. Examines the growth of scientific ideas and institutions under European and indigenous influences. Studies the interactions of science with technological, theological, political, and socio-economic developments. LEC.

HIST 409. The American Revolution. 3 Hours. H.
This course will focus on the meaning the American Revolution had for different groups of Americans. Particular emphasis will be on the relationship between ideology and experience, and the impact of the Revolution on such groups as women, slaves, Indians, African-Americans, the poor, merchants, and loyalists. LEC.

HIST 410. The New Republic: U.S. History 1787-1848. 3 Hours. H.
This course traces the history of the United States from the debates over the ratification of the Constitution until 1848. Major topics include the republican experiment, the Market Revolution, the Age of Jackson, religious revivals and reform, slavery and the cotton kingdom, the Manifest Destiny. Historians view the period as vital to understanding the development of the society, economy, culture, and politics of the modern United States. LEC.

HIST 412. The Civil War in America, 1828-1877. 3 Hours. H.
The United States from the rise of sectional conflict through the disintegration and reunification of the Union. LEC.

HIST 413. The Rise of Industrial America, 1877-1920. 3 Hours. H.
The political, economic, social, and intellectual development of the United States from 1877 to 1920. LEC.

HIST 414. Gone with the Wind. 3 Hours. H.
For four years, another country occupied part of what we now think of as the United States. The Confederate States of America was a short-lived experiment founded on the cornerstone of slavery that advocated small government, states’ rights, agriculture, and patriarchy. Even before the Confederacy collapsed, though, none of those ideals was working out well in real life. Why, then, do so many Americans have such a hallowed view of the Confederate experience? This class discusses some military matters but focuses primarily on the homefront. LEC.

HIST 420. Dante’s Comedy. 3 Hours. H.
The complete Divine Comedy will be read in English translation, with equal stress on each of its three parts: the Inferno, the Purgatory, and the Paradise. No prerequisite. (Same as HWC 410.) LEC.

HIST 421. Economic and Social History of Later Medieval Europe, 1000-1500. 3 Hours. H.
An introductory study of European economic and social history from the Tenth Century Crisis to the 1490s. This course investigates the causes of economic development and the interactions among market, nonmarket, and social institutions such as the family. Topics covered include trade, labor, technologies, consumerism, social unrest and the rise of social and economic thought. LEC.

HIST 424. Venice and Florence in the Renaissance. 3 Hours. H.
Comparative urban study of Florence and Venice from the thirteenth through the sixteenth centuries. Principal subjects are the distinctive economies of the city-states, political developments, Renaissance humanism, patronage of the arts, family life, and foreign policy. LEC.

HIST 425. History of the Mediterranean World, 1099-1571. 3 Hours. H.
This course examines Mediterranean civilizations from the First Crusade to the Battle of Lepanto. Topics include the commercial revolution, medieval colonization, the Byzantine and Ottoman states, shipping and navigation, and the Atlantic. Equal coverage of the eastern and western Mediterranean. LEC.

HIST 440. War and United States Society. 3 Hours. H.
A survey of the American experience in military conflict, both foreign and domestic, from the colonial period to the present. In addition to the strategic and tactical aspects of war, the course will treat the political, economic, and social effects in their national and global contexts. Extensive use will be made of audio-visual materials. LEC.
HIST 444. Frozen in Time: Politics and Culture in the Cold War, 1945-75. 3 Hours. H.
This course deals with the interactions between Cold War culture and domestic and international politics chiefly from the American and to some degree comparative perspective. It focuses on the period 1945-1975, and makes use of films, television, music, works of science fiction and related genres, and other cultural manifestations to examine such themes as programs of domestic and international repression, consensus politics, cultural imperialism, gender roles, and class, status, and racial dynamics in the context of what was perceived as bipolar rivalry. LEC.

HIST 450. Study Abroad Topics in: ____. 1-5 Hours. H.
This course is designed for the study of special topics in History at the junior/senior level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

HIST 451. Suburbia. 1.5 Hour. H.
A history of the growth of suburban enclaves, from their emergence during the electric streetcar era to their dominance in the late 20th century. This short course features the analysis of class dynamics, racial exclusions, commuting, social conformity and the alienation of the young within a U.S. context, but some attention is given to comparisons with other parts of the world. LEC.

HIST 452. Chicago. 1.5 Hour. H.
A history of the Midwestern metropolis from its origins as a swamp to an industrial port city. Topics covered in this short course may include the meat-packing industry, political corruption and reform, immigration and migration, the rise and demise of neighborhoods, transportation systems, working-class social movements, modern architecture and urban popular culture. LEC.

HIST 453. Anarchism: A Global History. 1.5 Hour. H.
This short course examines the key theorists and organizers of the anarchist movement, beginning with its emergence in the 19th century and extending into its reappearance in the 21st century. It traces developments in Europe, South America, Asia and the United States. Topics may include the Paris Commune, credit unions, propaganda by the deed, wage slavery, resistance to authority, and the general strike. LEC.

HIST 454. Work. 1.5 Hour. H.
This short course traces the evolution of work from pre-industrial times to the computerized workplace. Issues such as the meaning of work, dignity and respect, time efficiency and exploitation, unionization and strikes, workplace democracy, collectives and worker-owned businesses, laziness as a form of resistance to authority, leisure, the culture of commuting, and hierarchy and status are explored. The evolution of work in non-U.S. societies is analyzed comparatively. LEC.

HIST 455. Havana. 1.5 Hour. H.
This short course examines the history of the Cuban port city from the era of Spanish colonialism to the "special period" of shortages and deprivations during the 1990s. Topics covered may include popular culture, Caribbean pirates, cigar factories and labor, urban slavery, Chinatown, social revolution, restructuring of urban public space, suburban expansion, modernist architecture, tourism, gambling and vice, historical preservation and the changing conditions of streetlife. LEC.

HIST 460. Topics in: _____. 1.5 Hour. H.
An eight-week course devoted to a specific historical topic. May be repeated for credit as topics change. LEC.

HIST 461. The Asia-Pacific War, 1937-1945. 3 Hours. H.
This course introduces students to the Asia-Pacific War, which began with the outbreak of fighting between Japan and China in July 1937 and ended with the unconditional surrender of the Japanese Empire to Allied forces in August 1945. The course revolves around three themes, which are explored through lecture, discussion, and extensive use of film and visual materials: the geopolitical and colonial origins of the conflict; the concept of total war and the political and social transformations it unleashed on all belligerent nations; and the ideologies on the home front justifying the mass slaughter of soldiers and civilians. There is also discussion about how people in Japan, the United States, China, Korea, and other countries remember the war in the postwar period. LEC.

HIST 470. Popular Culture in Latin America and Africa. 3 Hours. NW / H.
This course offers a comparative assessment of the origins and practice of various forms of popular culture in the 20th Century in these two regions. Theories that explain the links between modernism and popular culture are discussed. Topics investigated may include the impact of spectacle on the urban environment, the legacies of colonialism in the sphere of culture, and the intersection of public space and popular culture. Forms such as music, cinema, street theater, and sports are explored. LEC.

HIST 480. Traveler's Tales of the Middle East. 3 Hours. H.
This reading-intensive seminar examines the multiple visions of "the Orient" that appeared in the letters, memoirs, and novels of Western travelers to the Middle East in the nineteenth and twentieth centuries. We examine the rise of tourism and travel-writing within the Middle East and their links to European imperialism. Working closely with primary source documents, we question what these highly personal and often misinformed types of writing can tell us about the politics and culture of everyday life in the Middle East. LEC.

HIST 481. From Harlem to the Streets: Gender in the Middle East, 1900-Present. 3 Hours. H.
This reading-intensive seminar examines shifts in gender roles and expectations in the Middle East during the twentieth and twenty-first centuries. The course begins with the importance of harem within Middle Eastern society, and traces Middle Eastern women's increasingly public presence in national movements, feminist activism, and peace protests as well as the impact of Western standards of marriage, child-rearing, beauty, and sexuality on gender roles. The course uses primary and secondary sources to analyze how gender identity is informed by religion and culture and grounded in specific historical moments. LEC.

HIST 489. Honors Course in History. 1-3 Hours. AE61 / H.
May be taken more than once; total credit not to exceed six hours. Prerequisite: Approval of the Coordinator of the Honors Program of the Department of History. IND.

HIST 492. Readings in History. 1-4 Hours. AE61 / H.
Investigation of a subject selected by the student with the advice and direction of an instructor. Individual reports and conferences. Two (2) Readings in History courses may be applied to the major and no more than one (1) may be applied to the minor. Prerequisite: Ten hours of college history including at least two upper-class courses and a "B" average in history. Consent of instructor. IND.

HIST 494. Service Learning in History. 1-3 Hours. AE61 / H.
This course is designed to give students the opportunity to apply historical knowledge and ideas gained through course work to real-life situations in volunteer service agencies and community centers. Open to History majors and others with significant History backgrounds. Permission of instructor is required. LEC.

HIST 498. Undergraduate History Honors Seminar. 3 Hours. AE61 / H.
Required for students in the History major honors program, normally in the second semester of their honors projects. Prerequisite: Approval of the Coordinator of the Honors Program of the Department of History. Another
HIST 500. History of the Book. 3 Hours. H.
Brief history of written materials and handwritten books; history of printed books from the 15th century as part of cultural history; technical progress and aesthetic change. Offered every second year. (Same as ENGL 520.) LEC.

HIST 502. Development of Ancient Greece, ca. 1000-300 B.C.E. 3 Hours. H/W.
Emphasis on the ancient sources and texts, developments in political institutions and society, the changing definitions of personal, cultural, and national identities, and the cultural tensions between Greece and the cultures to the west and east, especially Italy and Persia. No knowledge of the ancient languages is required. (Same as CLSX 502.) LEC.

HIST 503. The Ancient History of the Near East. 3 Hours. H.
History of the rise of civilizations in the ancient Near East from the earliest time to the Muslim conquest of the early seventh century, including the areas of Mesopotamia, Egypt, Syria, Palestine and Asia Minor. An archaeological approach is used in focusing attention on the cultural phenomena and achievements of the peoples of these areas, including the Babylonians, Assyrians, Persians, ancient Israelites, Greeks and Romans. LEC.

HIST 506. Roman Republic. 3 Hours. H.
An investigation of the history of Rome from its origins to the end of the Republic in 31 B.C.E., emphasizing political and economic aspects of the development of Rome from a minor city to a world power. LEC.

HIST 507. Early Roman Empire. 3 Hours. H.
A political, social, and economic investigation of the early Roman Empire from Augustus to Diocletian emphasizing how Rome held together a world-empire until economic and military problems forced a complete reorganization of the imperial system. LEC.

HIST 508. Late Roman Empire (284-527). 3 Hours. H.
An investigation and analysis of the later Roman Empire from Diocletian to Justinian, emphasizing the Christianization of the empire, its division into Western and Eastern/Byzantine Empires, and the barbarian invasions. LEC.

HIST 509. Multinational Corporations: The Role of Money and Power. 3 Hours. H.
This course explores the origins, historical evolution, and global expansion of multinational corporations since the 1880s. Particular attention is devoted to U.S.-directed multinational businesses with both market-oriented and supply-oriented direct investments abroad and the competitive advantages gained by American capital, management, and marketing expertise vis-a-vis foreign firms operating in Canada, Europe, Asia, Latin America, and Africa. An objective of the course is to assist the student of international business in understanding, analyzing, and addressing various complex, interrelated and interdependent trends and issues in the world community that have had a critical impact on business performance in the international marketplace. LEC.

HIST 510. Topics in: _____. 2-3 Hours. H.
A study of a specialized theme or topic in History. May be repeated for credit when topic varies. LEC.

HIST 512. Foodways: Latin America. 3 Hours. H.
This course explores the traditional foods, ways of eating, and cultural significance of food among peoples of Latin America. The course surveys the vast array of flora in Central and South America and the Caribbean, and focuses on issues of environmental protection, bioethics, food security, and the growth of farming and ranching. The class studies the impact that foods such as maize, potatoes and cacao have had globally, and includes African, Asian, and European influences on Latin cuisine, as well as health problems associated with dietary changes. (Same as HWC 552, ISP 552, and LAA 552.) Prerequisite: Upper division course on Latin America, or permission of the instructor. LEC.

HIST 513. Early Medieval Culture. 3 Hours. H/W.
The formation of a new civilization in Western Europe between the decline of the Roman Empire and the First Crusade is the central stress in this topical study of the institutions and ideas characteristic of the Latin West, 300-1100. LEC.

HIST 515. The Crusades in Cross-Cultural Perspective. 3 Hours. H.
This course examines the development and evolution of the crusade as well as the history of the crusading movement from the 11th to the 15th centuries. Through an analysis of documents from Christian, Jewish, and Muslim perspectives, this course aims to consider “the Crusades” in the broadest possible context. One of the key questions to be addressed in this course is: how did these expeditions to the Holy Land both reflect and influence cross-cultural relations in the medieval Mediterranean World? LEC.

HIST 516. Later Medieval Culture. 3 Hours. H.
The civilization of Medieval Europe at its height (1100-1350); its subsequent disintegration and transformation. LEC.

HIST 519. European Intellectual History of the Seventeenth Century. 3 Hours. H/W.
This course will trace the development of the European intellectual tradition in the crucial period of the seventeenth century. Such topics as the changing views on religion, the decline of Humanism, and the rise of natural science form the center of the course and will be studied against the background of social and political change. Class sessions will consist of discussions of both primary and secondary sources. LEC.

HIST 520. The Age of the Renaissance. 3 Hours. H/W.
A survey of economic, political, social, and cultural developments in Italy in the 14th and 15th centuries, with special attention to those elements in the life of the age which look forward to the modern world. LEC.

HIST 521. The Age of the Reformation. 3 Hours. H/W.
The Protestant revolt of the 16th century. LEC.

HIST 522. The Age of Religious Wars, 1540-1648. 3 Hours. H/W.
The Catholic or Counter-Reformation and the wars of religion, including the Thirty Years War. LEC.

HIST 523. Europe between Absolutism and Revolution. 3 Hours. H/W.
An investigation of why the major states of Europe underwent a crisis at the end of the 1700s that culminated in a wave of democratic revolutions, reforms, and the wars of Napoleon. LEC.

HIST 524. The French Revolution. 3 Hours. H/W.
A study of the origins, development, and impact of the French Revolution, beginning with a description of France in the 18th century and ending with a look at France under Napoleon. LEC.

HIST 525. Modern France: From Napoleon to de Gaulle. 3 Hours. H/W.
A survey of the history of modern France. Beginning with an exploration of the impact of the Revolutionary and Napoleonic era on French institutions, politics, and society, this course examines the search for a viable political system, the acquisition of a colonial empire, the church-state controversy, and the rise of socialism in the nineteenth century, and considers the impact of two world wars on French society, the rapid modernization of countryside and cities, and French political leadership from Clemenceau to Blum to de Gaulle in the twentieth century. LEC.
HIST 527. Recent European History, 1870 to the Present. 3 Hours. H/W.
A study of the issues and themes that have shaped the contemporary European world, exploring European politics, economy, and society from the zenith of Europe’s power and influence at the turn of the century through two world wars and into the contemporary era. This survey begins with the period of consolidation of a system of major national states in western Europe and ends with the search for alternatives to that system in the break-up of empires and movements for European unity in the post-World War II era. The course also considers the emergence of the states of central and eastern Europe and examines the impact of the Russian Revolution and the Soviet state on European affairs. Not open to those who have credit in either HIST 435 or HIST 436. LEC.

HIST 528. Economic History of Europe. 3 Hours. S/W.
An introductory study of European economic history from the Middle Ages to the 1980s. Investigates the sources of economic growth, and the interaction between economic forces and social institutions. Topics covered will include the rise of commerce, the agricultural and industrial revolutions, imperialism, the Great Depression, and European recovery after World War II. (Same as ECON 535.) Prerequisite: ECON 104 or ECON 142 and ECON 144. LEC.

HIST 529. Intellectual History of 19th Century Europe. 3 Hours. H/W.
A survey of significant currents of thought during this period. Attention to the problem of the relationship between ideas and the historical situation. LEC.

HIST 530. History of American Women--Colonial Times to 1870. 3 Hours. AE41 / H.
A survey of women’s history in the United States that will consider women’s roles as housewives, mothers, consumers, workers, and citizens in preindustrial, commercial, and early industrial America. (Same as AMS 510 and WGSS 510.) LEC.

HIST 531. History of American Women--1870 to Present. 3 Hours. AE41 / H.
A survey of women’s history in the United States that will include radical and reform movements, the impact of war and depression, professionalization, immigration, women’s work, and the biographies of leading figures in women’s history. (Same as AMS 511 and WGSS 511.) LEC.

HIST 532. History of Women and Work in Comparative Perspective. 3 Hours. H.
This course explores the connection between historical changes in the labor process and the occupational choices available to women in different countries. Through discussion and analyses of texts, students will evaluate the construction of a gendered division of work as shaped over time by economic, cultural, and political forces. The chronological and geographical focus may vary depending on the instructor. (Same as AMS 512 and WGSS 512.) LEC.

HIST 533. The History of Women and the Family in Europe, from 1500 to the Present. 3 Hours. H/W.
This course examines how women’s roles and the family have changed in Europe from the early modern period to the present. It will consider the relation of women and the family to such cultural, social, and political changes as the Reformation, the French Revolution, middle class culture, industrialization, and the mass movements of the 19th and 20th centuries. LEC.

HIST 534. Captivity in America, 1492-1800. 3 Hours. H.
Captivity, threatened and actual, shaped the lives of the people of North America. It profoundly influenced the ways in which individuals and communities thought about themselves and the people around them. Colonists feared captivity among Native Americans; centuries later, Americans in the early republic rallied to the cause of their countrymen captured by Barbary pirates. This course examines the impacts, cultural, social, religious, and otherwise, of a variety of forms of captivity in colonial British, Spanish, and French North America. Topics in this course may include the captivity of European explorers and settlers by Native American groups; the enslavement of peoples from Africa to European and Native American masters; prisoners of war; naval impressment; and the displacement and captivity of Native American individuals and communities. Prerequisite: Successful completion of prior history course numbered below 500. LEC.

HIST 537. France from the Renaissance to the French Revolution. 3 Hours. H.
A study of the major political developments of early modern France, including absolutism, corporate institutions, and popular revolts, as well as an examination of the everyday life and beliefs of ordinary people. LEC.

HIST 538. European Intellectual History of the Eighteenth Century. 3 Hours. H.
An examination of the writing, ideas, and language of the major thinkers of the Enlightenment, including Diderot, Hume, Kant, Lessing, Rousseau, and Voltaire. LEC.

HIST 541. British History, 1500-1660. 3 Hours. H.
An introduction to the impact on the British Isles of the Reformation and Renaissance; the development of the Tudor state; Parliament; the Stuart monarchy; the Anglican counter-reformation; civil war; the Cromwellian experiment. LEC.

HIST 543. Modern Iran. 3 Hours. NW / H.
A history of Iran from the sixteenth century to the present with an emphasis on religious, political, and cultural history. Topics will include the establishment of Shi‘ism as the state religion in the sixteenth century, the evolution of religio-political thought among the Shi‘ite clerical establishment, great power politics in the nineteenth century, European cultural and intellectual influence, nation-building and nationalism in the twentieth century, the Islamic revolution of 1979, and Iranian politics since the revolution. Prerequisite: HIST 327 and HIST 328. LEC.

HIST 544. Britain and Ireland from 1200 to 1500. 3 Hours. H.
Survey of social, cultural, political, and economic developments with particular emphasis on interaction between Anglo-Norman/English and Celtic societies. LEC.

HIST 545. British History, 1660-1832. 3 Hours. H.
A study of Britain’s recovery from civil war; state formation and national identity; ideological conflict; the Revolution of 1688; religion and secularization; social stability and commercial expansion; reform; threats to the state, and the American revolution; Britain’s survival of the French Revolution; the breakdown of the ancient regime in 1828-32. LEC.

HIST 546. History of Cartography. 3 Hours. H.
A history of mapmaking worldwide from its origins to the present day. Emphasis on maps as historical records of evolving civilizations and cultural landscapes and methods of study early maps. (Same as GEOG 519.) LEC.

HIST 547. The Intellectual History of Europe in the Twentieth Century. 3 Hours. H.
This course will examine in depth the leading developments in European thought from the 1920’s to the present. Topics will include: existentialism, philosophic hermeneutics, and postmodernism. LEC.

HIST 548. British History, 1832 to the Present. 3 Hours. H.
A study of the rise of modern Britain from the 1832 Reform Act, a major step on the path from aristocratic government to mass democratic politics.
It covers the politics and society of the Victorian era, the extension of British influence overseas, the origins and social impact of two world wars, the creation of the Welfare State, the loss of Empire, and Britain’s entry into Europe. LEC.

HIST 551. Spain and its Empire, 1450-1700. 3 Hours. H.
This course will examine the society and culture of Spain in the period known as "the Golden Age." Subjects that will receive attention include: rural and urban society, economic and political organization of the Spanish and American peoples in the early years of the conquest, the place of women in society, the social basis for "Golden Age" culture, and the debate over the "decline of Spain. LEC.

HIST 552. United States Environmental History in the 20th Century. 3 Hours. H.
Americans dramatically changed the natural world between 1900 and 2000. This course asks how transformed environments shaped the American experience during a century of technological innovation, democratic renewal, economic expansion, global conflict, and cultural pluralism. Topics include food and markets, energy and transportation, law and politics, protest and resistance, suburbanization, and environmentalism’s fate in a global information era. (Same as EVRN 562.) LEC.

HIST 555. Aspects of British Political Thought. 3 Hours. H.
This course will offer an introduction to a number of classic works in British political thought, placed against their historical background. Close reading of selected texts will be combined with contextual analysis. LEC.

HIST 556. Aspects of British Political Thought, Honors. 3 Hours. H.
Similar in content to HIST 543. This course will offer an introduction to a number of classic works in British political thought, placed against their historical background. Close reading of selected texts will be combined with contextual analysis. Open only to students in the University Honors Program or by permission of the instructor. LEC.

HIST 557. Nationalism and Communism in East Central Europe from 1772 to the Present. 3 Hours. H/W.
The peoples of East Central Europe under Hapsburg, Romanov, and German rule; the dissolution of the empires, independence and the role of the new states in the European balance of power; World War II, Soviet domination, and the recent role of East Central Europe in the Communist World. LEC.

HIST 558. Religion in Britain Since the Reformation: A Survey. 3 Hours. H.
This course will deal analytically and synoptically with religion in Britain from the Reformation to the present with special reference to the Church of England, and focuses on the theses of ecclesiology, ecclesiastical polity, and political theology. It is essentially an examination of religious history from a perspective of the history of ideas. (Same as REL 558.) LEC.

HIST 559. Religion in Britain Since the Reformation: A Survey, Honors. 3 Hours. H.
This course deals analytically and synoptically with religion in Britain from the Reformation to the present with special reference to the Church of England, and focuses on the theses of ecclesiology, ecclesiastical polity, and political theology. It is essentially an examination of religious history from the perspective of the history of ideas. Open only to students in the University Honors Program or by permission of instructor. (Same as REL 559.) LEC.

HIST 560. The Value of Freedom. 4 Hours. H.
This course explores multiple definitions of freedom: its value, limitations, and evolving meaning. The course specifically focuses on four major contexts in which human beings have faced existential questions about freedom’s value: politics, religion, work, and gender relations. The goals are to explore the ways in which other societies and epochs have valued freedom and balanced it against competing social goods and thus to attune students to the particularities of today’s definitions and celebrations of freedom. LEC.

HIST 561. Liberation in Southern Africa. 3 Hours. NW AE42 / H.
This course examines struggles for freedom in southern Africa and the consequences of political, economic, and social changes in the region. The end of colonial rule, the demise of white-settler domination, and the fall of the apartheid regime is discussed. As a major political event of the twentieth century, the liberation of southern Africa had both local and global consequences. The course analyzes transnational issues of liberation and resistance to consider broader regional and international perspectives. Course themes pay particular attention to gender and ethnicity and include a focus on democratization and contemporary meanings of liberation. Prior coursework in African Studies is strongly recommended, but not required. (Same as AAAS 561 and POLS 561.) LEC.

HIST 562. United States Environmental History in the 20th Century. 3 Hours. H.
Americans dramatically changed the natural world between 1900 and 2000. This course asks how transformed environments shaped the American experience during a century of technological innovation, democratic renewal, economic expansion, global conflict, and cultural pluralism. Topics include food and markets, energy and transportation, law and politics, protest and resistance, suburbanization, and environmentalism’s fate in a global information era. (Same as EVRN 562.) LEC.

HIST 564. Medieval Russia. 3 Hours. H.
Political, economic, social, cultural, and religious developments of Russia from the beginnings of the Russian state in the 9th Century through the 17th Century. LEC.

HIST 565. Imperial Russia. 3 Hours. H/W.
The history of Imperial Russia from Peter the Great’s reinvention of the empire in the eighteenth century to its demise in the revolutions of 1917. Placing Russia in a global context, the course examines change and continuity in politics, society, economy, and culture and looks at Russia as a diverse empire between Europe and Asia. Readings include historical scholarship and some of the classics of Russian literature. LEC.

HIST 566. The Rise and Fall of the Soviet Union, 1917 to the Present. 3 Hours. H/W.
An exploration of the Soviet Union’s creation, evolution, collapse, and legacy in contemporary Russia and Eurasia. Drawing on historical scholarship, literature, music, and film, the course examines the major trends and developments in Soviet politics, ideology, society, economy, and culture. Special attention is paid to how the multiethnic Soviet state’s rise and fall reflected broader changes in the world during the “Soviet century. LEC.

HIST 568. The Rise and Fall of the Soviet Union, 1917 to the Present. 3 Hours. H/W.
An intensive study of developments and changes in the Middle East since World War II. Topics and themes will vary, but may include the long-lasting effects of European imperialism, Big Oil and the energy crisis, the Arab-Israeli conflict and peace process, American intervention in the Middle East, minority communities, and the revival of Islamic and popular protest movements. LEC.

HIST 570. The Middle East After World War II. 3 Hours. NW AE42 / H/W.
The course will analyze the social, political, and economic problems of the Latin American nations from their independence to the Mexican
Revolution (1910). Emphasis will be on the emergence and shaping of the new countries; their transition to modern industrializing societies; and the impact of this transition on Latin American society. LEC.

HIST 574. Slavery in the New World. 3 Hours. H/W.
Slavery, slave culture, and the slave trade in the U.S., Latin America, and the Caribbean will be examined comparatively. Attention will also be given to African cultures, the effects of the slave trade on Africa, and the effects of African cultures on institutions in the New World. (Same as AAAS 574.) LEC.

HIST 575. History of Mexico. 3 Hours. H/W.
Mexican history from preconquest days to the contemporary period. LEC.

HIST 576. History of the Caribbean and Central America. 3 Hours. H/W.
A comparative examination of Central America and the Caribbean. Emphasis is on understanding the complex social, cultural, and political development of this broad region from the pre-Columbian period until the modern era. Topics include: conquest, colonization, racial and ethnic diversity, economic development, political conflict, and globalization. Prerequisite: HIST 120, HIST 121, or HIST 370. LEC.

HIST 578. Social History of South America. 3 Hours. H/W.
The course treats the long-term effort of the South American nations to become urban industrial societies through economic development, emergence of modern pressure groups, improvement of human capital, and the fostering of a sense of national purpose and unity expressed in the participation of the whole population in all of the activities and benefits of life in society. LEC.

HIST 579. The History of Brazil. 3 Hours. H/W.
The history of Brazil from European discovery to the present with emphasis on social and economic change. Topics discussed will include the Indian, African, and European backgrounds, slave society, the frontier in Brazilian development, cycles of economic growth and regionalism, the role of foreign capital, industrial development, labor, urban problems, the military in government, and human rights. LEC.

HIST 580. Economic History of Latin America. 3 Hours. H/W.
A study of the changing economic conditions in Latin America from Colonial times through the Twentieth Century and the effect of these conditions on Latin American society. Emphasis will be on the major theoretical issues of development economics, patterns of growth, and suggested strategies for economic development. Analysis will center on changes in agriculture, industry, labor, finance, transportation and technology, urbanization, immigration, role of women, export and commerce, and foreign involvement. LEC.

HIST 582. Ancient Japan. 3 Hours. NW / H.
Course covers the history of Japan from the prehistoric era through the ancient period (approximately 10,000 BC to 1200 AD). Topics examined include the rise of Japanese Civilization, state formation, early capitals, belief systems, courtly culture in the Heian period (794-1185), and daily life. Writing assignments provide students with opportunities to gain familiarity with historical methods for analysis and to strengthen their written expressions. Not open to students who have taken HIST/EALC 586. LEC.

HIST 583. Imperial China. 3 Hours. NW / H/W.
An intensive survey of China's traditional civilization and its history, with emphasis on the last centuries of imperial rule under the Sung, Yuan, Ming, and Ch'ing dynasties (to 1850). (Same as EALC 583.) LEC.

HIST 584. Modern China. 3 Hours. NW AE42 / H/W.
An intensive survey of China's history from the early 19th century to the present. Key topics include the decline of the traditional system, the rise of communism, the Maoist era, and the tensions of change and control in the 1980s and 1990s. (Same as EALC 584.) LEC.

HIST 587. Early Modern Japan. 3 Hours. NW AE42 / H/W.
Early modern Japan (16th to 19th century) examines the history, culture, and patterns of life during an era of rigid social control but artistic brilliance. After an historical overview of the period, students will explore topics including the social structure, travel, religion, thought, and the formation of traditional cultural forms such as Kabuki theater. (Same as EALC 587.) LEC.

HIST 588. Japan, 1853-1945. 3 Hours. NW / H/W.
This course provides an intensive survey of Japanese history from the arrival of Commodore Perry through the Pacific War. Social, economic, and political themes will be emphasized. Among the topics covered will be the Meiji Restoration, industrialization, Japanese imperialism, Taisho democracy, and wartime mobilization. (Same as EALC 588.) LEC.

HIST 589. Japan Since 1945. 3 Hours. NW / H/W.
This course provides an overview of Japanese history from the end of World War II to the present day. Among the topics covered will be the Allied Occupation, postwar politics and social change, the economic "miracle," popular culture, women and the family, crime and punishment, the educational system, and Japan’s place in the world. (Same as EALC 589.) LEC.

HIST 590. Cultural History of Korea. 3 Hours. H.
This course examines the cultural history of Korea in periods prior to the 19th Century. Special attention is given to varying constructions of cultural value, heritage, and identity, together with the historically specific factors that engendered them. (Same as EALC 563.) LEC.

HIST 591. Food in History: West and East. 3 Hours. H/W.
A survey of scholarship on food in the West and in East Asia, choosing works primarily by historians, but also by sociologists, geographers, and anthropologists. We consider how scholars have approached issues concerning food productions and consumption, what habits of eating reveal about daily life, and how and when food is embedded with historiography related to these topics, keeping in mind the famous maxim of the noted French gastronome Brillat-Savarin (d. 1826): “Tell me what you eat: I will tell you what you are.” LEC.

HIST 593. Modern Korea. 3 Hours. NW / H/W.
This course will examine selected topics in Modern Korean history in the 19th and 20th centuries, with special emphasis on Korea’s connections to China and Japan. (Same as EALC 593.) Prerequisite: A college-level course in East Asian history or culture, or consent of instructor. LEC.

HIST 594. Law and Society in Traditional China. 3 Hours. S/W.
The course begins with a series of lectures on the main principles underlying Chinese social structure. The course then examines the application of those principles in legal cases. Students read legal cases in translation and argue them in class. (Same as EALC 594.) Prerequisite: A course in Chinese history. LEC.

HIST 596. Defining Japan: Marginalized Groups and the Construction of National Identity. 3 Hours. NW / H/W.
This course investigates the construction of national identity in modern Japan by examining the historical experiences of groups marginalized by mainstream society. We will explore the pressures of conformity, the pervasiveness of social ostracism and the surprising diversity in Japanese society. Among the groups discussed will be indigenous peoples (the Ainu, Okinawans), the Korean minority, the outcast class (burakumin), the sick and disabled, the yakuza, and political activists. (Same as EALC 596.) LEC.
HIST 597. Japanese Theater History. 3 Hours. NW / H/W.
This course examines the historical development and characteristics of Japanese theater, with special attention to traditional theater and the genres of noh, kyogen, and kabuki in particular, tracing their origins in the pre-modern era and their continued performance today. To gain an understanding of the historical and artistic setting of these arts, lectures and readings will consider broader issues such as performance and ritual in religion and daily life, gender and representation, and folk theater. A portion of this class will include practical studies of theatrical forms including noh dance and kabuki music (shamisen). (Same as EALC 597.) LEC.

HIST 598. Sexuality and Gender in African History. 3 Hours. NW AE42 / H.
An examination of the history of sexuality and gender in Africa with a focus on the 19th and 20th centuries. Major issues and methods in the historical scholarship on gender and sexuality will be covered. Topics of historical analysis include life histories, rites of passage, courtship, marriage, reproduction, education, masculinities, homosexuality, colonial control, and changing gender relations. Prior course work in African history is suggested. Graduate students will complete an additional project in consultation with the instructor. (Same as AAS 598.) LEC.

HIST 599. The Rise and Fall of Apartheid. 3 Hours. H.
This course will deal with the last fifty years of South African history during which apartheid came to be formulated, supported, and perpetuated, and the forces that were responsible for its disintegration by 1990. Reference will also be made to the transformation process since April 1994. (Same as AAS 590.) LEC.

HIST 600. West African History. 3 Hours. NW / H/W.
A study of the political, social, and economic development of West Africa until the colonial era. Major focus will be on the role of state formation, trade, ecology, and urbanization in the formation of centralized politics from the 11th to the 16th centuries and the impact of the process of Islamization and Muslim revolution on political and socioeconomic change in selected West African societies in the 19th century. LEC.

HIST 601. Oral History. 3 Hours. H.
This course explores the emergence of oral history as a methodology and focuses on the guidelines and ways to effectively use oral history in historical, journalistic, and social science research. The skills of collecting and sorting information gathered through eyewitness accounts, oral traditions, genealogies, investigative reporting procedures, and questionnaires are developed. The nature of the interview in relation to personal and public documents, ordinary conversation, and other related data sources will be considered in this course. LEC.

HIST 602. Religion in Britain 1785-1925. 3 Hours. H.
This course offers an examination of religious thought and practice during the transition from a pre-industrial, unitary order to a modern urban, industrial, and secular society. It will stress the close study of a range of selected texts, including works by such authors as works by Paley, Horsley, Wilberforce, Thomas Arnold, Newman Maurice, essays and reviews, Jowett, Lux Mundi, Gore, and Temple. It will attend to continental European influences on British thought and set theological debate in the wider context of the intellectual history of the period. LEC.

HIST 603. History of Tibet. 3 Hours. NW AE42 / H.
This course surveys the cultural and political history of Tibet from the eighth to the twentieth century. Through readings, lectures, and discussions, students gain familiarity with the dominant features of Tibetan civilization. Topics include the relationship between Tibet and the civilizations of India and China, Tibetan Buddhism, and the tensions between the struggle for Tibetan independence versus claims of Chinese sovereignty. The course also considers the Tibetan diaspora and the reception of knowledge about Tibetan civilization in the West. LEC.

HIST 604. Contemporary Greater China. 3 Hours. NW AE42 / H.
This course considers contemporary Greater China, Taiwan, and Hong Kong in comparative perspective. It begins in the early twentieth century so as to set up a comparison between Nationalist, Communist and Colonial China. It focuses on the evolution from the 1940s to the present studying the political, economic and social systems of the three regions that constitute what we now call ‘Greater China’ and considers, in particular, important points of difference and similarity between them. LEC.

HIST 605. Medieval Japan. 3 Hours. NW AE42 / H.
Course examines the history of Japan from the end of the ancient period (c. 1200 AD) through the medieval era (approximately 1573). Issues covered include the formation and destruction of the Kamakura and Muromachi warrior governments, medieval religious life and culture. Writing assignments provide students with opportunities to gain familiarity with historical methods for analysis and to strengthen their written expression. Not open to students who have taken HIST/EALC 586. LEC.

HIST 608. History of Sexuality. 3 Hours. H.
This survey course traces the changing conceptions of human sexuality from early civilizations to the present. It will include, but not be limited to, such topics as attitudes and beliefs, laws, sciences and medicine, cultural differences, and the impact of economic change on sexual definition and experience. LEC.

HIST 609. History of Women and Reform in the United States. 3 Hours. AE41 / H.
This survey course will outline the history of women’s involvement in reform movements in the United States from 1600 to the present. It will include, but not be limited to, such topics as labor movements, utopian communities, religious revivals, moral reform, women’s rights, civil rights. LEC.

HIST 610. American Colonial History. 3 Hours. H.
Examines colonial American history from the age of Columbus to the mid-1760s. The course seeks to place colonial American history into the larger historical context, particularly the expansion of the British Empire in the early modern period. Emphasis in the course will be on migration, social and economic conditions, and inter-racial relations. LEC.

HIST 611. Early American Indian History. 3 Hours. H.
This course will focus on the history of American Indians, especially those of the eastern woodlands, from precontact times to the 1830’s. Particular emphasis will be on the response of Indians to demographic catastrophe, the development of trade between Indians and colonists, and Indian responses to European colonization in British America and New France. The role of Indians in the American Revolution and the changes caused by Removal will also be treated. LEC.

HIST 612. History of Federal Indian Law and Policy. 3 Hours. H.
This course offers a comprehensive examination of federal legislation and court decisions in the United States that have affected American Indians. The history of law and policy will be traced from the colonial period, but the major emphasis will be on the struggles of American Indians to preserve sovereignty in the 19th and 20th centuries. LEC.

HIST 613. Slavery and Freedom in the Age of Jackson. 3 Hours. H.
This course focuses on the growing importance of the issues of slavery and freedom in the United States between 1815-1848. Recently, scholars have demonstrated that the period was one of disorienting, dramatic, and unprecedented change as politics, economics, racial and gender roles, and key institutions were permanently transformed. The course will examine these changes and how they, in turn, remade the values and identities of all Americans. LEC.
HIST 615. Rise of Modern America: Politics, Culture, and Society, 1900-1950. 3 Hours. H.
The history of the United States in the First Half of the Twentieth Century. LEC.

HIST 616. Contemporary America, 1941-Present. 3 Hours. H.
A history of the United States from its entry into World War II to the present. A study of such selected topics as women's history and feminism, race relations and the Afro-American civil rights movement, power, poverty, the military-industrial complex, McCarthyism, and presidential administrations. LEC.

HIST 617. America in the 1960's. 3 Hours. H.
The people of the United States experienced significant social political, and cultural change during the 1960's. This course studies the history of these changes, focusing on the American people, the institutions that shaped their lives, and the social and political movements, for and against change, that surfaced during this decade. Specific topics include: the struggle for racial equality, the Kennedy, Johnson, and Nixon administrations; the Vietnam War, the antiwar movement, New Left, and counterculture; feminism's rebirth; the white backlash; and the resurgence of political and cultural conservatism. Course requirements include readings, discussion, and original historical research and writing. LEC.

HIST 618. History of the American West to 1900. 3 Hours. H.
A survey of Western history with emphasis on such topics as Native Americans and Indian-white relations, environment and resource use, exploration and discovery, expansionism and Manifest Destiny, economic development, urban, rural, and alternative communities, ethnic and racial experience, women and violence. Consideration will also be given to topics such as fur trade, mining, the cattle business, and agriculture. LEC.

HIST 619. History of the American Indian. 3 Hours. NW / H/W.
A study of Indians in the United States from colonial times to the present. Consideration will be given to the political, social, and cultural history of selected Indian tribes and to Indian-white relations with particular attention to the Indian point of view. Other topics will include a comparative study of Indian policy of nations colonizing in America, cultural intermingling and cultural conflict, and current Indian problems. Slides, films, and guest speakers (including American Indians) will be used in the course. LEC.

HIST 620. History of Kansas. 3 Hours. H.
A survey of the history of culture and society from prehistory to the present. Topics include Native American life, Euro-American resettlement, Bleeding Kansas and the Civil War, agricultural settlement, urbanization and industrialization, depression and recovery, and modern Kansas in transition. LEC.

HIST 621. The American West in the 20th Century. 3 Hours.
A study of the post-frontier era and the struggle to create a regional identity, drawn from legends of the heroic past, varieties of racial and ethnic experience, political culture, and the possibilities of the land. LEC.

HIST 622. History of the Plains Indians. 3 Hours. NW / H/W.
A history of the Plains Indians from the sixteenth century to the present. Consideration will be given to tribal culture and society, to the impact of the fur trade and international rivalries on tribes, and to Indian-white relations. LEC.

HIST 625. Body, Self and Society. 3 Hours. H.
An intensive examination of the role of the human body in the creation of personal and social identities in the Western world. Students become acquainted with contemporary theories of embodiment and senses as they are applied to a variety of historical themes, and develop research projects on a topic negotiated with the instructor. (Same as HWC 575, WGSS 575.) Prerequisite: An upper-division course in History, Humanities and Western Civilization, or Women Gender and Sexuality Studies; or permission of instructor. LEC.

HIST 626. Men and Masculinities. 3 Hours. H.
An intensive examination of the history and theory of masculinities in the Western world. Students become acquainted with some of the key theories of men and masculinities, and develop research projects on a topic negotiated with the instructor. (Same as HWC 570, WGSS 570.) Prerequisite: An upper-division course in History, Humanities and Western Civilization, or Women Gender and Sexuality Studies; or permission of instructor. LEC.

HIST 628. American Economic Development. 3 Hours. H.
An introductory study of the development of the American economy from colonial times to the present. Investigates long-term trends in output, population, and output per capita, as well as short period fluctuations, and the variables and institutions that determined these fluctuations and trends. (Same as ECON 530.) Prerequisite: ECON 104 or ECON 142 and ECON 144. LEC.

HIST 629. The United States and the World to 1890. 3 Hours. H.
The origins of American diplomacy from the wars of the 18th century and the Revolution to 1901. The foreign relations of the American government and the reactions of the American people to international problems. LEC.

HIST 630. The United States and the World, 1890-2003. 3 Hours. H.
An examination of the history of United States foreign relations over the course of the twentieth century. Treats America's emergence as a world power before World War I, imperialism and interventionism, involvement in World War I and World War II, internationalism, the Cold War and America's anti-communist crusade, third world nationalism, responses to a global economy, and the obligations of a military superpower in a chaotic world. LEC.

HIST 631. The Contemporary Afro-American Experience. 3 Hours. H.
A history of Afro-America from the end of the Civil War to the present. Consideration will be given to such topics as America's capitulation to racism, blacks in agriculture, blacks and the labor movement, Booker T. Washington and W.E.B. DuBois, civil rights protest, migration and urbanization, Marcus Garvey and black nationalism, the Harlem Renaissance, blacks during the New Deal, blacks in recent politics, the modern civil rights movement, ghetto uprisings, and the changing relationships among race, caste, and class. LEC.

HIST 636. Agriculture in World History. 3 Hours. H.
A survey of the development of agriculture from prehistory through the present. The major themes of the course will be how various methods of farming have spread around the world, how new techniques have transformed agriculture, and how peasants and farmers have interacted with cities and governments. LEC.

HIST 640. Entrepreneurship in East Asia. 3 Hours. NW / H.
An intensive examination of the history and current status of entrepreneurship in China, Japan, and other nations in East Asia. This course investigates the role of entrepreneurs in Asian economic development from the nineteenth century to the present, as well as the relation between entrepreneurship and Asian cultural traditions. The opportunities and challenges of entrepreneurship in East Asia today are also considered. (Same as EALC 520.) LEC.

HIST 646. Witches in European History and Historiography. 3 Hours. H.
This course examines witches, witchcraft, and magic in Europe in the late medieval and early modern period (approximately 1200-1700 C.E.). Particular emphasis will be on the variety of historical and anthropological approaches that have been used to study the subject and their meaning in
the context of gender politics and gender theory. (Same as WGSS 646.) LEC.

HIST 649. History of Feminist Theory. 3 Hours. H.
This discussion course will cover the development of feminist theories from the late Middle Ages to the present. Reading will include Pisan, Wollstonecraft, Mill, Freud, Woolf, Beauvoir, Friedan, Daly, Kristeva, and others. (Same as WGSS 549.) LEC.

HIST 653. American Constitutional History to 1887. 3 Hours. H.
A historical study of the colonial origins, revolutionary development, creation of, struggle over and preservation of the American constitutional system from 1763 to 1887. LEC.

HIST 654. American Constitutional History Since 1887. 3 Hours. H.
A historical study of the evolution of thought and practice of the constitutional system from the conflict over government regulation of business, through the expansion of executive and legislative power, to the evolution of protections of Bill of Rights guarantees by the Supreme Court and the reaction against that evolution. LEC.

HIST 660. Biography of a City: ______. 3 Hours. AE42 / H.
These interdisciplinary, team-taught courses survey the artistic, intellectual, and historical development of the great cities of the world. London, Paris, and Rome have been offered in recent semesters, and other cities will be studied in the future. LEC.

HIST 661. Palestine and Antiquity. 3 Hours. H.
A survey of the history of Palestine from biblical origins to the Muslim conquest, with emphasis on such topics as social and religious institutions, cultural and communal diversity, and relations between foreign powers and local authorities. The course further explores the roots of the present conflictual situation in this part of the Middle East. LEC.

HIST 666. Contemporary America, 1941-Present, Honors. 3 Hours. H.
A survey of the economic, social, political, and cultural history of the United States from its entry into World War II to the present. Students with credit in HIST 614 or HIST 616 should not enroll in HIST 666. LEC.

HIST 670. Comparative Diasporas. 3 Hours. H.
This course examines history from the point of view of diasporas, groups who move across established borders but maintain an identity linked to an original homeland. This course examines commonalities and differences in the diaspora experience by looking comparatively at a range of prominent cases, including the Jewish, African, Armenian, Greek, Turkish, German, Irish, Italian, South Asian, and Chinese diasporas, the “Gypsies,” and the internal diasporas of multiethnic states like Russia. The course also gives students the opportunity to pursue research on a diaspora of their own choosing. LEC.

HIST 696. Seminar in: ______. 3 Hours. AE61 / H.
A seminar designed to introduce students to the theory and practice of historical inquiry. A research paper will be required. May not be repeated for credit. Prerequisite: Twelve hours of upper-class courses in history and completion of HIST 301 or consent of instructor. LEC.

HIST 699. Philosophy of History. 3 Hours. H.
Topics will include: The nature of historical knowledge; the problems of historical inquiry; a critique of philosophies of history; and a study of history and related disciplines. (Same as PHIL 696.) Prerequisite: A distribution course in philosophy. LEC.

HIST 705. Globalization in History. 3 Hours.
A study of the increasing interaction among world societies since 1500 and an investigation of the long-term developments behind current world problems. Major topics include western expansion since 1500, the spread of state sovereignty, the formation of a world economy, and spread of international institutions. The current world problems investigated will vary, but may include issues such as environmental crises, human rights, migration, free trade and the spread of consumer culture, ethnicity and nationalism, and international intervention within states. (Same as INTL 705.) LEC.

HIST 719. Colloquium in Medieval Latin. 3 Hours.
An introduction to Medieval Latin for students pursuing medieval studies. The material covered will include selections from various literary works, the Vulgate, law codes, legal documents, and other sources from the period 300-1500. May not be retaken for credit. Prerequisite: Four semesters of college Latin or the equivalent, and/or consent of instructor of Ancient-Medieval graduate advisor. LEC.

HIST 720. The Nature of Museums. 3 Hours.
The purpose of this course is to provide an overview of the kinds of museums, their various missions, and their characteristics and potentials as research, education, and public service institutions responsible for collections of natural and cultural objects. (Same as AMS 720, BIOL 788, GEOL 782, and MUSE 702.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

HIST 721. Introduction to Museum Public Education. 3 Hours.
Consideration of the goals of an institution’s public education services, developing programs, identifying potential audiences, developing audiences, and funding. Workshops and demonstrations are designed for students to gain practical experience working with various programs and developing model programs. (Same as AMS 797, BIOL 784, GEOL 784, and MUSE 705.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

HIST 722. Conservation Principles and Practices. 3 Hours.
This course will acquaint the future museum professional with problems in conserving all types of collections. Philosophical and ethical approaches will be discussed, as well as the changing practices regarding conservation techniques. Emphasis will be placed on detection and identification of causes of deterioration in objects made of organic and inorganic materials, and how these problems can be remedied. Storage and care of objects will also be considered. (Same as AMS 714, BIOL 700, GEOL 780, and MUSE 706.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

HIST 723. Introduction to Museum Exhibits. 3 Hours.
This course will consider the role of exhibits as an integrated part of museum collection management, research, and public service. Lecture and discussion will focus on issues involved in planning and producing museum exhibits. Laboratory exercises will provide first hand experience with basic preparation techniques. Emphasis will be placed on the management of an exhibit program in both large and small museums in the major disciplines. (Same as AMS 700, BIOL 787, GEOL 781, and MUSE 703.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

HIST 725. Principles and Practices of Museum Collection Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museum collections, their associated data, and their use in scholarly research; cataloging, storage, fumigation, automated information management and related topics will be presented for museums of art, history, natural history and anthropology. (Same as AMS 730, BIOL 798, GEOL 785, and MUSE 704.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

HIST 727. Practical Archival Principles. 3 Hours.
Study of the principles and practices applicable to the preservation, care, and administration of archives and manuscripts. Practical experience will be an integral part of this course. (Same as MUSE 707.) LEC.
HIST 728. Museum Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museums as organizations; accounting, budget cycles, personnel management, and related topics will be presented using, as appropriate, case studies and a simulated museum organization model. (Same as AMS 731, BIOL 785, GEOL 783, and MUSE 701.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

HIST 740. Topics in History for Educators: ______. 1-3 Hours.
Reading and discussion of selected historical topics, designed specifically for K-12 educators. Pedagogical methods and resources for the study of history will be addressed. Prerequisite: Approval of the instructor. LEC.

HIST 747. East Asian History and Culture for Teachers. 2 Hours.
An advanced survey of the history, culture, and contemporary affairs of China, Japan, and Korea, specifically designed for K-12 educators who wish to incorporate East Asian topics into their classroom teaching. Pedagogical methods and resources for the study of East Asia will be emphasized. Topics covered will address relevant benchmarks in the state curricular standards in social studies, themes from the Advanced Placement world history examination, and the national standards in world history. (Same as EALC 747.) Prerequisite: Approval of the instructor. LEC.

HIST 748. East Asian Historical Materials: ______. 3 Hours.
The aim of the course is to provide students with the linguistic tools needed for archival research in East Asian history by assisting them in gaining experience reading primary and secondary language materials in Japanese and/or Chinese including texts in classical forms of these languages. After studying the rules of classical grammar and the particulars of historical materials as needed, students will read primary documents in conjunction with secondary readings in Japanese and/or Chinese. Fundamental aspects of paleography may also be introduced in this course depending on student need. Prerequisite: Capability of reading Japanese or Chinese and permission of the instructor. LEC.

HIST 799. Museum Studies Apprenticeship. 1-6 Hours.
Provides directed, practical experience in the collection, care, use, and/or management of historical materials. (Same as AMS 799, ANTH 799, BIOL 799, GEOL 723, and MUSE 799.) Prerequisite: Consent of instructor. FLD.

HIST 800. Readings in: ______. 1-8 Hours.
Prerequisite: Consent of instructor. RSH.

HIST 801. Colloquium in: ______. 1-6 Hours.
Reading and discussion of selected topics. LEC.

HIST 802. Seminar in: ______. 3 Hours.
Research Seminar on selected topics. SEM.

HIST 805. The Nature of History. 3 Hours.
Analysis of what historians do and how the profession of history has developed in terms of training, concepts, and practices in both research and teaching. Consideration also of the major controversies that have developed over historical method and historical interpretation, giving greatest emphasis to American and European historiography by providing a relationship to the leading concepts of world history. LEC.

HIST 806. Studies in: ______. 3 Hours.
The core course for each thematic major field in the graduate program in History. The course, offered in a colloquium style format, will serve as an introduction to the principal standard literature in the field, and will consider the full range of methodologies or approaches appropriate to the field. LEC.

HIST 807. Professional Development Colloquium in Pedagogy. 3 Hours.
This course will help train future professional historians to teach. It will focus on a variety of pedagogical topics for future college history faculty, including: developing students’ critical and analytical thinking; teaching research skills; promoting student involvement/participation; determining course goals; use of multi-media technology. In addition to attending class meetings of History 807, students will attend as observers throughout the semester one 500/600-level course in an area relevant to their future teaching and complete the readings assigned to the class. They will produce a course portfolio for an undergraduate course, including: a syllabus designed by the student; a set of assignments that will be part of that course, such as examinations and papers; sample lesson plans; an annotated bibliography of materials relevant to the subject-matter of the course. LEC.

HIST 808. Colloquium in Comparative History: ______. 3 Hours.
A readings-oriented course which explores themes in two or more geographic and/or chronological fields of history. The benefits and disadvantages of comparative methodologies will be analyzed. Topics will vary each term but may include the examination of such subjects as the history of urbanization, labor, colonialism, immigration, the family, political thought, or industrialization. Prerequisite: Varies with area of subtopic. LEC.

HIST 820. Colloquium on Popular Culture in Latin America. 3 Hours.
This course examines the history and theory of popular culture in 19th and 20th century Latin America from a cross-disciplinary perspective. Some of the topics covered could include: the historical development of urban popular culture from broadsides and newspapers to radio and telenovelas; the politics of music from the tango to the new song movement; folk art vs. High art in the definition of national identity; cultural imperialism; sports and public rituals as spectacles for the working class; relationship between mass culture and the novel; gender roles and social order as revealed in forms of popular culture; and the politics of the New Latin American Cinema. Discussions will be in English. No prerequisites. LEC.

HIST 821. Colloquium on Slavery in World. 3 Hours.
This course will examine the development, scope, and impact of slavery in the Atlantic World (1350-1900). A major focus of this course will be the relationship between various local and regional manifestations of slavery and how those relationships shaped the institution of slavery. Geographically the course will include literature on slavery in Europe, Africa, North America, and Latin America. Emphasis will be placed on examining the effects of slavery on Africans, their descendants, as well as other members of society including European settlers and Native Americans. The readings for this course will highlight important facets of slave life including religion, family life, manumission, and labor. Overall this course aims to illustrate the complex ways in which slavery permeated and shaped the societies that constitute the Atlantic World. LAB.

HIST 822. Colloquium in the Urban History of Latin America. 3 Hours.
Explores the growth of the city and urban culture from the Spanish conquest to the present. Focus on such topics as crime, public health, leisure activities, artisans, unionization, residential patterns and transportation. LEC.

HIST 823. Colloquium on Colonial Latin America. 3 Hours.
Explores the historiography and major themes and problems of the history of colonial Latin America. Ordinarily this will involve reading and discussion of historiographical articles, major works in the field and works involving new approaches and perspectives. A long historiographical paper will be required. LEC.
HIST 824. Seminar on Labor in Latin America. 3 Hours.
Major problems in class conflict resulting from industrialization of peripheral economies. Focus on such topics as labor movements, worker-inspired revolutions, women in the workforce, the ideology of work, labor migration, occupational culture and worker’s relationship to the state. LEC.

HIST 825. Seminar in Latin American Foreign Relations. 3 Hours.
This seminar examines the history of Latin American attitudes and policies toward other parts of the world as well as among the Latin American nations themselves. Examples of topics of interest are anti-imperialism, Pan-Americanism, foreign cultural influences, non-intervention, international cooperation and conflict, dependency, transnational corporations, regional integration, international law and doctrine and national security. LEC.

HIST 826. Seminar in Twentieth Century South America. 3 Hours.
Research seminar which examines major topics in the recent history of the Andean and Southern Cone countries. Topics such as the history of poverty, the dirty wars and the rise of military regimes, the social collapse of Colombia, Argentina and Peru, and the persistence of traditional cultures in the face of capitalist transformations will be thoroughly explored. LEC.

HIST 827. Colloquium in the Social History of Latin America. 3 Hours.
Explores the historiography, methods and themes of Latin American social history from the conquest to the present. Sessions will focus on specific groups including the history of indigenous groups, peasants, slaves, women, families, workers, and the poor. A long historiographical paper will be required. LEC.

HIST 830. Colloquium in Eighteenth and Nineteenth-Century Britain. 3 Hours.
This course examines the varied elite and popular responses to the creation of a capitalist economy (agrarian and industrial) in Britain between 1750 and 1890. LEC.

HIST 831. Colloquium in Twentieth-Century Britain. 3 Hours.
This course examines the main developments in the political, social, and cultural history of Britain since 1890. The aim is to trace the relationship between political movements and socio-cultural attitudes and institutions. LEC.

HIST 833. Colloquium in British History, 1500-1660. 3 Hours.
This course will engage with recent scholarship on the Renaissance and Reformation, the Civil War and the English Republic. LEC.

HIST 834. Colloquium in the History of the British Empire. 3 Hours.
The course will deal selectively with themes in the political and cultural interaction of the peoples of the British Isles with peoples overseas, the expansion and contraction of empire, and the rationales for these processes. LEC.

HIST 836. Colloquium in British Political Thought. 3 Hours.
This course provides an introduction to the rich tradition of British writings on politics through a close reading of a number of classic texts, interpreted in their historical settings. LEC.

HIST 837. Colloquium in British Religious History. 3 Hours.
This course will deal analytically and synoptically with religion in Britain from the reformation to the present with special reference to the Church of England, and will focus on the themes of ecclesiology, ecclesiastical polity, and political theology. LEC.

HIST 844. Colloquium on East Central Europe, 1772-1914. 3 Hours.
The colloquium covers the period beginning with the decline and partitions with Poland and ends with the outbreak of World War I. The major areas of study are the development of modern national consciousness among Poles, Czechs, Slovaks, Magyars, and Ukrainians, and the status of the Jews in these areas; economic, social, and educational development; and the rise of modern political parties. Prerequisite: HIST 557. LEC.

HIST 845. Eastern Europe, 19th and 20th Centuries. 3 Hours.
The course considers the challenges of modernity in Eastern Europe, with a focus on the lands of the former Habsburg Empire. The course is designed to introduce students to major issues in modern Eastern European history and historiography, with an emphasis on recent scholarship. Topics include: nationalism, identity formation, anti-Semitism, modernization and urbanization, World War I, interwar nation-states, World War II, Communist takeovers, everyday life under Communism, dissidence, Solidarity, the collapse of Communism, and post-socialist transitions. LEC.

HIST 847. Colloquium in Russian History. 3 Hours.
A group readings course that begins with Russia in the medieval period and continues through the end of the twentieth century. Topics may vary each term, but may include such subjects as political, social, religious, gender, or intellectual history. The course will focus around significant interpretive issues and the historiography that address them. Basic familiarity with the chronology and the main problems of Russian history is assumed. LEC.

HIST 848. Colloquium in 20th Century Russia. 3 Hours.
The focus will be on reading and discussion of historical literature on the end of Imperial Russia, the Russian revolutions, and the Soviet Union and its aftermath. LEC.

This graduate seminar will focus on interactions between the so-called Old and New Worlds in the three centuries following Columbus’ voyages. The course will pay particular attention to the changes in the lives of Europeans, Africans, and the peoples of the Americas as a result of the emergence of transatlantic economies, empires, and cultural systems. LEC.

HIST 856. Colloquium in Modern European History I - Renaissance to the French Revolution. 3 Hours.
This course will concentrate upon a number of selected topics in the history of Europe between the Renaissance and the French Revolution. Emphasis will be placed upon certain problems within this period and the recent historiography that deals with them. The first in a sequence of colloquia in Modern European History. Required for European history graduate students. LEC.

HIST 857. Colloquium in Modern European History II - Major Themes in Early Modern History. 3 Hours.
This course will concentrate upon a number of selected topics in early modern European history. Emphasis will be placed upon certain problems within this period and the recent historiography that deals with them. The second in a sequence of colloquia in Modern European History. Required for European history graduate students. LEC.

HIST 858. Colloquium in Modern European History III - French Revolution to the Present. 3 Hours.
From the French Revolution into the contemporary era. The third in a sequence of colloquia in Modern European History. Required for European history graduate students. LEC.
HIST 859. Colloquium in Modern European History IV - Major Themes in Modern History. 3 Hours.
This course will concentrate upon a number of selected topics in modern European history. Emphasis will be placed upon certain problems within this period and the recent historiography that deals with them. The fourth in a sequence of colloquia in Modern European History. Required for European history graduate students and students majoring in other fields whose secondary fields correspond to this time frame. LEC.

HIST 879. Colloquium on North American Environmental History. 3 Hours.
Intensive survey of significant works in the field from colonial times to the present, with attention to bibliography, research methods and needs, and leading issues in interpretation. LEC.

HIST 890. Colloquium in American History 1492-1800. 3 Hours.
Study of the leading interpretations of major issues in the history of Colonial and Revolutionary America, including appropriate attention to new approaches and techniques in research. The first course in the sequence of colloquia in United States history. Required of all U.S. history graduate students. LEC.

HIST 891. Colloquium in 19th Century U.S. History. 3 Hours.
Study of the leading interpretations of major issues in the history of the United States in the 19th century. The third course in the sequence of colloquia in United States history. LEC.

HIST 892. Colloquium in 20th Century U.S. History. 3 Hours.
Study of the leading interpretations of major issues in the history of the United States in the 20th century. The third course in the sequence of colloquia in United States history. LEC.

HIST 895. Colloquium in the History of Gender. 3 Hours.
This colloquium will cover theoretical and topical readings on the history of manhood, womanhood, and gender systems. (Same as AMS 835 and WGSS 835.) LEC.

HIST 896. Colloquium in United States Women’s History. 3 Hours.
This colloquium will cover theoretical and topical readings on the history of women in the United States from the pre-contact period to the present. It is designed to familiarize students with the most important and current historiography in the field. (Same as AMS 836 and WGSS 836.) LEC.

HIST 897. Comparative Colloquium in Women’s History. 3 Hours.
This colloquium will approach the history of women from a comparative perspective through theoretical and topical readings on women in at least two different cultures. (Same as AMS 837 and WGSS 837.) LEC.

HIST 898. Colloquium in Material Culture and History. 3 Hours.
This course provides an overview of theories and methods used in material culture studies and their application to historical research, writing, and presentation. Topics may vary from semester to semester, but could include vernacular architecture, museum studies, anthropology, cultural geography, historical archeology, and perceptual theory. The course will consist of intensive reading, discussion, and written work. While it is not limited to a particular geographical or chronological area, or discipline, given the state of the field most topics will be drawn from U.S. history. LEC.

HIST 900. Independent Research Seminar: ____. 3 Hours.
Design and completion of an independent project, culminating in the production of a professional-quality paper based on original, primary source research. Prerequisite: Consent of the instructor. LEC.

HIST 901. Research Seminar in Global History. 3 Hours.
A research seminar oriented around cross-regional, comparative, and transnational aspects of history, culminating in production of a professional-quality paper based on original, primary source research. SEM.

HIST 910. Seminar in Roman History: _____. 3 Hours.
A research seminar in specialized aspects of Roman history. May be repeated for credit. LEC.

HIST 911. Colloquium on North American Environmental History. 3 Hours.
A seminar involving the study of the importance and influence of the noble families of Rome on Roman history (200-27 B.C.) with special emphasis on the literary and numismatic evidence. Reading knowledge of Latin will be essential for this course. LEC.

HIST 914. The Major Roman Historians. 3 Hours.
An analysis and criticism of the works of the most significant Roman historians from Sallust to Ammianus Marcellinus, including a comparison and contrast between the Latin and Greek historians who wrote during the Graeco-Roman period (150 B.C.-378 A.D.). LEC.

HIST 918. Elements of Latin Paleography. 3 Hours.
Introduction to the techniques of reading, dating, and localizing medieval Latin manuscripts. LEC.

HIST 919. Seminar in Medieval Europe. 2-6 Hours.
LEC.

HIST 929. Seminar in Modern European History: ____. 2-5 Hours.
A study of sources in some restricted fields and the presentation of research results. A reading knowledge of French or German or some other modern language is desirable. LEC.

HIST 930. Seminar in British History. 3 Hours.
A research seminar focusing on new, actively-investigated and controversial themes in British history, chiefly c. 1660-1832. LEC.

HIST 932. Order and Disorder in Britain and America, c. 1750-1920. 3 Hours.
The study of the history of crime and protest in their relationship with the wider social and political theory of Britain and America. Specific topics may include the impact of industrialization, the notion of the ‘moral economy,’ the legal and ideological nature of the death penalty, the crowd in history, and the administrative and intellectual developments in policing, prisons, and asylums. LEC.

HIST 934. Seminar in Modern European History. 1-12 Hours.
A research and thesis seminar offered by several members of the Standing Field Committee in Modern European History. Students seeking advanced degrees in European history from the Renaissance to the present will enroll each semester for work on their theses and dissertations. May be repeated. LEC.

HIST 946. Seminar in the Middle East. 3 Hours.
A research seminar in Middle East history, with emphasis on the 19th and 20th centuries. The European impact on and relationships with the Middle East are stressed. LEC.

HIST 949. Seminar in Modern Russian History. 3 Hours.
A focus on major problems of historical interpretation and research investigation from Peter the Great to the present. LEC.

HIST 950. Seminar in Latin American History. 3 Hours.
A research seminar focused on a major theme or problem in Latin American history. LEC.

HIST 951. Seminar in Latin American Revolutions. 3 Hours.
This seminar focuses on sweeping socio-political upheavals such as occurred in Mexico in 1910, Guatemala in 1944, Bolivia in 1952, Cuba in 1959, and Nicaragua in 1979. After considering various sociological and political theories of revolution the seminar searches for an understanding
of the basic reasons for revolutions in the countries mentioned (and failure of revolutionary efforts elsewhere) and possible common characteristics of the Latin American revolutionary process. LEC.

HIST 952. Seminar in Ideology, Violence and Social Change in Latin America. 3 Hours.
Research seminar focusing on the role of ideas and ideologies, values and cultural norms in the history of Latin America. Political action, including rebellions, movements and strikes by the masses and efforts toward social control by elites will also be a major theme. Finally the course will examine the meaning of "social change" for Latin America and when it can be said that "social change" actually occurs. LEC.

HIST 955. Seminar in East Asian History. 3 Hours.
A research seminar in East Asian history. Prerequisite: Open only to graduate students having a reading knowledge of at least one East Asian language. LEC.

HIST 962. Seminar in American History. 1-12 Hours.
A research and thesis seminar offered by several members of the Standing Field Committee in United States History. Students seeking advanced degrees in United States history will enroll in the seminar for theses and dissertation credit. May be repeated. LEC.

HIST 964. Seminar in American Colonial History. 3 Hours.
An intensive, research-oriented study of American history from the 1580s to the 1760s. The course will cover both British America and New France. May be repeated. LEC.

HIST 965. The American Revolutionary Experience. 3 Hours.
An intensive, research-oriented study of American history from 1760 to 1800. May be repeated. LEC.

HIST 971. Recent American History, 1920 to the Present. 3 Hours. LEC.

HIST 973. Seminar in United States Women's History. 3 Hours.
This research seminar will focus on the history of women in the United States from the pre-contact period to the present. Students will research and write a paper using primary sources, and present those papers to the seminar for evaluation. (Same as AMS 973 and WGSS 873.) LEC.

HIST 974. Seminar in American History: ______. 3 Hours.
A research course focusing on selected topics in history. LEC.

HIST 975. Seminar in the History of United States Foreign Relations. 3 Hours.
An intensive study of United States foreign policy during a selected period. LEC.

HIST 980. Seminar in the Trans-Mississippi West. 1-5 Hours.
LEC.

HIST 981. Seminar in Environment and History. 3 Hours.
An inquiry into major issues and methods in environmental history, viewed from both an American and modern world perspective. LEC.

HIST 982. Colloquium in the History of the American West. 3 Hours.
Study of issues and interpretations in the history of the American West from prehistory to the present, including attention to new approaches and techniques in research. LEC.

HIST 986. Seminar in Historiography of Science. 3 Hours.
Examines the various patterns of interpretation influencing current historiography of science: the substance and impact of "internalist" history, which deals with the evolution of scientific ideas; the diversity of "externalist" history, which stresses interaction between the scientist's activity and social environment. Readings and discussions will assess intellectual, chronological, socio-economic, theological, philosophical, national, institutional and literary aesthetic influences on the history of science. LEC.

HIST 998. Portfolio Preparation. 1-6 Hours.
Writing and editing of materials in the student's professional portfolio. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Permission of the instructor. RSH.

HIST 999. Doctoral Dissertation. 1-12 Hours.
An inquiry into the source material upon a specific subject. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Consent of instructor. THE.

Bachelor of Arts and Bachelor of General Studies in History

Why study history?
Because it's our past, your future.

Undergraduate Admission

Admission to KU
All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences
Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

History Program
The history major allows students to explore the richness and diversity of human experience in the past while building skills of analysis, interpretation, research, and communication. All history majors gain knowledge of significant historical transformations that have shaped the world. History majors learn to think critically, to conduct historical research, and to present the results of their research in clear and coherent writing.

First- and Second-Year Preparation
Prospective majors are encouraged to enroll in 1 or 2 introductory courses at the 100 or 300 level in the first 2 years. Many introductory history courses fulfill the College’s HT or NW principal course requirements, and prospective majors might choose one of them to explore their interests.
in history. Students who come to KU with AP or transfer credit should be aware that only 6 hours of history course work numbered 100-299 may be counted toward the major. Students interested in history as a major are encouraged to meet with a department advisor early in their careers at KU to discuss their academic goals and interests. Contact the undergraduate secretary to schedule an advising appointment.

**Requirements for the B.A. or B.G.S. Major**

**History Major Core Knowledge and Skills (3)**
Majors must complete a course in the following area:

- The Historian’s Craft. Satisfied by:
  - HIST 301  The Historian’s Craft  3
  - or HIST 302  The Historian’s Craft, Honors

**History Required Electives (24)**
Majors must complete 5 courses (15 hours) in either category below; 24
3 courses (9 hours) are required from the other category below:

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<th>History Category I: Western Orientation. Satisfied by courses in Ancient, Medieval, Modern Western Europe, History of Science, Russia/Eastern Europe, United States:</th>
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<td>HIST 115  French Revolution to the Present: Europe 1789-Present</td>
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<td>HIST 117  Russia, an Introductory History</td>
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<td>HIST 128  History of the United States Through the Civil War</td>
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<td>HIST 130  History of the United States Through the Civil War, Honors</td>
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<td>HIST 131  History of the United States After the Civil War, Honors</td>
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<td>HIST 136  Early Science to 1700</td>
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<td>HIST 140  Global Environment I: The Discovery of Environmental Change</td>
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<td>HIST 142  Global Environment II: The Ecology of Human Civilization</td>
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<td>HIST 304  1642, 1688, 1776: Three British Revolutions</td>
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<td>HIST 306  Science and Western Culture</td>
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<td>HIST 308  Key Themes in Modern Global History</td>
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<td>HIST 310  American Culture, 1600-1876</td>
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<td>HIST 312  American Culture, 1877 to the Present</td>
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<td>HIST 313  Conspiracies and Paranoia in American History</td>
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<td>HIST 314  Globalization: History and Theory</td>
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<th>History Category II: Global Orientation. Satisfied by courses in Globalization: History and Theory Honors or HIST 453  Anarchism: A Global History</th>
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<td>HIST 320  From Goddesses to Witches: Women in Premodern Europe</td>
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<td>HIST 321  From Mystics to Feminists: Women’s History in Europe 1600 to the Present</td>
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<td>HIST 324  History of Women and the Body</td>
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<td>HIST 325  The Spanish Inquisition</td>
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<td>HIST 330  Revolt and Revolution in Early Modern Europe</td>
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<td>HIST 331  Atlantic Societies, 1450-1800: A Comparative History of European Colonization</td>
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<td>HIST 333  Eurometro: Visions of the European Metropolis, 1849-1939</td>
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<td>HIST 373  The Supreme Court and Religious Issues in the United States</td>
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<td>HIST 699</td>
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</tbody>
</table>

History Category II: Non-western Orientation. Satisfied by courses in Africa, East Asia, Latin America, Native America:

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HIST 104</td>
<td>Introduction to African History</td>
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<tr>
<td>HIST 118</td>
<td>History of East Asia</td>
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<tr>
<td>HIST 119</td>
<td>History of East Asia, Honors</td>
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<tr>
<td>HIST 120</td>
<td>Colonial Latin America</td>
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<tr>
<td>HIST 121</td>
<td>Modern Latin America</td>
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<tr>
<td>HIST 122</td>
<td>Colonial Latin America, Honors</td>
</tr>
<tr>
<td>HIST 123</td>
<td>Modern Latin America, Honors</td>
</tr>
<tr>
<td>HIST 160</td>
<td>Introduction to West African History</td>
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<tr>
<td>HIST 300</td>
<td>Modern African History</td>
</tr>
<tr>
<td>HIST 303</td>
<td>Sin Cities</td>
</tr>
<tr>
<td>HIST 307</td>
<td>Modern African History, Honors</td>
</tr>
<tr>
<td>HIST 308</td>
<td>Key Themes in Modern Global History</td>
</tr>
<tr>
<td>HIST 314</td>
<td>Globalization: History and Theory</td>
</tr>
<tr>
<td>HIST 315</td>
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<td>HIST 353</td>
<td>Indigenous Peoples of North America</td>
</tr>
<tr>
<td>HIST 365</td>
<td>Invention of the Tropics</td>
</tr>
</tbody>
</table>
Majors must complete a capstone research experience in which they research and write an original thesis based on primary sources. It normally is taken during the senior year. Alternatively, majors with a GPA above 3.5 may choose to write a senior honors thesis. Satisfied by one of the following:

- HIST 696 Seminar in: _____
- HIST 498 Undergraduate History Honors Seminar
- HIST 490 and Honors Course in History

**History Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade point average minimum standards:

**Major Hours**

Satisfied by 30 hours of major courses. No more than 2 HIST 492 Readings in History courses may be applied to the major. Only courses taken in the Department of History or cross-listed in other units are accepted for credit toward the major.

**Major Hours in Residence**

Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**

Satisfied by a minimum of 24 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation (300+) GPA**

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Graduation Plan**

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Consult the department for details.

**Double Majors**

Many history majors choose to pursue a second major. Fulfilling the requirements of 2 majors in a timely fashion requires careful choice of courses. Consult a department advisor.

**Departmental Honors**

The honors program in history allows exceptional undergraduates to work closely with faculty members on a research project. To graduate with honors, a student must complete the requirements for the major in history, including HIST 301 but excluding HIST 696 Seminar.

Students in the honors program also must take HIST 498 Undergraduate History Honors Seminar and HIST 490 Honors Course in History, directed research. Usually, HIST 498 is offered in the fall semester and HIST 490 in the spring. Or a prospective honors student may complete HIST 696 and, by invitation, enroll in HIST 490 to develop the seminar paper into an honors thesis.

Prospective honors candidates are encouraged to select a thesis topic and thesis director in the junior year. The honors seminar helps students write their theses and allows them to learn from each other in a small-group setting. The honors coordinator assists students during both semesters.
To enroll in the program requires at least

1. A 3.5 grade-point average in history and a 3.25 overall cumulative grade-point average, which must be maintained throughout the student's final years of enrollment; and
2. Acceptance by a thesis director, a history faculty member, before entering the program.

Each student who completes an honors thesis must defend it in an oral examination before a thesis committee of 3 faculty members. The student’s thesis director chairs and chooses the committee in consultation with the student and the honors coordinator. In most cases, the committee is composed of history faculty members. A student who wants the committee to include faculty members from outside the department should inform the thesis director by March 1. A copy of the thesis is deposited in the department.

Petitions for exceptions to these regulations should be submitted to the honors coordinator.

## Minor in History

### Why study history?

Because it’s our past, your future.

## Requirements for the Minor

### History Minor Course Requirements

Students selecting this minor must complete the following:

<table>
<thead>
<tr>
<th>History Category I: Western Orientation (6)</th>
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</thead>
<tbody>
<tr>
<td>Satisfied by two courses (6 hours) from the following:</td>
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<tr>
<td>HIST 103 Environment and History</td>
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<tr>
<td>HIST 105 Introduction to Ancient Near Eastern and Greek History</td>
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<tr>
<td>HIST 106 Introduction to Roman History</td>
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<tr>
<td>HIST 107 Introduction to the Ancient World</td>
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<tr>
<td>HIST 108 Medieval History</td>
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<tr>
<td>HIST 112 Introduction to British History</td>
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<tr>
<td>HIST 114 Renaissance to Revolution: Europe 1500-1789</td>
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<tr>
<td>HIST 115 French Revolution to the Present: Europe 1789-Present</td>
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<tr>
<td>HIST 116 French Revolution to the Present: Europe 1789 to Present, Honors</td>
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<tr>
<td>HIST 117 Russia, an Introductory History</td>
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<tr>
<td>HIST 128 History of the United States Through the Civil War</td>
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<td>HIST 129 History of the United States After the Civil War</td>
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<tr>
<td>HIST 130 History of the United States Through the Civil War, Honors</td>
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<tr>
<td>HIST 131 History of the United States After the Civil War, Honors</td>
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<tr>
<td>HIST 136 Early Science to 1700</td>
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<tr>
<td>HIST 140 Global Environment I: The Discovery of Environmental Change</td>
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<tr>
<td>HIST 142 Global Environment II: The Ecology of Human Civilization</td>
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</table>

<p>| HIST 303 | Sin Cities |
| HIST 304 | 1642, 1688, 1776: Three British Revolutions |
| HIST 305 | The Scientific Revolution |
| HIST 306 | Science and Western Culture |
| HIST 308 | Key Themes in Modern Global History |
| HIST 309 | History of Chemistry |
| HIST 310 | American Culture, 1600-1876 |
| HIST 311 | Great Lives in Science |
| HIST 312 | American Culture, 1877 to the Present |
| HIST 313 | Conspiracies and Paranoia in American History |
| HIST 314 | Globalization: History and Theory |
| HIST 315 | Globalization: History and Theory Honors |
| HIST 319 | History, Women, and Diversity in the U.S. |
| HIST 320 | From Goddesses to Witches: Women in Premodern Europe |
| HIST 321 | From Mystics to Feminists: Women's History in Europe 1600 to the Present |
| HIST 324 | History of Women and the Body |
| HIST 325 | The Spanish Inquisition |
| HIST 329 | History of War and Peace |
| HIST 330 | Revolt and Revolution in Early Modern Europe |
| HIST 331 | Atlantic Societies, 1450-1800: A Comparative History of European Colonization |
| HIST 333 | Eurometro: Visions of the European Metropolis, 1849-1939 |
| HIST 334 | The Great War: The History of World War I |
| HIST 340 | The History of the Second World War |
| HIST 341 | Hitler and Nazi Germany |
| HIST 343 | The Holocaust in History |
| HIST 345 | Hard Times: The Depression Years in America, 1929-1941 |
| HIST 346 | Law and Society in America |
| HIST 347 | Environmental History of North America |
| HIST 348 | History of the Peoples of Kansas |
| HIST 350 | The Korean War, 1950-1953 |
| HIST 360 | Science and Religion |
| HIST 365 | Invention of the Tropics |
| HIST 366 | Old Regime and Revolution in France, 1648-1799 |
| HIST 373 | The Supreme Court and Religious Issues in the United States |
| HIST 375 | The Supreme Court and Religious Issues in the United States, Honors |
| HIST 377 | Everyday Communism in Eastern Europe |
| HIST 380 | Revolutionary Europe: The People in Arms |
| HIST 385 | Themes in British History |
| HIST 402 | Roman Military History |
| HIST 404 | Technology: Its Past and Its Future |
| HIST 407 | History of Science in the United States |
| HIST 410 | The American Revolution |
| HIST 411 | The New Republic: U.S. History 1787-1848 |
| HIST 412 | The Civil War in America, 1828-1877 |
| HIST 413 | The Rise of Industrial America, 1877-1920 |
| HIST 420 | Dante's Comedy |</p>
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<td>HIST 421</td>
<td>Economic and Social History of Later Medieval Europe, 1000-1500</td>
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<td>HIST 424</td>
<td>Venice and Florence in the Renaissance</td>
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<td>HIST 425</td>
<td>History of the Mediterranean World, 1099-1571</td>
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<td>HIST 440</td>
<td>War and United States Society</td>
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<td>HIST 444</td>
<td>Frozen in Time: Politics and Culture in the Cold War, 1945-75</td>
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<td>HIST 451</td>
<td>Suburbia</td>
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<td>HIST 452</td>
<td>Chicago</td>
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<td>HIST 453</td>
<td>Anarchism: A Global History</td>
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<td>HIST 500</td>
<td>History of the Book</td>
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<td>HIST 502</td>
<td>Development of Ancient Greece, ca. 1000-300 B.C.</td>
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<td>HIST 503</td>
<td>The Ancient History of the Near East</td>
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<td>HIST 506</td>
<td>Roman Republic</td>
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<td>Early Roman Empire</td>
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<td>HIST 508</td>
<td>Late Roman Empire (284-527)</td>
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<td>HIST 509</td>
<td>Multinational Corporations: The Role of Money and Power</td>
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<td>HIST 513</td>
<td>Early Medieval Culture</td>
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<td>HIST 515</td>
<td>The Crusades in Cross-Cultural Perspective</td>
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<td>HIST 516</td>
<td>Later Medieval Culture</td>
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<td>HIST 519</td>
<td>European Intellectual History of the Seventeenth Century</td>
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<td>HIST 520</td>
<td>The Age of the Renaissance</td>
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<td>HIST 521</td>
<td>The Age of the Reformation</td>
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<td>HIST 522</td>
<td>The Age of Religious Wars, 1540-1648</td>
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<td>HIST 523</td>
<td>Europe between Absolutism and Revolution</td>
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<td>HIST 524</td>
<td>The French Revolution</td>
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<td>HIST 525</td>
<td>Modern France: From Napoleon to de Gaulle</td>
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<td>HIST 527</td>
<td>Recent European History, 1870 to the Present</td>
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<td>HIST 528</td>
<td>Economic History of Europe</td>
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<td>HIST 529</td>
<td>Intellectual History of 19th Century Europe</td>
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<td>HIST 530</td>
<td>History of American Women--Colonial Times to 1870</td>
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<td>HIST 531</td>
<td>History of American Women--1870 to Present</td>
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<td>HIST 532</td>
<td>History of Women and Work in Comparative Perspective</td>
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<td>HIST 533</td>
<td>The History of Women and the Family in Europe, from 1500 to the Present</td>
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<td>HIST 537</td>
<td>France from the Renaissance to the French Revolution</td>
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<td>HIST 538</td>
<td>European Intellectual History of the Eighteenth Century</td>
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<td>HIST 541</td>
<td>British History, 1500-1660</td>
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<td>HIST 544</td>
<td>Britain and Ireland from 1200 to 1500</td>
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<td>HIST 545</td>
<td>British History, 1660-1832</td>
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<td>History of Cartography</td>
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<td>The Intellectual History of Europe in the Twentieth Century</td>
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<td>HIST 548</td>
<td>British History, 1832 to the Present.</td>
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<td>HIST 551</td>
<td>Spain and its Empire, 1450-1700</td>
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<td>HIST 555</td>
<td>Aspects of British Political Thought</td>
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<td>HIST 556</td>
<td>Aspects of British Political Thought, Honors</td>
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<td>HIST 557</td>
<td>Nationalism and Communism in East Central Europe from 1772 to the Present</td>
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<tr>
<td>HIST 558</td>
<td>Religion in Britain Since the Reformation: A Survey</td>
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<td>HIST 559</td>
<td>Religion in Britain Since the Reformation: A Survey, Honors</td>
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<tr>
<td>HIST 560</td>
<td>The Value of Freedom</td>
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<td>HIST 562</td>
<td>United States Environmental History in the 20th Century</td>
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<td>HIST 563</td>
<td>U.S. Environmental Thought in the 20th Century</td>
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<td>HIST 564</td>
<td>Medieval Russia</td>
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<td>HIST 565</td>
<td>Imperial Russia</td>
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<td>HIST 568</td>
<td>The Rise and Fall of the Soviet Union, 1917 to the Present</td>
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<td>HIST 574</td>
<td>Slavery in the New World</td>
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<td>HIST 591</td>
<td>Food in History: West and East</td>
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<td>HIST 601</td>
<td>Oral History</td>
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<td>HIST 602</td>
<td>Religion in Britain 1785-1925</td>
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<td>HIST 608</td>
<td>History of Sexuality</td>
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<td>HIST 609</td>
<td>History of Women and Reform in the United States</td>
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<td>HIST 610</td>
<td>American Colonial History</td>
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<td>HIST 613</td>
<td>Slavery and Freedom in the Age of Jackson</td>
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<td>HIST 615</td>
<td>Rise of Modern America: Politics, Culture, and Society, 1900-1950</td>
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<tr>
<td>HIST 616</td>
<td>Contemporary America, 1941-Present</td>
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<td>HIST 617</td>
<td>America in the 1960's</td>
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<td>HIST 618</td>
<td>History of the American West to 1900</td>
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<td>HIST 620</td>
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<td>HIST 621</td>
<td>The American West in the 20th Century</td>
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<td>HIST 628</td>
<td>American Economic Development</td>
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<td>The United States and the World to 1890</td>
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<td>The United States and the World, 1890-2003</td>
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<td>HIST 631</td>
<td>The Contemporary Afro-American Experience</td>
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<td>HIST 636</td>
<td>Agriculture in World History</td>
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<td>HIST 646</td>
<td>Witches in European History and Historiography</td>
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<td>History of Feminist Theory</td>
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<td>American Constitutional History to 1887</td>
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<td>American Constitutional History Since 1887</td>
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<td>HIST 661</td>
<td>Palestine and Antiquity</td>
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<td>HIST 666</td>
<td>Contemporary America, 1941-Present, Honors</td>
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<tr>
<td>HIST 670</td>
<td>Comparative Diasporas</td>
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**History Category II: Non-western Orientation (6)**

Satisfied by two courses (6 hours) from the following: 6

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HIST 328  The Modern Middle East
HIST 348  History of the Peoples of Kansas
HIST 353  Indigenous Peoples of North America
HIST 365  Invention of the Tropics
HIST 369  Colonialism and Revolution in the Third World, Honors
HIST 370  Violence and Conflict in Latin American History
HIST 371  The Cultural History of Modern Latin America
HIST 372  Violence and Conflict in Latin American History, Honors
HIST 392  Huns, Turks, and Mongols: The Nomad Factor in Asian History
HIST 393  The Silk Road
HIST 397  From Mao to Now: China’s Red Revolution
HIST 398  Introduction to History of Japan: Anime to Zen
HIST 399  The Samurai
HIST 453  Anarchism: A Global History
HIST 470  Popular Culture in Latin America and Africa
HIST 503  The Ancient History of the Near East
HIST 543  Modern Iran
HIST 545  Havana
HIST 561  Liberation in Southern Africa
HIST 570  The Middle East After World War II
HIST 573  Latin America in the 19th Century
HIST 574  Slavery in the New World
HIST 575  History of Mexico
HIST 576  History of the Caribbean and Central America
HIST 578  Social History of South America
HIST 579  The History of Brazil
HIST 580  Economic History of Latin America
HIST 582  Ancient Japan
HIST 583  Imperial China
HIST 584  Modern China
HIST 587  Early Modern Japan
HIST 588  Japan, 1853-1945
HIST 589  Japan Since 1945
HIST 590  Cultural History of Korea
HIST 591  Food in History: West and East
HIST 593  Modern Korea
HIST 594  Law and Society in Traditional China
HIST 596  Defining Japan: Marginalized Groups and the Construction of National Identity
HIST 597  Japanese Theater History
HIST 598  Sexuality and Gender in African History
HIST 599  The Rise and Fall of Apartheid
HIST 600  West African History
HIST 601  Oral History
HIST 603  History of Tibet
HIST 604  Contemporary Greater China
HIST 605  Medieval Japan
HIST 612  History of Federal Indian Law and Policy
HIST 618  History of the American West to 1900
HIST 619  History of the American Indian
HIST 622  History of the Plains Indians
HIST 636  Agriculture in World History
HIST 640  Entrepreneurship in East Asia
HIST 670  Comparative Diasporas

History Electives (6)
Satisfied by 2 HIST courses (6 hours) 6

History Minor Hours & GPA
While completing all required courses, majors must also meet each of the following hour and grade point average minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 hours of junior/senior (300+) hours of KU resident credit in the minor.

Minor Junior/Senior (300+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 GPS in all departmental courses in the minor. GPA calculations include all departmental courses in the field of study including Fs and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Master of Arts in History
The Department of History (http://www.history.ku.edu/about.shtml) at the University of Kansas is a dynamic place, with a proud tradition of training scholars from across the globe who have transformed the practice of history. The program offers major or minor concentrations in the areas of United States, African American, Modern European, British & Imperial, Russian/East European, East Asian, Latin American, African, Medieval, Women and Gender, Military, and Environmental History. KU offers its graduate students great flexibility in their choice of fields, as defined both by traditional geographical and chronological parameters and thematic topics. Students also have the opportunity to take coursework outside the department in fields such as Public History, Museum Studies, Environmental Studies, and the History of Medicine.

Primarily a doctoral program, the Department currently enrolls approximately 80 graduate students from throughout the United States and the world, including Japan, China, Peru, and Russia. Our students make up a very diverse group, and we encourage applicants from traditional and non-traditional backgrounds.

For statistics regarding our program, please see our Doctoral Program Profile (http://www.graduate.ku.edu/sites/graduate.drupal.ku.edu/files/docs/dpp/DPP_A_HIST.pdf), which demonstrates our success at funding and placing current and recent graduates.
Graduate Admission

Graduate applicants are expected to contact their prospective advisors in advance. It is useful to discuss shared research interests, and to inquire whether the faculty member is taking new students, and to decide whether this can become a productive relationship. This faculty advisor will then be able to more effectively advocate for the applicant’s candidacy based upon this correspondence.

Candidates requesting consideration for admission to the MA, MA/PhD, or PhD program in History must complete the online application through the KU Office of Graduate Studies (http://www.graduate.ku.edu/ku-graduate-application). Information about minimum requirements and codes for GRE or TOEFL tests can be found on this site. Note that documents, including a writing sample and transcripts, should be uploaded to the application. There is no need to send hard copies of application materials to the History Department. When you submit your online application, it is made available to the Department of History. The application deadline for Fall 2015 entry is December 1, 2014. International applicants need to submit their materials by November 15, 2014.

When you apply, specify to which program you intend to join: MA only, the MA/PhD, or the PhD. We recommend that candidates seeking admission directly into the PhD program first earn an MA in History or a related field. The application materials that each candidate must submit are:

- Statement of Academic Objectives, including a clear plan for graduate research in a specific field of study
- Curriculum Vitae
- Writing Sample demonstrating independent historical research and analysis (20-25 pages maximum)
  - Submit a writing sample that best represents your scholarly abilities: The Department is interested in reviewing your well-crafted, persuasively argued sample. Such papers are often derived from an upper-level undergraduate history class in which you conducted independent research and employed both primary and secondary sources. If you have an MA in history, the writing sample should be taken from your thesis or a major paper written in a graduate seminar.
- GRE Scores, conveyed from ETS to the University of Kansas (School Code 6871)
- Official Transcript from each institution that has granted you a degree, or at which you are currently enrolled
- Three letters of recommendation – The letters can be directly uploaded online directly by those who write the recommendations, or they can be mailed to the Department of History, ATTN: Graduate Administrator, 1445 Jayhawk Boulevard, Wescoe 3650, University of Kansas, Lawrence, KS 66045. A recommendation form for hard copy letters can be downloaded here (http://www.graduate.ku.edu/sites/graduate.drupal.ku.edu/files/docs/ApplicationProcess/KULetterOfRecForm.pdf).

M.A. Degree Requirements

The master’s program in history requires satisfactory completion of 30 credit hours of graduate courses including at least 6 hours in history research seminars and the passing of a comprehensive oral examination. Soon after admission, the student should select a faculty member as his or her advisor. The advisor directs the student’s work and advises the student about selecting Option A or Option B.

Option A

3 fields of history

The fields are the equivalent of secondary fields drawn from 3 different major fields. With the consent of departmental advisors, when a student’s program warrants a substitution, she or he may substitute an allied field outside the department that provides vital support for the program (e.g., substituting international relations for U.S. diplomatic history). At least 9 hours of course work must be taken in each of the 3 fields. Students must take HIST 805.

9 hours of work in courses numbered HIST 801 or higher and 6 hours of research seminar are required. Normally, at least 3 hours of seminar under each program should be taken with the student’s program advisor, who chairs the oral examining committee.

All master’s candidates must produce 2 professional-quality, article-length papers (approximately 30 pages) in the 2 required seminars. The final oral examination for the master’s degree includes questions concerning the papers as well as coverage of the student’s major and secondary fields.

Option B

A major field and 1 secondary field

At least 2 history faculty members must serve on the student’s M.A. committee for the major field. At least 18 hours of course work in the major field and 9 hours in the secondary field must be taken. Students must take HIST 805.

9 hours of work in courses numbered HIST 801 or higher and 6 hours of research seminar are required. Normally, at least 3 hours of seminar under each program should be taken with the student’s program advisor, who chairs the oral examining committee.

All master’s candidates must produce 2 professional-quality, article-length papers (approximately 30 pages) in the 2 required seminars. The final oral examination for the master’s degree includes questions concerning the papers as well as coverage of the student’s major and secondary fields.

Doctor of Philosophy in History

The Department of History (http://www.history.ku.edu/about.shtml) at the University of Kansas is a dynamic place, with a proud tradition of training scholars from across the globe who have transformed the practice of history. The program offers major or minor concentrations in the areas of United States, African American, Modern European, British & Imperial, Russian/East European, East Asian, Latin American, African, Medieval, Women and Gender, Military, and Environmental History. KU offers its graduate students great flexibility in their choice of fields, as defined both by traditional geographical and chronological parameters and thematic topics. Students also have the opportunity to take coursework outside the department in fields such as Public History, Museum Studies, Environmental Studies, and the History of Medicine.

Primarily a doctoral program, the Department currently enrolls approximately 80 graduate students from throughout the United States and the world, including Japan, China, Peru, and Russia. Our students
make up a very diverse group, and we encourage applicants from traditional and non-traditional backgrounds.

For statistics regarding our program, please see our Doctoral Program Profile (http://www.graduate.ku.edu/sites/graduate.drupal.ku.edu/files/docs/dpp/DPP_A_HiST.pdf), which demonstrates our success at funding and placing current and recent graduates.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

Graduate applicants are expected to contact their prospective advisors in advance. It is useful to discuss shared research interests, and to inquire whether the faculty member is taking new students and to decide whether this can become a productive relationship. This faculty advisor will then be able to more effectively advocate for the applicant's candidacy based upon this correspondence.

Candidates requesting consideration for admission to the M.A., M.A./Ph.D., or Ph.D. program in History must complete the online application through the KU Office of Graduate Studies (http://www.graduate.ku.edu/ku-graduate-application). Information about minimum requirements and codes for GRE or TOEFL tests can be found on this site. Note that documents, including a writing sample and transcripts, should be uploaded to the application. There is no need to send hard copies of application materials to the History Department. When you submit your online application, it is made available to the Department of History. The application deadline for Fall 2015 entry is December 1, 2014. International applicants need to submit their materials by November 15, 2014.

When you apply, specify to which program you intend to join: M.A. only, the M.A./Ph.D., or the Ph.D. We recommend that candidates seeking admission directly into the Ph.D. program first earn an M.A. in History or a related field.

The application materials that each candidate must submit are:

- **Statement of Academic Objectives**, including a clear plan for graduate research in a specific field of study
- **Curriculum Vitae**
- **Writing Sample** demonstrating independent historical research and analysis (20-25 pages maximum)
- Submit a writing sample that best represents your scholarly abilities: The Department is interested in reviewing your well-crafted, persuasively argued sample. Such papers are often derived from an upper-level undergraduate history class in which you conducted independent research and employed both primary and secondary sources. If you have an M.A. in history, the writing sample should be taken from your thesis or a major paper written in a graduate seminar.
- **GRE Scores**, conveyed from ETS to the University of Kansas (School Code 6871)
- **Official Transcript** from each institution that has granted you a degree, or at which you are currently enrolled
- Three letters of recommendation – The letters can be directly uploaded online directly by those who write the recommendations, or they can be mailed to the Department of History, ATTN: Graduate Administrator, 1445 Jayhawk Boulevard, Wescoe 3650, University of Kansas, Lawrence, KS 66045. A recommendation form for hard copy letters can be downloaded here (http://www.graduate.ku.edu/sites/graduate.drupal.ku.edu/files/docs/ApplicationProcess/KULetterOfRecForm.pdf).

Ph.D. Degree Requirements

Students normally must complete the M.A. degree before they are eligible to enter the Ph.D. program. Students who enter the M.A. program may either complete the degree or petition for direct admission to the Ph.D. program. This petition first must be endorsed by the student’s advisor and the field committee and then be approved by the department’s graduate board.

In addition to general requirements, the following departmental requirements must be met. A minimum of 11 courses (33 credit hours) is required for the Ph.D. Students may choose between 2 options for their course work.

Research Skills and Responsible Scholarship

The university requires that every doctoral student have training in responsible scholarship and research skills pertinent to the field of research and appropriate to the doctoral level. In order to fulfill these requirements, all graduate students in History must take HIST 805 and become certified in a foreign language before taking the comprehensive oral exam.

**Note:** Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current policies on Doctoral Research Skills and Responsible Scholarship are listed in the Graduate Studies section of the online catalog and in the KU Policy Library.

Track A

Students select a major and 2 secondary fields. The major field includes 6 courses (18 credit hours). The secondary fields include 2 courses (6 credit hours), for a total of 12 credit hours; 1 of the secondary fields may be taken in a discipline outside the department, but a student may offer all 3 fields in history. Students must take HIST 805.

For both Track A and Track B, the major and secondary fields are those listed in this catalog or approved by the graduate board.

The department requires proficiency, at the level the student’s committee deems necessary, in 1 or 2 foreign languages appropriate to the student’s fields of specialization. Students should present satisfactory evidence of proficiency in the first language before enrollment in the second semester of degree work. Appropriate proficiency in the second language (if necessary) must be achieved before the student may take the oral comprehensive examination.
Before taking the oral comprehensive examination, students must complete (in addition to the language requirement) a minimum of 5 colloquia and seminars, including 2 in the major field(s) and 1 in each secondary field. At least 2 of the 5 must be research seminars in which the student produces professional-quality, article-length papers (approximately 30 pages).

In lieu of written examinations, students compile portfolios of their professional work demonstrating command of their fields and their preparation to undertake dissertation research. Following presentation of the portfolio, students take an oral examination covering their fields of study and their dissertation proposals.

**Track B**

Students select 2 major fields, for which they take a total of 8 courses (24 credit hours), and 1 secondary field, for which they take 2 courses (6 credit hours). The secondary field may be taken in a discipline outside the department, but a student may offer all 3 fields in history. Under the major fields, students may choose a 4/4 or a 5/3 configuration for their 8 courses. Students must take HIST 805.

For both Track A and Track B, the major and secondary fields are those listed in this catalog or approved by the graduate board.

The department requires proficiency, at the level the student’s committee deems necessary, in 1 or 2 foreign languages appropriate to the student’s fields of specialization. Students should present satisfactory evidence of proficiency in the first language before enrollment in the second semester of degree work. Appropriate proficiency in the second language (if necessary) must be achieved before the student may take the oral comprehensive examination.

Before taking the oral comprehensive examination, students must complete (in addition to the language requirement) a minimum of 5 colloquia and seminars, including 2 in the major field(s) and 1 in each secondary field. At least 2 of the 5 must be research seminars in which the student produces professional-quality, article-length papers (approximately 30 pages).

In lieu of written examinations, students compile portfolios of their professional work demonstrating command of their fields and their preparation to undertake dissertation research. Following presentation of the portfolio, students take an oral examination covering their fields of study and their dissertation proposals.

**Department of History of Art**

**Why study the history of art?**

The study of the visual arts in their historical contexts enriches our understanding of human creativity and the human condition.

**Undergraduate Programs**

The curriculum introduces the student to the visual arts of the past and the present. Courses cover the arts of ancient and medieval Europe, modern Europe, the United States, Africa, and East Asia, including China, Japan, Korea, and the art of Buddhism. Courses are offered in the history of photography, prints, and drawings.

Several introductory courses are offered every semester. These include 1- and 2-semester surveys in Western art (HA 100, HA 300, HA 150, and HA 151), HA 261 Introduction to Modern Art, HA 265 Introduction to Asian Art, HA 266 The Visual Arts of East Asia, HA 267 Art and Culture of Japan, HA 268 Art and Culture of China, HA 269 Art and Culture of Korea, and HA 330 Italian Renaissance Art.

**Courses for Nonmajors**

All courses are open to nonmajors if they have the necessary prerequisite, which in most cases is one of the introductory courses. An undergraduate advisor counsels nonmajors who need help selecting a course.

**Graduate Programs**

KU offers graduate art history courses covering Europe, the United States, and East Asia. Master of Arts degrees are offered in European, American, and East Asian art; they offer students a broad knowledge of the visual arts in those fields, as well as an introduction to the basic concepts and methods of the discipline. The M.A. may be pursued as a terminal degree or as preparation for specialized doctoral studies. Ph.D. degrees are offered in European, American, and East Asian art; they offer the opportunity for advanced research and concentration. Graduates typically seek careers in college and university teaching and in museum work.

**Courses**

**HA 100. Introduction to Western Art History.** 3 Hours. HT AE42/GE3H / H.

A chronological survey of Western art and architecture, including the ancient Near East, Europe from antiquity to the present, and North America from the colonial period to the present. The course emphasizes major historical and cultural developments, analyzes key art works and monuments, and introduces basic art historical principles and analytical methods. The course is offered at the 100 and 300 levels, with additional reading and writing assigned at the 300 level. Intended for non-majors. Does not count toward the 30 required hours in the major. Not open to students with credit in HA 103, HA 150, HA 151, HA 160, HA 161, or HA 300. LEC.

**HA 103. Introduction to Western Art History, Honors.** 3 Hours. HT AE42/GE3H / H.

A chronological survey of Western art and architecture, including the ancient Near East, Europe from antiquity to the present, and North America from the colonial period to the present. The course emphasizes major historical and cultural developments, analyzes key art works and monuments, and introduces basic art historical principles and analytical methods. The course is offered at the 100 and 300 levels, with additional reading and writing assigned at the 300 level. Intended for non-majors. Does not fulfill the 30 required hours in the major. Not open to students with credit in HA 100, HA 150, HA 151, HA 160, HA 161, HA 300, or HA 303. Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

**HA 105. Special Study: _____**. 1-6 Hours. H.

This course is designed for the study of special topics in art history at the introductory level, including courses taken in the study abroad program. May deal with individual artists, special themes, or other topics not generally covered in courses offered by the department. May be repeated for credit if content varies. LEC.

**HA 150. Western Art History I: Ancient Through Medieval Art.** 3 Hours. HT AE42/GE3H / H.

A survey of the art of earlier periods in the West, from prehistoric times through the middle ages in Europe, with special emphasis on the
relationship between artistic developments and cultural changes. Not open to students with credit in HA 160. LEC.

HA 151. Western Art History II: Renaissance to Contemporary Art. 3 Hours. H.
A survey of the art of later periods in the West, from the Renaissance to the contemporary period in Europe and America, with special emphasis on the achievements of individual artists in relation to the cultural movements of their times. Not open to students with credit in HA 161. Prerequisite: HA 100, HA 103, HA 150, HA 160, HA 300, or HA 303. LEC.

HA 160. Western Art History I, Honors. 3 Hours. HT AE42/GE3H / H.
Honors section of HA 150. Students taking HA 150 for Honors credit must enroll in HA 160. They will attend HA 150 lectures and Honors discussion group led by the professor in charge of the course. Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

HA 161. Western Art History II, Honors. 3 Hours. H.
Honors section of HA 151. Students taking HA 151 for Honors credit must enroll in HA 161. They will attend HA 151 lectures and Honors discussion group led by the professor in charge of the course. Prerequisite: HA 100, HA 103, HA 150, HA 160, HA 300, or HA 303, and membership in University Honors Program or consent of instructor. LEC.

HA 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in History of Art. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

HA 261. Introduction to Modern Art. 3 Hours. HT GE3H / H.
A general survey of painting, sculpture, architecture, and graphic art of the 19th and 20th centuries. Emphasis is placed on major movements and their artists, including Neo-Classicism, Romanticism, Realism, Impressionism, Post-Impressionism, Fauvism, Expressionism, Cubism, Surrealism, Abstract Art, Pop Art, and the developments of the contemporary period. LEC.

HA 265. Introduction to Asian Art. 3 Hours. HT/NW AE42/GE3H / H/W.
An introduction to Asian art and architecture through a study of the principal monuments, their aesthetic principles, and their relation to philosophies and religions. LEC.

HA 266. The Visual Arts of East Asia. 3 Hours. HT/NW AE42/GE3H / H.
An introduction to the visual arts of China, Korea, and Japan, with equal time given to each country. Emphasis will be placed on cultural context, including religion, social class and gender, and on the cultural interaction between the three countries. LEC.

HA 267. Art and Culture of Japan. 3 Hours. NW AE42/GE3H / H/W.
An introduction to the Arts of Japan in historical and cultural context. Visual arts will be stressed. LEC.

HA 268. Art and Culture of China. 3 Hours. NW AE42/GE3H / H/W.
An introduction to the arts of China in historical and cultural context. Visual arts will be stressed. No prerequisite. LEC.

HA 269. Art and Culture of Korea. 3 Hours. NW AE42/GE3H / H/W.
An introduction to the arts of Korea in historical and cultural context. Visual arts will be stressed. LEC.

HA 300. Introduction to Western Art History. 3 Hours. HT AE42/GE3H / H.
A chronological survey of Western art and architecture, including the ancient Near East, Europe from antiquity to the present, and North America from the colonial period to the present. The course emphasizes major historical and cultural developments, analyzes key art works and monuments, and introduces basic art historical principles and analytical methods. The course is offered at the 100 and 300 levels, with additional reading and writing assigned at the 300 level. Intended for non-majors. Does not count toward the 30 required hours in the major. Not open to students with credit in HA 100, HA 103, HA 150, HA 151, HA 160, HA 161, or HA 303. LEC.

HA 303. Introduction to Western Art History, Honors. 3 Hours. HT / H.
A chronological survey of Western art and architecture, including the ancient Near East, Europe from antiquity to the present, and North America from the colonial period to the present. The course emphasizes major historical and cultural developments, analyzes key art works and monuments, and introduces basic art historical principles and analytical methods. The course is offered at the 100 and 300 levels, with additional reading and writing assigned at the 300 level. Intended for non-majors. Does not count toward the 30 required hours in the major. Not open to students with credit in HA 100, HA 103, HA 150, HA 151, HA 160, HA 161, or HA 300. Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

HA 305. Special Study: ______. 1-6 Hours. H.
This course is designed for the study of special topics in art history, including courses taken in the study abroad program. May deal with individual artists, special themes, or other topics not generally covered in courses offered by the department. May be repeated for credit if content varies. LEC.

HA 307. Directed Readings. 1-6 Hours. U.
Supervised study and research into special fields of art of particular interest to the student. Weekly consultation and reports. LEC.

HA 310. The Art and Architecture of Florence and Paris. 3 Hours. H.
Taught in the Humanities and Western Civilization Program Abroad, this course examines the major movements that defined and shaped the art and architecture of Florence and Paris, with special attention to the Renaissance in Florence and the Gothic and modern periods in Paris. Through classroom lectures, readings, and visits to museums, churches, and other historic sites, selected works of art and architecture are analyzed in terms of their formal qualities, iconography, and cultural context. Prerequisite: Approval for enrollment in the Humanities and Western Civilization Study Abroad program through the KU Office of Study Abroad. LEC.

HA 311. The Art and Architecture of the British Isles. 3 Hours. H.
Taught in the British Summer Institute in the Humanities Study Abroad program, this course offers an introductory survey of British art and architecture. Through classroom lectures, readings, and visits to museums, churches, and other historic sites, selected works of art and architecture are analyzed in terms of their formal qualities, iconography, and cultural context. Prerequisite: Approval for enrollment in the British Summer Institute in the Humanities Study Abroad program through the KU Office of Study Abroad. LEC.

HA 315. The Prehistory of Art. 3 Hours. S.
A survey of prehistoric art focusing on the material record and interpretations of rock art (paintings, engravings on rock surfaces in rock-shelters, caves and in open air sites) and portable art created by prehistoric people. The emphasis is on the small-scale societies (hunter-gatherer and early food producers) around the world before the appearance of written records in respective geographic areas. Environmental, social and cultural contexts in which these art forms were created are discussed along with a review of past scholarship and current interpretive approaches to this old and enduring expression of human creativity. Course may be offered in lecture or online format. (Same as ANTH 315.) LEC.
HA 317. Greek and Roman Art. 3 Hours. H/W.
A survey of the art of ancient Greece and Rome (ca. 1000 B.C.E. - 500 C.E.). Emphasis on major sites, architecture, sculpture, and painting. Illustrated lectures and discussion; use of the Wilcox Classical Museum. No knowledge of Greek or Latin is required. Not open to students who have taken both CLSX 526/HA 526 and CLSX 527/HA 537, except with permission of the instructor. (Same as CLSX 317, HWC 317.) LEC.

HA 330. Italian Renaissance Art. 3 Hours. GE3H / H/W.
A survey of the art and architecture of Italy from c. 1300 to 1550. Special emphasis is placed on regional styles and the private, political, and devotional contexts in which works of art and architecture functioned. Some of the artists whose works are considered are Giotto, Duccio, Donatello, Botticelli, Leonardo, and Michelangelo. LEC.

HA 353. Modern and Contemporary African Art. 3 Hours. H.
In this course, we examine the development of artistic modernisms in Africa in historical context. We also study the content, production, patronage, and display of modern and contemporary African art. In doing so, we consider African artists' engagement with modernity, globalization, and contemporary issues, as well as interrogate influential myths and assumptions regarding African artists and the works they produce. Course themes include the workshop as a critical site, independence movements and the creation of national art forms, art as global commodity, and art in resistance, remembrance, and revolution. (Same as AAAS 353.) LEC.

HA 369. Introduction to Korean Painting. 3 Hours. NW / H.
A history of Korean painting from the 4th through the 19th centuries. An examination of tomb murals, Buddhist painting, landscape, genre painting, portraiture, documentary painting, and decorative symbolic imagery. Lectures and discussion focus on artistic style and cultural context. Completion of HA 266, HA 269 or ECIV 104 is recommended. LEC.

HA 370. American Art. 3 Hours. H.
A survey of American painting, sculpture, and architecture from colonial to recent times. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 376. West African Art. 3 Hours. NW / H/W.
Introduction to the rich visual art traditions of West Africa. Emphasis is given to the major art-producing cultures of the Western Sudan and the Guinea Coast, including the pre-historic cultures of Nigeria, Mali, and Ghana. The diverse forms of figure sculptures and masquerade performance and meanings of these arts in historical and cultural contexts are examined. (Same as AAAS 376.) LEC.

HA 380. History of Photography. 3 Hours. H.
An introduction to the history of photography as a means of artistic expression and visual communication. Special attention is placed on the relation between developments in photography and the artistic and cultural context of the time. LEC.

HA 390. Special Study in African Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in African art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. LEC.

HA 391. Special Study in Asian Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in Asian art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. LEC.

HA 392. Special Study in Ancient Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in ancient art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. LEC.

HA 393. Special Study in Medieval Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in medieval art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. LEC.

HA 394. Special Study in Renaissance Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in Renaissance art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. LEC.

HA 395. Special Study in Baroque Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in Baroque art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. LEC.

HA 396. Special Study in American Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in American art. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. LEC.

HA 397. Special Study in Modern Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in modern art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. LEC.

HA 467. Art and Culture of Japan, Honors. 3 Hours. NW / H/W.
Honors version of HA 267, requiring additional readings and writing assignments. An introduction to the arts of Japan in historical and cultural context. Basic principles and problems of the visual arts are analyzed, as are the major historical trends and periods. Prerequisite: Membership in the University Honors Program or permission of the instructor. Not open to freshmen or students with credit in HA 267. LEC.

HA 468. Art and Culture of China, Honors. 3 Hours. NW / H/W.
Honors version of HA 268, requiring additional readings and writing assignments. An introduction to the arts of China in historical and cultural context. Basic principles and problems of the visual arts are analyzed, as are the major historical trends and periods. Prerequisite: Membership in the University Honors Program or permission of the instructor. Not open to freshmen or students with credit in HA 268. LEC.

HA 469. Art and Culture of Korea, Honors. 3 Hours. NW / H/W.
Honors version of HA 269, requiring additional readings and writing assignments. An introduction to the arts of Korea in historical and cultural context. Basic principles and problems of the visual arts are analyzed, as are the major historical trends and periods. Prerequisite: Membership in the University Honors Program or permission of the instructor. Not open to freshmen or students with credit in HA 269. LEC.

HA 482. Japanese Painting. 3 Hours. NW / H.
A survey covering the development of Japanese painting from the Kofun period down to the early twentieth century. Topics will include Buddhist and other religious paintings, narrative handscrolls, suibokuga, decorative screens, genre paintings and ukiyo-e prints, and western-style paintings of the Meiji and Taisho periods. Work requirements will be greater for students enrolled at the 700 level than at the 400 level. Prerequisite: HA 265, or HA 267, or consent of instructor. LEC.

HA 488. Chinese Painting, Honors. 3 Hours. NW / H/W.
A survey of the development of painting in China, beginning with the earliest forms of figural and landscape depiction. Emphasis will be placed
on the major painting traditions of the Song, Yuan, Ming, and Qing Dynasties. Prerequisite: One of the following four courses: HA 150, HA 265, HA 266, or ECIV 104; and membership in the University Honors Program or permission of the instructor. IND.

HA 498. Honors Essay in Art History. 3 Hours. AE61 / H.
Required for departmental honors. A course of directed research and the preparation of a paper on an art history topic, supervised by a professor. Prerequisite: A grade-point average of 3.5 in art history and 3.25 in all courses, and consent of a major advisor and supervising professor. IND.

HA 500. Prints and Printmakers. 3 Hours. H.
The major historical achievements in the field of printmaking, the artists who produced prints, and the impact of their work on the visual arts. Lectures supplemented by work with original material. Prerequisite: An introductory course in Western art history at the college level and three further hours of history of art or consent of instructor. LEC.

HA 503. Japanese Prints. 3 Hours. NW / H.
A study of the major artists and schools of the Japanese print, especially in their technical and stylistic developments and in their relation to the culture of Japan in the Edo period. Prerequisite: A survey of Asian or Japanese art, or consent of instructor. LEC.

HA 505. Special Study: ______. 1-6 Hours. H.
This course is designed for the study of special topics in art history on a trial basis, open to both undergraduate and graduate students. Prerequisite: An introductory-level course in art history, appropriate to the specific special study topic; or consent of instructor. LEC.

HA 506. Early Medieval and Romanesque Art. 3 Hours. H.
This course examines the art of Europe from the Early Christian era through the Romanesque period, up to 1200. Architecture, sculpture, manuscript illumination, metalwork and painting are explored in relation to their political, religious and social contexts. Graduate students can expect to complete additional reading and writing assignments. Prerequisite: HA 100 or HA 150, or permission of the instructor. LEC.

HA 507. Gothic Art. 3 Hours. H.
This course examines the art of Europe during the Gothic period, from 1140-1500. Architecture, sculpture, manuscript illumination, metalwork, painting and furniture are explored in relation to their political, religious and social contexts. Graduate students can expect to complete additional reading and writing assignments. Prerequisite: HA 100 or HA 150, or permission of the instructor. LEC.

HA 508. The Italian Renaissance Home. 3 Hours. H.
This course explores the history of domestic art and architecture in Italy, with a special emphasis on Florence, from c. 1350 to 1600. Palace architecture, religious works made for private devotions, the increasing use of mythological themes in painting and sculpture, birth trays, painted cassoni, majolica, and various types of portraiture are examined within the contexts of contemporary theories of virtue and magnificence, the rituals of marriage and childbirth, the public and private promotion of political and personal agendas, and changing tastes. In addition to acquiring an in-depth knowledge of the artistic and architectural milieu of Italian Renaissance homes and expanding their cultural understanding, students enrolled in this course engage in a series of assignments designed to build and hone their reading, critical thinking, visual analysis, research, and writing skills. The same assignments allow students to integrate their knowledge of and to think creatively about the period, objects, and buildings in question. A high expectation of class participation and the opportunity to present their research provide students with the opportunity to build and strengthen their oral communications skills. Prerequisite: HA 100, HA 150, HA 151, HA 330, or the equivalent, or consent of instructor. LEC.

HA 525. Aegean Archaeology and Art. 3 Hours. H/W.
An interdisciplinary survey of the major cultures of the prehistoric Aegean (Greek) world from the Neolithic period to the end of the Bronze Age (ca. 3000-1100 B.C.E.), with special emphasis on the cultural and artistic achievements of the Mycenaeans, Minoans, and Cycladic islanders, including their contacts with the neighboring cultures of Anatolia (Hittites and Troy), the Levant, Egypt, and South Italy. Includes lecture with slides and discussion. For advanced undergraduates with backgrounds in the humanities and for graduate students (especially in Classics and History of Art). No knowledge of Greek or Latin is required. (Same as CLSX 525.) LEC.

HA 526. Greek Archaeology and Art. 3 Hours. H.
An interdisciplinary survey of the material culture of the ancient Greek world from the Protogeometric period to the end of the Hellenistic age (ca. 1100 - 30 B.C.E.), with an emphasis on the major sites, monuments, and changing forms of social and artistic expression (architecture, sculpture, vase painting, and other arts). Includes lectures with slides and discussion; use of the Wilcox Museum of Classical Antiquities. No knowledge of Greek or Latin is required. For advanced undergraduates and graduate students with backgrounds in the humanities; and for graduate students (especially those in History of Art and Classics). (Same as CLSX 526.) LEC.

HA 527. Late Medieval Art in Italy. 3 Hours. H.
This course examines the history of paintings, sculptures and buildings produced in Italy from c. 1250 to 1400. Important individual works, artists, and decorative complexes, such as Giotto’s Scrovegni (Arena) Chapel, are analyzed in terms of their stylistic, geographical, social, historical, devotional, and literary contexts. Current theories and controversies pertinent to the history and study of 13th- and 14th-century Italian art are also addressed. Prerequisite: HA 100, HA 150, or the equivalent, or consent of instructor. LEC.

HA 529. Archaeology and Art of the Ancient Near East. 3 Hours. H.
A cross-cultural survey of the material remains of the major civilizations of the ancient Near East, including Anatolia, Mesopotamia, the Levant, and Egypt from Neolithic period to the rise of the Roman empire (ca. 6000 B.C.E. - 30 B.C.E.). Includes lectures with slides and discussion. For advanced undergraduates with backgrounds in the humanities and for graduate students (especially in Classics and History of Art). No knowledge of Greek or Latin is required. (Same as CLSX 529.) LEC.

HA 530. Renaissance Art in Italy: The 15th Century. 3 Hours. H/W.
The focus of this course is the history of Italian painting, sculpture, and architecture from 1400 to 1500. Special emphasis is placed on the diverse artistic styles and functions of works of art, as well as on the artists and patrons that produced them. Domestic art and the art and architecture of the 15th-century Italian courts are also discussed. Prerequisite: HA 100, HA 150, or the equivalent, or consent of instructor. LEC.

HA 531. Renaissance Art in Italy: The 16th Century. 3 Hours. H.
This course explores the history of Italian painting, sculpture, and architecture from c. 1500 to 1600. It focuses on the artistic centers of Florence, Rome, Parma, and Venice. Some of the artists whose works is considered are Leonardo, Michelangelo, Raphael, Pontormo, Titian, Cellini, and Giambologna. The history of 16th-century women patrons and artists is also addressed. Prerequisite: HA 100, HA 150, HA 151, or the equivalent, or consent of instructor. LEC.

HA 532. Michelangelo. 3 Hours. H.
During the sixteenth century, the writer Ludovico Ariosto described the Florentine artist Michelangelo Buonarroti (1475-1564) as "divine." Since that time more has been written about Michelangelo than any other artist of the Italian Renaissance. His ability to work in diverse media, namely painting, sculpture, and architecture, as well as the power of his works,
earned him this prominent position in the history of art and made him one of the most influential artists of the early modern period. This course will trace various aspects of Michelangelo’s long, sometimes troubled, and vibrant career, focusing on issues such as his techniques, patrons, and the innovative style of his works. Special emphasis will be placed on interpreting primary sources to understand better his life and works and place them within their artistic, historical, social, and religious contexts. Prerequisite: HA 100, HA 150, HA 151, HA 330, or the equivalent, or consent of instructor. LEC.

HA 533. European Art 1789-1848: Gender and Revolution. 3 Hours. H.
This course will analyze painting in Europe from the late 18th century to the mid-19th century. Particular attention will be paid to the ways in which images represent and/or repress such themes as politics, history, gender, ethnicity, race, and class. Assigned readings present a variety of methodological perspectives—social-historical, feminist, formalist, and psychoanalytic. Graduate students may be expected to complete additional reading and writing assignments. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 534. Art in France 1848-1900: Modernisms. 3 Hours. H.
This course will examine painting in France from 1848 to 1900 with particular emphasis given to the visual articulation and/or repression of such constructs as gender, race, history, and ethnicity. Assigned readings present a variety of methodological perspectives—social-historical, feminist, formalist, and psychoanalytic. Graduate students may be expected to complete additional reading and writing assignments. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 536. Islamic Art and Architecture in Africa. 3 Hours. H.
Study of Islamic art and architecture in various cultural and geographical settings, from the first mosques of North Africa and the Swahili coast to contemporary Islamsed masquerades in West Africa. We consider art objects and architectural sites in terms of religious practice, trade and commerce, ritual and political power, and contemporary expression. (AAAS 536.) Prerequisite: AAAS 102, AAAS 103, HA 100, or HA 150; or permission of instructor. LEC.

HA 537. Roman Archaeology and Art. 3 Hours. H/W.
An interdisciplinary survey of the material culture of ancient Rome from its origins to the late empire (8th c.B.C.E. - 4th c.C.E.). Emphasis on major sites, monuments, and changing forms of social and artistic expression, as well as on Etruscan and Greek influence on Rome and Rome’s influences on its provinces. Includes lectures with slides and discussion; use of the Wilcox Museum of Classical Antiquities. No knowledge of Greek or Latin is required. For advanced undergraduates and graduate students with backgrounds in the humanities; and for graduate students (especially those in History of Art and Classics). (Same as CLSX 527.) LEC.

HA 538. Pompeii and Herculaneum. 3 Hours. H.
An interdisciplinary treatment of the art and archaeology of the ancient Roman cities of Pompeii and Herculaneum in Italy. Emphasis on the structures and decorations of major public spaces and houses and on aspects of cultural, social, political, commercial, and religious life from the period of the second century B.C.E. to 79 C.E., when Pompeii and Herculaneum were buried by the eruption of Mt. Vesuvius. Slide lectures and discussion. (Same as CLSX 538, HWC 538.) Prerequisite: Graduate status, or 6 credit hours in Classics, Greek, Latin, History of Art, or permission of the instructor. LEC.

HA 539. History of Japanese Buddhist Art. 3 Hours. H.
A survey of the Buddhist art of Japan that begins with the introduction of Buddhism in the sixth century and ends with contemporary Buddhist art. Students will also consider how Buddhist images function as part of the living religious tradition in Japan. Prerequisite: A survey of either Asian art, Japanese art, Asian religions, Japanese culture, or consent of instructor. LEC.

HA 545. Early Chinese Art. 3 Hours. NW / H.
A survey of Chinese art from Neolithic times through the Han Dynasty (ca. 200 C.E.). Emphasis will be placed on recent archaeological excavations and also on the development of bronze vessels of the Shang and Zhou Dynasties. Prerequisite: A college level introduction to Asian art history, or consent of instructor. LEC.

HA 546. Chinese Sculpture. 3 Hours. H.
A survey of Chinese sculpture from the Shang dynasty through the Song dynasty (1600 BCE-1279 CE), focused on sculptural programs in native funerary art and Buddhist temples and cave-shrines. LEC.

HA 548. Buddhist Scriptures in Chinese Painting. 3 Hours. H.
Examination of Chinese paintings based on the major Buddhist scriptures (sutras) popular in China from the 8th century through the early modern period. Readings include selections from the sutras (in translation). Emphasis is placed on the cultural and religious reasons why certain scriptural themes were selected for representation and on the distinctively Chinese interpretation of these themes in pictorial art. Prerequisite: One of the following: HA 265, HA 266, HA 585, ECIV 104, REL 106. LEC.

HA 549. Chinese Painting. 3 Hours. H.
An introductory survey of painting in China from the 7th through the 19th centuries. Prerequisite: One course in art history, or in East Asian languages cultures; or consent of instructor. LEC.

HA 564. European Art, 1900-1945. 3 Hours. H.
A detailed survey of modern European art from the turn of the century through World War II. Movements to be considered may include post-impressionism, cubism, constructivism, dada, and surrealism. Graduate students may be expected to do additional reading and writing assignments. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 565. Art Since 1945. 3 Hours. H.
An international survey of modern and postmodern art since 1945. Topics to be covered may include abstract expressionism, pop, minimalism, happenings, and performance art, earth works, conceptual art, feminist art, photo-realism, crafts, and new media. Graduate students may be expected to complete additional reading and writing assignments. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 566. Art From 1945 to the 1980’s: Modernism to Post-Modernism. 3 Hours. H.
An international survey of modern and post-modern art from World War II to the 1980s. Topics may include abstract expressionism, pop art, minimalism, happenings and performance art, earth works, conceptual art, feminist art, photo-realism, the craft revival, and new media. Graduate students may be expected to complete additional reading and writing assignments. Prerequisite: HA 100, HA 151 or the equivalent, or consent of instructor. LEC.

HA 567. Contemporary Art. 3 Hours. H.
An examination of recent developments internationally in art and visual culture. Emphases may include consideration of diverse critical perspectives, theoretical debates, post- and trans-national art, the impact of new media, and the internationalization of institutions, exhibitions, audiences, and markets. Graduate students may be expected to complete additional reading and writing assignments. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.
HA 570. American Art. 3 Hours. H.
A survey of American painting, sculpture, and architecture from colonial times to the present. (Same as AMS 580.) Prerequisite: An introductory course in Western art history at the college level. LEC.

HA 571. Modern Sculpture. 3 Hours. H.
A survey of avant-garde sculpture in Europe and America from the late 19th century to recent times. Attention will focus on the work of major sculptors considered within larger artistic, cultural, and historical contexts. Graduate students may be expected to complete additional reading and writing assignments. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 575. Northern Renaissance Art. 3 Hours. H.
French, Netherlandish, and German art in the 15th and 16th centuries. Manuscripts, painting, prints, and sculpture from Jan Van Eyck to Pieter Brueghel, the Elder. Prerequisite: HA 100, HA 150, HA 151, or the equivalent, or consent of instructor. LEC.

HA 576. Northern Baroque Art. 3 Hours. H.
Seventeenth-century art in the northern and southern Nethers with emphasis on painting of Rubens and Rembrandt. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 577. Italian Baroque Art. 3 Hours. H.
This course explores the history of art and architecture in Italy during the late sixteenth and seventeenth centuries. The visual culture of the Italian Baroque is examined in terms of style, patronage, and religious or secular function. Attention is also paid to art theory, practice, gender issues, and foreign artists working in Italy, as well as to understanding and interpreting primary sources. Prerequisite: HA 100/HA 300, HA 151, or consent of instructor. LEC.

HA 578. Central African Art. 3 Hours. NW / H/W.
Introduction to the arts and cultures of Central Africa. Emphasis is given to the major art-producing cultures of the Equatorial Forest and the Southern Savanna regions of Cameroon, Gabon, Congo, Zaire, and Angola. The historical and cultural contexts for the visual arts associated with centralized leadership and non-centralized societies are explored. (Same as AAAS 578.) LEC.

HA 580. History of Photography. 3 Hours.
An advanced introduction to the history of photography as a means of artistic expression and visual communication. Special emphasis will be placed on critical readings and research projects. Prerequisite: Six hours of Western art history. LEC.

HA 581. American Art to 1860: Inventing a Nation. 3 Hours. H.
A survey of major artists and movements in painting, sculpture, and allied arts, from the period of initial European settlement to the mid-19th century. Consideration will be given to developments in portraiture, history painting, landscape, still-life, statuary, and decorative arts. Attention will be paid both to formal developments and to cultural context. Graduate students may be expected to complete additional reading and writing assignments. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 582. American Art 1860-1900: Gilded Age. 3 Hours.
A survey of major artists and movements in painting, sculpture, and allied arts in the later 19th century. Consideration will be given to developments in landscape painting and images of the American West, the impact of impressionism and other European movements, and the decorative programs of the Gilded Age. Attention will be paid both to formal developments and to cultural context. Graduate students may be expected to complete additional reading and writing assignments. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 583. American Art 1900-1945: Rise of Modernism. 3 Hours. H.
A survey of major artists and movements in painting, sculpture, and allied arts, from the early urban realists to the emergent avant-garde at mid century. Consideration will be given to the cosmopolitan tendencies of the 1910s and the 1920s, to regionalist impulses of the 1930s, and the assimilation of European modernism. Attention will be paid both to formal developments and to cultural context. Graduate students may be expected to complete additional reading and writing assignments. Prerequisite: HA 100, HA 151, or the equivalent, or consent of instructor. LEC.

HA 584. Kansas Art, History, and Popular Culture. 3 Hours. H.
An overview of the art and cultural history of Kansas (and Kansas City) from territorial days to the present. Emphasis is placed on key issues, figures and events. A general familiarity with American history is recommended. (Same as FMS 414). LEC.

HA 585. The Art of Buddhism. 3 Hours. NW / H/W.
A survey of the Buddhist arts (architecture, sculpture, and painting) of India, China, and Japan. LEC.

HA 587. Japanese Sculpture. 3 Hours. NW / H.
A survey of Japanese sculpture from the Kofun period (300-700 C.E.) to the present day. Emphasis is placed on works of Buddhist sculpture from the 7th through the 13th centuries. Prerequisite: An introductory course in Asian art history or consent of instructor. LEC.

HA 588. Modern and Contemporary Visual Arts of Japan. 3 Hours. H.
This course covers Japanese visual arts from the Meiji era (1868-1912) through the present day. The course is designed thematically as well as chronologically, and examines painting, sculpture and architecture focusing on both socio-political contexts and artistic concerns that emerged at certain times in recent Japanese history. The aim of this course is to provide first-hand knowledge of Japanese modern and contemporary visual arts as well as an in-depth consideration of some of the key issues attached to Japan's modernization and modernity. Prerequisite: A survey of Japanese art, or modern art, or consent of instructor. LEC.

HA 589. Japanese Artistic Encounters with Europe and the United States. 3 Hours. NW / H.
Consideration of Japanese artistic responses to visual culture from Europe and the United States. The course focuses upon Japanese art from the 16th century to the present. Prerequisite: A college-level introduction to Asian art history or consent of instructor. LEC.

HA 590. Special Study in African Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in African art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. Prerequisite: An appropriate introductory-level course in art history or African Studies, or consent of the instructor. LEC.

HA 591. Special Study in Asian Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in Asian art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. Prerequisite: An appropriate introductory-level course in art history or Asian Studies, or consent of the instructor. LEC.

HA 592. Special Study in Ancient Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in ancient art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. Prerequisite: An appropriate introductory-level course in Art History or Classics, or consent of the instructor. LEC.
HA 593. Special Study in Medieval Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in medieval art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. Prerequisite: An appropriate introductory-level course in art history, or consent of the instructor. LEC.

HA 594. Special Study in Renaissance Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in Renaissance art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. Prerequisite: An appropriate introductory-level course in art history, or consent of the instructor. LEC.

HA 595. Special Study in Baroque Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in Baroque art, including courses taken through study abroad. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. Prerequisite: An appropriate introductory-level course in art history, or consent of the instructor. LEC.

HA 596. Special Study in American Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in American art. May be repeated for credit if content varies. Same topic may not be taken at both the 300 and 500-levels. Prerequisite: An appropriate introductory-level course in art history, or consent of the instructor. LEC.

HA 597. Special Study in Modern Art: ______. 1-6 Hours. H.
This course is designed for the study of special topics in modern art, including courses taken through study abroad. May be repeated for credit if content varies. Prerequisite: An appropriate introductory-level course in art history, or consent of the instructor. LEC.

HA 600. Biography of a City: ______. 3 Hours. H/W.
An interdisciplinary study of a city, covering its history, literature, and arts during the periods when the city’s culture reached its height. LEC.

HA 676. West African Art. 3 Hours. NW / H/W.
Introduction to the rich visual art traditions of West Africa. Emphasis is given to the major art-producing cultures of the Western Sudan and the Guinea Coast, including the archaeological cultures of Nigeria, Mali, and Ghana. The diverse forms of figure sculptures and masquerade performance and the meanings of these arts in historical and cultural contexts are examined. Upper division and graduate students can enroll for this course with appropriate course requirements. Not open to students who have taken AAAS 376/HA 376. (Same as AAAS 676.) LEC.

HA 677. African Design. 3 Hours. NW / H/W.
A survey of sub-Saharan African media, emphasizing textiles, ceramics, metal and bead work, the artist’s techniques, working methods and apprenticeship, and historical and contemporary cultural contexts, including the influence of tourism and the international art market on artistic production and style. Open to juniors, seniors, and graduate students only. (Same as AAAS 677.) Prerequisite: AAAS 376 or HA 376, or AAAS 578 or HA 578, or an introductory course in art history at the college level, or consent of instructor. LEC.

HA 679. African Expressive Culture: ______. 3 Hours. NW / H/W.
An in-depth examination of an artistic tradition shared by a number of African cultures. Discussion includes historical development related to style, use and meaning and other relevant issues critical to the topic. Open to juniors, seniors, and graduate students only. (Same as AAAS 679.) Prerequisite: AAAS 376 or HA 376, or AAAS 578 or HA 578, or an introductory course in art history at the college level, or consent of instructor. LEC.

HA 704. Seminar on Christian Iconography. 3 Hours.
A study of subject matter in the visual arts and of modes of representing certain themes and categories of ideas and meanings in the history of art. Prerequisite: Nine hours of history of art and knowledge of a foreign language. LEC.

HA 705. Major Artist: ______. 1-3 Hours.
The study in detail of a single artist or of an artist and his school or shop. Prerequisite: An introductory course in Western art history at the college level and the 400-level course in the period in which the artist’s work falls. LEC.

HA 706. Seminar on Special Problems in Art History: ______. 1-6 Hours.
Seminar dealing with particular art historical problems of a special and specific nature. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 707. Directed Readings. 1-6 Hours.
Supervised study and research into special fields of art of particular interest to the student. Weekly consultations and reports. RSH.

HA 710. Museum Techniques and Functions. 3 Hours.
Primarily for graduate students interested in pursuing a career in art museum work. The development of the museum idea, the activities of the art museum, as well as practical experience in the various fields of art museum curatorship and public activity are among the areas studied. LEC.

HA 712. Directed Museum Study. 1-6 Hours.
Supervised study and research projects related to art works in the permanent collections or special exhibitions of local museums of art. Planned in consultation with a faculty member and the director of the museum. RSH.

HA 715. Seminar in African Art. 3 Hours.
A concentrated study of a special topic relating to African Art studies. Different topics are offered in different semesters. (Same as AAAS 715.) Prerequisite: Nine hours of Art History and/or consent of instructor. LEC.

HA 716. Art of the Early Middle Ages in the West. 3 Hours.
A pro-seminar in the art of the West from the Migration Period through the art of the Carolingian Empire. LEC.

HA 719. Art Histories: Theory and Methodology. 3 Hours.
This course examines the major methodologies and theories that have shaped and continue to shape the field of art history. Through critical reading of primary, secondary, and interpretive texts, the course will analyze closely the history and current state of the discipline. Prerequisite: Nine hours of History of Art or consent of instructor. LEC.

HA 723. Romanesque Art. 3 Hours.
A study of Western European sculpture, painting, and architecture from the period of the Migrations, through the so-called "Dark Ages" to the creation of the Gothic style. Prerequisite: A survey of Medieval art. LEC.

HA 725. The Gothic Cathedral. 3 Hours.
The development and spread of Gothic architecture and sculpture in France, England, Spain, and Germany. Prerequisite: A college level introduction to Medieval art history. LEC.

HA 745. Dutch and Flemish Painting of the 17th Century. 3 Hours.
A detailed study of the art of Hals, Rembrandt and Vermeer, on the one hand, and of Rubens and Van Dyck on the other. Prerequisite: A survey of Northern Baroque art or consent of instructor. LEC.

HA 782. Japanese Painting. 3 Hours.
A survey covering the development of Japanese painting from the Kofun period down to the early twentieth century. Topics will include Buddhist
and other religious paintings, narrative handscrolls, suibokuga, decorative screens, genre paintings and ukiyo-e prints, and Western-style paintings of the Meiji and Taisho periods. Work requirements will be greater for students enrolled at the 700 level. Prerequisite: HA 265, or HA 267, or consent of instructor. LEC.

HA 788. Proseminar in Japanese Art. 3 Hours.
Critical analysis of readings on selected topics in Japanese art. May be repeated for credit up to a maximum of 12 hours. Prerequisite: Consent of instructor. LEC.

HA 789. Proseminar in Chinese Art. 3 Hours.
Critical analysis of readings on selected topics in Chinese art. May be repeated for credit up to a maximum of 12 credit hours. Prerequisite: Consent of instructor. LEC.

HA 805. Seminar in Graphic Arts: _____ 3 Hours.
A concentrated study of one or more artists, techniques, or movements. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. Prerequisite: A course in graphic art, or in a discipline related to the field of the seminar. LEC.

HA 806. Problems in Connoisseurship West: ______ 3-6 Hours.
The analysis of the work of a specific artist, medium or period, and developing a knowledge of the methods and means of establishing standards of quality and authorship. Includes study in Spencer and/or Nelson Museums. Prerequisite: Nine hours of art history and a reading knowledge of a pertinent foreign language. LEC.

HA 822. Seminar in Buddhist Art: ______ 3 Hours.
A concentrated study of selected problems dealing with Buddhist art in Asia. Different topics are offered in different seminars. May be repeated for credit up to a maximum of twelve hours. Prerequisite: Reading knowledge of Chinese or Japanese and consent of instructor. LEC.

HA 824. Seminar in Edo Period Painting: ______ 3 Hours.
Special study of one or more schools of painting of the Edo period (1615-1868) in Japan. Individual works will be analyzed in depth. Prerequisite: A course in Japanese painting. LEC.

HA 870. Seminar in Photographic History: ______ 3 Hours.
Advanced study of photographic images as made and used in the nineteenth and twentieth centuries. Requires primary research. Prerequisites include study of nineteenth century history of art. Specific topics vary. LEC.

HA 898. Franklin Murphy Seminar in Art History: ______ 3 Hours.
This seminar is given each spring by the Murphy Lecturer of the year and includes two weeks of intensive study with a nationally known expert in a special field of art history. The other weeks of seminar meetings for the semester are conducted by the faculty member most closely specialized in this field. Prerequisite: Consent of supervising faculty member. LEC.

HA 899. Thesis. 1-6 Hours.

HA 906. Seminar on Special Problems in Art History: ______ 1-6 Hours.
Seminar dealing with particular art historical problems of a special and specific nature. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 907. Directed Readings in Art. 1-12 Hours.
Supervised study and research into special fields of art of particular interest to the student. Weekly consultation and reports. Prerequisite: Nine hours of art history and a reading knowledge of a pertinent foreign language. RSH.

HA 910. Curatorial Problems: 3-8 Hours.
Primarily for the graduate student interested in art museum work. The student will engage in specialized research related to museum activities resulting in either a research paper, an exhibition, or a catalogue of some portion of the museum’s holdings. Prerequisite: Nine hours of history of art and a reading knowledge of a pertinent foreign language. LEC.

HA 920. Seminar in Early Medieval Art: ______ 3 Hours.
A study of selected problems dealing with the art of the early Middle Ages. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 925. Seminar in Northern Renaissance Art: ______ 3 Hours.
A study of selected problems dealing with the art of the earlier Middle Ages. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 930. Seminar in Italian Renaissance Art: ______ 3 Hours.
A study of selected problems dealing with the art of the later Middle Ages. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 935. Seminar in Northern Renaissance Art: ______ 3 Hours.
A study of selected problems dealing with the art of the later Middle Ages. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 940. Seminar in 17th Century Art: ______ 3 Hours.
A study of selected problems dealing with the art of the 17th century. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 950. Seminar in 18th Century Art: ______ 3 Hours.
A study of selected problems dealing with the art of the 18th century. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 955. Seminar in 19th Century Art: ______ 3 Hours.
A study of selected problems dealing with the art of the 19th century. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 960. Seminar in 20th Century Art: ______ 3 Hours.
A study of selected problems dealing with the art of the 20th century. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 965. Seminar in American Art: ______ 3 Hours.
A study of selected problems dealing with the art of the American. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. Prerequisite: Consent of instructor. LEC.

HA 970. Seminar in Photography and Fine Art: ______ 3 Hours.
Advanced study of the relationships between photographic images, prints, painting, mass media, illustration, and other forms of visual expression. Specific periods and areas of emphasis will vary. Prerequisite: Advanced study of nineteenth century history of art. LEC.

HA 980. Seminar in Chinese Art: ______ 3 Hours.
A study of selected problems dealing with the art of China. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 982. Seminar in Later Chinese Art: ______ 3 Hours.
A study of selected problems dealing with the art of the later Chinese. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 16 credit hours. LEC.
HA 990. Seminar in Japanese Art: _____. 3 Hours.
A concentrated study of one or two artists, monuments or movements. Different topics are offered in different semesters. May be repeated for credit up to a maximum of 12 credit hours. LEC.

HA 999. Doctoral Dissertation. 1-12 Hours.

Bachelor of Arts and Bachelor of General Studies in History of Art

Why study the history of art?
The study of the visual arts in their historical contexts enriches our understanding of human creativity and the human condition.

Undergraduate Admission

Admission to KU
All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Admission to the College of Liberal Arts and Sciences
Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

History of Art Programs
Bachelor’s degrees with majors in the history of art are offered in the College of Liberal Arts and Sciences (B.A. and B.G.S.) and in the School of the Arts (B.F.A.). See Bachelor of Fine Arts in History of Art (p. 172) in the School of the Arts Department of Visual Art section of the catalog for B.F.A. requirements.

Requirements for the B.A. or B.G.S. Major

History of Art Core Knowledge and Skills (15)
Select at least 1 course (3 hours) at or above the 200 level in each of these 5 categories:

- Ancient or Medieval Art. Satisfied by one Ancient or Medieval Art course.
- Renaissance or Baroque Art. Satisfied by one Renaissance or Baroque Art course.
- East Asian Art. Satisfied by one East Asian Art course.
- Non-Western (East Asian or African) Art. Satisfied by one Non-Western (East Asian or African) Art course.

Studio Art or Aesthetics Option (0)
A studio art or aesthetics course (or philosophy course approved by advisor).

History of Art Required Electives (0)
12 hours elective required if student takes a course in studio art or aesthetics.
15 hours elective required if student DOES NOT take a course in studio art or aesthetics.

Note: HA 100/HA 300 is a 1-semester survey of Western art history intended for non-majors and does not count toward the 30 required hours in art history. A student who takes HA 100 or HA 300 and then decides to major in art history must then also take either HA 150 or HA 151 (or both). A student who already has credit in either HA 150 or HA 151, however, should not take HA 100 or HA 300.

Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

- Major Hours
  Satisfied by 30 hours of major courses.
- Major Hours in Residence
  Satisfied by a minimum of 15 hours of KU resident credit in the major.
- Major Junior/Senior Hours
  Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.
- Major Junior/Senior Graduation GPA
  Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Graduation Plan
With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please consult the department for details.

Departmental Honors
The department invites art history undergraduate majors to apply for graduation with departmental honors. They must meet the following criteria:

1. An overall grade-point average of at least 3.25 and an art history grade-point average of 3.5 at the time of declaring intention to seek honors.
2. In consultation with the departmental honors coordinator and with approval from a supervising professor, declared intention of seeking honors no later than the time of enrollment for the final undergraduate semester.
3. Enrollment in an art history graduate seminar for which the student must write a substantial, original research paper to be submitted to the supervising professor as an honors essay.
4. Approval of the honors essay by the supervising professor and 2 other faculty members who, as a committee, certify to the departmental honors coordinator that the student has successfully completed the requirements to earn honors.

Minor in History of Art

Why study the history of art?
The study of the visual arts in their historical contexts enriches our understanding of human creativity and the human condition.

Requirements for the Minor

History of Art Minor Requirements
Students selecting this minor must complete a minimum of 6 History of Art courses. Satisfied by 18 hours of History of Art coursework. 12 of the 18 hours must be at the 300 level or above. With approval of the art history undergraduate advisor, 1 closely related course taught outside of the art history department (e.g., history of architecture or design) may count toward the minor.

Minor Hours & Minor GPA
While completing all required courses, minors must also meet each of the following hour and grade-point average minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 junior/senior (300+) hours of KU resident credit in the minor.

Minor Junior/Senior Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the minor. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Master of Arts in History of Art

Why study the history of art?
The study of the visual arts in their historical contexts enriches our understanding of human creativity and the human condition.

Admission to Graduate Studies
An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

Applications for the M.A. degree are expected to hold the B.A. or equivalent degree with an overall grade-point average of 3.3 or better and to have taken at least 6 college courses in art history or the equivalent, distributed to provide the basic foundation for advanced study. M.A. applicants should specify their area of proposed study (European and American art, or East Asian art).

Completed applications must be submitted by January 1 for fall admission. The Graduate Record Examination general test is required.

Submit your graduate application online (http://www.graduate.ku.edu).

The University of Kansas
Department of History of Art
Graduate Admissions
Spencer Museum of Art
1301 Mississippi St., Room 209
Lawrence, KS 66045-7500

M.A. Degree Requirements

The student must complete 30 hours of graduate credit, at least 21 of which must be in art history distributed according to department requirements. All course work must satisfy grade standards. The candidate must demonstrate proficiency in the reading of a foreign language, normally a major European language, Chinese, or Japanese. A general written examination (in European and American art or East Asian art) must be passed for the M.A. degree. After passing the M.A. examination, a student wishing admission to the doctoral art history program at KU must submit a petition for continuation of graduate studies and receive departmental approval for the petition.

Handbook for Graduate Students
A detailed presentation of departmental degree requirements and regulations is included in the department’s Graduate Student Handbook, available online (http://www2.ku.edu/~kuarthis).

Doctor of Philosophy in History of Art

Why study the history of art?
The study of the visual arts in their historical contexts enriches our understanding of human creativity and the human condition.

The department offers M.A. and Ph.D. degrees in European, American, and/or East Asian art history. The M.A. provides students with a broad knowledge of the visual arts in those fields, as well as an introduction to the basic concepts and methods of the discipline. The M.A. may be pursued as a terminal degree or as preparation to petition for specialized doctoral studies at KU or to apply elsewhere. The Combined M.A./Ph.D. is intended for students who want to pursue the Ph.D. in art history at KU, but who do not yet hold the M.A. degree in art history. The Ph.D. degree offers the opportunity for advanced research and concentration to
students who hold the M.A. degree in art history from KU or elsewhere. Both the Combined M.A./Ph.D. and Ph.D. students are eligible for competitive funding packages and GTA, GRA, and GA positions.

**Admission to Graduate Studies**

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

**Graduate Admission**

Applicants for the Ph.D. are expected to hold an appropriate M.A. degree.

**Admission to the Ph.D. program for students who receive the M.A. degree from KU:**

The M.A. student who wishes to be considered for admission to the Ph.D. program must complete and sign the Petition for Continuation in the Ph.D. Program form, which will be distributed at the M.A. exam and collected with the completed exams on day two of testing. It is expected that such students will already have expressed this interest to a potential major field advisor and received that faculty member’s support. The student must pass the M.A. exam in order for his/her petition to be considered by the graduate faculty. After receiving departmental approval for the petition and completing all requirements for the M.A. degree, the student will automatically be entered into the Ph.D. program and will be expected to maintain his/her enrollment as per Graduate Studies guidelines.

M.A. students who do not submit the petition at the time of the M.A. exam will need to reapply for admission to the art history graduate program.

The Combined M.A./Ph.D. student does not need to submit the Petition for Continuation in the Ph.D. Program form. He/she will be automatically evaluated by the graduate faculty upon successfully passing the M.A. exam to determine whether he/she remains eligible to continue to the Ph.D. or if the M.A. is the appropriate terminal degree. In most cases, Combined M.A./Ph.D. students will enter the Ph.D. program upon completion of the requirements for the M.A. degree.

Completed applications must be submitted by January 1 for fall admission. The Graduate Record Examination general test is required.

Submit your graduate application online (http://www.graduate.ku.edu).

**Ph.D. Degree Requirements**

Within 2 semesters after the completion of M.A. coursework (not counting the semester in which the students finishes M.A. coursework), the student, in consultation with a major advisor, prepares for review by the full Graduate Faculty a Doctoral Program of Study petition that proposes a primary field of specialization and 2 minor fields, 1 of which may be outside the department. The petition, as approved by the faculty, becomes the student’s program of study, which is then overseen by the major advisor and guided by a committee that includes the major- and minor-field advisors.

Ph.D. candidates must satisfy all general requirements. Ph.D. candidates must demonstrate proficiency in 2 research skills (normally foreign languages) relevant to their research; this requirement must be met before candidates are admitted to the comprehensive examinations for the doctorate. One of the 2 research skills is normally the foreign language that met the M.A. language requirement.

**Research Skills & Responsible Scholarship Requirement**

All graduate seminars include instruction in and discussion of appropriate research conduct and research misconduct; authorship, publication, plagiarism, copyright; peer review; and professional practices. For more information on the Research Skills and Responsible Scholarship requirement, please see the Graduate Studies section of the online catalog.

Students must take both written and comprehensive oral examinations at the end of their course work. Both written and oral examinations cover the major area and 2 minor areas specified in the student’s Doctoral Program of Study petition. The oral examination normally follows the written examination by 2 weeks.

Within no more than 2 semesters of passing the comprehensive oral examination, the candidate submits a dissertation proposal for faculty approval. Upon acceptance of the dissertation in final draft form, the candidate must successfully pass the final oral examination (the dissertation defense) to complete the degree.

**Handbook for Graduate Students**

A detailed presentation of departmental degree requirements and regulations is included in the department’s Graduate Student Handbook, available online (http://www2.ku.edu/~kuarthis).

**University Honors Program**

**Honors Courses**

Honors courses are open to qualified undergraduates in any school of the university.

**University Honors Program**

The University Honors Program (http://www.honors.ku.edu) provides opportunities for outstanding and creative undergraduate students in all schools at KU to develop their full potential during their undergraduate years. The Honors Program brings talented students together in honors classes and seminars to benefit from mutual interests and association. It brings students and faculty members together in a teaching and research environment that ensures high academic achievement and standards.
The program coordinates merit-based scholarship opportunities for qualified students, including KU awards such as the University Scholars Program. Honors Program staff are also responsible for the campus-wide nomination process for many competitive national awards, including the Goldwater, Truman, Rhodes, Marshall, Mitchell, and Udall scholarship. Students interested in these opportunities receive guidance from Honors Program staff for all aspects of these applications.

The Honors Student Council, the Honors Ambassador Program, and Peer Mentor Program provide opportunities for student leadership.

In general, honors classes are small, oriented to discussion, and taught by full-time members of the faculty. Most honors courses fulfill requirements and deal with introductory fundamentals and principles, but they are likely to do so in more depth than their non-honors equivalents. Honors courses are distinguished by the energetic atmosphere and critical thinking generated by the students in them and the faculty members who teach them.

Honors students are interested in expanding their knowledge and take a broad range of liberal arts and sciences courses. This is true of students in the professional schools (architecture, engineering, business, etc.) as well as students in the College of Liberal Arts and Sciences. Honors program advisors typically recommend that students explore their interests through the broad curriculum choices KU has to offer.

A first-year, semester-long tutorial experience provides an introduction to an academic area of study in an informal setting that allows students to get to know one another and the instructor. The tutorial explores the research methods of a discipline and acquaints the student with the research resources at KU.

Honors advising is personalized in meetings with honors staff, faculty fellows, and specially selected advisors from across the university. The program’s staff facilitates early and frequent contact with academic advisors in the students’ areas of interest. Honors students benefit from priority enrollment, which provides flexibility in planning one’s academic curriculum.

The program does not require a minimum number of honors courses a semester. However, students in the program quickly discover that honors courses engage the intellect, hold the interest, and create the enthusiasm for learning they seek at a university. Students in the professional schools are particularly encouraged to seek out honors course opportunities early, while their curricula still have breadth and flexibility.

Honors students are strongly encouraged to include research, study abroad experiences, internships, and community service in their academic programs. Consult Honors Program staff about applying these activities toward completion of honors requirements.

**Admission**

Students with strong high school curricula and excellent academic records are encouraged to apply to the University Honors Program. Students with composite ACT scores of 30 or above and unweighted high school grade-point averages of 3.75 or above are more likely to be admitted. Applications are evaluated on the basis of high school curriculum, grades, an essay, activities, and standardized test scores. Applications from first- and second-year students currently attending KU, as well as incoming transfer students, are evaluated on the basis of college course work, an essay, and college activities. Review of applications begins in October and continues through April. Send inquiries to the University Honors Program, 1506 Engel Road, Lawrence, KS 66045-3845. View further information and the online application (http://www.honors.ku.edu).

**Completion of the Program**

Students graduate from the program by completing 8 honors units and the first-year, semester-long tutorial. The 8 units must be completed as follows:

1. 6 honors courses (may include graduate-level courses numbered 700 and above).
2. 1 out-of-classroom experience such as study abroad, departmental honors, documented research experience, approved and documented internship experience, or approved and documented community service.
3. The eighth unit may be from either category 1 or category 2. Students also must maintain a minimum 3.25 grade-point average.

**Nunemaker Center**

This unique building, with its modern architectural design, is the home of the Honors Program, near the Daisy Hill residence halls at 15th Street and Engel Road. The Honors Program is home to several faculty fellows who serve the program and bring additional resources to the program to complement the full-time staff. Faculty fellows are available for advising, consultation about majors and careers, and guiding research projects.

Students are encouraged to take advantage of the spaces available at Nunemaker, including several classrooms and study areas, a kitchen, comfortable lounges that include 2 fireplaces, and wireless Internet access. Nunemaker also serves as a gallery for undergraduate art. The center is open days and evenings.

**Courses**

**HNRS 177. First Year Seminar: _____**. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Honors. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**HNRS 190. Freshman Honors Seminar. 1 Hour. U.**
This seminar serves as an introduction to the Honors Program, to the research opportunities and other academic resources available at the University of Kansas and to specific disciplinary perspectives on an overarching theme. While closely examining a topic germane to the instructor, students develop skills in research, reading, writing and in-depth discussion. The instructor of the student’s seminar also serves as the academic honors advisor for the enrolled students. Required of all freshman Honors students; open only to freshmen in the University Honors Program. LEC.

**HNRS 195. Transfer Honors Seminar. 1 Hour. U.**
This seminar serves as an introduction to the Honors Program, and to the research opportunities and other academic resources available at the University of Kansas. This seminar fosters the transfer students’ oral and written communication and the critical assessment of their academic and pre-professional goals. The instructor of the student’s seminar also serves as the academic honors advisor for the enrolled students. Open only to transfer students in the University Honors Program. LEC.

**HNRS 300. Honors Commons Course. 3 Hours. H.**
An opportunity to investigate a broad topic across various subjects and disciplines. In alliance with the University Commons at Spooner Hall,
this course examines a problem or topic from perspectives of several disciplines across the arts, sciences, social sciences and humanities. The course is complemented by a dedicated annual university lecture series germane to the course’s topic. Prerequisite: Membership in the University Honors Program. LEC.

HNRS 310. University Scholars Seminar. 3 Hours. U.
An interdisciplinary survey to acquaint students with some of the main ideas, methods, and outstanding problems in various areas of scholarship. The organization of human knowledge inside and outside the university, as well as the implications of this organization for scholarship and society, are emphasized. Ideas and methods in various disciplines are contrasted and compared. Required of and open only to newly admitted students in the University Scholars Program. LEC.

HNRS 320. Global Scholars Seminar. 3 Hours. H.
The Global Scholars Seminar is designed to foster academically talented and motivated undergraduate students’ interest in global studies. Through interdisciplinary coursework, mentorship and research experience in global studies, the seminar provides cohorts of students with opportunities to develop their intellectual capabilities and interests to the fullest and better prepares them for careers, further study, and leadership roles in today’s complex international arena. Required of and open only to newly admitted students in the Global Scholars Program. LEC.

HNRS 430. Honors Interdisciplinary Seminar. 3 Hours. U.
An opportunity to synthesize topic across various subjects and disciplines. This course examines a problem or topic from the perspectives of several disciplines. Open to qualified sophomores, juniors, and seniors in the University Honors Program. LEC.

HNRS 492. Topics and Problems on: ______. 1-6 Hours. U.
An interdisciplinary study of different topics. Designed especially for juniors and seniors. LEC.

HNRS 495. Honors Directed Study. 1-3 Hours. U.
Individual and supervised study of an interdisciplinary topic or topics. May be repeated for a total of up to 6 hours. Up to one 3-hour enrollment will count as one course toward completion of the University Honors Program. Prerequisite: Membership in the University Honors Program and consent of the instructor. IND.

HNRS 496. Honors Internship. 1-3 Hours. U.
Students participate in an internship in an organization related to their professional/career goals. An internship plan is developed by the student in conjunction with the student’s academic adviser and an authorized agent of the internship site. Prerequisite: Instructor permission required. LEC.

HNRS 497. Honors Freshman Seminar Assistantship. 0 Hours.
Open to all Honors students selected to be Honors Freshman Seminar Assistants, regardless of major field. These students assist Seminar instructors in the teaching of an Honors seminar in various ways, including but not limited to: leading group discussion; engaging students in the learning process; developing classroom material; encouraging and guiding students to solve problems themselves and helping students prepare for their advising assignments. Offered fall semester only. May be repeated. LEC.

HNRS 520. University Scholars Junior/Senior Seminar. 2-3 Hours. U.
An interdisciplinary seminar course designed for advanced-level students in the University Scholars Program. Faculty mentors are invited to attend. Will count toward completion of the University Honors Program. Prerequisite: HNRS 310 or concurrently. LEC.

Humanities and Western Civilization Program

Why study the Humanities and Western Civilization?

Because integrated learning in the humanities fosters broad cultural understanding by exploring the connections among diverse areas of knowledge.

Western Civilization

Western Civilization Courses

Western Civilization courses are offered through the Humanities and Western Civilization Program. These general education courses form a 2-semester interdisciplinary program that critically examines the ideas and values of Western culture from its early expressions in ancient Greece, Rome, and Israel through the modern period.

The presentation of material is both historical and thematic. It offers a guided study of the past to help us better understand the present and envision the future. Influential authors and writings in Western arts and sciences direct attention to the enduring questions of how to lead a satisfying and worthwhile human life. Themes are selected issues organized to focus goals and generate student discussion:

1. The good life,
2. Work and economic life,
3. The citizen and the state,
4. Knowledge and education,
5. Intimacy and social life,
6. Nature and the supernatural, and

Western Civilization I and II are designated writing-intensive courses by the College and require students to complete 3,000 to 4,000 words of written work each semester in addition to essay portions of midterm and final examinations.

Companion Courses

Students may find these 100- through 300-level courses helpful, either as background to or taken concurrently with Western civilization. Principal courses are marked with an asterisk.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CLSX 148</td>
<td>Greek and Roman Mythology</td>
<td>3</td>
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<tr>
<td>COMS 232</td>
<td>The Rhetorical Tradition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 300</td>
<td>The Bible, the Classics, and Modern Literature</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 100</td>
<td>World Regional Geography</td>
<td>3</td>
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<tr>
<td>HIST 105</td>
<td>Introduction to Ancient Near Eastern and Greek History</td>
<td>3</td>
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<td>HIST 106</td>
<td>Introduction to Roman History</td>
<td>3</td>
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<td>HIST 108</td>
<td>Medieval History</td>
<td>3</td>
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<tr>
<td>HIST 114</td>
<td>Renaissance to Revolution: Europe 1500-1789</td>
<td>3</td>
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<tr>
<td>HIST 115</td>
<td>French Revolution to the Present: Europe 1789-</td>
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<td>HA 100/300</td>
<td>Introduction to Western Art History</td>
<td>3</td>
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</table>
and work closely with a faculty advisor. Majors may choose a track in departments. They can create integrated interdisciplinary programs fulfilling the humanities principal course requirement.

HWC 308, HWC 312, and HWC 430 are recommended to nonmajors for studying abroad programs in Florence, Italy; and Paris, France. Contact the Office of Study Abroad (http://www.studyabroad.ku.edu).

Courses

**HWC 110. Introduction to Humanities. 3 Hours. HL GE21/GE3H / H.**

An introduction to the humanities as a division of learning and to interdisciplinary study in the humanities. Topics include the history and role of the humanities in a liberal education; perspectives and methods in the humanities, the humanities and human diversity, and interdisciplinary approaches to understanding and interpreting texts. Prerequisite: Membership in the University Honors Program. LEC.

**HWC 114. Western Civilization I Honors. 3 Hours. AE42/GE11/GE21 / H.**

A program of study emphasizing the reading and discussion of some of the influential writings and ideas that have shaped the intellectual and cultural heritage of the Western world. Western Civilization I includes readings from the ancient, medieval, and early modern periods. Prerequisite: Membership in the University Honors Program or permission of department. LEC.

**HWC 115. Western Civilization II Honors. 3 Hours. AE42/GE11 / H.**

A program of study emphasizing the reading and discussion of some of the influential writings and ideas that have shaped the intellectual and cultural heritage of the Western world. Western Civilization II includes readings from the modern period. Prerequisite: Membership in the University Honors Program or permission of department. LEC.

**HWC 150. Civilizations and the Individual. 3 Hours. HL GE3H / H.**

Introduction to perennial themes that define human experience through reading and discussion of primary texts. Topics may include the nature of humanity; nature and the supernatural; the individual and the state. LEC.

**HWC 151. Civilizations and Individual, Honors. 3 Hours. HL GE3H / H.**

Honors version of HWC 150. Introduction to perennial themes that define human experience through reading and discussion of primary texts. Topics may include the nature of humanity; nature and the supernatural; the individual and the state. Prerequisite: Membership in the University Honors Program, or permission of instructor LEC.

**HWC 177. First Year Seminar: _____, 3 Hours. GE11 / U.**

A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Humanities and Western Civilization. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year
HWC 204. Western Civilization I. 3 Hours. AE42/GE11/GE21 / H.
A program of study emphasizing the reading and discussion of some of the influential writings and ideas that have shaped the intellectual and cultural heritage of the Western world. Western Civilization I includes readings from the ancient, medieval, and early modern periods. Prerequisite: Not open to freshmen except members of the University Honors Program. LEC.

HWC 205. Western Civilization II. 3 Hours. AE42/GE11 / H.
A program of study emphasizing the reading and discussion of some of the influential writings and ideas that have shaped the intellectual and cultural heritage of the Western world. Western Civilization II includes readings from the modern period. LEC.

HWC 206. Contemporary Western Civilization. 3 Hours. HL GE11/GE3H / H.
A sequel to the two Western Civilization courses which offers the opportunity to examine influential works of literature, philosophy, history, and political thought written since the end of World War II. In keeping with the decline of colonialism and the growth of global and multicultural civilization since 1945, the readings of the course are selected from both Western and non-Western writers. LEC.

HWC 300. Studies In: ______. 3 Hours. H.
An interdisciplinary course, focusing on different topics and drawing on diverse media, cultures, and historical periods. Humanities-based, this course, depending on its topic, may include the arts, the social sciences, and the natural sciences. May be repeated for credit with different topics. LEC.

HWC 302. European Culture and Society 1945 to Present. 3 Hours. HT AE42 / H.
The course provides historical, cultural, and political overviews of Europe since 1945 with particular emphasis on the contribution of French and Italian culture and society. The course emphasizes Europe’s contribution to Western intellectual thought, social movements, arts and literature, and global society. (Same as EURS 302.) LEC.

HWC 304. World Literature I. 3 Hours. HL GE3H / H.
The study of great books in English translation from antiquity through the fifteenth century from two or more national literatures. LEC.

HWC 308. World Literature II. 3 Hours. HL GE3H / H.
The study of great books in English translation from the sixteenth, seventeenth, eighteenth, and early nineteenth centuries from two or more national literatures. LEC.

HWC 312. World Literature III. 3 Hours. HL GE3H / H.
The study of great books in English translation in the modern period (late nineteenth and twentieth centuries) from two or more national literatures. LEC.

HWC 317. Greek and Roman Art. 3 Hours. H/W.
A survey of the art of ancient Greece and Rome (ca. 1000 B.C.E. -500 C.E.). Emphasis on major sites, architecture, sculpture, and painting. Illustrated lectures and discussion; use of the Wilcox Classical Museum. No knowledge of Greek or Latin is required. Not open to students who have taken both CLSX 526/HA526 and CLSX 527/HA 537, except with permission of the instructor. (Same as CLSX 317, HA 317.) LEC.

HWC 324. Undergraduate Writing & Research Methods. 1 Hour. H.
Preparation for senior thesis project required of HWC majors. Introduction to writing strategies, library investigation, and time management skills. Open to HWC majors and others engaged in research and writing at the undergraduate level. Class will proceed by discussion of skills, methods, and examples, and will culminate in a written proposal from each student. LEC.

HWC 325. Theory and Method in Interdisciplinary Studies in the Humanities. 3 Hours. H.
An introduction to recent cultural theory and interdisciplinary methods used across the humanities and qualitative social sciences. Includes examination of traditional views of the humanities and its implicit cultures along with discussion of new methodologies of cultural analysis. LEC.

HWC 328. Law and the Legal Profession. 3 Hours. H.
An overview of Western Legal education, both in historical and modern contexts. Legal subjects such as constitutional law, contracts, property, the courts and ethics are also studied. Students gain perspective on law as a profession, and the legal environments in which we live. Note: this course does not guarantee admission to law school or constitute entry into the legal profession as a career. It is intended to provide information and help students identify interests in the field of legal study. LEC.

HWC 335. Introduction to Indigenous Studies. 3 Hours. NW / H.
This course is an introduction to the study of modern and historic indigenous peoples. It surveys the concepts, methods and content relevant to Indigenous Studies, using case studies drawn from the diverse indigenous cultures. Special attention is paid to the various ways in which standard academic disciplines --history, anthropology, literature, law, political science, among others --contribute to the study of Indigenous cultures and current issues. The course illustrates that the social, political, religious, and economic aspects of indigenous life are interconnected and tribal histories and cultures cannot be understood without an awareness of these fields. (Same as ISP 335.) LEC.

HWC 348. American Indian and White Relations to 1865. 3 Hours. H.
This course provides an intensive survey of the Indians of North America from Prehistory to 1865, and focuses on ancient indigenous cultures, early European-Indian relations and the impact of European culture upon the indigenous peoples of North America. (Same as HIST 351, ISP 348.) LEC.

HWC 350. American Indians Since 1865. 3 Hours. H.
This course examines American Indian/White relations from reconstruction to the present. It surveys the impact of westward expansion and cultural changes brought about by the Civil War, forced education, intermarriage, the Dawes Act, the New Deal, the World Wars, termination, relocation and stereotypical literature and movies. The class also addresses the Red Power and AIM movements, as well as indigenous efforts to decolonize and to recover and retain indigenous knowledge. After learning about the past from both Native and non-Native source materials, students will multiple perspectives about historical events and gain understandings of diverse world views, values, and responses to adversity. (Same as HIST 352 and ISP 350.) LEC.

HWC 370. The Twentieth Century. 3 Hours. H.
An integrated study of several disciplines such as history, philosophy, art, music, and literature as they relate to the twentieth century in one country, or one historical or aesthetic movement occurring during this time. LEC.

HWC 374. Gender and Sexuality, Ancient and Modern. 3 Hours. H.
Classical Greek and Roman attitudes to gender and sexuality compared and contrasted with modern nations and behaviors. Attention is paid to literature (dramatic, philosophical, medical, and legal texts) and archaeological evidence (vase painting, sculpture, and domestic architecture). The course may include the following topics: age divisions and rites of passage from childhood to maturity; marriage; conception, birth, and infanticide; the family; love; homoeroticism; property and economics; and sexuality and the law, politics, and religion. No knowledge of Greek or Latin is required. (Same as CLSX 374.) LEC.
HWC 380. Modern Themes, Ancient Models: ______. 3 Hours. H.
The study of the evolution of a cultural or literary tradition from the
Graeco-Roman world into modern times. The theme of the course will
normally vary from semester to semester; topics such as these may be
examined: the analysis of a literary genre (e.g. drama, satire, lyric), the
transformation of the ancient mythical heritage, the reception of ancient
astronomy. Students should consult the Schedule of Classes for the
theme of the course in a given semester. With departmental permission,
may be repeated for credit as topic varies. (Same as CLSX 350.) LEC.

HWC 390. Comparative Literary Theory. 3 Hours. H.
A study of selected works in literary theory and of selected problems in
literary interpretation and comparative literary methodology, designed to
examine and apply systematically basic critical principles and approaches.
Study of approaches such as feminism, Marxism, deconstruction,
psychoanalysis, and cultural studies are carried out through discussion
and writing. Prerequisite: Completion of the freshman-sophomore English
requirement or its equivalent. LEC.

HWC 410. Dante's Comedy. 3 Hours. H.
The complete Divine Comedy will be read in English translation, with
equal stress on each of its three parts--the Inferno, the Purgatory, and the
Paradise. The poem will be explained for the general reader by specialists
having a variety of perspectives. (Same as HIST 420.) LEC.

HWC 420. The Interrelations of the Humanities and the Arts. 3 Hours.
An interdisciplinary seminar on the relations of several of the humanities
and the arts. Topics will vary, but the interrelation of the humanities and
arts will be the central focus. Not open to freshmen and sophomores;
recommended in the junior year. Required of students majoring in
humanities. LEC.

HWC 424. Senior Seminar in Humanities. 3 Hours. AE61 / H.
A seminar to result in the student’s integration of knowledge within the
Humanities major. Students undertake a project that reflects and utilizes
the interdisciplinary perspectives of the humanities. Options for the final
project include a portfolio, web page, or significant writing project. Not
open to freshmen and sophomores; recommended in the senior year.
Prerequisite: Completion of at least 9 hours of upper division courses in
the major. IND.

HWC 430. European Civilization in World Context: ______. 3 Hours.
HL AE42/GE3H / H.
An introduction to the literature of encounters between European and
non-European civilizations, drawing on both Western and non-Western
sources. The course may include European interactions with areas such as
the Mediterranean Basin, Sub-saharan Africa, South and East Asia,
and the Americas. World areas and historical periods chosen for study
will vary from semester to semester according to the interest and field of
the instructor. Not open to freshmen. (Same as EARS 430.) Prerequisite:
HWC 114 or HWC 204 and HWC 115 or HWC 205. LEC.

HWC 435. Islam in Europe. 3 Hours. AE42 / H.
Investigation of Muslim migration into Europe and day-to-day interactions
of Muslims with other European populations. This is an integrated study
of historical, political, religious and economic influences that determine
Muslim experience in contemporary European culture. (Same as EARS
435.) LEC.

HWC 436. Islam in Europe, Honors. 3 Hours. H.
Investigation of Muslim migration into Europe and day-to-day interactions
of Muslims with other European populations. This is an integrated
study of historical, political, religious and economic influences that
determine Muslim experience in contemporary European culture.
Prerequisite: Membership in the University Honors Program or permission
of department. Not open to students who have completed EURS/HWC
435 LEC.

HWC 460. Animals in Art and Literature. 3 Hours. H.
A study of the role of animals (especially mammals), both wild and
domesticated, in defining the nature of human beings and human culture
through the disciplines of religious studies, philosophy, history, art and
literature. Both western and non-western courses are examined. LEC.

HWC 464. Visions in Art and Literature. 3 Hours. H.
A study of the phenomenon of visions, their expression in various
media, and theories of visionary experience from the humanities and
social sciences, with a particular emphasis on critically evaluating the
relationship between the visionary experience and its expression. (Same
as REL 464.) LEC.

HWC 468. Illness in Art and Literature. 3 Hours. H.
An examination of how illness and health have been conceptualized,
expressed, and explored in Western literature and art, as well as a
consideration of issues and health from the perspectives of philosophy
and religious studies. (Same as REL 468.) LEC.

HWC 470. American Health Care: From Origins to Modern Models. 3
Hours. H.
An interdisciplinary analysis of the historical origins and present currents
within American medicine. This is an integrated study of basic historical,
political, economic and professional influences that underlie the character
and practice of health care in our century. LEC.

HWC 477. Gender and Religion. 3 Hours. H.
Examination of the symbols, images, scriptures, rites and teachings that
define gender in various religious traditions. (Same as REL 477.) LEC.

HWC 490. Roots of Federal Indian Policy. 3 Hours. H.
This course introduces students to the basic concepts and ideologies
of US Federal Indian policy. It surveys European intellectual trends that
were influential in creating policies applied to colonized native peoples.
The course explores the origins of such policies, including removals,
“civilization programs;” the reservation period, the Dawes (Allotment)
Act, the New deal, termination, relocation, NAGPRA and tribal rights, in
addition to issues surrounding American Indian identity, tribal membership
demographics. This course serves as a foundation for more in-depth
study of Federal Indian Law pertinent to the Indigenous peoples of the
United States. (Same as ISP 490.) LEC.

HWC 494. Humanities Directed Study: ______. 1-3 Hours. AE61 / H.
Investigation of a subject in fields or on topics not covered in regularly
scheduled courses. May be repeated for a total of 6 hours. Does not
replace or satisfy specific course requirements for the HWC major. May
be counted as part of the total junior-senior credit hours required. LEC.

HWC 500. Studies in: ______. 3 Hours. H.
A study of significant themes, topics, or problems in the humanities. May
also relate an issue in the humanities to the social sciences or natural
sciences. May be repeated for credit when the topic varies. LEC.

HWC 505. Europe Today. 3 Hours. AE42 / H.
An exploration of major social, political and economic developments post
World War II including the rise of the European Union, the integration of
Eastern and Western Europe, the growing role of Islam, attitudes towards
the United States, and Europe’s role in the world economy. Topics may
vary based on current events. LEC.

HWC 510. Science, Technology, and Society. 2-3 Hours. H.
The objective of this course is to provide members of the university
community with information that enables them to judge the humanistic,
moral, and ethical implications of scientific and technological
developments. Formal presentations by guest lecturers, followed by
question-and-answer periods, will alternate with panel discussions, symposia, etc., prepared by faculty members drawn from the various departments, schools, and organizational units of K.U. LEC.

HWC 514. Totalitarianism and Literature in Central Europe. 3 Hours. H.
This course asks how fiction written in Central Europe engaged and grappled with the totalitarian experience imposed by Nazi and Soviet forms of government. The course focuses on the works by 20th-century Polish, Czech, and Hungarian writers that deal with totalitarianism. (Same as SLAV 514.) LEC.

HWC 520. Literature in Translation: _____. 3 Hours. H.
Studies in one or more national literatures. Discussion and frequent critical papers. Prerequisite: Completion of one junior-senior level course in a language and literature department. LEC.

HWC 524. Chinese Thought. 3 Hours. NW / H/W.
A survey of the principal modes of Chinese thought from their origins through the imperial period. Not open to students with credit in EALC 132. (Same as EALC 642 and PHIL 506.) Prerequisite: Eastern civilization course or a course in Asian history or a distribution course in philosophy. LEC.

HWC 530. Study of a Culture: _____. 3 Hours. H/W.
An interdisciplinary study of elements that have contributed to the development of a particular civilization, such as Irish, Scottish, or Scandinavian. LEC.

HWC 538. Pompeii and Herculaneum. 3 Hours. H.
An interdisciplinary treatment of the art and archaeology of the ancient Roman cities of Pompeii and Herculaneum in Italy. Emphasis on the structures and decorations of major public spaces and houses and on aspects of cultural, social, political, commercial and religious life from the period of the second century B.C.E. to 79 C.E., when Pompeii and Herculaneum were buried by the eruption of Mt. Vesuvius. Slide lectures and discussion. (Same as CLSX 538, HA 538) Prerequisite: Graduate status, or 6 credit hours in Classics, Greek, Latin, History of Art, or permission of the instructor. LEC.

HWC 540. Translation. 3 Hours. H.
Students will undertake substantial work in the translation of non-technical writing, e.g., poems, short stories, novels, essays, from any foreign language to English, and examine the practical and theoretical problems encountered in or raised by translation. Prerequisite: Satisfactory completion of at least third-year foreign language work. LEC.

HWC 552. Foodways: Latin America. 3 Hours. H.
This course explores the traditional foods, ways of eating, and cultural significance of food among peoples of Latin America. The course surveys the vast array of flora in Central and South America and the Caribbean, and focuses on issues of environmental protection, bioethics, food security, and the growth of farming and ranching. The class studies the impact that foods such as maize, potatoes and cacao have had globally, and includes African, Asian, and European influences on Latin cuisine, as well as health problems associated with dietary changes. (Same as HIST 512, ISP 552, and LAA 552.) Prerequisite: Upper division course on Latin America, or permission of the instructor. LEC.

HWC 566. The Devil in Russian Literature. 3 Hours. H.
This course traces the various manifestations of the Devil through Russian and European folklore, myth, theology, culture, and literature. Although the focus is on Russian literature, classic European works are discussed, as they had a powerful impact on the modern Russian conception of the Evil One. Readings in English. (Same as SLAV 566.) LEC.

HWC 570. Men and Masculinities. 3 Hours. H.
An intensive examination of the history and theory of masculinities in the Western world. Students become acquainted with some of the key theories of men and masculinities, and develop research projects on a topic negotiated with the instructor. (Same as EALC 542, WGSS 570.) Prerequisite: An upper-division course in History, Humanities and Western Civilization, or Women Gender and Sexuality Studies; or permission of instructor. LEC.

HWC 575. The Body, Self and Society. 3 Hours. H.
An intensive examination of the role of the human body in the creation of personal and social identities in the Western world. Students become acquainted with contemporary theories of embodiment and senses as they are applied to a variety of historical themes, and develop research projects on a topic negotiated with the instructor. (Same as HIST 625, WGSS 575.) Prerequisite: An upper-division course in History, Humanities and Western Civilization, or Women Gender and Sexuality Studies; or permission of instructor. LEC.

HWC 600. Biography of a City: _____. 3 Hours. AE42 / H/W.
Examination in depth of the historical, social, and artistic growth and development of one major urban center. LEC.

HWC 620. Study of a Culture: _____. 3 Hours. H/W.
An interdisciplinary study of elements that have contributed to the development of a particular civilization, such as Irish, Scottish, or Scandinavian. LEC.

HWC 770. Research in Men and Masculinities. 3 Hours.
An intensive examination of the history and theory of masculinities in the Western World since the sixteenth century. Students will become acquainted with some of the key theories of men and masculinities, examine in depth the interplay between manhood and modernity, and develop research projects on a topic negotiated with the instructor. May be repeated if content varies sufficiently. LEC.

HWC 775. Advanced Study in the Body and Senses. 3 Hours.
An intensive examination of the role of the human body in the creation of personal and social identities in the West since the sixteenth century. Emphasis is on understanding how contemporary theories of embodiment are applied to concrete historical or contemporary problems. May be repeated if course content varies sufficiently. LEC.

PCS 120. Introduction to Peace and Conflict Studies. 3 Hours. HT GE11/GE3H / H.
An introduction to the content and methods of peace studies. Peace studies is a multidisciplinary and interdisciplinary approach to the study of war and peace. Building on and integrating the work of various fields of study, the course examines the causes of structural and direct violence within and among societies and the diverse ways in which humans have sought peace, from conquest and balance of power to international organizations and nonviolent strategies. LEC.

PCS 121. Introduction to Peace and Conflict Studies, Honors. 3 Hours. H.
An introduction to the content and methods of peace studies. Peace studies is a multidisciplinary and interdisciplinary approach to the study of war and peace. Building on and integrating the work of various fields of study, the course examines the causes of structural and direct violence within and among societies and the diverse ways in which humans have sought peace, from conquest and balance of power to international organizations and nonviolent strategies. Open only to students admitted to the University Honors Program or by permission of instructor. Not open to students who have completed PCS 120. LEC.
PCS 329. History of War and Peace. 3 Hours. HL / H.
A study of the changing nature of warfare and the struggle to bring about peace. Topics include pacifism, the "military revolution" that created the first professional armies; the development of diplomatic immunity, truces, and international law; the peace settlements of Westphalia, Utrecht, Vienna, Versailles, San Francisco; the creation of peace movements and peace prizes; the evolution of total war, civil war; and guerrilla warfare involving civilians in the twentieth century; the history of the League of Nations and United Nations; and the rise of intergovernmental and non-governmental organizations. (Same as HIST 329 and EURS 329.) LEC.

PCS 550. Classics of Peace Literature. 3 Hours. HL AE51/AE61 / H.
A study of influential proposals for world peace from Erasmus' 'The Complaint of Peace (1515) to the 1995 Hague Appeal for World Peace. Selected writings by such authors as Erasmus, Hugo Grotius, Jean-Jacques Rousseau, Immanuel Kant, Henry Thoreau, Henri Dunant, Berthe von Suttner, Woodrow Wilson, Mahatma Gandhi, and Martin Luther King, Jr., are considered. (Same as EURS 550.) Prerequisite: HWC 204 or HWC 205. LEC.

PCS 555. Topics in Peace and Conflict Studies: ____. 3 Hours. H.
This course offers specialized or interdisciplinary perspectives on historical, political, social, and religious movements, institutions, societies, agencies, or texts dealing with conflict resolution. May be repeated for credit with different topics. LEC.

PCS 556. Education for Peace and Non-Violence. 3 Hours. H.
This course reviews the history, aims and methodology of peace education. Topics include examination of the roots and causes of social violence; educational initiatives that seek to reduce structural and direct violence; and teaching methodologies in the field of multicultural education and pedagogy. LEC.

PCS 560. Directed Study in Peace and Conflict Studies. 1-3 Hours. AE61 / H.
Practicum or research under the supervision of a faculty member and with the approval of the Peace and Conflict Studies Minor. Individual conferences, reports, and papers, and, in the case of practicum, supervised experience with an approved organization or agency. Prerequisite: Completion of three core courses in the minor. IND.

PCS 565. The Literature of Human Rights. 3 Hours. H.
Examines in literature, art, and film from about 1800 to the present, both sides of the ongoing debate surrounding the idea that all human persons possess inalienable rights because all persons possess intrinsic value as persons, value independent of race, gender, caste or class, wealth, age, sexual preference, etc. Anti- and pro-rights proponents are paired and studied with equal care. (Same as EURS 565.) LEC.

PCS 560. Senior Seminar in Peace and Conflict Studies. 3 Hours. AE61 / H.
This capstone seminar provides a sustained and in-depth study of a particular topic in Peace and Conflict Studies, to be chosen by the instructor. Each student is required to carry out a substantive research project to produce a term paper or comparable work. Required for completion of minor. Prerequisite: Students must have completed at least nine hours in the minor before enrolling. LEC.

PCS 760. Investigation and Conference in Peace and Conflict Studies. 3 Hours.
Research under the supervision of a faculty member and approved for the Peace and Conflict Studies program. Individual conferences, reports, and papers; may be combined with classwork. Open only to graduate students. LEC.
Requirements for the B.A. Major

Humanities Major Core Knowledge and Skills

The Humanities major requires a total of 30 credit hours. Students must take courses in at least 3 humanities or social science departments or programs with a maximum of 15 hours from 1 department (except HWC in which students will take more than 15 hours). 18 of the 30 credit hours must be in courses numbered 300 or above.

Note: Sharing course work (credit hours) between any of the HWC major tracks and another major is restricted to 6 hours.

All other courses taken toward the major must be approved by the HWC undergraduate coordinator.

Majors must choose 1 of the following tracks: Civilizations in a Global Context, World Literatures, or Peace and Conflict Studies.

Majors are strongly encouraged to study abroad. Please see your advisor about this opportunity.

Track 1: Civilizations in a Global Context

Civilizations in a Global Context

This track studies aspects of the cultures of Western civilization and of one non-Western civilization (e.g., Africa, Asia, the Middle East, or Latin America). It is designed to provide the student with knowledge of diverse civilizations and with methods for investigating their differences and commonalities. 30 credit hours, to include the following:

Introductory and Capstone Coursework (6)

6 hours of introductory and capstone coursework:

HWC 110 Introduction to Humanities
or HWC 111 Introduction to Humanities, Honors

HWC 424 Senior Seminar in Humanities (The senior essay for this track is to be a comparative and integrative study of a topic that bridges the two civilizations studied.)

24 additional hours to include: (24)

HWC 206 Contemporary Western Civilization
HWC 430 European Civilization in World Context: _____

9 hours in aspects of the cultures of Western Civilization, 1 of which must be an HWC course.

9 hours in aspects of the cultures of non-Western civilization

Track 2: World Literatures

This track offers literary-critical studies of both Western and non-Western literatures. It provides the student with knowledge of diverse literary traditions and methods for investigating their differences and commonalities. Majors choosing this option must complete 30 credit hours to include the following:

Introductory and Capstone Coursework (6)

6 hours of introductory and capstone coursework:

HWC 110 Introduction to Humanities
or HWC 111 Introduction to Humanities, Honors

HWC 424 Senior Seminar in Humanities (The senior essay for this track is to be a comparative literary-critical study.)

24 additional hours to include: (24)

6 hours in the “Masterpieces of World Literature” series:

HWC 304 World Literature I
HWC 308 World Literature II
HWC 312 World Literature III

6 hours of additional literature coursework chosen from among the following:

the third HWC Masterpiece of World Literature course
any other HWC literature course upon approval from an advisor
a course in American, British, or Irish literature (or any other English language or literature course)

6 hours in the literature of a non-English-language European culture in translation (France, Germany, Italy, Spain, etc.). Students possessing a reading knowledge of one of the European languages are strongly encouraged to take one of the literature courses in the original language.

6 hours in the literature of a non-Western culture in translation. Students possessing a reading knowledge of a Non-Western language are strongly encouraged to take one of the literature courses in the original language.

Track 3: Peace and Conflict Studies

This track provides students with opportunities to study issues of violence and methods of peace-making from an interdisciplinary humanities perspective. Majors choosing this option must complete 30 credit hours to include the following:

Introductory and Capstone Coursework (9)

9 hours of introductory and capstone coursework:

HWC 110 Introduction to Humanities
or HWC 111 Introduction to Humanities, Honors

PCS 120 Introduction to Peace and Conflict Studies

PCS 650 Senior Seminar in Peace and Conflict Studies (students are required to carry out a substantive research project to produce a term paper or comparable work.)

21 additional hours to include: (21)

6 hours PCS upper division courses (2 out of 3):

PCS 550 Classics of Peace Literature
PCS 555 Topics in Peace and Conflict Studies: _____

PCS 565 The Literature of Human Rights

6 hours of interdisciplinary core courses, for example:

ANTH 501 Topics in Sociocultural Anthropology: _____
HIST 314 Globalization: History and Theory
POLS 674 International Ethics
POLS 684 International Law: The State and the Individual or POLS 685 International Law: Laws of Armed Conflicts
REL 667 Religious Perspectives on War and Peace
REL/COMS 669 Human Conflict and Peace
SOC 650 Transnational Migration

6 hours in the “Masterpieces of World Literature” series:

HWC 304 World Literature I
HWC 308 World Literature II
HWC 312 World Literature III

6 hours of additional literature coursework chosen from among the following:

the third HWC Masterpiece of World Literature course
any other HWC literature course upon approval from an advisor
a course in American, British, or Irish literature (or any other English language or literature course)

6 hours in the literature of a non-English-language European culture in translation (France, Germany, Italy, Spain, etc.). Students possessing a reading knowledge of one of the European languages are strongly encouraged to take one of the literature courses in the original language.

6 hours in the literature of a non-Western culture in translation. Students possessing a reading knowledge of a Non-Western language are strongly encouraged to take one of the literature courses in the original language.

Area 1: The pursuit of social, economic and environmental justice, for example:

HIST 314 Globalization: History and Theory
Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 30 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 18 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Departmental Honors
An undergraduate student must maintain a minimum overall grade-point average of 3.25 and of 3.5 in the major. Students must be recommended for honors by the readers of the comprehensive essays written for HWC 424 Senior Seminar in Humanities and Western Civilization. Members of the HWC advisory committee then evaluate the essay to determine whether the student should be awarded honors.

Minor in Humanities

The minor in Humanities addresses the needs of students who seek to complement their major field of study with a solid grounding in the intellectual traditions and cultural practices of a particular area of world culture, or who wish to deepen and broaden their knowledge and understanding of a specific historical period. In addition, study in the humanities provides an excellent opportunity for students preparing for careers in the professions that require high standards of written and oral communication skills. Given its emphasis on text-based curriculum that encourages critical thinking, shared discussion, and written and oral analysis on significant topics, the Minor in Humanities prepares undergraduates to excel as they move forward into graduate or professional schools or the work force.

Requirements for the Minor

The Minor in Humanities requires 18 hours of coursework, 12 hours of which must be taken at the junior/senior level, and 3 of which may be shared with a student's major.

Students selecting this minor must complete the following:

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>HWC 110</td>
<td>Introduction to Humanities</td>
<td>3</td>
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<tr>
<td>or HWC 111</td>
<td>Introduction to Humanities, Honors</td>
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<tr>
<td>or HWC 150</td>
<td>Civilizations and the Individual</td>
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<td>HWC 204</td>
<td>Western Civilization I</td>
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<td>or HWC 205</td>
<td>Western Civilization II</td>
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<td>or HWC 206</td>
<td>Contemporary Western Civilization</td>
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<tr>
<td>HWC 424</td>
<td>Senior Seminar in Humanities</td>
<td>3</td>
</tr>
</tbody>
</table>

Three HWC courses numbered 300 and above (nine hours), chosen in consultation with an advisor, and focusing on a specific theme.

Minor Hours and GPA

While completing all required courses, minors must also meet each of the following hour and grade point average minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 hours of junior/senior (300+) hours of KU resident credit in the minor.

Minor Junior/Senior (300+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 GPA in all courses in the minor. GPA calculations include all courses in the field of study including Fs and repeated courses.

Minor in Peace and Conflict Studies

Why study the Humanities and Western Civilization?
Because integrated learning in the humanities fosters broad cultural understanding by exploring the connections among diverse areas of knowledge.

Requirements for the Minor

This multidisciplinary program enables students to examine conflict within and between societies as well as ways that humans address...
conflict through war, mediation, law, diplomacy, institutions, and peaceful resistance.

Students selecting this minor must complete each of the following:

**Introduction to Peace and Conflict Studies (3)**
Satisfied by:
- PCS 120 Introduction to Peace and Conflict Studies 3

**Peace and Conflict Studies Core Knowledge and Skills (6)**
Satisfied by 2 courses (6 hours) from the following:
- HIST 314 Globalization: History and Theory 6
- PCS 550 Classics of Peace Literature
- POLS 679 International Conflict
- REL 667 Religious Perspectives on War and Peace
- SOC 650 Transnational Migration

**Peace and Conflict Studies Required Elective (6)**
Satisfied by 2 courses (6 hours) from the following:
- ANTH 465 Genocide and Ethnocide 6
- ENGL 479 The Literature of: _____
- EURS 505 Studies in Exile Literature
- EURS 565 The Literature of Human Rights
- HIST 343 The Holocaust in History
- HIST 369 Colonialism and Revolution in the Third World, Honors
- HIST 370 Violence and Conflict in Latin American History
- PCS 555 Topics in Peace and Conflict Studies: ______
- PCS 560 Directed Study in Peace and Conflict Studies
- PCS 565 The Literature of Human Rights
- PHIL 555 Justice and Economic Systems
- POLS 650 Palestinians and Israelis
- POLS 671 International Cooperation
- POLS 673 International Organization
- POLS 685 International Law: Laws of Armed Conflicts
- PSYC 572 Psychology and International Conflict
- REL 669 Human Conflict and Peace
- SOC 531 Global Social Change

**Senior Seminar in Peace and Conflict Studies (3)**
Satisfied by:
- PCS 650 Senior Seminar in Peace and Conflict Studies 3

**Minor Hours & Minor GPA**
While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

**Minor Hours**
Satisfied by 18 hours of minor courses.

**Minor Hours in Residence**
Satisfied by a minimum of 9 junior/senior (300+) hours of KU resident credit in the minor.

**Minor Junior/Senior Hours**
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

**Minor Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses in the minor. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Note:** Only 3 hours can be shared between the minor and any other minor or major. Students may not count more than 9 hours of course work from any one department toward completion of the minor.

**Indigenous Studies Program**

**Indigenous Studies Graduate Program**
The Indigenous Studies master's degree program provides students with in-depth knowledge of Indigenous peoples' complex and diverse cultures and histories, as well as their impacts on the global society. Our multidisciplinary program offers students the advantage of studying relevant issues from a wide range of academic perspectives. The expertise of our affiliate faculty members includes Native American history, including medical and legal aspects; indigenous literature; ethnobotany; Indigenous peoples' cultural survival and political activism; American Indian tribal governments; indigenous geographies and cartographic history; Native American religions; and much more.

Empowered by the resources on campus and in our community, we strive to provide unique learning opportunities for our students that go beyond the classroom. The mission of the multidisciplinary Indigenous Studies Program is to educate students and promote scholarship about the complexity and diversity of Indigenous peoples’ cultures and histories, and to provide students with the knowledge to understand and assess the U.S. tribes’ unique relationships to the U.S. government. Indigenous Studies encourages appreciation of the contributions of Indigenous peoples to the global society, provides students with an understanding of the difficulties confronting tribal nations and offers foundational knowledge to assist them in finding innovative solutions to solve those problems.

**Financial Aid**
The program may nominate outstanding students for KU graduate fellowships and awards. Consideration requires submission of an application by January 15.

The program offers a few scholarships for excellence in academic work. Consideration requires the submission of all application materials by February 1.

Visit the Graduate Studies website for information about funding opportunities (http://www.graduate.ku.edu/funding-opportunities) for graduate students at KU.

Financial Aid and Scholarships (http://affordability.ku.edu/steps/index.shtml) administers grants, loans, and need-based financial aid.

**Courses**
 ISP 101. Introduction to Indigenous Nations Studies. 3 Hours. NW / S.
An introduction to the study of Indigenous peoples. It surveys the concepts, methods, and content relevant to Applied Indigenous Studies, using case studies drawn from diverse cultures. The course illustrates that the social, political, religious, and economic aspects of American Indian life are interconnected and that tribal histories cannot be understood without an awareness of these fields. Students are introduced to controversies over how to research, write, and interpret American Indians,
and will address the foundations of Indigenous Studies, and that is Indigenous concepts of decolonization, empowerment and Nation-building. The course explores how the lives of Indigenous people have been affected by colonization, while exploring the varying definitions of “colonialism”, “colonizer” and the “colonized.” LEC.

ISP 305. World Indigenous Literatures. 3 Hours. NW AE42 / H.
A survey of contemporary world indigenous literatures that includes those from North America, Australia, New Zealand, the South Pacific, the Arctic, and Latin America. Texts are in English (original or translation). Genres studied include the novel, poetry, and drama, supplemented by works from the oral tradition, the visual arts, and film. (Same as ENGL 305.) Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course. LEC.

ISP 330. Native American Religions. 3 Hours. NW AE41 / H.
A survey of religious traditions among selected Native American peoples. Topics include religious freedom, ritual activity, cultural narrative ("myth"), kinship, healing practices, ecology, government relations, impact of colonization, impact of missionization, contact between cultures, and secularization. Not open to students who have completed GINS 331. (Same as REL 330.) LEC.

ISP 331. Native American Religions, Honors. 3 Hours. NW AE41 / H.
A survey of religious traditions among selected Native American peoples. Topics include religious freedom, ritual activity, cultural narrative ("myth"), kinship, healing practices, ecology, government relations, impact of colonization, impact of missionization, contact between cultures, and secularization. Open only to students in the University Honors Program or by permission of instructor. Not open to students who have completed ISP 330. (Same as REL 331.) LEC.

ISP 335. Introduction to Indigenous Studies. 3 Hours. NW / H.
This course is an introduction to the study of modern and historic indigenous peoples. It surveys the concepts, methods, and content relevant to Indigenous Studies, using case studies drawn from the diverse indigenous cultures. Special attention is paid to the various ways in which standard academic disciplines--history, anthropology, literature, law, political science, among others--contribute to the study of Indigenous cultures and current issues. The course illustrates that the social, political, religious, and economic aspects of indigenous life are interconnected and tribal histories and cultures cannot be understood without an awareness of these fields. (Same as HWC 335.) LEC.

ISP 348. American Indian and White Relations to 1865. 3 Hours. H.
This course provides an intensive survey of the Indians of North America from Prehistory to 1865, and focuses on ancient indigenous cultures, early European-Indian relations and the impact of European culture upon the indigenous peoples of North America. (Same as HIST 351, HWC 348.) LEC.

ISP 350. American Indians Since 1865. 3 Hours. H.
This course examines American Indian/White relations from reconstruction to the present. It surveys the impact of westward expansion and cultural changes brought about by the Civil War, forced education, internmarriage, the Dawes Act, the New Deal, the World Wars, termination, relocation and stereotypical literature and movies. The class also addresses the Red Power and AIM movements, as well as indigenous efforts to decolonize and to recover and retain indigenous knowledge. After learning about the past from both Native and non-Native source materials, students will multiple perspectives about historical events and gain understandings of diverse world views, values, and responses to adversity. (Same as HIST 352 and HWC 350.) LEC.

ISP 490. Roots of Federal Indian Policy. 3 Hours. H.
This course introduces students to the basic concepts and ideologies surrounding modern United States Federal Indian policy. It will survey the European intellectual trends that were influential in creating policies that were (and still are) applied to the colonized Native peoples. The course will explore the roots of US Indian policy, including removals, "civilization programs," the reservation period, the Dawes (Allotment) Act, the New Deal, termination, relocation, NAGPRA and tribal rights, in addition to the issues surrounding American Indian identity, tribal membership and demographics. This course serves as the foundation for more in-depth study into the complicated and ever-changing field of Federal Indian Law as it pertains to the Indigenous peoples of the United States. (Same as HWC 490.) LEC.

ISP 504. Topics in Indigenous Nations Studies: ______. 3 Hours. NW / S.
This course concentrates on selected problems in the interdisciplinary field of Indigenous Nations Studies. Courses in this field utilize methods developed in various disciplines in order to examine issues related to the survival, self-sufficiency, mutual support, empowerment, and decolonization of Indigenous Peoples throughout the world. May be repeated for credit when the topic differs. Recommended for juniors or seniors, or for students who have completed ISP 101/GINS 101/INS 101. LEC.

ISP 510. Indigenous Women and Activism. 3 Hours. NW / S.
Examines the roles of activist Indigenous women in politics, social work, academia, business, environmental and health issues. Compares and contrasts the ideology of the predominantly white feminist movement with the goals and concerns of the "Red Power" movement and emphasizes Indigenous socio-cultural values and concerns. Profiles prominent Indigenous female activists, tribal leaders and writers, in addition to topics of serious concern to Indigenous women: violence, racism, loss of culture and language, education, health care and other manifestations of continued colonization. LEC.

ISP 530. Indigenous Food and Health. 3 Hours. NW / U.
This course investigates the historic diets of Indigenous peoples, including cultivation of crops, hunting and fishing methods, food preparation and seed preservation. The class traces through history the colonial policies and ideologies that caused the cultures to alter their ways of eating, resulting in unprecedented modern health problems and offers traditional cultural strategies for health recovery. LEC.

ISP 552. Foodways: Latin America. 3 Hours. H.
This course explores the traditional foods, ways of eating, and cultural significance of food among peoples of Latin America. The course surveys the vast array of flora in Central and South America and the Caribbean, and focuses on issues of environmental protection, bioethics, food security, and the growth of farming and ranching. The class studies the impact that foods such as maize, potatoes and cacao have had globally, and includes African, Asian, and European influences on Latin cuisine, as well as health problems associated with dietary changes. (Same as HIST 512 , HWC 552 and LAA 552.) Prerequisite: Upper division course on Latin America, or permission of the instructor. LEC.

ISP 600. Research Methods and Indigenous Peoples. 1-3 Hours. NW / U.
An introduction to the social science methods of investigation and analysis that are used in Indigenous Nations Studies as a discipline. The nature of Indigenous Nations Studies data sources and methods of data collection, the logic of social scientific inquiry, and key methods of data analysis are emphasized. In addition, the social and educational implications of the results are examined. Prerequisite: Permission of instructor. LEC.
ISP 601. Indigenous Peoples of the World. 3 Hours. NW / U.
A survey of the varied responses of global Indigenous peoples as a result of the imposition of external economic and political systems. An overview of diverse, thematic issues such as land rights, economic development, resources and cultural patrimony, languages, knowledge systems, and women’s rights from the perspectives of Indigenous societies around the world. Detailed studies of Indigenous peoples seeking recognition and protection under international law are used. (Same as GEOG 601.) Prerequisite: Permission of instructor. LEC.

ISP 602. Indigenous Decolonization and Empowerment. 3 Hours. NW / U.
An Indigenous focus of the foundation and impact of colonization, decolonization, empowerment and nation-building. Prerequisite: Permission of instructor. LEC.

ISP 603. Introduction to Indigenous Nations Graduate Studies. 3 Hours. NW / U.
The goal of this course is two-fold: to introduce students to the academic discipline of Indigenous Nations Studies, its debates and contours, history, methods, and resources; and to develop the skills necessary to proceed successfully through the program. Key words and terms, critical thinking/reading/and writing skills, and research skills are emphasized. Guest lectures from ISP faculty members, librarian, and members of the Writing Center serve to complement and broaden assignments and discussions. Prerequisite: Permission of instructor. LEC.

ISP 611. Applied Indigenous Leadership. 3 Hours. NW / U.
Trains students in the skills of grant writing, leadership, conflict resolution, public presentation, organization and program development as applicable to Indigenous peoples. Prerequisite: Permission of Instructor. LEC.

ISP 612. Native American Oppression, Resistance, and Liberation. 3 Hours. NW / U.
An interdisciplinary examination of the effects of historical and contemporary forms of colonialism and postcolonial strategies of resistance practiced by Indigenous peoples within and beyond the borders of the United States. Prerequisite: Permission of instructor. LEC.

ISP 613. Issues Facing Indigenous Peoples. 3 Hours. NW / U.
Explores the theories and methods of selected cultural, environmental, legal, political, and socio-economic issues confronting Indigenous societies throughout the world. Prerequisite: Permission of instructor. LEC.

ISP 614. Decolonizing Narratives. 3 Hours. NW / U.
With the decolonizing potential of Indigenous literary and cultural productions, this course seeks to both answer and explore such questions as: How can literary and cultural texts such as novels, poetry, music, and film from world Indigenous communities function as decolonizing tools? Can decolonizing methodologies be applied to such texts? How do such texts contribute to and strengthen Indigenous political, intellectual, cultural, visual and rhetorical sovereignty? Includes an overview of Indigenous literature, films and documentaries from North America, the Pacific, Australia, and New Zealand. Prerequisite: Permission of instructor. LEC.

ISP 670. Indigenous Peoples’ Health Status, Beliefs, and Behaviors. 3 Hours. NW / U.
Explores the health status, beliefs, and behaviors of particular Indigenous cultures. Examines the role of internal and external influences on health, various mainstream and Indigenous models of health behavior, perceptions of illness and curing, health status, and healing practices. Focuses on the groups of the Maori of New Zealand, First Nations in Canada, Palestinian peoples in the Middle East, American Indians, and Indigenous Australians. Prerequisite: Permission of instructor. LEC.

ISP 673. Environmental Justice. 3 Hours. NW / U.
An examination of the impact of environmental justice and security in Indigenous communities throughout the world with a focus on tactics and strategies that incorporate Indigenous perspectives in responses and mitigation schemes. A survey of mining, dumping, and storage of toxic and radioactive waste activities as related to Indigenous peoples. Case study analyses of economic, military and mining interests contrasted with perspectives emerging from cultural traditions and beliefs of Indigenous peoples and communities. Prerequisite: Permission of instructor. LEC.

ISP 800. Indigenous Issues in the United States. 3 Hours.
This course will focus on contemporary issues relating to Indigenous peoples and nations within the United States, with particular emphasis on such issues as sovereignty, indigeneity, colonialism and decolonization. The course will address varied disciplinary approaches to this range of issues and will consider how this discourse bears upon scholarly conversations regarding broader themes in other selected fields of study. LEC.

ISP 801. Indigenous Peoples of the World. 3 Hours.
A survey of the varied responses of global Indigenous peoples as a result of the imposition of externally-dominated economic and political systems. An overview of diverse, thematic issues such as land rights, economic development, resources and cultural patrimony, languages, knowledge systems, and women’s rights from the perspectives of Indigenous societies around the world. Detailed studies of Indigenous peoples seeking recognition and protection under international law will be used. The course is offered at the 600 and 800 levels, with additional assignments at the 800 level. (Same as GEOG 801.) LEC.

ISP 802. Indigenous Decolonization and Empowerment. 3 Hours.
An Indigenous focus of the foundation and impact of colonization, decolonization, empowerment and nation-building. LEC.

ISP 803. Introduction to Indigenous Nations Graduate Studies. 3 Hours.
The goal of this course is two-fold: to introduce students to the academic discipline of Indigenous Nations Studies, its debates and contours, history, methods, and resources; and to develop the skills necessary to proceed successfully through the program. Unpacking key words and terms, critical thinking/reading/and writing skills, and research skills will be emphasized. Guest lectures will serve to complement and broaden assignments and discussions LEC.

ISP 804. Special Topics: _____ 1-3 Hours.
Designed to fulfill program needs of the Indigenous Nations Studies master’s program, this course may meet with appropriate professional or graduate courses. Can be repeated for credit when topic differs. LEC.

ISP 805. American Indian Leadership. 3 Hours.
Students will analyze the qualities of American Indian leadership and will examine circumstances and backgrounds of Indian leaders as heroes and role models paying particular attention to how they responded as individuals, leaders, and as community members of their tribes. Besides surveying noted Indian leaders in treaty negotiations, allotment, removal, war, etc., the course will examine leaders in medicine, education, and recent American Indian history including attention to women leaders. Students will learn about the leaders’ tribes and cultures in addition to understanding the ethnohistory of Indian-white relations. LEC.

ISP 806. Directed Readings. 1-3 Hours.
An individual readings course with a qualified instructor on a topic in Indigenous Nations Studies. LEC.

ISP 807. Internship in Indigenous Nations Studies. 1-6 Hours.
Internships provide students the opportunity to obtain training and perform professional duties for academic credit at pre-approved indigenous-
related agencies, organizations, and communities. Students are required to demonstrate a minimum of 60 contact hours for each one credit hour. To enroll, students must obtain the consent of an ISP faculty member and the Program’s Curriculum Committee. May be repeated for credit. Prerequisite: permission from instructor. FLD.

ISP 809. Indigenous Women: Gender and Sexuality. 3 Hours.
This course examines gender and sexuality among indigenous communities in the world. Ethnographies about indigenous women are used to explore a variety of gender and sexual identities. Gendered and sexualized identities are analyzed within broader societal contexts such as the division of labor, kinship, marriage household, and the control of resources. Power relationships are examined between sub-altern women and the larger society, nation and globalizing world in which they play a part. LEC.

ISP 810. Indigenous Women and Activism. 3 Hours.
An examination of the roles and ideologies of prominent Indigenous female activists, tribal leaders and writers. LEC.

ISP 811. Applied Indigenous Leadership. 3 Hours.
A preparation to train students in the skills of grant writing, leadership, conflict resolution, public presentation, organization and program development as applicable to Indigenous peoples. LEC.

ISP 812. Native American Oppression, Resistance, and Liberation. 3 Hours.
An interdisciplinary examination of the effects of historical and contemporary forms of colonialism and postcolonial strategies of resistance practiced by Indigenous peoples within and beyond the borders of the United States. LEC.

ISP 813. Issues Facing Indigenous Peoples. 3 Hours.
This course explores the theories and methods of selected cultural, environmental, legal, political, and socio-economical issues confronting Indigenous societies throughout the world. LEC.

ISP 814. Decolonizing Narratives. 3 Hours.
With the decolonizing potential of Indigenous literary and cultural productions, this course seeks to both answer and explore such questions as: How can literary and cultural texts such as novels, poetry, music, and film from world Indigenous communities function as decolonizing tools? Can decolonizing methodologies be applied to such texts? How do such texts contribute to and strengthen Indigenous political, intellectual, cultural, visual and rhetorical sovereignty? An overview will be presented from Indigenous literature, films and documentaries from North America, the Pacific, Australia, and New Zealand. LEC.

ISP 824. Federal Indian Law. 2.5-3 Hours.
Addresses the law and policy of the United States regarding Indian nations and their members. Issues include the origins and contours of federal plenary power over Indian affairs, the scope of inherent tribal sovereignty, the limits of state power in Indian country, civil and criminal jurisdiction, and gaming. (Same as LAW 914) Prerequisite: Permission from instructor. LEC.

ISP 830. Indigenous Food and Health. 3 Hours.
Investigates the historic diets of Indigenous peoples, including cultivation of crops, hunting and fishing methods, food preparation and seed preservation. Traces through history the colonial policies and ideologies that caused the cultures to alter their ways of eating, resulting in unprecedented modern health problems. Will offer traditional cultural strategies for health recovery. LEC.

ISP 862. Indigenous Archives. 3 Hours.
A discussion of what constitutes an archive, including the theory and methodology of archival collections, and an introduction to archiving as a profession. Includes a discussion of records management, with an emphasis on tribal archives collections and tribal records. Includes instruction on arrangement and description of tribal archival collections, funding, environmentally controlled storage, and disaster recovery planning. The class will specifically address the needs of tribal archives: tribal records, oral history interviews, photographs, litigation records, grant writing, and culturally sensitive materials. Students will learn about primary and secondary sources, different formats of writing professional research papers, and will produce a research paper at the end of the semester. LEC.

ISP 863. Oral History. 3 Hours.
A discussion of the importance of the oral tradition in Indigenous nations and the difference between oral tradition and oral histories and myth. The class will concentrate on the methodologies of tribal oral history projects, from organizational aspects to personnel issues, equipment needed, sources of grant funding, interview methodology, as well as documentation and preservation of the interviews. The course will discuss how to share and make available these interviews and when access to them needs to be restricted. The students will conduct videotaped oral histories as part of the class exercises and get hands-on experience with the preservation, organization, and transcription of oral history projects. LEC.

ISP 864. Exhibiting Culture. 3 Hours.
A discussion of how museums and exhibits can be a vehicle for Indigenous community empowerment and the importance of Indigenous cultures to interpret their stories themselves. The class will also look at how different nations view the display and handling of their belongings and what kinds of belongings can or should be handled and displayed. LEC.

ISP 865. Grant Writing and Fundraising. 3 Hours.
A discussion of how to develop a grant writing and fundraising plan for a tribal project. Includes how to develop an idea or project and how to prepare a funding campaign. The students will produce a fundraising event and work on the various parts of an actual grant as the final class activity that will be designed to bring in funding to support KU Global Indigenous Nations Studies Program. LEC.

ISP 866. Indigenous Museum Management. 3 Hours.
A discussion of the community models of museum management, including museum administration, professional positions within a museum, museum exhibits, public education programs, security, and disaster planning. The course will compare and contrast museum management in European/ American museums and tribal museums and how these management styles affect collection policies, exhibit policies, traditional care of collections, sacred and ceremonial item handling and display, NAGPRA and repatriation, and oral histories. LEC.

ISP 867. Indigenous Records Management. 3 Hours.
A discussion of what constitutes a record and how to manage records at the business or government level. Train students in hands-on records management techniques, policies, developing a records retention schedule, and how to plan and design a records management program for records pertaining to Indigenous nations. LEC.

ISP 868. Indigenous Records Management II. 3 Hours.
A discussion of what constitutes a record and how to manage records at the business or government level. This is a second level of records management leading to preparation for the certification examination. LEC.

ISP 869. Traditional Care of Collections. 3 Hours.
A discussion of on traditional care issues of handling and preserving of Indigenous belongings. The class will compare the methods of traditional
care at tribal museums vs. conservation of Native items in mainstream museums. LEC.

**ISP 870. Indigenous Peoples’ Health Status, Beliefs, and Behaviors. 3 Hours.**
This course is designed to explore the health status, beliefs, and behaviors of particular Indigenous cultures. The course examines the role of internal and external influences on health, various mainstream and Indigenous models of health behavior, perceptions of illness and curing, health status, and healing practices. The course will focus on the groups of the Maori of New Zealand, First Nations in Canada, Palestinian peoples in the Middle East, American Indians, and Indigenous Australians. LEC.

**ISP 871. Community Health and Development. 3 Hours.**
This course extends knowledge and skills for addressing issues in community health and development (e.g., substance abuse, adolescent pregnancy, child and youth development, prevention of violence). Students learn core competencies such as analyzing community problems and goals, strategic planning, intervention, and evaluation, and then apply these skills to issues that matter to them and to the communities they serve. (Same as ABSC 710.) LEC.

**ISP 873. Environmental Justice. 3 Hours.**
An examination of the impact of environmental justice and security in Indigenous communities throughout the world with a focus on tactics and strategies that incorporate Indigenous perspectives in responses and mitigation schemes. A survey of mining, dumping and storage of toxic and radioactive waste activities as related to Indigenous peoples. Case study analyses of economic, military and mining interests contrasted with perspectives emerging from cultural traditions and beliefs of Indigenous peoples and communities. LEC.

**ISP 874. Natural Resource Management: Indigenous Perspectives. 3 Hours.**
An examination of resource management issues in Indigenous communities throughout the world with a focus on tactics and strategies that incorporate Indigenous perspectives in the management schemes. Case study analyses of management techniques derived from European-based science with Indigenous traditions and beliefs. LEC.

**ISP 875. Native and Western Views of Nature. 3 Hours.**
A comparison of the attitudes and perspectives towards the natural world developed by different cultural traditions. A review of western attitudes and also the traditional ecological knowledge of Indigenous peoples toward management of natural resources, non-human animals, and the natural world. LEC.

**ISP 876. Comparative Law. 2.5-3 Hours.**
A general introduction to and comparison of major legal systems of the world, with special emphasis given to how those systems reflect differing cultural values in addressing common legal questions. A major goal of the course is to deepen the students’ understanding of law and practice in the United States and to broaden their perspective of law beyond the boundaries of the common law systems. (Same as LAW 879.) Prerequisite: Permission from instructor. LEC.

**ISP 877. Public Lands and Natural Resources. 2.5-3 Hours.**
Devoted to the law and legal systems that govern the classification and use of one-third of America’s land mass. Includes a survey of the acquisition and disposition of the public domain; general federal statutes and doctrines that affect public land law; and different forms of federal lands classifications, including national parks, scenic rivers, and grazing lands. (Same as LAW 975.) Prerequisite: Permission from instructor. LEC.

**ISP 879. Water Law. 2.5-3 Hours.**
A study of water rights including the riparian and prior appropriation doctrines for surface water, and the various doctrines for groundwater. Private and public water distribution organizations, and special water districts. Water pollution control. Interstate conflicts over water resources. Federal government involvement in water distribution including federal powers and programs. Indian and reserved rights. Kansas water law. (Same as LAW 995.) Prerequisite: Permission from instructor. LEC.

**ISP 882. Native American Natural Resources. 2-3 Hours.**
This course provides a detailed examination of natural resource law as it applies to Indian Country. Among the topics to be discussed are water law, environmental protection, and subsurface property rights. (Same as LAW 967.) LEC.

**ISP 883. Sovereignty, Self-Determination and Indigenous Nations. 2-3 Hours.**
Examines legal, governmental, political, social, cultural, and economic issues associated with American Indian tribal sovereignty and self-determination. Includes the source and scope of tribal sovereignty; the threats to tribal sovereignty; and the methods by which tribal sovereignty can be strengthened and revitalized. (Same as LAW 987.) Prerequisite: Permission from instructor. LEC.

**ISP 898. Master's Non-Thesis. 1-6 Hours.**
Course for Indigenous Studies students completing a portfolio Master’s exam. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Permission from instructor. LEC.

**ISP 899. Master’s Thesis. 1-6 Hours.**
Course for Global Indigenous Nations Studies students completing Master’s thesis projects. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Permission from instructor. THE.

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**Master of Arts in Indigenous Studies**

**Indigenous Studies Graduate Program**

The Indigenous Studies master’s degree program provides students with in-depth knowledge of Indigenous peoples’ complex and diverse cultures and histories, as well as their impacts on the global society. Our multidisciplinary program offers students the advantage of studying relevant issues from a wide range of academic perspectives. The expertise of our affiliate faculty members includes Native American history, including medical and legal aspects; indigenous literature; ethnobotany; Indigenous peoples’ cultural survival and political activism; American Indian tribal governments; indigenous geographies and cartographic history; Native American religions; and much more.

Empowered by the resources on campus and in our community, we strive to provide unique learning opportunities for our students that go beyond the classroom. The mission of the multidisciplinary Indigenous Studies Program is to educate students and promote scholarship about the complexity and diversity of Indigenous peoples’ cultures and histories, and to provide students with the knowledge to understand and assess the U.S. tribes’ unique relationships to the U.S. government. Indigenous Studies encourages appreciation of the contributions of Indigenous peoples to the global society, provides students with an understanding of the difficulties confronting tribal nations and offers foundational knowledge to assist them in finding innovative solutions to solve those problems.

**Admission to Graduate Studies**

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student.
Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

**Graduate Admission**

Candidates requesting consideration for admission to the Master of Arts program in Indigenous Studies must complete the online application through the Office of Graduate Studies. Applicants should upload the supporting application documents listed below to the online application. There is no need to send copies of application materials directly to the Indigenous Studies Program.

**Timelines**

The Indigenous Studies Program accepts students on a rolling admissions basis. Students may apply to be admitted for either the fall or spring semesters. Priority consideration will be given to applications received by April 1 for the fall semester and by October 1 for the spring semester.

**Application documents**

- GRE verbal and analytical writing scores
- Transcript(s) from undergraduate or graduate institution(s) you have attended
  
  The Office of Graduate Studies requires a minimum 3.0 undergraduate GPA for admission

Applicants can upload an unofficial, electronic copy of their transcripts with the application form

- Writing sample of at least 10 pages
- 5-page personal statement explaining how a Master’s degree in Indigenous Studies will benefit you and why you will successfully complete the degree

Applicants can upload their writing samples and statements as part of the application.

- Three letters of recommendation
  
  The letter of recommendation system works on the contact information provided by the applicant at the time of application.

**M.A. Degree Requirements**

Students pursuing the M.A. in Indigenous Studies must successfully complete a minimum of 30 graduate credit hours: a 9-hour core curriculum plus 21 hours taken according to either Plan A or Plan B.

**Core Curriculum**

ISp 800 Indigenous Issues in the United States. A 3-hour graduate-level course taught by the director of the ISP with guest presentations by faculty who study indigenous peoples from various disciplinary perspectives.

One 3-hour graduate-level course in the history of indigenous peoples of North America, e.g., HIST 801 Graduate Colloquium in Indigenous Peoples of North America.

One 3-hour graduate-level course with 50 percent or more content in Indigenous Peoples that has been approved by the executive committee, offered by certain departments such as English, History, and Humanities & Western Civilization.

**Plan A: Non-Thesis Option**

- 12 hours of approved coursework with content relevant to the field of indigenous studies approved by the student’s graduate committee.
- 9 hours of electives.
- An M.A. examination: an oral examination in which the candidate defends his or her portfolio, which will be composed of the student’s entire body of work completed in courses counted for the degree.

**Plan B: Thesis Option**

- 12 hours of approved coursework with content relevant to the field of indigenous studies approved by the student’s graduate committee.
- 6 hours of electives.
- 3 hours of thesis on an approved subject with an oral defense.

**Graduate Certificate in Indigenous Studies**

**Indigenous Studies Graduate Program**

The Indigenous Studies master’s degree program provides students with in-depth knowledge of Indigenous peoples’ complex and diverse cultures and histories, as well as their impacts on the global society. Our multidisciplinary program offers students the advantage of studying relevant issues from a wide range of academic perspectives. The expertise of our affiliate faculty members includes Native American history, including medical and legal aspects; indigenous literature; ethnobotany; Indigenous peoples’ cultural survival and political activism; American Indian tribal governments; indigenous geographies and cartographic history; Native American religions; and much more.

Empowered by the resources on campus and in our community, we strive to provide unique learning opportunities for our students that go beyond the classroom. The mission of the multidisciplinary Indigenous Studies Program is to educate students and promote scholarship about the complexity and diversity of Indigenous peoples’ cultures and histories, and to provide students with the knowledge to understand and assess the U.S. tribes’ unique relationships to the U.S. government. Indigenous Studies encourages appreciation of the contributions of Indigenous peoples to the global society, provides students with an understanding of the difficulties confronting tribal nations and offers foundational knowledge to assist them in finding innovative solutions to solve those problems.

**Certificate Application and Admissions Procedure**

**Current Students**

Current graduate students wishing to enroll in the Graduate Certificate program will need to apply through the Graduate School. The application process entails completing the online application, paying a $30.00
application fee, and submitting materials required for the Indigenous Studies Certificate:

- A letter stating your interest in Indigenous Studies and its relationship to your graduate course of study;
- An unofficial copy of your KU transcript;
- A letter of support from your graduate degree program.

A student must be in good standing with their graduate degree program in order to participate in the certificate program. A graduate GPA of 3.0 or higher is required for admission.

**Non-KU Students**

Students who are not currently enrolled at KU must complete an application to the Graduate School for admission into the certificate program and submit an application fee along with the following materials:

- A letter stating your interest in the Indigenous Studies Graduate Certificate program;
- A copy of your college transcript;
- Two letters of recommendation from persons familiar with your academic work or potential for graduate study.

Minimum requirements include a bachelor’s degree with a 3.0 or higher GPA. The GPA requirement may be waived at the discretion of the ISP Director.

**Student Eligibility and Administration of the Program**

Eligibility criteria for admission to the certificate program include a B.A. degree from an accredited institution with a 3.0 or higher GPA.

Students admitted to the certificate program may be enrolled either as a regular graduate student or admitted to the Graduate School as a certificate seeking student.

Students must maintain grade-point averages of 3.0 or better in all courses taken to satisfy requirements of the Indigenous Studies Certificate. At the conclusion of the program, the student should ask the Indigenous Studies program to verify that the requirements for the certificate have been met.

The total credit hours earned from a certificate and transferred into a graduate degree program cannot exceed six hours. Eight hours can be permitted if the student holds a baccalaureate degree from KU.

Student records will be handled by the department’s graduate secretary.

Awarding of certificates will be handled consistent with guidelines and timing of degree awards of the Graduate School.

Completion of the program will appear on the graduate transcript.

**Graduate Certificate**

The Graduate Certificate in Indigenous Studies is designed to provide students with necessary knowledge of the events, laws, policies, and treaties that have defined the relationship between the United States and Indigenous Nations and Peoples. This knowledge is essential to analysis of a broad range of historical, political, religious and social issues in the U.S.

The program will provide students with a solid grounding in the histories and cultures of the indigenous peoples of North America. The certificate program enables students to integrate knowledge of indigenous issues into their own academic disciplines or professional training.

Completion of the certificate in Indigenous Studies represents an additional credential for graduate students from a variety of academic fields who are preparing for careers in research and teaching or professional practice. The certificate will also enhance the qualifications of students seeking careers with indigenous organizations, government, and museums, among many other options.

Enrollment in the program is open to students admitted to a regular KU graduate program as well as students who are not currently enrolled at KU.

**Certificate Requirements**

The Indigenous Studies Graduate Certificate requires 12 hours of coursework:

- ISP 800: Indigenous Issues in the United States (3 hrs)
- 9 hours of graduate-level coursework with 50% or more content in Indigenous Peoples; courses must be approved by the ISP Executive Committee.

**Information Processing Studies Courses**

**Information Processing Studies**

Information processing studies courses may be taken for credit, but are not a part of a specific degree program.

**Courses**

**IPS 101. Elements of the Theory of Computation. 3 Hours. NM / N.**

An introduction to the theoretical areas of computer science and their applications. Emphasis will be placed on the methods and standards by which computer science makes judgments and on what computers can and cannot accomplish. Among major topics covered are: how to read and to implement algorithms; what is memory and how much of it is required for various tasks; why computers cannot multiply; how finite-state machines compute; applications of finite-state machines to programming; recognizing languages; formal grammars. "Can machines think?" and other contemporary topics in the philosophy of computer science will be covered as time permits. Prerequisite: MATH 101 or MATH 104. LEC.

**IPS 302. Journey Through Genius, Honors. 3 Hours. N.**

The course explores some of the most significant and enduring ideas in mathematics: the great theorems, discoveries of beauty and insight that stand today as monuments to the human intellect. Emphasis will be placed on the methods and standards by which mathematics makes judgments. Among the major topics covered are: Euclid and the infinitude of primes, Archimedes determination of circular area, Cardano and the solution of the cubic, the Bernoullis and the harmonic series, a sample of Euler’s number theory, Cantor and the transfinte realm. Along with the essential mathematics, the humanity of these great mathematicians is captured. Prerequisite: Membership in the University Honors Program, high school algebra and geometry, and permission of the instructor. LEC.

**IPS 400. Topics in the Theory of Computing. 1-3 Hours.**

This course is designed to allow students to do further readings in the theory of computing beyond the material presented in IPS 101. Topics,
Many graduates are teachers, from elementary school to college. Others have found jobs with the U.S. Foreign Service or other government agencies and with companies with business interests in Latin America. U.S. interest in Brazil grows. Graduates from Latin American Area Studies have an interest in Hispanic cultures. Speakers of Portuguese with an interest in Brazil may find themselves in demand as U.S. interest in Brazil grows. Graduates from Latin American Area Studies have found jobs with the U.S. Foreign Service or other government agencies and with companies with business interests in Latin America. Many graduates are teachers, from elementary school to college. Others

work with non-governmental organizations doing development and social service work in Latin America.

Although students may choose to single major, most find that double majoring in Latin American Area Studies and another discipline makes them particularly attractive to employers. Students who combine Latin American & Caribbean Studies with journalism can work for newspapers, radio and television stations, and advertising agencies that serve Latin American countries and Latina/o communities in the United States. A double major in business or social welfare combines well with companies or social service agencies that work with or serve Latin American customers or clients.

Other students complement their Latin American & Caribbean Studies major with a second major in fields such as history, political science, Spanish, economics, or anthropology. Many students go on for an advanced degree in Latin American & Caribbean Studies or other liberal arts disciplines such as history, sociology or economics. Most of these students plan to teach in post-secondary schools or do research in Latin American areas.

Some Latin American Area Studies graduates go on for advanced degrees in business, education, or journalism where they use their knowledge of Spanish and Portuguese languages and cultures to develop a special career niche for themselves. Like many fields in the liberal arts, Latin American and Caribbean Studies helps students build a broad background of knowledge, strengthen writing and critical thinking skills, and develop the flexibility of thought that today’s constantly changing workplace requires.

### Undergraduate Programs

The program offers a range of opportunities for students from most academic disciplines to study this region. KU has particular depth in Central America, Mexico, Haiti, the Andes, Paraguay, and Brazil and professors and courses concerned with much of the rest of Latin America. KU has an excellent library collection on Latin America and is one of the few U.S. universities teaching Haitian Creole, Kaqchikel Maya, and Andean Quechua.

The B.A. degree provides a broad academic background with a regional focus, usually in conjunction with a second major, and a mastery of Spanish and other languages. The program enables students to take courses in many departments and lays the foundation for graduate work. Students are encouraged to pursue graduation with honors in Latin American and Caribbean studies.

Prospective majors should begin language study in Spanish or Portuguese as early as possible. The intensive language program is recommended for those without high school preparation. Core courses in Latin American and Caribbean Studies have been certified as meeting KU Core learning outcomes, enabling majors to complete significant portions of their general education requirements within the major.

All students must be advised by the program’s advisor as early as possible; call the Center for Latin American and Caribbean Studies (http://latamst.ku.edu) at 785-864-4213 to make an appointment.

### Graduate Programs

The Center for Latin American & Caribbean Studies administers an interdisciplinary program of substantive and language courses leading to
the Master of Arts degree. Students may pursue the M.A. as a terminal degree for careers in the public or private sector or as preparation for additional graduate study. The center also offers 2 graduate certificates of 4 courses each in Brazilian Studies and Central American and Mexican Studies.

Center for Latin American and Caribbean Studies

The nationally recognized Center for Latin American and Caribbean Studies (http://latamst.ku.edu) promotes interdisciplinary study of the Americas and their languages through teaching, scholarship, outreach, study abroad, and international exchanges. It administers bachelor’s and master’s degree programs and graduate certificate programs in Central American and Mexican Studies and Brazilian Studies. Areas of particular strength are Central America, Mexico, Brazil, and Paraguay. Languages include Spanish, Portuguese, Kachiquel Maya, Quichua, and Haitian Creole. The center coordinates Latin American events on campus including lectures, films, exhibits, and theatrical performances. Exchanges and study abroad programs have been developed in Costa Rica, Mexico, Peru, and Brazil. The center offers outreach to schools, businesses, and the community and serves as a resource for the state, the region, and the nation.

Courses

KICH 110. Elementary Quichua I. 3 Hours. U.
An orientation to Ecuadorian Quichua language and culture for beginning students. Includes elements of grammar, conversation, and composition. Quichua (a.k.a. Kecha, Quechu, Kechua, Ketchua, Kichwa, Khetchua, or Runa Ximi) in its various forms is an indigenous language spoken by over six million people in Ecuador, Peru and Bolivia combined. LEC.

KICH 114. Elementary Quichua II. 3 Hours. U.
Continuation of KICH 110. Prerequisite: KICH 110 or equivalent LEC.

KICH 230. Intermediate Quichua I. 3 Hours. U.
Continuation of KICH 114. Prerequisite: KICH 114 or equivalent. LEC.

KICH 234. Intermediate Quichua II. 3 Hours. U.
Continuation of KICH 230. Prerequisite: KICH 230 or equivalent. LEC.

KQKL 110. Elementary Kaqchikel Maya I. 3 Hours. U.
An orientation to Kaqchikel Maya language and culture for beginning students. Includes elements of grammar, conversation, and composition. Kaqchikel is the first language of approximately 500,000 people of highland Guatemala and one of roughly 30 Mayan languages. LEC.

KQKL 114. Elementary Kaqchikel Maya II. 3 Hours. U.
Continuation of KQKL 110. Prerequisite: Completion of KQKL 110 or equivalent. LEC.

KQKL 230. Intermediate Kaqchikel Maya I. 3 Hours. U.
Continuation of KQKL 114. Prerequisite: Completion of KQKL 114 or equivalent. LEC.

KQKL 234. Intermediate Kaqchikel Maya II. 3 Hours. U.
Continuation of KQKL 230. Prerequisite: Completion of KQKL 230 or equivalent LEC.

LAA 100. Latin American Culture and Society. 3 Hours. SC AE42 / S.
An introduction to the interdisciplinary study of Latin America, as manifest in the arts and literature, history, and in environmental, political, economic, and social realities. Explores and critiques the principal themes and methodologies of Latin American Studies, with an aim towards synthesizing contributions from several different disciplines. Emphasizes the unique insights and perspectives made possible by interdisciplinary collaboration and provides students with a basic knowledge base for understanding Latin America today. (Same as HIST 124.) LEC.

LAA 102. Orientation Seminar in Latin American and Caribbean Studies. 1 Hour. U.
LAA 102 is an online orientation seminar designed to introduce students to the Latin American and Caribbean Studies major at KU and help students place the major in the context of their overall undergraduate experience and career plans. The course provides students with introductory information about Latin America and the Caribbean and the nature of interdisciplinary inquiry, and an interdisciplinary major, and about resources available at KU and beyond for research and study related to the region. During the course, students also learn about typical careers pursued by Latin American and Caribbean Studies majors, reflect on their own educational and career goals, and determine whether the major matches those goals. Finally, the course provides students with information about requirements for the major, along with information about when required courses are offered and when they should be taken. LEC.

LAA 177. First Year Seminar: _____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Latin Area and Caribbean Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

LAA 300. Interdisciplinary Themes in Latin American Studies. 3 Hours. AE51 / U.
This course offers an in-depth examination of several key themes in Latin American Studies. Emphasis is placed on exploring the utility of interdisciplinary methods and on becoming familiar with the theoretical framework that underpins the field. Prior completion of LAA 100 is recommended. LEC.

LAA 302. Topics in Latin American Area Studies:_____. 3 Hours. U.
Investigation of special topics on Latin America at the undergraduate level. LEC.

LAA 332. Language and Society in Latin America. 3 Hours. NW AE42 / S.
This course will examine the cultural and social significance of Amerindian languages in Latin America. Spanish and Portuguese will be related in language situations to Amerindian languages, such as Quechua, Aymara, the Mayan languages, Nahuatl, and Guarani. Some African-substratum Creole languages will be used to illustrate the multifaceted relations between language and ethnic group, sex, nation, geography, social class, context, and social interaction. LEC.

LAA 333. Language and Society in Latin America, Honors. 3 Hours. NW AE42 / S.
This course will examine the cultural and social significance of Amerindian languages in Latin America. Spanish and Portuguese will be related in language situations to Amerindian languages, such as Quechua, Aymara, the Mayan languages, Nahuatl, and Guarani. Some African-substratum Creole languages will be used to illustrate the multifaceted relations between language and ethnic group, sex, nation, geography, social class, context, and social interaction. Prerequisite: Membership in the University Honors Program. LEC.

LAA 334. Indigenous Traditions of Latin America. 3 Hours. NW AE42 / S/W.
A survey of the major indigenous traditions of Mesoamerica, the Andes, and lowland tropical Latin America. Coverage emphasizes how indigenous cultural traditions and societies have both continued and changed since the European Invasion and addresses such current issues
as language rights, territorial rights, sovereignty, and state violence. Students enrolled in the 600-level section will be required to complete additional research and class leadership tasks. Not open to students who have taken LAA 634. (Same as ANTH 379.) LEC.

LAA 335. The Politics of Language in Latin America. 3 Hours. NW / S. Although approximately 600 indigenous languages are spoken by 30 million people in Latin America, public life is conducted in Spanish. The class provides a comprehensive survey of language issues in Latin America by analyzing the situation of minority language groups, language rights, language policies, and language planning, as well as by considering the questions that arise regarding bilingual education, literacy, and the role of minority languages in educational systems. LEC.

LAA 402. Topics in Latin American Area Studies. 3 Hours. U. Investigation of special topics on Latin America at the undergraduate level. LEC.

LAA 450. Capstone Course in Latin American Studies. 3 Hours. AE61 / U.
The interdisciplinary focus of this class allows students to connect what they have learned about major issues in the field of Latin American Studies with a thematic focus of the professor’s choosing. By the end of the class and culminating their study of the field at KU, they will be able to discuss these issues from a variety of theoretical, methodological, and disciplinary perspectives as demonstrated in the portfolio of written work maintained throughout the semester. Prerequisite: Completion of 3 courses at the 300 level and above with Latin American content in the Humanities and 3 at the 300 level and above in the Social Sciences (that is, at least 18 credits toward the major); or permission of instructor. LEC.

LAA 499. Honors Course in Latin American Studies. 3 Hours. AE61 / H.
Intensive study and research under faculty direction. Open to students wishing to graduate with honors in Latin American Studies and having a grade point average of at least 3.5 in Latin American Studies and at least 3.25 overall. Requires an interdisciplinary project concerning a specific topic involving at least two disciplines. Must be directed by a faculty member in Latin American Studies, approved by the Center Associate Director, and defended before a committee of at least three faculty members. To earn departmental honors, a student must take the course for two semesters (with a minimum grade of B the first semester, and an A the second). LEC.

LAA 500. Directed Study in Latin American Area Studies. 1-3 Hours. AE61 / U.
Independent study and directed reading on special topics. IND.

LAA 501. Multilingualism and Multiculturalism in Latin America. 3 Hours. H.
Examines the sociolinguistic issues of multilingual countries in Latin America from an interdisciplinary perspective. Topics include but are not limited to linguistic inequality, the language of politics, language and education, urban and rural linguistic interaction, and indigenous and creole languages. Prerequisite: A liberal arts course with Latin American content. LEC.

LAA 503. Race, Gender, Ethnicity, and Nationalism in Latin America. 3 Hours. NW AE42 / H.
The development of cultural identity in Latin America is traced through the study of major narrative trends including Amerindian languages and the analysis of "indigenista" literature. The African substratum of Latin American culture and its relation to concepts such as "marvelous realism" is explored. The importance of "race," "gender," and "ethnicity" are investigated as tools to define national identity in Latin America. The influence of modernization, industrialization, and nationalistic and populist thought on their emergence of distinctive writing and themes is also assessed. LEC.

LAA 504. Politics of Culture in Modern Latin America. 3 Hours. H.
This course explores the relationship between political development and cultural phenomena of Latin America from 1800 to the present, with special emphasis on gender, popular culture, and ideology. The influences of 20th-century ideologies and technology on cultural development in Latin America will also be examined. LEC.

LAA 505. U.S. Latino and Latin American Film and Literature. 3 Hours. H.
This course follows the development of U.S. Latino and Latin American cinema from its origins to the present and its relationship with literary discourse. U.S. Latino/Latin American cinema can be seen as a specific practice that cannot be reduced in all its manifestations to the institutional mode of production of the dominant Hollywood model. The course examines the creation of a national cinema that seems to be more dependent on a literary canon. Knowledge of Spanish is not required. LEC.

LAA 506. Race, Gender, Ethnicity, and Nationalism in Latin America, Honors. 3 Hours. NW AE42 / H.
The development of cultural identity in Latin America is traced through the study of major literary works of the nineteenth and twentieth centuries. The importance of "race," "gender," and "ethnicity" are explored as tools to define national identity in Latin America. The impact of modernization, industrialization, and nationalistic and populist thought on the emergence of distinctive writing and themes is also assessed. Prerequisite: Membership in the University Honors Program. LEC.

LAA 508. Multidisciplinary Field School in Partnership with the Chorti Maya. 3 Hours. S.
Teams of interdisciplinary students partner with the Chorti Maya of Guatemala and Honduras to share information and experiences. One third of the course consists of readings and 4-5 orientation sessions on campus, and two thirds entails two weeks in Central America. Examples of activities might include historical research, water testing and improvement, photography, art, music, tourism consultation, marketing of crafts, human rights advocacy, web design, computer training, and museum work, among others. There are no prerequisites, but...
students with a working knowledge of Spanish will receive preference for admission. (Same as ANTH 587.) LEC.

LAA 602. Topics in Latin American Studies: _____ 3 Hours. U.
Investigation of special topics on Latin America. LEC.

LAA 634. Indigenous Traditions of Latin America. 3 Hours. NW AE42 / S/W.
A survey of the major indigenous traditions of Mesoamerica, the Andes, and lowland tropical Latin America. Coverage emphasizes how indigenous cultural traditions and societies have both continued and changed since the European Invasion and addresses such current issues as language rights, territorial rights, sovereignty, and state violence. Students enrolled in the 600-level section will be required to complete additional research and class leadership tasks. Not open to students who have taken ANTH 379 or LAA 334. LEC.

LAA 665. Women, Health, and Healing in Latin America. 3 Hours. S.
This seminar uses a life-cycle approach to examine women’s health (physical, mental, and spiritual) and their roles as healers. Special consideration is given to the effects of development programs on well-being, access to health care, and changing roles for women as healers. Cases will be drawn from a variety of Latin American contexts. (Same as ANTH 665 and WGSS 665.) Prerequisite: 6 hours coursework in Anthropology and/or Women’s Studies and/or Latin American Studies. LEC.

LAA 700. Introduction to Latin American Library Resources. 3 Hours.
A survey of bibliographic and reference sources for research on Latin America in the humanities and social sciences. Designed to prepare students for library research at the seminar, thesis, or dissertation level. Prerequisite: Junior standing, reading knowledge of Spanish or Portuguese. LEC.

LAA 701. Interdisciplinary Seminar in Latin American Culture and Problems. 3 Hours.
An interdisciplinary seminar incorporating significant and pertinent materials from the fields of anthropology, economics, geography, history, political science, sociology, and Spanish and Portuguese literature. Required of all graduate students enrolled in the Master of Arts program in Latin American Area Studies. Prerequisite: LAA 700 (may be taken simultaneously with LAA 701 if both courses offered during same semester). LEC.

LAA 703. Research Colloquium on Brazil. 3 Hours.
An interdisciplinary research seminar on historical and contemporary issues in Brazil, incorporating information and analysis from such fields as anthropology, economics, geography, history, political science, sociology, and Spanish and Portuguese literature and culture. Required for the Brazilian Graduate Certificate. Prerequisite: Recommended reading proficiency in Portuguese. LEC.

LAA 704. Research Colloquium on Central America and Mexico. 3 Hours.
An interdisciplinary research seminar on historical and contemporary issues in Central America and Mexico, incorporating information and analysis from such fields as anthropology, economics, geography, history, political science, sociology, and Spanish and Portuguese literature and culture. Required for the Central America Mexico Graduate Certificate. Prerequisite: Recommended reading proficiency in Spanish. LEC.

LAA 800. Investigation and Conference. 1-2 Hours.
Investigation and research of interdisciplinary topics in Latin American Studies. RSH.

LAA 899. Thesis/Non-Thesis. 1-6 Hours.
Prerequisite: Consent of instructor. THE.

Bachelor of Arts and Bachelor of General Studies in Latin American Area and Caribbean Studies

Overview of the Bachelor of Arts degree in Latin American & Caribbean Studies

The Bachelor of Arts degree in Latin American & Caribbean Studies provides a broad academic background with a deep regional focus, often in conjunction with a second major in a specific discipline, and a mastery of Spanish and other languages. The program enables students to take courses in a variety of departments as a part of their plan of study and can lay a strong foundation for graduate work. Students are encouraged to pursue graduation with honors in Latin American & Caribbean Studies.

Prospective majors should begin language study in a Latin American Language of their choice as soon as possible. The intensive language program is recommended for those without high school preparation. All three core courses for the Latin American & Caribbean Studies major are certified as meeting KU Core learning outcomes. All students must be advised by the designated advisor (http://clas.ku.edu/people/SAS/cook) of the program.

Undergraduate Admission

Admission to KU

All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

Latin American and Caribbean Studies Majors

Students may earn a double major (one in a particular discipline and one in Latin American and Caribbean studies) or a single major in Latin American and Caribbean studies. In addition to meeting the College language requirement in Spanish or Portuguese, all majors earn a
The minimum of 30 hours in substantive courses on Latin America and the Caribbean.

**Requirements for the B.A. or B.G.S. Major**

**Language Proficiency Requirements (0)**

Complete each of the following:

- Intermediate-level language (4 semesters or equivalent) at least up to the following:
  - **SPAN 216**  Intermediate Spanish II
  - **SPAN 217**  Honors Intermediate Spanish II
  - **SPAN 220**  Intensive Intermediate Spanish

**Course Requirements (9)**

Courses may count for 2 requirements. Complete each of the following (9 hours):

- **LAA 100**  Latin American Culture and Society  3
- **LAA 300**  Interdisciplinary Themes in Latin American Studies  3
- **LAA 450**  Capstone Course in Latin American Studies  3

**Core Requirements (24)**

A minimum of 24 hours (8 different courses) is required. These courses may also be used toward a minor. Complete each of the following:

- 12 hours in Culture, Literature, and the Arts (4 different courses)  12
- 12 hours in Society, Politics, and Economics (4 different courses)  12

**Minimum Major Requirements 33 Hours**

**Note:** Students earning a double major must have 15 hours unique to each major.

**Latin American and Caribbean Studies Courses by Topics**

**Note:** Students choosing their own topics for research papers must select a topic related to Latin America and the Caribbean. All courses must have at least 25 percent Latin American and Caribbean content to count toward the major.

Courses with a blank (_____) at the end of their titles are typically topics or seminar courses that may be repeated for credit. Usually these courses offer different topics each time they are taught. Students should check with the course instructor about the requirements to take the course and what the topic will be when it is offered.

**I. Culture, Literature, and the Arts**

- **LAA 302/602**  Topics in Latin American Area Studies: ____ (may be repeated as topic changes)  3
- **LAA 332**  Language and Society in Latin America  3
- **LAA 334/634**  Indigenous Traditions of Latin America  3
- **LAA 503**  Race, Gender, Ethnicity, and Nationalism in Latin America  3
- **MUSC 305**  Music of Latin America  3
- **MUSC 312**  Music in the Andes  3
- **MUSC 313**  Music in Mexico and the Caribbean  3
- **PORT 300**  Brazilian Culture  3
- **PORT 340/540**  Textual Analysis and Critical Reading  3
- **PORT 347**  Brazilian Studies: _____  3
- **PORT 365**  Studies in Brazilian Film: _____  3
- **SPAN 448**  Spanish Language and Culture for Business  3
- **SPAN 460**  Colonial Spanish-American Studies: ____  3
- **SPAN 462**  Twentieth Century Spanish-American Studies: ____  3
- **SPAN 463**  National Traditions in Spanish America: ____  3
- **SPAN 560**  Colloquium on Latin American Film  3

**II. Society, Politics, and Economics**

- **ANTH 379**  Indigenous Traditions of Latin America  3
- **ANTH 380**  Peoples of South America  3
- **ANTH 501**  Topics in Sociocultural Anthropology: ____  3 (Indigenous Development in Latin America/Contemporary Mesoamerica)
- **ANTH 506**  Ancient American Civilizations: Mesoamerica  3
- **ANTH 507**  The Ancient Maya  3
- **ANTH 508**  Ancient American Civilizations: The Central Andes  3
- **ANTH 562**  Mexamerica  3
- **ANTH 674**  Political Anthropology  3
- **HIST 121**  Modern Latin America  3
- **HIST 365**  Invention of the Tropics  3
- **HIST 371**  The Cultural History of Modern Latin America  3
- **HIST 575**  History of Mexico  3
- **HIST 576**  History of the Caribbean and Central America  3
- **HIST 578**  Social History of South America  3
- **HIST 579**  The History of Brazil  3
- **IBUS 415**  Business in Latin America  3
- **LAA 302/602**  Topics in Latin American Area Studies: ____ (may be repeated as topic changes)  3
- **LAA 332**  Language and Society in Latin America  3
- **LAA 334/634**  Indigenous Traditions of Latin America  3
- **LAA 503**  Race, Gender, Ethnicity, and Nationalism in Latin America  3
- **POLS 658**  Theories of Politics in Latin America  3
- **POLS 659**  Political Dynamics of Latin America  3
- **SOC/AMS 332**  The United States in Global Context  3
- **SOC 531**  Global Social Change  3

**Graduation Plan**

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please consult the Center (http://latamst.ku.edu) for details.

**Departmental Honors**

Honors in the Major: To attain the designation of departmental honors, students must fulfill all of the above requirements plus the following:

1. A minimum grade point average of 3.5 in all courses taken to complete the major, and a minimum overall GPA of 3.25.
2. Completion of a study abroad or a service learning experience related to Latin American and Caribbean Studies.
Minor in Latin American Area Studies

The Undergraduate Minor in Latin American & Caribbean Studies provides students with a solid foundation of instruction on Latin American topics to supplement their primary field. There are two tracks within the minor: the General Latin American and Caribbean Studies Track and the Indigenous Studies in Latin America (ISLA) Minor Track. Both tracks require 3 hours of core classes followed by 15 hours of upper-division electives from a wide variety of courses approved by the center. No more than 1 course (3 hours) may be shared with the student’s major. For the General LACS minor track there is no language requirement. The ISLA track requires two semesters of an indigenous language spoken in Latin America. For the General Track LAA 100, LAA 300, LAA 332/333, or LAA 334/ANTH 379 can count as a core course. For the ISLA Track ISP 101 may also count as a core course.

The General Track is for students from several departments and schools who do not wish to concentrate in language studies, but who are interested in aspects such as the history, culture, geography, anthropology, art history, politics, business or journalism of Latin America. This minor will be a great complement to a degree in, for example, business or architecture. There is great flexibility for students who wish to create their own program in order to acquire knowledge in various disciplines subjects. The ISLA track is for similar students who are particularly interested in indigenous peoples of the Western Hemisphere and wish to study an indigenous language. In particular, the ISLA track allows students to integrate coursework on indigenous population of what is now the United States with coursework on such populations elsewhere in the Western Hemisphere.

The Latin American & Caribbean Studies advisor (http://clas.ku.edu/people/SAS/cook) will be glad to speak with any student who may be interested in obtaining the minor. If you would like to make an appointment with the undergraduate advisor or have any questions about the new minor, please contact the Center of Latin American & Caribbean Studies.

Requirements for the Minor

Core Requirements

General Track

The general track requires 18 hours in the minor, 12 of which must be taken at the junior/senior level.

Core Minor Requirements (3)

Choose 1 of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAA 100</td>
<td>Latin American Culture and Society</td>
</tr>
<tr>
<td>LAA 300</td>
<td>Interdisciplinary Themes in Latin American Studies</td>
</tr>
<tr>
<td>LAA 332</td>
<td>Language and Society in Latin America</td>
</tr>
<tr>
<td>or LAA 333</td>
<td>Language and Society in Latin America, Honors</td>
</tr>
<tr>
<td>LAA 334</td>
<td>Indigenous Traditions of Latin America</td>
</tr>
</tbody>
</table>

Junior/Senior Level Electives (15)

<table>
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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
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</tbody>
</table>

Indigenous Studies in Latin America Track

The track in Indigenous Studies in Latin America requires 21 hours in the minor, 12 of which must be taken at the junior/senior level.

Latin American and Caribbean Studies Introductory Course. Satisfied by: (3)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>LAA 100</td>
<td>Latin American Culture and Society</td>
</tr>
<tr>
<td>or ISP 101</td>
<td>Introduction to Indigenous Nations Studies</td>
</tr>
</tbody>
</table>

Two Semesters of an Indigenous Language Spoken in Latin America (6)

Four upper-division courses in Anthropology, Economics, Indigenous Nations Studies, Geography, History, Latin American Area Studies, Linguistics, Music, Political Science, specifically approved as electives for the Minor. (12)

Minor Hours & Minor GPA

While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

<table>
<thead>
<tr>
<th></th>
<th>Minimum Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Hours</td>
<td>Satisfied by 18-21 hours of minor courses.</td>
</tr>
<tr>
<td>Minor Hours in Residence</td>
<td>Satisfied by a minimum of 9 hours of KU resident credit in the minor.</td>
</tr>
<tr>
<td>Minor Junior/Senior (300+) Hours</td>
<td>Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.</td>
</tr>
</tbody>
</table>

Minor Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in all departmental courses in the minor. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://www.collegesas.ku.edu/GPCAcalculator.shtml).

Master of Arts in Latin American and Caribbean Studies

Why study Latin American and Caribbean studies?

Knowledge of Latin American and Caribbean culture, environment, and society is crucial to U.S. hemispheric relations and world understanding.

Graduate Programs

The Center for Latin American & Caribbean Studies administers an interdisciplinary program of substantive and language courses leading to the Master of Arts degree. Students may pursue the M.A. as a terminal degree for careers in the public or private sector or as preparation for additional graduate study. The center also offers 2 graduate certificates of 4 courses each in Brazilian Studies and Central American and Mexican Studies.
Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

Admission requires a B.A., preferably in one of the social sciences or humanities, and language proficiency in either Spanish or Portuguese as demonstrated by completion of a fourth-semester course or the equivalent. The Graduate Record Examination is required for U.S. citizens.

Submit your graduate application online (http://www.graduate.ku.edu). Send transcripts of all completed college and university course work and all other requested application materials to the program:

The University of Kansas The Center for Latin American & Caribbean Studies
Bailey Hall
1440 Jayhawk Blvd., Room 320
Lawrence, KS 66045-7545

M.A. Degree Requirements

Course Work

A minimum of 30 graduate credit hours is required in social sciences or humanities courses with Latin American or Caribbean content. At least 12 hours must have 50 to 100 percent of their content dedicated to Latin America or the Caribbean. Literature courses with Latin American or Caribbean content at the 500-level or above (except PORT 611 and HAIT 500) may be counted as part of the 30 required hours. Required courses are LAA 700 Introduction to Latin American Library Resources, LAA 701 Interdisciplinary Seminar in Latin American Culture and Problems, and 2 other seminars with at least 50 percent of their content dedicated to Latin America, each in a separate discipline, at the 700 level or above (excluding thesis and readings hours).

Incoming students should enroll in LAA 700 during the first fall semester. All students must consult the graduate advisor before enrollment each semester. Up to 12 graduate hours from the University of Costa Rica may be applied to the M.A. To be eligible, students must have completed one semester in a second language. The language requirements should be satisfied as early as possible. Students also must complete two semesters in a second language (SPAN 104 and SPAN 108; PORT 104 and PORT 108), or the equivalent (e.g. PORT 611). Quichua, Kaqchikel Maya, or Haitian Creole may be substituted as the language of reading proficiency with approval of the director.

The language requirements should be satisfied as early as possible. Students also must complete two semesters in a second language (SPAN 104 and SPAN 108; PORT 104 and PORT 108), or the equivalent (e.g. PORT 611). Quichua, Kaqchikel Maya, or Haitian Creole may be substituted as the language of reading proficiency with approval of the director.

M.A. Degree Options

Thesis and nonthesis degrees are offered. The thesis degree is most appropriate as preparation for a doctoral program and dissertation. Students must declare their intention to write a thesis before the end of the first year and form a committee of three faculty members, each from a different discipline. The student defends the completed thesis in an oral examination before this committee. A student must enroll in at least 3 credit hours of thesis. Students may count up to 6 credit hours of thesis toward the degree.

The nonthesis M.A. degree is suitable for a career in public service or business. The culmination of the nonthesis M.A. is an oral examination during the last semester of the student’s program. The Center for Latin American and Caribbean Studies produces a handout, Nonthesis M.A. Degree Option: Oral Exam Guidelines.

A student’s course work is completed, the student must enroll in at least 1 credit hour of thesis/nonthesis (LAA 899) a semester (excluding summers) until the thesis and its defense or the oral examination is completed.

Recommended Graduate Courses

Courses with a blank (_____) at the end of their titles are typically topics or seminar courses that may be repeated for credit. Usually these courses offer different topics each time they are taught. Students should check with the course instructor about the requirements to take the course and what the topic will be when it is offered.

These courses have 50 to 100 percent Latin American or Caribbean content:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS/HIST 574</td>
<td>Slavery in the New World</td>
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<tr>
<td>ANTH 500</td>
<td>Topics in Archaeology; _____ (taught by Hoopes)</td>
<td>3</td>
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<tr>
<td>ANTH 501</td>
<td>Topics in Sociocultural Anthropology; _____ (taught by Metz)</td>
<td>3</td>
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<tr>
<td>ANTH 506</td>
<td>Ancient American Civilizations: Mesoamerica</td>
<td>3</td>
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<tr>
<td>ANTH 507</td>
<td>The Ancient Maya</td>
<td>3</td>
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<tr>
<td>ANTH 508</td>
<td>Ancient American Civilizations: The Central Andes</td>
<td>3</td>
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<tr>
<td>ANTH 718</td>
<td>Seminar in Latin American Archaeology; _____</td>
<td>3</td>
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<tr>
<td>ANTH 775</td>
<td>Seminar in Cultural Anthropology; _____ (taught by Dean, Gibson, Metz)</td>
<td>3</td>
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<tr>
<td>ANTH 785</td>
<td>Topics in Ethnology; _____ (taught by Dean or Metz)</td>
<td>3</td>
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<tr>
<td>ECON 584</td>
<td>Economic Development of Latin America</td>
<td>3</td>
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<tr>
<td>ENGL 790</td>
<td>Studies in: _____</td>
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<tr>
<td>FMS 702</td>
<td>Graduate Seminar in: _____</td>
<td>1-3</td>
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<tr>
<td>GEOG 571</td>
<td>Topics in Cultural Geography; _____ (taught by Brown or Herlihy)</td>
<td>1-3</td>
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<tr>
<td>GEOG 591</td>
<td>Geography of Latin America</td>
<td>3</td>
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<tr>
<td>GEOG 592</td>
<td>Middle American Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 597</td>
<td>Geography of Brazil</td>
<td>3</td>
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</table>
GEOG 771  Topics in Cultural Geography: _____ (taught by Brown or Herlihy)  1-3

GEOG 791  Latin American Regions: _______  3

GEOG 980  Seminar in Geography: _____(taught by Herlihy)  1-3

GEOG 990  Seminar in Regional Geography: _____ (taught by Herlihy)  1-3

HA 505  Special Study: ______  1-6

HAIT 501  Directed Studies in Haitian Culture  1-15

HAIT 700  Investigation and Conference  1-6

HIST 510  Topics in: _______ (taught by Schwaller, Cushman, Rosenthal, Kuznesof)  2-3

HIST 573  Latin America in the 19th Century  3

HIST/AAAS 574  Slavery in the New World  3

HIST 575  History of Mexico  3

HIST 576  History of the Caribbean and Central America  3

HIST 578  Social History of South America  3

HIST 579  The History of Brazil  3

HIST 580  Economic History of Latin America  3

HIST 696  Seminar in: _______ (taught by Schwaller, Cushman, Rosenthal, Kuznesof)  3

HIST 801  Colloquium in: _______ (taught by Schwaller, Rosenthal, Kuznesof)  1-6

HIST 808  Colloquium in Comparative History: _______ (taught by Schwaller, Cushman, Rosenthal, Kuznesof)  3

HIST 820  Colloquium on Popular Culture in Latin America  3

HIST 822  Colloquium in the Urban History of Latin America  3

HIST 823  Colloquium on Colonial Latin America  3

HIST 824  Seminar on Labor in Latin America  3

HIST 825  Seminar in Latin American Foreign Relations  3

HIST 826  Seminar in Twentieth Century South America  3

HIST 827  Colloquium in the Social History of Latin America  3

HIST 853  Research Seminar: The Atlantic World in the Early Modern Period (taught by Schwaller, Kuznesof)  3

HIST 950  Seminar in Latin American History  3

HIST 951  Seminar in Latin American Revolutions  3

HIST 952  Seminar in Ideology, Violence and Social Change in Latin America  3

LING 565  Native Mesoamerican Writing  3

POLS 658  Theories of Politics in Latin America  3

POLS 659  Political Dynamics of Latin America  3

POLS 758  Revolutionary Politics of Latin America  3

PORT 740  Survey of Brazilian Literature  3

PORT 742  The Brazilian Novel  3

PORT 746  The Brazilian Short Story  3

PORT 750  Brazilian Poetry  3

PORT 760  Contemporary Brazilian Literature  3

PORT 780  Special Readings in Portuguese and Brazilian Literature  1-3

PORT 970  Seminar in Brazilian Literature: _______  3

SOC 531  Global Social Change  3

SOC 780  Advanced Topics in Sociology: _______  3

SPAN 520  Structure of Spanish  3

SPAN 522  Advanced Studies in Spanish Language: _______  3

SPAN 540  Colloquium on Hispanic Studies: _______ (Taught with Latin American focus)  3

SPAN 560  Colloquium on Latin American Film  3

SPAN 570  Studies in Hispanic Linguistics: _______  3

SPAN 717  History of the Spanish Language  3

SPAN 720  Syntax and Composition  3

SPAN 770  Spanish-American Drama  3

SPAN 771  Spanish-American Literature: _______  3

SPAN 772  The Modern Spanish-American Novel, 1900-1950  3

SPAN 773  The Modern Spanish-American Novel Since 1950  3

SPAN 774  Spanish-American Poetry  3

SPAN 776  Spanish-American Short Story  3

SPAN 781  Colonial Identities  3

SPAN 784  Spanish-American Modernism and Vanguards  3

SPAN 785  Special Topics in Spanish-American Literature: _______  2-3

SPAN 790  Spanish Linguistics: Theory and Application to Teaching  3

SPAN 795  Literary Theory and Criticism  3

SPAN 817  Spanish Historical Grammar  3

SPAN 970  Seminar: Spanish American Drama: _______  3

SPAN 972  Seminar: Spanish American Novel: _______  3

SPAN 974  Seminar: Spanish American Poetry: _______  3

SPAN 976  Seminar: Spanish American Short Story: _______  3

SPAN 978  Seminar: Spanish American Essay: _______  3

These courses have 25 to 50 percent Latin American and Caribbean content:

AAAS 520  African Studies in: _______  3

AAAS 555  African Film  3

ANTH 501  Topics in Sociocultural Anthropology: _______  3

ANTH 512  Ethnohistory: _______  3

ANTH 544  Origins of Native Americans  3

ANTH 563  Cultural Diversity in the United States  3

ANTH 586  Visual Anthropology  3

ANTH 595  The Colonial Experience  3

ANTH 652  Population Dynamics  3

ANTH 674  Political Anthropology  3

ANTH 695  Cultural Ecology (taught by Gibson or Herlihy)  3

ANTH 754  Biological Bases of Human Behavior (taught by Crawford)  3

ANTH 770  Research Methods in Physical Anthropology  3

ANTH 794  Material Culture  3

ARCH 800  Special Topics in Architecture: _______ (taught by Swann)  1-3

BIOL 607  Field and Laboratory Exercises in Plant Ecology  2

BIOL 789  Field Course in Entomology  1-6

C&T 807  Multicultural Education  3

C&T 864  International Issues in the K-12 Classroom  3

ECON 582  Economic Development  3

ECON 604  International Trade  3

ECON 605  International Finance  3

ECON 715  Elementary Econometrics  3
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<td>ECON 740</td>
<td>Theory of Economic Growth and Development</td>
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<tr>
<td>ELPS 773</td>
<td>School and Society in Comparative Education</td>
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<tr>
<td>ELPS 772</td>
<td>Philosophical Problems in Comparative Education</td>
<td>3</td>
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<tr>
<td>ENGL 570</td>
<td>Topics in American Literature: ______ (taught by Giselle Anatol or Marta Caminero-Santangelo)</td>
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<tr>
<td>FMS 902</td>
<td>Film Seminar: ______ (taught by Falicov)</td>
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<tr>
<td>GEOG 570</td>
<td>Geography of American Indians (taught by Herlihy)</td>
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<td>GEOG 670</td>
<td>Cultural Ecology</td>
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<td>GEOG 775</td>
<td>Proseminar in Population Geography</td>
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<td>HA 706</td>
<td>Seminar on Special Problems in Art History: ______ 1-6 (taught by Eldredge)</td>
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<td>HAIT 500</td>
<td>Directed Studies in Haitian Language and Literature</td>
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<td>HIST 509</td>
<td>Multinational Corporations: The Role of Money and Power</td>
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<td>HIST 551</td>
<td>Spain and its Empire, 1450-1700</td>
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<td>HIST 696</td>
<td>Seminar in: ______</td>
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<td>HIST 806</td>
<td>Studies in: ______</td>
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<td>HWC 620</td>
<td>Study of a Culture: ______</td>
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<tr>
<td>IBUS 701</td>
<td>International Business (taught by Kleinberg)</td>
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<td>IBUS 895</td>
<td>Graduate Seminar in International Business: ______ 0.5-5 (taught by Birch)</td>
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<td>LING 575</td>
<td>The Structure of: ______</td>
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<tr>
<td>LING 700</td>
<td>Introduction to Linguistic Science</td>
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<td>LING 791</td>
<td>Topics in Linguistics: ______</td>
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<tr>
<td>MUSC 560</td>
<td>Music in World Cultures (taught by Wong)</td>
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<td>MUSC 754</td>
<td>Music of the Baroque Era</td>
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<td>MUSC 940</td>
<td>Seminar on Selected Topics in Musicology: ______ 3 (taught by Schwartz-Kates)</td>
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<td>POLS 600</td>
<td>Contemporary Feminist Political Theory</td>
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<tr>
<td>POLS 660</td>
<td>The Politics and Problems of Developing Countries</td>
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<td>POLS 663</td>
<td>Protest and Revolution</td>
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<td>POLS 672</td>
<td>International Political Economy</td>
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<td>POLS 726</td>
<td>Public Policy in Comparative Perspective</td>
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<td>POLS 774</td>
<td>International Law</td>
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<td>POLS 850</td>
<td>Introduction to Comparative Politics</td>
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<td>POLS 870</td>
<td>International Relations</td>
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<td>POLS 960</td>
<td>Politics of Developing Countries</td>
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<td>POLS 973</td>
<td>International Political Economy</td>
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<tr>
<td>POLS 974</td>
<td>International Mediation and Conflict Resolution</td>
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<tr>
<td>POLS 978</td>
<td>Advanced Topics in International Relations Theory</td>
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<tr>
<td>SOC 533</td>
<td>Industrialization in Developing Nations</td>
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<tr>
<td>SOC 619</td>
<td>Political Sociology</td>
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<td>SOC 873</td>
<td>International Political Economy</td>
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<td>SOC 892</td>
<td>Teaching Seminar</td>
<td>1-3</td>
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<tr>
<td>SOC 970</td>
<td>Seminar on Special Topics in Social Conflict and Change: ______</td>
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<tr>
<td>SPAN 801</td>
<td>Teaching Spanish in Institutions of Higher Learning</td>
<td>3</td>
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<tr>
<td>UBPL 565</td>
<td>Introduction to Sustainable Land Use Planning</td>
<td>3</td>
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<tr>
<td>WGSS 560</td>
<td>Race, Gender, and Post-Colonial Discourses (taught by Ajayi-Soyinka)</td>
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<tr>
<td>WGSS 600</td>
<td>Contemporary Feminist Political Theory</td>
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</tr>
</tbody>
</table>

### Study in Latin America

The center encourages students to study and do research in Latin America or the Caribbean. Intensive language institutes in Portuguese and Spanish are held in Salvador, Brazil; and Puebla, Mexico; respectively. The center has helped develop exchange relationships with universities in Costa Rica, Paraguay, Peru and Brazil. One of the oldest and most successful academic study abroad programs in Latin America is the Kansas program at the Universidad de Costa Rica.

### Liberal Arts and Sciences Bachelor of General Studies Degree

**Why pursue the B.G.S. Liberal Arts and Sciences degree option?**

If, as a student, your personal goals are best served by:

- A more broad-based, liberal arts and sciences curriculum with balanced contributions from natural sciences and mathematics, social sciences, and the humanities (requiring exploration in 15 different disciplines with the completion of a minimum of 100 hours in the College).
- The broadest preparation for admission into a professional program.
- An avenue for adding a bachelor’s degree to an already existing technical degree or licensure certificate.
- A degree option with maximum flexibility.
- A distance-education option for a KU degree.
- A degree that provides students the opportunity to build the skills and knowledge employers indicate are required for success in our changing economy and world community — skills that are limited in current college graduates.

### The B.G.S. Liberal Arts and Sciences degree option is

- Not an “Easy Out” degree option. Academic standards are the same for all degrees granted by the College of Liberal Arts and Sciences.
- Not a quick option for a bachelor’s degree when a minimum of 120 hours including a significant number of medical, technical and professional courses have been completed. KU policy regarding acceptance of transfer work still applies. Students are allowed to use a maximum of 20 hours outside of the College toward the degree.
- Not an option in which students may pursue majors or minors in the College.
Bachelor of General Studies in Liberal Arts and Sciences

Why pursue the B.G.S. Liberal Arts and Sciences degree option?

If, as a student, your personal goals are best served by:

• A more broad-based, liberal arts and sciences curriculum with balanced contributions from natural sciences and mathematics, social sciences, and the humanities (requiring exploration in 15 different disciplines with the completion of a minimum of 100 hours in the College).
• The broadest preparation for admission into a professional program.
• An avenue for adding a bachelor’s degree to an already existing technical degree or licensure certificate.
• A degree option with maximum flexibility.
• A distance-education option for a KU degree.
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• Not an option in which students may pursue majors or minors in the College.

Liberal Arts and Sciences Admission Criteria

• Exploration of 10 departments within the College.
• Admission GPA at or above cumulative 2.0 KU GPA (2.0 required).

Undergraduate Admission

Admission to KU

All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

Requirements to Select B.G.S. Liberal Arts and Sciences Degree Option

CLAS Bachelor of General Studies (BGS) General Education Requirements

General Education provides opportunities for the development of core skills, critical inquiry, integrated knowledge, an appreciation of diversity, contemporary issues, and social responsibility.

B.G.S. Liberal Arts and Sciences Degree Option Requirements

The Bachelor of General Studies degree has two distinct options for completion and requires either

• Option A. Completion of the requirements of a single BGS major AND a secondary field of academic study (a second major or minor) OR
• Option B. Completion of the B.G.S. in Liberal Arts and Sciences. This degree program requires:
  • Liberal Arts and Sciences Breadth Requirement. Satisfied by the completion of a course (with a minimum of 2 credit hours) in 15 unique departments/programs within the College or School of the Arts (as determined by course prefix). Courses fulfilling this requirement may also contribute to the KU Core and other requirements.
  • World Language and Culture.
    • 2 courses (each with 3 credit hours or more) in a single world language OR
    • the KU Core, Completion of 3 courses (each with 3 credit hours or more) in world, non-Western culture (W or NW designated courses), or language areas beyond the KU Core. This may include a variety of areas, languages, and cultures.
  • Additional Natural Sciences and Mathematics. Satisfied by the completion of two additional courses from the natural sciences (requirement code N) and/or mathematics (MATH prefix courses) beyond the KU Core.

Minimum hour and grade-point average standards (all CLAS degrees)

• 120 credit hours
• 45 junior/senior credit hours (numbered 300 or above)
• 100 credit hours from units in the College of Liberal Arts and Sciences
• 2.0 minimum KU cumulative grade-point average
Graduation with Honors

Undergraduates may earn honors upon graduation in 3 ways. The student may graduate with distinction or highest distinction, earn departmental honors in the major, or complete the University Honors Program (http://www.honors.ku.edu). It is possible to earn honors in 1 of these areas, any combination of them, or all 3. The award of honors is noted on the student’s transcript and in the Commencement program. Distinction and highest distinction are noted on the diploma.

Graduation with Distinction or Highest Distinction

The top 10 percent of each year’s graduating class is designated as graduating with distinction. Of these, the top one-third is designated as graduating with highest distinction. To be eligible, students must have completed at least 60 credit hours, graded A through F, in residence at KU. See Required Work in Residence below.

Department of Linguistics

Why study linguistics?

Because language is a window into the mind. Linguistics provides an understanding of the human capacity to acquire, perceive, and produce language and of language’s role in contemporary society.

Facilities

The Department of Linguistics houses 7 research and teaching laboratories.

The Developmental Psycholinguistics Laboratory is equipped to investigate how preschool-age children acquire and use the knowledge of meaning in their first language. The lab uses various psycholinguistic tasks, such as linguistic comprehension tasks and the visual-world eye tracking paradigm, to assess children’s representation and real-time processing of meaning. The lab houses an eye tracking system with a remote camera designed specifically for children to participate in the visual-world eye tracking paradigm.

The Field Linguistics Laboratory provides an environment for on-site elicitation work with speakers as well as the processing, analysis, and archiving of field data. The laboratory is equipped with computer workstations and an assortment of audio/video recording devices suitable for a range of fieldwork projects.

The Mayan Language Acquisition Laboratory provides facilities for documenting the acquisition of Mayan languages. The laboratory processes audio and video recordings of children acquiring the Mayan languages Ch’ol, K’iche’, Mam, and Q’anjob’al. The laboratory uses the Qanform software suite to produce transcriptions that conform to the Minimal Coding standard (Pye 2001). A uniform transcription protocol ensures that transcriptions for all the languages have a standard format. Transcripts are available online at the Adquisición de Lenguas Mayas (ALMA) website.

The Neurolinguistics and Language Processing Laboratory is fully equipped for multi-method, cross-linguistic research on the implementation of language in the brain. The laboratory includes a 70-channel Neuroscan Synamps2 EEG system for visual and auditory ERP (event-related potentials) studies, and two dedicated testing rooms for psycholinguistic experiments including lexical decision, priming, and self-paced reading. Brain imaging studies, including MEG and fMRI, are conducted at the Hoglund Brain Imaging Center at the University of Kansas Medical Center in Kansas City.

The Phonetics and Psycholinguistics Laboratory provides an integrated environment for the experimental study of speech and language, including production, perception, and acquisition. Primary research areas in the lab are acoustic and auditory phonetics as well as spoken and written word recognition, all across a variety of languages. Software includes MultiSpeech and Praat for speech analysis and Paradigm, Superlab, and Matlab for collecting responses from up to six subjects simultaneously. Digital noise-free recordings are made in our anechoic chamber.

The Second Language Acquisition Laboratory is equipped with 5 computer workstations and 2 dedicated testing rooms. Computers are equipped with software (Paradigm) for running psycholinguistic experiments (including interpretation tasks, reaction time, self-paced reading, and speeded grammaticality judgment) and for conducting statistical analyses. Primary research areas in the lab are the acquisition and processing of syntax and semantics by adult second language learners, all across a variety of languages. Our research focuses on the linguistic and cognitive factors that impact acquisition at varying stages of development.

The Second Language Processing & Eye-Tracking Laboratory has 2 testing rooms equipped with computer stations for investigating second language speech and sentence processing as well as a head-mounted eye tracker. The research methods employed in the lab include speech perception and word recognition, cross-modal priming and masked priming, self-paced reading and sentence comprehension, and eye tracking in the visual world paradigm and in reading.

Undergraduate Programs

The department offers a broad range of courses that provide a basic understanding of human language and communication. Linguistics courses examine features of language that underlie the human capacity to express concepts and communicate ideas. They address the connections between language, brain, culture, mind, and history.

Graduate Programs

The Department of Linguistics offers the full range of degrees (B.A., M.A., and Ph.D.). Its nucleus of full-time faculty members in linguistics, plus several actively involved faculty members in other departments, serves a student body of about 40 graduate students, 90 undergraduate majors, and many nonmajors taking introductory and intermediate courses each semester.

Areas of special strength in the graduate program include

- Phonetics and phonology
- Syntax and morphology
- First- and second-language acquisition
- Psycholinguistics and neurolinguistics
Courses

LING 106. Introductory Linguistics. 3 Hours. SC AE41/AE42/GE11/GE3S / S.
Introduction to the fundamentals of linguistics, with emphasis on the description of the sound system, grammatical structure and semantic structure of languages. The course will include a survey of language in culture and society, language change, computational linguistics and psycholinguistics, and will introduce students to techniques of linguistic analysis in a variety of languages including English. (Same as ANTH 106). LEC.

LING 107. Introductory Linguistics, Honors. 3 Hours. SC AE41/AE42/GE11/GE3S / S.
Introduction to the fundamentals of linguistics, with emphasis on the description of the sound system, grammatical structure, and semantic structure of languages. The course includes a survey of language in culture and society, language change, computational linguistics and psycholinguistics, and introduces students to techniques of linguistic analysis in a variety of languages including English. Open only to students admitted to the University Honors Program or by consent of instructor. (Same as ANTH 107.) LEC.

LING 110. Language and Mind. 3 Hours. SI AE41/AE42/GE11/GE3S / S.
A study of the relation between language and the human mind, focusing on language as a fundamental aspect of human cognition. Topics include what is innate and what is learned during first and second language acquisition, how we process language, and whether there are areas of the brain specialized for language. LEC.

LING 111. Language and Mind, Honors. 3 Hours. SI AE41/AE42/GE11/GE3S / S.
A study of the relation between language and the human mind, focusing on language as a fundamental aspect of human cognition. Topics include what is innate and what is learned during first and second language acquisition, how we process language, and whether there are areas of the brain specialized for language. Open only to students admitted to the University Honors Program, or by consent of instructor. LEC.

LING 120. The Physics of Speech. 4 Hours. N.
An introduction to the acoustic structure of speech intended for nonscience majors. Emphasis will be placed on the methods and standards by which scientists measure and evaluate the physical characteristics of speech. Topics will include: simple harmonic motion, the propagation of sound waves, aerodynamic aspects of vocal fold vibration, resonance, digital speech processing, frequency analysis, and speech synthesis. Three class hours and one laboratory per week. (Same as SPLH 120.) Prerequisite: MATH 101 or 104 or equivalent. LEC.

LING 177. First Year Seminar: _____, 3 Hours. SC GE11.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in linguistics. May not contribute to major requirements in linguistics. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

LING 180. Study Abroad Topics in Linguistics: _____, 1-3 Hours. U.
This course is designed for the study of special topics in Linguistics. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

LING 300. Empirical Approaches to Languages. 3 Hours. S.
This course provides students with a current overview of experimental data and up-to-date theories addressing empirical approaches to the study of language. A hands-on approach is used to facilitate understanding variation in language comprehension and production, the biological bases of language, and the acquisition of first and second languages. LEC.

LING 305. Phonetics I. 3 Hours. S.
This course provides a basic introduction to the study of human speech sounds. Topics to be covered include anatomy and physiology of the speech production apparatus, transcription and production of the world’s sounds, basic acoustics, computerized methods for speech analysis, acoustic characteristics of speech sounds, stress, and intonation. A hands-on laboratory project is part of the course. Prerequisite: An introductory course in Linguistics. LEC.

LING 307. Phonetics II. 3 Hours. AE61 / S.
This course is a continuation of Phonetics I (LING 305/705) and provides a more detailed survey of acoustic and auditory phonetics. Topics to be covered include vocal tract acoustics, quantal theory, speaker normalization, theories of speech perception, prosody, the phonetics of second language acquisition, and the production and perception of cues to gender, talker, region, and socio-economic status. In addition, a number of laboratory projects are required. Prerequisite: LING 305. LEC.

LING 308. Linguistic Analysis. 3 Hours. GE11 / H.
Practice in applying the techniques of phonological, grammatical, and syntactic analysis learned in introductory linguistics to data taken from a variety of languages of different structural types. Prerequisite: LING 106. LEC.

LING 312. Introduction to Phonology. 3 Hours. S.
This is an introductory course in phonology. It focuses on crucial phonological concepts such as the underlying and surface representations, phoneme and allophone, contrast, alternation, neutralization, distinctive features, and the syllable. It provides the basic skill set for phonological analysis, including how to discover phonological patterns, select underlying representations, and write phonological rules to capture the patterns. Common phonological universals in the world's languages will also be discussed. Prerequisite: LING 305. LEC.

LING 314. Phonological Theory I. 3 Hours. AE61 / S.
This is a survey course on modern phonological theory. It starts with the discussion of the conspiracy and duplication problems in rule-based phonology and works its way to Optimality Theory (OT). Topics in OT include its conceptual and empirical advantages over rule-based phonology, its potential problems and their possible remedies, the relevance of phonetics in OT constraints, correspondence theory, and how OT can be applied to prosodic phenomena such as stress and tone. It also focuses on theory-building in phonology, with discussions on the external motivations for phonological grammar, how to lay out the predictions of a theoretical proposal, and how phonological predictions can be empirically tested. Prerequisite: LING 312 or instructor consent. LEC.

LING 320. Language in Culture and Society. 3 Hours. SC AE41/AE61 / S.
Language is an integral part of culture and an essential means by which people carry out their social interactions with the members of their society. The course explores the role of language in everyday life of peoples in various parts of the world and the nature of the relationship between language and culture. Topics include world-view as reflected in language, formal vs. informal language, word taboo, and ethnography of speaking. (Same as ANTH 320.) LEC.

LING 321. Language in Culture and Society, Honors. 3 Hours. SC AE41/AE61 / S.
An honors section of LING 320 for students with superior academic records. Not open to students who have had ANTH 320 or LING 320.
These areas, learning how to read scientific studies about bilingualism and world and in the U.S.; language maintenance and language loss; effects aspects of bilingualism. We read about and discuss bilingualism in the education exploring the linguistic, sociolinguistic, and psycholinguistic. This course provides an introduction to bilingualism and bilingual LING 343. Bilingualism. 3 Hours. S.

of spoken and written language. Prerequisite: An introductory linguistics course or consent of instructor. LEC.

of social variables affect the forms including age, context, culture, occupation, sex and social class. This focuses on issues of language in society, this course will survey the languages spoken by the Jews throughout their long history in diverse communities around the world. We will learn about Hebrew as a spoken and a sacred language, examine how Jewish languages are born and die, and discuss the resurrection of Modern Hebrew in the state of Israel. All readings are in English. No prior knowledge of languages or linguistics is required. (Same as JWSH 338.) LEC.

LING 333. Semantics. 3 Hours. S.

A study of meaning in natural language usage. Emphasis on referential semantics. Set theory, propositional and first-order logic, and intensional and modal logic as they relate to natural language sentences in a formalized language. Prerequisite: A course in syntax. LEC.

LING 338. Languages of the Jews. 3 Hours. H.

From the beginning, Jewish history and culture is closely tied to language, from Hebrew and Aramaic to the languages of diaspora such as Yiddish and Ladino. Focusing on issues of language in society, this course will survey the languages spoken by the Jews throughout their long history in diverse communities around the world. We will learn about Hebrew as a spoken and a sacred language, examine how Jewish languages are born and die, and discuss the resurrection of Modern Hebrew in the state of Israel. All readings are in English. No prior knowledge of languages or linguistics is required. (Same as JWSH 338.) LEC.

LING 339. Languages of the Jews, Honors. 3 Hours. H.

Honors version of LING 338 or JWSH 338, Languages of the Jews. (Same as JWSH 339.) Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

LING 340. Sociolinguistics. 3 Hours. S.

The formal features of language reflect a broad range of social factors, including age, context, culture, occupation, sex and social class. This course will introduce students to the ways social variables affect the forms of spoken and written language. Prerequisite: An introductory linguistics course or consent of instructor. LEC.

LING 343. Bilingualism. 3 Hours. S.

This course provides an introduction to bilingualism and bilingual education exploring the linguistic, sociolinguistic, and psycholinguistic aspects of bilingualism. We read about and discuss bilingualism in the world and in the U.S.; language maintenance and language loss; effects of languages in contact; bilingual acquisition; the cognitive advantages of bilingualism; and the processing of language in the multilingual mind. Students are guided in conducting a small research project on one of these areas, learning how to read scientific studies about bilingualism and developing an understanding of the relationship between primary research sources and the popular press. LEC.

LING 345. Language and Gender. 3 Hours. S.

This course explores the relationship between language use and gender. The course will specifically focus on how gender affects the ways we use spoken language as well as how we interpret the speech of others. Topics to be discussed will include the function of language in social relationships and language variation in different social contexts. LEC.

LING 350. Comparative and Historical Linguistics. 3 Hours. S.

Human language may be characterized as possessing flexibility, which causes languages to be different from one another in different degrees. This course explores the way languages undergo change in time (historical linguistics), and the ways two or more languages are similar or different (comparative linguistics). The course teaches students how to establish whether languages are genetically related or belong to totally different language families. Prerequisite: An introductory course in linguistics. LEC.

LING 370. Introduction to the Languages of Africa. 3 Hours. NW AE42/GE3H / H/W.

A survey of the indigenous languages of Africa from a linguistic perspective, covering the main language families and their geographic distribution, and focusing on the features and structure of the more widely spoken and representational languages in each family (e.g. Fula, Hausa, Maninka, Swahili, Yoruba). (Same as AAAS 370.) LEC.

LING 415. Second Language Acquisition. 3 Hours. H.

Introduction to the study of second language acquisition: The application of theoretical linguistics to the description of the language that a learner acquires, and to the process of acquisition. Prerequisite: An introductory course in linguistics. LEC.

LING 416. Second Language Acquisition II. 3 Hours. AE61 / S.

This advanced course provides in-depth reading and discussion of several current topics including second language acquisition within a generative framework, processing approaches to second language acquisition, and the role of input and learnability principles in second language acquisition. Both theoretical and methodological issues are discussed. Prerequisite: LING 415 and LING 325; or permission of instructor. LEC.

LING 418. Introduction to Cognitive Science. 3 Hours. S.

Examines the data and methodologies of the disciplines that comprise Cognitive Science, an interdisciplinary approach to studying the mind and brain. Topics may include: consciousness, artificial intelligence, linguistics, education and instruction, neural networks, philosophy, psychology, anthropology, evolutionary theory, cognitive neuroscience, human-computer interaction, and robotics. (Same as PHIL 418, PSYC 418, and SPLH 418.) Prerequisite: Consent of instructor. LEC.

LING 420. Capstone: Research in Language Science. 3 Hours. AE61 / S.

This course provides a foundation for designing, conducting, and critically evaluating quantitative and qualitative research in the language sciences. Topics include formulating a research hypothesis, participant selection, ethical considerations, the scientific method, dependent and independent variables, data collection, descriptive and inferential statistics. Students apply their knowledge of linguistics to formulate a research hypothesis and design an experiment to evaluate this hypothesis. Prerequisite: LING 305, LING 312, LING 325, and either LING 415, LING 425, LING 435, or LING 438. LEC.

LING 421. Capstone: Typology-Unity and Diversity of Human Language. 3 Hours. H.

This course explores the similarities and differences among the worlds’ languages. Students apply their knowledge of phonetics, phonology,
morphology, and syntax in describing and analyzing phenomena from a number of languages. The typological perspective that students develop is applied to topics such as word order, morphological typology, case, lexical categories, and valency. In addition to lecture style instruction, students get hands on practice in collecting, transcribing, and analyzing data from different languages through face to face elicitation with native speakers. Prerequisite: LING 305, LING 312, and LING 325. LEC.

LING 425. First Language Acquisition. 3 Hours. S.
An introductory course in the acquisition of child language. The course will cover relevant historical studies of child language but will focus primarily on recent psycholinguistic approaches toward the description of the process by which a child acquires his native language. Phonological, syntactic, semantic, cognitive, pragmatic, sociolinguistic, and anthropological aspects of the acquisition process are covered. Prerequisite: An introductory course in linguistics. LEC.

LING 430. Linguistics in Anthropology. 3 Hours. S.
The study of language as a symbolic system. Exploration into the interrelatedness of linguistic systems, of nonlinguistic communicative systems, and of other cultural systems. (Same as ANTH 430.) LEC.

LING 435. Psycholinguistics. 3 Hours. S.
A detailed examination of issues in the processing of language. The course provides a survey of research and theory in psycholinguistics, reflecting the influence of linguistic theory and experimental psychology. Spoken and written language comprehension and language production processes are examined. Prerequisite: An introductory course in linguistics or permission of instructor. LEC.

LING 437. Topics in Psycholinguistics. 3 Hours. AE61 / S.
An in-depth examination of selected topics in psycholinguistics. Topics may include spoken language processing, written language processing, neurolinguistics, prosody, and syntactic processing. Prerequisite: LING 435 or consent of instructor. LEC.

LING 438. Neurolinguistics I. 3 Hours. S.
The course explores how language is represented and processed in the human brain. This includes a critical survey of the foundations and the current research in the cognitive neuroscience of language, focusing on the techniques of functional brain imaging (fMRI, PET, EEG, MEG, and related methods), and research on aphasia and other language disorders. This course also includes a component providing laboratory experience with brain imaging research on language. Prerequisite: At least one course in linguistics or permission of the instructor. LEC.

LING 440. Linguistic Data Processing. 3 Hours. H.
This course introduces the tools and techniques necessary to analyze fieldwork data, including research design, recording and elicitation techniques, computational data processing and analysis, and field ethics. The course also covers field recording and data analysis technology, along with methods of phonetic transcription, grammatical annotation and analysis of language context. Practice of techniques is provided via short studies of at least one language. Prerequisite: LING 305 or permission of instructor. LEC.

LING 441. Field Methods in Linguistic Description. 3 Hours. AE61 / H.
The elicitation and analysis of phonological, grammatical, and discourse data from a language consultant. In-depth research on one language. Techniques of research design, methods of phonetic transcription, grammatical annotation, and analysis of language context. Prerequisite: LING 305, LING 312, and LING 325 or permission of instructor. LEC.

LING 442. Neurolinguistics II. 3 Hours. S.
An in-depth discussion of the representation and processing of language from a cognitive neuroscience perspective. This course involves critical discussion of selected topics of current research interest in neurolinguistics. The course also includes a significant hands-on component, in which students receive training in research on the cognitive neuroscience of language by developing and implementing a new EEG study on an aspect of language, as well by completing as a series of mini-labs introducing neuroimaging methods and analyses. Prerequisite: LING 438 or permission of the instructor. LEC.

LING 447. North American Indian Languages. 3 Hours. AE41 / S.
This course introduces students to the indigenous languages of North America. Students critically examine the structures and status of these languages, which have greatly expanded our knowledge of human language and linguistic theory. Topics include the history and future of North American languages and indigenous speech communities, the history of the field of Amerindian linguistics, as well as questions raised by phenomena from American languages in phonology, morphology, syntax, semantics, and historical linguistics. Prerequisite: An introductory course in linguistics. Not open to students enrolled in 747 LEC.

LING 451. Topics in Research in Acquisition and Processing: _____ 3 Hours. H.
This course is primarily intended for students actively engaged in linguistic research on language acquisition, language processing, and neurolinguistics. Students in this course present and discuss study design, methods, data analysis and interpretation of results for their research projects. Professional development topics such as CV development, applications for fellowships, grants and jobs, and the dissemination of research findings are also discussed. May be repeated. Prerequisite: Permission of instructor. LEC.

LING 470. Language and Society in Africa. 3 Hours. NW AE42/GE3H / H/W.
Examines issues and problems associated with language use in sub-Saharan Africa from a sociological perspective. Topics covered include an overview of the types of languages spoken on the continent: indigenous languages, colonial languages, pidgins and creoles, and Arabic as a religious language; problems associated with the politics of literacy and language planning; writing and standardization of indigenous languages; and the cultural and ideological dilemmas of language choice. (Same as AAAS 470.) Prerequisite: AAAS 103, AAAS 305, or LING 106; or consent of instructor. LEC.

LING 483. Computational Linguistics. 3 Hours. S.
A survey of computer-based approaches to the study of morphology and syntax. In addition to its relevance for basic linguistic research, computer-based syntactic analysis in the form of parsers and syntactic/ string generators, provide model testers for the linguistic and analytical tools for the computer scientist concerned with language applications. When taught with LING 783, students at the 700 level will have different course requirements. Prerequisite: An introductory course in linguistics. LEC.

LING 490. Independent Study. 1-3 Hours. AE61 / U.
A special research project or directed readings in an area of linguistics not covered in other courses. No more than 3 hours of LING 490 may be applied toward the requirements for the major. Prerequisite: Consent of instructor. IND.

LING 491. Topics in Linguistics: _____ 1-3 Hours. H.
The content, prerequisites, and credits of this course will vary. May be repeated. IND.

LING 492. Topics in Linguistics: _____ 1-3 Hours. S.
The content, prerequisites, and credits of this course will vary. May be repeated. (Distribution credit given for two or three hours only.) Prerequisite: Consent of instructor. IND.
LING 496. Honors Essay in Linguistics. 1-3 Hours. AE61 / H.
Individual directed research and preparation of an essay on a linguistic topic. Prerequisite: A grade-point average of 3.5 in linguistics and 3.25 in all courses, and consent of the major adviser. IND.

LING 539. First Language Acquisition II. 3 Hours.
A second semester course in child language that explores the acquisition of morphology, syntax, and the ways in which morphology and syntax interact in linguistic theory and language development. Topics covered in the course include agreement, case, null subjects, question formation, pronoun binding, quantification, and control. Prerequisite: LING 325 or LING 425 or consent of instructor. LEC.

LING 543. Language and Culture in Arabic-Speaking Communities. 3 Hours. NW AE42/GE3H / H.
The course examines the links between structure, patterns of use, language choice, and language attitudes in the diglossic and bi-lingual Arabic-speaking communities. It also explores language as a reflector and creator of Arab culture (e.g., linguistic encoding of politeness, the Quranic text as the spoken and written word, the role of tropes in Arabic rhetoric). The topics for discussion range from the micro-level language choice to the macro-level issues of national language policies and planning within the domain of government and education across the Arab world. (Same as AAAS 543) LEC.

LING 556. Native Mesoamerican Writing. 3 Hours. H.
An introduction to the Indigenous writing of Mesoamerica, primarily Epi-Olmec and Mayan hieroglyphic writing. The course will survey the languages of the cultures that originated writing in the New World, and demonstrate the methods being used to decipher Mesoamerican hieroglyphic writing. The connections between language, culture, and writing will be highlighted. Prerequisite: An introductory linguistics course. LEC.

LING 570. The Structure of Japanese. 3 Hours. H.
A detailed study of the phonological and grammatical structure of Japanese and the use of the language in social/cultural contexts. Primarily for students who want a linguistic knowledge of the language rather than a practical command of it. (Same as EALC 570.) LEC.

LING 572. The Structure of Chinese. 3 Hours. H.
A detailed study of the phonological and grammatical structure of Chinese and the interactions between language and culture. Depending on student interests, a unit on the pedagogy of teaching Chinese as a foreign language may also be included. Primarily for students who want a linguistic knowledge of the language rather than a practical command of it. (Same as EALC 572.) LEC.

LING 575. The Structure of: _______. 3 Hours. S.
A detailed study of a language, including its phonological, morphological, syntactic and semantic characteristics. The course provides students with a linguistic knowledge of the language rather than a practical command of it. Prerequisite: A course in linguistics. LEC.

LING 700. Introduction to Linguistic Science. 3 Hours.
An introduction to the theory and techniques of linguistic science for majors and others intending to do advanced work in linguistics and linguistic anthropology. Emphasis on the sound system, grammatical structure, and semantic structure of languages. Lectures and laboratory sessions. (Same as ANTH 725.) Not open to students who have taken ANTH/LING 106 or ANTH/LING 107. Prerequisite: Graduate standing. LEC.

LING 705. Phonetics I. 3 Hours.
This course provides a basic introduction to the study of human speech sounds. Topics to be covered include anatomy and physiology of the speech production apparatus, transcription and production of the world's sounds, basic acoustics, computerized methods for speech analysis, acoustic characteristics of speech sounds, stress, and intonation. A 'hands on' laboratory project is part of the course. Prerequisite: LING 700 or equivalent course. LEC.

LING 706. Current Linguistic Anthropology. 3 Hours.
The fundamental issues, methods, and theories in contemporary linguistic anthropology. (Same as ANTH 706.) Prerequisite: Graduate standing or consent of the instructor. LEC.

LING 707. Phonetics II. 3 Hours.
This course is a continuation of Phonetics I (Ling 705) and provides a more detailed survey of acoustic and auditory phonetics. Topics to be covered include vocal tract acoustics, quantal theory, speaker normalization, theories of speech perception, prosody, the phonetics of second language acquisition, and the production and perception of cues to gender, talker, region, and socio-economic status. In addition, a number of laboratory projects will be required. Prerequisite: LING 705. LEC.

LING 708. Linguistic Analysis. 3 Hours.
Practice in applying the techniques of phonological, grammatical, and syntactic analysis learned in introductory linguistics to data taken from a variety of languages of different structural type. (Same as ANTH 736.) Prerequisite: An introductory course in linguistics. Not open to students who have taken LING 308. LEC.

LING 709. First Language Acquisition. 3 Hours.
Introduction to the study of language acquisition: the significant findings, the basic methodological procedures, and some of the more recent theoretical accounts. Not open to students who have taken LING 425. Prerequisite: LING 700 or equivalent course. LEC.

LING 712. Phonological Theory I. 3 Hours.
This is a survey course on modern phonological theory. It starts with the discussion of the conspiracy and duplication problems in rule-based phonology and works its way to Optimality Theory (OT). Topics in OT include its conceptual and empirical advantages over rule-based phonology, its potential problems and their possible remedies, the relevance of phonetics in OT constraints, correspondence theory, and how OT can be applied to prosodic phenomena such as stress and tone. It also focuses on theory-building in phonology, with discussions on the external motivations for phonological grammar, how to lay out the predictions of a theoretical proposal, and how phonological predictions can be empirically tested. The course is offered at the 300 and 700 levels, with additional assignments at the 700 level. Prerequisite: LING 705. LEC.

LING 714. Phonological Theory II. 3 Hours.
This is an advanced course on modern phonological theory. It discusses phonology as an interdisciplinary and experimental discipline and presents current development in both experimental techniques that shed light on speakers' phonological knowledge and the formal modeling of speakers' phonological grammar. Issues of learnability and how phonological acquisition can be modeled will also be touched upon. Prerequisite: LING 712. LEC.

LING 715. Linguistics and Second Language Acquisition. 3 Hours.
Introduction to the study of second language acquisition: The application of theoretical linguistics to the description of the language a learner acquires, and to the process of acquisition. Prerequisite: LING 700 or equivalent course. LEC.

LING 716. Second Language Acquisition II. 3 Hours.
This advanced course will provide in-depth reading and discussion of several current topics including second language acquisition within a generative framework, processing approaches to second language acquisition, and the role of input and learnability principles in second
linguistics. Both theoretical and methodological issues will be discussed. Prerequisite: LING 715; LING 725, which may be taken concurrently, or permission of instructor. LEC.

LING 720. Research Methods in Linguistics. 3 Hours.
This course provides a foundation for designing, conducting, and critically evaluating quantitative and qualitative research in the language sciences. Topics include formulating a research hypothesis, participant selection, ethical considerations, the scientific method, validity, reliability, data collection, dependent and independent variables, descriptive and inferential statistics. This course will serve students who are interested in the basics of research design and statistics for the study of language. Prerequisite: LING 700 or equivalent course. LEC.

LING 722. Linguistic Typology. 3 Hours.
Different languages use different linguistic mechanisms to encode meanings. This course surveys grammatical concepts and categories found in the world’s languages including tense, aspect, mood, voice, person, and number as well as case relations such as nominative, accusative, ergative, and absolutive. Basic word order typology and discourse functions such as topic, focus, and cohesion are introduced. Examples will be drawn from a wide variety of languages to illustrate how the same concept may be encoded differently, i.e., morphologically, syntactically, or lexically, in different languages. Prerequisite: LING 700 or equivalent course. LEC.

LING 725. Syntax I. 3 Hours.
The basics of theoretical syntax, examining the principles of universal grammar. Topics include phrase structure, relations among syntactic constituents, and the nature of syntactic rules and lexical categories. Prerequisite: LING 700 or equivalent course. LEC.

LING 726. Syntax II. 3 Hours.
An advanced course covering one or more current theories of syntax. The course will provide in-depth reading and discussion on the major areas of syntactic theory including universal grammar, phrase structure theory, lexical projections of argument structure, binding, control, locality condition, constraints on representation, and the relation between syntax and the semantic module. Prerequisite: LING 725. LEC.

LING 727. Morphology. 3 Hours.
An exploration of several topics in word structure and formation. Covers three broad areas: traditional morphology, morpho-phonology, and morpho-syntax. Traditional morphology includes a survey of several kinds of word formation processes, the internal structure of words, morpheme types, inflection, paradigms, derivation, and compounding. Morpho-phonology deals with phonological constraints on morphological processes and prosodic morphology. Morpho syntax concentrates on the syntactic properties of morphological phenomena and interaction of syntactic processes and morphology. The course has a strong emphasis on cross-linguistic comparative morphology. Prerequisite: LING 725, LING 725, or permission of instructor. LEC.

LING 730. Linguistics in Anthropology. 3 Hours.
The study of language as it concerns anthropology. Language systems in relation to culture, language taxonomy, semantics, linguistic analysis as an ethnographic tool. (Same as ANTH 730.) LEC.

LING 731. Semantics. 3 Hours.
A study of meaning in natural language usage. Emphasis on referential semantics. Set theory, propositional and first-order logic, and intensional and modal logic as they relate to nature. Questions that arise in representing the meanings of natural language sentences in a formalized language. Prerequisite: LING 725. LEC.

LING 732. Discourse Analysis. 3 Hours.
This course focuses on linguistic frameworks for the analysis of discourse. Discourse is a linguistic system larger than the sentence (utterance), which connects and contextualizes speech and written text. This course focuses on current issues and theoretical frameworks in the analysis of discourse. Using oral and written data, students will examine how contexts influence and shape linguistic form. Topics covered include transcription systems, the structure and organization of different genres of language, and the performance of social actions, including stance-taking, framing, and the construction of identity. Students will also have an opportunity to perform discourse analytic research on the data of their choice. (Same as ANTH 732.) Prerequisite: ANTH 706 or permission of the instructor. LEC.

LING 733. Language, Gender, and Sexuality. 3 Hours.
This course focuses on the complex relationship between language use and the social construction of gender and sexuality i.e. how language is used in the construction of gender and sexuality, and how gender and sexuality are performed and enacted through language. Examines theoretical notions of language, gender, and sexuality from linguistics, linguistic anthropology, and sociology. Among the topics covered are cross-cultural definitions of masculinity and femininity, construction of gendered and sexual identities through language use, language and power, ideologies, style, and performativity. The course will consider research on language, gender, and sexuality from a variety of cultures within the last 50 years. (Same as ANTH 733.) Prerequisite: ANTH 706 or permission of the instructor. LEC.

LING 734. Language Evolution. 3 Hours.
Human language demonstrates a level of complexity not found in the communicative systems of other species. This course focuses on the development of human language, so as to obtain a better understanding of the origin and development of human language. Questions addressed include: what features of language are distinct from other communicative system, when did human language originate, in what stages did human language evolve, and how does language relate to properties of the human brain and mind? Data from a variety of disciplines will be considered, including primatology, human development, cognition, evolutionary biology, archaeology, and linguistics. (Same as ANTH 734.) Prerequisite: ANTH 106 or LING 106 or ANTH 107 or LING 107 or ANTH 736 or LING 708 or ANTH 725. LEC.

LING 735. Psycholinguistics I. 3 Hours.
A detailed examination of issues in the processing of language. The course will provide a survey of research and theory in psycholinguistics, reflecting the influence of linguistic theory and experimental psychology. Spoken and written language comprehension and language production processes will be examined. (Same as PSYC 735.) LEC.

LING 737. Psycholinguistics II. 3 Hours.
An in-depth examination of selected topics in psycholinguistics. Topics may include spoken language processing, written language processing, neurolinguistics, prosody, and syntactic processing. (Same as PSYC 737.) Prerequisite: PSYC 735/LING 735 or consent of instructor. LEC.

LING 738. Neurolinguistics I. 3 Hours.
We will explore how language is represented and processed in the human brain. This will include a critical survey of the foundations and the newest state-of-the-art research in the cognitive neuroscience of language, focusing on the techniques of functional brain imaging (fMRI, PET, EEG, MEG, and related methods), and research on aphasia and other language disorders. This course will also include a laboratory component providing hands-on experience with brain imaging research on language. Prerequisite: LING 700 or equivalent course. LEC.
LING 739. First Language Acquisition II. 3 Hours.
A second semester course in child language which explores the acquisition of morphology, syntax and the ways in which morphology and syntax interact in linguistic theory and language development. Topics covered in the course include agreement, Case, null subjects, question formation, pronoun binding, quantification, and control. Prerequisite: LING 709 and LING 725 or permission of the instructor. LEC.

LING 740. Linguistic Data Processing. 3 Hours.
The tools and techniques necessary to analyze linguistic fieldwork data, including research design, recording and elicitation techniques, computational data processing and analysis, and field ethics. Techniques of research design, field recording, and data analysis technology. Methods of phonetic transcription, grammatical annotation, and analysis of language context. Practice of techniques via short studies of at least one language. (Same as ANTH 749.) Prerequisite: LING 700 or permission of instructor. LEC.

LING 741. Field Methods in Linguistic Description. 3 Hours.
The elicitation and analysis of phonological, grammatical, and discourse data from a language consultant. In-depth research on one language. Techniques of research design, methods of phonetic transcription, grammatical annotation, and analysis of language context. (Same as ANTH 741.) Prerequisite: LING 705 or permission of instructor. LEC.

LING 742. Neurolinguistics II. 3 Hours.
An in-depth discussion of the representation and processing of language from a cognitive neuroscience perspective. This course involves critical discussion of selected topics of current research interest in neurolinguistics. The course also includes a significant hands-on component, in which students receive training in research on the cognitive neuroscience of language by developing and implementing a new EEG study on an aspect of language, as well by completing as a series of mini-labs introducing neuroimaging methods and analyses. Prerequisite: LING 738 or permission of the instructor. SEM.

LING 747. North American Indian Languages. 3 Hours.
This course introduces student to the indigenous languages of North America. Students will critically examine the structures and status of these languages, which have greatly expanded our knowledge of human language and language theory. Topics include the history and future of North American languages and indigenous speech communities, the history of the field of Americanist linguistics, as well as important linguistic questions raised by phenomena from American languages in phonology, morphology, syntax, semantics, and historical linguistics. Prerequisite: An introductory course in linguistics. LEC.

LING 748. Language Contact. 3 Hours.
Theories and case studies of languages in contact. Areal and genetic linguistics, genesis of pidgins and creoles, multilingualism. Social, political, economic, and geographic factors in language change. (Same as ANTH 748.) Prerequisite: A course in Linguistics. LEC.

LING 749. Linguistics and Ethnolinguistics of China and Central Asia: ____. 3 Hours.
Selected topics in Linguistics and Linguistic Anthropology, focusing on dominant and/or minority languages of China, Central Asia, or a particular region of Central and Eastern Eurasia. Topics may include any subfield of linguistics, including language contact, typology, dialectology, and sociolinguistics. Topic for semester to be announced. (Same as ANTH 749.) Prerequisite: A course in Linguistics. LEC.

LING 782. Research Methods in Child Language. 3 Hours.
A survey of methods for studying phonological, morphological, syntactic, and semantic change during language development. Methods include:

LING 783. Computational Linguistics. 3 Hours.
A survey of computer-based approaches to the study of phonology, morphology, and syntax. In addition to its relevance for basic linguistic research, computer-based work on phonology is central to current research in speech analysis, speech synthesis, and the major artificial intelligence effort described as speech understanding. Computer-based morphological analysis is of theoretical interest to the linguist as well as a major component in content analysis, information retrieval, and other related application areas. Computer-based parsers and syntactic/string generators provide model testers for the linguist and analytical tools for the computational linguist concerned with language applications. Prerequisite: An introductory linguistics course. LEC.

LING 791. Topics in Linguistics: ____. 1-3 Hours.
The content and prerequisites of this course will vary. May be repeated. Prerequisite: Consent of instructor. LEC.

LING 794. Proseminar. 3 Hours.
Introduction to the field of linguistics. Topics include research literature and research methods, thesis and grant writing, and ethics in linguistic research. Required for all first-year graduate students in linguistics. Graded on satisfactory/unsatisfactory basis. LEC.

LING 799. Proseminar in Child Language. 2 Hours.
A review and discussion of current issues in children’s language acquisition. May be repeated for credit. Students are graded S/F. (Same as ABSC 797, PSYC 799 and SPLH 799.) (Formerly HDFL 797.) LEC.

LING 810. Seminar in Ethnolinguistics: ____. 2-3 Hours.
An advanced study of the relations between language and culture. Subject will vary each semester. Students may repeat the course more than once. (Same as ANTH 810.) LEC.

LING 822. Seminar on Acquisition of Language. 3 Hours.
An analysis of recent theoretical issues and research problems in the study of children’s acquisition of language. Prerequisite: LING 709 or consent of instructor. LEC.

LING 850. Topics in Research in Experimental Linguistics: ____. 3 Hours.
This course is primarily for students actively engaged in experimental linguistic research. The course provides students with the opportunity to focus on their current research projects and involves critical analysis, presentation, and discussion of research design, methods, statistical analysis, and data interpretation. May be repeated. Prerequisite: An advanced course in Linguistics or permission of instructor. SEM.

LING 851. Research in Language Acquisition and Processing. 3 Hours.
This course is primarily intended for students actively engaged in linguistic research on language acquisition, language processing, and neurolinguistics. Students in this course present and discuss their research projects. Professional development topics such as CV development, applications for fellowships, grants and jobs, and the dissemination of research findings are also discussed. May be repeated. Prerequisite: Permission of instructor. SEM.

LING 852. Research in Field Linguistics. 3 Hours.
This course is intended for students who are conducting field work on syntax or morphology, typically of an understudied language. The course is structured around a set of topics (variable by semester) which each student will investigate in a particular language. The focus of the course is on data collection and analysis and students will present and discuss
the results of their research projects. May be repeated. Prerequisite: Permission of instructor. SEM.

LING 860. Seminar in Second Language Acquisition. 3 Hours.
Analysis of recent theoretical and methodological issues in the study of second language acquisition. Prerequisite: LING 716 or permission of instructor. LEC.

LING 899. Master's Research Project. 1-3 Hours.
A course for students working on their M.A. Research Project. Normally to be taken during the semester in which the student is submitting the M.A. Research Project. Students must enroll for at least one credit hour. Up to three credits will count toward the minimum number of credits required for the M.A. degree in linguistics. RSH.

LING 910. Linguistic Seminar: ______. 1-3 Hours.
The content and prerequisites of this course will vary. May be repeated. LEC.

LING 947. Seminar in Amerindian Linguistics. 1-3 Hours.
The aim of the seminar is to provide opportunity for interaction among faculty and students sharing an interest in North American Native languages and linguistics. Activities include reading, discussion, and criticism of literature on Amerindian languages and linguistics, and reports on current research of the participants. May be repeated. Prerequisite: LING 747. LEC.

LING 980. Linguistics Field Work. 3-6 Hours.
Independent field work with an informant on a language not normally offered at the University of Kansas, or on a non-standard dialect of one of the more accessible languages. Student must show evidence (file slips for grammatical and phonological analysis, dictionary slips, etc.) of having done the required amount of work without necessarily being able to turn in a completed analysis. Normally for three credits; six credits would be available under certain circumstances such as intensive summer work on location away from the university. Graded on satisfactory/unsatisfactory basis. Prerequisite: LING 712 and LING 725. FLD.

LING 997. Ph.D. Examinations. 1-12 Hours.
A course for students writing answers to the preliminary Ph.D. examination and/or preparing to take the Oral Comprehensive Examination. Normally to be taken during the semester in which the student is submitting answers to the written preliminary examination. May be taken for a maximum of two semesters or twelve credits, whichever comes first. Does not count toward the minimum number of credits required for a graduate degree in linguistics. Graded satisfactory/unsatisfactory on the results of the examination. RSH.

LING 998. Independent Study. 1-12 Hours.
Prerequisite: Written consent of instructor. RSH.

LING 999. Doctoral Dissertation. 1-12 Hours.
THE.

Bachelor of Arts and Bachelor of General Studies in Linguistics

Career Opportunities
Linguistics is a superb preparation for careers that require expertise in the use of language as a means of communication, e.g., you will be well prepared for jobs in education, communications, speech-language pathology and audiology, cognitive science, artificial intelligence, law, and marketing. Knowledge of linguistics is useful in both foreign language and English language education, in helping those with speech and language impairments, and in advertising.

Undergraduate Admission

Admission to KU
All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences
Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

First- and Second-Year Preparation
A student who plans to major in linguistics should fulfill the College foreign language requirement by the end of the junior year. LING 106 or LING 107, which is required for the major, provides an introductory survey of the field, and also fulfills a general education social sciences: culture and society (SC) principal course requirement. In addition, LING 110, which is required for the major, fulfills a general education social sciences: individual behavior (SI) principal course requirement. These courses prepare students for upper-division courses in the major. Students considering a major in linguistics should discuss their plans with the director of undergraduate studies.

Admission to the Major

Admission Requirements
Course Requirements
Prospective majors should enroll in the following 2 introductory courses:
• LING 106/ANTH 106 Introductory Linguistics (or its honors equivalent LING 107/ANTH 107)
• LING 110 Language and Mind

Grade-Point Average Requirements
Students must earn a 2.5 grade-point average in the 2 designated admission courses. KU's course repeat policy (https://documents.ku.edu/policies/governance/USRR.htm#art2sect2) applies to the GPA calculation.
Application Term

Students should apply to the major during the semester in which major admission criteria will be completed; normally no later than 60 hours, or for transferring students, normally during the initial term at KU. Application to this major after completion of 60 hours, or the initial KU term for transfer students, will likely delay graduation.

Requirements for the B.A. or B.G.S. Major

Linguistics Language Proficiency

Majors must meet Language Proficiency (4th level proficiency) in a second language. Even those seeking the B.G.S. in Linguistics must complete the 4th level of foreign language proficiency. See the chart of Foreign Languages offered at KU (http://www.collegesas.ku.edu/advising/foreignlanguage.shtml) for world languages with KU course offerings through the proficiency level.

Linguistics Major Core Knowledge and Skills (15)

Majors must complete a course in each of the following areas:

- Introductory Linguistics. Satisfied by:
  - LING 106 Introductory Linguistics
  - or LING 107 Introductory Linguistics, Honors
- Language & Mind. Satisfied by:
  - LING 110 Language and Mind
- Phonetics I. Satisfied by:
  - LING 305 Phonetics I
- Introduction to Phonology. Satisfied by:
  - LING 312 Introduction to Phonology
- Syntax. Satisfied by:
  - LING 325 Syntax I

Linguistics Required Electives (3)

Majors must complete an elective course in each of the following areas:

- Acquisition & Processing. Satisfied by one of the following:
  - LING 415 Second Language Acquisition
  - LING 425 First Language Acquisition
  - LING 435 Psycholinguistics
  - LING 438 Neurolinguistics I
- Structure & Description. Satisfied by one of the following:
  - LING 370 Introduction to the Languages of Africa
  - LING 441 Field Methods in Linguistic Description
  - LING 447 North American Indian Languages
  - LING 570 The Structure of Japanese
  - LING 572 The Structure of Chinese
  - LING 575 The Structure of: _____
- Form & Meaning. Satisfied by one of the following:
  - LING 308 Linguistic Analysis
  - LING 327 Morphology
  - LING 331 Semantics

Electives (3)

Satisfied by 1 additional course (3 hours) in linguistics at the junior/senior (300+) level, chosen by the student in consultation with the undergraduate coordinator. Each course must be at least 3 credit hours.

Capstone Experience (3)

Majors must complete one capstone course:

- LING 420 Capstone: Research in Language Science
- or LING 421 Capstone: Typology-Unity and Diversity of Human Language

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and GPA minimum standards:

**Major Hours**

Satisfied by 30 hours of major courses, or 33 hours required if completing departmental honors course LING 496.

**Major Hours in Residence**

Satisfied by a minimum of 24 junior/senior (300+) hours of KU resident credit in the major.

**Major Junior/Senior Hours**

Satisfied by a minimum of 24 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior (300+) Graduation GPA**

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Graduation Plan

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please consult department for details.

Departmental Honors

The honors program allows exceptional undergraduate students to work closely with faculty members on a research project. To graduate with honors in linguistics, a student must complete all requirements for the linguistics major and LING 496 Honors Essay in Linguistics (usually taken in the fall semester of the senior year). The student must have a grade-point average of at least 3.5 in linguistics and 3.25 in all courses.

Consult the departmental honors coordinator or the director of undergraduate studies for information. Prospective honors candidates are encouraged to select a thesis topic and thesis director at the end of the junior year.

Minor in Linguistics

Why study linguistics?

Because language is a window into the mind. Linguistics provides an understanding of the human capacity to acquire, perceive, and produce language and of language’s role in contemporary society.
Requirements for the Minor

Linguistics Minor Course Requirements

Students selecting this option must complete a course in each of the following areas:

Linguistics Language Proficiency (0)

Minors must meet Language Proficiency (4th level proficiency) in a second language. See the chart of Foreign Languages offered at KU for world languages with KU course offerings through the proficiency level.

Introductory Linguistics. Satisfied by one of the following: (3)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LING 106</td>
<td>Introductory Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>or LING 107</td>
<td>Introductory Linguistics, Honors</td>
<td>3</td>
</tr>
</tbody>
</table>

Language & Mind. Satisfied by: (3)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LING 110</td>
<td>Language and Mind</td>
<td>3</td>
</tr>
</tbody>
</table>

Phonetics I. Satisfied by: (3)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LING 305</td>
<td>Phonetics I</td>
<td>3</td>
</tr>
</tbody>
</table>

Introduction to Phonology. Satisfied by: (3)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LING 312</td>
<td>Introduction to Phonology</td>
<td>3</td>
</tr>
</tbody>
</table>

Syntax. Satisfied by: (3)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LING 325</td>
<td>Syntax I</td>
<td>3</td>
</tr>
</tbody>
</table>

Linguistics Required Electives (3)

Students selecting this minor must complete at least one junior/senior (300+) LING elective course, chosen by the student in consultation with the linguistics advisor.

Minor Hours & GPA

While completing all required courses, minors must also meet each of the following hour and grade point average minimum standards:

Minor Hours

Satisfied by 18 hours of minor courses.

Minor Hours in Residence

Satisfied by a minimum of 12 hours of junior/senior (300+) hours of KU resident credit in the minor.

Minor Junior/Senior Hours

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA

Satisfied by a minimum of a 2.0 GPA in all departmental courses in the minor. GPA calculations include all departmental courses in the field of study including Fs and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Master of Arts in Linguistics

Why study linguistics?

Because language is a window into the mind. Linguistics provides an understanding of the human capacity to acquire, perceive, and produce language and of language’s role in contemporary society.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

Applicants must submit a curriculum vitae, a statement of purpose, an official copy of transcript from the baccalaureate granting institution and any transcripts from institutions attended post-baccalaureate, 3 letters of recommendation, and Graduate Record Examination scores. Applicants who are not native speakers of English must demonstrate English proficiency with Test of English as a Foreign Language scores of at least 53 (paper) or 20 (computer or internet-based) in all sections or International English Language Testing System scores of at least 6.0 overall with no part score below 5.5.

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the department:

The University of Kansas
Department of Linguistics
Blake Hall
1541 Lilac Lane, Room 427
Lawrence, KS 66045-3129

M.A. Degree Requirements

Prerequisites

3 credit hours of linguistics (LING 700 or equivalent). Students who do not meet the prerequisite but have undergraduate majors in related fields (such as a foreign language, English, speech, anthropology, or psychology) may be accepted with the provision that they make up the deficiency as soon as possible.

Reading ability in a foreign language (not English) with a significant linguistic literature.

Degree Requirements

The following are minimum requirements.

Course Work

33 credit hours of graduate work including

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LING 794</td>
<td>Proseminar</td>
<td>3</td>
</tr>
<tr>
<td>LING 705</td>
<td>Phonetics I</td>
<td>3</td>
</tr>
<tr>
<td>LING 712</td>
<td>Phonological Theory I</td>
<td>3</td>
</tr>
<tr>
<td>LING 725</td>
<td>Syntax I</td>
<td>3</td>
</tr>
<tr>
<td>LING 709</td>
<td>First Language Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>or LING 715</td>
<td>Linguistics and Second Language Acquisition</td>
<td></td>
</tr>
<tr>
<td>LING 735</td>
<td>Psycholinguistics I</td>
<td>3</td>
</tr>
</tbody>
</table>
Admission to Graduate Studies

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Graduate Admission

Applicants must submit a curriculum vitae, a statement of purpose, an official copy of transcript from the baccalaureate granting institution and any transcripts from institutions attended post-baccalaureate, 3 letters of recommendation, and Graduate Record Examination scores. Applicants who are not native speakers of English must demonstrate English proficiency with Test of English as a Foreign Language scores of at least 53 (paper) or 20 (computer or internet-based) in all sections or International English Language Testing System scores of at least 6.0 overall with no part score below 5.5.

Students originally admitted to the M.A. program who are completing the M.A. degree (research project option) and want to continue toward the Ph.D. must submit the following to the Director of Graduate Studies by January 1st: a 5-7 page summary of the M.A. research project, a timeline for completing the M.A. which has been approved by the M.A. advisor, and a 1-2 page statement that outlines the type of research that the student would like to conduct at the Ph.D. level and the student’s ultimate goals upon completing the Ph.D. Any decision to apply for the Ph.D. program must be taken in consultation with the advisor or Director of Graduate Studies. Acceptance into the Ph.D. program will be contingent on two criteria: (1) a grade of ‘2’ on the M.A. research project (2) approval of the Linguistics faculty that the student should be allowed to continue in the program based on strength of the student’s application. The M.A. research project is graded on the following scale: ‘0’ - fail; ‘1’ - pass without consideration for admission to the Ph.D. program; ‘2’ - pass with consideration for admission to the Ph.D. program. The admissions decision will be made at a faculty meeting following the student’s defense of the M.A. research project.

Doctor of Philosophy in Linguistics

Why study linguistics?

Because language is a window into the mind. Linguistics provides an understanding of the human capacity to acquire, perceive, and produce language and of language's role in contemporary society.

Ph.D. Degree Requirements

Prerequisites

M.A. in linguistics with a thesis. A student entering the Ph.D. program without courses equivalent to these must take them as soon as they are offered.
Degree Requirements

Residence
2 semesters, which may include 1 summer session, must be spent in full-time resident study at KU. Normally, an enrollment of 9 credit hours is considered full-time during the semester. See Doctoral Degree Requirements, 2. Program Time Constraints, in the Graduate Studies (p. 2059) section of the online catalog.

Research Skills and Responsible Scholarship
1. Language requirement: Reading ability in a foreign language (not English) demonstrated through one of the following ways:
   a. Pass a language examination devised and administered by the Linguistics Department.
   b. Complete DANE 101, DTCH 101, FREN 100, GERM 101, ITAL 100, RUSS 101, or SPAN 100 with a grade of C or higher, or LAT 104 with a grade of B or higher.
   c. Have a KU professor qualified in a given language certify that the student has the fourth level of competence in reading, comprehension, and speaking.
   d. Complete 16 hours (or 4 semesters) in a single language at KU or another university as a graduate or undergraduate student.

2. Research skills requirement: 1 of the following:
   • A course in statistics with a grade of B or above.
   • A course in a computer programming language with a grade of B or above.
   • LING 783 Computational Linguistics with a grade of B or above.

3. Responsible Scholarship: The university requires that every doctoral student have training in responsible scholarship pertinent to the field of research and appropriate to the doctoral level. This requirement must be met before taking the comprehensive oral exam. The Proseminar (LING 794) fulfills the requirements for responsible scholarship.

Minimum Course Requirements
24 credit hours, consisting of

Methods requirement: (3)
LING 741 Field Methods in Linguistic Description 3
If already taken for M.A., replace with one of the following:
LING 720 Research Methods in Linguistics
LING 740 Linguistic Data Processing
LING 782 Research Methods in Child Language

Second-level courses (9)
Select three of the following second-level courses: 9
LING 707 Phonetics II
LING 714 Phonological Theory II
LING 716 Second Language Acquisition II
LING 726 Syntax II
LING 727 Morphology
LING 731 Semantics
LING 737 Psycholinguistics II
LING 822 Seminar on Acquisition of Language

Elective courses in linguistics (12)

Qualifying Papers
The student needs to write 2 qualifying papers -- a major paper in the area of specialization and a minor paper in a different area. Both papers should represent original work. The major paper may be an expanded version of the M.A. thesis and should be of publishable quality. The minimum lengths of the major and minor papers are 25 pages and 15 pages, respectively.

The major and minor papers are developed in close consultation with an Advisory Committee (3 faculty members) and the 2 papers should be supervised by different faculty members when possible. The adequacy of the papers is evaluated on the quality of the literature review, theoretical contribution, and research integration as well as the basis of their logical coherence and organization. The student does not need to orally defend the qualifying papers.

Dissertation Proposal and the Oral Comprehensive Exam
When the major and minor qualifying papers have been approved by the Advisory Committee, the student may form a Ph.D. committee (4 inside members, 1 outside member), which helps the student work on the dissertation, starting from the dissertation proposal. The proposal should clearly identify the research questions that the dissertation will address, include a comprehensive literature review, lay out the methodology for the research, discuss preliminary data and results, if any, and present a timetable for the dissertation research. The minimum length for the dissertation proposal is 10 pages.

The Oral Comprehensive Exam is the official exam required by Research and Graduate Studies and consists of an oral defense of the dissertation proposal and the answering of any other questions related to the fields of study of the dissertation research. It must be taken within 2 months (excluding summer) after the student has turned in the dissertation proposal. The oral exam will typically last 2 to 3 hours.

Dissertation and Dissertation Defense
The dissertation is developed in consultation with the Ph.D. committee. The dissertation must be orally defended in front of the Ph.D. committee. The student will be asked first to summarize his/her dissertation and evidence, and then will be questioned by the committee. The defense will normally last 1 to 1 and 1/2 hours.

Plan of Study
A plan of study should be developed in consultation with the student’s advisor and committee.
Department of Mathematics

Why study mathematics?

Because mathematics is a framework upon which humanity builds an understanding of the world.

Undergraduate Programs

Placement

Students who have not completed a college-level mathematics course should consult the Placement Table for Initial Enrollment in Mathematics. For information about the Early and Continuous Enrollment in Math requirement, see the CLAS Degree Requirements page (p. 786).

Students also may take the Mathematics Placement Test, given by the mathematics department during New Student Orientation (http://firstyear.ku.edu/orientation) and several other times during the year, to determine their proper initial placement in mathematics courses. Students with college credit in mathematics should enroll according to the credit shown on their transcripts and the stated prerequisites for the courses.

Courses for Nonmajors

Students interested in mathematics as part of a background in the liberal arts should enroll in MATH 115, MATH 121, MATH 105, or MATH 365, and other courses according to their interests. Students preparing to use mathematics as a tool in another field should look at the requirements and recommendations of their schools or departments.

MATH 2 is considered a developmental course by all KU schools and is not counted in the minimum number of hours required for graduation.

Placement Table for Initial Enrollment in Mathematics

KU encourages all entering students to complete 4 years of mathematics in high school, including Algebra I and II, Geometry, Trigonometry, and Analytic Geometry, along the lines of the Kansas Board of Regents recommendations (http://admissions.ku.edu/~admiss/apply/regents_curriculum.shtml).

<table>
<thead>
<tr>
<th>Your math ACT/SAT score</th>
<th>Eligible to enroll in these mathematics courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT: 28-36 or SAT: 640-800</td>
<td>MATH 002, MATH 101, MATH 104, MATH 105, MATH 110, MATH 115, MATH 121 (a half year of trigonometry is needed for MATH 121) or MATH 365</td>
</tr>
<tr>
<td>ACT: 26-27 or SAT: 600-630</td>
<td>MATH 002, MATH 101, MATH 104, MATH 105, MATH 110, MATH 115, or MATH 365</td>
</tr>
<tr>
<td>ACT: 22-25 or SAT: 540-590</td>
<td>MATH 002, MATH 101, or MATH 104</td>
</tr>
<tr>
<td>ACT: 16-21 or SAT: 420-530</td>
<td>MATH 002</td>
</tr>
</tbody>
</table>

After their initial enrollment in mathematics, students must remain continuously enrolled until they have completed MATH 101 or MATH 104.

Preparation for Graduate Study

Students who plan to attend graduate school in the mathematical sciences should speak to an advisor about the best preparation, depending on their goals. Students planning to enter a general mathematics graduate program are encouraged to take MATH 765, MATH 766, MATH 790, and MATH 791. Some graduate degrees require a reading knowledge of French, German, or Russian.

Graduate Programs

The department offers a graduate program leading to both the M.A. and Ph.D. degrees. A broad range of programs is possible in algebra, analysis, combinatorics, control theory, dynamical systems, geometry, numerical analysis, probability, statistics, partial differential equations, set theory, and topology.

The Department of Mathematics has a long tradition of excellence. The first Ph.D. granted at KU was in mathematics in the year 1895. Since then, the graduate program has been a central part of the department’s research and teaching mission and an important component of its long-term planning. The department’s commitment to graduate education has boosted its recent growth in size and enhanced its reputation. Prospective students are encouraged to read additional information (http://www.math.ku.edu/academics/graduate) online.

Courses

MATH 2. Intermediate Mathematics. 3 Hours. U.
Mathematics (primarily algebra) preparatory to MATH 101. Qualification: Two years of high school college preparatory mathematics, algebra and geometry, and a score of 16 or more on ACT mathematics; or a qualifying score on the mathematics placement test. MATH 002 is the lowest level mathematics course offered at the University of Kansas. Students not prepared for MATH 101 will be permitted to enroll in MATH 002. However, before enrolling in MATH 002, such students are encouraged to prepare by self-study or by completing a beginning algebra course in high school, community college, or correspondence study. LEC.
MATH 101. College Algebra. 3 Hours. GE12 / U.
Coordinate systems, functions and their graphs; linear, quadratic, general polynomial, rational, exponential, and logarithmic functions; equations and inequalities; linear and non-linear systems and matrices. Not open to students with credit in MATH 104. Prerequisite: MATH 002, or two years of high school algebra and a score of 22 or higher on ACT mathematics, or a qualifying score on the mathematics placement test. LEC.

MATH 103. Trigonometry. 2 Hours. U.
The circular functions and their applications. Not open to students with credit in MATH 104. May not be used to fulfill the College mathematics requirement. Prerequisite: MATH 101, or two years of high school algebra and a score of 26 or higher on enhanced ACT mathematics, or a qualifying score on the mathematics placement test. LEC.

MATH 104. Precalculus Mathematics. 5 Hours. GE12 / U.
An introduction to the elementary functions (polynomial, rational, exponential, logarithmic, and trigonometric) and their properties. Intended primarily for students intending to enroll in MATH 121. Open for only two hours credit for students with credit in MATH 101. Not open to students with credit in MATH 103. Prerequisite: MATH 002, or two years of high school algebra and a score of 22 or higher on ACT mathematics, or a qualifying score on the mathematics placement test. LEC.

MATH 105. Introduction to Topics in Mathematics. 3 Hours. GE12 / N.
This course has two purposes. First, to provide the student with some experience and insight into several areas of mathematics not normally covered in elementary courses. Typical topics which may be covered are number theory, geometries, introductory calculus, introductory probability and statistics. Second, to provide the student with some skill in handling abstract mathematical concepts. The material will develop dually the intuitive and axiomatic approach. A high degree of manipulative skill is not required for this course. Prerequisite: MATH 101 or MATH 104, or two years of high school algebra and a score of 26 or higher on ACT mathematics, or a qualifying score on the mathematics placement test. LEC.

MATH 106. Mathematics for Elementary School Teachers I. 3 Hours. U.
This course is designed to give the prospective elementary school teacher an overview of several components of the elementary school mathematics curriculum, including number systems, estimation, inequalities and order, sequences and patterns, sets, and relations and functions. The class meets each week for three one-hour instruction sessions and one two-hour laboratory session. This course may not be used to satisfy the College mathematics requirement. Prerequisite: MATH 101 or equivalent placement. LEC.

MATH 109. Mathematics for Elementary School Teachers II. 3 Hours. U.
Continuation of MATH 106, including geometry (including transformations) and elementary probability and statistics. Class meets each week for three one-hour instruction sessions and one two-hour laboratory session. This course does not serve as a prerequisite for any mathematics course. It may not be used to satisfy the College mathematics requirement. Prerequisite: MATH 109. LEC.

MATH 110. Introduction to Topics in Mathematics. 3 Hours. N.
Introduction to topics in matrix algebra, probability, and statistics. Topics will include matrix operations, the use of matrices to solve systems of linear equations, elementary data analysis, elementary statistical procedures, sample spaces and probability measures, random variables, probability models, links between probability and statistics, and applications. Prerequisite: MATH 101 or MATH 104, or two years of high school algebra and a score of 26 or higher on the ACT mathematics, or a qualifying score on the mathematics placement test. LEC.

MATH 111. Matrix Algebra, Probability, and Statistics. 3 Hours. N.
Elementary differential and integral calculus, with applications in management and the biological sciences. Not open to students with credit in MATH 121. Prerequisite: MATH 101 or MATH 104, or two years of high school algebra and a score of 26 or higher on ACT mathematics, or a qualifying score on the mathematics placement test. LEC.

MATH 115. Calculus I. 3 Hours. GE12 / N.
Continuation of MATH 115 including exponential, logarithmic, and trigonometric functions, techniques of integration, and the calculus of functions of several variables. Not open to students with credit in MATH 122 or MATH 118. Prerequisite: MATH 115, plus a course in trigonometry, or MATH 121. MATH 103 may be taken concurrently. LEC.

MATH 116. Calculus II. 3 Hours. NM / N.
A course combining the material of MATH 103 and MATH 116. Open for only three hours credit to students with credit in MATH 103 or MATH 104, or five hours credit for students who do not have credit in MATH 103 or MATH 104. Not open for credit for students with credit in MATH 116. Prerequisite: MATH 115. LEC.

MATH 119. Differential Calculus. 4 Hours. N.
Study of limits and derivatives of algebraic, trigonometric, exponential and logarithmic functions. Curve sketching, optimization and other applications of the derivative. Antiderivatives, Riemann sums, the definite integral, and the fundamental theorem of calculus. Intended to facilitate appropriate transfer credit and course placement. Open for only 1 hour credit to students with credit in MATH 115. Not open for credit to students with credit in MATH 116 or 121. Prerequisite: MATH 103 or MATH 104, or 3 years of college preparatory mathematics including trigonometry, with a score of 28 or higher on the enhanced ACT Mathematics exam. LEC.

MATH 120. Integration Techniques and Applications. 1 Hour. U.
A study of techniques and applications of integration. Techniques include integration by parts, integration by trigonometric substitution, integration by partial fractions and improper integrals. Applications of integration include area, volume, arc length, average value, and physical applications such as work and hydrostatic force. Not open for credit to students with credit in MATH 116 or MATH 121. Prerequisite: MATH 119. LEC.

MATH 121. Calculus I. 5 Hours. GE12 / N.
Differentiation and integration of algebraic and trigonometric functions. Applications to physical sciences and engineering. Open for only two hours credit to students with credit in MATH 115. Prerequisite: MATH 104; or MATH 103; or three years of college preparatory mathematics including trigonometry and a score of 28 or higher on ACT mathematics; or a qualifying score on the mathematics placement test. LEC.

MATH 122. Calculus II. 5 Hours. NM / N.
Sequences and series. Calculus of functions in polar and spherical coordinates. Three-dimensional vector geometry and vector-valued functions. Multivariable calculus; partial derivatives and multiple integration. Open only for three hours credit to students with credit in both MATH 121 and MATH 116. Prerequisite: MATH 121, MATH 141, MATH 116, or MATH 120. LEC.

MATH 141. Calculus I: Honors. 5 Hours. GE12 / N.
Differential and integral calculus and applications. Prerequisite: Three years of college preparatory mathematics including trigonometry, plus either (1) a score of 34 or more on ACT mathematics and a cumulative high school grade-point average of at least 3.5, or (2) a score of 32 or more on ACT mathematics and a cumulative high school grade-point average of at least 3.7. LEC.
MATH 142. Calculus II: Honors. 5 Hours. NM / N.
Transcendental functions, methods of integration, parametric equations, vector algebra and its applications to analytic geometry. Introduction to partial derivatives and multiple integration. Prerequisite: MATH 121, or equivalent, and invitation of the Department of Mathematics. LEC.

MATH 143. Linear Algebra and Multivariable Calculus: Honors. 5 Hours. N.
Linear spaces, linear transformations and matrices, determinants, eigenvalues and eigenvectors, differential calculus of vector-valued functions, multiple integrals, line integrals and surface integrals. Infinite series. Prerequisite: MATH 122 or MATH 142, or equivalent, and invitation of the Department of Mathematics. LEC.

MATH 177. First Year Seminar: ______. 3 Hours. NM GE11.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in math. May not contribute to major requirements in math. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

MATH 197. Mathematical Workshops: ______. 1-3 Hours. U.
Offered to provide opportunities for deeper understanding of freshman-sophomore mathematics through interactive learning. Topics will vary. May be repeated for additional credit. Prerequisite: Variable. LAB.

MATH 220. Applied Differential Equations. 3 Hours. N.
Linear ordinary differential equations, laplace transforms, systems of equations, and applications. Not open to those who have taken MATH 320. Prerequisite: MATH 122 or MATH 142 or equivalent. LEC.

MATH 222. Applied Differential Equations, Honors. 3 Hours. N.
Linear Ordinary Differential Equations, Laplace Transforms, Systems of Equations, Enrichment Applications. Prerequisite: Math 122 or Math 142 or equivalent, and invitation from the Department of Mathematics. Not open to students with credit in Math 320. LEC.

MATH 223. Vector Calculus. 3 Hours. N.
Multivariable calculus, multiple integration, and vector calculus. Prerequisite: MATH 122 or MATH 142 or equivalent. LEC.

MATH 243. Vector Calculus, Honors. 3 Hours. N.
Multivariable Calculus, Multiple Integration, Vector Calculus, Enrichment Applications. Prerequisite: Math 122 or Math 142 or equivalent, and invitation from the Department of Mathematics. LEC.

MATH 290. Elementary Linear Algebra. 2 Hours. N.
Systems of linear equations, matrices, vector spaces, linear transformations, and applications. Not open to those who have taken MATH 590. Prerequisite: MATH 122 or MATH 142 or equivalent. LEC.

MATH 291. Elementary Linear Algebra, Honors. 2 Hours. N.
Systems of Linear Equations, Matrices, Vector Spaces, Linear Transformations, Enrichment Applications. Prerequisite: Math 122 or Math 142 or equivalent, and invitation from the Department of Mathematics. Not open to students who have taken MATH 590. LEC.

MATH 296. Special Topics: ______. 1-3 Hours. N.
Designed for the study of special topics in mathematics at the freshman/sophomore level. May be repeated for additional credit; does not count toward the major or minor in mathematics. Prerequisite: Variable. LEC.

MATH 299. Directed Reading. 1-5 Hours. N.
Directed reading on a topic chosen by the student with the advice of an instructor. May be repeated for additional credit. Consent of the department required for enrollment. IND.

MATH 320. Elementary Differential Equations. 3 Hours. N.
Linear ordinary differential equations, series solutions. Laplace transforms. Systems of equations. Not open to those who have taken MATH 220. Prerequisite: MATH 223 and MATH 290, or MATH 143. LEC.

MATH 321. Differential Equations: Honors. 3 Hours. N.
Linear differential equations with applications. Wronskian, power series solution, systems of differential equations. Prerequisite: MATH 223 and MATH 290 or MATH 143, or equivalent and invitation of the Department of Mathematics. LEC.

MATH 365. Elementary Statistics. 3 Hours. GE12 / N.
Elementary descriptive statistics of a sample of measurements; probability; the binomial, Poisson, and normal distributions, populations and sampling from populations; simple problems of statistical inference. May not be counted for junior-senior credit toward a major in mathematics. Not open to students with credit in BUS 368, BIOL 570, MATH 465, MATH 526, or MATH 628. Prerequisite: MATH 101, MATH 104, or MATH 111. LEC.

MATH 409. Topics in Geometry for Secondary and Middle School Teachers. 2 Hours. N.
Study of selected topics from Euclidean, non-Euclidean, and transformation geometry chosen to give breadth to the mathematical background of secondary and middle school teachers. May not be counted for junior-senior credit towards a major in mathematics. Prerequisite: MATH 122. Students enrolled in MATH 409 must concurrently enroll in MATH 410. LEC.

MATH 410. Topics in History of Mathematics for Secondary and Middle School Teachers. 1 Hour. N.
Study of selected topics from mathematical history chosen to provide students with knowledge of major historical developments in mathematics including individual contributions and contributions from different cultures. These topics will include a historical development of Euclidean and non-Euclidean geometry. May not be counted for junior-senior credit towards a major in mathematics. Prerequisite: MATH 122. Students enrolled in MATH 410 must concurrently enroll in MATH 409. LEC.

MATH 450. Discrete Mathematics. 3 Hours. N.
Basic topics in discrete mathematics including sets, logic, relations and functions, graphs and combinatorics. Advanced topics chosen from partially ordered sets and lattices, Boolean algebras, automata, game theory, coding theory, cryptography, optimization and enumeration. Prerequisite: MATH 290. LEC.

MATH 470. Problem Solving. 3 Hours. N.
An introduction to the general methods of solving mathematical problems. Particular techniques such as specialization, generalization, contradiction, and induction will be presented. Topics presented may vary from semester to semester. Prerequisite: MATH 122 or equivalent or concurrent enrollment in MATH 122. LEC.

MATH 500. Intermediate Analysis. 3 Hours. N.
A careful formulation of convergence and limits of sequences and functions; continuity and properties of continuous functions; differentiation; the Riemann integral; mean-value theorems and the fundamental theorem of calculus. Not open to students with credit in MATH 765. Prerequisite: MATH 223 and MATH 290, or MATH 143. LEC.

MATH 510. Introduction to the Theory of Computing. 3 Hours. N.
Finite state automata and regular expressions, Context-free grammars and push-down automata, Turing machines, Models of computable functions and undecidable problems. The course emphasis is on the theory of computability, especially on showing limits of computation. (Same as EECS 510.) Prerequisite: EECS 210 and upper-level EECS eligibility. LEC.
MATH 520. Intermediate Logic. 3 Hours. N.
Formal systems, propositional and predicate logic, completeness theorem, effective procedures, definability in number theory, Godel's incompleteness theorem. Prerequisite: MATH 450, or MATH 588, or MATH 590. LEC.

MATH 526. Applied Mathematical Statistics I. 3 Hours. NM / N.
A first course in statistics for students with the techniques of calculus at their disposal. The following topics are studied with illustrations and problems drawn from various fields of applications: basic notions of probability and probability distributions; classical estimation and testing procedures for one and two sample problems; chi-square test. Not open to those with credit in MATH 628 or DSCI 301. Prerequisite: MATH 122 or MATH 116. LEC.

MATH 530. Mathematical Models I. 3 Hours. N.
An introduction to mathematical models useful in a large variety of scientific and technical endeavors. Topics include: model construction, Markov chain models, models for linear optimization, graphs as models, and game theory. Prerequisite: MATH 223 and MATH 290, or MATH 143. LEC.

MATH 531. Mathematical Models II. 3 Hours. N.
A continuation of MATH 530. Topics include: deterministic and stochastic models of growth processes, growth models for epidemics, rumors and queues; parameter estimation; and methods of comparing models. Prerequisite: MATH 530 and some probability. LEC.

MATH 540. Elementary Number Theory. 3 Hours. N.
Divisibility, primes and their distribution, the Euclidean algorithm, perfect numbers, Fermat's theorem, Diophantine equations, applications to cryptography. Prerequisite: MATH 122 or consent of instructor. LEC.

MATH 542. Vector Analysis. 2 Hours. N.
Vector algebra; vector and scalar fields; line and surface integrals; theorems of Gauss, Green, and Stokes. Curvilinear coordinates. Applications. Introduction to tensor analysis. Not open to those with credit in MATH 143. Prerequisite: MATH 223 and MATH 290. LEC.

MATH 558. Introductory Modern Algebra. 3 Hours. N.
Development of the number systems. Polynomials. Introduction to abstract number systems such as groups and fields. Not open to students with credit in MATH 791. Prerequisite: MATH 290. LEC.

MATH 559. Modern Geometries. 3 Hours. N.
Selected topics in Euclidean geometry. Synthetic and analytic projective geometry; duality, Desargues' theorem, perspectives, conics. Non-Euclidean and metric projective geometries. Prerequisite: MATH 122. LEC.

MATH 562. Evolution of Mathematical Thought. 3 Hours. N.
Development of selected topics from the mainstream of mathematics. Prerequisite: Senior standing and at least nine hours credit in mathematics courses numbered 450 or above. LEC.

MATH 570. Undergraduate Honor Seminar. 3 Hours. AE61 / N.
A seminar for undergraduate students with a strong record in mathematics. Topics may vary. May not be taken twice for credit towards a major in mathematics. Prerequisite: MATH 143 or MATH 321 or permission of instructor. LEC.

MATH 581. Numerical Methods. 3 Hours. N.
An introduction to numerical methods and their application to engineering and science problems. Applied treatment of elementary algorithms selected from the subject areas: finding roots of a single nonlinear equation, numerical differentiation and integration, numerical solution of ordinary differential equations. Emphasis on implementing numerical algorithms using the computer. Not open to students with credit in MATH 781 or MATH 782. Prerequisite: MATH 220 and MATH 290, or MATH 320. LEC.

MATH 590. Linear Algebra. 3 Hours. N.
Vector spaces, linear transformations, and matrices. Canonical forms, Determinants. Hermitian, unitary and normal transformations. Not open to students with credit in MATH 792. Prerequisite: MATH 223 and MATH 290 or equivalent, or MATH 143. LEC.

MATH 591. Applied Numerical Linear Algebra. 3 Hours. N.
An introduction to numerical linear algebra. Possible topics include: applied canonical forms, matrix factorizations, perturbation theory, systems of linear equations, linear least squares, singular value decomposition, algebraic eigenvalue problems, matrix functions, and the use of computational software. Not open to students with credit in MATH 780 or MATH 782. Prerequisite: MATH 290. Recommended: EECS 138 or equivalent experience. LEC.

MATH 596. Special Topics: _____. 1-3 Hours. N.
Arranged as needed to present appropriate material to groups of students. May be repeated for additional credit. Prerequisite: Variable. LEC.

MATH 601. Algebraic Coding Theory. 3 Hours. N.
An introduction to error correcting codes. Included are: linear codes, cyclic codes, BCH codes, and convolutional codes. Prerequisite: MATH 290. LEC.

MATH 605. Applied Regression Analysis. 3 Hours. N.
The matrix approach to regression. Weighted least squares, transformations, examination of residuals, model selection, and analysis of variance. Prerequisite: One calculus-based statistics course. LEC.

MATH 611. Time Series Analysis. 3 Hours. N.
An introduction to the theory and computational techniques in time series analysis. Descriptive techniques: trends, seasonality, autocorrelations. Time series models: autoregressive, moving average, ARIMA models; model specification and fitting, estimation, testing, residual analysis, forecasting. Stationary processes in the frequency domain: Fourier methods and the spectral density, periodograms, smoothing, spectral window. Prerequisite: MATH 122 and a calculus based statistics course. LEC.

MATH 624. Discrete Probability. 3 Hours. N.
Theory and applications of discrete probability models. Elementary combinatorial analysis, random walks, urn models, occupancy problems, and the binomial and Poisson distributions. Prerequisite: MATH 223 and MATH 290, or MATH 143. LEC.

MATH 627. Probability. 3 Hours. N.
Introduction to mathematical probability; combinatorial analysis; the binomial, Poisson, and normal distributions; limit theorems; laws of large numbers. Prerequisite: MATH 223 and MATH 290 or equivalent, or MATH 143. LEC.

MATH 628. Mathematical Theory of Statistics. 3 Hours. N.
An introduction to sampling theory and statistical inference; special distributions; and other topics. Prerequisite: MATH 627. LEC.

MATH 630. Actuarial Mathematics. 3 Hours. N.
This course is an introduction to some of the notions and computations in actuarial mathematics. Many computations are associated with compound interest with applications to bank accounts, mortgages, pensions, bonds, and annuities. Life contingencies are considered for annuities and insurance. Some introduction to option pricing is given, particularly the Black-Scholes formula. This course provides the background material needed for some of the initial examinations given by the societies for
MATH 631. Operations Research. 3 Hours. N.
An introduction to commonly applied techniques. Topics include linear programming, duality and sensitivity analysis, the transportation problem, networks, decision and game theory, inventory models and queueing systems. Prerequisite: A calculus-based statistics course or permission of instructor. LEC.

MATH 646. Complex Variable and Applications. 3 Hours. N.
Analytic functions of a complex variable, infinite series in the complex plane, theory of residues, conformal mapping and applications. Prerequisite: MATH 223. LEC.

MATH 647. Applied Partial Differential Equations. 3 Hours. N.
Boundary value problems; topics on partial differentiation; theory of characteristic curves; partial differential equations of mathematical physics. Prerequisite: MATH 220, MATH 223 and MATH 290; or MATH 320. LEC.

MATH 648. Calculus of Variations and Integral Equations. 3 Hours. N.
Topics in the calculus of variations, integral equations, and applications. Prerequisite: MATH 220, MATH 223 and MATH 290; or MATH 320. LEC.

MATH 660. Geometry I. 3 Hours. N.
An introduction to modern geometry. Differential geometry of curves and surfaces, the topological classification of closed surfaces, dynamical systems, and knots and their polynomials. Other topics as time permits. Prerequisite: MATH 223 and MATH 290, or equivalent, or MATH 143. LEC.

MATH 661. Geometry II. 3 Hours. N.
Continuation of Math 660. Prerequisite: MATH 660 or permission of instructor. LEC.

MATH 669. Directed Reading. 1-3 Hours. AE61 / N.
Directed reading on a topic chosen by the student with the advice of an instructor. May be repeated for additional credit. Prerequisite: Variable. LEC.

MATH 722. Mathematical Logic. 3 Hours.
Propositional calculus. First order theories and model theory. Elementary arithmetic and Godel's incompleteness theorems. (Same as EECS 722.) Prerequisite: MATH 665 or MATH 691, or equivalent evidence of mathematical maturity. LEC.

MATH 724. Combinatorial Mathematics. 3 Hours.
Counting problems, with an introduction to Polya's theory; Mobius functions; transversal theory; Ramsey's theorem; Sperner's theorem and related results. Prerequisite: MATH 290 and a math course numbered 450 or higher. LEC.

MATH 725. Graph Theory. 3 Hours.
Graphs; trees; connectivity; Menger's theorem; eulerian and hamiltonian graphs; planarity; coloring of graphs; factorization of graphs; matching theory; alternating chain methods; introduction to matroids with applications to graph theory. Prerequisite: MATH 290 and a math course numbered 450 or higher. LEC.

MATH 727. Probability Theory. 3 Hours.
A mathematical introduction to premeasure-theoretic probability. Topics include probability spaces, conditional probabilities and independent events, random variables and probability distributions, special discrete and continuous distributions with emphasis on parametric families used in applications, the distribution problem for functions of random variables, sequences of independent random variables, laws of large numbers, and the central limit theorem. Prerequisite: MATH 223 and MATH 290, or equivalent. LEC.

MATH 728. Statistical Theory. 3 Hours. N.
Theory of point estimation and hypothesis testing with applications. Confidence region methodologies and relations to estimation and testing. Prerequisite: MATH 727 or equivalent. LEC.

MATH 735. Optimal Control Theory. 3 Hours.
An examination of the mathematical methods of deterministic control theory is given by considering some specific examples and the general theory. The methods include dynamic programming, the calculus of variations, and Pontryagin's maximum principle. Various problems of control systems, e.g., the linear regulator problem, are solved. Prerequisite: MATH 320 or equivalent. LEC.

MATH 740. Number Theory. 3 Hours.
Divisibility, the theory of congruences, primitive roots and indices, the quadratic reciprocity law, arithmetical functions and miscellaneous additional topics. Prerequisite: MATH 223 and MATH 290, or equivalent. LEC.

MATH 750. Stochastic Adaptive Control. 3 Hours.
Stochastic adaptive control methods. Stochastic processes such as Markov chains and Brownian motion, stochastic integral, differential rule, stochastic differential equations, martingales and estimation techniques. Identification and control of discrete and continuous time linear stochastic systems. Specific applications and simulation results of stochastic adaptive control theory. Prerequisite: MATH 627 and some knowledge of control. LEC.

MATH 765. Mathematical Analysis I. 3 Hours.
MATH 765 and MATH 766 are theoretical courses on the fundamental concepts of analysis and the methods of proof. These two courses include the concept of a real number; limits, continuity, and uniform convergence; derivatives and integrals of functions of one and of several real variables. Prerequisite: MATH 223 and MATH 290, or equivalent. LEC.

MATH 766. Mathematical Analysis II. 3 Hours.
A continuation of MATH 765. Prerequisite: MATH 765. LEC.
MATH 780. Numerical Analysis of Linear Systems. 3 Hours.
Computational aspects of linear algebra, linear equations and matrices, direct and indirect methods, eigenvalues and eigenvectors of matrices, error analysis. Prerequisite: MATH 590 and MATH 781. LEC.

MATH 781. Numerical Analysis I. 3 Hours.
Finite and divided differences. Interpolation, numerical differentiation, and integration. Gaussian quadrature. Numerical integration of ordinary differential equations. Curve fitting. (Same as EECS 781.) Prerequisite: MATH 320 and knowledge of a programming language. LEC.

MATH 782. Numerical Analysis II. 3 Hours.
Direct and iterative methods for solving systems of linear equations. Numerical solution of partial differential equations. Numerical determination of eigenvectors and eigenvalues. Solution of nonlinear equations. (Same as EECS 782.) Prerequisite: MATH 781. LEC.

MATH 783. Applied Numerical Methods for Partial Differential Equations. 3 Hours.
Finite difference methods applied to particular initial-value problems (both parabolic and hyperbolic), to illustrate the concepts of convergence and stability and to provide a background for treating more complicated problems arising in engineering and physics. Finite difference methods for elliptic boundary-value problems, with a discussion of convergence and methods for solving the resulting algebraic system. Variational methods for elliptic problems. Prerequisite: MATH 647 or equivalent. LEC.

MATH 790. Linear Algebra II. 3 Hours.
A theoretical course on the fundamental concepts and theorems of linear algebra. Topics covered are: vector space, basis, dimension, subspace, norm, inner product, Banach space, Hilbert space, orthonormal basis, positive definite matrix, minimal polynomial, diagonalization and other canonical forms, Cayley-Hamilton, spectral radius, dual space, quotient space. Prerequisite: MATH 590. LEC.

MATH 791. Modern Algebra. 3 Hours.
This course includes the following topics: multiplicative properties of the integers and introductions to group theory, ring theory and field theory. Prerequisite: MATH 223 and MATH 290, or equivalent. LEC.

MATH 796. Special Topics: ____. 1-3 Hours.
Arranged as needed to present appropriate material for groups of students. May be repeated for credit. Prerequisite: Variable. LEC.

MATH 799. Directed Readings. 1-3 Hours.
Directed readings on a topic chosen by the student with the advice of an instructor. May be repeated for additional credit. Consent of the department required for enrollment. RSH.

MATH 800. Complex Analysis I. 3 Hours.
Cauchy’s theorem and contour integration; the argument principle; maximum modulus principle; Schwarz symmetry principle; analytic continuation; monodromy theorem; applications to the gamma function and Riemann’s zeta function; entire and meromorphic functions; conformal mapping; Riemann mapping theorem; univalent functions. Prerequisite: MATH 766 or concurrently with MATH 766. LEC.

MATH 801. Complex Analysis II. 3 Hours.
Continuation of MATH 800. Prerequisite: MATH 800. LEC.

MATH 802. Set Theory. 3 Hours.
Axiomatic set theory; transfinite induction; regularity and choice; ordinal and cardinal arithmetic; miscellaneous additional topics (e.g., extra axioms such as GCH or MA; infinite combinatorics; large cardinals). Prerequisite: MATH 765 or MATH 791, or concurrent enrollment in MATH 765 or MATH 791, or equivalent evidence of mathematical maturity. LEC.

MATH 810. Real Analysis and Measure Theory I. 3 Hours.

MATH 811. Real Analysis and Measure Theory II. 3 Hours.
Continuation of MATH 810. Prerequisite: MATH 810. LEC.

MATH 820. Introduction to Topology. 3 Hours.
General topology. Set theory; topological spaces; connected sets; continuous functions; generalized convergence; product and quotient spaces; embedding in cubes; metric spaces and metrization; compact spaces; function spaces. Prerequisite: MATH 765. LEC.

MATH 821. Algebraic Topology I. 3 Hours.
The fundamental group and covering spaces (including classification); compact surfaces; homology theory, computations (including homotopy invariance) and applications (including Brouwer fixed point theorem); introduction to cohomology theory. Prerequisite: MATH 790 and MATH 791 and MATH 820, or permission of instructor. LEC.

MATH 822. Algebraic Topology II. 3 Hours.
Review of simplicial homology; Lefschetz fixed point theorem and degree theory; singular, cellular, and axiomatic homology; Jordan Brouwer separation theorems; universal coefficient theorems, products in cohomology, homotopy groups, and the Hurewicz Theorem. Prerequisite: MATH 821. LEC.

MATH 824. Algebraic Combinatorics. 3 Hours.
An introduction to the fundamental structures and methods of modern algebraic combinatorics. Topics include partially ordered sets and lattices, matroids, simplicial complexes, polytopes, hyperplane arrangements, partitions and tableaux, and symmetric functions. Prerequisite: MATH 724 and MATH 791, or permission of the instructor. LEC.

MATH 830. Abstract Algebra. 3 Hours.
A study of some structures, theorems, and techniques in algebra whose use has become common in many branches of mathematics. Prerequisite: MATH 790 and MATH 791. LEC.

MATH 831. Abstract Algebra. 3 Hours.
Continuation of MATH 830. Prerequisite: MATH 830. LEC.

MATH 840. Differentiable Manifolds. 3 Hours.
Multilinear algebra of finite dimensional vector spaces over fields; differentiable structures and tangent and tensor bundles; differentiable mappings and differentials; exterior differential forms; curves and surfaces as differentiable manifolds; affine connections and covariant differentiation; Riemannian manifolds. Prerequisite: MATH 765 and MATH 790. LEC.

MATH 850. Differential Equations and Dynamical Systems. 3 Hours.
Discrete and differentiable dynamical systems with an emphasis on the qualitative theory. Topics to be covered include review of linear systems, existence and uniqueness theorems, flows and discrete dynamical systems, linearization (Hartman-Grobman theorem), stable and unstable manifolds, Poincare sections, normal forms, Hamiltonian systems, and an introduction to bifurcation theory and chaos. Prerequisite: MATH 320 and MATH 766, or permission of instructor. LEC.

MATH 851. Topics in Dynamical Systems. 3 Hours.
Topics to be covered include complex dynamical systems, perturbation theory, nonlinear analysis of time series, chaotic dynamical systems, and numerical methods as dynamical systems. This course may be repeated for credit. Prerequisite: MATH 850 or permission of instructor. LEC.
MATH 865. Stochastic Processes I. 3 Hours.
Markov chains; Markov processes; diffusion processes; stationary processes. Emphasis is placed on applications: random walks; branching theory; Brownian motion; Poisson process; birth and death processes. Prerequisite: MATH 627 and MATH 765. LEC.

MATH 866. Stochastic Processes II. 3 Hours.
This is a second course in stochastic processes, focused on stochastic calculus with respect to a large class of semi-martingales and its applications to topics selected from classical analysis (linear PDE), finance, engineering, and statistics. The course will start with basic properties of martingales and random walks and then develop into the core program on Itô’s stochastic calculus and stochastic differential equations. These techniques provide useful and important tools and models in many pure and applied areas. Prerequisite: MATH 727 and MATH 865. LEC.

MATH 870. The Analysis of Variance. 3 Hours.
The general linear hypothesis with fixed effects; the Gauss-Markov theorem, confidence ellipsoids, and tests under normal theory; multiple comparisons and the effect of departures from the underlying assumptions; analysis of variance for various experimental designs and analysis of covariance. Prerequisite: MATH 628 or MATH 728, and either MATH 590 or MATH 790. LEC.

MATH 872. Multivariate Statistical Analysis. 3 Hours.
The multivariate normal distribution; tests of hypotheses on means and covariance matrices; estimation; correlation; multivariate analysis of variance; principal components; canonical correlation. Prerequisite: MATH 628 or MATH 728, and either MATH 590 or MATH 790. LEC.

MATH 874. Statistical Decision Theory. 3 Hours.
Game theory, admissible decision functions and complete class theorems; Bayes and minimax solutions; sufficiency; invariance; multiple decision problems; sequential decision problems. Prerequisite: MATH 628 and MATH 766. LEC.

MATH 881. Advanced Numerical Linear Algebra. 3 Hours. N.
Advanced topics in numerical linear algebra including pseudo-spectra, rounding error analysis and perturbation theory, numerical methods for problems with special structure, and numerical methods for large scale problems. Prerequisite: Math 781, 782, 790, or permission of the instructor. LEC.

MATH 882. Advanced Numerical Differential Equations. 3 Hours. N.
Advanced course in the numerical solution of ordinary and partial differential equations including modern numerical methods and the associated analysis. Prerequisite: MATH 781, 782, 783, or permission of the instructor. LEC.

MATH 890. Fourier Analysis. 3 Hours.
Introduction to modern techniques in Fourier Analysis in the Euclidean setting with emphasis in the study of functions spaces and operators acting on them. Topics may vary from year to year and include, among others, distribution theory, Sobolev spaces, estimates for fractional integrals and fractional derivatives, wavelets, and some elements of Calderón-Zygmund theory. Applications in other areas of mathematics, in particular partial differential equations and signal analysis, will be presented based on the instructor's and the students' interests. Prerequisite: Math 810 and Math 800, or instructor's permission. LEC.

MATH 896. Master's Research Component. 1-6 Hours.
RSH.

MATH 899. Master's Thesis. 1-10 Hours.
THE.

MATH 905. Several Complex Variables. 3 Hours.
Holomorphic functions in several complex variables, Cauchy's integral for poly-discs, multivariable Taylor series, maximum modulus theorem. Further topics may include: removable singularities, extension theorems, Cauchy-Riemann operator, domains of holomorphy, special domains and algebraic properties of rings of analytic functions. Prerequisite: MATH 800. LEC.

MATH 910. Algebraic Curves. 3 Hours.
Algebraic sets, varieties, plane curves, morphisms and rational maps, resolution of singularities, Reimann-Roch theorem. Prerequisite: MATH 790 and MATH 791. LEC.

MATH 915. Homological Algebra. 3 Hours.
Injective and projective resolutions, homological dimension, chain complexes and derived functors (including Tor and Ext). Prerequisite: MATH 830 and MATH 831, or consent of instructor. LEC.

MATH 920. Lie Groups and Lie Algebras. 3 Hours.
General properties of Lie groups, closed subgroups, one-parameter subgroups, homogeneous spaces, Lie bracket, Lie algebras, exponential map, structure of semi-simple Lie algebras, invariant forms, Maurer-Cartan equation, covering groups, spinor groups. Prerequisite: MATH 766 and MATH 790 and MATH 791. LEC.

MATH 930. Topics in General Topology. 3 Hours.
Paracompact spaces, uniform spaces, topology of continua, Peano spaces, Hahn-Mazurkiewicz theorem, dimension theory, and theory of retracts. Prerequisite: MATH 820. LEC.

MATH 940. Advanced Probability. 3 Hours.
Probability measures, random variables, distribution functions, characteristic functions, types of convergence, central limit theorem. Laws of large numbers and other limit theorems. Conditional probability, Markov processes, and other topics in the theory of stochastic processes. Prerequisite: MATH 811. LEC.

MATH 950. Partial Differential Equations. 3 Hours.
Introduction; equations of mathematical physics; classification of linear equations and systems. Existence and uniqueness problems for elliptic, parabolic, and hyperbolic equations. Eigenvalue problems for elliptic operators; numerical methods. Prerequisite: MATH 766. LEC.

MATH 951. Advanced Partial Differential Equations II. 3 Hours.
The course uses functional analytic techniques to further develop various aspects of the modern framework of linear and nonlinear partial differential equations. Sobolev spaces, distributions and operator theory are used in the treatment of linear second-order elliptic, parabolic, and hyperbolic equations. In particular we discuss the kind of potential, diffusion and wave equations that arise in inhomogeneous media, with an emphasis on the solvability of equations with different initial/boundary conditions. Then, we will survey the theory of semigroup of operators, which is one of the main tools in the study of the long-time behavior of solutions to nonlinear PDE. The theories and applications encountered in this course will create a strong foundation for studying nonlinear equations and nonlinear science in general. Prerequisite: MATH 950 or permission of the instructor. LEC.

MATH 960. Functional Analysis. 3 Hours.
Topological vector spaces, Banach spaces, basic principles of functional analysis. Weak and weak-topologies, operators and adjoints. Hilbert spaces, elements of spectral theory. Locally convex spaces. Duality and related topics. Applications. Prerequisite: MATH 810 and MATH 820 or concurrent with MATH 820. LEC.

MATH 961. Functional Analysis. 3 Hours.
Continuation of MATH 960. LEC.
MATH 963. C*-Algebras. 3 Hours.
The basics of C*-algebras, approximately finite dimensional C*-algebras, irrational rotation algebras, C*-algebras of isometries, group C*-algebras, crossed products C*-algebras, extensions of C*-algebras and the BDF theory. Prerequisite: MATH 811 or MATH 960, or consent of instructor. LEC.

MATH 970. Analytic K-Theory. 3 Hours.
K0 for rings, spectral theory in Banach algebras, K1 for Banach algebras, Bott periodicity and six-term cyclic exact sequence. Prerequisite: MATH 790 and MATH 791 and MATH 960. LEC.

MATH 990. Seminar: _______. 1-10 Hours.
LEC.

MATH 993. Readings in Mathematics. 1-10 Hours.
RSH.

MATH 996. Special Topics: _______. 3 Hours.
Advanced courses on special topics; given as need arises. Prerequisite: Variable. LEC.

MATH 999. Doctoral Dissertation. 1-10 Hours.
THE.

Bachelor of Arts in Mathematics

Why study mathematics?
Because mathematics is a framework upon which humanity builds an understanding of the world.

Mathematics Programs

Separate programs lead to the B.A. in mathematics and the B.S. in mathematics. The B.A. has fewer mathematics course requirements and more general education requirements. The B.S. requires more mathematics courses, an applied mathematics concentration, and fewer general education courses. Students wishing to attend graduate school in mathematics or to pursue a career that makes substantial use of mathematics (as an actuary, for example) should get a B.S. in mathematics. Many students majoring in mathematics are interested in a liberal arts degree; such students may want to consider the B.A. in mathematics. Students who wish to teach mathematics in high school should pursue a B.A. or B.S. in mathematics while participating in the UKanTeach program (http://ukanteach.ku.edu).

Requirements for the B.A. Major

Mathematics Core Knowledge and Skills (21)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>MATH 121 Calculus I</td>
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<tr>
<td>or MATH 141 Calculus I: Honors</td>
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<tr>
<td>Calculus II. Satisfied by one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 122 Calculus II</td>
<td>5</td>
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<tr>
<td>or MATH 142 Calculus II: Honors</td>
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<td></td>
</tr>
<tr>
<td>Vector Calculus. Satisfied by one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 223 Vector Calculus</td>
<td>3</td>
<td></td>
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<tr>
<td>or MATH 243 Vector Calculus, Honors</td>
<td></td>
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Elementary Linear Algebra. Satisfied by one of the following:

MATH 290 Elementary Linear Algebra 2
or MATH 291 Elementary Linear Algebra, Honors Analysis. Satisfied by one of the following:

MATH 500 Intermediate Analysis 3
or MATH 765 Mathematical Analysis I
Linear Algebra. Satisfied by one of the following:

MATH 590 Linear Algebra 3
or MATH 790 Linear Algebra II

Math Sequence Requirement (6)

Majors must choose one of the following 2-course sequences. Courses selected above may contribute to the minimum of 6 hours.

Probability & Statistics. Satisfied by:

MATH 627 Probability 6 & MATH 628 and Mathematical Theory of Statistics

Geometry. Satisfied by:

MATH 660 Geometry I 6 & MATH 661 and Geometry II

Analysis. Satisfied by:

MATH 765 Mathematical Analysis I 6 & MATH 766 and Mathematical Analysis II

Numerical Analysis. Satisfied by:

MATH 781 Numerical Analysis I 6 & MATH 782 and Numerical Analysis II
Linear & Modern Algebra. Satisfied by:

MATH 790 Linear Algebra II 6 & MATH 791 and Modern Algebra

Analysis & Complex Variables. Satisfied by:

MATH 500 Intermediate Analysis 6 & MATH 646 and Complex Variable and Applications

Statistics & Regression Analysis. Satisfied by:

MATH 526 Applied Mathematical Statistics I 6 & MATH 605 and Applied Regression Analysis

Statistics & Time Series Analysis. Satisfied by:

MATH 526 Applied Mathematical Statistics I 6 & MATH 611 and Time Series Analysis

Mathematical Models. Satisfied by:

MATH 530 Mathematical Models I 6 & MATH 531 and Mathematical Models II

Number Theory & Modern Algebra. Satisfied by:

MATH 540 Elementary Number Theory 6 & MATH 558 and Introductory Modern Algebra

Modern Algebra & Coding Theory. Satisfied by:

MATH 558 Introductory Modern Algebra 6 & MATH 601 and Algebraic Coding Theory

Numerical Methods & Linear Algebra. Satisfied by:

MATH 581 Numerical Methods 6 & MATH 591 and Applied Numerical Linear Algebra

Linear Algebra. Satisfied by:

MATH 590 Linear Algebra 6 & MATH 790 and Linear Algebra II

Complex Variables & Partial Differential Equations. Satisfied by:

MATH 646 Complex Variable and Applications 6 & MATH 647 and Applied Partial Differential Equations

Partial Differential Equations & Calculus of Variations. Satisfied by:
Mathematics Programs

Separate programs lead to the B.A. in mathematics and the B.S. in mathematics. The B.A. has fewer mathematics course requirements and more general education requirements. The B.S. requires more mathematics courses, an applied mathematics concentration, and fewer general education courses. Students wishing to attend graduate school in mathematics or to pursue a career that makes substantial use of mathematics (as an actuary, for example) should get a B.S. in mathematics. Many students majoring in mathematics are interested in a liberal arts degree; such students may want to consider the B.A. in mathematics. Students who wish to teach mathematics in high school should pursue a B.A. or B.S. in mathematics while participating in the UKanTeach program (http://ukanteach.ku.edu).

Requirements for the B.S. Degree

First- and Second-Year Preparation (18)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>or MATH 141</td>
<td>Calculus I: Honors</td>
<td></td>
</tr>
<tr>
<td>MATH 122</td>
<td>Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>or MATH 142</td>
<td>Calculus II: Honors</td>
<td></td>
</tr>
<tr>
<td>MATH 223</td>
<td>Vector Calculus</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 243</td>
<td>Vector Calculus, Honors</td>
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<tr>
<td>MATH 290</td>
<td>Elementary Linear Algebra</td>
<td>2</td>
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<tr>
<td>or MATH 291</td>
<td>Elementary Linear Algebra, Honors</td>
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</table>

Select one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH 320</td>
<td>Elementary Differential Equations</td>
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</tr>
<tr>
<td>MATH 220</td>
<td>Applied Differential Equations</td>
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</tr>
<tr>
<td>MATH 221</td>
<td>Applied Differential Equations, Honors</td>
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</table>

Core Requirements (12)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 590</td>
<td>Linear Algebra</td>
<td>3</td>
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<tr>
<td>or MATH 790</td>
<td>Linear Algebra II</td>
<td></td>
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<tr>
<td>MATH 500</td>
<td>Intermediate Analysis</td>
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<tr>
<td>or MATH 765</td>
<td>Mathematical Analysis I</td>
<td></td>
</tr>
<tr>
<td>MATH 558</td>
<td>Introductory Modern Algebra</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 791</td>
<td>Modern Algebra</td>
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</tr>
</tbody>
</table>

Select one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH 526</td>
<td>Applied Mathematical Statistics I</td>
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<tr>
<td>MATH 628</td>
<td>Mathematical Theory of Statistics</td>
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<tr>
<td>MATH 728</td>
<td>Statistical Theory</td>
<td></td>
</tr>
</tbody>
</table>

Mathematics Concentration/Sequence Requirements (6-12)

Select one 2-course sequence from List A and a second 2-course sequence from either List A or List B 6-12

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH 450</td>
<td>Linear Algebra</td>
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</tr>
<tr>
<td>MATH 451</td>
<td>Linear Algebra II</td>
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</tr>
</tbody>
</table>

Electives (0-6)

Select up to 2 additional 3-credit-hour courses to complete a total of 24 credit hours of mathematics courses numbered MATH 450 and above. 0-6

Applied Concentration (8)

3 courses, totaling at least 8 credit hours, that make significant use of mathematics. At least 2 courses must be in the same area. Courses from List C have been approved for this requirement. Other upper-division courses making significant use of mathematics can be used for the applied concentration with the approval of a mathematics department advisor. 8
Note: Many of these courses have prerequisites that do not count toward the mathematics major.

Minimum Major Requirements
42 hours

Applied Concentration: 8 hours

General Education Requirements: 46-50 hours

Completion of the University Core Curriculum

Writing (6)
ENGL 101 Composition (or exemption) 3
Select one of the following: 3
ENGL 102 Critical Reading and Writing (or exemption)
ENGL 105 Freshman Honors English (or exemption)

Computer Science (3-4)
Select one of the following: 3-4
EECS 138 Introduction to Computing: ______
EECS 168 Programming I
EECS 169 Programming I: Honors

Natural Science (7-10)
Select one course with laboratory 4-5
Select one additional course in a natural science other than mathematics 3-5

List A Sequences
MATH 627 Probability 6
&MATH 628 and Mathematical Theory of Statistics
MATH 660 Geometry I 6
&MATH 661 and Geometry II
MATH 727 Probability Theory 6
&MATH 728 and Statistical Theory
MATH 765 Mathematical Analysis I 6
&MATH 766 and Mathematical Analysis II
MATH 781 Numerical Analysis I 6
&MATH 782 and Numerical Analysis II
MATH 790 Linear Algebra II 6
&MATH 791 and Modern Algebra

List B Sequences
MATH 500 Intermediate Analysis 6
&MATH 646 and Complex Variable and Applications
MATH 526 Applied Mathematical Statistics I 6
&MATH 605 and Applied Regression Analysis
MATH 526 Applied Mathematical Statistics I 6
&MATH 611 and Time Series Analysis
MATH 540 Elementary Number Theory 6
&MATH 558 and Introductory Modern Algebra
MATH 558 Introductory Modern Algebra 6
&MATH 601 and Algebraic Coding Theory
MATH 540 Elementary Number Theory 6
&MATH 791 and Modern Algebra
MATH 581 Numerical Methods 6
&MATH 591 and Applied Numerical Linear Algebra

List C Applied Concentration Courses
Statistics (15)
MATH 605 Applied Regression Analysis 3
MATH 611 Time Series Analysis 3
MATH 624 Discrete Probability 3
ECON 817 Econometrics I 3
ECON 818 Econometrics II 3

Economics and Finance (42)
ECON 526 Introduction to Econometrics 3
ECON 590 Game Theory 3
ECON 620 Elements of Mathematical Economics 3
ECON 700 Survey of Microeconomics 3
ECON 701 Survey of Macroeconomics 3
ECON 715 Elementary Econometrics 3
ECON 716 Econometric Forecasting 3
FIN 310 Finance 3
FIN 410 Investment Theory and Applications 3
FIN 415 Corporate Finance 3
FIN 420 International Finance 3
FIN 425 Futures and Options 3
MATH 630 Actuarial Mathematics 3
SCM 310 Management Science and Operations Management 3

Biology (19)
BIOL 350 Principles of Genetics 3
BIOL 412 Evolutionary Biology 3
BINF 701 Bioinformatics I 5
BINF 702 Bioinformatics II 5
BIOL 743 Population Genetics 3

Physics and Astronomy (42)
PHSX 313 General Physics III 3
PHSX 511 Introductory Quantum Mechanics 3
PHSX 518 Mathematical Physics 3
PHSX 521 Mechanics I 3
PHSX 531 Electricity and Magnetism 3
ASTR 591 Stellar Astronomy 3
ASTR 592 Galactic and Extragalactic Astronomy 3
PHSX 621 Mechanics II 3
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>PHSX 631</td>
<td>Electromagnetic Theory</td>
<td>3</td>
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<tr>
<td>PHSX 655</td>
<td>Optics</td>
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<tr>
<td>PHSX 671</td>
<td>Thermal Physics</td>
<td>3</td>
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<tr>
<td>PHSX 691</td>
<td>Astrophysics I</td>
<td>3</td>
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<tr>
<td>PHSX 711</td>
<td>Quantum Mechanics I</td>
<td>3</td>
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<tr>
<td>PHSX 741</td>
<td>Nuclear Physics I</td>
<td>3</td>
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<tr>
<td>Chem 530</td>
<td>Physical Chemistry I</td>
<td>3</td>
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<td>Chem 535</td>
<td>Physical Chemistry I</td>
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<td>Chem 620</td>
<td>Analytical Chemistry</td>
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<tr>
<td>AE 345</td>
<td>Fluid Mechanics</td>
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<tr>
<td>AE 445</td>
<td>Aircraft Aerodynamics and Performance</td>
<td>3</td>
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<tr>
<td>AE 507</td>
<td>Aerospace Structures I</td>
<td>3</td>
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<tr>
<td>AE 545</td>
<td>Fundamentals of Aerodynamics</td>
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<tr>
<td>AE 550</td>
<td>Dynamics of Flight I</td>
<td>4</td>
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<tr>
<td>AE 551</td>
<td>Dynamics of Flight II</td>
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<tr>
<td>AE 552</td>
<td>Honors Dynamics of Flight II</td>
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<tr>
<td>AE 750</td>
<td>Applied Optimal Control</td>
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<tr>
<td>C&amp;PE 211</td>
<td>Material and Energy Balances</td>
<td>3</td>
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<tr>
<td>C&amp;PE 511</td>
<td>Momentum Transfer</td>
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<td>C&amp;PE 521</td>
<td>Heat Transfer</td>
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<tr>
<td>C&amp;PE 523</td>
<td>Mass Transfer</td>
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<tr>
<td>CE 201</td>
<td>Statics</td>
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<td>CE 300</td>
<td>Dynamics</td>
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<tr>
<td>CE 301</td>
<td>Statics and Dynamics</td>
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<td>CE 311</td>
<td>Strength of Materials</td>
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<td>CE 330</td>
<td>Fluid Mechanics</td>
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<td>CE 461</td>
<td>Structural Analysis</td>
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<tr>
<td>CE 704</td>
<td>Dynamics and Vibrations</td>
<td>3</td>
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<tr>
<td>CE 730</td>
<td>Intermediate Fluid Mechanics</td>
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<tr>
<td>CE 461</td>
<td>Structural Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CE 704</td>
<td>Dynamics and Vibrations</td>
<td>3</td>
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<tr>
<td>EECS 211</td>
<td>Circuits I</td>
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<td>EECS 220</td>
<td>Electromagnetics I</td>
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<tr>
<td>EECS 360</td>
<td>Signal and System Analysis</td>
<td>4</td>
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<tr>
<td>EECS 420</td>
<td>Electromagnetics II</td>
<td>4</td>
</tr>
<tr>
<td>EECS 444</td>
<td>Control Systems</td>
<td>3</td>
</tr>
<tr>
<td>EECS 510</td>
<td>Introduction to the Theory of Computing</td>
<td>3</td>
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<tr>
<td>EECS 560</td>
<td>Data Structures</td>
<td>4</td>
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<tr>
<td>EECS 562</td>
<td>Introduction to Communication Systems</td>
<td>4</td>
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<tr>
<td>EECS 688</td>
<td>Fundamentals of Expert Systems</td>
<td>3</td>
</tr>
<tr>
<td>EECS 644</td>
<td>Introduction to Digital Signal Processing</td>
<td>3</td>
</tr>
<tr>
<td>EECS 649</td>
<td>Introduction to Artificial Intelligence</td>
<td>3</td>
</tr>
<tr>
<td>EECS 660</td>
<td>Fundamentals of Computer Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>EECS 662</td>
<td>Programming Languages</td>
<td>3</td>
</tr>
<tr>
<td>EECS 672</td>
<td>Introduction to Computer Graphics</td>
<td>3</td>
</tr>
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<td>EECS 718</td>
<td>Graph Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>EECS 730</td>
<td>Introduction to Bioinformatics</td>
<td>3</td>
</tr>
<tr>
<td>EECS 744</td>
<td>Communications and Radar Digital Signal Processing</td>
<td>3</td>
</tr>
<tr>
<td>ME 201</td>
<td>Statics</td>
<td>2</td>
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<tr>
<td>ME 311</td>
<td>Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>ME 312</td>
<td>Basic Engineering Thermodynamics</td>
<td>3</td>
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<tr>
<td>ME 508</td>
<td>Numerical Analysis of Mechanical Engineering Problems</td>
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<td>ME 510</td>
<td>Fluid Mechanics</td>
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<tr>
<td>ME 612</td>
<td>Heat Transfer</td>
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<td>ME 682</td>
<td>System Dynamics and Control Systems</td>
<td>3</td>
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<tr>
<td>C&amp;T 360</td>
<td>Knowing and Learning in Mathematics and Science</td>
<td>3</td>
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<tr>
<td>C&amp;T 366</td>
<td>Classroom Interactions in Mathematics and Science</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;T 460</td>
<td>Project Based Instruction in Mathematics and Science</td>
<td>3</td>
</tr>
</tbody>
</table>

Notes: A student using at least 2 statistics courses for the applied concentration must complete MATH 627 and MATH 628 (or MATH 727 and MATH 728) as a List A sequence. (MATH 627, MATH 628, MATH 727, and MATH 728 do not count for the applied concentration.) A student using at least 2 curriculum & instruction courses for the applied concentration must complete PHSX 211 as one of the natural science courses and must complete at least 1 of the geometry courses MATH 559, MATH 660, or MATH 661.

Courses used to satisfy the core requirements can also be used to complete List A and List B sequences. However, no course can be used for 2 List A or B sequences, and courses used for the Applied Concentration requirement cannot also be counted toward the 24 credit hours of advanced mathematics courses for the B.S. degree.

Some courses satisfying the sequence requirements are taught infrequently. More advanced courses can be substituted for lower level courses in many cases. Consult the mathematics department for expected course offerings and substitutions.

Departmental Honors
For undergraduate departmental honors, the student must satisfy the College requirements for honors, attain a grade-point average of 3.5 in all mathematics courses numbered 500 and above, and complete MATH 765, MATH 766, MATH 790, and MATH 791 with a grade of B or higher in each course. The student must make a satisfactory oral presentation to the department, preferably on a topic related to his or her mathematics course work. Preparation should include enrollment in MATH 699 Directed Reading (for 1 or more credit hours) with a faculty mentor.

Minor in Mathematics

Why study mathematics?
Because mathematics is a framework upon which humanity builds an understanding of the world.
Requirements for the Minor

The student must earn a grade point average of 2.0 in all mathematics courses attempted.

- **Lower-Division Preparation:** Calculus through MATH 122.
- **Upper-Division Courses:** 12 credit hours of courses numbered 300 and above (excluding MATH 365).

**Note:** Most upper-division mathematics courses have MATH 223 and/or MATH 290 as prerequisites.

Minimum Minor Requirements 18 hours

Master of Arts in Mathematics

Why study mathematics?

Because mathematics is a framework upon which humanity builds an understanding of the world.

Preparation for Graduate Study

Students who plan to attend graduate school in the mathematical sciences should speak to an advisor about the best preparation, depending on their goals. Students planning to enter a general mathematics graduate program are encouraged to take MATH 765 (http://catalog.ku.edu/201314/allcourses?type=department&group=MATH&catalog_nbr=765&toggle=0), MATH 766 (http://catalog.ku.edu/201314/allcourses?type=department&group=MATH&catalog_nbr=766&toggle=0), MATH 790 (http://catalog.ku.edu/201314/allcourses?type=department&group=MATH&catalog_nbr=790&toggle=0), and MATH 791 (http://catalog.ku.edu/201314/allcourses?type=department&group=MATH&catalog_nbr=791&toggle=0). Some graduate degrees require a reading knowledge of French, German, or Russian.

Graduate Programs

The department offers a graduate program leading to both the M.A. and Ph.D. degrees. A broad range of programs is possible in algebra, analysis, combinatorics, control theory, dynamical systems, geometry, numerical analysis, probability, statistics, partial differential equations, set theory, and topology.

The Department of Mathematics has a long tradition of excellence. The first Ph.D. granted at KU was in mathematics in the year 1895. Since then, the graduate program has been a central part of the department’s research and teaching mission and an important component of its long-term planning. The department’s commitment to graduate education has boosted its recent growth in size and enhanced its reputation. Prospective students are encouraged to read additional information (http://www.math.ku.edu/academics/graduate.html) online.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

The minimum prerequisites for admission are an undergraduate degree from an accredited institution with a program of study in mathematics and a record of achievements that shows strong promise of success in graduate school. A 3.0 cumulative grade-point average in undergraduate studies and a 3.0 grade-point average in mathematics are required for admission.

A prospective student should have taken courses in mathematics at the undergraduate level in abstract algebra, linear algebra, and advanced calculus or introduction to analysis. Such courses should be comparable to KU courses numbered MATH 500, MATH 558, and MATH 590. It is also beneficial to students if they have minimum preparation in probability/statistics or numerical analysis (like KU courses MATH 627/MATH 628 and/or MATH 581). We also recommend that you take introductory courses in complex analysis, differential equations, and/or topology before considering graduate work in mathematics at KU (see for example KU courses numbered MATH 646 and MATH 647).

The department requires the general Graduate Record Examination for all incoming students. International students whose native language is not English also must fulfill English language requirements specified by university policies.

Applicants must submit a graduate application online (http://www.graduate.ku.edu). In addition the following required materials must be submitted online:

- Transcript from each college or university the applicant has attended (an official transcript must be sent upon acceptance and completion of degree),
- Applicant’s résumé/curriculum vitae,
- A list of the textbooks used in the mathematics courses beyond the calculus level that the applicant has taken,
- A statement of purpose indicating the applicant’s mathematical preferences and interests, and
- 3 letters of reference.

Official GRE scores and official Test of English as a Foreign Language scores must be sent to the department.

Incomplete applications will not be considered. The minimum admission requirements do not guarantee admission. The graduate committee of the Department of Mathematics evaluates candidates and makes recommendations to the Office of Graduate Studies regarding admission. The number of students admitted to the program changes from year to year, and admissions are competitive based on all application materials.

There are no additional application forms for financial support. Students are considered for support based on merit. Most of the students accepted by the program receive an offer of financial support in the form of a Graduate Teaching Assistantship. The number of GTAs available is limited. Further information about applications and admission (http://www.math.ku.edu/academics/graduate/admissions.html) is available online.
Complete 36 credit hours of courses numbered 600 or above:

Option 3
of the oral examination.

short (30 to 60 minutes) presentation of her or his research in the first part of the oral examination. A candidate must give a technical report as part of his or her research component. Also, a candidate must give a short (30 to 60 minutes) presentation of her or his research in the first part of the oral examination. A proposed program of study must be submitted to the chair of the graduate studies committee at the earliest feasible time, preferably during the second semester of enrollment. The degree is awarded only on the basis of an approved program, which can, however, be revised.

Doctor of Philosophy in Mathematics

Why study mathematics?

Because mathematics is a framework upon which humanity builds an understanding of the world.

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- A list of the textbooks used in the mathematics courses beyond the calculus level that the applicant has taken,
- A statement of purpose indicating the applicant’s mathematical preferences and interests, and
- 3 letters of reference.

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Note: Contact your department or program for more information about the qualifying exam coursework requirement, the research skills and responsible scholarship, and the current requirements for doctoral students. Current policies on Doctoral Research Skills and Responsible Scholarship are listed in the Graduate Studies section of the online catalog and in the KU Policy Library.

Pure Mathematics

This track requires:

MATH 800 Complex Analysis I 3
MATH 810 Real Analysis and Measure Theory I 3
MATH 820 Introduction to Topology 3
MATH 830 Abstract Algebra 3

Select an approved course in geometry, e.g.:

- MATH 840 Differentiable Manifolds 3
- MATH 910 Algebraic Curves 3
- MATH 920 Lie Groups and Lie Algebras 3

Applied Mathematics

This track requires:

MATH 727 Probability Theory (or the corresponding qualifying examination) 3
MATH 781 Numerical Analysis I (or the corresponding qualifying examination) 3
MATH 800 Complex Analysis I 3
MATH 810 Real Analysis and Measure Theory I 3

Select one of the following: 6

- MATH 881 Advanced Numerical Linear Algebra 3
- MATH 882 and Advanced Numerical Differential Equations
- MATH 865 Stochastic Processes I 3
- MATH 866 and Stochastic Processes II
- MATH 850 Differential Equations and Dynamical Systems 3
- MATH 851 and Topics in Dynamical Systems

Select one of the following: 3

- MATH 840 Differentiable Manifolds
- MATH 850 Differential Equations and Dynamical Systems
- MATH 950 Partial Differential Equations

Ph.D. Degree Requirements

In addition to general requirements, the department requires the student to meet the following requirements before being admitted to the comprehensive examination.

1. Pass 2 written qualifying examinations, 1 exam in either algebra or analysis and a second exam in either numerical analysis or probability/statistics and complete the required qualifying exam coursework. The qualifying examinations must be completed by the beginning of the student’s fifth semester. The qual course requirement must be met before taking the preliminary exam.

2. Pass 1 preliminary examination in an area close to the focus of the eventual doctoral dissertation. The preliminary examination must be completed by the beginning of the student’s eighth semester.

3. Satisfy the research skills and responsible scholarship requirement by demonstrating a working knowledge of a programming language such as C++ or FORTRAN and by completing the departmental training in responsible scholarship. To meet the research skills requirement students must complete an introductory programming language course approved by the graduate committee. Alternately, students may complete an approved computing project demonstrating competence in either a programming language or the use of specialized software that supports the student’s research.

4. Pass a set of required courses, differing in different tracks.

Examination Preparation

Normally the work required to prepare a student for the oral comprehensive examination (and to do research) includes 1 or more semesters of advanced courses, directed readings, and seminars. In the oral comprehensive examination, a student must show proficiency in the chosen area of mathematics. Precise areas of responsibility on
this examination are discussed in detail with the advisory committee (the student’s advisor and two other members of the department’s Graduate Faculty).

The student must complete 4 additional courses at the 800 level or above before the final examination. Mathematics courses at the 700 level, or courses outside the department at the 700 level or higher, may be substituted with the approval of the graduate studies committee.

Department of Molecular Biosciences

Molecular Biosciences Graduate Programs

The department offers the Doctor of Philosophy and the Master of Arts in biochemistry and biophysics; microbiology; and molecular, cellular, and developmental biology. Programs in neurobiology and genetics also allow a research focus. Graduate students may pursue degree tracks in the disciplines of their choice but may also be involved in collaborative research. New students should confer with the graduate coordinator to plan a first-semester schedule. Until the student chooses a permanent advisor, the graduate coordinator advises him or her.

The department has established a level of enrollment appropriate for normal progress (course work and research effort) toward an advanced degree. These credit-hour requirements may exceed, but not fall below, minimum Graduate Studies requirements. A student must enroll full-time in residence for at least two regular academic-year semesters after the first year of graduate study. Nine credit hours constitute full-time enrollment. If the student holds a half-time research or teaching assistantship, 6 hours constitute full-time enrollment. The department expects graduate students who have not yet passed the comprehensive oral examination (including those with half-time assistantships) to enroll in at least 9 hours each semester and 3 hours each summer session. After passing the comprehensive oral examination, a doctoral candidate must be continuously enrolled, including summer sessions, until all degree requirements are completed. For the first 18 hours of post-comprehensive enrollment, the doctoral candidate must take a minimum of 6 hours a semester and 3 hours a summer session.

Graduate Teaching Assistantships and Graduate Research Assistantships are available. GTAs are appointed on a semester basis. GRAs are appointed on a semester, academic-year, or calendar-year basis.

During the first 2 semesters, a new Ph.D. graduate student follows a rotation schedule through 3 research laboratories. This program acquaints each student with the research conducted by each faculty member. Students then choose a home lab. This decision must be mutually agreed on with the major professor. Each graduate student must teach for at least 2 semesters.

(The B.S. degree in molecular biosciences (p. 1212) is offered on the KU Edwards Campus (http://edwardscampus.ku.edu).)

Courses

BIOL 100. Principles of Biology. 3 Hours. NB GE3N / N.

Intended for non-science majors. The basic concepts of biology at the cellular, organismal, and population levels of organization and their applications to humans and modern society. An honors section, BIOL 101, is offered for students with superior academic records. BIOL 100 and BIOL 102 (or BIOL 101 and BIOL 103, honors) satisfy the College natural science with laboratory requirement. Concurrent enrollment in BIOL 102 is recommended. LEC.

BIOL 101. Principles of Biology, Honors. 3 Hours. NB GE3N / N.

Intended for non-science majors with superior academic records. The basic concepts of biology at the cellular, organismal, and population levels of organization and their applications to humans and modern society. Concurrent enrollment in BIOL 102 or BIOL 103 is recommended. BIOL 101 and either BIOL 102 or BIOL 103 satisfy the College natural science with laboratory requirement. Prerequisite: Membership in the College Honors Program or consent of instructor. LEC.

BIOL 102. Principles of Biology Laboratory. 1 Hour. U.

Intended for non-science majors. Exercises are designed to give the student hands-on experience with selected topics from the associated lecture course (BIOL 100). An honors laboratory (BIOL 103) is offered for students with superior academic records. Prerequisite: Concurrent enrollment in BIOL 100 is recommended. LAB.

BIOL 103. Principles of Biology Laboratory, Honors. 1 Hour. U.

Intended for non-science majors with superior academic records. Exercises are designed to give the students hands-on experience with selected topics from the associated lecture course (BIOL 101). Prerequisite: Membership in the College Honors Program or consent of instructor. Concurrent enrollment in BIOL 101 is recommended. LAB.

BIOL 105. Biology Orientation Seminar. 1 Hour. N.

Introduces interested students to information about majoring in the biological sciences at the University of Kansas. Students learn about degree requirements, academic advising, research opportunities, and career options, as well as how to align academic and professional goals. Graded on a satisfactory/unsatisfactory basis. LEC.

BIOL 110. Microorganisms in Your World. 3 Hours. NB / N.

A course for students who are not science majors. Designed to acquaint students with some microbial activities which affect their lives. Includes the historical development of microbiology, the basic principles of microbial growth, disinfection, antibiotics, infection, and immunity; and some commercial, agricultural, and industrial uses of microorganisms. Emphasis is on infectious diseases. Not open to students with any credit in microbiology. May not be counted as a prerequisite for any other microbiology course. LEC.

BIOL 116. Introduction to Evolutionary Biology. 3 Hours. N.

An account of evolutionary thinking from classical to contemporary time. The emphasis is on mainstream developments (Darwinism, Mendelism, the Modern Synthesis, Cultural Ecology), but certain social issues will be examined (social Darwinism, creationism). LEC.

BIOL 120. Insects in Your World. 3 Hours. NB GE3N / N.

Students will learn about the global impact of insects on human concerns, both positive (pollination and decomposition) and negative (competition with humans for food, fiber, and shelter, and disease transmission) while developing an appreciation for the ways in which scientists work with real problems involving insects. The course will cover the overwhelming abundance and diversity of insects, and their life history, ecology, behavior, and physiology. This course is intended for both nonbiology and biology majors. Format: two lectures and one discussion section per week. LEC.

BIOL 150. Principles of Molecular and Cellular Biology. 4 Hours. NB GE3N / N.

An integrated lecture and laboratory course for biology majors and students planning to take additional courses in biology. This course covers basic biochemistry, cell structure and function, molecular biology, genetics, physiology, and development of plants and animals. Three hours of lecture and three hours of laboratory per week. An honors
BIOL 151. Principles of Molecular and Cellular Biology, Honors. 4 Hours. NB GE3N / N.
An integrated lecture and laboratory course for students with superior academic records who are biology majors or who plan to take additional courses in biology. This course covers basic biochemistry, cell structure and function, molecular biology, genetics, physiology, and development of plants and animals. Three hours of lecture and three hours of laboratory per week. Prerequisite: Membership in the University Honors Program and concurrent or prior enrollment in CHEM 130, CHEM 190, CHEM 150, or CHEM 170, or consent of instructor. LEC.

BIOL 152. Principles of Organismal Biology. 4 Hours. NB GE3N / N.
An integrated lecture and laboratory course for biology majors and students who plan to take additional courses in biology. This course covers basic elements of plant and animal morphology and physiology, principles of evolution, organismal diversity and phylogeny, population biology, population genetics, ecology, and behavior. Three hours of lecture and three hours of laboratory per week. An honors section (BIOL 153) is offered for students with superior academic records. Prerequisite: BIOL 150 or BIOL 151. LEC.

BIOL 153. Principles of Organismal Biology, Honors. 4 Hours. NB GE3N / N.
An integrated lecture and laboratory course for students with superior academic records who are biology majors or planning to take additional courses in biology. This course covers basic elements of plant and animal morphology and physiology, principles of evolution, organismal diversity and phylogeny, population biology, population genetics, ecology, and behavior. Three hours of lecture and three hours of laboratory per week. Prerequisite: BIOL 150 or BIOL 151 and membership in the University Honors Program or consent of instructor. LEC.

BIOL 177. First Year Seminar: ______. 3 Hours. NB GE11.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in biology. Does not contribute to major requirements in biology. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

BIOL 200. Basic Microbiology. 3 Hours. NB GE3N / N.
Introduction to bacteria and viruses. Topics include historical development of microbiology, bacterial structure and growth, enzymes and energy production, disinfection, antibacterial drugs, gene transfer, viral replication, infection and immunity, with emphasis on infectious diseases. Can be substituted for BIOL 201 as a prerequisite for other microbiology courses by consent of department. Not open to those with credit in BIOL 110, BIOL 201, BIOL 400, or BIOL 401. Prerequisite: A course in high school biology and a course in high school chemistry. This course is not recommended for first semester freshmen. LEC.

BIOL 203. Introductory Microbiology Laboratory. 2 Hours. U.
Laboratory exercises to complement BIOL 200. Prerequisite: BIOL 200. May be taken concurrently. LAB.

BIOL 210. Introduction to Clinical Laboratory Sciences. 1 Hour. U.
An introductory overview of medical technology as a profession including types of analyses performed, specialties, interrelationships in the health care system and a visit to a clinical laboratory. This course will enable those considering a major in medical technology to have a clear definition of the profession. This course does not meet any degree requirements in biology. No prerequisite. (Same as CLS 210.) LEC.

BIOL 215. Plants Through Time. 3 Hours. NB / N.
Examines the evolution of plants and their environments from the origin of life to the present, including the historical development of the biosphere, mass extinctions (past and present), and social implications of future climate changes and deforestation. Not recommended for students with credit in GEOL 121. LEC.

BIOL 225. Evolution and the History of Life. 3 Hours. GE3N / N.
This introductory course for non-majors focuses on the significance of the history of life and the fossil record for our understanding of evolution. Key events in the history of life are considered, including the origins of life, the eukaryotic cell, and humans, and also various mass extinctions. The focus is on general scientific and evolutionary principles and mechanisms that can be extracted from the study of the fossil record. It also uses the lessons of the fossil record to consider the prospects for our own species. LEC.

BIOL 240. Fundamentals of Human Anatomy. 3 Hours. N.
Introduction to the gross anatomy of the human body. Covers the spatial arrangement and appearance of structures throughout the body, including visual identification of these structures. Musculoskeletal relationships, and the anatomy of major organ systems, are emphasized. Not intended for biology majors. Prerequisite: BIOL 100, or equivalent. LEC.

BIOL 241. Human Anatomy Observation Laboratory. 2 Hours. U.
One of the two laboratories in gross anatomy designed to complement BIOL 240. Emphasizes the three-dimensional appearance and spatial relationships of anatomical structures through supervised observations of pre-dissected human cadavers. Limited to students enrolled in, or seeking admission to, programs that require a human anatomy observation laboratory. Concurrent or prior enrollment in BIOL 240 is required. LAB.

BIOL 242. Human Anatomy Dissection Laboratory. 3 Hours. U.
One of the two laboratories in gross anatomy designed to complement BIOL 240. Provides an opportunity to develop a comprehensive three-dimensional understanding of anatomical structures and spatial relationships while gaining substantial dissecting experience. Student perform supervised dissection of human cadavers. Limited to students enrolled in, or seeking admission to, programs that require a human anatomy laboratory. Concurrent or prior enrollment in BIOL 240 is required. LAB.

BIOL 246. Principles of Human Physiology. 3 Hours. N.
An introduction to the physiological and biochemical processes and general physiological principles necessary to sustain life. Organ and organ system processes are emphasized. Intended for students majoring in allied health or sports related curricula who require a course in human physiology. Not intended for biology majors. Prerequisite: BIOL 100 or equivalent. LEC.

BIOL 247. Principles of Human Physiology Laboratory. 2 Hours. U.
Designed to complement BIOL 246. Uses experiments and simulations to demonstrate laboratory techniques and representative processes in areas of human physiology. Concurrent or prior enrollment in BIOL 246 required. LAB.

BIOL 350. Principles of Genetics. 4 Hours. N.
Why are related individuals more similar than unrelated individuals and what is the basis for heritable traits? From Mendel's discoveries of the patterns of genetic inheritance, to the study of transmissible hereditary factors, genetics is central to understanding the biological sciences. Topics include molecular genetics and genetic engineering; Mendelian genetics and mapping; control of gene expression; cyto genetics; epigenetics and non-Mendelian genetics; and population and quantitative genetics. Examples are taken from a wide variety of organisms, including viruses, bacteria, plants, fungi, insects, and humans. Prerequisite: Two
semesters of college-level chemistry and BIOL 150 or BIOL 152; or consent of the instructor. LEC.

BIOL 360. Principles of Genetics, Honors. 4 Hours. N.
The science of genetics aims to explain why individuals differ from one another and how these differences are inherited. Honors Genetics covers all core topics in fundamental genetics: Mendelian inheritance, meiosis and recombination, mutation, molecular genetics, population genetics, quantitative genetics and genomics. Special attention given to the practice of genetics and the complex relationship between genotype, phenotype and environment. A broader goal of Honors Genetics is to provide students a framework for understanding recent advances in medical genetics and the modern era of personal genomics. Prerequisite: Two semesters of college-level chemistry and BIOL 150 or BIOL 152, membership in the University Honors Program; or consent of the instructor. LEC.

BIOL 400. Fundamentals of Microbiology. 3 Hours. NB GE3N / N.
Fundamental principles of microbiology with emphasis on physical and chemical properties of the bacterial cell; microbial metabolism, cultivation, growth and death of bacteria; microbial genetics, pathogenesis and immunity, industrially important microorganisms. Prerequisite: BIOL 150 or BIOL 151 and two semesters of college chemistry, or consent of the instructor. LEC.

BIOL 401. Fundamentals of Microbiology, Honors. 3 Hours. N.
Honors section of BIOL 400 and BIOL 612, by application and invitation. Prerequisite: BIOL 151, two semesters of college chemistry, and membership in the University Honors Program, or consent of the instructor. LEC.

BIOL 402. Fundamentals of Microbiology Laboratory. 2 Hours. U.
Laboratory exercises designed to complement BIOL 400 or BIOL 700. Prerequisite: BIOL 400 or BIOL 612, or BIOL 400 or BIOL 612 concurrently. LAB.

BIOL 405. Laboratory in Genetics. 2 Hours. U.
A laboratory program which includes written reports on fruit fly crosses, exercises on meiosis, probability and statistics, human genetics and computer simulations of genetics problems. Prerequisite: Concurrent or prior (preferred) enrollment in BIOL 350 or its equivalent. LAB.

BIOL 408. Physiology of Organisms. 3 Hours. N.
A comprehensive and integrative approach to the study of organisms with an emphasis on physiological, ecological, structural, and behavioral adaptations to differing environments. Prerequisite: BIOL 152 or BIOL 153 and CHEM 130 or CHEM 190 or CHEM 170; or consent of the instructor. LEC.

BIOL 409. Physiology of Organisms, Laboratory. 2 Hours. U.
The laboratory exposes the students to the structure and function of the major groups of animals and plants. Students use basic techniques of biological observation, such as microscopy and dissection, and experimental techniques to analyze plant and animal function. Prerequisite: Concurrent or prior enrollment in BIOL 408, or consent of the instructor. LAB.

BIOL 410. Human Biogeography, Honors. 3 Hours. N.
Principles of evolution and earth change are used to examine distributions of human populations, wealth, and resources. Readings from the current literature will be included. Lecture and discussion. (Same as GEOG 410.) Prerequisite: BIOL 152 or BIOL 153 or GEOG 107 and membership in the University Honors Program or consent of instructor. LEC.

BIOL 412. Evolutionary Biology. 4 Hours. N.
Introduction to the patterns and processes of organic evolution. Considered are the history of evolutionary thought, molecular evolution, genetics and microevolution, selection and adaptation, and speculation and macroevolution. Emphasis will be placed on how scientists study and document change over time in natural populations, methods for testing hypotheses about events in evolutionary history, and how discovering evolutionary mechanisms at one level of organization can help to explicate general processes in the natural world. Prerequisite: BIOL 152 and BIOL 350, or consent of the instructor. LEC.

BIOL 413. History and Diversity of Organisms. 3 Hours. N.
An integrated lecture and laboratory course presenting an overview of the variety and ancestry of life on earth. Using representatives from protists, plants, fungi, and animals, principles of phylogenetic reconstruction are illustrated and evolutionary trends in the life history features, functional morphology, and structural complexity of extant and extinct organisms are presented. Two hours of lecture and three hours of laboratory per week. Prerequisite: BIOL 152 or BIOL 153, or consent of the instructor. LEC.

BIOL 414. Principles of Ecology. 3 Hours. N.
Study of the principles underlying species population density changes, community structure and dynamics, biochemical cycles, and energy flow and nutrient cycling in ecosystems. Prerequisite: BIOL 152 or BIOL 153, or consent of the instructor. LEC.

BIOL 415. Field and Laboratory Methods in Ecology. 2 Hours. N.
This course complements BIOL 414 with field trips and laboratory exercises that illustrate the basic concepts of ecology. Topics covered include methodologies for quantitative sampling of terrestrial and aquatic systems, design of field studies, computer simulation and digital data analysis techniques, and scientific writing. Prerequisite: Concurrent or prior enrollment in BIOL 414. A statistics course is recommended. FLD.

BIOL 416. Cell Structure and Function. 3 Hours. N.
Lecture survey of molecular cell biology with emphasis on experimental approaches to understanding cell function; topics include biological membranes and transmembrane transport, vesicular trafficking (secretion and endocytosis), cell signaling, cell motility and the cytoskeleton, and the regulation of the cell division cycle. Prerequisite: BIOL 150 or BIOL 151; BIOL 350 or BIOL 360; CHEM 130 or CHEM 190 or CHEM 170; and CHEM 135 or CHEM 195 or CHEM 175, or consent of the instructor. LEC.

BIOL 417. Biology of Development. 3 Hours. N.
A general course designed to introduce students to the developmental biology of animals. Emphasis is placed on understanding how a single-celled fertilized egg develops into a complex multicellular organism by the processes of cell division, differentiation, growth, and morphogenesis. Lectures stress experimental approaches to investigating development, including classic embryology and modern molecular genetics. Prerequisite: BIOL 350 or consent of the instructor. LEC.

BIOL 418. Laboratory in: _____. 1-3 Hours. U.
A varied program of laboratory and fieldwork designed to introduce students to investigative approaches in the study of the basic concepts of biological science. Students may enroll in more than one section. Prerequisite: BIOL 100, BIOL 101, BIOL 150, BIOL 151, or exemption. Each section may have additional prerequisites to be determined by instructor. LAB.

BIOL 419. Topics in: _____. 1-3 Hours. N.
Courses on special topics in biology, given as need arises. May be lectures, discussions, readings, laboratory, or fieldwork. Students may select sections according to their special needs. IND.

BIOL 420. Seminar: _____. 1-3 Hours. N.
The preparation and presentation of oral reports on selected topics from the recent research literature. Students may choose one interest group each semester, but may enroll in a given interest group only once.
Enrollment in each interest group limited to twenty students. Prerequisite: Course work varying with the topic of the seminar, or consent of instructor. LEC.

**BIOL 421. Topics in Molecular Biosciences.** 3 Hours. N. Lecture instruction and the preparation and presentation of oral and written reports on selected topics from the recent research literature in molecular biosciences. Students may enroll in a given topic only once. Prerequisite: Course work varying with the topic of the seminar; or consent of instructor. LEC.

**BIOL 423. Non-laboratory Independent Study.** 1-9 Hours. AE61 / N. Original study in discussion or preparation of review papers on selected topics of current interest. May be undertaken only with the consent of the major advisor and of the faculty member who will guide the research. Prerequisite: Consent of instructor. IND.

**BIOL 424. Independent Study.** 1-9 Hours. AE61 / N. Original study in laboratory or field in selected topics of current research interest. May be undertaken only with the consent of the major advisor and of the faculty member who will guide the research. Prerequisite: Consent of instructor. IND.

**BIOL 425. Teaching Apprenticeship in Biology.** 1-9 Hours. N. Involvement as teaching assistant for a course in Biology. Credit hours shall not exceed the credits offered for the course being taught. May be undertaken only with the consent of the director of Undergraduate Biology and of the faculty member who will teach the course. Prerequisite: Consent of instructor and Director of Undergraduate Biology. FLD.

**BIOL 426. Laboratory in Cell Biology.** 3 Hours. U. Laboratory exercises will examine the function, organization, and composition of eukaryotic cells. Prerequisite: BIOL 150 or BIOL 151, CHEM 130 or CHEM 190 or CHEM 170; concurrent or prior enrollment in BIOL 416 or BIOL 536; or consent of the instructor. BIOL 350 or BIOL 360 is highly recommended. LAB.

**BIOL 427. Developmental Biology Laboratory.** 2 Hours. U. Laboratory exercises examine processes of early development in animal model organisms. Students study the normal development of live embryos and prepared slides of sea anemones, sea urchins, frogs and chicks. Study of regeneration and axial patterning through experimental manipulation of invertebrates is also explored. Prerequisite: Concurrent or prior enrollment in BIOL 417. LAB.

**BIOL 428. Introduction to Systematics.** 3 Hours. N. Basic elements of systematic theory and practice; phylogenetic reconstruction using morphological and molecular data; interpretation of phylogenetic hypotheses; principles of nomenclature and classification; evolutionary processes and patterns of species diversity; discussion of the aims and needs of taxonomy; species and speciation; construction of keys; significance of biological collections. Prerequisite: BIOL 152 or BIOL 153. Not intended for students with advanced systematics background. LEC.

**BIOL 430. Laboratory in Molecular Biology.** 3 Hours. U. Practical experience in recombinant DNA technology and molecular cloning. Prerequisite: BIOL 416 or a course in biochemistry or microbiology. LAB.

**BIOL 432. Human Behavioral Genetics.** 3 Hours. S. A survey of human behavioral genetics for upper division undergraduates. Emphasis is on how the methods and theories of quantitative, population, medical, and molecular genetics can be applied to individual and group differences in humans. Both normal and abnormal behaviors are covered, including intelligence, mental retardation, language and language disorders, communication, learning, personality, and psychopathology. (Same as ANTH 447, PSYC 432, SPLH 432.) Prerequisite: Introductory courses in biology/genetics or biological anthropology and psychology are recommended. LEC.

**BIOL 435. Introduction to Neurobiology.** 3 Hours. N. Basic principles of neurobiology. The focus will be on the nature of communication among nerve cells and their targets. Topics will include the development, structure and function of nerve cells, chemistry of neurotransmission, processing and integration including the cellular and molecular basis of higher functions and neurological disorders. Prerequisite: BIOL 150 or BIOL 151. LEC.

**BIOL 440. Advanced Human Anatomy.** 6 Hours. N. Integrated lecture and laboratory course designed to provide students with a detailed understanding of the structure of the human body. Cadaver dissection will reinforce three-dimensional relationships discussed in lecture and each of the main organ systems will be considered using a regional approach to the body. Prerequisite: BIOL 152 or equivalent; BIOL 240, BIOL 241, or BIOL 242; and instructor consent. LEC.

**BIOL 448. Kansas Plants.** 3 Hours. N. A study of common and important non-cultivated Kansas plants, with special emphasis on the ecology of the state; paleobotanical and paleobotanical background of the central prairies and plains; present climate, physiography and vegetation; poisonous, edible, and medicinal plants; identification by means of simplified keys. Prerequisite: BIOL 100, BIOL 101, BIOL 150, or BIOL 151 and BIOL 152 or BIOL 153. LEC.

**BIOL 449. Laboratory/Field Work in Human Biology.** 1-3 Hours. AE61 / N. Faculty supervised laboratory or field research for Human Biology majors. Students design and complete a research project in collaboration with a Human Biology faculty member. (Same as ANTH 449, PSYC 449, and SPLH 449.) Prerequisite: Consent of instructor and Human Biology major. FLD.

**BIOL 454. Brain Diseases and Neurological Disorders.** 3 Hours. N. Major brain diseases and neurological disorders such as stroke, Alzheimer’s Disease, Parkinson’s Disease, Huntington’s Disease, Multiple Sclerosis, Epilepsy, Schizophrenia, etc., will be discussed in terms of the etiology, molecular, and cellular basis of potential therapeutic interventions. Graduate students are required to present original research paper assigned by the instructor to the class in addition to other assignments for all the students enrolled. Prerequisite: BIOL 150, or consent of instructor. LEC.

**BIOL 461. Biodiversity of the Rainforest.** 3 Hours. N. An introduction to birds, bats, and plants of the rainforest, with emphasis on general characteristics of each of the taxa and their relationship to the tropical ecosystem, as well as their particular anatomy, ecology, behavior, and diversity. Field work focuses on identification of birds and bats (at species level), plants (at family level), and on capturing and preservation techniques. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

**BIOL 463. Introduction to Ornithology of the Tropics.** 4 Hours. N. A theory and practice course on birds. Course covers morphology, reproduction, evolution, ecology, and behavior, as well as systems of Costa Rican birds. Course includes field work on bird identification. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are
taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

**BIOL 465. Marine Biology. 4 Hours. N.**
A theory and practice course on biotic relations, the role of organisms and marine biodiversity. It covers basic marine principles and physico-chemical processes (temperature, salinity, dissolved oxygen, nutrients, and pH in the water) and their effect on the abundance, and horizontal and vertical distribution of marine organisms. Course includes field work on data collection. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

**BIOL 467. Marine Resources Management. 3 Hours. N.**
A theory and practice course which focuses on the techniques used for monitoring the growth of fish, shrimp, and mollusks, with the purpose of understanding the variables that could produce the best yields. The course covers ecology (population growth, competition, predators, ecosystem dynamics), and fishery biology (growth, fish yield, capture efficiency) applicable in the field experiments. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

**BIOL 468. Fresh Water Ecology. 4 Hours. N.**
A theory and practice class on the study of rivers and lagoons. It includes systematics of rivers, lagoons, and reservoirs. Course includes theory and field work to monitor physical (stream topography, flow, edge vegetation), chemical (nutrients, temperature, pH levels, dissolved oxygen), and biological (collecting and identification of aquatic insects) conditions in rivers. Taught in Golfito, Costa Rica. Contact Undergraduate Biology, or the Office of Study Abroad. Prerequisite: BIOL 150 or BIOL 151 and BIOL 152 or BIOL 153, or equivalent. Fall and spring semester courses are taught in Spanish; therefore, four semesters of Spanish are required. Summer courses are taught in English. LEC.

**BIOL 477. Ecology and Global Change. 3 Hours. N.**
Humans influence both natural and managed ecosystems. This course studies the effects of climate change, land-use change, and reductions in biodiversity on ecosystems. Emphasis is placed on how biological and physical processes may be perturbed by human influences. Topics include the greenhouse effect, species extinctions, human disease expansion, and the effects of global change on agricultural productivity. A combination of lectures and discussion address issues from a scientific basis and link these ecological issues to our everyday lives and society as a whole. Prerequisite: BIOL 152, BIOL 153, or equivalent, or permission of instructor. LEC.

**BIOL 480. Biology and Diversity of Parasites. 3 Hours. N.**
Introductory lecture course to the field of Parasitology. Provides basic knowledge about the morphology and biology of parasitic animals. Coverage includes a diversity of protozoan and metazoan groups parasitizing animals, including humans (e.g., malaria, amoebas, hookworms, tapeworms). Some emphasis is given to groups of parasites of particular medical and/or economic importance. Selected principles of parasitism are introduced. Prerequisite: BIOL 152 or BIOL 153, or permission of instructor. LEC.

**BIOL 481. Parasitology Laboratory. 1 Hour. U.**
Laboratory course in the study of protozoan and metazoan parasites of animal, including humans, emphasizing their diversity, classification, morphology, and identification. One three-hour laboratory each week. Prerequisite: Concurrent or prior enrollment in BIOL 480. LAB.

**BIOL 494. Introduction to Mammalogy. 3 Hours.**
A study of mammals, with emphasis on evolution, biogeography, systematics, and natural history. Lectures, laboratory, and field study. Prerequisite: BIOL 152 or 153 or permission of instructor. LEC.

**BIOL 499. Introduction to Honors Research. 2 Hours. N.**
Intended for sophomores planning to enroll in the Biology Honors Program. Students interested in pursing Biology Honors discuss with Biology faculty members the rationale, methods, and interpretations of research being carried out in individual faculty labs to learn how scientific research is conducted. Prerequisite: At least 17 credit hours of college level natural sciences coursework or consent of instructor. LEC.

**BIOL 500. Biology of Insects. 3 Hours. N.**
Lectures and demonstrations providing an introduction to the study of insects, including general classification, structure, phylogeny, identification, development, physiology, behavior, ecology, and relations to human affairs. Prerequisite: BIOL 152, 153, or equivalent, or permission of instructor. LEC.

**BIOL 502. Laboratory in Insect Biology and Diversity. 2 Hours. U.**
Laboratory and field studies of insects, emphasizing their diversity, classification, ecological relationships, morphology, and behavior. Course provides practical application of principles covered in BIOL 500. Prerequisite: Concurrent or prior enrollment in BIOL 500 or the equivalent. LAB.

**BIOL 503. Immunology. 3 Hours. N.**
Lectures on the nature and mechanisms of natural and acquired resistance including humoral and cellular immunity. Characteristics of antigens and antibodies and of their interaction: ontogeny and cellular basis of immune responsiveness, hypersensitivity; specific immunologic tolerance. Not open to those with credit in BIOL 524. Prerequisite: BIOL 400 or BIOL 401, or consent of instructor. LEC.

**BIOL 504. Immunology Laboratory. 2 Hours. U.**
Laboratory designed to complement BIOL 503. Prerequisite: BIOL 503, or BIOL 503 concurrently. LAB.

**BIOL 505. Social Insects. 3 Hours. N.**
Lectures and laboratory demonstrations on presocial and social insects, specifically termites, ants, wasps, and bees. Emphasis will be placed on evolution of social behavior and the place of social insects in sociobiology. Prerequisite: BIOL 152, BIOL 153, or equivalent. LEC.

**BIOL 506. Pathogenic Microbiology. 3 Hours. N.**
Lectures. Characteristics and mechanisms of pathogenic microorganisms and disease processes. Elements of host-parasite interactions. Not open to freshmen or sophomores. Prerequisite: BIOL 503, or consent of instructor. LEC.

**BIOL 507. Pathogenic Microbiology Laboratory. 2 Hours. U.**
Laboratory to complement BIOL 506. Cultivation of pathogenic microorganisms, diagnostic procedures, and experiments to demonstrate various aspects of microbial pathogenicity and host responses. Prerequisite: BIOL 402 and BIOL 506 (or concurrent enrollment) or consent of instructor. LAB.

**BIOL 509. Biology of Spiders. 3 Hours. N.**
An introduction to the evolution, anatomy, physiology, behavior, and ecology of spiders and other arachnids. Special topics include the action of spider venoms; the composition and uses of silk; courtship and mating; predation; social behavior; and the role of spiders in natural and agricultural ecosystems. Concurrent enrollment in BIOL
511 is encouraged. Prerequisite: BIOL 152, BIOL 153 or permission of instructor. LEC.

BIOL 510. Comparative Anatomy. 5 Hours. N.
Structure, function, and evolution of the vertebrates. Lectures and laboratory study. A course designed for zoologists. Prerequisite: BIOL 100, BIOL 101, BIOL 150, or BIOL 151 and BIOL 152 or BIOL 153. LEC.

BIOL 511. Biology of Spiders Laboratory. 1 Hour. U.
Topics will include comparative biology of arachnid orders (spiders, scorpions, harvestmen, mites, and others), external and internal anatomy of spiders, identification of common spider families and genera, and spider behavior. Students will be required to make a small collection (collect, preserve, and identify specimens). Prerequisite: BIOL 509; concurrent enrollment is preferred. LAB.

BIOL 512. General Virology. 3 Hours. N.
Lectures and discussions covering the basic nature and characteristics of viruses from a general biological point of view: viruses of bacteria, animals and plants, physical-chemical properties; host cell-viral interactions; mode of replication of DNA and RNA viruses, tumor viruses. Prerequisite: BIOL 400, BIOL 401 or consent of instructor. LEC.

BIOL 513. Virology Laboratory. 2 Hours. U.
Experiments involving cultivation, quantitation, and identification of animal viruses, continuous cell culture and primary chicken embryo culture techniques. Molecular biology techniques are used to demonstrate the steps in virus replication. The value of viruses as tools to understand normal cellular processes is emphasized in experiments which demonstrate the relative simplicity of viruses and the relative complexity of eukaryotic cells. Demonstrations include transformation of cells by tumor viruses and electron microscopy of virus particles. Prerequisite: BIOL 402 and BIOL 510, or consent of instructor. LAB.

BIOL 514. Principles of Ecology, Honors. 3 Hours. N.
Honors section of BIOL 414 for students with superior academic records. Course covers core concepts on the ecology of individuals, populations, communities, and ecosystems. Relative to BIOL 414, topics are presented in greater depth with increased student participation and stronger emphasis on the primary scientific literature. Prerequisite: BIOL 100, BIOL 101, BIOL 150, or BIOL 151 or BIOL 152 or BIOL 153. Open only to students admitted to the University Honors Program or by consent of instructor. LEC.

BIOL 516. Microbial Physiology. 3 Hours. N.
Elements of microbial physiology. Carbohydrate metabolism; enzymes and coenzymes; microbial nutrition; quantitative problems in microbial physiology; a survey of microbial metabolic types. Prerequisite: BIOL 400 or BIOL 612 and BIOL 402, and five hours of organic chemistry. LEC.

BIOL 517. Microbial Physiology Laboratory. 2 Hours. U.
Laboratory designed to complement BIOL 516. Prerequisite: BIOL 516, or BIOL 516 concurrently. LAB.

BIOL 518. Microbial Genetics. 3 Hours. N.
Bacteria and viruses as models of genetic systems. Mutagenesis and repair. Transformation, transductions, and recombination. Molecular biology of gene expression. Prerequisite: An introductory microbiology course. LEC.

BIOL 519. Microbial Genetics Laboratory. 2 Hours. U.
Laboratory designed to complement BIOL 518. Prerequisite: BIOL 402, BIOL 518, or BIOL 518 concurrently. LAB.

BIOL 520. Marine Biology. 3 Hours. N.
This introductory course covers biological, physical, and chemical ocean sciences, with an emphasis on ecological aspects. In addition to this Lawrence campus course, students may enroll for a supplementary 1 credit field trip class to a Caribbean coral reef island offered in December or January. Prerequisite: BIOL 414 or permission of the instructor. LEC.

BIOL 521. Insect Systematics. 4 Hours. N.
A study of the diversity of insects, including the classification of all living and fossil orders and the more common families primarily on the basis of external morphology. The biology, ecology, phylogeny, and geological history of each order is covered. Includes both lectures and laboratory exercises. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 500, BIOL 502 or equivalent, or permission of instructor. LEC.

BIOL 525. Aquatic Entomology. 4 Hours. N.
Designed to enable students to develop skill in the area of identification of aquatic insects and to gain a detailed comprehension of their community structure and dynamics. The external morphology of all aquatic orders is covered, followed by consideration of specific physiological and behavioral adaptations that facilitate an aquatic existence. Includes both lectures and laboratory exercises. Requirements include making a collection of aquatic insects. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 414 or BIOL 500. LEC.

BIOL 526. Insect Physiology and Internal Morphology. 3 Hours. N.
Mechanisms and integration of the internal life-supporting systems of insects, emphasizing the interdependence of structure and function. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 408 and BIOL 500, or permission of instructor. LEC.

BIOL 528. External Morphology of Insects. 4 Hours. N.
A study of external structure common to all insect orders, with detailed comparative laboratory studies of representative species. Includes both lectures and laboratory exercises. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 500, BIOL 502 or equivalent, or permission of instructor. LEC.

BIOL 529. Immature Insects. 3 Hours. N.
The classification, structure, and ecological distribution of immature insects, especially larvae of Holometabola. Includes both lectures and laboratory exercises. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 502 or permission of instructor. LEC.

BIOL 533. Biology of Fungi. 4 Hours. N.
A study of the major groups of fungi from slime molds to mushrooms. Emphasis on their activities in natural substrates, isolation techniques, parasitic and mutualistic relationships with other organisms, uses in research, industrial applications, production of mycotoxins and poisons, and physiological, genetic and reproductive behavior. Lectures, laboratory, and field trips. Prerequisite: BIOL 100, BIOL 101, BIOL 150, or BIOL 151 and BIOL 152 or BIOL 153. LEC.

BIOL 536. Cell Structure and Function (Honors). 3 Hours. N.
BIOL 536 is the honors version of BIOL 416. Completion of this class will satisfy the BIOL 416 requirement. Open to students in the Honors program or by permission of instructor. Prerequisite: BIOL 350 or consent of instructor. LEC.

BIOL 540. General Invertebrate Zoology. 4 Hours. N.
Phylogeny, physiology, and embryology; evolutionary processes; characteristics of major ecological groupings. Laboratory will consider major taxonomic categories with emphasis on functional morphology and its evolutionary modifications. Prerequisite: BIOL 152 or BIOL 153. LEC.
BIOL 545. Evolution of Development. 3 Hours. N.
An advanced course designed to expose students to evolutionary change in the developmental patterning of plant and animal form. This course integrates multiple biological disciplines including phylogenetics, comparative morphology, molecular evolution and developmental genetics to explore biodiversity at a mechanistic level. Topics range from issues surrounding homology assessment to empirical examples of how changes in gene expression or function may have shaped morphological diversity. Prerequisite: BIOL 350 or equivalent. LEC.

BIOL 555. General Plant Physiology. 3 Hours. N.
The principal physiological processes of higher plants including photosynthesis, respiration, water relations, mineral nutrition, and factors associated with morphogenesis. Prerequisite: BIOL 408 or consent of instructor. LEC.

BIOL 560. Histology. 3 Hours. N.
Study of detailed microscopic anatomy of cells, tissues, and organs of mammals. Examples are drawn from normal and abnormal tissue, histochemistry, and electron microscopy. Lecture and demonstrations. A course in anatomy and physiology is highly recommended. Prerequisite: BIOL 152 or BIOL 153. LEC.

BIOL 570. Introduction to Biostatistics. 3 Hours. N.
Statistical concepts related to biological problems. Topics include the scientific method, data representation, descriptive statistics, elementary probability distributions, estimation and hypothesis testing, emphasizing the analysis of variation. Prerequisite: College algebra and ten hours of natural science. LEC.

BIOL 571. Introduction to Biostatistics Laboratory. 2 Hours. U.
Introductory statistical analyses on microcomputers. Data entry and export; simple graphs and exploratory data analysis; descriptive statistics; sampling; point and interval estimation; one and two sample t-tests; Chi-square; regression and correlation; analysis of variance; and nonparametric methods. Prerequisite: BIOL 570 or equivalent (may be taken concurrently). LAB.

BIOL 582. Principles of Biogeography. 3 Hours. N.
An introduction to the study of the distribution of life on earth. Covers geographical patterns of species diversity and the processes that give rise to those patterns: speciation, extinction, dispersal, vicariance, continental drift, ecological interactions, and phylogeny. Topics are presented within the framework of evolutionary history and include discussion of the biology of species on islands, terrestrial biomes, altitudinal zonation of species, latitudinal species gradients, historical factors governing species distributions, macroevolutionary trends in the fossil record, and application of modern molecular techniques for testing biogeographical hypotheses. Prerequisite: BIOL 152 or 153 and past or concurrent enrollment in BIOL 412, 413, 414, or 550; or permission of instructor. LEC.

BIOL 583. Herpetology. 3 Hours. N.
A study of amphibians and reptiles. This lecture course will explore the taxonomic diversity of amphibians and reptiles, and current areas of active research in herpetology. Topics will be considered within a phylogenetic framework, and include discussion on systematics, biogeography, tetrapod origins, skeletal systems, growth, circulatory system, locomotion, thermal and water regulation, hibernation, ecology, sexual behavior, parental care, and mimicry. LEC.

BIOL 592. Ichthyology. 4 Hours. N.
A study of fishes. Lecture topics include the structure and adaptations of fishes to the aquatic environment and a survey of major fish groups with emphasis on their evolution and biogeography. Laboratory topics include a survey of fish diversity using specimens and the use of keys to identify fishes, with emphasis on the Kansas fish fauna. This course meets with BIOL 792. Students taking this course at the 700 level will have additional work required of them. Prerequisite: BIOL 152 and/or BIOL 413. LEC.

BIOL 593. Ornithology. 3 Hours. N.
A lecture and laboratory course on the biology, evolution, and diversity of birds. Prerequisite: BIOL 412 (or BIOL 413), or permission of instructor. LEC.

BIOL 594. Forest Ecosystems. 3 Hours.
Students learn basic concepts of forest productivity, forest water relations, forest hydrology, nutrient cycling, through soils and vegetation, nutrient uptake, carbon cycling, decomposition, linkages to aquatic ecosystems, and agents of disturbance to these cycles. The class spends a significant part of the semester exploring forest soil profiles and the challenges they present to different forest ecosystems. We discuss the function of forested ecosystems in a global context and identify and understand smaller-scale processes that drive forest function. Prerequisite: CHEM 135 or CHEM 195 or CHEM 175, and BIOL 414. LEC.

BIOL 595. Human Genetics. 3 Hours. N.
A lecture course providing balanced coverage of Mendelian and molecular genetics of humans; includes discussions and presentations on current issues in human and medical genetics. Prerequisite: BIOL 350. LEC.

BIOL 598. Research Methods. 3 Hours. N.
An introduction for pre-service teachers to the tools used by scientists to solve scientific problems. Topics include design of experiments and interpretation of their results, use of statistics, mathematical modeling, laboratory safety, ethical treatment of human subjects, writing scientific papers, giving oral presentations, and obtaining data from the scientific literature. Open only to students in the UKanTeach program. LEC.

BIOL 599. Senior Seminar: ___. 1 Hour. AE61 / N.
A synthesis and discussion of current trends in a discipline or disciplines related to one of the degrees offered in the biological sciences. Emphasis is placed on providing seniors with an appreciation of the discipline’s state-of-the-art and on developing skills for success in the next stage of a career in the biological sciences. Topics depend on the associated degree program. Prerequisite: Must be taken in the final year of a degree and students must have completed most of the course work required for one of the degrees in the biological sciences. LEC.

BIOL 600. Introductory Biochemistry, Lectures. 4 Hours. N.
Designed to offer the essentials of the chemistry of the constituents of living organisms and the changes these constituents undergo (during life processes) in the human body and other living forms. Prerequisite: BIOL 150 or BIOL 151 and one semester of organic chemistry. LEC.

BIOL 601. Principles of Biochemistry Laboratory. 2 Hours.
Theory and methods in the development of protein separation and purification, enzyme structure/function, and enzyme kinetics derived from primary literature searches and readings. Prerequisite or Co-requisite: BIOL 600; or consent of instructor. LAB.

BIOL 602. Plant Ecology. 3 Hours. N.
Introduction to basic concepts, focused at community and species level. Architectural ecomorphology of plants and their physiological responses to physical factors: solar radiation, climate, and soils. Plant succession as an interaction among species differing in ecomorphology and life style. Classification and ordination of plant communities: practice and theory. Other topics include: species diversity and lognormal distribution as to abundance classes; species/area relations and theory of island biogeography; allelochemic defenses; genealogy; paleoecology. Prerequisite: BIOL 414 or consent of instructor. Concurrent enrollment in parallel laboratory, BIOL 607, recommended. LEC.
Biol 603. Systematic Botany. 3 Hours. N.
A lecture/laboratory course providing hands-on experience with plant identification, a history of plant classification, the principles of nomenclature and character analysis, the basics of systematics theory, and a phylogenically-oriented introduction to vascular plant diversity. Prerequisite: BIOL 413 or equivalent. LEC.

Biol 606. Ecological Plant Physiology. 3 Hours. N.
Physiological responses of higher plants to environmental factors are discussed. Major topics are: water relations, heat transfer, resistance to water and temperature stress, dormancy, photoperiodism, photosynthesis and respiration under natural conditions, and effects of environmental pollution. Prerequisite: BIOL 408 or consent of instructor. LEC.

Biol 607. Field and Laboratory Exercises in Plant Ecology. 2 Hours. U.
Introduction to quantitative analysis of plant communities and correlated environmental parameters; field and/or laboratory measurements of ecophysiological traits and comparative ecomorphology of principal species. Prerequisite: BIOL 414. Concurrent enrollment in parallel lecture, BIOL 602, recommended, but not required. LAB.

Biol 609. Current Progress in Microbiology. 1 Hour. U.
A seminar course which will focus on current research in microbiology. A term paper will be required of each student. May be repeated for credit. Required of all majors in the senior year. Prerequisite: Two courses in microbiology. LEC.

Biol 611. Molecular Systematics and Evolution. 4 Hours. N.
An introduction to the use of molecular data in systematics and population biology. Topics include: evolution of genes and proteins; properties of mitochondrial DNA, chloroplast DNA, ribosomal RNA genes, protein-coding genes, and repetitive DNAs; laboratory methods for data collection; and data analysis. Prerequisite: BIOL 350, BIOL 550 or equivalent is recommended. LEC.

Biol 612. Fundamentals of Microbiology. 3 Hours. NB / N.
Lectures. Fundamental principles of microbiology with emphasis in physical and chemical properties of the bacterial cell; microbial metabolism, cultivation, growth and death of bacteria; microbial genetics; pathogenesis and immunity, industrially important microorganisms. Meets with BIOL 400, but students will be given additional and more advanced assignments, and will carry higher expectations. Prerequisite: BIOL 150 or BIOL 151 and two semesters of college chemistry, or consent of instructor. LEC.

Biol 613. Biology of Honeybees. 3 Hours. N.
Social organization, evolution, behavior, morphology, communication, pollination biology, and ecology of honeybees. Experience will be gained with colony dynamics and behavior while working with bees in the field. Prerequisite: BIOL 152, BIOL 153, or consent of instructor. LEC.

Biol 616. Medical Entomology. 3 Hours. N.
A study of the major human diseases transmitted by arthropods with emphasis on the biology and ecology of vectors, vector feeding mechanisms as related to disease transmission, epidemiology of arthropod-borne diseases, and the impact of arthropod-borne diseases on humans. Laboratory work on recognition of vector species, information sources, and use of taxonomic keys. Prerequisite: BIOL 152 or BIOL 153 and a course in microbiology or consent of instructor. LEC.

Biol 622. Paleontology. 3 Hours. N.
A study of the structure and evolution of ancient life; the nature and diversity of life through time; the interactions of ancient organisms with their environments and the information that the study of fossils provides about ancient environments; the use of fossils to determine the ages of rocks and the timing of past events in earth history; and the patterns of extinction through time. (Same as GEOL 521.) Prerequisite: BIOL 100, BIOL 101, BIOL 152, BIOL 153, GEOL 105, or GEOL 304. LEC.

Biol 623. Paleontology Laboratory. 1 Hour. U.
Laboratory course in the study of fossils with emphasis on the practice of paleontology and the morphology of ancient organisms. (Same as GEOL 523.) LAB.

Biol 625. Behavioral Ecology and Sociobiology. 3 Hours. N.
The role of natural selection in animal behavior, and the influence of behavior on population biology and social dynamics of animal species. Topics include: game theory and optimization as applied to animal behavior; altruism, cooperation and competition; kin recognition and interactions; group formation and dynamics, dominance, aggression, and territoriality; feeding strategies; reproductive behavior including mate choice, parental care, and mating systems. Prerequisite: BIOL 152; either BIOL 350, BIOL 412 or BIOL 414 recommended; or consent of instructor. LEC.

Biol 630. Conservation and Wildlife Biology. 3 Hours. N.
Examination of the concepts and processes involved in conservation of plant and animal populations and communities. Topics to be covered include conservation of endangered species, problems with invasions of exotic species and habitat fragmentation, wildlife management, and design of nature reserves. Prerequisite: BIOL 414, BIOL 412 strongly recommended. LEC.

Biol 636. Biochemistry I. 3 Hours. N.
First semester of a two-semester lecture course in introductory biochemistry. Emphasis upon the physical structure of macromolecules and membranes, enzyme structure/function, and enzyme kinetics. Prerequisite: CHEM 335 or consent of instructor. LEC.

Biol 637. Introductory Biochemistry Laboratory. 2 Hours. U.
The laboratory portion of BIOL 600 or 636. Experiments have been selected to introduce the student to cell constituents and biochemical reactions. One four-hour laboratory and one-hour lecture each week. Prerequisite: BIOL 600 or BIOL 636, or concurrent enrollment. LAB.

Biol 638. Biochemistry II. 3 Hours. N.
Second semester of a two-semester lecture course in introductory biochemistry. Emphasis upon the metabolism of carbohydrates, lipids, amino acids, proteins, and nucleic acids. Prerequisite: BIOL 636. LEC.

Biol 639. Advanced Biochemistry Laboratory. 2 Hours. U.
The laboratory portion of BIOL 638. One four-hour laboratory and a one-hour lecture each week. Experiments have been selected to familiarize students with experimental biochemical techniques using state-of-the-art methodology. Prerequisite: BIOL 637 and 638 (BIOL 638 may be taken concurrently). LAB.

Biol 640. The Biology and Evolution of Fossil Plants. 3 Hours. N.
A lecture course in which fossil plants, protists and fungi are examined throughout geologic time. Emphasis will be directed at paleoecology, biogeography and the stratigraphic distribution and composition of ancient floras. (Same as GEOL 528.) Prerequisite: BIOL 413 or permission of instructor. LEC.

Biol 641. Laboratory in Paleobotany. 1 Hour. U.
An examination of selected fossil plants throughout geological time and the techniques used to study them; laboratory will include identification and the use of plant fossils in biostratigraphy. (Same as GEOL 529.) Prerequisite: BIOL 413 or permission of instructor. Must be taken concurrently with BIOL 640. LAB.

Biol 644. Comparative Animal Physiology. 3 Hours. N.
Lecture and discussion of the basic mechanism of organic maintenance and integration; a comparative treatment of the uniformities and
diversity of animal function; emphasis on environmental adaptations and evolutionary relationships. Prerequisite: BIOL 408, five hours of organic chemistry, and one year of college physics, or consent of instructor. LEC.

BIOL 646. Mammalian Physiology. 4 Hours. N.
Lectures and demonstrations. An intermediate course in the functions, mechanisms and interactions of mammalian organ systems. Discussions span topics from molecular to whole animal functions. Required for pharmacy students and strongly recommended for students planning advanced work in any area of physiology. The student is assumed to have the knowledge and ability to utilize their math and science background. Prerequisite: Five hours of organic chemistry, a course of college physics. LEC.

BIOL 647. Mammalian Physiology Laboratory. 2 Hours. U.
Laboratory experiments in representative areas of mammalian physiology designed to complement BIOL 646. Not open to students with credit in BIOL 247. Prerequisite or Co-requisite: BIOL 646. LAB.

BIOL 648. Systematics and Macreovement. 3 Hours. N.
An introduction to the theory of macroevolution and the fundamental principles of systematics. Intended for students planning to pursue advanced studies in organismal biology, evolution, and/or systematics. Topics in macroevolution will include hierarchy theory, species concepts, speciation and species selection. Methods of phylogenetic estimation will be discussed and include parsimony, Maximum likelihood and Bayesain inference. Evolutionary studies utilizing phylogenies including tests of homology, studies of character evolution, and biogeography will be discussed. An overview of classification and nomenclature will also be provided. Prerequisite: BIOL 412 or equivalent. LEC.

BIOL 650. Advanced Neurobiology. 3 Hours. N.
The course builds an in depth knowledge about basic mechanisms of synaptic communication among nerve cells and their targets, and the structure and function of nervous systems. Topics include nervous system development and synapse formation, structure and function of neurons, physiological and molecular basis of synaptic communication between neurons, mechanisms of synaptic plasticity involved in learning and memory, sensory systems (vision, auditory, vestibular, motor reflexes and pain), processing of neural information at cellular and system levels, synapse regeneration and diseases of the nervous system. Prerequisite: BIOL 435 (Introduction to Neurobiology), or consent of instructor. LEC.

BIOL 652. Comparative Animal Behavior. 3 Hours. N.
A comparative analysis of behavior as an adaptive mechanism; emphasis on ontogenetic and evolutionary aspects of behavior. Prerequisite: BIOL 152 or BIOL 153, and PSYC 104, or consent of instructor. LEC.

BIOL 654. Comparative Animal Behavior, Laboratory. 1 Hour. U.
Laboratory and field phase of BIOL 652. Students may elect sections according to their special interests. Prerequisite: Prior or concurrent enrollment in BIOL 652. LAB.

BIOL 655. Behavioral Genetics. 3 Hours. N.
A survey of behavioral genetics in animals and humans. Emphasis is on how the methods and theories of quantitative, population and molecular genetics can be applied to individual and group differences in animals. Behaviors covered may include circadian rhythms, foraging, courtship, learning and memory, anxiety, social structures and human behaviors. Prerequisite: BIOL 350 or consent of instructor. LEC.

BIOL 656. Ecosystem Ecology. 3 Hours. N.
An introduction to the patterns and processes that affect terrestrial ecosystems. Emphasis is placed on understanding nutrient cycles (e.g., carbon nitrogen phosphorous), hydrologic cycles, and patterns of net primary productivity. The role of both natural and anthropogenic disturbances in structuring terrestrial ecosystems is examined in the context of global land-use patterns. Discussion of current research literature will be expected. (Same as EVRN 656.) Prerequisite: BIOL 414 and CHEM 130. LEC.

BIOL 661. Ecology of Rivers and Lakes. 3 Hours. N.
Study of the ecology and structure of creeks, rivers, ponds, lakes, and wetlands as well as some of the major human impacts. Prerequisite: One year of biology or permission of the instructor. BIOL 414 recommended. LEC.

BIOL 662. Aquatic Ecology Laboratory. 2 Hours. U.
A field and laboratory course introducing biological, physical, and chemical characteristics of lentic (ponds and lakes) and lotic (creeks and rivers) habitats. Students learn sampling and monitoring techniques and how to classify aquatic biota at higher taxonomic levels. Co- or prerequisite: CHEM 130 or CHEM 190 or CHEM 170, and BIOL 661. LAB.

BIOL 664. Vertebrate Biology. 3 Hours. N.
A laboratory course emphasizing principles of systematics and identification and the behavioral ecology of local vertebrate animals. Prerequisite: BIOL 152, BIOL 153 or consent of instructor. LAB.

BIOL 666. Evolutionary Ecology. 3 Hours. N.
Emphasis will be on the themes that interface ecology and evolutionary studies. Topics will include selection theory; reproductive, foraging, and sex allocation problems; coevolution; patterns or morphological and behavioral adaptations; competition, predation, and population regulation. Special attention will be given to the philosophy and practice of resolving unanswered questions in evolutionary ecology. Prerequisite: BIOL 412 or permission of instructor. LEC.

BIOL 669. Biology of Freshwater Invertebrates. 3 Hours. N.
A lecture, field, and laboratory course examining the classification, biological characteristics, and ecology of invertebrates in lotic and lentic habitats. Major groups of benthic and planktonic invertebrates will be studied, including aquatic insects, crustaceans, molluscs, and others. Prerequisite: BIOL 540, BIOL 660, BIOL 661, or BIOL 663, or permission of instructor. LEC.

BIOL 672. Gene Expression. 3 Hours. N.
A study of the structure and expression of genes in prokaryotes and eukaryotes. Emphasis on the mechanisms of DNA, RNA, and protein biosynthesis. Prerequisite: A course in biochemistry or consent of instructor. LEC.

BIOL 673. Cellular and Molecular Neurobiology. 3 Hours.
Mechanisms of neural function and development will be considered at the cellular and molecular levels. Synaptic mechanisms of learning and memory, modulation of transmitter release, and the molecular basis of neurodegenerative disorders will also be discussed. Prerequisite: BIOL 435, BIOL 646, or permission of instructor. LEC.

BIOL 676. Mammalian Neuroanatomy. 3 Hours. N.
Lectures, video tape demonstrations, and laboratory dissection of mammalian nervous system with some attention to human material. Major emphasis on nervous system structure as it relates to function. For neurobiology and pre-health science majors. Prerequisite or Corequisite:
A course in neurobiology (BIOL 435, BIOL 650), or permission of the instructor. LAB.

BIOL 688. The Molecular Biology of Cancer. 3 Hours. N.
The basic concepts of molecular biology are examined and used to probe the process by which a normal cell becomes a cancer cell. The course investigates DNA damage and repair, chemical carcinogenesis, gene cloning and manipulation, the control of gene expression in eukaryotes, tumor viruses, the roles of oncogenes and tumor suppressor genes in carcinogenesis, and cancer therapy. Prerequisite: BIOL 350 and BIOL 416; or BIOL 536; or consent of instructor. LEC.

BIOL 694. The Art of Becoming a Professional Scientist. 3 Hours. N.
Discusses aspects of graduate education that are directed at students entering graduate school and that focus on how to be successful in the post PhD phases of a career, but that must be initiated early in the graduate student program of study. One three hour discussion per week. Senior standing and planning on entering graduate school. LEC.

BIOL 695. Animal Communication and Sensory Ecology. 3 Hours. N.
Lectures and discussion sessions. A study of the propagation and perception of olfactory, acoustic, and visual signals produced by animals in the context of communication. Both physiological and evolutionary perspectives will be treated. Prerequisite: A course in behavior or consent of instructor. LEC.

BIOL 699. Biology Honors Research Colloquium. 1 Hour. AE61 / U.
Students pursuing Honors in Biology will meet weekly to discuss, both formally and informally, their honors research. Background information and experimental approaches of the research will be examined and critiqued. Prerequisite: Enrollment in Biology Honors program and consent of instructor. LEC.

BIOL 700. Conservation Principles and Practices. 3 Hours.
This course will acquaint the future museum professional with problems in conserving all types of collections. Philosophical and ethical approaches will be discussed, as well as the changing practices regarding conservation techniques. Emphasis will be placed on detection and identification of causes of deterioration in objects made of organic and inorganic materials, and how these problems can be remedied. Storage and care of objects will also be considered. (Same as AMS 714, GEOL 780, HIST 722 and MUSE 706.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

BIOL 701. Topics in: _______. 1-3 Hours.
Advanced courses on special topics in biology, given as need arises. Lectures, discussions, readings, laboratory, or field work. Students may select sections according to their special interests. LEC.

BIOL 702. Laboratory Practice: Radiation Safety Procedures. 0.75 Hours.
An introduction to the basic properties of radioisotopes, and the fundamental safety practices needed for the safe use of low levels of radioactive materials. Risks associated with radiation exposures and applicable state and federal regulations are discussed. (Normally the content of the first ten hours of BIOL 703.) Prerequisite: Senior standing in one of the sciences. LAB.

BIOL 703. Radioisotopes and Radiation Safety in Research. 1.25 Hour.
An introduction to the properties of radioactive materials, radiations, and their interaction with matter, methods of radiation detection and measurement, protective measures, applicable state and federal regulations, design and implementation of safety management systems in the research laboratory, design of tracer experiments, and the risks associated with radiation exposure. Prerequisite: BIOL 702 or concurrent enrollment in BIOL 702, algebra and two semesters of either physics or chemistry. LEC.

BIOL 704. Research Animal Methods. 3 Hours.
Lectures, discussions, and laboratory sessions. Selection of proper animal models for specific research studies. Various external influences that alter research data. Routine techniques including restraint, sample collection, injection, anesthesia and euthanasia. Prevention and handling of common research animal problems or diseases. Proper and humane animal care as defined by the Federal Animal Welfare Act. Prerequisite: Senior or graduate standing in one of the biological sciences or permission of instructor. LEC.

BIOL 706. Current Trends in Curation and Collection Management. 2 Hours.
Seminar course to provide students with a working knowledge of the primary issues and current trends in building, administration, and care of scientific collections. Topics include permits, collecting, accessioning, cataloging, preservation, preventive conservation, and access to collections and data. The course format consists of readings, lectures, guest speakers, discussions, and visits to scientific collections on campus. (Same as MUSE 710.) LEC.

BIOL 708. External Morphology of Insects. 4 Hours.
A study of external structure common to all insect orders, with detailed comparative laboratory studies of representative species. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 500, BIOL 502 or equivalent, or permission of instructor. LEC.

BIOL 709. Immature Insects. 3 Hours.
The classification, structure, and ecological distribution of immature insects, especially larvae of Holometabola. Includes both lectures and laboratories. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 502 or consent of instructor. LEC.

BIOL 710. Insect Development. 3 Hours.
A study of the embryonic and postembryonic development of insects. Emphasis is placed on developmental physiology of the early embryonic stages, the morphogenesis of organ systems, and the action of hormones in postembryonic development. Laboratory includes demonstrations and histological and experimental work. Prerequisite: Consent of instructor or BIOL 500. LEC.

BIOL 711. Insect Systematics. 4 Hours. N.
A study of the diversity of insects, including the classification of all living and fossil orders and the more common families primarily on the basis of external morphology. The biology, ecology, phylogeny, and geological history of each order will be covered. Includes both lectures and laboratory exercises. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 500 and BIOL 502 or equivalent, or permission of instructor. LEC.

BIOL 712. Evolutionary Biology - Graduate. 3 Hours.
A thorough survey of evolutionary biology. Topics include: the history of evolutionary thought, genetics and the nature of variation, adaptation, speciation, coevolution, macroevolution, the comparative method, and the history of life. Prerequisite: BIOL 350 or equivalent or consent of instructor. LEC.

BIOL 714. Community and Ecosystem Ecology. 3 Hours.
Study of factors determining distribution of organisms, community structures, energy flow in ecosystems, and functional analysis of ecosystems. Discussion periods will include reading from current scientific literature. Prerequisite: Intended for graduate students in biology who did
not have an undergraduate course in community ecology. Consent of instructor. LEC.

**BIOL 716. Insect Physiology and Internal Morphology. 3 Hours.**
Mechanisms and integration of the internal life-supporting systems of insects, emphasizing the interdependence of structure and function. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 408 and BIOL 500, or permission of instructor. LEC.

**BIOL 717. Insect Ecology and Behavior. 3 Hours.**
Lectures and laboratory demonstrations. A study of insect population dynamics, life history strategies, co-evolutionary interactions, foraging, and reproductive and social behaviors. Approaches from basic population biology and behavioral ecology are emphasized. Prerequisite: A course in ecology or behavior, or consent of instructor. LEC.

**BIOL 718. Laboratory in Molecular Biology. 3 Hours.**
Practical experience in recombinant DNA technology and molecular cloning. Given concurrent with BIOL 418. Prerequisite: BIOL 416 or course in biochemistry or microbiology. Training in radiation safety preferred. LAB.

**BIOL 719. Light and Electron Microscopy. 3 Hours.**
A lecture and laboratory class emphasizing the theoretical and practical use of light microscopes and scanning and transmission electron microscopes. A variety of approaches using light microscopy will be employed, including brightfield, phase, fluorescence, DIC, polarization, and darkfield optics. A variety of techniques will be used to prepare specimens and view them using scanning and transmission electron microscopy. Video and computer-aided analysis of images as well as conventional photographic techniques will be included. Prerequisite: Permission of instructor. LEC.

**BIOL 720. Scientific Illustration. 3 Hours.**
Lectures, demonstrations, and studio participation. Instruction in the preparation of illustrations for scientific publications, theses, and oral and poster presentations. Emphasis on basic drafting and layout skills, and pen and ink and tone renderings intended for publication. Attention given to preparation of photographs for publication and oral presentations. Instruction provided in use of specialized optical equipment for drawing. Prerequisite: Upper division or graduate standing and permission of instructor. LEC.

**BIOL 721. Microbial Genetics. 3 Hours.**
Bacteria and viruses as models of genetic systems. Mutagenesis and repair. Transformation, transductions, and recombination. Molecular biology of gene expression. This course is the graduate-level section of BIOL 518 and MCRB 510. Graduate students will be assigned additional and more advanced studies. Prerequisite: An introductory microbiology course or permission of instructor. LEC.

**BIOL 725. Aquatic Entomology. 4 Hours.**
Identification of aquatic insects and detailed study of their community structure and dynamics. The external morphology of all aquatic orders will be covered, followed by consideration of specific physiological and behavioral adaptations that facilitate an aquatic existence. Includes both lectures and laboratory exercises. Requirements include making a collection of aquatic insects. The course is offered at the 500 and 700 levels, with additional assignments at the 700 level. Prerequisite: BIOL 414 or BIOL 500 or permission of instructor. LEC.

**BIOL 742. Plant Population Biology. 3 Hours.**
A survey of the major areas of plant population ecology and genetics including competition, demography, pollination ecology, gene flow, natural selection and mating systems. Each topic is introduced by a lecture and is further explored by discussion of the current literature. Prerequisite: BIOL 412 or equivalent. LEC.

**BIOL 743. Population Genetics. 3 Hours.**
Description and discussion of genetic variation in natural populations. The effects and interaction of selection, migration, mutation, mating systems, and finite population size on the maintenance of genetic variation. Discussion of the interface with evolution and population ecology. Prerequisite: BIOL 404 and BIOL 412 or equivalent. LEC.

**BIOL 745. Laboratory in Experimental Ecology. 3 Hours.**
A series of seven laboratory modules emphasizing quantitative methods and experimental analysis. Each module requires data collection analysis, and written interpretation. Modern instrumentation, including use of microcomputers, is emphasized. Topics include ecological modeling, ecological genetics, physiological ecology, community structure, mating and reproduction and precipitation and soil chemistry. Prerequisite: BIOL 412 or BIOL 414. LAB.

**BIOL 746. Principles of Systematics. 4 Hours.**
Lectures: historical and philosophical foundations of modern systematics; theory and practice of classifications; character analysis; phylogeny reconstruction; formulation and testing of systematic hypotheses; species concepts and speciation; the interface between systematics and evolutionary theory, particularly the origins of asymmetric diversity patterns, macroevolution, adaptation, coevolution, and the evolution of higher taxa; roles of paleontological, ontogenetic, biochemical, and molecular data in systematics; and biogeography. Laboratory work: practical applications of nomenclature, development of keys, descriptions and systematic revisions, character analysis, phylogeny reconstruction, hypothesis testing, interpretation of biogeographic patterns. (Three hours lecture and two hours laboratory per week.) Prerequisite: BIOL 628 or equivalent. Intended for graduate students planning to specialize in systematics. LEC.

**BIOL 747. Quantitative Genetics. 3 Hours.**
A discussion of genetic traits for which individual gene differences do not separate a population into qualitatively distinct groups. Includes the estimation of heritability, genetic determination, and number of loci, and a study of selection theory. Prerequisite: BIOL 404 or BIOL 412 or equivalent and a course in statistics. LEC.

**BIOL 749. Topics in Stable Isotopes in the Natural Sciences:. 2-3 Hours.**
Isotopic compositions of substances provide powerful insights into many topics in the natural sciences. Applications of isotopic analyses of carbon, hydrogen, oxygen, and nitrogen to selected research topics such as plant resource use, food web analysis, paleoecology, paleo diet reconstruction, hydrology, and soils genesis will be examined. Knowledge of isotope chemistry is not required. (Concepts necessary to understand pertinent articles will be taught during the first class meetings.) May be repeated. (Same as GEOG 749.) LEC.

**BIOL 750. Advanced Biochemistry. 3 Hours.**
The structures and dynamics of proteins and nucleic acids will be developed in terms of well-understood examples which will also be used to discuss the function of major classes of proteins. The application of structural and dynamical principles to biological membranes and their function will also be discussed. Prerequisite: BIOL 807 and BIOL 808, a general biochemistry course, or permission of instructor. LEC.

**BIOL 751. Plant Communities of North America. 3 Hours.**
Physiognomic and floristic analysis of the vegetation, with emphasis on the Southwest; distribution of communities in relation to climate, substratum, and disturbance; recognition of dominant elements
of vegetation through study of specimens and illustrative material. Prerequisite: BIOL 602. LEC.

BIOL 752. Cell Biology. 3 Hours.
A lecture course emphasizing biochemical, developmental, and molecular aspects of cell structure and function. Prerequisite: BIOL 807 and BIOL 808, or BIOL 416 or BIOL 536, or permission of instructor. LEC.

BIOL 753. Advanced Genetics. 3 Hours.
An advanced course in modern genetic analysis of eukaryotes. Course material will consist mainly of primary literature in the field of genetics. Topics covered include: genomic structure and genome projects; nature of mutations; mutant analysis; genetic recombination and mapping; analysis of gene function; genetic buffering; RNAi and epigenetics; and the genetics of model organisms. This course is meant for graduate students in the Molecular Biosciences and Genetics programs. Prerequisite: BIOL 807 and BIOL 808, or a course in genetics and a course in biochemistry, or permission of the instructor. LEC.

BIOL 754. Brain Diseases and Neurological Disorders. 3 Hours.
Major brain diseases and neurological disorders such as stroke, Alzheimer's Disease, Parkinson's Disease, Huntington's Disease, Multiple Sclerosis, Epilepsy, Schizophrenia, etc., will be discussed in terms of the etiology, molecular, and cellular basis of potential therapeutic interventions. Graduate students are required to present original research paper assigned by the instructor to the class in addition to the other assignments for all the students enrolled. Prerequisite: BIOL 150, or consent of instructor. LEC.

BIOL 755. Mechanisms of Development. 3 Hours.
Molecular aspects of differential gene function, signal transduction, and cell polarity in the regulation of morphogenesis. Prerequisite: BIOL 807 and BIOL 808 for graduate students; BIOL 417 or equivalent for undergraduate students; or permission of instructor. LEC.

BIOL 756. Cell and Tissue Culture Laboratory. 3 Hours.
An introduction to current laboratory methods of cell and tissue culture, intended to provide an understanding of and substantial experience in several aspects of animal cell growth, cell synchrony, cell nutrition, the production and selection of mutant cell lines, the production and use of heterokaryons and interspecific hybrids, cell transformation in vitro, the cultivation and characterization of differentiated cells in culture, enzyme induction, and cell karyotyping. LAB.

BIOL 757. Carcinogenesis and Cancer Biology. 3 Hours.
This course surveys the field of cancer research. The major goal is to introduce the breadth of cancer research while, at the same time, providing sufficient depth to allow the student to recognize problems in cancer and to design experiments which study cancer biology. Toward that end, the student should (at the conclusion of the course) be able to: define cancer, identify and discuss its causes; identify and discuss the genetic basis for cancer development and progression; discuss the theoretical basis for cancer therapy design and efficacy testing; discuss the biochemical, molecular and cellular events involved in the natural history of major human neoplasms. Prerequisite: Permission of instructor. LEC.

BIOL 767. The Vegetation of the Earth. 3 Hours.
A discussion of the world's vegetation in its natural condition and as affected by man. Included are aspects of its economic and cultural usefulness and the problem of its preservation. Prerequisite: BIOL 634. LEC.

BIOL 768. Plant Molecular Biology. 3 Hours.
Gene expression in chloroplasts, mitochondria, and plant nuclei, and regulatory interactions among these genomes. Special topics include the molecular biology of the photosynthetic apparatus, nitrogen fixation, stress and development, viruses and viroids, transposable genetic elements and gene evolution, and gene transfer and plant genetic engineering. Prerequisite: A course in biochemistry, cell or molecular biology, or permission of instructor. LEC.

BIOL 770. Plant Biochemistry. 3 Hours.
A detailed study of plant biochemistry with emphasis on metabolic and regulatory processes particularly characteristic or unique in plants. Prerequisite: BIOL 600 or equivalent. LEC.

BIOL 772. Gene Expression. 3 Hours.
A study of the structure and expression of genes in prokaryotes and eukaryotes. Emphasis on the mechanisms of DNA, RNA, and protein biosynthesis. This course meets concurrently with BIOL 672 and is open to graduate students seeking a more rigorous treatment of techniques in molecular biology that students receive in BIOL 672. Prerequisite: A course in biochemistry or consent of instructor. LEC.

BIOL 775. Chemistry of the Nervous System. 3 Hours.
A detailed study of the molecular aspects of nerve transmission will be covered with special emphasis on the uptake, storage, release, biosynthesis and metabolism of specific neurotransmitters. Drugs affecting these processes and current research on receptor isolation and receptor mechanisms will be discussed from a chemical viewpoint. (Same as CHEM 775, MDCM 775, NURO 775, PTX 775, and PHCH 775.) Prerequisite: BIOL 600 or equivalent or consent of instructor. LEC.

BIOL 777. Integrative and Developmental Neurobiology. 3 Hours.
Cellular processing of neural information both at the local level and in long distance integration. Local computing functions, and integration of these functions among the various areas to produce coherent movement and perceptions will be discussed. A description of forces guiding the development of the nervous system to form a coherent working system in both invertebrate and vertebrate animals will be presented, as will determinants of brain sexual dimorphism. Prerequisite: An upper level course in physiology or BIOL 520. LEC.

BIOL 780. Fisheries. 2 Hours.
Philosophy and practice of conservation as it applies to major world fisheries. Species principally utilized, factors affecting production, methods for appraisal and management of stocks. Historical and prospective roles of the fisheries in relation to human food supplies and recreational needs. Prerequisite: BIOL 412. LEC.

BIOL 781. Fisheries, Laboratory. 2 Hours.
Training in field and laboratory techniques for fishery research and management. Prerequisite: Concurrent or prior enrollment in BIOL 780. LAB.

BIOL 782. Principles of Biogeography. 3 Hours.
A synthesis of historical and ecological biogeography of plants and animals, treating vicariance, dispersal, and community patterns; lectures, readings, discussions. A course in systematics and a course in ecology are recommended. LEC.

BIOL 783. Herpetology. 3 Hours. N.
A study of amphibians and reptiles. This lecture course will explore the taxonomic diversity of amphibians and reptiles, and current areas of active research in herpetology. Topics will be considered within a phylogenetic framework, and include discussion on systematics, biogeography, tetrapod origins, skeletal systems, growth, circulatory system, locomotion, thermal and water regulation, hibernation, ecology, sexual behavior, parental care, and mimicry. Students taking the course at the 700 level will have additional work required of them. Prerequisite: BIOL 152 Principles of Organismal Biology, and/or BIOL 413 History and Diversity of Organisms. LEC.
BIOL 784. Introduction to Museum Public Education. 3 Hours.
Consideration of the goals of an institution's public education services, developing programs, identifying potential audiences, developing audiences, and funding. Workshops and demonstrations are designed for students to gain practical experience working with various programs and developing model programs. (Same as AMS 797, GEOL 784, HIST 721, and MUSE 705.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

BIOL 785. Museum Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museums as organizations; accounting, budget cycles, personnel management, and related topics will be presented using, as appropriate, case studies and a simulated museum organization model. (Same as AMS 731, GEOL 783, HIST 728, and MUSE 701.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

BIOL 786. Fundamentals of Tropical Biology. 1-8 Hours.
The tropical environment and biota; ecologic relations, communities and evolution in the tropics. Primarily a field course, taught in Costa Rica; two sessions per year, February-March, July-August. FLD.

BIOL 787. Introduction to Museum Exhibits. 3 Hours.
This course will consider the role of exhibits as an integrated part of museum collection management, research, and public service. Lecture and discussion will focus on issues involved in planning and producing museum exhibits. Laboratory exercises will provide first hand experience with basic preparation techniques. Emphasis will be placed on the management of an exhibit program in both large and small museums in the major disciplines. (Same as AMS 700, GEOL 781, HIST 723, and MUSE 703.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

BIOL 788. The Nature of Museums. 3 Hours.
The purpose of this course is to provide an overview of the kinds of museums, their various missions, and their characteristics and potentials as research, education, and public service institutions responsible for collections of natural and cultural objects. (Same as AMS 720, GEOL 782, HIST 720, and MUSE 702.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

BIOL 789. Field Course in Entomology. 1-6 Hours.
Field experiences in various habitats, with an emphasis in ecology, systematics, behavior, and collection techniques. FLD.

BIOL 790. Paleontology of Lower Vertebrates. 3 Hours.
General account of the osteology, geological distribution, and evolution of the principal groups of fishes, amphibians, reptiles, and birds. Lectures and laboratory. (Same as GEOL 725.) LEC.

BIOL 791. Paleontology of Higher Vertebrates. 3 Hours.
Evolution of mammals, and anatomical modifications involved in the process as ascertained from the fossil record. Lectures and laboratory. (Same as GEOL 726.) LEC.

BIOL 792. Ichthyology. 4 Hours.
A study of fishes. Lecture topics include the structure and function of fishes; the adaptations of fishes to the aquatic environment; and a survey of major fish groups with emphasis on evolutionary relationships and biogeography. Laboratory topics include a survey of fishes using specimens, and the use of keys to identify fishes with emphasis on the Kansas fish fauna. A research paper using primary scientific literature is required. Prerequisite: Graduate standing or permission of the instructor. LEC.

BIOL 794. Mammalogy. 3 Hours.
A study of mammals, with emphasis on systematics, biogeography, and natural history. Lectures, laboratory, and field study. Prerequisite: BIOL 100 or BIOL 413. LEC.

BIOL 795. Biology of Amphibians. 3 Hours.
Evolutionary biology of amphibians with emphasis on systematics, morphology, development, reproductive strategies, and distribution; lectures and laboratory. Prerequisite: BIOL 664 or permission of instructor. LEC.

BIOL 796. Biology of Reptiles. 3 Hours.
Evolutionary biology of reptiles with emphasis on systematics, morphology, reproductive strategies, and distribution; lectures and laboratory. Prerequisite: BIOL 664 or permission of instructor. LEC.

BIOL 797. Field Course in Vertebrate Paleontology. 3-6 Hours.
Training in the techniques of collecting vertebrate fossils, description and interpretation of the stratigraphy of fossiliferous sediments, and interpretation of the adequacy and bias of samples. FLD.

BIOL 798. Principles and Practices of Museum Collection Management. 3 Hours.
Lecture, discussion, and laboratory exercises on the nature of museum collections, their associated data, and their use in scholarly research; cataloging, storage, fumigation, automated information management and related topics will be presented for museums of art, history, natural history and anthropology. (Same as AMS 730, GEOL 785, HIST 725, and MUSE 704.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

BIOL 799. Natural History Museum Apprenticeship. 1-6 Hours.
Provides directed, practical experience in collection care and management, public education, exhibits and administration with emphases to suit the particular requirements of each student. Full time for one semester or half time for two semesters. (Same as AMS 799, ANTH 799, GEOL 723, HIST 799, and MUSE 799.) FLD.

BIOL 801. Topics in: ____. 1-3 Hours.
Advanced courses on special topics in biology, given as need arises. Lectures, discussing readings, laboratory or field work. Students may select sections according to their special interests. LEC.

BIOL 802. The Art of Becoming a Professional Scientist. 3 Hours.
Discusses aspects of graduate education that are directed at the post PhD phases of a career, but that must be initiated early in the graduate student program of study. One 3-hour discussion per week. LEC.

BIOL 804. Scientific Integrity: Molecular Biosciences. 1 Hour.
This course introduces aspects and issues associated with being an ethical, responsible, and professional research scientist. Included topics are professional practices, regulations, and rules that define the responsible and ethical conduct of research. Graduate students will become familiar with and prepare to navigate through challenges that occur during a career in research science. The format of individual classes is expected to incorporate both instruction and discussion. Prerequisite: Admission to the graduate program in Molecular Biosciences, or consent of instructor. LEC.

BIOL 806. Major Patterns in Insect Evolution. 3 Hours.
Extensive reading and discussion of the primary literature on topics relating to major patterns in the evolutionary history of insects, including the fossil history of insects, the monophyly of arthropods, the origin of wings, the changing role of insects in ecological communities, the origins of social behavior, modes and mechanisms of speciation, and patterns of species diversity. Assigned readings require a solid background in evolutionary theory and insect biology, especially morphology,
BIOL 807. Graduate Molecular Biosciences. 6 Hours.
An introduction to the advanced study of biochemistry, microbiology, genetics, cell and developmental biology, and neurobiology for all Molecular Biosciences graduate students. Topics can include macromolecular structure, metabolism, kinetics and thermodynamics, bioinformatics, prokaryotic and eukaryotic genetic mechanisms, cell structure and function, signal transduction, basic and pathogenic bacteriology, immunology, virology, membrane potentials, synaptic transmission, and sensory neurophysiology. Prerequisite: Admission to the graduate program in Molecular Biosciences, or consent of instructor. LEC.

BIOL 809. Graduate Molecular Biosciences for Medicinal Chemists. 4 Hours.
An introduction to the advanced study of biochemistry, microbiology, and neurobiology for graduate students in Medicinal Chemistry. Prerequisite: Admission to the graduate program in Medicinal Chemistry. Consent of instructor. LEC.

BIOL 810. Seminar in Biochemistry. 1 Hour.
Presentation and discussion of specific areas of recent research in biochemistry. This course may be taken more than once. LEC.

BIOL 811. Advanced Molecular and Cellular Immunology. 2 Hours.
Covers recent advances in immunochemistry and immunobiology. Topics include structure and function of antibodies, hybridoma systems, idiotypes, induction and regulation of the immune response through cell interactions and cytokine action, and the role of immune activity in disease states such as hypersensitivity, autoimmunity, and cancer. Prerequisite: BIOL 807 and BIOL 808, or an introductory course in immunology, or consent of instructor. LEC.

BIOL 812. Mechanisms of Host-Parasite Relationships. 2 Hours.
Emphasis is on virulence factors of microorganisms and the host response to infection. Topics will include pathogenesis of intracellular and extracellular parasites, bacterial adhesins, and toxins, and the role of innate and acquired immunity in host resistance and the response to infection. Prerequisite: BIOL 807 and BIOL 808, or a course in biochemistry, or consent of instructor. LEC.

BIOL 813. Advanced Bacterial Physiology. 2 Hours.
The intermediary reactions catalyzed by the bacterial cell during energy-requiring processes. Thermodynamic considerations of these processes are discussed. Knowledge of calculus is recommended. Prerequisite: BIOL 807 and BIOL 808, or a course in microbiology and a course in biochemistry, or consent of instructor. LEC.

BIOL 814. Advanced Molecular Virology. 2 Hours.
The course concentrates on evaluation of current literature concerning all aspects of molecular biology, biochemical characterization, and pathogenic mechanisms involved in host-virus interactions. Students will be expected to present articles and participate in discussions. Prerequisite: BIOL 807 and BIOL 808, or a course in microbial genetics and a course in virology, or consent of instructor. LEC.

BIOL 815. Advanced Molecular Genetics. 2 Hours.
A literature-based course that covers recent advances in microbial molecular genetics. Topics include transcription, translation, mutagenesis and repair, genetic exchange mechanisms, and regulation of gene expression. Prerequisite: BIOL 807 and BIOL 808, or a course in microbial genetics, or consent of instructor. LEC.

BIOL 818. Techniques in Molecular Biosciences. 2 Hours.
This course provides an introduction to common techniques used for research strategies in molecular biosciences. The course will cover common techniques in cell biology, biochemistry, microbiology, and neurobiology. Information will be presented in lectures and through practical demonstrations. This course is primarily intended for first year graduate students in the Department of Molecular Biosciences. Prerequisite: Enrollment in the Molecular Biosciences Graduate Program or consent of instructor. LAB.

BIOL 840. Scientific Communication. 2 Hours. N.
Principles of English communication skills for the professional scientist. The course explores the form, function, and practice (including ethics) of scientific communication, emphasizing elements of writing and speech that are important to clarity and precision. The course covers written and verbal communication of primary research results as well as composing correspondence, a curriculum vitae, reviews, etc. Prerequisite: Graduate standing. LEC.

BIOL 841. Biometry I. 5 Hours.
The application of statistical methods to data from various fields of biological research. Special emphasis is placed on practical computational procedures. Prerequisite: College algebra. LEC.

BIOL 842. Biometry II. 3 Hours.
This course is primarily devoted to special advanced topics in analysis of variance, analysis of covariance and regression analysis. Polynomial regression and multiple linear regression will be presented as will the general linear model. Elementary matrix algebra will be developed as needed. Prerequisite: BIOL 841. LEC.

BIOL 847. Phylogenetics. 3 Hours.
An introduction to the theory and practice of phylogenetic systematics. Includes principles of character analysis including determination of homology and determination of character polarity, testing alternate phylogenetic trees, and reconstructing trees using computer techniques. Also includes principles of constructing phylogenetic classifications and the nature of taxa in the phylogenetic system. Other topics, such as the nature of species and principles of biogeography are included. Prerequisite: Twenty hours natural history. LEC.

BIOL 848. Phylogenetic Methods. 4 Hours.
A survey of methods for inferring phylogenetic trees from character data and using phylogenies to address evolutionary questions. Lectures will present the relevant theory and algorithmic description of methods. Computer lab will familiarize students with software that implements the analyses discussed in lecture. Intended for graduate students specializing in systematics. Prerequisite: BIOL 845 and BIOL 841 or consent of instructor. LEC.

BIOL 872. Gene Expression II. 3 Hours.
Second semester of a two-semester lecture course on gene expression. Emphasis on control of gene expression at the transcriptional and post-transcriptional levels. Prerequisite: BIOL 772 or consent of instructor. LEC.

BIOL 888. Topics in Evolutionary Morphology: _______. 2 Hours.
Presentation and discussion by graduate students and faculty of selected topics centering on observed changes in structure and function of organisms from a phylogenetic point of view. Presentation will include results of original research when possible and appropriate, and otherwise, will be based on syntheses of recent literature. RSH.

BIOL 890. Advanced Study in Microbiology. 1-10 Hours.
Original investigation by students at the master’s degree level. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Ten or more hours of microbiology and consent of department. RSH.
BIOL 895. Human Genetics. 3 Hours.
A lecture course providing balanced coverage of Mendelian and molecular genetics of humans; includes discussions and presentations on current issues in human and medical genetics. Prerequisite: A course in genetics. LEC.

BIOL 899. Master's Thesis. 1-10 Hours.
Research which is to be incorporated into an M.A. thesis. Not more than ten hours may be earned. Graded on a satisfactory/unsatisfactory basis. THE.

BIOL 901. Graduate Seminar in Biochemistry and Biophysics. 1 Hour.
Advanced course examining current research topics in biochemistry and biophysics. Extensive student/faculty interaction is emphasized utilizing lectures, class discussion of assigned readings of research reports, and oral presentations. Prerequisite: Enrollment in graduate school, and departmental admission. LEC.

BIOL 902. Graduate Seminar in Molecular, Cellular, and Developmental Biology. 1 Hour.
Advanced course examining current research topics in molecular, cellular, and developmental biology. Extensive student/faculty interaction is emphasized utilizing lectures, class discussion of assigned readings of research reports, and oral presentations. Prerequisite: Enrollment in graduate school, and departmental permission. SEM.

BIOL 903. Graduate Seminar in Neurobiology. 1 Hour.
Advanced course examining current research topics in neurobiology. Extensive student/faculty interaction is emphasized utilizing lectures, class discussion of assigned readings of research reports, and oral presentations. Prerequisite: Enrollment in graduate school, and departmental permission. LEC.

BIOL 904. Graduate Seminar in Microbiology. 1 Hour.
Advanced course examining current research topics in microbiology. Extensive student/faculty interaction is emphasized utilizing lectures, class discussion of assigned readings of research reports, and oral presentations. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Enrollment in graduate school, and departmental permission. LEC.

BIOL 905. Advanced Molecular Genetics. 1-3 Hours.
A review of current literature in molecular genetics. RSH.

BIOL 906. Advanced Genetics. 1-3 Hours.
May be repeated for credit up to six hours. Review of current literature and genetic theory of selected topics such as population, molecular, quantitative, and physiological genetics. RSH.

BIOL 911. Research Topics in Plant Physiology and Biochemistry. 1-6 Hours.
Directed research on selected topics. Prerequisite: BIOL 770 or equivalent. RSH.

BIOL 918. Modern Biochemical and Biophysical Methods. 4 Hours.
This course emphasizes the use of techniques for solving problems of structure and function of biological macromolecules. Students will complete several modules that consist of lectures relating to theory and practical aspects of each methodological approach, and apply these techniques to solving a specific problem. Students will submit a paper describing the resulting data and conclusions. Prerequisite: BIOL 807, BIOL 808, and BIOL 818, or permission of instructor. LEC.

BIOL 925. Research Grant Proposal Preparation. 3 Hours.
This course introduces the basics of preparing a successful scientific grant application. Topics to be covered include how to develop a novel, fundable project, scientific writing and grantsmanship, and what criteria reviewers consider in evaluating grants. The course will be a mix of instruction and class discussion. Prerequisite: Admission to the graduate program in Molecular Biosciences, or consent of instructor. LEC.

BIOL 930. Ultrastructure and Cellular Mechanisms. 3 Hours.
Two lectures and one seminar-recitation. A detailed consideration of electron microscopic analyses of cell structure as related to cell function. Prerequisite: BIOL 416. LEC.

BIOL 943. Multivariate Data Analysis. 3 Hours.
Matrix formulation of multivariate models and data. Specific methods covered include Principal Components Analysis, Factor Analysis, Multiple Group Discriminant Analysis and Canonical Analysis, and Canonical Correlation Analysis. Prerequisite: BIOL 842 or knowledge of elementary matrix algebra. LEC.

BIOL 944. Topics in Quantitative Ecology: ____. 1-3 Hours.
Presentation and discussion by instructor and students of mathematical and statistical concepts in ecology. Topics are selected from texts or sets of readings. LEC.

BIOL 950. Evolutionary Mechanisms. 3 Hours.
Reading and discussions of evolutionary mechanisms from the genetic, ecologic, and systematic viewpoints. Prerequisite: BIOL 412. LEC.

BIOL 952. Introduction to Molecular Modeling. 3 Hours.
Introduction to theory and practice of contemporary molecular modeling, including molecular mechanics, molecular dynamics, computer graphics, data analysis, use of structure and sequence databases, docking, and homology modeling. Weekly computer laboratory section aimed at allowing participants to pursue independent research projects that incorporate modeling aspects. Lectures, laboratory manuals, program descriptions, and technical notes are presented on course web page. (Same as MDCM 952.) Prerequisite: Graduate standing or consent of instructor. LEC.

BIOL 968. Seminar in Vegetation Geography. 2-3 Hours.
(Same as GEOG 937.) LEC.

BIOL 985. Advanced Study. 1-10 Hours.
Individual investigations; laboratory, field or museum; or reading assignments in specialized topics not ordinarily treated in other courses. Graded on a satisfactory/unsatisfactory basis. RSH.

BIOL 999. Doctoral Dissertation. 1-12 Hours.
Original research that is to be incorporated into a Ph.D. dissertation. Graded on a satisfactory/unsatisfactory basis. RSH.

BTEC 300. Introduction to Biotechnology. 3 Hours. N.
Review of techniques used in food, agricultural, pharmaceutical, industrial, and environmental biotechnology. Role of regulatory agencies during the discovery, development, and manufacture of new medical devices, biotechnology, biomedical, and pharmaceutical products. Guest presentations in biotechnology. Prerequisite: BIOL 416. LEC.

BTEC 330. Biotechnology Regulation and Documentation Processes. 3 Hours. N.
Current good manufacturing practices (GMP) as they apply in the biotechnology workplace. History, rationale, purpose, and GMP requirements applicable to the manufacturing, packaging, labeling, testing, and control of pharmaceutical products, and consequences of inaction. Prerequisite: BTEC 300. LEC.

BTEC 340. Biotechnology Research Methods and Applications. 3 Hours. N.
Introduction to fermentation and protein chemistry. Theory behind laboratory techniques and overview of industrial scale expression systems. Bacterial cell culture techniques, principles of fermenter operation and purification, documentation procedures, important tasks for clean room operations, including sanitation, sterilization, cleaning
BTEC 341. Principles of Bioprocessing Laboratory I. 1 Hour. N. Laboratory sessions involve use of microbial expression vectors, fermentation systems, and large-scale purification of recombinant protein. Includes bacterial cell culture techniques, principles of bioreactor/fermentation operations and purification techniques, and calibration. Primary goal of this course is to provide students with an advanced background in bacterial upstream and downstream biotechnology. Prerequisite: BTEC 300; BTEC 340 or concurrent enrollment in BTEC 340. LAB.

BTEC 405. Microbial Genetics Laboratory. 4 Hours. N. Research projects center on using molecular genetics to examine the biology of the bacterium Pseudomonas aeruginosa, an opportunistic pathogen often found in the lungs of cystic fibrosis patients. Students engage in independent projects to probe various aspects of P. aeruginosa physiology such as antibiotic resistance, phase variation, toxin production, secondary metabolite production, twitching motility, swarming behaviors, and more. Projects aim to discover the molecular basis for these processes using both classical and new, cutting-edge techniques. These include plasmid manipulation, genetic complementation, mutagenesis, PCR, DNA sequencing, enzyme assays, and gene expression studies. Prerequisite: BIOL 350; BIOL 402. LAB.

BTEC 424. Independent Study in Biotechnology. 1-3 Hours. N. Independent project at a related bioscience industry partner or faculty in selected topics of current translational research interest. May be undertaken only with the consent of the major advisor who will guide the research after determining objectives with the interested industry partner or faculty. Prerequisite: Consent of instructor. IND.

BTEC 440. Biotechnology Research Methods and Applications II. 3 Hours. N. Theory and practicum behind laboratory techniques and overview of industrial scale expression systems of insect or mammalian protein chemistry. Cell culture techniques, principles of bioreactor operation and purification, documentation procedures, important tasks for clean room operations, including sanitation, sterilization, cleaning procedures, calibration, and environmental monitoring are evaluated. Prerequisite: BTEC 340; BTEC 341. LEC.

BTEC 441. Principles of Bioprocessing Laboratory II. 1 Hour. N. Mammalian cell culture techniques, principles of bioreactor operations and purification techniques, and calibration. The primary goal of this course is to provide students with an advanced background in mammalian upstream and downstream biotechnology. Prerequisite: BTEC 341; BTEC 440 or concurrent enrollment in BTEC 440. LAB.

BTEC 450. Applied Bioinformatics. 3 Hours. N. Overview of the fields of bioinformatics and genomics. Topics, tools, issues and current trends in these and related fields are discussed. Principles and practical application of bioinformatics tools in molecular biology and genomics are evaluated. The haploid human genome occupies a total of just over 3 billion DNA base pairs. This information is not contained in books, but stored in electronic databases. Computational biology utilizes infer function by comparative analysis. This course is designed for life scientists from all fields to introduce them to the power of bioinformatics and enable them to access and utilize biological information in databases for their own research. Prerequisite: BTEC 300; BIOL 570 or MATH 365 or PSYC 210. LEC.

BTEC 452. Protein Expression in Insect Cells. 2 Hours. N. Introduction to the insect cells expression system, and its advantages and disadvantages. Introduction to expression of recombinant proteins with baculovirus. Outline of antibody and antibody fragments as well as other complex proteins. Basic techniques used for growth and maintenance of insect cell cultures. The lab portion of the course provides students with practical experience in protein expression techniques in the insect cells expression system. Prerequisite: BTEC 300. LEC.

BTEC 454. RNA Interference and Model Organisms. 2 Hours. N. Introduction and history of RNA interference technology. Principles, mechanism, and applications of RNA interference in model organisms. Laboratory sessions include RNA interference-mediated silencing of genes in plants, C. elegans, and mammalian cell culture. Prerequisite: BTEC 300. LAB.

BTEC 458. Bioanalytical Lab. 2 Hours. N. Analytical methods used for testing biotherapeutics are examined. Emphasis is placed on assessing protein concentration, purity, identity and activity. The importance of sample processing, throughput and level of validation are explored as samples from upstream processing, downstream processing and final bulk are interrogated. Students also learn key concepts used to validate the performance of analytical methods. Prerequisite: BTEC 300. LAB.

BTEC 494. Selected Topics in Biotechnology. 1 Hour. N. Research projects center on using molecular genetics to examine the biology of the bacterium Pseudomonas aeruginosa, an opportunistic pathogen often found in the lungs of cystic fibrosis patients. Students engage in independent projects to probe various aspects of P. aeruginosa physiology such as antibiotic resistance, phase variation, toxin production, secondary metabolite production, twitching motility, swarming behaviors, and more. Projects aim to discover the molecular basis for these processes using both classical and new, cutting-edge techniques. These include plasmid manipulation, genetic complementation, mutagenesis, PCR, DNA sequencing, enzyme assays, and gene expression studies. Prerequisite: BIOL 350; BIOL 402. LAB.

BTEC 501. Ethical Issues in Biotechnology. 1 Hour. N. Research projects center on using molecular genetics to examine the biology of the bacterium Pseudomonas aeruginosa, an opportunistic pathogen often found in the lungs of cystic fibrosis patients. Students engage in independent projects to probe various aspects of P. aeruginosa physiology such as antibiotic resistance, phase variation, toxin production, secondary metabolite production, twitching motility, swarming behaviors, and more. Projects aim to discover the molecular basis for these processes using both classical and new, cutting-edge techniques. These include plasmid manipulation, genetic complementation, mutagenesis, PCR, DNA sequencing, enzyme assays, and gene expression studies. Prerequisite: BIOL 350; BIOL 402. LAB.

BTEC 524. Bioanalytical Lab. 2 Hours. N. Analytical methods used for testing biotherapeutics are examined. Emphasis is placed on assessing protein concentration, purity, identity and activity. The importance of sample processing, throughput and level of validation are explored as samples from upstream processing, downstream processing and final bulk are interrogated. Students also learn key concepts used to validate the performance of analytical methods. Prerequisite: BTEC 300. LAB.
M.A. in Biochemistry & Biophysics; Microbiology; or Molecular, Cellular, & Developmental Biology

Molecular Biosciences Graduate Programs

The department offers the Doctor of Philosophy and the Master of Arts in biochemistry and biophysics; microbiology; and molecular, cellular, and developmental biology. Programs in neurobiology and genetics also allow a research focus. Graduate students may pursue degree tracks in the disciplines of their choice but may also be involved in collaborative research. New students should confer with the graduate coordinator to plan a first-semester schedule. Until the student chooses a permanent advisor, the graduate coordinator advises him or her.

The department has established a level of enrollment appropriate for normal progress (course work and research effort) toward an advanced degree. These credit-hour requirements may exceed, but not fall below, minimum Graduate Studies requirements. A student must enroll full-time in residence for at least 2 regular academic-year semesters after the first year of graduate study. 9 credit hours constitute full-time enrollment. If the student holds a half-time research or teaching assistantship, 6 hours constitute full-time enrollment. The department expects graduate students who have not yet passed the comprehensive oral examination (including those with half-time assistantships) to enroll in at least 9 hours each semester and 3 hours each summer session. After passing the comprehensive oral examination, a doctoral candidate must be continuously enrolled, including summer sessions, until all degree requirements are completed. For the first 18 hours of post-comprehensive enrollment, the doctoral candidate must take a minimum of 6 hours a semester and 3 hours a summer session.

Graduate Teaching Assistantships and Graduate Research Assistantships are available. GTAs are appointed on a semester basis. GRAs are appointed on a semester, academic-year, or calendar-year basis.

During the first 2 semesters, a new Ph.D. graduate student follows a rotation schedule through 3 research laboratories. This program acquaints each student with the research conducted by each faculty member. Students then choose a home lab. This decision must be mutually agreed on with the major professor. Each graduate student must teach for at least 2 semesters.

(The B.S. degree in molecular biosciences (p. 1212) is offered on the KU Edwards Campus (http://edwardscampus.ku.edu).)

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

The department adheres to minimum admission requirements. The number of new students accepted each year depends largely on availability of laboratory space, financial resources, grants, and the number of students leaving the program. The department maintains a full enrollment.

The department’s website (http://www.molecularbiosciences.ku.edu) has information about application procedures and a link for applying directly online. A completed application file must include:

1. An application form and fee;
2. 1 copy of all academic transcripts (international students must provide 1 copy in English and 1 in the native language);
3. A résumé (1 to 2 pages);
4. General Graduate Record Examination scores (GRE must have been taken within 2 years of the initial semester);
5. Internet-Based Test of English as a Foreign Language (iBT) or IELTS scores for international students;
6. 3 recommendation letters; and
7. A statement of aims (1 to 2 pages) describing the applicant’s interests and professional goals.

All files must be complete and received in the department by December 15 each year. First consideration is given to those who meet this deadline. Applicants are informed of decisions in early March.

All supporting documentation should be uploaded online when you apply. If this is not possible, please send documentation to:

The University of Kansas
Department of Molecular Biosciences
Haworth Hall
1200 Sunnyside Ave., Room 2034
Lawrence, KS 66045-7566

M.A. Degree Requirements

General Requirements for All M.A. Students

Refer to each discipline for specific course requirements. General requirements include:

1. A minimum of 30 hours of graduate credit;
2. A minimum of 1 laboratory rotation during the first semester of graduate study;
3. Enrollment every semester in BIOL 701 Topics in Molecular Biosciences Seminar;
4. Completion of the following courses: BIOL 807 Graduate Molecular Biosciences and BIOL 818 Techniques in Molecular Biosciences;
5. A graduate committee established by the beginning of the spring semester of the first year;
6. A minimum of 1 annual graduate committee meeting until completion of the degree.

The following thesis options are available:
The department offers the Doctor of Philosophy and the Master of Arts
in biochemistry and biophysics; microbiology; and molecular, cellular,
and developmental biology. Programs in neurobiology and genetics also
allow a research focus. Graduate students may pursue degree tracks in
the disciplines of their choice but may also be involved in collaborative
research. New students should confer with the graduate coordinator to
plan a first-semester schedule. Until the student chooses a permanent
advisor, the graduate coordinator advises him or her.

Specific M.A. Requirements: Biochemistry and Biophysics

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 750</td>
<td>Advanced Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 772</td>
<td>Gene Expression</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives to satisfy the 30-hour requirement. Electives are determined in consultation with the graduate advisor and graduate committee.

Specific M.A. Requirements: Microbiology

Select at least three graduate courses from the following: 6

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 811</td>
<td>Advanced Molecular and Cellular Immunology</td>
</tr>
<tr>
<td>BIOL 812</td>
<td>Mechanisms of Host-Parasite Relationships</td>
</tr>
<tr>
<td>BIOL 813</td>
<td>Advanced Bacterial Physiology</td>
</tr>
<tr>
<td>BIOL 814</td>
<td>Advanced Molecular Virology</td>
</tr>
<tr>
<td>BIOL 815</td>
<td>Advanced Molecular Genetics</td>
</tr>
</tbody>
</table>

Plus electives to satisfy the 30-hour course requirement. No more than 6 of these hours can be below the 700 level. Electives are determined in consultation with the graduate advisor and graduate committee.

Specific M.A. Requirements: Molecular, Cellular, and Developmental Biology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 752</td>
<td>Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 755</td>
<td>Mechanisms of Development</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 753</td>
<td>Advanced Genetics</td>
<td>3</td>
</tr>
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<td>Gene Expression</td>
<td></td>
</tr>
</tbody>
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Ph.D. in Biochemistry & Biophysics; Microbiology; or Molecular, Cellular, & Developmental Biology

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(The B.S. degree in molecular biosciences (p. 1212) is offered on the KU Edwards Campus (http://edwardscampus.ku.edu).)
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Department of Molecular Biosciences
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1200 Sunnyside Ave., Room 2034
Lawrence, KS 66045-7566

Ph.D. Degree Requirements

General Requirements for All Ph.D. Students

All general requirements must be fulfilled. Refer to each discipline for specific course requirements. General requirements include

1. At least 3 individual laboratory rotations during the first two semesters of graduate study;
2. Enrollment every semester in BIOL 701 Topics in: Molecular Biosciences Seminar;
3. Completion of the following courses: BIOL 804 Scientific Integrity: Molecular Biosciences, BIOL 807 Graduate Molecular Biosciences, and BIOL 818 Techniques in Molecular Biosciences;
4. A FLORS requirement (satisfied by completion of BIOL 818) and a Responsible Scholarship requirement (satisfied by BIOL 804);
5. A minimum of 2 semesters of graduate teaching;
6. A graduate committee established before the beginning of the fall semester of the second year;
7. A minimum of 1 annual graduate committee meeting;
8. A written preliminary examination in the form of a research proposal completed by the end of the spring semester of the second year of graduate study (BIOL 925);
9. A comprehensive oral examination held no later than October 1 of the fall semester of the third year of graduate study (successful completion of the comprehensive oral examination admits the student to candidacy for the Ph.D. degree);
10. A dissertation based on original research presented to the dissertation examination committee for evaluation and presented and defended in a formal public lecture; and
11. Completion of the degree in 7 years.

Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current policies on Doctoral Research Skills and Responsible Scholarship are listed in the KU Policy Library.

First-year Curriculum for All Students

First-year courses include:

BIOL 701 Topics in: _____ (Molecular Biosciences Seminar. 1-3
Enrollment required every semester)
BIOL 804 Scientific Integrity: Molecular Biosciences 1
BIOL 807 Graduate Molecular Biosciences 6
BIOL 818 Techniques in Molecular Biosciences 2
BIOL 985 Advanced Study (fall and spring semester) 1-10

Specific Ph.D. Requirements: Biochemistry and Biophysics

BIOL 750 Advanced Biochemistry 3
BIOL 901 Graduate Seminar in Biochemistry and Biophysics 1
(1 semester)
BIOL 918 Modern Biochemical and Biophysical Methods 4
BIOL 952 Introduction to Molecular Modeling 3

The graduate committee may recommend that additional courses be taken.

Specific Ph.D. Requirements: Microbiology

Select at least four of the following five graduate courses:

BIOL 811 Advanced Molecular and Cellular Immunology
BIOL 812 Mechanisms of Host-Parasite Relationships
BIOL 813 Advanced Bacterial Physiology
BIOL 814 Advanced Molecular Virology
BIOL 815 Advanced Molecular Genetics

The graduate committee may recommend that additional courses be taken.

Specific Ph.D. Requirements: Molecular, Cellular, and Developmental Biology

BIOL 752 Cell Biology 3
BIOL 755 Mechanisms of Development 3
or BIOL 772 Gene Expression 3

The graduate committee may recommend that additional courses be taken.

Museum Studies Program

Museum Studies Graduate Program

These are exciting and challenging times for museums -- longstanding premises are being questioned, and many established practices are being reconsidered. Museum professionals today work in an environment far different than that of even a few years ago. Emerging technologies now allow museums to bring their collections and their programs to audiences well beyond the confines of museum buildings. With this expanded reach, museums are preparing for dramatic changes in the age, ethnicity, education, and economic status of their audiences. Exhibitions and public programs are evolving; more than ever, educators, curators, and designers are seeking ways to engage visitors in complex issues of broad concern. Behind the scenes, collection stewardship is being reevaluated
in response to practical, political, and ethical concerns. Additionally, unprecedented scholarly attention is being directed toward the ways in which museums have acquired their collections, represented their subjects, and engaged with the public. In the midst of this transformation, long-standing assumptions about museums’ public value have been called into question, requiring museum leaders to craft new collaborations and community partnerships in order to survive.

To advance and thrive in this dynamic environment, twenty-first century museum professionals will need knowledge informed by practice, imagination tempered by rigor, and leadership stimulated by collaboration. This is what we can offer at the University of Kansas. Students take advantage of the superb facilities at KU, including the Dole Institute of Politics, Natural History Museum, Spencer Museum of Art, Spencer Research Library, and Wilcox Classical Museum, as well as nearby historical agencies, specialized libraries, and museums.

Courses

**MUSE 701. Museum Management. 3 Hours.**
Lecture, discussion, and laboratory exercises on the nature of museums as organizations; accounting, budget cycles, personnel management, and related topics will be presented using, as appropriate, case studies and a simulated museum organization model. (Same as AMS 731, BIOL 785, GEOL 783, and HIST 728.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

**MUSE 702. The Nature of Museums. 3 Hours.**
The purpose of this course is to provide an overview of the kinds of museums, their various missions, and their characteristics and potentials as research, education, and public service institutions responsible for collections of natural and cultural objects. (Same as AMS 720, BIOL 788, GEOL 782, and HIST 720.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

**MUSE 703. Introduction to Museum Exhibits. 3 Hours.**
Presentation of principles and practices of exhibit management, design, and production. Topics will include developing a master plan for museum exhibits; concept development; design, installation, and maintenance of exhibits; design theory; design process; label writing and editing; selection of materials architectural requirements and building codes; cost estimating; publicity; security; and exhibit evaluation. Consideration will be given to exhibition problems in public and private museums in the areas of anthropology, art, history, natural history, and technology. (Same as AMS 700, BIOL 787, GEOL 781, and HIST 723.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

**MUSE 704. Principles and Practices of Museum Collection Management. 3 Hours.**
Lecture, discussion, and laboratory exercises on the nature of museum collections, their associated data, and their use in scholarly research; cataloging, storage, fumigation, automated information management and related topics will be presented for museums of art, history, natural history and anthropology. (Same as AMS 730, BIOL 798, GEOL 785, and HIST 725.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

**MUSE 705. Introduction to Museum Public Education. 3 Hours.**
Consideration of the goals of an institution’s public education services, developing programs, identifying potential audiences, developing audiences, and funding. Workshops and demonstrations are designed for students to gain practical experience working with various programs and developing model programs. (Same as AMS 797, BIOL 784, GEOL 784, and HIST 721.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

**MUSE 706. Conservation Principles and Practices. 3 Hours.**
This course will acquaint the future museum professional with problems in conserving all types of collections. Philosophical and ethical approaches will be discussed, as well as the changing practices regarding conservation techniques. Emphasis will be placed on detection and identification of causes of deterioration in objects made of organic and inorganic materials, and how these problems can be remedied. Storage and care of objects will also be considered. (Same as AMS 714, BIOL 700, GEOL 780, and HIST 722.) Prerequisite: Museum Studies student, Indigenous Nations Studies student, or consent of instructor. LEC.

**MUSE 707. Practical Archival Principles. 3 Hours.**
Study of the principles and practices applicable to the preservation, care, and administration of archives and manuscripts. Practical experience will be an integral part of this course. (Same as HIST 727.) LEC.

**MUSE 710. Current Trends in Curation and Collection Management. 2 Hours.**
Seminar course to provide students with a working knowledge of the primary issues and current trends in building, administration, and care of scientific collections. Topics include permits, collecting, accessioning, cataloging, preservation, preventive conservation, and access to collections and data. The course format consists of readings, lectures, guest speakers, discussions, and visits to scientific collections on campus. (Same as BIOL 706.) LEC.

**MUSE 780. Special Topics: _____. 1-3 Hours.**
Advanced courses on special topics in museum studies, given as need arises. Lectures, discussions of readings, and guest speakers. Topic for semester to be announced. Prerequisite: Graduate standing in Museum Studies Program or permission of instructor. LEC.

**MUSE 782. Seminar in Current Museum Topics: _____. 1-2 Hours.**
In-depth examination of specific topics currently of concern to museums and museum professionals. Topic for semester to be announced. Prerequisite: Graduate standing in Museum Studies Program, or permission of instructor. LEC.

**MUSE 790. Advanced Study. 1-3 Hours.**
Individual research in a specialized topic not ordinarily treated in a Museum Studies core course for which there is a member of the graduate faculty competent and willing to direct a research project. Prerequisite: Consent of instructor. RSH.

**MUSE 792. Directed Readings. 1-3 Hours.**
Directed reading in an area of Museum Studies in which there is no particular course in the Museum Studies program or in cooperating departments but in which there is a member of the graduate faculty competent and willing to direct a program study. Prerequisite: Consent of instructor. IND.

**MUSE 799. Museum Apprenticeship. 1-6 Hours.**
Provides directed, practical experience in research, collection, care, and management, public education, and exhibits with emphasis to suit the particular requirements of each student. (Same as AMS 799, ANTH 799, BIOL 799, GEOL 723, and HIST 799.) FLD.

**MUSE 910. Materials Conservation. 3 Hours.**
Preservation and collection conservation theory and principles, including condition reporting, conservation of furniture and wooden objects, inorganic-based materials, metal objects, organic-based materials, paintings, photographic materials, textiles, three-dimensional objects, and works on paper. LEC.
MUSE 930. Preventive Conservation. 3 Hours.
Theory and principles of preventive conservation, with emphasis
on its application to storage environment quality, archival supports
and housings, basic bookbinding, composite objects, integrated
pest management, light and lighting, paper evaluation and mending,
temperature, and relative humidity. LEC.

MUSE 940. Conservation Assessment. 3 Hours.
Understanding the conservator-curator relationship; principles of
conservation assessment, documentation, conservation research,
environmental monitoring, handling objects, photographic documentation,
and development of a publishable preservation research project. LEC.

MUSE 980. Advanced Conservation. 3 Hours.
Application of conservation theory and practice to exhibition development,
planning, and preparation; conservation bookbinding; health and safety
in conservation; integrated pest management; ethics of conservation;
parameters of professional conservation practice. LEC.

Master of Arts in Museum Studies

Museum Studies Graduate Program

These are exciting and challenging times for museums -- longstanding
premises are being questioned, and many established practices are being
reconsidered. Museum professionals today work in an environment far
different than that of even a few years ago. Emerging technologies now
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concern. Behind the scenes, collection stewardship is being reevaluated
in response to practical, political, and ethical concerns. Additionally,
unprecedented scholarly attention is being directed toward the ways
in which museums have acquired their collections, represented their
subjects, and engaged with the public. In the midst of this transformation,
long-standing assumptions about museums’ public value have been
called into question, requiring museum leaders to craft new collaborations
and community partnerships in order to survive.

To advance and thrive in this dynamic environment, twenty-first century
museums professionals will need knowledge informed by practice,
imagination tempered by rigor, and leadership stimulated by collaboration.
This is what we can offer at the University of Kansas. Students take
advantage of the superb facilities at KU, including the Dole Institute of
Politics, Natural History Museum, Spencer Museum of Art, Spencer
Research Library, and Wilcox Classical Museum, as well as nearby
historical agencies, specialized libraries, and museums.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be
admitted as either a degree-seeking or non-degree seeking student.
 Policies and procedures of Graduate Studies govern the process of
Graduate admission. These may be found in the Graduate Studies (p.
2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the
online catalog for information regarding program-specific admissions
criteria and requirements. Special admissions requirements pertain to

Interdisciplinary Studies degrees, which may be found in the Graduate
Studies section of the online catalog.

Graduate Admission

To be considered for admission to regular graduate status in the Museum
Studies program, a student must hold a baccalaureate degree and have
earned at least a B (3.0) grade-point average in previous academic
work. Acceptance in the program is determined by the Museum Studies
Admissions Committee. A student interested in applying for admission
must submit the following:

1. A completed application, along with a non-refundable application
fee, submitted online through the Office of Graduate Studies (http://
www.graduate.ku.edu/apply).

2. Transcripts from all undergraduate or graduate institutions attended.
You may upload a scanned version of your official transcript from your
undergraduate institution to the online application. Please note: A printout
from a student portal is NOT considered to be an official copy of your
transcript. Official transcripts will be required upon admission to the
program. In addition, please consult (http://www.clas.ku.edu/undergrad/
tools/gpa) your Junior/Senior GPA and include it on your resume.

3. A statement of academic objectives. This component of the application
is very important. It should be a thoughtful, well-written, 2-3 page
statement addressing such topics as (a) what is it about museums and
museum studies that particularly interests you, (b) your career goals,
and the area of museum work that most attracts you, (c) your relevant
experience and background, (d) the match of KU’s program to your
interests, an (e) anything else you think is important to your application.
If you feel that your academic record does not reflect your potential,
or if your test scores are below expectations, be certain to provide an
explanation of any extenuating circumstances related to this issue.

4. 3 letters of recommendation. (Please use KU’s online letter of
recommendation system when you apply).

5. GRE scores. To submit scores, use University code 6871, Department
code 5101.

6. A resume or curriculum vitae listing your employment history,
scholarships/fellowships, and awards.

7. A sample of your written academic work (10 pages maximum, please).

8. For international students only, TOEFL scores or acceptable alternative
to demonstrate English proficiency.

9. For international students only, proof of financial support. Applications
will not be considered without financial documentation.

Students are admitted to the M.A. program only in the fall semester.
The Museum Studies Admissions Committee will begin considering
applicants for Fall admission in mid-January and will accept applications
until the deadline for the fall semester on May 1. Students who meet the
January 15 deadline will be notified of admission decisions in early March.
Applications completed after the January 15 deadline are much less
likely to be considered for scholarship support and may be placed
on an admissions waiting list.
M.A. Degree Requirements

The M.A. degree in museum studies requires 36 credit hours at the graduate level. Students in the Museum Studies Program complete courses in six areas:

1. The Museum Studies Core - 9 credit hours
2. Museum Professional Areas - 9 credit hours
3. Museum Conceptual Domains - 6 credit hours
4. Electives - 6 credit hours
5. Museum Experience (Internship) - 3 credit hours
6. Final Product (Research) - 3 credit hours

1. Museum Studies Core (9 credit hours)
The Museum Studies Core ensures that all Museum Studies students gain a comprehensive understanding of the theories, history, techniques, and problems common to museums, historical agencies and related institutions. The Capstone course, taken in a student's third semester of study, provides an avenue for students to conduct research or other creative activities that advance the discipline of museum studies.

- MUSE 702 The Nature of Museums 3
- MUSE 780 Special Topics: _______ 3
- MUSE 782 Seminar in Current Museum Topics: _______ 3

2. Museum Professional Areas (9 credit hours)
Students will develop expertise in one of the principal specialties of museum work by completing at least two courses in that area, at least one of which must be a Museum Studies (MUSE) course. Many courses in other departments could fulfill requirements; it is the responsibility of students, and their advisors, to ensure that individual courses meet program requirements based on the general relevance of the course and assurance that the student's work in the class will be applicable to museum studies by meeting with instructors and examining syllabi.

LEADERSHIP AND MANAGEMENT

Courses cover areas such as administration, policy, fund raising, and legal issues related to the management of non-profit organizations.

- MUSE 701 Museum Management 3
- Examples of Courses in Other Departments and Programs:
  - LAW 867 Law and the Arts 2-3
  - MEMT 823 Seminar in: _______ 1-3
  - MGMT 715 Management of Organizations 3
  - PUAD 828 Nonprofit Management and Policy 3
  - PUAD 830 Administrative Ethics 3
  - PUAD 855 Financial Management for Public and Not-for-Profit Organizations 3

INTERPRETATION

Interpretation includes developing skills in exhibition design and installation, graphics, and marketing, public programs, as well as innovative approaches to new and emerging technologies.

- MUSE 703 Introduction to Museum Exhibits 3
- MUSE 705 Introduction to Museum Public Education 3
- Examples of Courses in Other Departments and Programs:
  - ADS 712 Design Strategies and Methods 3
  - BIOL 720 Scientific Illustration 3
  - THR 618 Scenography and the Musical Theatre 3

COLLECTIONS

Examples of Courses in Other Departments and Programs:

- ANTH 520 Archaeological Ceramics 3
- ANTH 582 Ethnobotany 3
- ANTH 648 Human Osteology 4
- BIOL 603 Systematic Botany 3
- BIOL 746 Principles of Systematics 4
- GEOG 725 Paleontology of Lower Vertebrates 3
- TD 504 History of Textiles, Lecture 3
- UBPL 760 Historic Preservation Planning 3

COMMUNITY CONNECTIONS

Courses enable students to develop skills in public programming, curriculum planning, visitor studies, audience development, and volunteer management.

- MUSE 705 Introduction to Museum Public Education 3
- Examples of Courses in Other Departments and Programs:
  - ABSC 719 Experimental Field Work in Community Settings 1-5
  - C&T 808 Qualitative Research: Curriculum Inquiry 3
  - COMS 855 Qualitative Research Methods in Communication Studies 3
  - COMS 855 Qualitative Research Methods in Communication Studies 3
  - HIST 601 Oral History 3
  - VAE 750 Introduction to Art Museum Education 1-4

3. Courses focusing on Museum Conceptual Domains (6 credit hours)
The conceptual domains of museum work address in depth the conceptual and theoretical foundations of museums. Courses that emphasize conceptual domains will place museological subjects in broader historical and intellectual frameworks. Students may take courses which may be offered in one or several disciplines. Courses will be selected based on the general relevance of the course, and assurance that the student’s work in the class will be applicable to museum studies.

- MUSE 704 Principles and Practices of Museum Collection Management 3
- MUSE 706 Conservation Principles and Practices 3
- MUSE 707 Practical Archival Principles 3

Examples of Courses in Other Departments and Programs:

- MUSE 705 Introduction to Museum Public Education 3
- MUSE 705 Introduction to Museum Public Education 3
- MUSE 705 Introduction to Museum Public Education 3
- MUSE 705 Introduction to Museum Public Education 3
- MUSE 705 Introduction to Museum Public Education 3
- MUSE 705 Introduction to Museum Public Education 3

4. Electives and Other Museum Studies Courses (6 credit hours)
Students are expected to deepen their knowledge of the field by taking courses in a subject area pertinent to their area of specialization. Courses will be selected with the approval of the student’s committee chair, as well as the course instructor.

5. Museum Experience (3 credit hours)
While enrolled in the Museum Studies program, students are required to gain at least 500 hours of museum experience, of which at least 250 hours must be in an approved, professionally supervised internship.

6. Final Product and Examination (3 credit hours)
Each student will be responsible for a final product, developed through research or other creative activity, that contributes to museum studies and demonstrates the student’s ability to engage conceptually and professionally with the discipline of museum studies.
Museum Studies Graduate Certificate

Graduate Certificate in Museum Studies

The course of study leading to the Certificate in Museum Studies comprises 15 credit hours at the graduate level. The Graduate Certificate in Museum Studies is designed to provide students with a solid grounding in the histories, concepts, and practices of the discipline of museum studies. The certificate program enables students to integrate knowledge of museum studies into their own academic disciplines or professional training. Completion of the certificate in museum studies represents an additional credential for graduate students from a variety of academic fields who are preparing for careers in research and teaching or professional practice. Enrollment in the program is open to students admitted to a regular KU graduate program or to non-degree seeking graduate students admitted to the Graduate School.

The Museum Studies core curriculum will be the basis for the graduate certificate, which emphasizes the essential interdisciplinary and collaborative nature of museum work by drawing on a range of departments in the University. The program allows students to gain knowledge in preparation for doctoral study, as well as for employment in museums and related fields such as historic preservation, cultural resource preservation, archives, and government agencies.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Eligibility criteria for admission to the certificate program include a B.A. degree from an accredited institution with a 3.0 or higher GPA. Awarding of certificates will be handled consistent with guidelines and timing of degree awards of the Graduate School. Completion of the program will appear on the graduate transcript.

Current KU Students

Current graduate students wishing to enroll in the Graduate Certificate program will apply through the Graduate School. A student must be in good standing with their graduate degree program in order to participate in the certificate program. A graduate GPA of 3.0 or higher is required for admission. The application process entails completing the online application, paying a $30.00 application fee, and submitting materials required for the Museum Studies Certificate:

a. A letter stating your interest in Museum Studies and its relationship to your graduate course of study.

b. An unofficial copy of your KU transcript;

c. A letter of support from your graduate degree program.

Non-KU Students

Non-KU graduate students must complete an application to the Graduate School for admission into the certificate program and submit an application fee along with the following materials:

a. A letter stating your interest in the Museum Studies Graduate Certificate program. In 2-3 pages, address such topics as (1) what about museums and museum studies particularly interests you, (2) how the Certificate will support or enhance your career goals, (3) the area of museum work most relevant to your career goals, (4) relevant experience and background information, (5) how KU’s program matches your interests, and (6) anything else you think is important to your application.

b. A copy of your college transcript;

c. 2 letters of recommendation from persons familiar with your academic work or potential for graduate study.

The Museum Studies Graduate Certificate will require 15 hours of course work including a 3 credit (minimum) research practicum or internship. The remaining 9 hours will be selected from courses in which there is a demonstrable component that has relevance to museum studies.

Required (6)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSE 702</td>
<td>The Nature of Museums</td>
<td>3</td>
</tr>
<tr>
<td>MUSE 780</td>
<td>Special Topics: _____ (Culture of Museums)</td>
<td>3</td>
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</tbody>
</table>

Choose 1 course in a museum professional area (3)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSE 701</td>
<td>Museum Management</td>
<td>3</td>
</tr>
<tr>
<td>MUSE 703</td>
<td>Introduction to Museum Exhibits</td>
<td></td>
</tr>
<tr>
<td>MUSE 704</td>
<td>Principles and Practices of Museum Collection</td>
<td></td>
</tr>
<tr>
<td>MUSE 705</td>
<td>Introduction to Museum Public Education</td>
<td></td>
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<tr>
<td>MUSE 706</td>
<td>Conservation Principles and Practices</td>
<td></td>
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<tr>
<td>MUSE 707</td>
<td>Practical Archival Principles</td>
<td></td>
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</tbody>
</table>

Choose 1 course in a museum conceptual domain (3)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS 677</td>
<td>African Design</td>
<td>3</td>
</tr>
<tr>
<td>AMS 803</td>
<td>Research Methods in American Studies</td>
<td></td>
</tr>
<tr>
<td>ABSC 765</td>
<td>Evaluating and Disseminating Scientific Material I</td>
<td></td>
</tr>
<tr>
<td>ABSC 801</td>
<td>Design and Analysis of Community Development Methods</td>
<td></td>
</tr>
<tr>
<td>C&amp;T 809</td>
<td>Creative Thinking and Learning</td>
<td></td>
</tr>
<tr>
<td>COMS 959</td>
<td>Theories of Rhetoric: Contemporary</td>
<td></td>
</tr>
<tr>
<td>ELPS 811</td>
<td>Constructivist Learning Technologies</td>
<td></td>
</tr>
<tr>
<td>FMS 531</td>
<td>Contemporary Concepts in Media Studies</td>
<td></td>
</tr>
<tr>
<td>HA 505</td>
<td>Special Study: _____ (Business of Art)</td>
<td></td>
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<tr>
<td>LAW 967</td>
<td>Native American Natural Resources</td>
<td></td>
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<tr>
<td>PRE 807</td>
<td>Theories and Research in Human Learning</td>
<td></td>
</tr>
<tr>
<td>PUAD 931</td>
<td>Research Seminar in Public Management</td>
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<tr>
<td>PUAD 932</td>
<td>Seminar in the Intellectual History of Public Administration</td>
<td></td>
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</tbody>
</table>

Research, Practicum or Internship (3)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Hours</td>
<td>15</td>
</tr>
</tbody>
</table>

1 To satisfy the requirement of 1 course in a museum conceptual domain, students must have approval of their advisor.
Department of Philosophy

Why study philosophy?

Because philosophy teaches you how to think about all aspects of your life and the world around you.

Undergraduate Programs

The department offers a range of courses in philosophy, both in the main systematic divisions of the subject and in its major historical periods. Philosophy courses are often suitable not only for majors but also for students whose main interests lie in other areas. Many philosophy courses satisfy requirements in other degree programs in the College and professional schools.

Argument and Reason Requirement

PHIL 148 and PHIL 310 each meet the College argument and reason requirement for the B.A. and B.G.S. degrees.

Interdisciplinary Course Work

The department offers courses in applied ethics, ethics, feminism, logic, and the philosophy of science to fit the needs and interests of nonmajors. Many of these may be taken without prerequisites. The nonmajor may wish to supplement work in other fields or schools with a series of related courses in philosophy. Some suggested programs to be supplemented with this type of interdisciplinary course work are business, prelaw, premedicine, and engineering; classics, art history, and literature; and natural sciences and mathematics. Lists of philosophy courses relating to these areas are available. Consult the director of undergraduate studies.

Graduate Programs

The department offers graduate programs in philosophy leading to the M.A. and Ph.D. degrees. With the School of Law, the department also offers a joint program in law and philosophy leading to the J.D. in law and the M.A. in philosophy. Our faculty (http://www.philosophy.ku.edu/people) is dynamic, professionally active, and committed to excellence in scholarship and teaching. Excellent facilities, strong library holdings, and a faculty dedicated to both teaching and research assure students of a challenging and professional graduate preparation.

Departmental Funding

While it is not guaranteed, the department its best to provide funding in the form of Graduate Teaching Assistantship (GTA) appointments to all incoming graduate students. GTA appointments are awarded for the academic year (9 months) and come with a starting salary of about $14,500, a 100% tuition waiver, and qualify the student for University-subsidized group health insurance. The appointments are guaranteed based on performance for up to 3 years for M.A. students, 5 years for Ph.D. students and 6 years for students who receive both an M.A. and a Ph.D. at The University of Kansas. GTAs in the department receive thorough training, close mentoring, and the opportunity to teach courses in a variety of fields within Philosophy, providing them with a strong base of teaching experience upon entering the job market.

Additional Funding

There are also university fellowships for truly outstanding students. Visit the Graduate Studies website for information about funding opportunities (http://www.gradle.ku.edu/funding-opportunities) for KU graduate students.

Courses

PHIL 140. Introduction to Philosophy. 3 Hours. HR GE11/GE3H / H. An introductory examination, based primarily on writings of major philosophers, of such central philosophical problems as religious belief, the mind and its place in nature, freedom and determinism, morality, and the nature and kinds of human knowledge. LEC.

PHIL 141. Introduction to Philosophy Honors. 3 Hours. HR GE11/GE3H / H. An introductory examination, based primarily on writings of major philosophers, of such central philosophical problems as religious belief, the mind and its place in nature, freedom and determinism, morality, and the nature and kinds of human knowledge. Prerequisite: Open only to students in the University Honors Program or by consent of department. LEC.

PHIL 148. Reason and Argument. 3 Hours. GE11/GE3H / H. An introduction to the theory and practice of logical analysis. Special emphasis is placed upon the logical appraisal of everyday arguments. LEC.

PHIL 160. Introduction to Ethics. 3 Hours. HR AE51/GE11/GE3H / H. An introductory study of the nature of morality and of philosophical bases for the assessment of actions, agents, and institutions. Special emphasis will be placed upon the views of such important philosophers as Aristotle, Hume, Kant, and Mill. Some attention will be paid to applications of moral theory to practice. LEC.

PHIL 161. Introduction to Ethics Honors. 3 Hours. HR AE51/GE11/GE3H / H. An introductory study of the nature of morality and of philosophical bases for the assessment of actions, agents, and institutions. Special emphasis will be placed upon the views of such important philosophers as Aristotle, Hume, Kant, and Mill. Some attention will be paid to applications of moral theory to practice. Prerequisite: Open only to students in the University Honors Program or by consent of department. LEC.

PHIL 177. First Year Seminar: ______. 3 Hours. GE11 / U. A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Philosophy. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LAB.

PHIL 180. Introduction to Social and Political Philosophy. 3 Hours. HR AE51/GE3H / H. An introductory study, based primarily on classic philosophical texts, of such central issues as the justification of governmental authority, the social sources of power, the nature of a just distribution of social resources, competing conceptions of human nature, and the proper limits of governmental interference with individual liberty. LEC.

PHIL 181. Introduction to Social and Political Philosophy, Honors. 3 Hours. HR AE51/GE3H / H. An introductory study, based primarily on classic philosophical texts, of such central issues as the justification of governmental authority, the social sources of power, the nature of a just distribution of social resources, competing conceptions of human nature, and the proper limits of governmental interference with individual liberty. Prerequisite: Open only to students in the University Honors Program or by consent of department. LEC.
PHIL 200. Study Abroad Topics in Philosophy: ______. 1-6 Hours. H.
This course is designed for the study of special topics in Philosophy. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

PHIL 310. Introduction to Symbolic Logic. 3 Hours. GE11/GE3H / H.
An introduction to the theory and practice of elementary symbolic logic. Special emphasis will be placed upon the logical analysis of mathematical proof and upon the proof of the consistency of elementary logic. LEC.

PHIL 320. Philosophical Issues in the Life Sciences. 3 Hours. HR AE51/GE3H / H.
A philosophical analysis of theoretical and ethical issues that arise in the practice of the life sciences. Discusses the conceptual foundation of the life sciences—evolutionary theory and genetics. Critically explores the use of statistical and non-human-animal models. Examines ethical issues including problems that arise in human and other animal experimentation, obligations to the environment, proper use of patents, and conflicts in professional duties. LEC.

PHIL 350. Philosophical Issues in Religion. 3 Hours. GE3H / H.
This course will consider, from a philosophical perspective, some of the problems in religion which arise in the development of “Natural Theology” broadly conceived. (Same as REL 380.) LEC.

PHIL 360. Moral Issues in Business. 3 Hours. AE51 / H.
After a brief survey of techniques of moral argument and analysis, particular moral issues related to business will be discussed. These will include such topics as advertising, conflict of interest, personal and corporate responsibility, codes of conduct, private property, strikes, just wage, and the tension between moral ideals and business pressures. LEC.

PHIL 365. Moral Issues in the Professions. 3 Hours. H.
An analysis of the nature and justification of standards of professional conduct. Issues of professional behavior that concern more than one profession such as fidelity to a client’s interests, candor, confidentiality, obligations to human research subjects, obligations to uphold professional standards, professional strikes, and affirmative action will be discussed. LEC.

PHIL 368. Moral Issues in Sports. 3 Hours. H.
This course is a philosophical investigation of the nature and value of sports. Provides students with an overview of ethical theory and considers principled answers to questions about the values of sports and about how those values can be sustained or demeaned. Students debate a variety of live controversies in sports today such as drugs, cheating, sexism, racism, the role of sports in educational institutions, Title IX, commercialization, and violence. LEC.

PHIL 370. Moral Issues in Medicine. 3 Hours. H.
After a brief survey of techniques of moral argument and analysis, particular moral issues related to medicine will be discussed. The justification and limits of some rules of professional conduct that deal with such matters as confidentiality, truth-telling, and protection of medical research subjects will be considered. Issues relating to death and dying in medicine such as abortion, euthanasia, and the refusal of life-saving medical therapy also will be discussed. LEC.

PHIL 375. Moral Issues in Computer Technology. 3 Hours. AE51 / H.
After surveying the nature of ethics and morality and learning some standard techniques of moral argumentation, we shall examine such topics as: property and ownership rights in computer programs and software; privacy in computer entry and records; responsibility for computer use and failure; the “big brother” syndrome made possible by extensive personal data banks; censorship and the world-wide web; computer illiteracy and social displacement; and ethical limits to computer research. Prerequisite: EECS 168 or permission of instructor. LEC.

PHIL 380. Environmental Ethics. 3 Hours. AE51 / H.
After a brief survey of techniques of moral argument and analysis, particular moral issues related to the environment will be discussed. These will include such topics (one of which may be dealt with in depth) as animal rights, rights of future generations, wilderness preservation, population control, endangered species, and economics and public policy. Prerequisite: EVRN 148 or consent of instructor. LEC.

PHIL 381. Feminism and Philosophy. 3 Hours. AE41/GE3H / H.
An examination of topics of philosophical interest that are important in the feminist movement such as the nature of sexism, the concept of sexual equality, the ethics of sexual behavior, the nature of love, feminist analyses of the value of marriage and family, the ethics of abortion, and justifications for preferential treatment of women. (Same as WGSS 381.) LEC.

PHIL 384. Ancient Philosophy. 3 Hours. HR GE3H / H.
A survey of the thought of the principal philosophers of ancient Greece, with emphasis on the pre-Socratics, Plato, and Aristotle. LEC.

PHIL 386. Modern Philosophy from Descartes to Kant. 3 Hours. HR GE3H / H.
A survey of the writings of such principal philosophers of the modern period as Descartes, Spinoza, Leibniz, Hobbes, Locke, Berkeley, Hume, and Kant. LEC.

PHIL 388. Analytic Philosophy: Frege to Quine. 3 Hours. H.
An introduction to the principal figures in the philosophical tradition that forms the background to contemporary investigations in analytic philosophy of language. Particular attention will be paid to Frege, Russell, Wittgenstein, and Quine. Prerequisite: PHIL 310 or equivalent, or PHIL 310 may be taken concurrently. LEC.

PHIL 418. Introduction to Cognitive Science. 3 Hours. S.
Examines the data and methodologies of the disciplines that comprise Cognitive Science, an inter-disciplinary approach to studying the mind and brain. Topics may include: consciousness, artificial intelligence, linguistics, education and instruction, neural networks, philosophy, psychology, anthropology, evolutionary theory, cognitive neuroscience, human-computer interaction, and robotics. (Same as LING 418, PSYC 418, and SPLH 418.) Prerequisite: Consent of instructor. LEC.

PHIL 499. Senior Essay. 3 Hours. AE61 / H.
This course is required, in addition to regular major requirements, of those students wishing to work for departmental honors in Philosophy. Students wishing to enroll should first speak with the departmental adviser for majors. Prerequisite: Open to senior majors in Philosophy by consent of instructor. IND.

PHIL 500. Studies in Philosophy: ______. 1-6 Hours. H.
(Topic, instructor, and specific prerequisite to be announced in Schedule of Classes.) A study of particular philosophical problems or thinkers not covered by other courses. The course may be offered concurrently by different instructors under different subtitles, and may, with the consent of the chair, be taken more than once if content varies. LEC.

PHIL 504. Philosophy of Sex and Love. 3 Hours. H.
A discussion of philosophical issues such as the relation between love, autonomy, and friendship; heterosexual and homosexual relationships; marriage and adultery; rape and sexual harassment; prostitution; and pornography. LEC.

PHIL 506. Chinese Thought. 3 Hours. NW AE42/GE3H / H/W.
A survey of the principal modes of Chinese thought from their origins through the imperial period. Not open to students with credit in EALC 132.
PHIL 508. Early Greek Philosophy. 3 Hours. H/W.
A study of the doctrines of Greek philosophy before Plato. Emphasis on
the Pre-Socratic philosophers, with some attention paid to the Sophists
and the Hippocratic corpus. (Same as GRK 508.) Prerequisite: PHIL
384, or GRK 301, or GRK 302, or GRK 303, or GRK 310, or GRK 312, or
permission of instructor. LEC.

PHIL 555. Justice and Economic Systems. 3 Hours. H.
An examination of important representative theories of the justness of
an economic system, with particular attention paid to such institutions
as private property, a market economy, means and relationships of
production, and principles of distribution to individuals. The theorists
under consideration include Locke, Adam Smith, Marx and Engels,
contemporary utilitarians, Rawls, and Nozick. Prerequisite: A course in
ethics or an introductory course in economics or in business. LEC.

PHIL 557. Kant. 3 Hours. H.
A survey of the major works of Immanuel Kant, with attention to his critical
method and its application to issues in theoretical philosophy, practical
philosophy, aesthetics, or the philosophy of history. Prerequisite: PHIL
386. LEC.

PHIL 560. Nineteenth Century Philosophy. 3 Hours. H.
The development of philosophy in the 19th century. Special attention will
be paid to such major figures as Hegel, Kierkegaard, Marx, Nietzsche,
and Mill. Prerequisite: PHIL 386. LEC.

PHIL 562. Kierkegaard. 3 Hours. H.
A study of the thought of Soren Kierkegaard through examination of
some of his major writings. Some attention is given to his influence on the
development of existentialist philosophies. Prerequisite: PHIL 384 or PHIL
386. LEC.

PHIL 570. Nietzsche. 3 Hours. H.
A study of Nietzsche’s major writings and ideas, with some attention to his
philosophical influence. Prerequisite: PHIL 384 or PHIL 386 or permission
of instructor. LEC.

PHIL 580. Marxism. 3 Hours. H/W.
A philosophical study of the classical texts of Marxism and of their
contemporary development. Prerequisite: A course in philosophy or a
course in political science. LEC.

PHIL 582. Existentialism. 3 Hours. H/W.
A study of the main themes and leading philosophers of the existentialist
movement. Prerequisite: Two courses in philosophy. LEC.

PHIL 590. Phenomenology. 3 Hours. H.
A study of the main themes and leading philosophers of the
phenomenological movement. Prerequisite: PHIL 386. LEC.

PHIL 592. Contemporary Continental Philosophy. 3 Hours. H.
A study of selected topics in 20th century European philosophy, such as
hermeneutics, critical theory, and poststructuralism. Figures to be studied
could include Heidegger, Gadamer, Adorno, Habermas, and Foucault.
Prerequisite: PHIL 386. LEC.

PHIL 600. Readings in Philosophy: _____. 1-6 Hours. H.
Individual reading on topics not covered in course work. Prerequisite:
Consent of instructor. IND.

PHIL 605. The Philosophy of Plato. 3 Hours. H.
A survey of the major works of Plato, with attention both to Plato’s
distinctive arguments and positions in the major areas of philosophy
and to the distinctive literary form in which Plato presents his thinking.
Prerequisite: PHIL 384. LEC.

PHIL 607. The Philosophy of Aristotle. 3 Hours. H.
A survey of the major works of Aristotle, with the aim of understanding
Aristotle’s distinctive formulations of central philosophical questions,
the arguments he presents for his answers to those questions, and the
systematic interconnections between his positions in the different areas of
philosophy. Prerequisite: PHIL 384. LEC.

PHIL 608. Hellenistic Philosophy. 3 Hours. H.
Survey of Stoicism, Epicureanism, and Scepticism from their beginnings
through the second century AD. Prerequisite: PHIL 384 and another
course in philosophy. LEC.

PHIL 610. Symbolic Logic. 3 Hours. H.
Propositional calculus, predicate calculus, consistency, decidability of
formal systems, the paradoxes and number concept will be covered. LEC.

PHIL 611. Topics in Symbolic Logic: _____. 1-3 Hours. H.
This course is a workshop in any of a variety of topics in symbolic logic of
special importance to contemporary analytic philosophy, such as modal
logic, tense logic, axiomatic set theory, Goedel’s theorems, model theory,
etc. May be repeated for credit as topics vary. Prerequisite: PHIL 310.
LEC.

PHIL 620. Philosophy of Natural Science. 3 Hours. H.
An examination of conceptual and foundational issues in the natural
sciences. Topics may include the methodology of science (the nature and
status of laws, the precise way in which experiment contributes to theory)
and puzzles concerning the content of science (the status of space and
time, the problematic nature of quantum mechanics). Prerequisite: PHIL
310 or PHIL 610, or permission of instructor. LEC.

PHIL 622. Philosophy of Social Science. 3 Hours. H.
A critical examination of the methods, concepts, and practices of the
social sciences. Topics to be considered may include: theories of
explanation, methodological individualism vs. holism, objectivity, the role
of rationality, myth and the unconscious in the explanation of behavior,
and the value neutrality of science. Prerequisite: One previous course in
philosophy, or permission of instructor. LEC.

PHIL 628. Philosophy of Logic. 3 Hours. H.
A systematic treatment of logical theory. Different types of logic will
be studied along with their philosophical assumptions, motivations,
implications, and uses. Prerequisite: PHIL 310 or PHIL 610. LEC.

PHIL 630. Philosophy of Mathematics. 3 Hours. H.
An examination of varying conceptions of the role and status of
mathematical arguments. Topics may include realism/anti-realism,
the consequences of Goedel’s Incompleteness Theorems, the role of
mathematics in the sciences, and an examination of such historical
thinkers as Plato, Frege, Russell, Wittgenstein, Goedel, and Hilbert.
Prerequisite: PHIL 310 or PHIL 610, or permission of instructor. LEC.

PHIL 638. Philosophy of Language. 3 Hours. AE61 / H.
An examination of the nature of language using the methods of analytic
philosophy. Topics may include meaning, truth, reference, language
and thought, and the nature of linguistic rules. Prerequisite: PHIL 388 or
permission of instructor. LEC.

PHIL 648. Theory of Knowledge. 3 Hours. AE61 / H.
An examination of the nature of knowledge. Topics may include the
concept of knowledge, knowledge of the external world, induction,
theories of justification, and scientific knowledge. Prerequisite: PHIL
384 and PHIL 386, PHIL 388 (which may be taken concurrently), or
permission of instructor. LEC.
PHIL 650. Metaphysics. 3 Hours. AE61 / H.
An examination of some of the central issues in metaphysics. Topics may include causation, the mind-body problem, free will and determinism, modality, natural kinds, the nature of properties, and personal identity. Prerequisite: PHIL 384 and PHIL 386, PHIL 388 (which may be taken concurrently), or permission of instructor. LEC.

PHIL 654. Philosophy of Mind. 3 Hours. AE61 / H.
An examination of the nature of mind using the methods of analytic philosophy. Topics may include consciousness, perception, propositional attitudes, thought and language, action and intention, mind and body, the prospects for scientific psychology, and personal identity. Prerequisite: PHIL 388 or permission of instructor. LEC.

PHIL 662. Aesthetics. 3 Hours. H.
A study of some of the central themes and problems in aesthetics, such as the beautiful and the sublime in nature and the arts. Prerequisite: Two courses in philosophy or graduate standing. LEC.

PHIL 666. Rational Choice Theory. 3 Hours. H.
This course is an introduction to the philosophical issues surrounding individual decision theory, game theory, and social choice theory. This includes issues of scientific theory selection, the nature of preference, the uses of games to model social interaction, and the ethical and political implications of Arrow’s impossibility theorem. Formal techniques of modeling and proof, akin to those used in logic and mathematics, will be used in much of the course. Prerequisite: Two courses in economics, a philosophy course numbered 500 or above, or consent of instructor. LEC.

PHIL 668. Political Philosophy. 3 Hours. H.
A systematic analysis of the concepts of politics, with reference to representative political theories. Prerequisite: A course in philosophy and a course in political science. LEC.

PHIL 670. Contemporary Ethical Theory. 3 Hours. AE51 / H.
An examination of some major moral philosophers and some important issues in ethical theory since the beginning of the twentieth century. Topics covered typically include intuitionism, emotivism, utilitarianism, virtue ethics, and the relationship between morality and rationality. Prerequisite: PHIL 160 or PHIL 161 or two courses in philosophy. LEC.

PHIL 671. Feminist Theories in Ethics. 3 Hours. H.
This course addresses the role (if any) that gender plays in constructing ethical theories. Topics include the impact of culture, affect, and the body on our understanding of gender differences and the importance of these differences for ethics. Prerequisite: PHIL 160 or PHIL 161, or two previous philosophy courses. LEC.

PHIL 672. History of Ethics. 3 Hours. AE51 / H.
An interpretive and critical examination of central texts in the history of moral philosophy, which may include works by Aristotle, Hume, Kant, and J.S. Mill. Prerequisite: PHIL 160 or PHIL 161 or two previous philosophy courses. LEC.

PHIL 674. Philosophy of Law. 3 Hours. H.
An examination of the concept of law and of legal reasoning. In addition, the course may consider such topics as natural law, legal excuses, the relations between law and morality, civil disobedience, civil liberties, the concept of property. Prerequisite: Two courses in philosophy or one course in philosophy and one course in law or consent of instructor. LEC.

PHIL 676. Medical Ethics: Life and Death Issues. 3 Hours. AE51 / H.
After a brief survey of techniques of moral argument and analysis especially as they pertain to the moral impermissibility of murder, particular moral and conceptual issues relating to death and dying in medical contexts will be addressed. Topics such as abortion, infanticide, suicide, euthanasia, the definition of death, and the right to refuse life-saving medical therapy will be included. Prerequisite: Two courses in biology or consent of instructor. LEC.

PHIL 677. Medical Ethics: Professional Responsibilities. 3 Hours. H.
After a brief survey of techniques of moral argument and analysis, particular moral issues related to the obligations of health care professionals and the rights of patients will be discussed. These will include such matters as confidentiality, truth-telling, informed consent, the ethics of research on human subjects, psychosurgery, the rights of the mentally ill, and the rights of the mentally retarded. Prerequisite: Two courses in biology or consent of instructor. LEC.

PHIL 684. Main Currents of Russian Thought I. 3 Hours. H/W.
A study of philosophical, theological and literary monuments designed to acquaint the student with the main cultural forces that have shaped Russian thought and manners. From the origins to Napoleonic times. (Same as SLAV 684.) LEC.

PHIL 686. Main Currents of Russian Thought II. 3 Hours. H/W.
A continuation of SLAV 684 from the age of Pushkin to the present. (Same as SLAV 686.) LEC.

PHIL 800. Tutorial. 3 Hours.
Intensive supervised training in and application of the techniques of research. Required of every graduate student seeking an advanced degree in the first or second semester of enrollment. Passing this tutorial constitutes partial fulfillment of the Ph.D. RSRS requirements. Consent of instructor required for repeating the course. Prerequisite: Graduate standing. RSH.

PHIL 805. Plato. 3 Hours.
Prerequisite: PHIL 508 or PHIL 605 or PHIL 607 or PHIL 608 or permission of instructor. LEC.

PHIL 807. Aristotle. 3 Hours.
Prerequisite: PHIL 508 or PHIL 605 or PHIL 607 or PHIL 608 or permission of instructor. LEC.

PHIL 820. Topics in the History of Philosophy: ______. 3 Hours.
This course may be offered by different instructors under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic, instructor, and specific prerequisites to be announced in the Schedule of Classes. Prerequisite: 500-600 level course as specified or permission of instructor. LEC.

PHIL 824. Hume. 3 Hours.
Prerequisite: PHIL 648 or PHIL 650 or PHIL 654 or permission of instructor. LEC.

PHIL 828. Kant. 3 Hours.
Prerequisite: PHIL 648 or PHIL 650 or PHIL 654 or permission of instructor. LEC.

PHIL 831. Hegel. 3 Hours.
Prerequisite: PHIL 560 or 500-600 level course as specified or permission of instructor. LEC.

PHIL 833. Nietzsche. 3 Hours.
A study of the philosophy of Friedrich Nietzsche. Prerequisite: PHIL 560 or PHIL 570 or permission of instructor. LEC.

PHIL 835. Frege. 3 Hours.
Gottlob Frege was the founder of the analytic movement in philosophy, having done seminal work in logic, the philosophy of language, and the philosophy of mathematics. This course will focus on his primary texts as well as his influence on present-day studies. Prerequisite: PHIL 628 or PHIL 630 or PHIL 638 or permission of instructor. LEC.
PHIL 843. Heidegger. 3 Hours.
Prerequisite: PHIL 560 or PHIL 562 or PHIL 570 or PHIL 582 or PHIL 590 or PHIL 592 or permission of instructor. LEC.

PHIL 848. Wittgenstein. 3 Hours.
Prerequisite: PHIL 638 or PHIL 650 or PHIL 654 or permission of instructor. LEC.

PHIL 850. Topics in Recent Philosophy: ______. 3 Hours.
This course may be offered by different instructors under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic, instructor, and specific prerequisite to be announced in Schedule of Classes. Prerequisite: 500-600 level as specified or permission of instructor. LEC.

PHIL 852. Quine. 3 Hours.
A systematic study of the major work of W. V. Quine and its influence on subsequent analytic philosophy. Topics will include Quine’s theory of meaning, philosophical logic, and philosophy of science. Prerequisite: PHIL 638 or PHIL 648 or PHIL 650 or PHIL 654 or permission of instructor. LEC.

PHIL 855. Davidson. 3 Hours.
An examination of Donald Davidson’s seminal work in philosophy of language and philosophy of mind. Among the topics to be considered will be meaning, truth, interpretation, action, and propositional attitudes. Prerequisite: PHIL 638 or PHIL 654 or permission of instructor. LEC.

PHIL 860. Topics in Philosophy of Science: ______. 3 Hours.
This course may be offered under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic and instructor and specific prerequisite to be announced in the Schedule of Classes. Prerequisite: PHIL 620 or PHIL 622 or PHIL 648 or PHIL 650 or permission of instructor. LEC.

PHIL 862. Topics in Logic: ______. 3 Hours.
This course may be offered under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic and instructor and specific prerequisite to be announced in the Schedule of Classes. Prerequisite: PHIL 610 or PHIL 628 or PHIL 630 or permission of instructor. LEC.

PHIL 868. Topics in Philosophy of Language: ______. 3 Hours.
This course may be offered under different subtitles and may be taken more than once if the subject matter varies sufficiently. Prerequisite: PHIL 638 or permission of instructor. LEC.

PHIL 870. Topics in Metaphysics: ______. 3 Hours.
This course may be offered under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic and instructor and specific prerequisite to be announced in the Schedule of Classes. Prerequisite: PHIL 650 or permission of instructor. LEC.

PHIL 872. Topics in Theory of Knowledge: ______. 3 Hours.
This course may be offered under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic and instructor and specific prerequisite to be announced in the Schedule of Classes. Prerequisite: PHIL 648 or permission of instructor. LEC.

PHIL 877. Topics in Philosophy of Mind: ______. 3 Hours.
This course may be offered under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic and instructor and specific prerequisite to be announced in the Schedule of Classes. Prerequisite: PHIL 654 or permission of instructor. LEC.

PHIL 880. Topics in Ethics: ______. 3 Hours.
This course may be offered under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic and instructor and specific prerequisite to be announced in the Schedule of Classes. Prerequisite: PHIL 670 or PHIL 672 or permission of instructor. LEC.

PHIL 884. Topics in Social and Political Philosophy: ______. 3 Hours.
This course may be offered under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topic and instructor and specific prerequisite to be announced in the Schedule of Classes. Prerequisite: PHIL 555 or PHIL 666 or PHIL 668 or PHIL 674 or permission of instructor. LEC.

PHIL 885. Topics in Law and Philosophy. 3 Hours.
Explores various topics at the intersection of law and philosophy. Content varies but may include: What is freedom and what role should government play in a free society? What is equality and what is the best way to achieve it? What is the relationship between law and social justice? What is the source and value of human rights? Should social and economic rights be legally guaranteed? How should government redress historical injustices such as slavery, apartheid, and the Holocaust? Students must complete a substantial seminar paper. (Same as LAW 962.) LEC.

PHIL 886. Topics in Applied Ethics: ______. 3 Hours.
This course may be offered under different subtitles, such as professional ethics or some issue in business ethics (e.g., corporate responsibility) or in medical ethics (e.g., the definition of death); it may be taken more than once if the subject matter varies sufficiently. Topic, instructor, and specific prerequisite to be announced in Schedule of Classes. Prerequisite: PHIL 670 or PHIL 672 or 500-600 level course as specified or permission of instructor. LEC.

PHIL 888. Topics in the Philosophy of the Social Sciences: ______. 3 Hours.
This course may be offered under different subtitles, such as philosophy of a particular social science (e.g., economics, psychology) or a particular issue in the social sciences (e.g., ideology, reductionism), and may be taken more than once if the subject matter varies sufficiently. Topic and instructor and specific prerequisite to be announced in the Schedule of Classes. Prerequisite: PHIL 622 or permission of instructor. LEC.

PHIL 890. Topics in Continental Philosophy: ______. 3 Hours.
This course may be offered under different subtitles, and may be taken more than once if the subject matter varies sufficiently. Topics, instructor, and specific prerequisites to be announced in the Schedule of Classes. LEC.

PHIL 899. Master’s Thesis. 1-6 Hours.
Six hours of credit will be awarded upon completion of the master’s thesis, but no more than six hours of credit may be obtained in this course altogether. Graded on a satisfactory/unsatisfactory basis. THE.

PHIL 900. Research in Philosophy: ______. 1-3 Hours.
Intensive research in philosophy. This course may be taken through individual arrangement, or in connection with small research seminars which are offered occasionally. Students may only enroll for three hours in any given semester. May be repeated if content varies significantly. Prerequisite: Twelve hours of graduate work. RSH.

PHIL 901. Ph.D. Tutorial. 3 Hours.
Independent research on any topic that a graduate student and a faculty member shall agree on. It shall result in a tightly focused 20-30 page paper. The student’s written work will be repeatedly evaluated over the semester by the director, and the final product must be defended in an oral examination conducted by a three-member faculty committee (including the director). Prerequisite: Students must be admitted to the Ph.D. program and have successfully completed the Ph.D. core courses requirement. RSH.
PHIL 999. Dissertation. 1-12 Hours.
This course may be taken more than once, but not for more than twelve hours of credit in any one semester. Graded on a satisfactory/unsatisfactory basis. THE.

Bachelor of Arts and Bachelor of General Studies in Philosophy

Why study philosophy?
Because philosophy teaches you how to think about all aspects of your life and the world around you.

Undergraduate Admission

Admission to KU
All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

First- and Second-Year Preparation

Although majors are not required to take courses in philosophy in their first 2 years, the department recommends that they do so. Prospective majors are encouraged to begin with one of the 100-level courses. These courses provide introductions to broad areas of philosophy, and students may apply one 100-level course toward the major requirements. PHIL 310, PHIL 384, PHIL 386, and PHIL 388 are required prerequisites for upper-division work and should be taken early. Prospective majors should consult the director of undergraduate studies early to plan course work.

Requirements for the B.A. or B.G.S. Major

Philosophy Major Core Knowledge and Skills (6)
Majors must complete a course in each of the following areas:

- Ancient Philosophy. Satisfied by:
  - PHIL 384 | Ancient Philosophy | 3

Modern Philosophy from Descartes to Kant. Satisfied by:

- PHIL 386 | Modern Philosophy from Descartes to Kant | 3

Philosophy Major Required Electives (15)
Symbolic Logic. Satisfied by one of the following:

- PHIL 310 | Introduction to Symbolic Logic | 3
- or PHIL 610 | Symbolic Logic | 3

Value Theory. Satisfied by completing one of the following courses:

- PHIL 555 | Justice and Economic Systems | 3
- PHIL 662 | Aesthetics | 3
- PHIL 668 | Political Philosophy | 3
- PHIL 670 | Contemporary Ethical Theory | 3
- PHIL 672 | History of Ethics | 3

Metaphysics / Theory of Knowledge / Philosophy of Language / Philosophy of Mind. Satisfied by completing one of the following courses:

- PHIL 638 | Philosophy of Language | 3
- PHIL 648 | Theory of Knowledge | 3
- PHIL 650 | Metaphysics | 3
- PHIL 654 | Philosophy of Mind | 3

19th/20th Century Philosophy. Satisfied by:

- PHIL 388 | Analytic Philosophy: Frege to Quine | 3
- 1 course from those numbered PHIL 560 - PHIL 592 | 3

Additional Electives (6)
Satisfied by completing 6 additional hours of PHIL courses, 3 hours of which must be at the at the 500-level or above.

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and GPA minimum standards:

Major Hours
Satisfied by 27 hours of major courses, or 33 hours required if completing departmental honors course PHIL 499.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior (300+) Hours
Satisfied by a minimum of 24 hours from junior/senior courses (300+) in the major.

Major Junior/Senior (500+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (500+) in the major.

Major Junior/Senior (300+) Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/ Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Graduation Plan

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please consult the department for details.
Departmental Honors
To graduate with departmental honors, undergraduates must take 6 hours in philosophy in addition to the 27 hours required for the B.A. or B.G.S., for a total of 33 hours. The 6 additional hours include:

- An additional course numbered 500 or above for a total of at least 15 hours at that level, and
- PHIL 499 Senior Essay.

A committee of 3 faculty members reads the finished essay, gives the candidate an oral examination over the essay, and determines whether it warrants honors. This committee must consist of the instructor in PHIL 499, the departmental honors coordinator, and a third member of the philosophy faculty.

Honors are not awarded to anyone who receives a grade lower than B in PHIL 499, whose final grade-point average in philosophy is lower than 3.5, or whose final KU or cumulative grade-point average is lower than 3.25. To be eligible for departmental honors, students must file a declaration of intent with the departmental honors coordinator no later than enrollment for the final undergraduate semester.

The most important element in departmental honors is the honors essay. Once a student has determined the area in which he or she wishes to work, he or she should arrange to write the essay under the guidance of a faculty member with appropriate expertise. Ideally, this work should be completed during a single semester. However, students often find it difficult to complete the essay in one semester. Therefore, we recommend that the essay be begun in the semester before the one in which the student intends to graduate (typically, in the fall semester of the senior year).

The honors essay should be intermediate between a master’s thesis and a term paper. It should normally be at least 20 pages (6,000 words) long. It should go beyond mere exposition, whether by criticism or by comparison of different works. Interpretations of rare or difficult texts may occasionally be accepted.

Minor in Philosophy

Why study philosophy?
Because philosophy teaches you how to think about all aspects of your life and the world around you.

Requirements for the Minor
Students selecting this option must complete at least 6 courses (18 hours) of philosophy elective courses

PHIL 384 and especially PHIL 386 are strongly recommended.

Minor Hours and Minor GPA
While completing all required courses (above), minors must also meet each of the following hour and GPA minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 junior/senior courses (300+) hours of KU resident credit in the minor.

Minor Junior/Senior (300+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses in the minor. GPA calculations include all departmental courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Master of Arts in Philosophy
The philosophy department at the University of Kansas comprises of 13 faculty members and about 35 graduate students. The department has traditionally fostered teaching and research that reflects a number of different philosophical orientations and fields of philosophy. Courses are taught on a broad range of topics. Master’s theses and dissertations have had a similarly wide range of themes. The department’s chief strengths are in history of philosophy (ancient, modern, 19th century), ethics, social-political philosophy, and analytic philosophy, including philosophy of language, philosophy of mind, and metaphysics. The department is in Wescoe Hall, the main humanities building.

The M.A. degree requires 30 hours of graduate course work, including a first-year graduate tutorial and at least 12 additional hours of seminar and/or thesis work. M.A. candidates must pass a comprehensive examination over their course work or must write and successfully defend an M.A. thesis.

Admission to Graduate Studies
An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Admission to the M.A. in Philosophy
Apply to the graduate program via the Office of Graduate Studies online application system (http://www.graduate.ku.edu).

In addition to the general admission requirements (http://www.graduate.ku.edu/application-process) from the Office of Graduate Studies, applicants are expected to have taken the following seven courses or their equivalents as preparation for graduate work:

1. symbolic logic
2. history of ancient philosophy
3. history of modern philosophy
4. history of 20th-century analytic philosophy (roughly from Frege to Quine)
5. history of 19th/20th-century Continental philosophy
Fast-Track M.A. (for Undergraduate Majors in Philosophy at KU)

The fast-track M.A. provides excellent KU undergraduates in Philosophy an opportunity to complete an MA in Philosophy within a year of completing the bachelor’s degree. Talented students who are planning to continue their studies at the doctoral level or to continue to law school will receive a competitive advantage by acquiring a graduate degree in less time than a traditional terminal M.A.

Admission Requirements

1. All requirements for a bachelor’s in philosophy from KU complete or in progress
2. GPA of 3.5 in philosophy
3. GRE not required, though the department will consider GRE scores as part of an application

Degree Requirements

Students must complete all of the following requirements for the Fast-Track M.A. within one calendar year post-bachelor’s:

1. 24 credit hours of graduate coursework (500-level or above) in philosophy post-bachelor’s with a grade of B or higher. At least 15 of these hours must be in courses numbered 800 or above. Students must complete two courses at the 500-level or above (or the equivalent) in each of these areas: history of philosophy, metaphysics and epistemology (broadly construed), and value theory. Courses taken during the undergraduate career may be counted toward these area requirements, but such work does not count toward the overall 24-hour graduate credit requirement unless the student took this course work for graduate credit and it has department approval.
2. PHIL 800 Tutorial with a grade of B or higher
3. An M.A. exam consisting in the oral defense of a seminar paper of the student’s choosing

Time Limits and Other Restrictions

Students must maintain a minimum GPA of 3.5 in the first semester of graduate study in order to maintain eligibility for the program. They will be subject to a formal mid-year review to ensure satisfactory progress towards completion of the degree.

A student who receives a bachelor’s degree in Spring or Summer begins the M.A. portion of the degree that Fall. The student must then complete all requirements for the Fast-Track M.A. by the first day of classes the following Fall. For example, if a student receives the bachelor’s in Spring 2014 and is accepted into this M.A. track, that student begins the additional year of coursework in Fall 2014 and must complete all requirements for the Fast-Track M.A. by the first day of classes in Fall 2015. Similarly, a student who receives the bachelor’s in the Fall begins the M.A. portion of the degree in the Spring. The student must then complete all requirements for the Fast-Track M.A. by the first day of classes the following Spring.

If a student does not complete the Fast-Track M.A. requirements within one year post-bachelor’s, the student may petition the department for admission to the standard 30-hour M.A. track. In extraordinary circumstances, for example, serious illness, students may petition the department to remain in the 24-hour track.

Application Deadlines

Students who receive a bachelor’s from KU in Spring or Summer must have a completed application with all supplemental documentation by August 1. Priority consideration is guaranteed for students whose applications are complete by April 30. Students who receive a bachelor’s in Fall must have a completed application by November 30.

Students that submit an application by January 15 may be considered for funding in the form of a graduate fellowship.

Interested students are encouraged to contact the department Director of Graduate Studies, Dr. Thomas Tuozzo, ttsuozzo@ku.edu, as early as possible during their undergraduate studies.

M.A. Degree Requirements

The department offers thesis and non-thesis M.A. options. Both require:

1. 30 credit hours of graduate work in philosophy with a grade of B- or higher, with a GPA of at least 3.0 over all courses in philosophy. At least 15 of these hours must be in courses numbered 800 or above and, for the thesis option, may include up to 6 hours of PHIL 899 Master’s Thesis. Students must complete two courses at the 500 level or above (or the equivalent) in each of these areas: history of philosophy, metaphysics and epistemology (broadly construed), and value theory. Courses taken during the undergraduate career may be counted toward these area requirements, but such work does not count toward the overall 30-hour graduate credit requirement unless the student took this course work for graduate credit and it has department approval.
2. PHIL 800 Tutorial must be taken in the first year of study
3. A final examination:
   a. For the thesis option, the student must submit an acceptable thesis and pass a 2-part oral or written examination including 1 part covering the material of the M.A. program generally and a second part devoted to a defense of the thesis.
   b. For the non-thesis option, the student must pass an oral examination covering the material of the M.A. program. The non-thesis option final exam can be satisfied by Ph.D. students who successfully complete PHIL 901 Ph.D. Tutorial with a grade of B or higher.

Time Limits and Other Restrictions

Information on time limits may be found under Master’s Degree Requirements and Program Time Constraints in the Graduate Studies section of the online catalog. The rule for transferring credit toward the
M.A. appears under General Regulations in the Graduate Studies section of the online catalog.

**Juris Doctor and Master of Arts in Philosophy**

**Joint J.D.-M.A. Degree Program**

The joint degree program leading to the J.D. and the M.A. in philosophy develops a student’s understanding and appreciation of the converging disciplines of law and philosophy. The program combines into 3 years and 1 summer session the normal 3-year J.D. program offered by the School of Law and the 2-year M.A. in philosophy program offered by the Department of Philosophy in the College of Liberal Arts and Sciences. Students complete 81 credit hours in law and 21 credit hours in philosophy. Generally, students apply to the School of Law first, and then, if admitted, apply to the M.A. in Philosophy during the fall of their first year in the Law School. The J.D. and M.A. diplomas are then awarded concurrently after completion of joint degree program requirements.

**Admission to Graduate Studies**

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

**Admission to the Joint Program**

The program is open to those who have earned baccalaureate degrees from accredited colleges or universities and whose undergraduate academic records indicate that they have the capacity to complete the program. Applicants must meet the admission requirements and prerequisites of the School of Law and the Department of Philosophy. The only exception to this is that the Law School Admission Test (LSAT) is the only required entrance examination for such applicants (GRE is not required for either program). Students must apply and be admitted to each school separately. Generally, students apply to the School of Law first, and if admitted, apply later to the M.A. in Philosophy for a start date of the following Fall semester. A student who desires to enter the program while enrolled in the first year of the J.D. or M.A. in philosophy must consult and obtain approval from the School of Law, the Department of Philosophy, and the College of Liberal Arts and Sciences. No student may enter the combined program after completing more than 30 credit hours in the School of Law or 12 hours in the Department of Philosophy.

For information about applying to the Law School, see the school website (http://www.law.ku.edu/admissions). For information about applying to the M.A. program in Philosophy, please visit the graduate program page (https://ealc.drupal.ku.edu/gradadmission) of the Philosophy department website, or contact the Graduate Program Coordinator, Morgan Swartzlander, mswartz@ku.edu.

### Typical Enrollment Pattern for J.D./M.A. Program

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours</th>
<th>Law courses</th>
<th>Philosophy courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td></td>
<td>32</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>32</td>
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<tr>
<td>Year 2</td>
<td></td>
<td>22</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Year 3</td>
<td></td>
<td>22</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>31</td>
<td>11</td>
</tr>
</tbody>
</table>

Total Hours: 102

### Joint J.D./M.A. Degree Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law courses required of all J.D. candidates</td>
<td>44</td>
</tr>
<tr>
<td>Law courses required for joint degree candidates</td>
<td>9</td>
</tr>
<tr>
<td>Philosophy courses required for joint degree candidates</td>
<td>9</td>
</tr>
<tr>
<td>Additional law courses</td>
<td>28</td>
</tr>
<tr>
<td>Additional philosophy courses</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total minimum credit hours required (102)</strong></td>
<td>102</td>
</tr>
</tbody>
</table>

It is essential for the student to consult the director of graduate studies in philosophy and a representative of the School of Law about specific courses required or recommended for this program.

For additional information, see the School of Law (p. 760) and the Guidelines and Information for Graduate Students available from the Department of Philosophy (http://www.philosophy.ku.edu).

**Doctor of Philosophy in Philosophy**

The philosophy department at the University of Kansas comprises of 13 faculty members and about 35 graduate students. The department has traditionally fostered teaching and research that reflects a number of different philosophical orientations and fields of philosophy. Courses are taught on a broad range of topics. Master’s theses and dissertations have had a similarly wide range of themes. The department’s chief strengths are in history of philosophy (ancient, modern, 19th century), ethics, social-political philosophy, and analytic philosophy, including philosophy of language, philosophy of mind, and metaphysics. The department is in Wescoe Hall, the main humanities building.

The Ph.D. degree requires 39 hours of graduate course work, including a first-year graduate tutorial and a research tutorial. Ph.D. candidates also must satisfy the University’s Research Skills and Responsible Scholarship requirement, pass both a departmental examination over the research tutorial and an oral comprehensive examination, and write and
successfully defend a dissertation. The M.A./J.D. degree combines into 3 years and 1 summer session the programs for both degrees.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Admission to the Ph.D. in Philosophy

Apply to the graduate program via the Office of Graduate Studies online application system (http://www.graduate.ku.edu).

In addition to the general admission requirements (http://www.graduate.ku.edu/application-process) from the Office of Graduate Studies, applicants are expected to have taken the following seven courses or their equivalents as preparation for graduate work:

1. symbolic logic
2. history of ancient philosophy
3. history of modern philosophy
4. history of 20th-century analytic philosophy (roughly from Frege to Quine)
5. history of 19th/20th-century Continental philosophy
6. value theory
7. metaphysics/epistemology (broadly construed to include philosophy of language and philosophy of mind).

Students may be admitted without some of these courses, but they are expected to make up the deficiencies early in their graduate careers and outside of the minimum hours required for degree.

For additional information, including relevant deadlines and a list of required supplemental documentation to be submitted with the online application, please visit the graduate page of the Philosophy (http://www.philosophy.ku.edu) website, or contact the department Graduate Program Coordinator, Morgan Swartzlander, mswartz@ku.edu.

Ph.D. Degree Requirements

A student preparing for a doctorate in philosophy must meet general requirements and, before officially enrolling in PHIL 999 Dissertation, must satisfy these special requirements:

Complete at least 39 credit hours of graduate work in regular philosophy courses numbered 500 or above with grades in each course of at least B—and an overall grade-point average of at least B in all graduate philosophy courses. At least 24 of these hours must be at the 800 level or above (including PHIL 800 Tutorial and PHIL 901 Ph.D. Tutorial). Beyond the 39-hour requirement, additional hours in PHIL 999 Dissertation are required as appropriate in accordance with the rules of the Office of Graduate Studies and the Department.

1. Complete PHIL 800 Tutorial with a grade of B- or higher in the first year of enrollment.
2. Formal Philosophy Requirement: Complete PHIL 610 Symbolic Logic or PHIL 666 Rational Choice Theory with a grade of B- or higher.
3. Ph.D. Course Distribution Requirement:

   Metaphysics and Epistemology (6)

   Select two of the following:
   
   PHIL 620 Philosophy of Natural Science
   PHIL 622 Philosophy of Social Science
   PHIL 628 Philosophy of Logic
   PHIL 630 Philosophy of Mathematics
   PHIL 638 Philosophy of Language
   PHIL 648 Theory of Knowledge
   PHIL 650 Metaphysics
   PHIL 654 Philosophy of Mind
   PHIL 850 Topics in Recent Philosophy:
   PHIL 860 Topics in Philosophy of Science:
   PHIL 862 Topics in Logic:
   PHIL 868 Topics in Philosophy of Language:
   PHIL 870 Topics in Metaphysics:
   PHIL 872 Topics in Theory of Knowledge:
   PHIL 877 Topics in Philosophy of Mind:
   PHIL 888 Topics in the Philosophy of the Social Sciences:

   Value Theory (6)

   Select two of the following:
   
   PHIL 504 Philosophy of Sex and Love
   PHIL 555 Justice and Economic Systems
   PHIL 662 Aesthetics
   PHIL 668 Political Philosophy
   PHIL 670 Contemporary Ethical Theory
   PHIL 671 Feminist Theories in Ethics
   PHIL 672 History of Ethics
   PHIL 674 Philosophy of Law
   PHIL 676 Medical Ethics: Life and Death Issues
   PHIL 677 Medical Ethics: Professional Responsibilities
   PHIL 850 Topics in Recent Philosophy:
   PHIL 880 Topics in Ethics:
   PHIL 884 Topics in Social and Political Philosophy:

   PHIL 885 Topics in Law and Philosophy
   PHIL 886 Topics in Applied Ethics:

   Ancient Philosophy (3)

   Select one of the following:
   
   PHIL 508 Early Greek Philosophy
   PHIL 605 The Philosophy of Plato
   PHIL 607 The Philosophy of Aristotle
   PHIL 608 Hellenistic Philosophy
   PHIL 805 Plato
   PHIL 807 Aristotle
   PHIL 820 Topics in the History of Philosophy:

   Modern Philosophy (3)
Select one of the following: 3

PHIL 820  Topics in the History of Philosophy: _____
PHIL 824  Hume
PHIL 828  Kant

Nineteenth- and 20th-Century Philosophy (3)

Select one of the following: 3

PHIL 560  Nineteenth Century Philosophy
PHIL 562  Kierkegaard
PHIL 570  Nietzsche
PHIL 580  Marxism
PHIL 582  Existentialism
PHIL 590  Phenomenology
PHIL 592  Contemporary Continental Philosophy
PHIL 820  Topics in the History of Philosophy: _____
PHIL 831  Hegel
PHIL 835  Frege
PHIL 843  Heidegger
PHIL 848  Wittgenstein
PHIL 850  Topics in Recent Philosophy: _____
PHIL 852  Quine
PHIL 855  Davidson
PHIL 890  Topics in Continental Philosophy: _____
  (Topic, instructor, and specific prerequisites to be announced in the Schedule of Classes.)

4. **PHIL 901 Ph.D. Tutorial**: Students may not enroll in PHIL 901 before the third semester and normally should enroll in PHIL 901 no later than the sixth semester.

5. **Research Skills & Responsible Scholarship Requirement**. The University requires that every doctoral student have training in responsible scholarship and research skills pertinent to the field of research and appropriate to the doctoral level. This requirement must be met before taking the comprehensive oral exam. For Philosophy doctoral students, this requirement is met by the following:

- PHIL 800
- PHIL 901
- Demonstrated competence in an approved foreign language, OR completion of a faculty-approved course in a discipline related to the student’s research interests.

6. Pass the comprehensive oral examination for Ph.D. candidacy. This examination must be taken after all of the above requirements have been completed, or in the semester in which the requirements will be completed.

   After the oral comprehensive examination has been passed, the student must write a dissertation of substantial merit showing the planning, conduct, and result of original research and must pass a final oral examination and defense of the dissertation.

**Reduction of Credits**

University graduate credit policy (http://policy.ku.edu/graduate-studies/graduate-credit) does not allow for a direct transfer of credits toward the Ph.D.; however, the department’s requirement of 39 credit hours of acceptable graduate work for the Ph.D. may be reduced by departmental petition depending on the amount and quality of equivalent graduate work completed at another institution. At minimum, 24 hours of acceptable graduate work must be taken in the Department of Philosophy at KU.

**Department of Physics and Astronomy**

**Why study physics and astronomy?**

Because understanding the physical universe starts here.

**Undergraduate Programs**

The astronomy curriculum offers undergraduates a survey of modern astronomy and an introduction to physical science, gives science and engineering students an introduction to astronomy and astrophysics, and prepares students majoring in astronomy for graduate study in astronomy or related fields.

The physics curriculum includes course work for those who want a sound background in physics as part of their general education, for those who study physics as part of their training in other fields, and for those whose post-graduate plans include research or employment in physics or related fields.

**Courses for Nonmajors**

ASTR 191 is a survey of contemporary astronomy, taught at a level using basic mathematics; ASTR 391 offers an introduction to physical astronomy at a calculus-based level. PHSX 111 provides a general introduction to important physics topics and is taught at a level using basic algebra. The department offers two introductory physics sequences that include laboratory work. PHSX 114 and PHSX 115 cover the major fields of physics without calculus. PHSX 211 and PHSX 212, with labs PHSX 216 and PHSX 236, provide a calculus-based foundation in physics for students in physical science, engineering, and mathematics. PHSX 313 and the laboratory course, PHSX 316, provide an introduction to modern physics for majors in physics and some engineering and physical science programs.

Students in biological sciences, health sciences, physical sciences, mathematics, engineering, and prospective elementary and secondary teachers should see appropriate sections of this catalog and major advisors for guidance about required physics course work. Chemistry majors should note that PHSX 211 and PHSX 212 are prerequisites to advanced work in chemistry.

For programs in engineering physics (p. 625), see the School of Engineering section of the online catalog.

**Graduate Programs**

At the graduate level, the Department of Physics and Astronomy offers Master of Science and Doctor of Philosophy degrees in Physics and a Master of Science degree with a subspecialty in computational physics and astronomy.

Information about admission, requirements, and graduate programs is also on the Department of Physics & Astronomy web page.
Courses

ASTR 177. First Year Seminar: , 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Astronomy. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

ASTR 190. Astronomy and Civilization. 3 Hours. N.
A survey course that describes the interplay between the science of astronomy and cultural beliefs. It uses, among others, examples of how religious and philosophical tenets have enhanced or conflicted with scientific principles. Not for astronomy majors. LEC.

ASTR 191. Contemporary Astronomy. 3 Hours. NP GE3N / N.
The structure and evolution of the universe, from nearby planets to distant quasars, are examined. Topics include recent discoveries concerning planets, stars, galaxies, pulsars and black holes as well as their evolution, the structure of the universe today and how it will be in the future. The emphasis is descriptive rather than mathematical. Concurrent enrollment in ASTR 196 suggested, but not required. Prerequisite: One year each of high school algebra and geometry. LEC.

ASTR 196. Introductory Astronomy Laboratory. 1 Hour. U.
An introduction to astronomical observations and methods. Students have the opportunity to use the telescopes at the K.U. observatory. The course includes constellation recognition, finding celestial objects, and interpreting astronomical data. A companion course to ASTR 191 or ASTR 391. Counts as a laboratory science when preceded or accompanied by ASTR 191 or ASTR 391. Prerequisite or corequisite: ASTR 191 or ASTR 391. LAB.

ASTR 293. Astronomy Bizarre. 3 Hours. GE3N / N.
An exploration of physical phenomena found in astrophysical extremes. Topics may include the following: the most violent explosions in the Universe (supernovae and gamma ray bursts; the biggest collisions in nature (galaxy interactions; the densest and most bizarre forms of matter (white dwarfs, neutron stars); the strongest magnetic fields (magnetars, pulsars); the amazing range of exo-planetary properties; and the mysteries of black holes. Prerequisite: Eligibility for MATH 101. LEC.

ASTR 390. Undergraduate Problems. 1-3 Hours. AE61 / N.
Undergraduate observational or theoretical problems in astronomy. Maximum credit, six hours. Prerequisite: Permission of department. IND.

ASTR 391. Physical Astronomy, Honors. 3 Hours. NP GE12/GE3N / N.
An honors, calculus-based introduction to astronomy and astrophysics, required for astronomy majors. Components of the Universe - from planetary systems, stellar systems, large scale structure and cosmology - are examined to illuminate the physics principles which govern their evolution. Prerequisite: MATH 121, and either permission of instructor, or participation in the University Honors Program. LEC.

ASTR 394. The Quest for Extraterrestrial Life. 3 Hours. NP GE11 / N.
An introduction to the search for planets around other stars and for life in the universe beyond the earth. A discussion of the astronomical conditions under which life might form and the biological conditions of life formation and evolution. Methods of searching for extraterrestrial life. Prerequisite: An introductory course in biology, astronomy or geology. LEC.

ASTR 400. Topics in Astronomy: . 1-3 Hours. N.
A course on special topics in astronomy. Course may be repeated for different topics. Each section may have additional prerequisites to be determined by the instructor. LEC.

ASTR 503. Undergraduate Research. 1-4 Hours. AE61 / N.
This course is for students seeking to fulfill the undergraduate research requirement. Students are expected to participate in some area of ongoing research in the department, chosen with the help of their advisor. At the end of the term, students will present their results in a seminar to other students and faculty. (Same as EPHX 503 and PHSX 503.) Prerequisite: Junior/Senior standing in Astronomy, Engineering Physics, or Physics, or permission of instructor. IND.

ASTR 591. Stellar Astronomy. 3 Hours. N.
Fundamentals of stellar astronomy including astronomical optics and techniques, coordinate and time systems, stellar spectroscopy, properties of normal, binary and variable stars. Prerequisite: PHSX 212 and PHSX 236. An introductory astronomy course is desirable. LEC.

ASTR 592. Galactic and Extragalactic Astronomy. 3 Hours. N.
A study of stellar groups, the interstellar medium, galactic structure and dynamics, galaxies, and cosmology. Prerequisite: ASTR 591 or consent of instructor. LEC.

ASTR 596. Observational Astrophysics. 2 Hours. AE61 / N.
Students acquire practical experience with astronomical equipment and data reduction techniques used in research and educational contexts. ASTR 596, combined with an independent research experience, provides a pathway for students to demonstrate creativity and integration of background knowledge. Prerequisite or corequisite: ASTR 591. LEC.

ASTR 597. Analysis in Astrophysics. 1-3 Hours. AE61 / N.
Individual students work on specialized research problems in the field of observational or theoretical astrophysics. Maximum credit, six hours. Prerequisite: ASTR 592. IND.

ASTR 691. Astrophysics I. 3 Hours. N.
An introduction to radiation processes, thermal processes, and radiative transfer in stellar atmospheres and the interstellar medium. (Same as EPHX 691 and PHSX 691.) Prerequisite: PHSX 313 or consent of instructor. LEC.

ASTR 692. Astrophysics II. 3 Hours. N.
The formation and evolution of stars, nucleosynthesis of the elements, and the physical processes of high energy physics. Prerequisite: ASTR 691 or consent of instructor. LEC.

ASTR 791. Seminar in Astrophysics. 1-3 Hours.
Seminar designed to cover current topics in the physics of the Universe beyond the solar system. Content will vary. Graduate students engaged in or preparing for research may repeat enrollments in this course. Open to undergraduates with twelve hours of physics/astronomy courses numbered 500 or above, or consent of instructor. LEC.

ASTR 792. Topics in Advanced Astrophysics. 3 Hours.
This course will address one or more of the following advanced topics in astrophysics: high energy astrophysics, nuclear astrophysics, galactic and extragalactic astrophysics, space physics, cosmology, astrophysics, and the interstellar and intergalactic media (ISM/GM.) This course may be repeated for credit if topical content differs. (Same as PHSX 792.) Prerequisite: ASTR 692 or permission of instructor. LEC.

ASTR 795. Space Plasma Physics. 3 Hours.
The physics of fully ionized gases in magnetic fields and their application to interplanetary processes, planetary radiation belts, and the surface of the sun. The motion of charged particles in magnetic fields, magnetohydrodynamic waves, the solar wind and the magnetosphere. (Same as PHSX 795.) Prerequisite: PHSX 621. Corequisite: PHSX 631. LEC.
ASTR 815. Computational Physics and Astronomy. 3 Hours.
Advanced computer applications in physics and astronomy. General discussion and illustration of problem organization and solution by numerical and other methods with examples from plasma, space, solid state, elementary particle, and nuclear physics and astronomy. Students will design, write, validate, and document a computer program to solve a physical problem. (Same as PHSX 815 and CHEM 914.) Prerequisite: Six hours of computer science courses numbered 300 or above, and six hours of physics and/or astronomy courses numbered 300 or above. LEC.

ASTR 897. Seminar in Plasma and Space Physics. 1-3 Hours.
Graduate students engaged in or preparing for research may repeat enrollments in this course. The content will vary. (Same as PHSX 897.) LEC.

PHSX 111. Introductory Physics. 3 Hours. NP GE11/GE3N / N.
A one-semester survey of classical and modern physics, designed primarily for liberal arts students. Typical subjects include the laws of motion, gravity, electricity and magnetism, sound, light, quantum mechanics, atomic and subatomic physics. Subjects are treated mainly conceptually with some use of basic data. Prerequisite: Eligibility for MATH 104. LEC.

PHSX 112. Concepts in Physics, Honors. 3 Hours. NP GE3N / N.
A discussion of important concepts in physics. While basic concepts such as force, energy, and mass will be introduced as needed, the emphasis will be on an understanding and appreciation of contemporary science. Prerequisite: Eligibility for MATH 104 and participation in the University Honors Program or permission of instructor. LEC.

PHSX 114. College Physics I. 1-4 Hours. NP GE11/GE12/GE3N / N.
Principles and applications of mechanics, fluids, heat, thermodynamics, and sound waves. Three class hours and one laboratory per week. This course emphasizes the development of quantitative concepts and problem solving skills for students needing a broad background in physics as part of their preparation in other major programs, and for those who wish to meet the laboratory science requirement of the College. In special circumstances, permission to enroll in less than four hours may be obtained from the department. Not open to students with credit in PHSX 211 or PHSX 216 or PHSX 212 or PHSX 236. Prerequisite: MATH 104, or three and one-half years of college-preparatory mathematics including trigonometry and a score of 25 or higher on ACT mathematics. LEC.

PHSX 115. College Physics II. 1-4 Hours. N.
A continuation of PHSX 114. Principles and applications of electricity, magnetism, light, atomic physics, and nuclear physics. Three class hours and one laboratory per week. In special circumstances, permission to enroll in less than four hours may be obtained from the department. Not open to students with credit in PHSX 212 or PHSX 236. Prerequisite: PHSX 114. LEC.

PHSX 116. Introductory Physics Laboratory. 1 Hour. U.
A laboratory exploring classical and modern physics, designed primarily for liberal arts students. Experiments in motion gravity, electricity and magnetism, sound, light, atomic and subatomic physics are designed to teach physics concepts and basic laboratory techniques. One two-hour lab period per week. Counts as a laboratory science when preceded or accompanied by PHSX 111. Prerequisite: Eligibility for MATH 104. Corequisite: PHSX 111. LAB.

PHSX 150. Seminar in Physics, Astronomy and Engineering Physics. 0.5 Hours. N.
This course is intended for all students in physics, astronomy and engineering physics. Course content includes topics of current interest in all fields of physics and astronomy. LEC.

PHSX 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Physics. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

PHSX 201. Transition to General Physics. 1 Hour. N.
Classical mechanics and thermodynamics with calculus for students who have had a prior algebra-based course. Prerequisite: PHSX 114, either MATH 116 or 121, and permission of the department. LEC.

PHSX 210. General Physics I for Engineers. 3 Hours. GE11 / N.
Introduction to classical mechanics and thermodynamics designed for students in the School of Engineering. Students not admitted to the School of Engineering must receive permission from instructor. PHSX 210 and PHSX 211 cannot both be taken for credit. Students with credit in PHSX 114 can obtain only one hour of credit. Prerequisite: MATH 121 with a grade of C or better; courses in high school physics and/or chemistry recommended. LEC.

PHSX 211. General Physics I. 1-4 Hours. NP GE11/GE12/GE3N / N.
Introduction to classical mechanics and thermodynamics. Designed for students in engineering and physical science majors. In special circumstances, permission to enroll for fewer than four hours credit may be obtained from the department. Students with credit in PHSX 114 can obtain only one hour of credit. Prerequisite: MATH 116 or MATH 121; courses in high school physics and/or chemistry are recommended. LEC.

PHSX 212. General Physics II. 1-3 Hours. GE3N / N.
Study of electricity and magnetism, waves and sound. In special circumstances, permission to enroll for fewer than three hours credit may be obtained from the department. Students with credit in PHSX 115 can obtain only one hour of credit. Prerequisite: PHSX 211, PHSX 210 or PHSX 213. Corequisite: MATH 122. LEC.

PHSX 213. General Physics I Honors. 1-5 Hours. NP GE11/GE12/GE3N / N.
An honors section of PHSX 211 and PHSX 216. Credit for fewer than five hours requires permission of the department. Recommended for students with a strong math background who are either in the University Honors Program or intending to major in a physical science. Courses in high school physics and chemistry are strongly recommended. Prerequisite: MATH 121 and permission of instructor. LEC.

PHSX 214. General Physics II Honors. 1-4 Hours. N.
An honors section of PHSX 212 and PHSX 236. Credit for fewer than four hours requires permission of the department. Recommended for students with a strong math background who are either in the University Honors Program or intending to major in a physical science. Prerequisite: PHSX 216 together with either PHSX 211 or PHSX 210; or PHSX 213, and permission of instructor. Corequisite: MATH 122. LEC.

PHSX 216. General Physics I Laboratory. 1 Hour. GE11 / N.
Experiments in classical mechanics and thermodynamics. Counts as a laboratory science when accompanied by PHSX 210 or PHSX 211. Pre-or Corequisite: PHSX 210 or PHSX 211. LAB.

PHSX 236. General Physics II Laboratory. 1 Hour. N.
Experiments in electricity and magnetism, waves and sound. Pre-or Corequisite: PHSX 212. LAB.

PHSX 313. General Physics III. 3 Hours. GE3N / N.
Introduction to modern physics. Topics include special relativity, optics, and introductions to quantum mechanics and solid state physics. Prerequisite: PHSX 212 and PHSX 236 or PHSX 214 or EECS 220. Corequisite: MATH 320 or MATH 220. LEC.
PHSX 316. Intermediate Physics Laboratory I. 1 Hour. U.
Experiments in optics and modern physics. Development of experimental skills, data reduction, error analysis, and technical writing. One lab meeting per week and one lecture per week on topics including error analysis and experimental design. Pre-or corequisite: PHSX 313. LAB.

PHSX 400. Topics in Physics and Astronomy: ____, 1-3 Hours. N.
A course on special topics in physics and astronomy, given as the need arises. Course may be repeated for different topics. Each section may have prerequisites to be determined by the instructor. LEC.

PHSX 500. Special Problems. 1-5 Hours. AE61 / N.
Work in some area of physics beyond the topics or material covered in other courses. For some problems, continued enrollment in consecutive semesters may be appropriate. Prerequisite: One junior-senior course in science in an area related to the problem and consent of instructor. IND.

PHSX 501. Honors Research. 1-4 Hours. AE61 / N.
This course is to enable students seeking departmental Honors in Astronomy, Engineering Physics, or Physics to fulfill the undergraduate research requirement. At the completion of the required 4 hours of total enrollment, a written and oral report of the research is required. (Same as EPHX 501.) Prerequisite: Junior/Senior standing in Astronomy, Engineering Physics, or Physics, or permission of instructor. IND.

PHSX 502. Seminar in Physics and Astronomy Instruction. 1-3 Hours. N.
One meeting per week to plan and report progress on projects which may include tutoring of students in personalized modes of study; developing, administering, and scoring test items; designing and improving demonstration and laboratory experiments. Amount of credit depends on projects contracted for and completed. (Distribution credit given for two-three hours only.) Prerequisite: Evidence of prior academic experience relevant to the student’s proposed activities in the seminar and permission of instructor. LEC.

PHSX 503. Undergraduate Research. 1-4 Hours. AE61 / N.
This course is for students seeking to fulfill the undergraduate research requirement. Students are expected to participate in some area of ongoing research in the department, chosen with the help of their advisor. At the end of the term, students will present their results in a seminar to other students and faculty. (Same as ASTR 503 and EPHX 503.) Prerequisite: Junior/Senior standing in Astronomy, Engineering Physics, or Physics, or permission of instructor. IND.

PHSX 511. Introductory Quantum Mechanics. 3 Hours. N.
An introduction to quantum mechanics, emphasizing a physical overview. Topics should include the formalisms of non-relativistic quantum mechanics, the 3-dimensional Schrodinger equation with applications to the hydrogen atom; spin and angular momentum; multi-particle systems of Fermi-Dirac and Bose-Einstein particles; time-independent perturbation theory. (Same as EPHX 511.) Prerequisite: PHSX 313 and MATH 290. LEC.

PHSX 516. Physical Measurements. 4 Hours. N.
A laboratory course emphasizing experimental techniques and data analysis, as well as scientific writing and presentation skills. Experiments will explore a range of classical and modern physics topics. (Same as EPHX 516.) Prerequisite: PHSX 313, PHSX 316 and PHSX 521. (PHSX 521 may be taken concurrently.) LAB.

PHSX 518. Mathematical Physics. 3 Hours. N.
Applications of modern mathematical methods to problems in mechanics and modern physics. Techniques include application of partial differential equations and complex variables to classical field problems in continuous mechanics, unstable and chaotic systems, electrodynamics, hydrodynamics, and heat flow. Applications of elementary transformation theory and group theory, probability and statistics, and nonlinear analysis to selected problems in modern physics as well as to graphical representation of experimental data. Prerequisite: PHSX 313 and MATH 320 or permission of instructor. (Same as EPHX 518.) LEC.

PHSX 521. Mechanics I. 3 Hours. N.
Newton's laws of motion. Motions of a particle in one, two, and three dimensions. Motion of a system of particles. Moving coordinate systems. (Same as EPHX 521.) Prerequisite: PHSX 211 and PHSX 216, or PHSX 213; MATH 223; MATH 290; and MATH 220 or MATH 320. LEC.

PHSX 528. Geodynamics and Plate Tectonics. 3 Hours. N.
Study of physical processes in the solid Earth and of geophysical approaches to studying Earth systems at regional and global scales. Topics include global potential fields, thermal regime, rheology and Earth deformation, earthquakes and seismic structure, plate motions and global tectonics. (Same as GEOL 573) Prerequisite: An introductory course in geology; MATH 116 or MATH 122; and PHSX 115, PHSX 214, or PHSX 212 and PHSX 236. LEC.

PHSX 531. Electricity and Magnetism. 3 Hours. N.
The properties of electric and magnetic fields, including electrostatics, Gauss' Law, boundary value methods, electric fields in matter, electromagnetic induction, magnetic fields in matter, the properties of electric and magnetic dipoles, and of dielectric and magnetic materials. (Same as EPHX 531.) Prerequisite: PHSX 214, or PHSX 212 and PHSX 236; PHSX 521 or special permission; MATH 223; MATH 290; and MATH 220 or MATH 320. LEC.

PHSX 536. Electronic Circuit Measurement and Design. 4 Hours. N.
A laboratory course that explores the theory and experimental techniques of analog and digital electronic circuit design and measurements. Topics include transient response, transmission lines, transistors, operational amplifiers, and digital logic. (Same as EPHX 536.) Prerequisite: PHSX 214 or PHSX 212 and PHSX 236; PHSX 521 or special permission; MATH 223; MATH 290. PHSX 313 and 316 recommended. LAB.

PHSX 557. Topics in Mechanics, Properties of Materials, Thermodynamics. 1-3 Hours.
This course covers the principles and applications of classical mechanics, fluids, heat, thermodynamics and sound. Teaching of these topics is strongly emphasized. Some laboratory work is included. This course is intended for students accepted to the BS Education major in Physics. This course does not count towards Physics or Astronomy major requirements in the College of Liberal Arts and Sciences. Prerequisite: Math 115 and 116, and either PHSX 114 or PHSX 211. LEC.

PHSX 558. Topics in Electricity and Magnetism and Optics. 1-3 Hours.
This course covers the principles and applications of electricity, magnetism and optics. Teaching of these topics is strongly emphasized. Some laboratory work is included. This course is intended for students accepted to the BS Education major in Physics. This course does not count towards Physics or Astronomy major requirements in the College of Liberal Arts and Sciences. Prerequisite: Math 115 and 116, and either PHSX 115 or PHSX 212. LEC.

PHSX 559. Topics in Modern Physics. 1-3 Hours.
This course covers the principles and applications of quantum mechanics, atomic and nuclear physics. Teaching of these topics is strongly emphasized. Some laboratory work is included. This course is intended for students accepted to the BS Education major in Physics. This course does not count towards Physics or Astronomy major requirements in the College of Liberal Arts and Sciences. Prerequisite: Math 115 and 116, and either PHSX 115 or PHSX 313. LEC.
PHSX 594. Cosmology and Culture. 3 Hours. AE42 / N.
A survey of modern physical cosmology, its recent historical roots, and creation myths from many world cultures. An examination of the effects of these stories on their parent cultures. LEC.

PHSX 600. Special Topics in Physics and Astrophysics: ______. 3 Hours.
Different topics will be covered as needed. This course will address topics in physics and astrophysics not covered in regularly offered courses. May be repeated if topic differs. (Same as EPHX 600.) Prerequisite: Permission of instructor. LEC.

PHSX 601. Design of Physical and Electronic Systems. 4 Hours. AE61 / N.
A laboratory course emphasizing the application of physical principles to the design of systems for research, monitoring, or control. Topics include the use of microcomputers as controllers, interfacing microcomputers with measurement devices, and use of approximations and/or computer simulation to optimize design parameters, linear control systems, and noise. (Same as EPHX 601.) Prerequisite: Twelve hours of junior-senior credit in physics or engineering, including one laboratory course. LAB.

PHSX 615. Numerical and Computational Methods in Physics. 3 Hours.
An introduction to the use of numerical methods in the solution of problems in physics for which simplifications allowing closed-form solutions are not applicable. Examples are drawn from mechanics, electricity, magnetism, thermodynamics, and optics. (Same as EPHX 615.) Prerequisite: PHSX 313, MATH 320 or equivalent, and EECS 138 or equivalent. LEC.

PHSX 621. Mechanics II. 3 Hours. N.
Continuation of PHSX 521. Lagrange's equations and generalized coordinates. Mechanics of continuous media. Tensor algebra and rotation of a rigid body. Special relativity and relativistic dynamics. (Same as EPHX 621.) Prerequisite: PHSX 521. LEC.

PHSX 623. Physics of Fluids. 3 Hours. N.
An introduction to basic fluid mechanics in which fundamental concepts and equations are covered. Topics include hydrostatics, hydrodynamics, wave propagation in fluids, and applications in the areas such as astrophysics, atmospheric physics, and geophysics. (Same as EPHX 623.) Prerequisite: MATH 223; MATH 250; PHSX 212 and PHSX 236 (or PHSX 214 can replace PHSX 212 and PHSX 236.) LEC.

PHSX 631. Electromagnetic Theory. 3 Hours. N.
Maxwell's equations, wave propagation, optics and waveguides, radiation, relativistic transformations of fields and sources, use of covariance and invariance in relativity. Normally a continuation of PHSX 531. (Same as EPHX 631.) Prerequisite: PHSX 531. LEC.

PHSX 641. Introduction to Nuclear Physics. 3 Hours. N.
Experimental methods and elementary concepts in nuclear physics, including nuclear forces, alpha and beta decay, gamma radiation, nuclear structure, and reaction systematics. (Same as EPHX 641.) Prerequisite: PHSX 313 and PHSX 511. LEC.

PHSX 655. Optics. 3 Hours. N.
Geometric optics. Wave properties of light: interference, diffraction, coherence. Propagation of light through matter. Selected topics in modern optics, e.g., lasers, fibers. (Same as EPHX 655.) Prerequisite: PHSX 313 and PHSX 316. LEC.

PHSX 661. Introduction to Elementary Particle Physics. 3 Hours. N.
Properties and interactions of quarks, leptons, and other elementary particles; symmetry principles and conservation laws; broken symmetry; gauge bosons; the fundamental interactions, grand unified theories of strong, electromagnetic, and weak interactions; the cosmological implications of elementary particle physics. (Same as EPHX 661.) Prerequisite: PHSX 313 and MATH 320. LEC.

PHSX 671. Thermal Physics. 3 Hours. N.
Development of thermodynamics from statistical considerations. Techniques of calculating thermodynamic properties of systems. Application to classical problems of thermodynamics. Elementary kinetic theory of transport processes. Fermi-Dirac and Bose-Einstein systems. (Same as EPHX 671.) Prerequisite: PHSX 511. LEC.

PHSX 681. Concepts in Solids. 3 Hours. N.
Properties of common types of crystals and amorphous solids. Lattice vibrations and thermal properties of solids. Electrons and holes in energy bands of metals, semi-conductors, superconductors, and insulators. (Same as EPHX 681.) Prerequisite: PHSX 313 and PHSX 511. LEC.

PHSX 691. Astrophysics I. 3 Hours. N.
An introduction to radiation processes, thermal processes, and radiative transfer in stellar atmospheres and the interstellar medium. (Same as ASTR 691 and EPHX 691.) Prerequisite: PHSX 313 or consent of instructor. LEC.

PHSX 693. Gravitation and Cosmology. 3 Hours. N.
An overview of topics relevant to gravitation and modern cosmology: special relativity, tensor notation, the equivalence principle, the Schwarzschild solution, black holes, and Friedmann models. Cosmic black body radiation, dark matter, and the formation of large-scale structure. The idea of quantum gravity and an introduction to the current literature in cosmology. (Same as EPHX 693.) Prerequisite: PHSX 313 and MATH 320. LEC.

PHSX 700. Colloquium. 1 Hour.
Topics of current interest in physics, astronomy, and atmospheric science. Repeat enrollments are permitted. LEC.

PHSX 701. Major Experiments and Observations in Classical and Contemporary Physics. 1-3 Hours.
Critique, discussions, and interpretation of the most important discoveries and observations in physics. LEC.

PHSX 702. Introductory Physics Pedagogy. 1 Hour.
This course will address basic elements of pedagogy in specific relation to the teaching of physics and astronomy labs. It contains such elements as: peer and instructor evaluations of teaching, reading and discussion of pedagogical materials, development of online course material, and discussion of teaching methods. This course may be repeated for credit. Prerequisite: Permission of instructor. LEC.

PHSX 711. Quantum Mechanics I. 3 Hours.

PHSX 717. Graduate Seminar. 1 Hour.
First year graduate students meet to survey research opportunities in the department and develop skills in giving oral presentations in physics and related areas. Students will also learn about topics in responsible scholarship that may include: the origin of ideas and the allocation of credit, the treatment of data, scientific misconduct, intellectual property and entrepreneurship, the researcher in society, collaborative research, mentor/trainee responsibilities, and safe practices. LEC.
PHSX 718. Mathematical Methods in Physical Sciences. 3 Hours.
Review of complex variable theory; introduction to the partial differential equations of physical systems; Fourier analysis; special functions of mathematical physics; and chemistry. (Same as CHEM 718.) Prerequisite: Two semesters of junior-senior mathematics. LEC.

PHSX 721. Chaotic Dynamics. 3 Hours.
Topics covered may include the following: dynamical systems, attractors, sensitive dependence on initial conditions, chaos, one-dimensional maps, strange attractors and fractal dimensions, fat fractals, the horseshoe map, symbolic dynamics, linear stability of periodic orbits, stable and unstable manifolds, Lyapunov exponents, topological entropy, quasiperiodicity, strange nonchaotic attractors, nonattracting chaotic sets, fractal basin boundaries, renormalization group analysis, intermittency, crisis and chaotic transients. Prerequisite: Mechanics (PHSX 521, or its equivalent), ordinary differential equations (MATH 320, or its equivalent), and some computer programming knowledge. LEC.

PHSX 722. Geophysical Data Analysis. 3 Hours.
Fourier analysis, sampling theory, prediction and interpolation of geophysical data, filtering theory, correlation techniques, deconvolution. Examples will be chosen from various fields of geophysics. (Same as GEOL 772.) Prerequisite: MATH 250/AE 250/ARCE 250/CE 250/CPE 250/EECS 250/EPHX 250/ME 250 and either GEOL 572 or GEOL 573 or PHSX 528. LEC.

PHSX 723. Seismology. 3 Hours.
General theory of seismic waves, wave field extrapolation (migration) by finite difference methods, construction of travel-time curves, reflection and attenuation coefficients, earthquake source mechanism, distribution and forecasting of earthquakes. (Same as GEOL 773.) Prerequisite: MATH 250/AE 250/ARCE 250/CE 250/CPE 250/EECS 250/EPHX 250/ME 250 and either GEOL 572 or GEOL 573 or PHSX 528. LEC.

PHSX 724. Potential Fields in Geophysics. 3 Hours.
Reduction and interpretation of gravity and magnetic data with emphasis on exploration techniques. Spectral, analytical and modeling methods of analysis of gravity and magnetic anomalies are emphasized. Prerequisite: MATH 250/AE 250/ARCE 250/CE 250/CPE 250/EECS 250/EPHX 250/ME 250 and either GEOL 572 or GEOL 573 or PHSX 528 or consent of instructor. LEC.

PHSX 727. Advanced Geophysics: ____. 1-3 Hours.
Topics to vary with demand and include heat flow, wave propagation, synthetic seismograms, groundwater exploration, geothermal exploration, electrical methods in exploration, rock mechanics-geotectonics, rock magnetism, geomagnetism, paleomagnetism, geophysical inverse theory, and others upon sufficient demand. May be repeated for different topics. (Same as GEOL 771.) Prerequisite: GEOL 572 or GEOL 573/PHSX 528 or consent of instructor. LEC.

PHSX 731. Molecular Biophysics. 3 Hours.
Methods and concepts in contemporary molecular biophysics are discussed. Particular emphasis is placed on the thermodynamics of macromolecular interactions and quantitative methods of data analysis. Basic enzymology and biophysical spectroscopy will also be reviewed. Prerequisite: PHSX 212, MATH 122, and CHEM 188. LEC.

PHSX 741. Nuclear Physics I. 3 Hours.
Experimental methods in nuclear physics, elementary concepts and simple considerations about nuclear forces, alpha and beta decay, gamma radiation, nuclear structure, and reaction systematics. Prerequisite: PHSX 611. LEC.

PHSX 761. Elementary Particles I. 3 Hours.
Particle accelerators and detectors; quarks and leptons; invariance principles and conservation laws; strong, electromagnetic, and weak interactions of elementary particles; unification of electroweak and other interactions. Prerequisite: PHSX 711. LEC.

PHSX 781. Solid State Physics I. 3 Hours.
Classification of solids, structure and symmetry of crystals; lattice vibrations and thermal properties of solids; electric and magnetic properties; electron theory of metals and semiconductors; electronic and atomic transport processes; theory of ionic crystals. Prerequisite: PHSX 611 (or CHEM 648) and PHSX 671 (or CHEM 646). LEC.

PHSX 791. Seminar in Astrophysics. 1-3 Hours.
Seminar designed to cover current topics in the physics of the Universe beyond the solar system. Content will vary. Graduate students engaged in or preparing for research may repeat enrollments in this course. Open to undergraduates with twelve hours of physics/astronomy courses numbered 500 or above, or consent of instructor. LEC.

PHSX 792. Topics in Advanced Astrophysics. 3 Hours.
This course will address one or more of the following advanced topics in astrophysics: high energy astrophysics, nuclear astrophysics, galactic and extragalactic astrophysics, space physics, cosmology, astrobiophysics, and the interstellar and intergalactic media (ISM/IGM). This course may be repeated for credit if topical content differs. (Same as ASTR 792.) Prerequisite: ASTR 692 or permission of instructor. LEC.

PHSX 793. Physical Cosmology. 3 Hours.
Discussion of how fundamental laws of physics govern the evolution of the universe as a whole along with its structure. Survey of cosmogenetic clues in the observable universe, including observed structures, cosmic background radiation and evidence for dark matter. Development of the universe, including theories of initial conditions; cosmological phase transitions; generation of possible relics and dark matter; symmetry breaking; baryon asymmetry; nucleosynthesis; recombinant, gravitational instability and the formation of structure; current experimental techniques. Prerequisite: PHSX 718. Recommended: PHSX 593. LEC.

PHSX 795. Space Plasma Physics. 3 Hours.
The physics of fully ionized gases in magnetic fields and their application to interplanetary processes, planetary radiation belts, and the sun. The motion of charged particles in magnetic fields, magnetohydrodynamic waves, the solar wind, the ionosphere, and the magnetosphere. (Same as ASTR 795.) Prerequisite: PHSX 621. Corequisite: PHSX 631. LEC.

PHSX 800. Graduate Problems. 1-5 Hours.
Advanced laboratory problems, special research problems, or library reading problems. Repeated enrollments are permitted. RSH.

PHSX 801. Advanced Topics. 1-3 Hours.
Lectures on advanced material not covered by regular courses. The topics are not limited but generally address recent experimental or theoretical developments in subjects such as superconductivity, nuclear physics, elementary particle physics, quantum field theory, gauge and unified theories, nonlinear or chaotic systems, space plasma physics, and astrophysics and cosmology. Repeated enrollments are permitted. LEC.

PHSX 811. Quantum Mechanics II. 3 Hours.
Time dependent perturbation theory. Gauge invariance and electromagnetic interactions. Quantization of the electromagnetic field and applications. The Dirac equation, its transformation properties and applications to relativistic problems. Scattering theory, elementary applications, and formal properties. Prerequisite: PHSX 711. LEC.

PHSX 815. Computational Methods in Physical Sciences. 3 Hours.
Advanced computer applications in physical science. General discussion and illustration of problem organization and solution by numerical and other methods with examples from physics, astronomy, and other physical sciences. Students will design, write, validate, and document a computer
program to solve a physical problem. (Same as ASTR 815 and CHEM 914.) Prerequisite: Six hours of computer science courses numbered 300 or above, and six hours of physics and/or astronomy courses numbered 300 or above. LEC.

PHSX 817. Graduate Seminar. 1 Hour.
First year graduate students meet to survey research opportunities in the department and develop skills in giving oral presentations in physics and related areas. Prerequisite: Only one hour of 817 can count toward required hours for degree. LEC.

PHSX 821. Classical Mechanics. 3 Hours.
Vector and tensor notation; review of Newtonian mechanics; Lagrangian mechanics; linear vector spaces and matrix theory with applications to the theory of small oscillations; rigid bodies; Hamiltonian formalism. Special relativity. Prerequisite: Twelve hours of junior-senior courses in physics. LEC.

PHSX 831. Electrodynamics I. 3 Hours.
Electrostatics and magnetostatics; Maxwell’s equations; plane waves; waveguides. Prerequisite: PHSX 718 and PHSX 821. LEC.

PHSX 841. Nuclear Physics II. 3 Hours.
Nuclear forces and the two-body problem; nuclear models; phenomenological treatment of nuclear reactions and decay processes. Prerequisite: PHSX 741 and PHSX 811. LEC.

PHSX 861. Elementary Particles II. 3 Hours.
Theoretical analysis of the standard model of strong and electroweak interactions. Applications to decay and scattering processes with comparison to experiments. Selected topics in non-perturbative physics. Examples of tests to probe beyond the standard model. Prerequisite: PHSX 761. Corequisite: PHSX 911. LEC.

PHSX 871. Statistical Physics I. 3 Hours.
Review of and advanced topics in thermodynamics; the Maxwell relations; the third law; phase transitions. Kinetic theory: the Boltzmann equation; transport phenomena. Statistical mechanics: ideal Maxwell-Boltzmann, Fermi-Dirac and Bose-Einstein gases; ensemble theory; derivation of the laws of thermodynamics. Prerequisite: PHSX 711 and PHSX 821. PHSX 671 is recommended. LEC.

PHSX 881. Solid State Physics II. 3 Hours.
More advanced topics in solid state physics that may include: diamagnetism, paramagnetism, ferromagnetism, and antiferromagnetism; electron and nuclear spin magnetic resonance; dielectric properties and ferroelectricity; photoconductivity and luminescence. Prerequisite: PHSX 631 and PHSX 711 (or CHEM 915). LEC.

PHSX 895. Plasma Physics. 3 Hours.
Magnetohydrodynamics, including discussion of shocks, waves, and stability theory; statistical mechanical foundations; kinetic theory; microstability; non-linear phenomena. Prerequisite: PHSX 795. LEC.

PHSX 897. Seminar in Plasma and Space Physics. 1-3 Hours.
Graduate students engaged in or preparing for research may repeat enrollments in this course. The content will vary. (Same as ASTR 897.) LEC.

PHSX 899. Master’s Research/Thesis. 1-10 Hours.
Research work (either experimental or theoretical) in physics for students working toward the master’s degree. Repeated enrollments are permitted. THE.

PHSX 911. Quantum Mechanics III. 3 Hours.
Path integral formulation of quantum mechanics. Introduction to quantum field theory using the canonical approach and using the path integral approach. Application of perturbation theory in quantum electrodynamics. Selected applications in condensed matter, nuclear, and particle physics. Prerequisite: PHSX 811. LEC.

PHSX 912. Quantum Field Theory. 3 Hours.
Survey of problems in quantum field theory. Functional methods. Renormalization and renormalization group. Role of symmetries. Gauge field theories. Symmetry breaking. Prerequisite: PHSX 911. LEC.

PHSX 915. Relativity. 3 Hours.
Reviews of special relativity, manifolds, tensors, and geometry. General coordinate covariance and general relativity. Applications to classical theory of gravitation: weak field tests, isotropic, homogeneous cosmology, Schwarzschild solution. Selected advanced topics. Prerequisite: A total of 10 hours of junior/senior work in physics and mathematics, including at least concurrent enrollment in MATH 646. LEC.

PHSX 917. Seminar in Theoretical Physics. 1-3 Hours.
Graduate students engaged in or preparing for research may repeat enrollments in this course. Content will vary. LEC.

PHSX 931. Electrodynamics II. 3 Hours.
Inhomogeneous Maxwell’s equations and multipole radiation fields; special theory of relativity; radiation from accelerated charges: scattering and dispersion. Prerequisite: PHSX 831. LEC.

PHSX 947. Seminar in Nuclear Physics. 1-3 Hours.
Graduate students engaged in or preparing for research may repeat enrollments in this course. The content will vary. LEC.

PHSX 957. Seminar in Particle Physics. 1-3 Hours.
Graduate students engaged in or preparing for research may repeat enrollments in this course. The content will vary. LEC.

PHSX 971. Advanced Statistical Mechanics. 3 Hours.
Advanced equilibrium statistical mechanics and introduction to nonequilibrium statistical mechanics. Topics include: the theory of liquids, critical phenomena, linear response theory and time correlation functions, Langevin dynamics, and molecular hydrodynamics. (Same as CHEM 950.) Prerequisite: PHSX 871 or CHEM 917. LEC.

PHSX 987. Seminar in Solid State Physics. 1-3 Hours.
Graduate students engaged in or preparing for research may repeat enrollments in this course. The content will vary. LEC.

PHSX 999. Ph.D. Dissertation Research. 1-10 Hours.
Research work (either experimental or theoretical) in physics for students working toward the Ph.D. degree. Repeated enrollments are permitted. THE.

Bachelor of Arts in Astronomy

Why study astronomy?
Because understanding the physical universe starts here.

Undergraduate Programs

Astronomy programs are offered through the Department of Physics and Astronomy. The astronomy curriculum offers undergraduates a survey of modern astronomy and an introduction to physical science, gives science and engineering students an introduction to astronomy and astrophysics, and prepares students majoring in astronomy for graduate study in astronomy or related fields.

Courses for Nonmajors

ASTR 191 surveys a wide range of contemporary astronomy topics while ASTR 293 discusses a shorter list of astrophysically extreme objects in greater detail; both courses require eligibility for MATH 101. ASTR 394
is open to students with previous coursework in astronomy, geology or biology; ASTR 391 offers an introduction to physical astronomy at a calculus-based level.

**Undergraduate Admission**

**Admission to KU**

All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

**Admission to the College of Liberal Arts and Sciences**

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

**Advising**

Students considering a major in astronomy should confer early with a departmental representative about the selection of courses. The B.A. degree is appropriate for students who want a general education in astronomy as part of a broadly structured liberal education. The B.S. is a more specialized program with a substantial emphasis on physics content as well as astronomy. It provides preparation for a professional career or graduate work in astronomy, astrophysics, or related fields. A total of 120 credit hours is required for graduation.

**First- and Second-Year Preparation**

All major programs in physics and astronomy share requirements in basic physics and mathematics including PHSX 150, a seminar course for majors. Completion of MATH 121 and MATH 122 in the first year allows students to start calculus-based physics foundation courses (PHSX 211 or PHSX 213, followed by PHSX 212 or PHSX 214, with labs PHSX 216 and PHSX 236) by the second semester. Majors are encouraged to take PHSX 213 and PHSX 214, the honors versions of PHSX 211 and PHSX 212. Students should take these courses and ASTR 391 in their first two years. B.S. astronomy majors normally complete additional course work in mathematics (MATH 223, MATH 290, and MATH 320), as well as PHSX 313 and PHSX 316, in the second year.

### Requirements for the B.A. Major in Astronomy

All students pursuing the Bachelor of Arts in Astronomy must complete the KU Core requirements and the College BA specific requirements, listed in the KU Core and College sections of the catalog.

#### Additional general science requirements: (0)

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<tr>
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<td>Calculus I</td>
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<tr>
<th>Course</th>
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<td>Seminar in Physics, Astronomy and Engineering Physics</td>
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**General Physics I. Satisfied by one of the following:**

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<tr>
<td>PHSX 211 &amp; PHSX 216</td>
<td>General Physics I &amp; General Physics I Laboratory</td>
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<tr>
<td>PHSX 213</td>
<td>General Physics I Honors</td>
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**General Physics II. Satisfied by one of the following:**

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<tr>
<td>PHSX 212 &amp; PHSX 236</td>
<td>General Physics II &amp; General Physics II Laboratory</td>
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<tr>
<td>PHSX 214</td>
<td>General Physics II Honors</td>
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**Foundations of Chemistry I. Satisfied by one of the following:**

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<th>Description</th>
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<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
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<tr>
<td>CHEM 190</td>
<td>Foundations of Chemistry I, Honors</td>
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### Astronomy Major Requirements (11)

Majors must complete a course in each of the four following areas:

- **Physical Astronomy, Honors. Satisfied by the following:**
  - ASTR 391 | Physical Astronomy, Honors | 3 |

- **Stellar Astronomy. Satisfied by the following:**
  - ASTR 591 | Stellar Astronomy | 3 |

- **Observational Astrophysics. Satisfied by the following:**
  - ASTR 596 | Observational Astrophysics | 2 |

- **Galactic & Extragalactic Astronomy. Satisfied by the following:**
  - ASTR 592 | Galactic and Extragalactic Astronomy | 3 |

**Additional astronomy, astrophysics or physics courses required for major (5)**
In addition to the above specifically required courses, Astronomy BA candidates must complete at least 5 additional credits in physics or astronomy at the 300+ level. Students may enroll in ASTR 390 for undergraduate problems for 1 or more credit hours and in ASTR 503 (501 honors) for research credit. ASTR 394 is highly recommended. Other recommended courses include ASTR 691 and 692, PHSX 594, GEOL 572, PHSX 313/316 and other PHSX courses 500 and above; most of these course have pre-requisites that may require additional preparation in mathematics and/or physics.

Major Hours & Major GPA
While completing all required courses (above), majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 25.5 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior (300+) Hours
Satisfied by a minimum of 16 hours from junior/senior courses (300+) in the major.

Major Junior/Senior (300+) Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

With careful planning and commitment to a full-time course load, you can graduate in 4 years. See the department for details.

Departmental Honors in Astronomy
Qualified undergraduates earning either a B.A. or a B.S. degree with a major in astronomy may graduate with honors by meeting these requirements:

1. By the end of the candidate’s final semester, he or she must earn a minimum grade-point average of 3.25 overall and 3.5 in the major in all courses taken in residence and elsewhere.
2. The candidate must complete at least 24 credit hours of astronomy and physics courses numbered 500 or above, including undergraduate research represented by 4 hours of credit in ASTR 596, ASTR 597, PHSX 500, or PHSX 501, with a grade of B or higher.
3. The results of the research must be presented in written form and accepted by three members of the department faculty.

A student who plans to graduate with honors in astronomy must file a declaration of intent form with the departmental honors coordinator, preferably during his or her junior year, but no later than enrollment for the final undergraduate semester.

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### Requirements for the B.S. Degree in Astronomy

All students pursuing the Bachelor of Science in Astronomy must
complete the KU Core requirements in addition to the degree and major
requirements. For details regarding the KU Core requirements, please see
the KU Core section of the catalog.

#### General science requirements: (0)

Majors must complete courses as specified in each of the following
areas. Majors are advised to take honors courses when eligible.
These hours do not contribute to the minimum number of hours
required for the major.

**Computing and Programming.** Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EECS 138</td>
<td>Introduction to Computing: _____</td>
</tr>
<tr>
<td>EECS 168</td>
<td>Programming I</td>
</tr>
</tbody>
</table>

**Calculus I.** Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH 141</td>
<td>Calculus I: Honors</td>
</tr>
<tr>
<td>Or equivalent</td>
<td></td>
</tr>
</tbody>
</table>

**Calculus II.** Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 122</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MATH 142</td>
<td>Calculus II: Honors</td>
</tr>
<tr>
<td>Or equivalent</td>
<td></td>
</tr>
</tbody>
</table>

**Seminar in Physics, Astronomy, & Engineering Physics.** Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 150</td>
<td>Seminar in Physics, Astronomy and Engineering Physics</td>
</tr>
</tbody>
</table>

**General Physics I.** Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 211</td>
<td>General Physics I</td>
</tr>
<tr>
<td>&amp; PHSX 216</td>
<td>and General Physics I Laboratory</td>
</tr>
</tbody>
</table>

**General Physics II.** Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 212</td>
<td>General Physics II</td>
</tr>
<tr>
<td>&amp; PHSX 236</td>
<td>and General Physics II Laboratory</td>
</tr>
</tbody>
</table>

**Foundations of Chemistry I.** Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHEM 190</td>
<td>Foundations of Chemistry I, Honors</td>
</tr>
</tbody>
</table>

**Advanced Mathematics Core Knowledge and Skills (11)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 223</td>
<td>Vector Calculus</td>
</tr>
<tr>
<td>MATH 290</td>
<td>Elementary Linear Algebra</td>
</tr>
<tr>
<td>MATH 320</td>
<td>Elementary Differential Equations</td>
</tr>
<tr>
<td>PHSX 518</td>
<td>Mathematical Physics</td>
</tr>
</tbody>
</table>

**Math Elective.** Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 526</td>
<td>Applied Mathematical Statistics I</td>
</tr>
<tr>
<td>MATH 530</td>
<td>Mathematical Models I</td>
</tr>
<tr>
<td>MATH 558</td>
<td>Introductory Modern Algebra</td>
</tr>
<tr>
<td>MATH 581</td>
<td>Numerical Methods</td>
</tr>
<tr>
<td>MATH 590</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>MATH 628</td>
<td>Mathematical Theory of Statistics</td>
</tr>
<tr>
<td>MATH 646</td>
<td>Complex Variable and Applications</td>
</tr>
<tr>
<td>MATH 647</td>
<td>Applied Partial Differential Equations</td>
</tr>
<tr>
<td>MATH 648</td>
<td>Calculus of Variations and Integral Equations</td>
</tr>
<tr>
<td>MATH 660</td>
<td>Geometry I</td>
</tr>
<tr>
<td>MATH 661</td>
<td>Geometry II</td>
</tr>
</tbody>
</table>

### Astronomy Requirements for Major (18-21)

Majors must complete courses as indicated in the following areas:

**Physical Astronomy, Honors.** Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 391</td>
<td>Physical Astronomy, Honors</td>
</tr>
</tbody>
</table>

**Stellar Astronomy.** Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 591</td>
<td>Stellar Astronomy</td>
</tr>
</tbody>
</table>

**Galactic & Extragalactic Astronomy.** Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 592</td>
<td>Galactic and Extragalactic Astronomy</td>
</tr>
</tbody>
</table>

**Observational Astrophysics.** Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 596</td>
<td>Observational Astrophysics</td>
</tr>
</tbody>
</table>

**Astrophysics I and II.** Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 691</td>
<td>Astrophysics I</td>
</tr>
<tr>
<td>ASTR 692</td>
<td>Astrophysics II</td>
</tr>
</tbody>
</table>

**Undergraduate Research.** Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 503</td>
<td>Undergraduate Research</td>
</tr>
</tbody>
</table>

**Physics Core Knowledge and Skills (26)**

Majors must complete courses as indicated in the following areas:

**General Physics III.** Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 313</td>
<td>General Physics III</td>
</tr>
</tbody>
</table>

**Intermediate Physics Lab.** Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 316</td>
<td>Intermediate Physics Laboratory I</td>
</tr>
</tbody>
</table>

**Introductory Quantum Mechanics.** Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 511</td>
<td>Introductory Quantum Mechanics</td>
</tr>
</tbody>
</table>

**Physical Measurements or Electronic Circuit Measurement and Design.** Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 516</td>
<td>Physical Measurements</td>
</tr>
<tr>
<td>PHSX 536</td>
<td>Electronic Circuit Measurement and Design</td>
</tr>
</tbody>
</table>

**Mechanics I.** Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 521</td>
<td>Mechanics I</td>
</tr>
</tbody>
</table>

**Electricity and Magnetism.** Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 531</td>
<td>Electricity and Magnetism</td>
</tr>
</tbody>
</table>

**Thermal Physics.** Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 671</td>
<td>Thermal Physics</td>
</tr>
</tbody>
</table>

**Physics Elective.** Satisfied by any PHSX lecture or laboratory course numbered 500 or higher (PHSX 693 recommended) (with the exception of PHSX 594), including:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 792</td>
<td>Topics in Advanced Astrophysics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR/PHSX 795</td>
<td>Space Plasma Physics</td>
</tr>
</tbody>
</table>
GEOL 572  Geophysics
PHSX 693  Gravitation and Cosmology (recommended)

1 PHSX 594 will not be accepted for astronomy B.S. majors to satisfy this requirement.

Major Hours & Major GPA
While completing all required courses (above), majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 30 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior (300+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Major Junior/Senior (300+) Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Departmental Honors in Astronomy
Qualified undergraduates earning either a B.A. or a B.S. degree with a major in astronomy may graduate with honors by meeting these requirements:

1. By the end of the candidate’s final semester, he or she must earn a minimum grade-point average of 3.25 overall and 3.5 in the major in all courses taken in residence and elsewhere.
2. The candidate must complete at least 24 credit hours of astronomy and physics courses numbered 500 or above, including undergraduate research represented by 4 hours of credit in ASTR 596, ASTR 597, PHSX 500, or PHSX 501, with a grade of B or higher.
3. The results of the research must be presented in written form and accepted by three members of the department faculty.

A student who plans to graduate with honors in astronomy must file a declaration of intent form with the departmental honors coordinator, preferably during his or her junior year, but no later than enrollment for the final undergraduate semester.

Bachelor of Arts in Physics
Why study physics and astronomy?
Because understanding the physical universe starts here.

Undergraduate Admission
Admission to KU
All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences
Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

Requirements for the B.A. Major in Physics
All students pursuing the Bachelor of Arts in Physics must complete the KU Core requirements and the College BA specific requirements, listed in the KU Core and College sections of the catalog.

Bachelor of Arts in Physics Major Course Requirements

Foundational Physics and Mathematics (19.5)
Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. All honors equivalents are also acceptable to fulfill PHSX major requirements. These hours do not contribute to the minimum number of hours required for the major.

Seminar in Physics, Astronomy, & Engineering Physics. Satisfied by:
PHSX 150  Seminar in Physics, Astronomy and Engineering Physics  0.5

General Physics I. Satisfied by one of the following:
PHSX 211 & PHSX 216  General Physics I and General Physics I Laboratory  5
PHSX 213  General Physics I Honors  4

General Physics II. Satisfied by one of the following:
PHSX 212 & PHSX 236  General Physics II and General Physics II Laboratory  4

Calculus I. Satisfied by:
MATH 121  Calculus I (or equivalent)  5
Calculus II. Satisfied by:
MATH 122  Calculus II (or equivalent)  5

Advanced Math Requirement (5)
MATH 223  Vector Calculus  3
Elementary Linear Algebra. Satisfied by:
MATH 290  Elementary Linear Algebra  2
Differential Equations. Satisfied by one of the following:
MATH 220  Applied Differential Equations  3
MATH 320  Elementary Differential Equations (recommended)
Advance Physics Major Requirements (17)
Majors must complete a course in each of the following areas:
General Physics III. Satisfied by:
PHSX 313 General Physics III 3
Intermediate Physics Lab. Satisfied by:
PHSX 316 Intermediate Physics Laboratory I 1
Introductory Quantum Mechanics. Satisfied by:
PHSX 511 Introductory Quantum Mechanics 3
Mechanics I. Satisfied by:
PHSX 521 Mechanics I 3
Electricity and Magnetism. Satisfied by:
PHSX 531 Electricity and Magnetism 3
Electronic Circuit Measurement and Design. Satisfied by:
PHSX 536 Electronic Circuit Measurement and Design 4
or PHSX 516 Physical Measurements
Physics Required Elective (3)
Satisfied by any lecture or laboratory course numbered 500 or higher. 3

Physics Major Hours & Major GPA
While completing all required courses (above), majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 30 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior (300+) Hours**
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior (300+) Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Concentration in Computational Physics

**Physics Prerequisite or Co-requisite Knowledge (27)**
Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

Programming I. Satisfied by:
EECS 168 Programming I 4
Programming II. Satisfied by:
EECS 268 Programming II 4
Elementary Linear Algebra. Satisfied by:
MATH 290 Elementary Linear Algebra 2
Elementary or Applied Differential Equations. Satisfied by:
MATH 220 Applied Differential Equations 3
or MATH 320 Elementary Differential Equations
Foundations of Chemistry I. Satisfied by:
CHEM 130 General Chemistry I 1
Principles of Biology. Satisfied by:

BIOL 100 Principles of Biology 1 3
Introduction to Symbolic Logic. Satisfied by:
PHIL 310 Introduction to Symbolic Logic 1 3
Economics. Satisfied by:
ECON 142 Principles of Microeconomics 1 3
or ECON 144 Principles of Macroeconomics

**Physics Core Knowledge and Skills (27.5)**
Majors must complete a course in each of the following areas:
Seminar in Physics, Astronomy, and Engineering Physics. Satisfied by:
PHSX 150 Seminar in Physics, Astronomy and Engineering Physics 0.5
General Physics I. Satisfied by one of the following:
PHSX 211 General Physics I
or PHSX 216 General Physics I Laboratory
PHSX 213 General Physics I Honors
General Physics II. Satisfied by one of the following:
PHSX 212 General Physics II
or PHSX 236 General Physics II Laboratory
PHSX 214 General Physics II Honors
General Physics III and Intermediate Physics Laboratory. Satisfied by:
PHSX 313 General Physics III
or PHSX 316 General Physics Laboratory I
Mechanics I. Satisfied by:
PHSX 521 Mechanics I 3
Electricity and Magnetism. Satisfied by:
PHSX 531 Electricity and Magnetism 3
Electronic Circuit Measurement and Design. Satisfied by:
PHSX 536 Electronic Circuit Measurement and Design 4
or PHSX 516 Physical Measurements
Special Problems. Satisfied by:
PHSX 500 Special Problems 5
Numerical and Computational Methods in Physics. Satisfied by:
PHSX 615 Numerical and Computational Methods in Physics 3

1 CHEM 130, PHIL 310, ECON 142 or ECON 144, and BIOL 100 should be taken to fulfill B.A. general education requirements.

Physics Major Hours & Major GPA
While completing all required courses (above), majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 31.5 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior (300+) Hours**
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior (300+) Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).
study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

With careful planning and commitment to a full-time course load, you can graduate in four years. Please contact the department for details.

Departmental Honors in Physics

A qualified undergraduate earning either a B.A. or a B.S. degree in the College with a major in physics may graduate with honors in physics by fulfilling these requirements:

1. By the end of the candidate’s final semester, achieve a minimum grade-point average of 3.25 overall and 3.5 in the major, in all courses taken in residence and elsewhere.
2. Complete at least 24 semester credit hours of physics courses numbered 500 or above, including undergraduate research represented by 4 hours of credit in PHSX 500 Special Problems or PHSX 501 Honors Research. The student must earn a grade of B or higher in PHSX 500 or PHSX 501.
3. The student must present the results of the research in written form, which must be accepted by 3 department faculty members.

A student who plans to graduate with honors in physics must file a declaration of intent form with the departmental honors coordinator, preferably during his or her junior year, but in any case, no later than enrollment for the final undergraduate semester.

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Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements.

See individual department/program sections for departmental admission requirements.

Requirements for the B.S. Degree in Physics

Physics Bachelor of Science (B.S.) General Education Requirements

All students pursuing the Bachelor of Science in Physics must complete the KU Core requirements in addition to the degree and major requirements. For details regarding the KU Core requirements, please see the KU Core section of the catalog.

Foundational Physics and Mathematics (10.5)

Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. All honors equivalents are also acceptable to fulfill PHSX major requirements. These hours do not contribute to the minimum number of hours required for the major.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td>Calculus I (or equivalent)</td>
<td>5</td>
</tr>
<tr>
<td>MATH 122</td>
<td>Calculus II (or equivalent)</td>
<td>5</td>
</tr>
<tr>
<td>PHSX 150</td>
<td>Seminar in Physics, Astronomy and Engineering Physics</td>
<td>0.5</td>
</tr>
<tr>
<td>PHSX 211</td>
<td>General Physics I &amp; PHSX 216 &amp; General Physics I Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHSX 213</td>
<td>General Physics I Honors</td>
<td></td>
</tr>
<tr>
<td>PHSX 212</td>
<td>General Physics II &amp; PHSX 236 &amp; General Physics II Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHSX 214</td>
<td>General Physics II Honors</td>
<td></td>
</tr>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>EECS 138</td>
<td>Introduction to Computing: _____ excluding Fortran or C ++</td>
<td>3</td>
</tr>
<tr>
<td>EECS 168</td>
<td>Programming I</td>
<td></td>
</tr>
<tr>
<td>MATH 223</td>
<td>Vector Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MATH 290</td>
<td>Elementary Linear Algebra</td>
<td>2</td>
</tr>
<tr>
<td>MATH 320</td>
<td>Elementary Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 518</td>
<td>Mathematical Physics</td>
<td></td>
</tr>
<tr>
<td>PHSX 718</td>
<td>Mathematical Methods in Physical Sciences</td>
<td></td>
</tr>
<tr>
<td>MATH 526</td>
<td>Applied Mathematical Statistics I</td>
<td></td>
</tr>
<tr>
<td>MATH 530</td>
<td>Mathematical Models I</td>
<td></td>
</tr>
<tr>
<td>MATH 558</td>
<td>Introductory Modern Algebra</td>
<td></td>
</tr>
<tr>
<td>MATH 581</td>
<td>Numerical Methods</td>
<td></td>
</tr>
</tbody>
</table>

General Science Requirements (8)

Foundations of Chemistry I. Satisfied by:

General Physics I. Satisfied by one of the following:

Computing and Programming. Satisfied by:

Advanced Mathematics (8)

Math Elective. Satisfied by one of the following: (0)

Math Elective. Satisfied by one of the following: (0)
MATH 590    Linear Algebra
MATH 628    Mathematical Theory of Statistics
MATH 646    Complex Variable and Applications
MATH 647    Calculus of Variations and Integral Equations
MATH 660    Geometry I
MATH 661    Geometry II

any 700-level MATH lecture course except MATH 701 and MATH 715

Advanced Physics (24-27)
Majors must complete a course in each of the following areas:

General Physics III. Satisfied by:
PHSX 313    General Physics III 3

Intermediate Physics Lab. Satisfied by:
PHSX 316    Intermediate Physics Laboratory I 1

Introductory Quantum Mechanics. Satisfied by:
PHSX 511    Introductory Quantum Mechanics 3

Physical Measurements or Electronic Circuit Measurement and Design. Satisfied by:
PHSX 516    Physical Measurements 4
or PHSX 536    Electronic Circuit Measurement and Design

Mechanics I. Satisfied by:
PHSX 521    Mechanics I 3

Electricity and Magnetism. Satisfied by:
PHSX 531    Electricity and Magnetism 3

Thermal Physics. Satisfied by:
PHSX 671    Thermal Physics 3

Undergraduate Research or Honors Research. Satisfied by:
PHSX 503    Undergraduate Research 1-4
or PHSX 501    Honors Research

Physics Elective. Satisfied by any PHSX lecture or laboratory course numbered 500 or higher and not part of the other specific requirements for the major.

Physics Required Electives (13)
Majors must complete one of the following options: 13

Preprofessional Option
Majors choosing this option must complete 13 credit hours in advanced physics as follows:

Mechanics II. Satisfied by:
PHSX 621    Mechanics II

Electromagnetic Theory. Satisfied by:
PHSX 631    Electromagnetic Theory

Quantum Mechanics. Satisfied by:
PHSX 711    Quantum Mechanics I

Second Advanced Physics Lab. Satisfied by one of the following:
PHSX 516    Physical Measurements 1
or PHSX 536    Electronic Circuit Measurement and Design

Interdisciplinary Option
Majors choosing this option must complete 13 credit hours in satisfying both categories as follows:

Advanced Physics. Satisfied by two of the following:
PHSX 621    Mechanics II
PHSX 631    Electromagnetic Theory

PHSX 711    Quantum Mechanics I
PHSX 516    Physical Measurements 1
PHSX 536    Electronic Circuit Measurement and Design 1

Allied Science Field. Satisfied by the completion of 2 advanced courses in 1 allied science field chosen from the following:

Biological Science. Satisfied by two of the following:
BIOL 350    Principles of Genetics
BIOL 400    Fundamentals of Microbiology
BIOL 408    Physiology of Organisms
BIOL 412    Evolutionary Biology
BIOL 416    Cell Structure and Function

BIOL 600    Introductory Biochemistry, Lectures
BIOL 636    Biochemistry I
BIOL 638    Biochemistry II

Chemistry. Satisfied by two of the following:
CHEM 598    Research Methods (UKanTeach students only)
CHEM 310    Fundamentals of Organic Chemistry
CHEM 530    Physical Chemistry I

Geology. Satisfied by two of the following:
GEOL 360    Field Investigation
GEOL 562    Structural Geology
GEOL 572    Geophysics
GEOL 575    Seismic Exploration
GEOL 576    Potential Fields Exploration
GEOL 577    Environmental Geophysics

1 Course not used to satisfy Core Knowledge and Skills requirement above.

Physics Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 30 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior (300+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Major Junior/Senior (300+) Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major.

GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Preprofessional Emphasis
Students also take 13 credit hours in physics as follows:

PHSX 621    Mechanics II 3
PHSX 631    Electromagnetic Theory 3
PHSX 711    Quantum Mechanics I 3
Interdisciplinary Option

Students also take 12 to 15 credit hours in physics and allied sciences as follows:

Select two of the following: 6-7

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 621</td>
<td>Mechanics II</td>
</tr>
<tr>
<td>PHSX 631</td>
<td>Electromagnetic Theory</td>
</tr>
<tr>
<td>PHSX 711</td>
<td>Quantum Mechanics I</td>
</tr>
<tr>
<td>PHSX 536</td>
<td>Electronic Circuit Measurement and Design</td>
</tr>
</tbody>
</table>

or PHSX 516  Physical Measurements

Plus 2 semesters of advanced course work in 1 allied science field 6-8

chosen from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 350</td>
<td>Principles of Genetics</td>
</tr>
<tr>
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<tr>
<td>CHEM 598</td>
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<td>CHEM 310</td>
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<td>Potential Fields Exploration</td>
</tr>
<tr>
<td>GEOL 577</td>
<td>Environmental Geophysics</td>
</tr>
</tbody>
</table>

Interdisciplinary option students may take the second advanced laboratory courses

Departmental Honors in Physics

A student who plans to graduate with honors in physics must file a declaration of intent form with the departmental honors coordinator, preferably during his or her junior year, but in any case, no later than enrollment for the final undergraduate semester.

Minor in Astrobiology

Why study astronomy?

Because understanding the physical universe starts here.

Undergraduate Programs

Astronomy programs are offered through the Department of Physics and Astronomy. The astronomy curriculum offers undergraduates a survey of modern astronomy and an introduction to physical science, gives science and engineering students an introduction to astronomy and astrophysics, and prepares students majoring in astronomy for graduate study in astronomy or related fields.

Courses for Nonmajors

ASTR 191 surveys a wide range of contemporary astronomy topics while ASTR 293 discusses a shorter list of astrophysically extreme objects in greater detail; both courses require eligibility for MATH 101. ASTR 394 is open to students with previous coursework in astronomy, geology or biology; ASTR 391 offers an introduction to physical astronomy at a calculus-based level.

Requirements for the Minor in Astrobiology

Astrobiology Minor Course Requirements

Students selecting this minor must complete courses as specified in each of the following areas:

Preparatory Coursework

Calculus (3-5)

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td>Calculus I (preferred)</td>
</tr>
<tr>
<td>or MATH 115</td>
<td>Calculus I</td>
</tr>
</tbody>
</table>

Foundations of Chemistry (5)

Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
</tr>
</tbody>
</table>

Minor Requirements

Principles of Molecular and Cellular Biology (4)

Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology</td>
</tr>
</tbody>
</table>

Geology (3)

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 101</td>
<td>The Way The Earth Works</td>
</tr>
<tr>
<td>GEOL 105</td>
<td>History of the Earth</td>
</tr>
<tr>
<td>GEOL 121</td>
<td>Prehistoric Life: DNA to Dinosaurs</td>
</tr>
</tbody>
</table>

Physical Astronomy, Honors (3)

Satisfied by the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 391</td>
<td>Physical Astronomy, Honors</td>
</tr>
</tbody>
</table>

Astrobiology Core (1-4)

Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
</table>
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Requirements for the Minor in Astronomy

Astronomy Minor Course Requirements

Students selecting this minor must complete courses as specified in each of the following areas:

General Physics I (1-5)

Satisfied by one of the following: 1-5

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 211</td>
<td>General Physics I</td>
</tr>
<tr>
<td>&amp; PHSX 216</td>
<td>and General Physics I Laboratory</td>
</tr>
</tbody>
</table>

Minor Hours & Minor GPA

While completing all required courses, minors must also meet each of the following hour and grade-point average minimum standards:

Minor Hours

Satisfied by a minimum of 19 hours of minor coursework.

Minor Hours in Residence

Satisfied by a minimum of 9 hours of KU resident credit in the minor.

Minor Junior/Senior Hours

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in courses in the minor. GPA calculations include all courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator [http://clas.ku.edu/undergrad/tools/gpa].

Astronomy Required Electives

Satisfied by at least 5 hours in any combination of ASTR courses numbered above 300.
General Physics III and Intermediate Physics Laboratory. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 313</td>
<td>General Physics III</td>
<td>4</td>
</tr>
<tr>
<td>&amp; PHSX 316</td>
<td>and Intermediate Physics Laboratory I</td>
<td></td>
</tr>
</tbody>
</table>

Mechanics I. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 521</td>
<td>Mechanics I</td>
<td>3</td>
</tr>
</tbody>
</table>

Electricity and Magnetism. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 531</td>
<td>Electricity and Magnetism</td>
<td>3</td>
</tr>
</tbody>
</table>

Physics Required Elective. Satisfied by any 3 credit hour PHSX course numbered 500 or above.

**Minor Hours & Minor GPA**

While completing all required courses (above), minors must also meet each of the following hour and grade-point average minimum standards:

**Minor Hours**

- Satisfied by 21 hours of major courses.

**Minor Hours in Residence**

- Satisfied by a minimum of 9 junior/senior (300+) hours of KU resident credit in the major.

**Minor Junior/Senior (300+) Hours**

- Satisfied by a minimum of 13 hours from junior/senior courses (300+) in the minor.

**Minor Graduation GPA**

- Satisfied by a minimum of a 2.0 KU GPA in the minor. GPA calculations include all courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Master of Science in Physics**

*Why study physics and astronomy?*

Because understanding the physical universe starts here.

**Admission to Graduate Studies**

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

**Graduate Admission**

Ordinarily, admission requires an undergraduate grade-point average of at least B (3.0 on a 4.0 scale), overall and in the major. A baccalaureate degree with a major in physics is desirable but not required. Recommended preparation consists of courses in mechanics, electromagnetic theory, thermal physics, introductory quantum mechanics, advanced laboratory, and at least one course in mathematics beyond differential equations. Working knowledge of computers and of an advanced programming language is helpful. A student with less than the recommended preparation may enroll in these courses for graduate credit.

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the department:

**The University of Kansas**

**Department of Physics and Astronomy**

**Graduate Coordinator**

**Malott Hall**

**1251 Wescoe Hall Dr., Room 1082**

**Lawrence, KS 66045-7572**

**M.S. Degree in Physics**

The departmental web page with some additional information, e.g., milestones, can be found at http://www.physics.ku.edu/~physics/graduate/about.shtml

Candidates must complete a minimum of 30 credit hours of advanced lecture courses (numbered 500 or above) in physics and related subjects within a period of 7 years. Program requirements include:

1. An undergraduate knowledge of physics. This must be certified by the department to be at an advanced undergraduate level (600-level KU courses). The certification must be achieved within 12 months (extension possible with recommendation of the graduate admission committee) of entering the program and may require additional coursework. Extension is possible with recommendation of the department.

2. 3 additional courses chosen from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 711</td>
<td>Quantum Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 821</td>
<td>Classical Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 831</td>
<td>Electrodynamics I</td>
<td>3</td>
</tr>
</tbody>
</table>

3. 2 additional courses chosen from:
4. A minimum of 2 hours in PHSX 899 Master’s Research/Thesis is required, with a maximum of 6 hours that count toward the master’s degree. Ordinarily no more than 2 hours will be allowed unless a thesis or written report is presented.

5. The remaining 9 to 13 hours of advanced electives must be either advanced lecture courses or advanced undergraduate laboratory courses. (This proviso excludes seminars and special problems courses.)

### Communication Skills

All graduate students, after their first semester, will deliver at least 1 oral presentation per semester. The talk should be at least 20 minutes long. For students not yet associated with a research group, the Graduate Seminar can serve as a venue. For more advanced students the seminar of their research group would be a natural venue. The student does not need to be enrolled in the seminar to present a talk for this purpose. Off-campus venues such as collaboration meetings and physics conferences can also serve this purpose. When giving presentations, students should fill out a form available on the department web site and have it signed by 2 witnesses, 1 of which must be a Physics or Astronomy faculty and other a Ph.D. doing research in the department. The completed form must be handed to the office staff. Faculty members who sign off on the talks are expected to provide constructive feedback to the student. The graduate advisor will monitor student compliance with the requirement.

### General Examination

Candidates must pass a general oral examination in physics. The examination is given shortly before completion of other work for the degree. A master’s thesis is not required but may be submitted if the candidate and the director of the candidate’s research believe it to be appropriate.

### M.S. Subspecialty in Computational Physics and Astronomy

This degree is a subspecialty program for students with a background in physics, astronomy, computer science, mathematics, or engineering who wish to become familiar with computer-based approaches to problems in these fields. Minimum preparation expected includes a year’s course in general physics, mathematics through differential equations, and a knowledge of FORTRAN, C++, or another programming language.

A total of 30 hours of graduate credit is required. The 33 hours listed below under 2 and 3 may include certain undergraduate-level electrical engineering and computer science courses. (Only courses numbered 500 and above count as graduate credit.) Students entering the program may have satisfied several of these requirements, but a total of 30 hours of graduate credit is still required. No more than the required 6 hours of PHSX 899 Master’s Research/Thesis may be counted toward the degree. Degree requirements include

1. An undergraduate knowledge of physics. This must be certified by the department to be at an advanced undergraduate level (600-level KU courses). The certification must be achieved within 12 months (extension possible with recommendation of the graduate admission committee) of entering the program and may require additional coursework. Extension is possible with recommendation of the graduate admission committee. Certification can be achieved in several ways:
   a. A GRE physics score greater than or equal to 650; or
   b. The determination by the graduate director and graduate advisor, based on the diagnostic exam given on entering the program combined with the student’s undergraduate record, that the student understands all major elements of undergraduate physics;
   c. Successful completion with grade of B or better on all undergraduate courses that the graduate director and/or advisor recommends based on the results of part b above. The student who has not succeeded in certifying their undergraduate physics knowledge in 1 of the above 3 ways could, within 12 months of starting the program, petition the Graduate Committee for an oral exam on undergraduate physics. The oral exam will be administered by a committee of 6 faculty members assigned by the department.
   d. A candidate for a Master’s or Ph.D. degree who has not had the equivalent of 6 credit hours of advanced undergraduate laboratory course work (junior/senior level) is required to take one of the 3 advanced laboratory courses offered in the Department:
      - PHSX 516 Physical Measurements 4
      - PHSX 536 Electronic Circuit Measurement and Design 4
      - PHSX 601 Design of Physical and Electronic Systems 4

2. Required Courses (21 credit hours)
   - PHSX/ASTR 815 Computational Methods in Physical Sciences 3
   - PHSX 718 Mathematical Methods in Physical Sciences 3
   - MATH/EECS 781 Numerical Analysis I 3
   - EECS – 1 course at the 300 level or above (in addition to EECS 781) (Note: courses below the 500 level will not count towards the required 30 hours of graduate credit.)
     1 additional PHSX/ASTR/ATMO lecture course at the level or above
   - PHSX 899 Master’s Research/Thesis 1-10

3. 12 or more credits from the following list of courses:
   (Note: Double counting of courses is not allowed, e.g. a course used to fulfill a requirement under part 2. (e.g. EECS 448) may not also be counted under part 3.)
   - EECS 360 Signal and System Analysis 4
   - EECS 368 Programming Language Paradigms 3
   - EECS 388 Embedded Systems 4
   - EECS 448 Software Engineering I 4
   - EECS 560 Data Structures 4
   - EECS 672 Introduction to Computer Graphics 3
Policies and procedures of Graduate Studies govern the process of
admitted as either a degree-seeking or non-degree seeking student.

An applicant seeking to pursue graduate study in the College may be
admission to Graduate Studies

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Doctor of Philosophy in Physics

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Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the department:

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Ph.D. Degree Requirements

The departmental web page with some additional information, e.g., milestones, can be found at http://www.physics.ku.edu/~physics/graduate/about.shtml

Residence

To become a Ph.D. candidate, i.e. to take the comprehensive exam:

The student must spend at least 2 semesters, which may include 1 summer session, in resident study at the University of Kansas.

To earn a Ph.D.:

The student must spend at least the equivalent of 3 full academic years in graduate study at this or another approved institution or laboratory. During this period of residence, the student must be involved full-time in academic or professional pursuits, which may include an appointment for teaching or research if the teaching/research is directed specifically toward the student’s degree objectives.

Graduate students with half-time assistantships usually require at least 4 years to complete all requirements. Maximum enrollment for students with no other departmental obligations is 16 hours a semester. In addition to satisfying the residence requirement, a student with a half-time assistantship must be enrolled for at least 6 hours each semester. A maximum of 12 hours is permitted if the student’s duties consist of research that partially fulfills degree requirements. A fellowship holder or full-time student with private support must be enrolled for at least 9 hours.

Select 1 of the following - Special Topics (Examples of recent topics: Mathematics of Wall Street Computer-aided, Study of Differential Geometry, Chaos and Fractals, Fractional Brownian Motion and Its Applications, Wavelet Analysis, Statistical Theory, Stochastic Differential Equations and Applications)

| MATH 596 | Special Topics: ______ |
| MATH 696 | Special Topics: ______ |
| MATH 796 | Special Topics: ______ |
| MATH 611 | Time Series Analysis | 3 |
| MATH 627 | Probability | 3 |
| MATH 647 | Applied Partial Differential Equations | 3 |
| MATH/EECS 782 | Numerical Analysis II | 3 |
| MATH 783 | Applied Numerical Methods for Partial Differential Equations | 3 |

PHSX/ASTR/ATMO Courses Numbered 500 and above

Courses below the 500 level do not count towards the required 30 hours of graduate credit.

4. Communication Skills: All graduate students, after their first semester, will deliver at least 1 oral presentation per semester.

The talk should be at least 20 minutes long. For students not yet associated with a research group, the Graduate Seminar can serve as a venue. For more advanced students the seminar of their research group would be a natural venue. The student does not need to be enrolled in the seminar to present a talk for this purpose. Off-campus venues such as collaboration meetings and physics conferences can also serve this purpose.

When giving presentations, students should fill out a form available on the department web site and have it signed by 2 witnesses, 1 of which must be a Physics or Astronomy faculty and other a Ph.D. doing research in the department. The completed form must be handed to the office staff. Faculty members who sign off on the talks are expected to provide constructive feedback to the student. The graduate advisor will monitor student compliance with the requirement.

5. Thesis: An important component of this degree is the completion and documentation of a successful computer project. A thesis must be presented that describes the basic physics involved in the project, the method of implementing the project, and a discussion of the results. An oral defense of the thesis is required before a committee of at least 3 members of the graduate faculty.

Please go to this website to see the University’s policy on time limits: https://documents.ku.edu/policies/Graduate_Studies/maprogramtimeconstraints.htm

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Policies and procedures of Graduate Studies govern the process of
**Time Limits**

Go to this website to see the University’s policy on time limits: https://documents.ku.edu/policies/Graduate_Studies/docprogramtimeconstraints.htm

**Graduate Teaching Assistantship Eligibility**

To be eligible for teaching assistantships, all graduate students who are not native speakers of English must achieve a minimum score of 50 on the SPEAK test. International students must pass an oral examination to demonstrate English fluency. Students who fail this examination should take courses from the Applied English Center.

Every student who receives a GTA appointment will be required to complete PHSX 702 Introductory Physics Pedagogy at the first offering of the course starting with the semester of the student’s initial GTA appointment. Failure to complete this class at the first opportunity may affect consideration for subsequent GTA appointments.

**Preliminary Candidacy**

To be admitted to preliminary candidacy, each graduate student must satisfy department requirements:

1. **Undergraduate knowledge of physics must be certified at the department undergraduate level (600-level KU courses).** The ways to achieve this certification are outlined above under Course Requirements.

   A candidate for a Master’s or Ph.D. degree who has not had the equivalent of 6 credit hours of advanced undergraduate laboratory course work (Junior/Senior level) is required to take 1 of the 3 advanced laboratory courses offered in the department.

   - PHSX 516 Physical Measurements 4
   - PHSX 536 Electronic Circuit Measurement and Design 4
   - PHSX 601 Design of Physical and Electronic Systems 4

2. **Achieve a minimum core course grade point average of 3.2.** The core course GPA is computed from the following 5 equally weighted elements:
   - Grade obtained in PHSX 711 Quantum Mechanics I
   - Grade obtained in PHSX 811 Quantum Mechanics II
   - Grade obtained in PHSX 821 Classical Mechanics
   - Grade obtained in PHSX 831 Electrodynamics I
   - a. Average grade of 2 other PHSX lecture courses numbered 700 or higher, excluding PHSX 815 (computational physics) and PHSX 717 (graduate seminar).
   - a. Students may repeat 1 of the 4 core courses (PHSX 711, PHSX 811, PHSX 821, and PHSX 831) once for the purpose of improving the core GPA. In calculating the core GPA, the Department will use only the better of the 2 grades.
   - b. The 2 "other PHSX lecture courses numbered 700 or higher" must be taken at KU, but students entering with graduate credit from other institutions may petition the Graduate Committee for transfer credit for any of the 4 named core courses. For the purposes of the core GPA, grades of ("B" or better) from the previous institution may be used for at most 3 of the 4 named courses. For the remaining course the student must obtain written certification of "B" performance or better from the instructor of the course at KU. Such certification may be obtained by taking the course, taking the final exam of the course (if there is one), or other means which the instructor may determine. An appropriate higher-level course may also be used to obtain certification in a core course (for example for PHSX 711 or PHSX 811, PHSX 931 for PHSX 831.)
   - c. Graduate students are normally expected to complete all core courses by the end of their second year of enrollment. Students who are required to complete an undergraduate physics certificate have 3 years to finish their core courses. Extensive Applied English Center (AEC) courses, prolonged illness, or extended military service might provide exceptional circumstances.

**Decision on Preliminary Candidacy**

Once Undergraduate requirements have been certified and sufficient information has been received regarding the required courses, the Graduate Committee will decide whether or not to admit the student to preliminary candidacy. This decision will be based upon the certification and on their core course GPA. The Graduate Committee Chair will report their decision to the Graduate Faculty.

**Course Requirements**

What follows are the default set of requirements for all Ph.D. candidates.

1. **An undergraduate knowledge of physics.** This must be certified by the department to be at an advanced undergraduate level (600-level KU courses). The certification must be achieved within 12 months (extension possible with recommendation of the graduate admission committee) of entering the program and may require additional coursework. Extension is possible with recommendation of the graduate admission committee. Certification can be achieved in several ways:
   - a. A GRE physics score greater than or equal to 650; or
   - b. THE DETERMINATION BY THE GRADUATE DIRECTOR AND GRADUATE ADVISOR, BASED ON the diagnostic exam given on entering the program combined with the student’s undergraduate record, that the student understands all major elements of undergraduate physics; or
   - c. Successful completion with grade of B or better on all undergraduate courses that the graduate director and/or advisor recommends based on the results of (2). The student who has not succeeded in certifying their undergraduate physics knowledge in 1 of the above 3 ways could, within 12 months of starting the program, petition the Graduate Committee for an oral exam on undergraduate physics. The oral exam will be administered by a committee of 6 faculty members assigned by the department.
   - d. A candidate for a Master’s or Ph.D. degree who has not had the equivalent of 6 credit hours of advanced undergraduate laboratory course work (Junior/Senior level) is required to take 1 of the 3 advanced laboratory courses offered in the Department.

   - PHSX 516 Physical Measurements 4
   - PHSX 536 Electronic Circuit Measurement and Design 4
   - PHSX 601 Design of Physical and Electronic Systems 4

A total of 11 advanced lecture courses (33 hours) is required. In addition, 1 hour of PHSX 700 Colloquium, 1 hour of PHSX 717 Graduate Seminar, and (for GTAs only) one hour of PHSX 702 Introduction to Physics Pedagogy are required.

2. **Core courses:**

   - PHSX 711 Quantum Mechanics I 3
   - PHSX 811 Quantum Mechanics II 3
3. Other required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 718</td>
<td>Mathematical Methods in Physical Sciences</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 815</td>
<td>Computational Methods in Physical Sciences (satisfies Research Skills requirement)</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 871</td>
<td>Statistical Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 931</td>
<td>Electrodynamics II</td>
<td>3</td>
</tr>
</tbody>
</table>

4. 2 additional PHSX lecture courses numbered 700 or above. This excludes PHSX 815 (computational physics) and PHSX 717 (graduate seminar). The 2 courses must be in different sub-fields of physics and they may not be used to simultaneously satisfy other degree requirements in force. (For example, if PHSX 911 is being used to satisfy the PHSX 811 core requirement, it may not also be used to satisfy the requirement for 2 lecture courses at the 700 level or above.)

5. 1 additional advanced PHSX lecture course (numbered 800 or above; excluding PHSX 815)

6. 1 credit hour of Colloquium is required (PHSX 700). See “Colloquium and Graduate Seminar for an explanation.”

7. All graduate students, after their first semester, will deliver at least 1 oral presentation per semester. See “Communication Skills” for an explanation.

The courses listed above comprise the Department course requirements common to all students except those pursuing a multi-disciplinary plan of study, which is described below. There is no foreign language requirement. Subsequent work, consisting of advanced courses in appropriate fields and seminars, will be selected by the student and the advisor on the basis of the student’s need and intended field of specialization. There is no prescribed minimum number of hours for the Ph.D. degree. The student’s dissertation committee will determine the adequacy of the student’s courses and seminars and will specify the total course requirements. Neither the Graduate School nor the Department has a requirement for a minor.

Students who wish to pursue a more multidisciplinary plan of study may incorporate coursework from up to 2 other natural science, engineering, or mathematics (SEM) departments at KU by substituting non PHSX courses at the 600 level and above from these other disciplines for the 3 additional electives described in items c) and d) above. The research advisor, or in the absence of one, the Departmental Graduate Advisor (who is the default advisor for all students without a research advisor), shall approve all such outside course choices and provide documentation for the student file on the approved courses and their rationale.

Students who wish to take courses in the social sciences, humanities, or professional schools must submit a detailed plan of study that must be approved by the Physics and Astronomy Graduate Committee. Please note that while these unique plans involving non SEM fields will be considered, there is no guarantee that the plan of study will be approved.

Suggested Course Schedule

A sample academic schedule for a student who has a half-time teaching or research assistantship during the first 4 semesters is shown below. It includes the core courses for admission to preliminary candidacy (described in a subsequent section) and a set of lecture courses that meet the Ph.D. course requirements. It is the schedule for a full-time resident student with the normal preparation described above and who is working toward the Ph.D. degree. Students admitted with less preparation should begin with less advanced courses. Courses numbered 500 and above carry graduate credit.

The electives listed below, e.g. PHSX 741, PHSX 781, PHSX 795, PHSX 911, are purely an illustrative option. Students have the freedom to choose which non-required courses satisfy their elective requirements. Note that this sample schedule may also not apply for a student pursuing a more multidisciplinary plan of study.

### Year 1

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 711</td>
<td>3 PHSX 811</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHSX 821</td>
<td>3 PHSX 815</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHSX 717</td>
<td>1 PHSX 831</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHSX 702</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHSX 718</td>
<td>3</td>
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</tbody>
</table>

| Total Hours: 38 |

### Communication Skills

All graduate students, after their first semester, will deliver at least 1 oral presentation per semester. The talk should be at least 20 minutes long. For students not yet associated with a research group, the Graduate Seminar can serve as a venue. For more advanced students the seminar of their research group would be a natural venue. The student does not need to be enrolled in the seminar to present a talk for this purpose. Off-campus venues such as collaboration meetings and physics conferences can also serve this purpose. When giving presentations, students should fill out a form available on the department web site and have it signed by 2 witnesses, 1 of which must be a Physics or Astronomy faculty and other a Ph.D. doing research in the department. The completed form must be handed to the office staff. Faculty members who sign off on the talks are expected to provide constructive feedback to the student. The graduate advisor will monitor student compliance with the requirement.

### Colloquium and Graduate Seminar

All students must enroll in PHSX 700 Colloquium in the sixth semester. Students should have attended at least 75 percent of the regularly scheduled colloquia during the 6 semesters to achieve a passing grade. In Fall of the first year, each graduate student is required to enroll in and attend the graduate seminar (PHSX 717) in order to familiarize themselves with research programs in the Department and gain experience in oral presentations.

### Research Skills and Responsible Scholarship

By the end of 1 year after being admitted to preliminary candidacy, the student must complete PHSX 815/ASTR 815, Computational Physics and Astronomy, with a grade of “B” or higher in order to satisfy the Research Skills requirement. Note that this course has significant prerequisites in undergraduate Computer Science. The Responsible Scholarship requirement is filled via completion of PHSX 717.
Computing Skill

Students must complete PHSX 815 Computational Methods in Physical Sciences/ASTR 815 Computational Physics and Astronomy with a grade of A or B, preferably within 1 year after admission to preliminary candidacy. This course has significant prerequisites in advanced undergraduate computer science and requires completion of a substantial computer program to solve a physical problem.

Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current policies on Doctoral Research Skills and Responsible Scholarship are listed in the KU Policy Library.

Comprehensive Examination

Graduate College requirements for the Comprehensive Examination can be found at https://documents.ku.edu/policies/Graduate_Studies/doccomprehensiveorals.htm.

After completing a major portion of the required course work and satisfying the computing skills requirement, the student must pass the comprehensive examination. The Department recommends at least 5 people for committee membership to the Graduate Division, which makes the final appointments. 1 committee member must come from outside of the Department to serve as a representative of the Graduate School. Requests to take the examination must be made to the Graduate Coordinator at least 3 weeks in advance of the date of the examination.

The student will write a 2000 to 4000 word paper on a topic in their chosen sub-field that is relevant to their thesis work. This paper must be presented to the committee at least 1 week in advance of the scheduled oral exam. The student will make a presentation at the oral examination based upon this paper, and will be examined on the contents of the talk, the paper, and works listed in the paper’s bibliography. The bibliography must include at least 1 recent article from a peer-reviewed journal not authored by the student or the student’s advisor. In addition, the committee may ask questions at the oral examination that cover the entire field of physics plus any related material (such as mathematics or chemistry) considered relevant by the examining committee.

In order to pass the comprehensive exam, the student must receive passing grades on both the written and oral components of the exam. The overall grade on this examination, determined by the examining committee, will be "Honors," "Satisfactory," or "Unsatisfactory."

Post-Comprehensive Requirements

Upon passing the comprehensive examination, the student becomes a candidate for the Ph.D. degree. The Graduate Division will then designate the candidate's dissertation committee based on the recommendation of the Department. Each candidate must complete a research project that has been approved by the committee. The committee establishes the candidate's course requirements and directs the research.

Unless granted a leave of absence, the candidate must be continuously enrolled full-time, including summer sessions, until all requirements for the degree are completed. During this time, the candidate must enroll in a minimum of 6 hours a semester and 3 hours a summer session until the completion of the degree or of 18 hours of post-comprehensive enrollment, whichever comes first. (Post-comprehensive enrollment may include the semester in which the comprehensive examination is passed.) After 18 hours of post-comprehensive enrollment, the candidate must continue to enroll each semester and each summer session until all requirements for the degree have been met. If the student petitions (at https://documents.ku.edu/policies/Graduate_Studies/gta_gra_enroll_dr_fewer_6.pdf) they can enroll for only 1 hour of credit in spring, summer, and fall and still maintain their GTA or GRA status.

At least once each year after passing the comprehensive examination, the student should schedule a meeting with his or her dissertation committee to discuss progress towards the completion of the dissertation and any other concerns. A report of the committee's consensus of the meeting should be prepared by a member of the committee other than the student's advisor and placed in the student's file. Copies are to be given to the Departmental Chairman, the Graduate Committee Chair, the Graduate Advisor, the Departmental Director of Graduate Studies, and the student.

Final Oral Examination

The final oral examination will proceed according to the regulations of Graduate studies. These can be found at https://documents.ku.edu/policies/Graduate_Studies/docfinaloral.htm.

We refer to these requirements below, as they appeared on September 24, 2010, and we have inserted some modified requirements for those students who wish to pursue a more multidisciplinary dissertation topic.

It is the responsibility of the student to make sure that they satisfy the current university requirements.

Completion of the dissertation is the culminating academic phase of a doctoral program, climaxd by the final oral examination and defense of the dissertation. In all but the rarest cases, tentative approval of the dissertation is followed promptly by the final oral examination. When the completed dissertation has been accepted by the committee in final draft form, and all other degree requirements have been satisfied, the chair of the committee requests the Graduate Division to schedule the final oral examination. This request must be made in advance of the desired examination by at least the period specified by the Graduate Division (normally at least 3 weeks). The submission of the request must allow sufficient time to publicize the examination so that interested members of the university community may attend. At least 5 months must elapse between the successful completion of the comprehensive oral examination and the date of the final oral examination.

The committee for the final oral examination must consist of at least 5 members (the members of the dissertation committee plus other members of the Graduate Faculty recommended by the committee chair and the department and appointed by the Graduate Division). The Chair of the committee and 3 of the other 4 members must have appointments of some type within the Physics and Astronomy department. 1 member must be from a department other than the Physics and Astronomy department. The outside member represents Graduate Studies and must be a regular member of the Graduate Faculty. Before the examination, the Graduate Division provides a list of responsibilities to the Graduate Studies representative. The Graduate Studies representative is a voting member of the committee, has full right to participate in the examination, and provides a written report on any unsatisfactory or irregular aspects of the examination to the committee chair, department chair, Graduate Division, and Graduate Studies.

For students (and only those students) who are pursuing a multidisciplinary plan of study -- as defined by their substitution of courses from other departments for PHSX electives as described in the Course Requirements section -- up to 2 members of the committee, including the 1 required outside member, may be faculty from other SEM departments with regular, adjunct, or courtesy appointments at KU.
The Chair must have an appointment of some type within the Physics and Astronomy department. (Exception: if the primary appointment of the Chair is outside the department, then only 1 additional committee member may be outside the Department of Physics and Astronomy.)

NOTE: It is assumed that these research projects may involve interaction between physics and 1 or more other SEM disciplines; therefore, the external faculty members may come from up to 2 different departments. The Graduate Division ascertains whether all other degree requirements have been met and if reports of any previously scheduled final oral examinations have been submitted and recorded. Upon approval of the request, the final oral examination is scheduled at the time and place designated by the Graduate Division. This information must be published in a news medium as prescribed by the Graduate Faculty. Interested members of the university community are encouraged to attend these examinations. For every scheduled final oral examination, the department reports to the Graduate Division a grade of Honors, Satisfactory, or Unsatisfactory for the candidate’s performance. If an Unsatisfactory grade is reported, the candidate may be allowed to repeat the examination on the recommendation of the department.

Department of Political Science

Why study political science?

Because political science advances our understanding of politics, power, governance, and public policy in the United States and across the globe.

Undergraduate Programs

Course work is for students studying contemporary political processes as part of their general education, for students majoring in allied social sciences, for students planning to enter professions such as law and teaching, and for majors in political science.

Courses for Nonmajors

Any of the 3 introductory courses apply to College social sciences principal course requirements. Several political science courses qualify as non-Western culture courses.

Public Affairs Internship Program

The department supervises integrated internships for majors who are second-semester juniors or seniors. They are offered during the spring semester in Topeka and Washington, D.C. Programs consist of up to 12 hours in political science—an internship, participation in an intern seminar, and directed readings. Students serve as interns in Topeka or Washington at least 4 days each week and attend weekly seminars. Students also may enroll in a directed readings course with a faculty member on campus. Readings provide a theoretical and analytical study program related to the internship and the seminar. Contact the department early in the fall semester.

Graduate Programs

The department offers M.A. and Ph.D. degrees for students interested in academic work in political science leading to teaching and research careers. Political science graduates also have found careers in the public, private, and not-for-profit sectors. Ph.D. students can pursue concentrations in U.S. politics, comparative politics, international relations, political theory, and public policy.

Fields of Graduate Study

For graduate study, courses in the department are divided into the following fields:

- U.S. political institutions and processes
- Comparative politics
- International relations
- Public policy
- Political philosophy and empirical theory

Courses

POLS 110. Introduction to U.S. Politics. 3 Hours. SF GE3S / S.
An introduction to basic American governmental institutions, political processes, and policy. LEC.

POLS 111. Introduction to U.S. Politics Honors. 3 Hours. SF GE3S / S.
Open only to students in the College Honors Program or by consent of instructor. LEC.

POLS 150. Introduction to Comparative Politics. 3 Hours. SF AE42/GE3S / S.
An introduction to the comparative study of political systems emphasizing governmental structures, parties, electoral techniques, and recent trends in the field. The course also considers major differences between (1) representative and autocratic systems, and (2) developed and underdeveloped nations. LEC.

POLS 151. Introduction to Comparative Politics Honors. 3 Hours. SF AE42/GE3S / S.
Open only to students in the College Honors Program or by consent of instructor. LEC.

POLS 170. Introduction to International Politics. 3 Hours. SF AE42/GE3S / S.
A study of the nation-state system including the role of nationalism, sovereignty, and power. Patterns of state action including neutralism, collective security, war, and cooperation through international organizations are stressed. Specific examples of contemporary international problems are also analyzed and discussed. LEC.

POLS 171. Introduction to International Politics Honors. 3 Hours. SF AE42/GE3S / S.
Open only to students in the College Honors Program or by consent of instructor. LEC.

POLS 177. First Year Seminar: _____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Political Science. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

POLS 249. Study Abroad Topics in Political Science: _____. 1-6 Hours. S.
This course is designed for the study of special topics in Political Science at the freshman/sophomore level. Course work must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

POLS 301. Introduction to Political Theory. 3 Hours. GE3S / S.
An examination of the perennial issues and major concepts in political philosophy. Ideas such as community, liberty, equality, justice, and democracy will be examined in order to understand the various meanings given to these concepts in political discourse and to understand the role to
the contemporary role of international law. This course is intended primarily for non-majors and does not meet the junior/senior level course field distribution requirement. LEC.

POLS 302. Introduction to Political Theory, Honors. 3 Hours. S.
Prerequisite: Either POLS 110, POLS 150, or POLS 170, or their honors equivalents and open only to students in the College Honors Program, or by consent of instructor. LEC.

POLS 306. Political Science Methods of Inquiry. 3 Hours. GE12 / S.
An introduction to the social science methods of investigation and analysis that are used in political science as a discipline and, in many cases, in public and private sector analytical work as well. The nature of political science data sources and methods of data collection, the logic of social scientific inquiry, and key methods of data analysis are emphasized. Prerequisite: POLS 110 and POLS 150 and POLS 170 (or their Honors equivalents), or consent of instructor. LEC.

POLS 310. Contemporary Issues in U.S. Politics. 3 Hours. S.
An examination of issues and problems concerning government and politics in American society. This course is intended primarily for non-majors, and does not meet the junior/senior level course field distribution requirement. LEC.

POLS 320. Introduction to Public Policy. 3 Hours. GE3S / S.
Offers an introduction to the policy-making process covering policy formulation, adoption, and implementation. Overview of major theories of the policy-making process, the actors involved in the process, and the constraints and enhancements offered by the broader political environment. The theoretical frameworks are applied to several substantive policy areas. Prerequisite: POLS 110. LEC.

POLS 330. Introduction to Public Administration. 3 Hours. S.
Introduction to administration, public policy and policy makings is the study of government workers, the organizations in which they work, how they are financed, and how government engages citizens to help form and maintain community. In various ways, the class sessions explore the three important issues of public administration: discretion, authority, and accountability. (Same as PUAD 330.) Prerequisite: POLS 110. LEC.

POLS 331. Introduction to Public Administration, Honors. 3 Hours. S.
Introduction to administration, public policy and policy making, for honors students, is the study of government workers, the organizations in which they work, how they are financed, and how government engages citizens to help form and maintain community. In various ways, the class sessions explore the three important issues of public administration: discretion, authority, and accountability. (Same as PUAD 331.) Prerequisite: POLS 110. LEC.

POLS 350. Contemporary Issues in Comparative Politics. 3 Hours.
This course will survey selected current political issues around the globe. The focus of the course will be on understanding and analyzing the wide diversity of political phenomena that mark countries around the world. Topics may include such things as elections and electoral politics; political parties; government stability; democratization; ethnic, racial, caste, or religious conflict; protest and revolutionary movements; social movements (environmental, feminist, and others); and the politics of economic reform. This course is intended primarily for non-majors, and does not meet the junior/senior level course field distribution requirement. LEC.

POLS 370. Contemporary Issues in International Politics. 3 Hours. S.
A survey of selected issues in current international relations. Topics include global economic interdependence, regional conflicts and nationalism, United States military and economic policy in the post-Cold War era, the role of international organizations such as the United Nations and the European community, global environmental problems and the contemporary role of international law. This course is intended primarily for non-majors and does not meet the junior/senior level course field distribution requirement. LEC.
POLS 502. History of Political Thought. 3 Hours. S.
A survey of major concepts and theories in political philosophy from Plato to Marx. The emphasis is on understanding major classics in western political thought. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of instructor. LEC.

POLS 503. Politics in Literature. 3 Hours. S.
An examination and analysis of the portrayal of politics and political problems in literature. Classical and modern texts will be considered, including dramas, poems, and novels. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of instructor. LEC.

POLS 504. Millenarian Movements. 3 Hours. S.
A historical survey of millenarian movements (the belief in imminent, total, ultimate, this-worldly, collective salvation), with particular attention to their psychological, sociological, and political dimensions. (Same as REL 504.) Prerequisite: POLS 301 or honors equivalent or for non-majors completion of Western Civilization requirement, or consent of instructor. LEC.

POLS 506. Honors Seminar in Political Research. 3 Hours. S.
Students will be exposed to a variety of topics related to the conduct of political science research. Emphasis will be on how one discerns what is known and what remains to be discovered about a research topic, the development of theories and the hypotheses about the unknown, and the collection of information for testing theories. Students will be expected to begin independent research on a topic that might eventually culminate in an honors thesis. This seminar is intended for political science majors who are in the honors or deans programs, who hold departmental scholarships, and/or who intend to write honors theses. Prerequisite: POLS 306. IND.

POLS 511. The Judicial Process. 3 Hours. S.
Covers judicial functions, organizations, personnel, and processes. Examines the goals of the law and the operations of the legal system in meeting these objectives. Focuses on norm enforcement, conflict resolution, and judicial policy-making. Prerequisite: POLS 110. LEC.

POLS 512. Latino Politics. 3 Hours. S.
An overview of the political position of Latinos/os in the United States. The focus is on the three largest Latino groups in the U.S.: Mexican-Americans, Cuban-Americans, and Puerto Ricans; as well as an examination of other South American and Central American populations in the U.S. The main topics include identity formation, the political circumstances of Latinos, relationship to the electoral process, political behavior, and the policy process. LEC.

POLS 515. American Political Parties. 3 Hours. S.
Survey of the development of the American political party system, stressing party organization, nominating systems, campaigns, elections, role of mass media, and party finances. Prerequisite: POLS 110. LEC.

POLS 516. Public Opinion and American Democracy. 3 Hours. S.
This course examines the construction, administration, and interpretation of public opinion polls. The course will also examine the role of public opinion in the democratic process and the formation of public opinion. LEC.

POLS 520. Political Communication. 3 Hours. H.
This course will focus on contemporary political communication theory and illustrate how such theories are exemplified in modern political contexts: political arguments and developing consensus, constitutional issues and hearings, the rhetorical presidency, the dissemination of political information, and political uses of definition. (Same as COMS 607.) Prerequisite: COMS 130 or COMS 150. LEC.

POLS 521. Rhetoric, Politics and the Mass Media. 3 Hours. H.
This course investigates the ways in which rhetorical strategies (persuasive and linguistic usage) permeate the relationship between politics and politicians and the mass media. We will analyze media coverage of political debates, the presidential use of radio, television and press conferences, and the network evening news coverage of political events to see how political decisions are influenced by and influence the media. (Same as COMS 335.) Prerequisite: COMS 130 or COMS 150. LEC.

POLS 528. Environmental Justice and Public Policy. 3 Hours. S.
This course provides an overview of environmental justice, both as a social movement and as a public policy initiative. Environmental justice examines the distribution of environmental externalities across different socio-economic and racial groups. We will discuss several different public policy areas that have been impacted by the environmental justice movement: hazardous waste facility siting, urban redevelopment and Brownfields, transportation policy, and Native American sovereignty. We will also touch upon international environmental policy in an environmental justice context. Throughout the course we will evaluate empirical issues in studying environmental justice. (Same as EVRN 528.) Prerequisite: POLS 306 or a statistics class or consent of instructor. LEC.

POLS 533. Comparative Environmental Politics. 3 Hours. S.
This course compares environmental politics and policies across a number of countries, including those in North America, Western Europe, East Asia, and Latin America. (Same as EVRN 553.) LEC.

POLS 561. Liberation in Southern Africa. 3 Hours. NW AE42 / S.
This course examines struggles for freedom in southern Africa and the consequences of political, economic, and social changes in the region. The end of colonial rule, the demise of white-settler domination, and the fall of the apartheid regime is discussed. As a major political event of the twentieth century, the liberation of southern Africa had both local and global consequences. The course analyzes transnational issues of liberation and resistance to consider broader regional and international perspectives. Course themes pay particular attention to gender and ethnicity and include a focus on democratization and contemporary meanings of liberation. Prior coursework in African Studies is strongly recommended, but not required. (Same as AAAS 561 and HIST 561.) LEC.

POLS 562. Women and Politics. 3 Hours. S.
This course exposes students to contemporary research on women and politics by surveying the sub-fields of political science. Topics include women’s representation in the U.S., women and U.S. public policy, gender and legal theory, international women’s movements, women and revolution, and women as political elites. We will examine the ways in which feminist theory and women’s activism have challenged the narrow focus of the discipline as well as redefined women’s place in society. (Same as WGSS 562.) Prerequisite: A 100-level POLS course or WGSS 201 or permission of instructor. LEC.

POLS 563. Comparative Political Economy. 3 Hours. S.
This course studies fiscal, monetarist, and trade policies to assess the usefulness and problems posed by these policy instruments across countries. This includes examining exchange rates, interest rates, budget deficit, trade deficit, and debt, to understand their composition and relevance to domestic economy, employment, investment, development, and international trade, the problems they pose, and how these may be overcome. We then examine when, how, and why government enacts these instruments across countries and regions. Prerequisite: POLS 150 or POLS 151. LEC.
POLS 564. Elections and Political Parties Around the World. 3 Hours. S.
An examination of the diverse forms of election rules and their consequences for political parties, politicians, and voters. The course will survey election rules in theory and practice; the design and re-design of election rules in new and established democracies; and how elections affect party strategies or governance and representation, and the types of party systems that emerge. The course will also incorporate intensive studies of election campaigns occurring during the semester that the course meets. Prerequisite: POLS 150. LEC.

POLS 565. Political Change in Asia. 3 Hours. S.
This course focuses on three periods of major political changes in Asia since 1945: independence from colonization; adoption of governance; and steps toward democratization. The focus on political change is to help students see that a) many countries initiate political reforms domestically; b) the ability to implement changes is correlated to ability to win support; c) the constitutional process may favor some groups over others; d) the ability to mediate political stability depends on (a), (b), and (c). Prerequisite: POLS 150 or equivalent. LEC.

POLS 566. Social Welfare, Taxation, and the Citizen. 3 Hours. S.
Most developed countries provide for the basic needs of their citizens. Many provide health care, free education, and even retirement funding in exchange for taxes. The U.S. is an exception. The course presents taxation systems in most developed countries, then explores the dimensions of social welfare, and the differential roles of citizens in each country. The final section of the course outlines legislative and legal possibilities for U.S. citizens. Prerequisite: POLS 150. LEC.

POLS 600. Contemporary Feminist Political Theory. 3 Hours. S.
A detailed introduction to feminist thought post-1960. Examines feminism in relation to the categories of political theory: liberal feminism, socialist feminism, radical feminism, and postmodern feminism. Within these categories and separately, we will also consider feminism as it is influenced by women traditionally excluded from mainstream feminist thought, namely U.S. woman of color and women of post-colonial societies. (Same as WGSS 600.) Prerequisite: WGSS 201 or a 100-level POLS course or permission of instructor. LEC.

POLS 601. Political Ideologies. 3 Hours. S.
A systematic survey of the major political ideologies of the 19th and 20th centuries such as anarchism, socialism, liberalism, fascism, communism, and participatory democracy. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of instructor. LEC.

POLS 602. American Political Ideas. 3 Hours. S.
A study of political movements and thinkers from the Puritan period to the present that have influenced the development of contemporary political ideas. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of instructor. LEC.

POLS 603. Democratic Theory. 3 Hours. S.
A detailed study of the typical and perennial dilemmas that arise in theories of democratic governance with an emphasis on contemporary analytical investigations of democratic systems. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of instructor. LEC.

POLS 604. Religion and Political Theory. 3 Hours. S.
A study of the relationship between religious faith and politics in Western political theory and thought. The approach will be both historical and philosophical, beginning with Moses on the one hand, and the Greeks on the other. Texts will include biblical, Greek philosophical, Jewish and Christian philosophical and theological writings. (Same as REL 604.) Prerequisite: POLS 301, or for non-majors completion of Western Civilization requirement, or consent of instructor. LEC.

POLS 605. A Study of Political Thought in Antiquity. 3 Hours. S.
Possible authors for examination may include Homer, Hesiod, Plato, Aristotle, Cicero, and Augustine, among others. Central topics will include the problems of truth and knowledge, justice, power, human rule, and the relationship of the individual to the community. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of the instructor. LEC.

POLS 607. Modern Political Theory. 3 Hours. S.
An analysis of works by various authors, with the intention of exploring the political ideas that emerge in conjunction with the appearance of modern science, the Enlightenment, the Industrial Revolution, and Romanticism. Topics will include the modern conceptions of the nature of being, truth, justice, and the relationship of the individual to the community. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of instructor. LEC.

POLS 608. Social Choice and Game Theory. 3 Hours. S.
A survey of the political economic approach to individual and collective choice behavior called "rational choice." The course focuses on models of voting systems and other political institutions as seen from a game theoretic perspective. Prerequisite: Nine hours of political science and completion of the College of Liberal Arts and Sciences mathematics requirement for the B.A. degree. LEC.

POLS 609. Topics in Political Theory: _____. 3 Hours. S.
A study of selected theorists in relation to a topic in political theory. Sample topics include: revolution; authority and community; elements of political power; political elites: ideology, human nature in politics, political conflict, etc. Theorists will range from ancient to contemporary. Course is repeatable for different topics. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of instructor. LEC.

POLS 610. Constitutional Law: Governmental Powers. 3 Hours. S.
The Supreme Court viewed as a political branch of our government. Special emphasis on the Court’s role in determining powers of government and their relationships. Prerequisite: POLS 110. LEC.

POLS 611. Constitutional Law: Civil Liberties. 3 Hours. S.
The constitutional limits on governmental powers are studied with special emphasis on constitutional guarantees of individuals freedom. Prerequisite: POLS 110. POLS 610 is recommended. LEC.

POLS 612. Psychology in Politics. 3 Hours. S.
An examination of psychological perspectives on political phenomena. Topics include political personality, foreign policy decision making, international conflict and cooperation, voting behavior, and political participation and socialization. Prerequisite: Nine hours of political science, including POLS 110 and POLS 170. LEC.

POLS 613. Comparative U.S. State Politics. 3 Hours. S.
A systematic comparative analysis of structures, functions, and policies of state political systems. Prerequisite: POLS 110 or consent of instructor. LEC.

POLS 614. Urban Politics. 3 Hours. S.
A survey of the social, cultural, economic, and structural differences among cities and an investigation into how these factors affect urban politics and policies. Specific topics include leadership, governmental reform, citizen participation, inter-ethnic conflict, and economic development. Prerequisite: POLS 110. LEC.
POLS 615. Campaigns and Elections. 3 Hours. S.
This course examines the behavior of candidates, campaigns, and voters in the electoral process. Topics will include the role of media, the impact of money, the operations of political campaigns and the effect of campaign laws. LEC.

POLS 616. Interest Group Politics. 3 Hours. S.
Study of internal group organization and the politics of interests within the U.S. policy-making process. Prerequisite: POLS 110. LEC.

POLS 617. The Congress. 3 Hours. S.
Descriptive and comparative analysis of legislative institutions and processes in the United States, covering Congress and state legislatures. Prerequisite: POLS 110. LEC.

POLS 618. The Presidency. 3 Hours. S.
The office of the President of the United States, its place in the constitutional and political system. Emphasis is given to modern experience and current problems. Prerequisite: POLS 110. LEC.

POLS 619. Topics in American Politics: ______. 1-3 Hours. S.
A study of selected contemporary problems of policy or politics in the United States. Course is repeatable for different topics. Prerequisite: POLS 110. LEC.

POLS 620. Formulation of Public Policy. 3 Hours. S.
Analysis and evaluation of the structures and processes involved in the formulation of public policy at all levels of government. Prerequisite: POLS 110. LEC.

POLS 621. Public Policy Analysis. 3 Hours. S.
An introduction to the study and analysis of public policy with emphasis on the concepts and techniques of policy thinking. The methods of policy description, explanation, evaluation, and choice will be applied to a variety of policy topics, e.g. health care, defense, environmental protection, education, etc. Prerequisite: POLS 110. LEC.

POLS 622. Government and the Economy. 3 Hours. S.
An examination of the formulation and execution of government policies in the economy and the business sector; the impact of the economy and business on government policies and the impact of government policies on the economy and business. Prerequisite: POLS 110 or consent of instructor. LEC.

POLS 623. The Politics of Social Policy. 3 Hours. S.
An examination of the formulation and execution of key social policies in the United States, such as welfare policy, crime and drug control policy, disability rights policy, education policy, and social regulatory policy concerning controversial social issues such as abortion and gun control. Prerequisite: POLS 110. LEC.

POLS 624. Environmental Politics and Policy. 3 Hours. S.
Analysis of environmental politics and the formulation and implementation of environmental policy. Examines the history and development of environmental politics as well as current trends. Themes include interest groups, business interests, political institutions, and specific environmental policy issues. (Same as EVRN 620.) LEC.

POLS 625. Extremist Groups and Government Response. 3 Hours. S.
Examines left- and right-wing extremist political groups in America and how the government has developed policies and respond to these groups. Special attention will be given to the process of policy adoption and implementation and how the government might respond to extremist groups in the future. Issues and themes will include groups such as the left-wing terrorists of the 1960s and 1970s, right-wing anticommmunist groups of the 1950s and 1960s, international terrorists acting in the U.S., hate crime, ecoterrorism, citizen militia groups, and pro- and anti-abortion extremist groups. Prerequisite: POLS 110. LEC.

POLS 626. Introduction to Survey Research. 3 Hours. S.
This course introduces the theory and methods used in survey research. The topics include types of surveys, type of sampling methods, questionnaire and codebook construction and analysis. Prerequisite: POLS 306. LEC.

POLS 627. Advanced Issues in Survey Research. 3 Hours. S.
This course focuses on the problems encountered while implementing surveys in specific populations (in the United States and Europe) and in developing countries. The course identifies problem areas such as in sampling and questionnaire design; and addresses how researchers overcome these problems. Prerequisite: POLS 306 and POLS 626. LEC.

POLS 628. The Politics of Public Health. 3 Hours. S.
This course examines the social, institutional and political context of public health policy in the United States. We will examine factors that shape the nation’s public health, explore the role of government in reducing risk and promoting well-being, and analyze the major institutions responsible for monitoring, protecting and promoting general public health. Themes include the social determinants of health, health disparities, emerging infectious diseases, food safety, transportation, and environmental health. (Same as EVRN 628.) Prerequisite: POLS 110 and POLS 306 are recommended. LEC.

POLS 629. Topics in Public Policy: ______. 1-3 Hours. S.
Examination of the U.S. political system and policy formulation and administration through intensive analysis of selected current public policy problems. Sample topics include the environment, education, and economic well-being. Course is repeatable for different topics. Prerequisite: POLS 110. LEC.

POLS 630. Politics of Identity. 3 Hours. AE41 / S.
This seminar explores the nature of identity and how identity is relevant to politics and policy with a focus on political attitudes and behavior, institutions, and public policy. Topics include individual and group identity, identities such as gender, racial, sexual orientation, and partisan, and the enduring importance of identity for understanding politics as well as the policy process. The approach is multidisciplinary but political science perspectives are relied on more heavily. (Same as WGSS 630.) Prerequisite: POLS 110 and POLS 306 are recommended. LEC.

POLS 634. Bureaucratic Politics. 3 Hours. S.
Examination of U.S. governmental agencies with special attention to their development and role in the American political system. Prerequisite: POLS 330. LEC.

POLS 640. Politics of Reproductive Policy. 3 Hours. S.
Reproductive policy has historically been a highly politicized policy area, which has elicited attention from the political community as well as the public. This course moves beyond the popular rhetoric associated with reproductive issues, by critically investigating the history, development, implementation and the relative success of various reproductive policies in the United States. These policies are compared to, and assessed against, policies governing similar topics in various countries. (Same as WGSS 640.) Prerequisite: POLS 110 or consent of instructor. LEC.

POLS 644. Justice and Public Policy in Democratic Societies. 3 Hours. S.
Examines the ethical and philosophical choices that inform public policy in democratic societies. The guiding idea of the course is that public policies reflect underlying decisions about the nature of state authority and the just use of that authority. The theoretical focus is on modern European and American liberal democratic thought; the empirical focus is global. Among the policy issues examined in the course are public education, immigration, gender equality, same-sex marriage, and drugs. Prerequisite: POLS 150 or POLS 301. LEC.
POLS 645. Corruption, Crisis and Scandal. 3 Hours. S.
This course investigates political events and decisions that are considered illegal or illegitimate. Cases from the U.S. and around the world are considered. Issues discussed include the misuse of governmental power and funds, electoral fraud, and bribery. Conditions under which problems arise and reforms that address them are considered. Prerequisite: POLS 110 and POLS 150. LEC.

POLS 650. Palestinians and Israelis. 3 Hours. S.
Examines the international relations, political institutions, and social politics of these two ethnonational communities in relation to each other. Specific topics include the historical evolution of the Israeli-Palestinian conflict, prospects for conflict resolution, electoral systems and political parties in the two nations, state-society relations, social movements, and roles of gender and religion. Prerequisite: Nine hours of Political Science, including POLS 150/POLS 151 or POLS 170/POLS 171, or permission of instructor. LEC.

POLS 651. Women and Politics in Latin America. 3 Hours. S.
This course explores the ways in which Latin American women have engaged in politics in the past two decades. Cases will draw from a variety of countries in Latin America. Students are expected to develop insights, through comparative analysis, into why women "do politics" in certain ways, the role of the State in women’s politics, the (dis)advantages of various political strategies, and the ways in which political, economic, and social changes over time have affected women’s political opportunities and interests. (Same as WGSS 651.) Prerequisite: Six hours of course work in Political Science and/or Women’s Studies and/or Latin American Studies. LEC.

POLS 652. Politics in Europe. 3 Hours. S.
The study of the politics and government of Europe. Major countries are covered in depth, while smaller democracies are grouped according to political concepts. Prerequisite: POLS 150. LEC.

POLS 653. Gender, War, and Peace. 3 Hours. S.
This course explores ways in which militarization and warfare are gendered processes. We ask, what does war tell us about gender, and what does gender tell us about war? Though the majority of fighters are men, women are essential to war efforts. They also represent a high proportion of the casualties of war. Yet women are rarely examined in relation to war; thus we work to uncover women’s experiences of war. We also look to women’s contributions to the peace movement in terms of both theory and practice, asking: Is peace a feminist issue? Should feminists support women’s access to combat positions or oppose the military? What if women ruled the world—would that end wars? Does militarized masculinity harm men more than benefit them? How do states mobilize citizens to war and how is the process gendered? (Same as WGSS 653.) Prerequisite: One of the following: POLS 150, POLS 151, POLS 170, POLS 171, WGSS 201, WGSS 202. LEC.

POLS 654. Politics and Government of Russia and the Central Eurasian States. 3 Hours. S/W.
The collapse of the Soviet system and the problems of transforming a central planned authoritarian state into a free market democracy. The roles of ethnic and national tensions, economic decay, and cultural factors. Prerequisite: Eight hours in the social sciences and/or history, including POLS 150, or consent of instructor. LEC.

POLS 655. Politics of East-Central Europe. 3 Hours. S/W.
This course analyzes Communist political theory in its application to the countries of East-Central Europe with consideration of their traditional backgrounds and their patterns of political, social, and economic developments. It constructs a theoretical model of the communist state and discusses its variations by description and comparison of the governments and political processes of Albania, Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland, Rumania, and Yugoslavia. Prerequisite: POLS 150 and three hours in the social sciences or East European history, or consent of instructor. LEC.

POLS 656. Governments and Politics of East Asia. 3 Hours. NW AE42 / S/W.
A comparative examination of the contemporary political institutions, processes and ideas of China, Japan, and Korea. (Same as EALC 656.) Prerequisite: POLS 150 or a course in East Asian studies. LEC.

POLS 657. Government and Politics of Southeast Asia. 3 Hours. NW AE42 / S/W.
An evaluation of the traditional and contemporary political institutions, behavior and ideas of the countries of Southeast Asia. Prerequisite: POLS 150 or a course in Asian history or Southeast Asian history. LEC.

POLS 658. Theories of Politics in Latin America. 3 Hours. S/W.
This course examines how political science can be used to explain the political dynamics of Latin America. The course will be devoted to understanding different theories about politics -- many of which have been devised by political scientists whose primary focus of study is not Latin America -- and examining their uses and limitations in understanding Latin America. Among the themes we will be examining are the relationships between economic growth, political culture, and democracy, the role of the military in politics, the political impact of new social movements (such as the women’s movement and religious movements), theories of revolution, and understanding the prevalence of political corruption in the region. Along the way, we will analyze how political scientists attempt to develop hypotheses, gather data, and test theories. Prerequisite: POLS 150 or a social science course in Latin American topics. LEC.

POLS 659. Political Dynamics of Latin America. 3 Hours. S/W.
Study of the institutions, processes, and special problems of selected Latin American countries. Prerequisite: POLS 150 or a course concerning Latin America in the social sciences or history. LEC.

POLS 660. The Politics and Problems of Developing Countries. 3 Hours. NW AE42 / S/W.
A focus on topics pertinent to all of the underdeveloped areas such as the role of the military, styles of political leadership, land tenure systems, the role of the middle sectors, the nature of bureaucracy, the activity of the students, and foreign policy attitudes. Prerequisite: One of the following: POLS 652, POLS 653, POLS 654, POLS 655, POLS 656, POLS 657, POLS 658, POLS 659. LEC.

POLS 661. Politics of the Middle East. 3 Hours. NW AE42 / S/W.
Survey of domestic and international political developments in the Middle East. Topics include: emergence of the modern nation-state, the role of Islam, leadership patterns, competing political ideologies, prospects for democratization, foreign policy relations, and regional conflicts. Prerequisite: Nine hours in political science, including POLS 150 and POLS 170 or their honors equivalents, or permission of instructor. LEC.

POLS 663. Protest and Revolution. 3 Hours. S.
An exploration of what happens when protesters challenge a state. The course focuses on the interactions and outcomes of discontent and state conflict. Topics include the relation between coercion and protest, strategy, violence, terrorism as adaption, civil war and regime transition. Prerequisite: POLS 150. LEC.

POLS 664. Middle East Politics, Honors. 3 Hours. S.
Honors Version of POLS 661. Survey of domestic and international political developments in the Arab countries, Iran, Turkey, and Israel. Topics include state-society relations (e.g., forms of political organization, electoral politics, opposition movements, human rights, political Islam, gender), regional and international foreign relations, and the Arab-Israeli conflict. Prerequisite: Nine hours of Political Science, including POLS...
POLS 665. Politics in Africa. 3 Hours. NW AE42 / S.
A survey of politics in Africa, focused on the countries of sub-Saharan or Black Africa. The course includes a historical discussion of precolonial Africa, colonization and the creation of contemporary states, and the politics of independence, before examining contemporary political systems and the forces influencing patterns of politics on the continent. (Same as AAAS 600.) Prerequisite: POLS 150 or AAAS 105 or AAAS 305 or consent of instructor. LEC.

POLS 666. Political Economy of East Asia. 3 Hours. S.
This course provides basic understanding of fiscal, monetarist, and trade politics; how governments in East Asia use them to pursue growth; the extent to which these governments follow or controvert economics to pursue growth; and how the performances of economies in East Asia relate to the U.S. and global economies. (Same as EALC 666.) Prerequisite: POLS 150. LEC.

POLS 667. Islam and Politics. 3 Hours. NW AE42/AE51 / S.
This course gives students a basic understanding of Islam and Islamic movements, explores the economic, social, political, and cultural context in which these movements take place, and examines the impact of Islam on politics in select countries. Issues such as compatibility of political Islam and democratic politics, political economy in Muslim societies, fundamentalism in Islam, gender relations, identity politics and questions on clash of civilizations are explored. (Same as SOC 640.) Prerequisite: A principal course in sociology, POLS 150, or consent of instructor. LEC.

POLS 668. Reform in Contemporary China. 3 Hours. NW AE42 / H/W.
Examines the epochal changes that have occurred in China from Deng Xiaoping’s rise to power in 1978 to the present. Includes a focus on the historical background of the revolutionary period before examining the political and economic changes that spawned the 1989 "prodemocracy" movement at Tiananmen. The course includes an analysis of the events of the 1990s focusing on U.S.-China political and economic relations and the destabilizing effects of inflation, infrastructural reform, political and economic decentralization, and leadership succession. A previous course on China is helpful, but not mandatory. (Same as EALC 585.) LEC.

POLS 669. Topics in Comparative Politics: _____ 2-3 Hours. S.
A study of selected contemporary problems of policy or politics affecting several countries. Course is repeatable for different topics. Prerequisite: POLS 150. LEC.

POLS 670. United States Foreign Policy. 3 Hours. S.
An evaluation of the formulation of United States foreign policy in the post-World War II period. Economic, military, and diplomatic dimensions of policy; internal and external influences on policy; theories of foreign policy decision-making. Prerequisite: Nine hours of political science, including POLS 170. LEC.

POLS 671. International Cooperation. 3 Hours. S.
An examination of the gains possible from international cooperation and the barriers to achieving cooperation. Theoretical perspectives on international cooperation will be explored along with cases such as trade, the environment, arms control, and the European community. Prerequisite: POLS 170 or consent of instructor. LEC.

POLS 672. International Political Economy. 3 Hours. S.
Structural theories of the international political economy provide the framework for a consideration of the nature of hegemony, the management problem of multinational corporations, the role of international regimes and organizations, development, and dependency. Prerequisite: Nine hours of political science, including POLS 170. LEC.

POLS 673. International Organization. 3 Hours. S.
International organizations are examined with special emphasis devoted to the United Nations. A central theme of the course rests upon the question of whether strengthened international organization offers the only alternative to further world wars. Prerequisite: POLS 170 and three additional hours of political science. LEC.

POLS 674. International Ethics. 3 Hours. H.
This course reviews how philosophical perspectives elucidate the role ethics plays in foreign policy. It covers human rights doctrines, issues of economic and political justice, just war theory (jus ad bellum) and just conduct of war (jus en belli) and humanitarian intervention. Prerequisite: POLS 170 or POLS 171. LEC.

POLS 675. Russian Foreign Policy. 3 Hours. S/W.
Examination of the history of Soviet and Russian foreign policy and current issues of foreign policy in the Post-Soviet era. Analysis of foreign policy making in Russia and the other Post-Soviet states. Emphasis on the changed nature of international security problems after the Cold War and on the role of foreign policy in economic development. Prerequisite: Eight hours in the social sciences or history, including either POLS 170 or a course in Russian history. LEC.

POLS 676. International Relations of Asia. 3 Hours. S/W.
An intensive study of the problems of ideological conflict, diplomatic relations, strategic arrangements, economic cooperation, and cultural exchange in East and Southeast Asia with special emphasis upon the roles of major world powers. (Same as EALC 676.) Prerequisite: POLS 170 or a course in East Asian studies. LEC.

POLS 677. U.S. National Security Policy. 3 Hours. S.
An investigation into (1) how security policy is made; (2) the evolution of changing assumptions, strategies and goals since 1945; and (3) the present policy and its alternatives. Prerequisite: Six hours of political science, including POLS 170. LEC.

POLS 678. Chinese Foreign Policy. 3 Hours. S/W.
In-depth examination of China’s changing policies toward other countries with special emphasis on policy-making process, negotiating behavior, military strategy, economic relations, and cultural diplomacy. (Same as EALC 678.) Prerequisite: POLS 170 or a course in East Asian studies. LEC.

POLS 679. International Conflict. 3 Hours. S.
Examination of the historical and theoretical issues surrounding the sources and control of international conflict. Topics will include political and anthropological theories of conflict, the role of force in the international system, international law and just war approaches, nuclear conflict, arms control, and nonviolent alternatives to conflict. Prerequisite: Nine hours of political science, including POLS 170; POLS 306 is recommended. LEC.

POLS 680. International Relations in Political Philosophy. 3 Hours. S.
A consideration of classical and modern theories of the international system, such as the writing of Thucydides, Machiavelli, twentieth-century realists, and others. Topics include, theories of the state, the role of ethics and normative judgments in the world order, the nature and use of power, the relationship between domestic and international politics. Prerequisite: POLS 301, or (for non-majors) completion of the Western Civilization requirement, or consent of instructor. LEC.

POLS 681. Comparative Foreign Policy. 3 Hours. S.
An examination of theories that seek to explain the foreign policy behavior and decision making processes of states in international relations and a survey of past and present foreign policies of several states in Latin America, Western and Eastern Europe, Africa, the Middle East, and the
Far East. Prerequisite: Nine hours of political science, including POLS 150 and POLS 170. LEC.

**POLS 683. International Mediation, Honors. 3 Hours. S.**
This seminar examines the theories about, research on, and the practice of international mediation and other forms of non-militarized third party intervention used to address interstate, intrastate, and nonstate disputes. Specific topics include how mediation differs from other forms of non-militarized peace-building and conflict resolution; the conditions for mediation success (and how 'success' is defined); third party involvement after protracted civil conflict; the role of third parties in the implementation of peace agreements; the relationship between mediation, peace-building, and international law; and proactive conflict management. Prerequisite: Nine hours of political science, including POLS 170/171 and membership in the University Honors Program, or by permission of instructor. LEC.

**POLS 684. International Law: The State and the Individual. 3 Hours. S.**
International law has assumed an increasingly significant role in international life. This course will examine major law including (but not limited to): the changing status and role of the state; rights of minorities and self-determination; the environment; and human rights. The course will examine the central questions and the relevant international legal principles associated with each issue. Prerequisite: Six hours of Political Science, including POLS 170. LEC.

**POLS 685. International Law: Laws of Armed Conflicts. 3 Hours. S.**
This course examines the principles, roles, and functions of international law in the conduct of war. As the course reviews the development and application of the basic rules of armed conflict, several current issues and conflicts are addressed including: the legitimate use of force; the proper definitions of combatants and civilians; actions that constitute war crimes, the legality of new weapons technology, and, if the laws of armed conflict apply to the current "war on terrorism." Prerequisite: Six hours of Political Science, including POLS 170. LEC.

**POLS 689. Topics in International Relations:. 2-3 Hours.**
A study of selected problems in international relations. Course is repeatable for different topics. Prerequisite: POLS 170. LEC.

**POLS 701. Political Theory. 3 Hours. S.**
This course is intended to introduce graduate and advanced undergraduate students to the kinds of activities engaged in by political theorists. Thus the course focuses on several approaches to doing political theory, such as interpreting the work of great political philosophers, clarifying political concepts, organizing and integrating political ideas, evaluating political practices, and creating new political perspectives. The course focuses on historical and contemporary treatments of both epistemological issues (the possibility and grounds for political knowledge) and selected substantive issues (e.g., the legitimacy of the state, the merits and limitations of democracy, the requirements of justice, and the nature and importance of ideologies). LEC.

**POLS 703. Social Choice and Game Theory. 3 Hours.**
A survey of the political economic approach to individual and collective choice behavior called "rational choice." The course focuses on models of voting systems and other political institutions as seen from a game theoretic perspective. Prerequisite: Nine hours of political science or admission into the M.A. or Ph.D. LEC.

**POLS 705. Research Design for Political Science. 3 Hours.**
Introduction to the discipline of political science, the philosophy of science, research design, and data acquisition. Prerequisite: Graduate standing or consent of instructor. LEC.

**POLS 706. Research Methods I. 3 Hours.**
An introduction to quantitative research methods, including probability theory, hypothesis-tests, and multiple regression. Includes regression diagnostics, the treatment of numeric and categorical predictors, interaction effects and elementary nonlinear models. Applications across the behavioral and social sciences are emphasized. Course consists of three hours of lecture and lab sessions where computing applications are taught. LEC.

**POLS 707. Research Methods II. 3 Hours.**
This course covers basic techniques for multivariate analysis, focusing on multiple regression. Topics include interpretation of regression statistics, diagnostics for common problems, dummy variables, instrumental variables, basic time series methods including adjustment for autocorrelated error, logistic models, and nonlinear modeling; additional techniques may be covered at the discretion of the instructor. Prerequisite: POLS 706. LEC.

**POLS 708. Advanced Qualitative Research Methods. 3 Hours.**
An examination of qualitative research approaches frequently employed within political science. Topics may include the use of case studies, archival and documentary research, content analysis, interviewing and focus group techniques, ethnographic fieldwork, narrative and discourse analysis, and others. The course will examine the strengths and limitations of these methods in relation to major research traditions such as culturalist approaches, historical institutionalism, rational choice, and constructivism. Prerequisite: POLS 705 and either graduate standing or consent of instructor. LEC.

**POLS 709. Topics in Political Theory: ______. 3 Hours.**
At the discretion of the instructor, this course will select one or more important areas of political theory for in-depth analysis. Prerequisite: Six hours in Political Theory. LEC.

**POLS 710. American Public Philosophies. 3 Hours.**
Surveys scholarly attempts to describe and analyze critically the changing public philosophies that have dominated American society and politics. Liberalism, republicanism, ascritivism, and pluralism are examples of such public philosophies. Also considered are some philosophies that are important but have not dominated American politics. Transcendentalism, populism, communitarianism, racial nationalism, and religious fundamentalism are examples of such philosophies. Prerequisite: Graduate standing or consent of the instructor. SEM.

**POLS 711. The Psychological Base of Political Behavior. 3 Hours.**
Examination of the relations between psychological mechanisms and social milieu factors and individual political behavior. Particular attention is devoted to understanding the development of politically relevant psychological traits and dispositions, and to the methodology employed in studying the socio-psychological factors which underlie individual political behavior. Prerequisite: Twelve hours of political science and consent of instructor. LEC.

**POLS 712. The Electoral Process. 3 Hours.**
A study of the characteristics of voting behavior and the influences upon such behavior in the United States. Emphasis is placed upon relevant research findings concerning partisanship and participation in politics, and on the methodology employed in the study of political behavior. Prerequisite: Twelve hours of political science and consent of instructor. LEC.

**POLS 713. Law and Society. 3 Hours.**
A study of the province and function of law in the context of relevant social, economic, and political factors. The impact of these factors on the law will be illustrated through readings and discussions of selected case histories. Emphasis will be placed upon law as a social phenomenon...
POLS 716. Political Behavior. 3 Hours.
A seminar for students interested in understanding the public opinion, voting, and other forms of political participation. This course will include a discussion of the formation, measurement of political attitudes as well as an examination of protest and other forms of extra-legal participation. Prerequisite: Twelve hours of political science and permission of instructor for undergraduates. LEC.

POLS 719. Topics in the American Political Institutions: _____. 3 Hours.
A seminar to be offered as occasion demands, dealing with, but not limited to special topics in the presidency, congress, and judicial processes. Prerequisite: Graduate standing or consent of instructor. LEC.

POLS 720. The Scope of Public Policy. 3 Hours.
Introductory graduate course in the examination of public policy making. Considers institutions, basic theoretical frameworks, and standard methods, and places policy-making within a broad political context. Emphasizes American examples, but relevant comparative material is employed. Prerequisite: Twelve hours of political science. LEC.

POLS 722. Intergovernmental Relations. 3 Hours.
A survey of characteristic legal, political, and administrative relationships among different units of American government, with particular emphasis upon the role of state agencies. Prerequisite: Nine hours of political science. LEC.

POLS 726. Public Policy in Comparative Perspective. 3 Hours.
This seminar examines the application of policy theory in regional and comparative contexts. Much of the research examined focuses on comparative public policy, but select weeks focus on specific regions of the world. A key goal is to help students understand which theories of policy may be best suited for universal application. LEC.

POLS 754. Politics and Government of Russia and the Central Eurasian States. 3 Hours.
The collapse of the Soviet system and the problems of transforming a central planned authoritarian state into a free market democracy. The roles of ethnic and national tensions, economic decay, and cultural factors. Prerequisite: Eight hours in the social sciences and/or history, including POLS 150, or consent of instructor. LEC.

POLS 758. Revolutionary Politics of Latin America. 3 Hours.
Primarily a comparative analysis of the Mexican, Bolivian, and Cuban revolutions within a framework of theories of revolutions. Some attention also to revolutionary political groupings and conditions in other Latin American countries. Prerequisite: POLS 150 or a course concerning Latin America in the social sciences or history. LEC.

POLS 774. International Law. 3 Hours.
Study of topics in international law, relating these closely to the dynamics of international relations. Special emphasis will be given to regulating force, resolving disputes, the law of the sea, human rights, and emerging problem areas such as the environment, outer space, the oceanic seabed, and genocide. Prerequisite: Six hours of courses in international relations including POLS 170 and/or relevant courses in the social sciences and modern history. LEC.

POLS 789. Topics in International Relations: _____. 2-3 Hours.
A study of selected problems in international relations. Prerequisite: Consent of instructor. RSH.

POLS 810. American Politics. 3 Hours.
A survey and critical examination of recent theoretical developments and research focusing on national institutions, electoral behavior, and policy-making processes. Emphasis is given to conceptualizing and analyzing the changing nature of the American political system. LEC.
POLS 852. Comparative Political Economy. 3 Hours.
This course provides a survey of some of the major works, research traditions, and current debates in the subfield of comparative political economy. This includes such topics as: The political economy of development and underdevelopment; dependency and world systems theory; the relationship between economic development and democracy; capitalist development and democracy; the political economy of dual transitions; the political economy of privatization and structural adjustment; comparative welfare states; and comparative labor-business-government relations. Prerequisite: POLS 850. LEC.

POLS 853. Comparative Social Politics. 3 Hours.
This course provides a survey of some major research traditions and current debates in the subfield of political sociology. This includes such topic as: culture and politics; elites, social structures, and politics; the politics of cultural pluralism and ethnonationalism; social movements and protest; gender and politics; state-society relation; and religion and politics. Prerequisite: POLS 850. LEC.

POLS 870. International Relations. 3 Hours.
Critical evaluation of the major approaches to international relations and their application to conflict and conflict resolution, foreign policy, and international political economy. LEC.

POLS 878. Conducting and Analyzing Fieldwork in Developing Countries. 3 Hours.
An introduction to fieldwork and surveys conducted in developing and non-democratic countries. The course covers the challenges of conducting interviews and surveys in these countries. The intent is to develop the research skills necessary for data collection and fieldwork as well as evaluating an analyzing survey data collected by other researchers in developing countries. Prerequisite: POLS 705 or equivalent or consent of the instructor. SEM.

POLS 888. Contemporary China Studies. 3 Hours.
This course will review and analyze the current literature on China's social and political development, including a wide range of topics within political science. There is a rich body of literature within each topic such as civil society in China, legal reform, political culture, nationalism, gender issues, ethnicity, political behavior, elections, economic development, and inequality. This course will introduce key literature within each topic focusing on the debates among China scholars as well as how these debates fit in the general field of political science. (Same as EALC 888 and POLS 888.) Prerequisite: POLS 668 or permission of the instructor. LEC.

POLS 889. Non-Thesis Research. 1 Hour.
Research course used to fulfill continuous enrollment requirement for master's degree students. Hours cannot count toward degree. Must be graded Satisfactory/Unsatisfactory. RSH.

POLS 899. Thesis. 1-6 Hours.
Enrollment for writing thesis for master's degrees. THE.

POLS 904. Statistical Computing Foundations. 3 Hours.
This is an interdisciplinary course for social science researchers who need to develop routines to estimate and evaluate statistical models. It introduces tools for software development, primarily with the statistical programming language R (and related languages like C). Topics include code organization and optimization, concurrent version management, LaTeX document preparation, and high-performance computing on the KU Linux cluster. Examples from various fields are considered. Prerequisite: Two courses in graduate level statistics and familiarity with R. LEC.

POLS 905. Complex Adaptive Systems, Agent-Based Modeling and Computer Simulation. 3 Hours.
This seminar addresses the rapidly growing science of complex systems. Topics addressed include political, economic, ecological, and biological systems. Includes a survey of the theory of complexity and computer models that are used to study complex adaptive systems. The main focus is on agent-based models, but attention is also given to traditional cellular automata. Methods of designing, programming, and interpreting results of agent-based models are addressed. Students who have no formal training in computer programming are welcome in the course, but they should expect to do some extra work on fundamentals of programming. A preparatory course in Java, C++, Objective-C, or another object-oriented language would significantly facilitate the student's research effort. SEM.

POLS 906. Advanced Regression. 3 Hours.
Covers topics appropriate for a second course in regression analysis. The content will vary according to the interest of the instructor and students, but will generally include such topics as multiple imputation of missing data, the generalized linear model (GLM), and specialized models for longitudinal data. The course will include a review of the principles of maximum likelihood estimation and applications of matrix algebra and differential calculus in statistical applications. LEC.

POLS 907. Research Methods in International Studies. 3 Hours.
This course focuses on quantitative methods of research relevant to international relations and comparative politics. Topics will vary with the instructor and student interests, but may include time series analysis, classification algorithms, computer programming and computational modeling, simulation, event data and content analysis, and dynamic models. Prerequisite: POLS 707. LEC.

POLS 908. Individual and Collective Choice. 3 Hours.
This course surveys rational choice theories of politics as they are applied to decisions by individuals and groups. Models of individual behavior are drawn primarily from economics and decision theory. The primary approaches to collective choice are social choice theory and game theory. Prerequisite: POLS 707. LEC.

POLS 909. Topics in Methodology: ______. 3 Hours.
An intensive seminar in a method (or a variety of relevant methods) of theoretical or empirical research designed for Ph.D. students only. Emphasis is on deepening the understanding and ability to use advanced methods of analysis. Prerequisite: Admission to the Ph.D. program or consent of instructor. RSH.

POLS 910. Research Seminar in American Government. 2-3 Hours.
A faculty and advanced graduate student collegial research experience focusing on American politics, policy-making and administration, with faculty and students engaged in the production of scholarly research articles, books and conference papers. Topics will be chosen by individual students with consent of the seminar professor. LEC.

POLS 911. The U.S. Congress. 3 Hours.
This seminar employs various theoretical and methodological perspectives to explore the burgeoning post-1960 literature on Congress. Traditional subjects such as committees, parties, and elections are examined through applications of formal models, behavioral analyses, and participant observation. LEC.

POLS 912. Elections and Voting Behavior. 3 Hours.
A research seminar for students interested in theoretical and empirical approaches to the behavior of candidates, voters and contributors in campaigns and elections. The impact of campaign laws and other institutional influences will also be examined. LEC.
POL 913. State and Local Politics. 3 Hours.
Research seminar on various aspects of state and local government, such as reformed institutions, fiscal stress, citizen participation, and various policy problems. LEC.

POL 914. Political Behavior. 3 Hours.
Survey of various approaches to the analysis of political behavior, including an evaluation of each approach in terms of its utility in building empirically-based political theory. Examples of the application of the various approaches will focus upon the American political process. LEC.

POL 915. American Political Parties. 3 Hours.
A survey of the theories and research findings dealing with political parties in American politics, including third and minor parties. Topics to be covered include the development and evolution of the party system, the nature of party organization and the recruitment of party activists, the role of parties in the electoral process, the impact of parties upon public policy, and party reform. LEC.

POL 916. Group Politics. 3 Hours.
The focus of this course is upon the theories and research findings dealing with political groups in American politics, including protest groups, movements, as well as conventional interest groups. Topics to be covered include group mobilization and maintenance, group involvement in the political party and electoral processes, methods and strengths of group influence, and the impact of political groups on the policy process. LEC.

POL 917. The Presidency. 3 Hours.
An advanced research seminar for students interested in theoretical and empirical approaches to the American presidency. This seminar will examine the powers and organizations of the White House through a study of the literature. LEC.

POL 918. Topics in U.S. Government and Politics: ____. 2-3 Hours.
A seminar to be offered as occasion demands, dealing with, but not limited to, bureaucracy, legislative policy, federalism, and special problems in U.S. politics. LEC.

POL 920. Policy Analysis Research Seminar. 3 Hours.
Research seminar designed to apply public policy theory and policy analysis methods to evaluate the impact of public policies. Students will be required to design and conduct an original research project with the intention of presenting the work at a professional conference or publishing the work in a professional journal. LEC.

POL 921. Public Law. 3 Hours.
This seminar is designed to initiate the advanced graduate student to research in judicial and jury behavior. Requirements include mastery of literature on the psychological foundations of legal judgment and research designed to test propositions derived from this literature. LEC.

POL 929. Topics in Public Policy: ____. 1-3 Hours.
Study of selected topics in public policy. LEC.

POL 940. Teaching Political Science. 1 Hour.
A discussion of teaching methods and approaches. Students are expected to develop a personal teaching portfolio that describes their outlook on teaching political science and provides sample teaching materials. This course must be taken by all graduate teaching assistants and assistant instructors during the first year of their appointment. Grades are issued on a pass/fail basis. LEC.

POL 950. Research Seminar in International Studies. 2-3 Hours.
A faculty and advanced graduate student collegial research experience, focusing on comparative politics, area studies, and international relations, with faculty and students engaged in the production of scholarly research articles, books, and conference papers. Topics will be chosen by individual students with consent of the seminar professor. RSH.

POL 951. Mobilization. 3 Hours.
A study of how politicians, interest group leaders, and dissident leaders exhort citizens to act in or preclude them from acting in politics. LEC.

POL 952. Comparative Electoral and Party Systems. 3 Hours.
This research seminar addresses the major theoretical and empirical issues in the study of electoral and party systems. In addition to evaluating the classic works of Arrow, Duverger, Lipset and Rokkan, Rae, and Taagepera and Shugart, students will assess contemporary work on electoral and party systems that has evolved from this source material. The course will address the design and reform of electoral systems, institutional rules and the strategic environment they create for political actors, the role of institutional and social factors in the development of political party systems, and the role of election administration. Students will develop and present original research papers related to these topics. Prerequisite: POLS 850. LEC.

POL 953. Comparative Legislatures. 3 Hours.
This research seminar addresses the major theoretical and empirical issues in the study of legislatures. Students will discuss the design of institutions, government formation, accountability, legislative process and role of committees, agenda setting, elections and parties, and representation. The course will familiarize students with the core debates in legislative studies, extend knowledge of regional variation in the design and function of representative institutions, develop skills in the analysis of legislative records, and enhance professional socialization. Prerequisite: POLS 810, POLS 850, or consent of instructor. SEM.

POL 954. Politics in Post-Soviet States. 3 Hours.
In-depth study of the politics of Russia, Ukraine, and the other Post-Soviet states. Focus on the problems of transforming a centrally planned authoritarian system to a free market democracy. LEC.

POL 955. Politics of Advanced Industrial Societies. 3 Hours.
Theory and research on the patterns of behavior that characterize the politics of North America, Europe, and developed regions of Asia. Topics include corporatism and alternative forms of interest intermediation, economic theories of socialization and electoral choice, and the role of the state; its finances, adaptation, and the problem of power and legitimacy. Prerequisite: POLS 850 or permission of instructor. LEC.

POL 956. The Governments and Politics of Asia. 2-3 Hours.
A research seminar on selected subjects and issues in the governments and politics of selected Asian countries. The particular focus each year will depend upon the instructor. LEC.

POL 957. Comparative Political Behavior. 3 Hours.
The course introduces students to the vast literature on comparative elections and comparative political parties. It pursues a twofold goal. First, the course surveys the large comparative electoral behavior literature. The themes covered in the first half include a discussion of why voters participate in elections, how voters form preferences, how psychological processes affect mass views, and how these, in turn, influence party preferences. Second, the course introduces students to the supply-side of politics and the role of political parties. This second part of the course, therefore, examines why parties form in the first place, what motives they have, what choices they offer in short, how and why parties compete. Together, the way voters form preferences and the logic of party formation illuminate a central element of the democratic process. LEC.

POL 959. Topics in Comparative Politics: ____. 1-3 Hours.
Study of selective topics in comparative government and politics. LEC.

POL 960. Politics of Developing Countries. 2-3 Hours.
LEC.
POL 961. The Politics of Culturally Plural Societies. 3 Hours.
This is an advanced graduate seminar on the comparative study of politics in
countries characterized by sub-cultural cleavages, including ethnicity,
language, religion and race. The course will first survey and critique
competing theoretical explanations for different patterns of conflict or
peaceful cohabitation among such groups in a variety of world regions.
Students will then examine the utility of these theories in individual in-
depth research papers which will be presented in class and critiqued by
seminar participants. LEC.

POL 970. Foreign Policy Analysis. 3 Hours.
Designed to acquaint students with the principal theories, approaches and
types of empirical analysis generally employed to explain and interpret
the creation and implementation of foreign policy. Topics include rational
actor models, collective and bureaucratic processes, societal influences,
cognitive and psychological factors, and comparative foreign policy.
Prerequisite: POLS 870. An undergraduate United States foreign policy
class is recommended. LEC.

POL 972. Theories of International Conflict. 3 Hours.
An in-depth survey of theories and research on international conflict.
Topics will range from anthropological studies of conflict in primitive
societies to contemporary theories of nuclear conflict. The course will also
cover current empirical research methodology and results of research on
international conflict, as well as models of conflict processes. Prerequisite: POLS 870. LEC.

POL 973. International Political Economy. 3 Hours.
Provides an eclectic survey of major developments in the field. Topics
include the intellectual origins of IPE; the historical evolution of the
international system; North-South and Western trade, investment, and
monetary relations; foreign aid, debt technology transfer, development,
international economic institutions (e.g., IMF, IBRD, MNCs, etc.). (Same
as SOC 873.) Prerequisite: POLS 870 or consent of instructor. LEC.

POL 974. International Mediation and Conflict Resolution. 3 Hours.
The course examines the theory and practice of international mediation
and other forms of third party intervention used to resolve interstate and
nonstate disputes. Topics include explanations of mediation success
and failure, conditions of conflict escalation where mediation is likely to
be counterproductive or resisted by recalcitrant disputants, the ethics of
intervention, citizen diplomacy, and the role of international organizations
such as the United Nations. Prerequisite: POLS 870. LEC.

POL 977. Ethics in International Relations Theory. 3 Hours.
This course examines how issues of International Ethics have been
treated in International Relations theory. This course begins by reviewing
several theoretical perspectives of International Relations and how
these perspectives have historically understood the role ethics plays in
international politics. By the end of the semester, students should have
a firm understanding of (1) the salient issues of international ethics in
world politics and (2) whether and how IR scholars have (theoretically and
methodologically) placed those issues in their research paradigms. The
issue areas the course will cover include, but are not limited to, human
rights doctrines, issues of economic and political justice, just war theory
(jus ad bellum) and just conduct of war (jus en bello), and humanitarian
intervention. The course will assess the role international law has played
in stemming and/or punishing human rights abuses. Students will review
several historical cases of genocide, as well as several cases of truth and
reconciliation commissions. LEC.

POL 978. Advanced Topics in International Relations Theory. 3 Hours.
Intensive examination of key theoretical debates in international
relations. Topics covered will include Classical Realism and Liberalism,
Neo-realist/Neo-liberal debate, and post-structural critiques of mainstream
international relations theory. Prerequisite: POLS 870. LEC.

POL 979. Topics in International Relations: ________, 3 Hours.
To be offered periodically when topics of special interest arise. LEC.

POL 980. International Organizations. 3 Hours.
Considers theoretical and empirical work on international governmental
and non-governmental organizations (IOs). Specifically highlights
the evolving scholarly debates regarding the function, design, and
delegation of authority to IOs as well as their behavior and change.
Explores these questions in depth through a wide range of cases,
including comprehensive coverage of the United Nations, Bretton
Woods Institutions, and the European Union, and their activities in issue
areas concerning international security, trade, finance, development,
humanitarian aid, and the environment. LEC.

POL 981. Global Development. 3 Hours.
Considers the nature and problems of development and
underdevelopment from a cross-regional and interdisciplinary perspective.
Deals with the historical origins of the enormous disparities in wealth
that exist today, both between and within countries. Considers the
explanations for those differences, prescriptions for how to narrow them,
and specific cases (both successes and failures) from various regions of
the globe. LEC.

POL 993. Directed Readings. 1-5 Hours.
Designed to meet the needs of graduate students whose study in political
science cannot be met with present course. Prerequisite: Consent of
instructor. RSH.

POL 995. Directed Research. 2 Hours.
Designed for advanced graduate students who are concurrently enrolled
or who will be enrolled in a subsequent semester in one of the Research
Seminars in American Government or International Studies. Students
enrolling in this course should have the prior approval of the faculty
member with whom they wish to conduct the research. RSH.

POL 997. Preparation for the Comprehensive Examination. 1-6
Hours.
An independent reading course for students preparing to take the Ph.D.
comprehensive examination. May be taken for two semesters or six
credits, whichever comes first. Graded on A, B, C, D, or F depending on
the results of the comprehensive examination. RSH.

POL 999. Doctoral Dissertation. 1-15 Hours.
Enrollment for writing doctoral dissertations. THE.

Bachelor of Arts and Bachelor of General Studies in Political Science

Why study political science?
Because political science advances our understanding of politics, power,
governance, and public policy in the United States and across the globe.

First- and Second-Year Preparation
Students should apply for admission during semester in which major
admission criteria will be completed, normally no later than 60 hours, or
for transfer students, during the initial term at KU. Application to this major
after completion of 60 hours, or the initial KU term for a transfer student,
will likely delay graduation.
Courses Required

Introduction to U.S. Politics. Satisfied by:

- POLS 110 Introduction to U.S. Politics 3
- or POLS 111 Introduction to U.S. Politics Honors

Select one of the following: 3

- Introduction to Comparative Politics. Satisfied by one of the following:
  - POLS 150 Introduction to Comparative Politics
  - or POLS 151 Introduction to Comparative Politics Honors

- Introduction to International Politics. Satisfied by one of the following:
  - POLS 170 Introduction to International Politics
  - or POLS 171 Introduction to International Politics Honors

Admission GPA

- Satisfied by a minimum 2.3 GPA in required admission courses designated above.
- University Course Repeat Policy will apply.

Requirements for the B.A. or B.G.S. Major

Political Science Core Knowledge and Skills (15)

Majors must complete a course in each of the following areas:

Introduction to U.S. Politics. Satisfied by one of the following:

- POLS 110 Introduction to U.S. Politics 3
- or POLS 111 Introduction to U.S. Politics Honors

Introduction to Comparative or International Politics. Satisfied by one of the following:

- POLS 150 Introduction to Comparative Politics 3
- or POLS 151 Introduction to Comparative Politics Honors
- POLS 170 Introduction to International Politics 3
- or POLS 171 Introduction to International Politics Honors

Introduction to Political Theory. Satisfied by one of the following:

- POLS 301 Introduction to Political Theory 3
- or POLS 302 Introduction to Political Theory, Honors

Political Science Methods of Inquiry. Satisfied by:

- POLS 306 Political Science Methods of Inquiry 3

Political Science Required Distribution of Electives (6)

Majors must complete an elective course from at least 2 different subfields below.

Political Philosophy & Empirical Theory

Satisfied by one of the following:

- POLS 501 Contemporary Political Thought
- POLS 502 History of Political Thought
- POLS 503 Politics in Literature
- POLS 504 Millenarian Movements
- POLS 600 Contemporary Feminist Political Theory
- POLS 601 Political Ideologies
- POLS 602 American Political Ideas
- POLS 603 Democratic Theory
- POLS 604 Religion and Political Theory
- POLS 605 A Study of Political Thought in Antiquity
- POLS 607 Modern Political Theory

- POLS 608 Social Choice and Game Theory
- POLS 609 Topics in Political Theory: ______
- POLS 626 Introduction to Survey Research
- POLS 627 Advanced Issues in Survey Research
- POLS 644 Justice and Public Policy in Democratic Societies
- POLS 680 International Relations in Political Philosophy 

U.S. Political Institutions & Processes

Satisfied by one of the following:

- POLS 511 The Judicial Process
- POLS 512 Latino Politics
- POLS 515 American Political Parties
- POLS 516 Public Opinion and American Democracy
- POLS 520 Political Communication
- POLS 521 Rhetoric, Politics and the Mass Media
- POLS 566 Social Welfare, Taxation, and the Citizen 
- POLS 610 Constitutional Law: Governmental Powers
- POLS 611 Constitutional Law: Civil Liberties
- POLS 612 Psychology in Politics 
- POLS 613 Comparative U.S. State Politics
- POLS 614 Urban Politics
- POLS 615 Campaigns and Elections
- POLS 616 Interest Group Politics
- POLS 617 The Congress
- POLS 618 The Presidency
- POLS 619 Topics in American Politics: ______
- POLS 620 Formulation of Public Policy 
- POLS 630 Politics of Identity
- POLS 645 Corruption, Crisis and Scandal
- POLS 667 Islam and Politics
- Public Policy & Public Administration

Satisfied by one of the following:

- POLS 528 Environmental Justice and Public Policy
- POLS 566 Social Welfare, Taxation, and the Citizen 
- POLS 620 Formulation of Public Policy 
- POLS 621 Public Policy Analysis
- POLS 622 Government and the Economy
- POLS 623 The Politics of Social Policy
- POLS 624 Environmental Politics and Policy
- POLS 625 Extremist Groups and Government Response
- POLS 628 The Politics of Public Health
- POLS 629 Topics in Public Policy: ______
- POLS 634 Bureaucratic Politics
- POLS 640 Politics of Reproductive Policy
- Foreign Governments & Comparative Politics

Satisfied by one of the following:

- POLS 553 Comparative Environmental Politics
- POLS 561 Liberation in Southern Africa
- POLS 562 Women and Politics
- POLS 563 Comparative Political Economy
- POLS 564 Elections and Political Parties Around the World
- POLS 565 Political Change in Asia
POLS 600  Contemporary Feminist Political Theory
POLS 644  Justice and Public Policy in Democratic Societies
POLS 650  Palestinians and Israelis
POLS 651  Women and Politics in Latin America
POLS 652  Politics in Europe
POLS 653  Gender, War, and Peace
POLS 654  Politics and Government of Russia and the Central Eurasian States
POLS 655  Politics of East-Central Europe
POLS 656  Governments and Politics of East Asia
POLS 657  Government and Politics of Southeast Asia
POLS 658  Theories of Politics in Latin America
POLS 659  Political Dynamics of Latin America
POLS 660  The Politics and Problems of Developing Countries
POLS 661  Politics of the Middle East
POLS 662  Protest and Revolution
POLS 664  Middle East Politics, Honors
POLS 665  Politics in Africa
POLS 666  Political Economy of East Asia
POLS 667  Islam and Politics
POLS 668  Reform in Contemporary China
POLS 669  Topics in Comparative Politics: _____

International Relations
Satisfied by one of the following:

POLS 612  Psychology in Politics
POLS 661  Politics of the Middle East
POLS 670  United States Foreign Policy
POLS 671  International Cooperation
POLS 672  International Political Economy
POLS 673  International Organization
POLS 674  International Ethics
POLS 675  Russian Foreign Policy
POLS 676  International Relations of Asia
POLS 677  U.S. National Security Policy
POLS 678  Chinese Foreign Policy
POLS 679  International Conflict
POLS 680  International Relations in Political Philosophy
POLS 681  Comparative Foreign Policy
POLS 683  International Mediation, Honors
POLS 684  International Law: The State and the Individual
POLS 685  International Law: Laws of Armed Conflicts
POLS 689  Topics in International Relations:

Political Science Required Electives (18)

Majors must complete 6 elective courses (18 hours), 5 of which must be upper-level courses.

Capstone Experience (0)

Recommended for majors but not required:

POLS 493  Directed Readings
POLS 494  Washington Semester Intern Seminar

POLS 495  Topeka Semester Intern Seminar
POLS 496  Washington Semester Field Work
POLS 497  Topeka Semester Field Work
POLS 498  Honors Thesis

Honors Experience
Recommended for students with a minimum grade point average of 3.5 in Political Science coursework and 3.25 overall. These averages must be achieved before the final semester.

Major Hours & Major GPA
While completing all required courses, majors also must meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 30 hours of major courses. A student may count no more than 6 hours toward the major from the following courses combined: POLS 493, POLS 494, POLS 495, POLS 496, POLS 497, or POLS 498.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 24 hours from courses 300+ in the major, of which 15 hours must be courses (400+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://www.collegesas.ku.edu/GPAcalculator.shtml).

Graduation Plan
With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please consult the department for details.

Departmental Honors
Undergraduate majors may qualify for departmental honors by completing 3 hours of POLS 506 Honors Seminar in Political Research and 3 hours of POLS 498 Honors Thesis (or 6 hours of POLS 498), presenting an acceptable honors thesis at the end of these enrollments, and passing an oral examination based primarily on the honors thesis. The student must have a minimum overall grade-point average of 3.25 and a minimum grade-point average of 3.5 in political science course work. These averages must be achieved at the end of the final semester. The program meets CLAS requirements for departmental honors. Consult the department before the beginning of the senior year.

Minor in Public Policy in the United States
Why study political science?
Because political science advances our understanding of politics, power, governance, and public policy in the United States and across the globe.
Requirements for the Public Policy in the U.S. Minor

The Public Policy in the U.S. minor involves course work focused on domestic U.S. public policy and the political environment surrounding the making and implementation of policy.

Public Policy in U.S. Minor Core

Public Policy in the U.S. Minor Core Requirements (6)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 110</td>
<td>Introduction to U.S. Politics</td>
<td>3</td>
</tr>
<tr>
<td>POLS 320</td>
<td>Introduction to Public Policy</td>
<td>3</td>
</tr>
</tbody>
</table>

Public Policy in U.S. Minor Electives (12)

At least 12 hours of POLS courses from approved list:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 528</td>
<td>Environmental Justice and Public Policy</td>
</tr>
<tr>
<td>POLS 493</td>
<td>Directed Readings</td>
</tr>
<tr>
<td>POLS 553</td>
<td>Comparative Environmental Politics</td>
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<td>POLS 566</td>
<td>Social Welfare, Taxation, and the Citizen</td>
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<td>POLS 613</td>
<td>Comparative U.S. State Politics</td>
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<td>Topics in Public Policy: __________</td>
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<td>POLS 630</td>
<td>Politics of Identity</td>
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<td>POLS 634</td>
<td>Bureaucratic Politics</td>
</tr>
<tr>
<td>POLS 640</td>
<td>Politics of Reproductive Policy</td>
</tr>
<tr>
<td>POLS 720</td>
<td>The Scope of Public Policy (graduate level)</td>
</tr>
<tr>
<td>POLS 493</td>
<td>Directed Readings (if content is appropriate)</td>
</tr>
</tbody>
</table>

Minor Hours & Minor GPA

While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

**Minor Hours**

Satisfied by 18 hours of minor courses.

**Minor Junior/Senior Hours in Residence**

Satisfied by a minimum of 12 hours of KU resident credit in the minor.

**Minor Junior/Senior Hours**

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

**Minor Junior/Senior Graduation GPA**

Satisfied by a minimum of a 2.0 KU GPA in all departmental courses (300+) in the minor. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/ Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Master of Arts in Political Science

Why study political science?

Because political science advances our understanding of politics, power, governance, and public policy in the United States and across the globe.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

Admission to M.A. or Ph.D. programs is based on the applicant’s undergraduate and/or graduate record, standardized test scores, and references from instructors. All applicants must complete a bachelor’s degree. A completed application must include

1. Online graduate application (http://www.graduate.ku.edu),
2. Graduate Record Examination results —verbal, quantitative, and analytical,
3. A 1- to 2-page statement of goals and research interests,
4. 3 letters of recommendation, preferably from faculty members,
5. A nonrefundable application fee (see Admission in the Graduate Studies (p. 2059) section of the online catalog), and
6. 1 official transcript from each college or university attended.

An official transcript is one that is sent directly from the registrar of the applicant’s school to the department. All these materials must be received before the application can be considered.

An applicant who wishes to be considered for regular fall admission and for a graduate teaching assistantship must complete the application by January 10 for the coming academic year. A student who wishes to be considered for fall admission but not for a teaching assistantship should submit the application by April 15 but may do so earlier.

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the department:

The University of Kansas
Department of Political Science
Graduate Coordinator
Blake Hall
1541 Lilac Lane, Room 504
Lawrence, KS 66045-3129

M.A. Degree Requirements

All candidates for the M.A. degree must complete, at a satisfactory level,
1. 30 semester hours of graduate credit, 21 of which must be earned in courses at the 700 level or above;
2. Research methods through POLS 706; and
3. A comprehensive master’s oral examination.

The student selects a principal advisor from the Graduate Faculty by the end of the first year to choose courses and prepare for the comprehensive examination. The examination is administered by a 3-person M.A. committee that includes the student’s principal advisor and 2 other members of the KU Graduate Faculty selected by the student in consultation with the principal advisor. One member of the committee may be from another department (including Special Status members of the Graduate Faculty).

Directed readings courses in excess of 5 hours cannot be counted toward the 30 hours required for the degree. With prior written approval, candidates may count up to 6 graduate hours taken outside the department (either at KU or at another institution accredited by the North Central Association of Colleges and Schools) toward the 30 hours required for the degree.

Applicants who have not completed at least 15 undergraduate credit hours in political science may be admitted with the provision that they complete additional hours of course work.

All candidates must fulfill the requirements of either the thesis or the non-thesis option for the Master of Arts degree.

Thesis Option
Upon completion and certification of an acceptable thesis, candidates may count 6 credit hours of thesis enrollment toward the 30 credit hours required for the M.A. degree.

Non-thesis Option
Candidates may substitute a minimum of two 800- or 900-level research courses plus satisfactory performance on a comprehensive written examination administered by the three-person M.A. committee before the oral examination.

Doctor of Philosophy in Political Science

Why study political science?
Because political science advances our understanding of politics, power, governance, and public policy in the United States and across the globe.

Admission to Graduate Studies
An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission
Admission to M.A. or Ph.D. programs is based on the applicant’s undergraduate and/or graduate record, standardized test scores, and references from instructors. All applicants must complete a bachelor’s degree. A completed application must include

1. Online graduate application (http://www.graduate.ku.edu),
2. Graduate Record Examination results — verbal, quantitative, and analytical,
3. A 1- to 2-page statement of goals and research interests,
4. 3 letters of recommendation, preferably from faculty members,
5. A nonrefundable application fee (see Admission in the Graduate Studies (p. 2059) section of the online catalog), and
6. 1 official transcript from each college or university attended.

An official transcript is one that is sent directly from the registrar of the applicant’s school to the department. All these materials must be received before the application can be considered.

An applicant who wishes to be considered for regular fall admission and for a graduate teaching assistantship must complete the application by January 10 for the coming academic year. A student who wishes to be considered for fall admission but not for a teaching assistantship should submit the application by April 15 but may do so earlier.

Submit your graduate application online (http://www.graduate.ku.edu).
Send all other requested application materials to the department:

The University of Kansas
Department of Political Science
Graduate Coordinator
Blake Hall
1541 Lilac Lane, Room 504
Lawrence, KS 66045-3129

Ph.D. Degree Requirements
Students who complete the Master of Arts degree may be eligible to pursue the Ph.D. degree. The Ph.D. program requires work in 2 major subfields and 1 minor subfield.

The major fields must be drawn from those offered by the division (see Fields of Graduate Study). Before their first attempt at the written preliminary examination in any subfield, all Ph.D. students must complete at least 4 courses in that field, 3 of which are at the 700 level or above. Enrollment in directed research covering a particular subfield may be substituted for one of the four courses/seminars.

The minor field may be another of the subfields, a related field from an outside department, or an interdisciplinary program. If the choice is not 1 of the subfields, the student must obtain written approval of the advisor and the graduate studies director. The courses for the minor field must follow the same structure as outlined above for the major fields. Courses for the minor field may not be applied to another examination field.

Students should consult their major advisors to plan a schedule of course work and seminar preparation in each of these subfields to provide adequate preparation for the written preliminary examination. Students must complete the majority of courses in their major fields, the research
skills and responsible scholarship requirement, the Ph.D. residency requirement, and resolve any grades of incomplete before registering for preliminary examinations. The research skills and responsible scholarship requirement includes

**Option 1: Research Methods**

POLS 706  Research Methods I  3
POLS 707  Research Methods II  3
Select 1 research methods course approved by the major advisor and the graduate director

**Option 2: Research Methods and Foreign Language**

POLS 706  Research Methods I  3
POLS 707  Research Methods II  3
Select 1 of the following choices in a language approved by the student’s advisor as well as the graduate director:

- 2 semesters of a single foreign language no more than 5 years old at the time of certification
- Demonstrated reading knowledge of a single foreign language

**Note:** Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current policies on Doctoral Research Skills and Responsible Scholarship are listed in the KU Policy Library.

To become a Ph.D. candidate, the student must satisfactorily complete a comprehensive oral examination. No student may attempt the comprehensive oral examination until the 2 written preliminary examinations have been passed and the requirements of the minor subfield have been completed.

After passing the comprehensive oral examination, the doctoral candidate must write a dissertation approved by a departmental dissertation committee and pass a final oral defense of the dissertation to qualify for the Ph.D. degree.

**Prelaw Preparation**

**Preparing for Law School**

For admission to law school, an applicant must complete a bachelor’s degree and take the Law School Admission Test (LSAT). No particular course of undergraduate study is recommended. However, the program should be sufficiently rigorous to provide the skills of comprehension and analysis essential in law study.

To prepare for law school, students should take challenging courses and those of interest, but no specific courses are required or recommended. The American Bar Association recommends the development of numerous skills in preparation for a legal education, including analytical and problem solving, critical reading, writing, oral communication and listening, general research, and task organization and management skills. Fulfilling or exceeding general education and major requirements satisfies many of these objectives. Consult the prelaw advisor about undergraduate courses beyond general education and major requirements.

It is strongly recommended that prelaw students attend a Prelaw Basics session (offered regularly each semester) early in their undergraduate careers for more complete prelaw information.

Students should submit law school applications the fall semester before entering law school. For most students, this is fall of the senior year. Admission is highly competitive, and law schools examine a number of factors. Heavy reliance is placed on the undergraduate grade-point average and score on the LSAT. All grades on the transcript, including transfer work, are reported to Law Services and used in calculating the applicant’s cumulative grade point average. The LSAT tests skills in reading comprehension, logical reasoning, and analytical reasoning. It is offered 4 times a year: June, September/October, December, and February. Most applicants take the June or September/October test to submit applications early. The September/October test date often coincides with midterm examinations; many students prefer to take the LSAT in June after the junior year. Students can register for the LSAT online through the Law School Admission Council (http://www.lsac.org). Law schools also consider personal statements, letters of recommendation, extracurricular activities, and the rigor of the academic curriculum in determining admission.

Many academic policy options, such as the Credit/No Credit (http://www.policy.ku.edu) option and the course-repeat policy (http://www.policy.ku.edu), have different consequences for law school applicants. Consult the prelaw advisor before electing such options.

View the School of Law (p. 760) section of the online catalog.

**Premedical Professions Preparation**

**Premedical Professions Advising**

Premedistry, premedicine, preoptometry, and preveterinary medicine are career interests rather than majors or formal programs. Students prepare by taking courses required for entry, studying to learn concepts and perform well academically, volunteering and shadowing to get experience, and taking a standardized admissions test, and applying for admission to graduate-level professional schools.

For more information, visit the website (https://medadvising.ku.edu). Call 785-864-2834 to schedule an orientation or application meeting with the premedical advisor.

**Predentistry**

Predentistry is a career interest rather than a major or formal program. Students prepare by taking courses to meet dental school admission requirements, studying to learn concepts and perform well academically, and shadowing or working in dental practices. They take the Dental Admission Test (http://www.ada.org/dat.aspx) (DAT) and apply for admission to dental schools, usually in the summer between the junior and senior year. Most people complete an undergraduate bachelor’s degree and major before entering dental school.

Dental schooling is 4 years of graduate-level, professional education and training. There is no dental school in Kansas, but there is an agreement for some seats for Kansas residents at the University of Missouri—Kansas City (UMKC) School of Dentistry.
Most dental schools require

English Composition I. Satisfied by:

ENGL 101 Composition 3
or ENGL 105 Freshman Honors English

English Composition II. Satisfied by:

ENGL 102 Critical Reading and Writing 3
or ENGL 205 Freshman-Sophomore Honors Proseminar: _____

Biology with Lab. Satisfied by:

BIOL 150 Principles of Molecular and Cellular Biology 4
or BIOL 151 Principles of Molecular and Cellular Biology, Honors

General Chemistry I with Lab. Satisfied by one of the following: 5

CHEM 130 General Chemistry I
CHEM 170 Chemistry for the Chemical Sciences I
CHEM 190 Foundations of Chemistry I, Honors

General Chemistry II with Lab. Satisfied by one of the following: 5

CHEM 135 General Chemistry II
CHEM 175 Chemistry for the Chemical Sciences II
CHEM 195 Foundations of Chemistry II, Honors

Organic Chemistry I with Lab. Satisfied by one of the following: 5

CHEM 330 Organic Chemistry I
& CHEM 331 and Organic Chemistry I Laboratory
CHEM 380 Organic Chemistry I, Honors
& CHEM 331 and Organic Chemistry I Laboratory

Organic Chemistry II with Lab. Satisfied by one of the following: 5

CHEM 335 Organic Chemistry II
& CHEM 336 and Organic Chemistry II Laboratory
CHEM 385 Organic Chemistry II, Honors
& CHEM 336 and Organic Chemistry II Laboratory

Physics I with Lab. Satisfied by one of the following: 4-5

PHSX 114 College Physics I
PHSX 211 General Physics I
& PHSX 216 and General Physics I Laboratory
PHSX 213 General Physics I Honors

Physics II with Lab. Satisfied by one of the following: 4

PHSX 115 College Physics II
PHSX 212 General Physics II
& PHSX 236 and General Physics II Laboratory
PHSX 214 General Physics II Honors

The UMKC School of Dentistry also requires

Anatomy with lab, satisfied by one of the following: 5

BIOL 240 Fundamentals of Human Anatomy
& BIOL 241 and Human Anatomy Observation Laboratory
BIOL 510 Comparative Anatomy

Physiology with lab, satisfied by one of the following: 5-6

BIOL 246 Principles of Human Physiology
& BIOL 247 and Principles of Human Physiology Laboratory
BIOL 646 Mammalian Physiology
& BIOL 647 and Mammalian Physiology Laboratory

Cell biology: Satisfied by:

BIOL 416 Cell Structure and Function 3

Biochemistry: Satisfied by: 3-4

BIOL 600 Introductory Biochemistry, Lectures
or BIOL 636 Biochemistry I

Some dental schools require additional mathematics, psychology, and/or biology courses.

For more information, visit the website (https://medadvising.ku.edu). Call 785-864-2834 to schedule an orientation or application meeting with the premedical advisor.

**Premedicine**

Premedicine is a career interest rather than a major or formal program. Students prepare by taking courses to meet medical school admission requirements, studying to learn concepts and perform well academically, and volunteering or working in health care settings. They take the Medical College Admission Test (https://www.aamc.org/students/applying/mcat) (MCAT) and apply for admission to medical schools, usually in the summer between the junior and senior year. Most people complete an undergraduate bachelor’s degree and major before entering medical school.

Medical schooling is four years of graduate-level, professional education and training, followed by a three- to six-year residency program. The only medical school in Kansas is the KU School of Medicine.

Most medical schools require

English Composition I. Satisfied by:

ENGL 101 Composition 3
or ENGL 105 Freshman Honors English

English Composition II. Satisfied by:

ENGL 102 Critical Reading and Writing 3
or ENGL 205 Freshman-Sophomore Honors Proseminar: _____

Biology with Lab. Satisfied by:

BIOL 150 Principles of Molecular and Cellular Biology 4
or BIOL 151 Principles of Molecular and Cellular Biology, Honors

General Chemistry I with Lab. Satisfied by one of the following: 5

CHEM 130 General Chemistry I
CHEM 170 Chemistry for the Chemical Sciences I
CHEM 190 Foundations of Chemistry I, Honors

General Chemistry II with Lab. Satisfied by one of the following: 5

CHEM 135 General Chemistry II
CHEM 175 Chemistry for the Chemical Sciences II
CHEM 195 Foundations of Chemistry II, Honors

Organic Chemistry I with Lab. Satisfied by one of the following: 5

CHEM 330 Organic Chemistry I
& CHEM 331 and Organic Chemistry I Laboratory
CHEM 380 Organic Chemistry I, Honors
& CHEM 331 and Organic Chemistry I Laboratory

Organic Chemistry II with Lab. Satisfied by one of the following: 5

CHEM 335 Organic Chemistry II
& CHEM 336 and Organic Chemistry II Laboratory
CHEM 385 Organic Chemistry II, Honors
& CHEM 336 and Organic Chemistry II Laboratory

Physics I with Lab. Satisfied by one of the following: 4-5

PHSX 114 College Physics I
PHSX 211 General Physics I
& PHSX 216 and General Physics I Laboratory
PHSX 213 General Physics I Honors

Physics II with Lab. Satisfied by one of the following: 4

PHSX 115 College Physics II
PHSX 212 General Physics II
& PHSX 236 and General Physics II Laboratory
PHSX 214 General Physics II Honors

The KU School of Medicine accepts CHEM 310 as a substitute for CHEM 330, BIOL 600 or BIOL 636 as a substitute for CHEM 335, and CHEM 331 meets their organic lab requirement without CHEM 336.)
admission to optometry schools, usually in the summer between the junior and senior year. Most people complete an undergraduate bachelor’s degree and major before entering optometry school.

Optometry schooling is four years of graduate-level, professional education and training. There is no optometry school in Kansas; however, there are agreements for some seats for Kansas residents at the University of Missouri—St. Louis School of Optometry, Northeastern State University of Oklahoma College of Optometry, and the Southern College of Optometry in Tennessee.

Most optometry schools require

English Composition I. Satisfied by:
ENGL 101 Composition 3
or ENGL 105 Freshman Honors English

English Composition II. Satisfied by:
ENGL 102 Critical Reading and Writing 3
or ENGL 205 Freshman-Sophomore Honors Proseminar: _____

Biology I with Lab. Satisfied by:
BIOL 150 Principles of Molecular and Cellular Biology 4
or BIOL 151 Principles of Molecular and Cellular Biology, Honors

Biology II with Lab. Satisfied by:
BIOL 152 Principles of Organismal Biology 4
or BIOL 153 Principles of Organismal Biology, Honors

General Chemistry I with Lab. Satisfied by one of the following: 5
CHEM 130 General Chemistry I
CHEM 170 Chemistry for the Chemical Sciences I
CHEM 190 Foundations of Chemistry I, Honors

General Chemistry II with Lab. Satisfied by one of the following: 5
CHEM 135 General Chemistry II
CHEM 175 Chemistry for the Chemical Sciences II
CHEM 195 Foundations of Chemistry II, Honors

Physics I with Lab. Satisfied by one of the following: 4-5
PHSX 114 College Physics I
PHSX 211 General Physics I
& PHSX 216 and General Physics I Laboratory
PHSX 213 General Physics I Honors

Physics II with Lab. Satisfied by one of the following: 4
PHSX 115 College Physics II
PHSX 212 General Physics II
& PHSX 236 and General Physics II Laboratory
PHSX 214 General Physics II Honors

Calculus I: Satisfied by one of the following: 3-5
MATH 115 Calculus I
MATH 121 Calculus I
MATH 141 Calculus I: Honors

Starting in 2015, the new MCAT will require knowledge from:

Biology. Satisfied by:
BIOL 600 Introductory Biochemistry, Lectures 4
or BIOL 636 Biochemistry I

Statistics. Satisfied by one of the following: 3
PSYC 210 Statistics in Psychological Research
PSYC 211 Statistics in Psychological Research, Honors
MATH 365 Elementary Statistics

For more information, visit the website (https://medadvising.ku.edu). Call 785-864-2834 to schedule an orientation or application meeting with the premedical advisor.

Preoptometry

Preoptometry is a career interest rather than a major or formal program. Students prepare by taking courses to meet optometry school admission requirements, studying to learn concepts and perform well academically, and shadowing or working in optometry practices. They take the Optometry Admission Test (https://www.ada.org/oat) (OAT) and apply for admission to optometry schools, usually in the summer between the junior
The Kansas State College of Veterinary Medicine requires Kansas State College of Veterinary Medicine education and training. The only veterinary school in Kansas is the Veterinary schooling is four years of graduate-level, professional school.

between the junior and senior year. Most people complete an (GRE) and apply for admission to veterinary schools, usually in the summer. They take the Graduate Record Examination (http://www.ets.org/gre) well academically, and shadowing or working in veterinary practices. school admission requirements, studying to learn concepts and perform formal program. Students prepare by taking courses to meet veterinary

Preveterinary medicine is a career interest rather than a major or formal program. Students prepare by taking courses to meet veterinary school admission requirements, studying to learn concepts and perform well academically, and shadowing or working in veterinary practices. They take the Graduate Record Examination (http://www.ets.org/gre) (GRE) and apply for admission to veterinary schools, usually in the summer between the junior and senior year. Most people complete an undergraduate bachelor’s degree and major before entering veterinary school.

Veterinary schooling is four years of graduate-level, professional education and training. The only veterinary school in Kansas is the Kansas State College of Veterinary Medicine.

The Kansas State College of Veterinary Medicine requires

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<tr>
<td>COMS 130</td>
<td>Speaker-Audience Communication</td>
<td>3</td>
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<td>or COMS 131</td>
<td>Speaker-Audience Communication, Honors</td>
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Preveterinary Medicine

Preveterinary medicine is a career interest rather than a major or formal program. Students prepare by taking courses to meet veterinary school admission requirements, studying to learn concepts and perform well academically, and shadowing or working in veterinary practices. They take the Graduate Record Examination (http://www.ets.org/gre) (GRE) and apply for admission to veterinary schools, usually in the summer between the junior and senior year. Most people complete an undergraduate bachelor’s degree and major before entering veterinary school.

Veterinary schooling is four years of graduate-level, professional education and training. The only veterinary school in Kansas is the Kansas State College of Veterinary Medicine.

The Kansas State College of Veterinary Medicine requires

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Department of Psychology

Why study psychology?

Because the understanding of mind, behavior, and the human experience is best achieved through the rigorous application of the scientific method.

Undergraduate Programs

Undergraduate courses are designed as part of a general education, for students preparing for careers in professional fields, and for students majoring in psychology, including those anticipating graduate work. See the department website (http://psych.ku.edu) for the most current information on requirements and policies.
Preparation for Graduate Study

Students who plan to apply for graduate work in psychology should supplement their beginning course in methodology (PSYC 200/PSYC 201) and statistics (PSYC 210/PSYC 211) with a laboratory course (e.g., PSYC 618, PSYC 620, PSYC 622, PSYC 624, or PSYC 625). Methods (PSYC 200/PSYC 201) and Statistics (PSYC 210/PSYC 211) should be taken as early as possible in the undergraduate education. The laboratory course should be completed during the junior or senior year.

Preparation for Graduate Study

Students who plan to apply for graduate work in psychology should supplement their beginning course in methodology (PSYC 200/PSYC 201) and statistics (PSYC 210/PSYC 211) with a laboratory course (e.g., PSYC 618, PSYC 620, PSYC 622, PSYC 624, or PSYC 625). Methods (PSYC 200/PSYC 201) and Statistics (PSYC 210/PSYC 211) should be taken as early as possible in the undergraduate education. The laboratory course should be completed during the junior or senior year.

Graduate Programs

The department offers a single doctoral degree in psychology, which may be earned in social, cognitive, quantitative, developmental, or clinical psychology. Students enter with the expectation of earning the Ph.D. The department does not admit students seeking the terminal master's degree. The department cooperates with related departments in joint Ph.D. programs in clinical child psychology (http://ochild.ku.edu), behavioral psychology, (http://www.absc.ku.edu) and child language (http://www.clp.ku.edu).

Dual-title Ph.D. in Psychology and Gerontology

This dual-title degree is an option available to students who have first been admitted to the doctoral program. The dual-title degree allows the pursuit of a single degree that incorporates study within a traditional discipline and training in an interdisciplinary field; the student is awarded one degree (Ph.D.) with both titles identified on the diploma (e.g., "Ph.D. in Psychology and Gerontology").

This option is designed to appeal to students who are strong in a traditional discipline but also motivated to study across disciplinary lines. In the course of study, students can avail themselves of disciplinary depth and interdisciplinary breadth. At the post-doctoral stage, dual-title graduates will have enhanced career and employment opportunities, able to claim expertise in one or both titles of their degree when seeking positions in education and research.

More information about this option, its admissions requirements, and plans of study can be found on the department website or the website of the Gerontology program.

Courses

PSYC 102. Orientation Seminar in Psychology. 1 Hour. S.
Provides an overview of the discipline of psychology. Emphasizes developing an understanding of opportunities in psychology at the University of Kansas, exploring service-learning options related to the major, and helping students plan goals for their education through an understanding of their personal values and options within and outside the discipline. Open to KU-degree-seeking students only. Contact the Psychology Department to enroll in the course. Non-degree-seeking and non-KU students may enroll in the course by signing up with KU Continuing Education. Graded on a satisfactory/unsatisfactory basis. LEC.

PSYC 104. General Psychology. 3 Hours. SI GE3S / S.
A basic introduction to the science of psychology. LEC.

PSYC 105. General Psychology, Honors. 3 Hours. SI GE3S / S.
Open to students in College or Departmental Honors programs or by permission of instructor. LEC.

PSYC 120. Personality. 3 Hours. SI GE3S / S.
An introductory survey of personality theories, development, assessment and current research. LEC.

PSYC 121. Personality, Honors. 3 Hours. SI GE3S / S.
Open to students in College or Departmental Honors programs or by permission of instructor. LEC.

PSYC 177. First Year Seminar: ______. 3 Hours. SI GE11.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in psychology. May not contribute to major requirements in psychology. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

PSYC 200. Research Methods in Psychology. 3 Hours. S.
An examination of the scientific "ways of knowing" employed by psychologists to discover the laws governing human behavior across a wide domain. The focus of the course is upon these methods and the statistical techniques that support them. Prerequisite: PSYC 104 and MATH 101 or equivalent placement. LEC.

PSYC 201. Research Methods in Psychology, Honors. 3 Hours. S.
An examination of the scientific "ways of knowing" employed by psychologists to discover the laws governing human behavior across a wide domain. The focus of the course is upon these methods and the statistical techniques that support them. Open to students in University and Departmental Honors programs or by permission of instructor. Not open to students taking PSYC 200. Prerequisite: PSYC 104 and MATH 101. LEC.

PSYC 202. Study Abroad Topics in: ______. 1-4 Hours. S.
This course is designed for the study of special topics in Psychology. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

PSYC 210. Statistics in Psychological Research. 3 Hours. S.
An introduction to statistical concepts and methods as they relate to analysis and interpretation of psychological data. Prerequisite: PSYC 104 and MATH 101 or equivalent placement. LEC.

PSYC 211. Statistics in Psychological Research, Honors. 3 Hours. S.
An introduction to statistical concepts and methods as they relate to analysis and interpretation of psychological data. Open only to students in University and Departmental Honors programs or by permission of instructor. Not open to students who have taken PSYC 210. Prerequisite: PSYC 104 and MATH 101 or equivalent placement. LEC.

PSYC 318. Cognitive Psychology. 3 Hours. S.
An introduction to contemporary research and theory in human learning and memory, relevant perceptual processes, and higher functions such as language. Prerequisite: PSYC 104 and one of the following: PSYC 200, PSYC 201, PSYC 210, PSYC 211, MATH 101, MATH 104 or equivalent placement. LEC.
PSYC 319. Cognitive Psychology, Honors. 3 Hours. S.
Open to students in University or Departmental Honors programs or by permission of instructor. Prerequisite: PSYC 104 and one of the following: PSYC 200, PSYC 201, PSYC 210, PSYC 211, MATH 101, MATH 104 or exemption based on ACT or SAT score. LEC.

PSYC 333. Child Development. 3 Hours. S.
A survey course on the science and application of child and adolescent development; including physical, motoric, social, emotional, and cognitive changes from conception through adolescence. The course covers methods and theory, genetics, and may incorporate content on aggression, morality, parenting, media, and peers. Open to students in University or Departmental Honors Programs or by permission of instructor. Prerequisite: PSYC 104 and one of the following: PSYC 200, PSYC 201, PSYC 210, PSYC 211, MATH 101, MATH 104 or exemption based on ACT or SAT score. LEC.

PSYC 334. Child Development, Honors. 3 Hours. S.
A survey course on the science and application of child and adolescent development; including physical, motoric, social, emotional, and cognitive changes from conception through adolescence. The course covers methods and theory, genetics, and may incorporate content on aggression, morality, parenting, media, and peers. Open to students in University or Departmental Honors Programs or by permission of instructor. Prerequisite: PSYC 104 and one of the following: PSYC 200, PSYC 201, PSYC 210, PSYC 211, MATH 101, MATH 104 or exemption based on ACT or SAT score. LEC.

PSYC 350. Abnormal Psychology. 3 Hours. S.
An examination of psychopathology including anxiety disorders, psycho-physiological disorders, affective disorders, and schizophrenic disorders. Disorders are considered from psychodynamic, behavioral, cognitive, and biological perspectives. Prerequisite: PSYC 104. LEC.

PSYC 351. Abnormal Psychology, Honors. 3 Hours. S.
Open to students in College or Departmental Honors Programs or by permission of instructor. Prerequisite: PSYC 104. LEC.

PSYC 360. Social Psychology. 3 Hours. S.
An introduction to the psychology of social behavior. Systematic consideration of such concepts as social influence, conformity and deviation, social attitudes and prejudice, socialization and personality, communication and propaganda, morale, and leadership. Open to students in University or Departmental Honors programs or by permission of instructor. Prerequisite: PSYC 104 and one of the following: PSYC 200, PSYC 201, PSYC 210, PSYC 211, MATH 101, MATH 104 or exemption based on ACT or SAT score. LEC.

PSYC 361. Social Psychology, Honors. 3 Hours. S.
An introduction to the psychology of social behavior. Systematic consideration of such concepts as social influence, conformity and deviation, social attitudes and prejudice, socialization and personality, communication and propaganda, morale, and leadership. Open to students in University or Departmental Honors programs or by permission of instructor. Prerequisite: PSYC 104 and one of the following: PSYC 200, PSYC 201, PSYC 210, PSYC 211, MATH 101, MATH 104 or exemption based on ACT or SAT score. LEC.

PSYC 370. Behavioral Neuroscience. 3 Hours. N.
A survey of topics related to the biological processes underlying behavior in humans and in animals, including the physiology of neuronal and synaptic transmission, neurochemistry, and neuropharmacology. Selected topics within the area of behavioral neuroscience are also covered, such as motivation, appetite, reward, homeostasis, biological rhythms, addiction, aggression, stress, emotion, and sleep. Prerequisite: An introductory course in Psychology; an introductory course in Biology; and PSYC 200 or PSYC 201 and PSYC 210 or PSYC 211. LEC.

PSYC 371. Behavior Neuroscience, Honors. 3 Hours. N.
A survey of basic topics related to the biological processes underlying behavior in humans and in animals, including the physiology of neuronal and synaptic transmission, neurochemistry, and neuropharmacology. Selected topics within the area of behavioral neuroscience are also covered, such as motivation, appetite, reward, homeostasis, biological rhythms, addiction, aggression, stress, emotion, and sleep. Open to students in University or Departmental Honors programs or by permission of instructor. Prerequisite: An introductory course in Psychology; an introductory course in Biology and PSYC 200 or PSYC 201 and PSYC 210 or PSYC 211. LEC.

PSYC 375. Cognitive Neuroscience. 3 Hours. N.
A survey of topics related to the biological processes underlying cognition in humans and in animals, including the physiology of neuronal and synaptic transmission, neurochemistry, and functional neuroanatomy. Selected topics within the area of cognitive neuroscience also covered, such as sensory processing, hearing, vision, learning and memory, attention, motor control, language, hemispheric asymmetry, executive function, and neuroplasticity. Prerequisite: An introductory course in Psychology; an introductory course in Biology; and PSYC 200 or PSYC 201 and PSYC 210 or PSYC 211. LEC.

PSYC 377. Cognitive Neuroscience. 3 Hours. N.
The organization and function of the nervous system as it relates to topics of interest to psychologists, including pain, anxiety, stress, sleep, depression, schizophrenia, akinetic and dyskinetic movement disorders, and senile dementia. Prerequisite: An introductory course in Psychology, an introductory course in Biology, and PSYC 200 or PSYC 201 and PSYC 210 or PSYC 211. LEC.

PSYC 380. Clinical Neuroscience. 3 Hours. N.
The organization and function of the nervous system as it relates to topics of interest to psychologists, including pain, anxiety, stress, sleep, depression, schizophrenia, akinetic and dyskinetic movement disorders, and senile dementia. Open to students in University or Departmental Honors programs or by permission of instructor. Prerequisite: An introductory course in Psychology, an introductory course in Biology, and PSYC 200 or PSYC 201 and PSYC 210 or PSYC 211. LEC.

PSYC 402. Study Abroad Topics in: _____. 1-4 Hours. S.
This course is designed for the study of special topics in Psychology equivalent to courses at the 300 to 600 level at KU. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

PSYC 405. Children and Media. 3 Hours. H.
The applied study of child development theories and research methods on the influences and effects of television and related visual media on childhood in the contexts of families, schools, and society. (Same as ABSC 405 and THR 405.) LEC.

PSYC 406. Individual Differences. 3 Hours. S.
A survey of the nature and sources of differences in human behavior and a consideration of the consequences of these differences for society. Prerequisite: PSYC 104. LEC.

PSYC 410. Intimate Relationships. 3 Hours. S.
A social psychological perspective on adult intimate relationships, examining friendship, dating, committed relationships, and the dissolution of committed relationships. Topics include romance, jealousy, self-disclosure, power, loneliness, and social support. Discussion of heterosexual and homosexual relationships, traditional forms (e.g., marriage) of relationships as well as alternative lifestyles (e.g., cohabitation) and gender-linked differences in relationships. Prerequisite: PSYC 104. LEC.
PSYC 415. Social and Cultural Sources of Self. 3 Hours. S.
An interdisciplinary exploration of the social and cultural sources of self-experience. The first part of the course emphasizes a general process: how the development and experience of self, though it might seem essentially personal, is shaped by social interaction. The second part of the course highlights particular cases: how self-experience may be constructed differently depending on the particular social and cultural settings a person inhabits. Cases include influences of gender, socioeconomic status, and age group on the construction of self-experience within societies from around the world, and ethnic-identity groups within the USA. Prerequisite: PSYC 104. LEC.

PSYC 418. Introduction to Cognitive Science. 3 Hours. S.
Examines the data and methodologies of the disciplines that comprise Cognitive Science, an inter-disciplinary approach to studying the mind and brain. Topics may include: consciousness, artificial intelligence, linguistics, education and instruction, neural networks, philosophy, psychology, anthropology, evolutionary theory, cognitive neuroscience, human-computer interaction, and robotics. (Same as LING 418, PHIL 418, and SPLH 418.) Prerequisite: Consent of instructor. LEC.

PSYC 420. Fundamentals of Personality. 3 Hours. S.
Clinical application of personality theories; personality development and assessment research. Prerequisite: PSYC 104. LEC.

PSYC 430. Cognitive Development. 3 Hours. S.
A basic survey course in the development of thinking and understanding in normal children. The course will cover Piaget’s theory and information processing theories at the advanced undergraduate level. Topics include perception, attention, learning, memory, language, problem solving, and individual differences from birth to the mid-teens. Prerequisite: PSYC 104 or ABSC/HDFL 180. LEC.

PSYC 432. Human Behavioral Genetics. 3 Hours. S.
A survey of human behavioral genetics for upper division undergraduates. Emphasis is on how the methods and theories of quantitative, population, medical, and molecular genetics can be applied to individual and group differences in humans. Both normal and abnormal behaviors are covered, including intelligence, mental retardation, language and language disorders, communication, learning, personality, and psychopathology. (Same as ANTH 447, BIOL 432, SPLH 432.) Prerequisite: Introductory courses in biology/genetics or biological anthropology and psychology are recommended. LEC.

PSYC 435. Social and Personality Development. 3 Hours. S.
An introduction to social and personality development with consideration of both classic and contemporary theoretical viewpoints. The role of social contexts is considered (e.g., family, peers, communities), as well as biological influences (e.g., behavioral genetics). Topics include parent-infant attachment, peer relationships, aggression, etc. Prerequisite: PSYC 104. LEC.

PSYC 449. Laboratory/Field Work in Human Biology. 1-3 Hours. AE61 / N.
Faculty supervised laboratory or field research for Human Biology majors. Students design and complete a research project in collaboration with a Human Biology faculty member. (Same as ANTH 449, BIOL 449, and SPLH 449.) Prerequisite: Consent of instructor and Human Biology major. FLD.

PSYC 453. Psychological Foundations of Musical Behavior. 3 Hours. S.
Study of human musical behavior, including basic psychoacoustic phenomena, musical taste, functional music, musical ability, cultural organization of musical sounds, and the affective response. Prerequisite: General Psychology, MEMENT 370, or consent of instructor. LEC.
PSYC 483. Undergraduate Internship in Psychology. 1-3 Hours. U.
Students conduct psychology focused fieldwork in an organization related to their professional/career goals. Credit hours are determined on the basis of 120 clock hours for 3 credit hours, 80 clock hours for 2 credit hours, and 40 clock hours for 1 credit hour. An internship plan (contract) is developed by the student in conjunction with the student’s academic adviser and signed off by the academic adviser and an authorized agent of the internship site. At the conclusion of the internship experience, the authorized agent of the internship site writes the academic adviser indicating that the student has met the goals of the internship plan and the hours required. No more than 3 hours of PSYC 483 may be counted toward the minimum hours required for the major. Prerequisite: Admission to the Psychology major. FLD.

PSYC 490. Theories and Concepts of Child Development. 3 Hours. S.
An advanced course in the theories and basic concepts of child development. Coverage includes: (a) analyses of the general logic, assumptions, and principles of the five major approaches: normative-maturation, psychoanalytic, social learning theory, cognitive-developmental, and behavior analysis; (b) historical background of developmental theory; (c) social-cultural influences on theory construction; and (d) some cross-cultural perspectives. Not open to students previously enrolled in HDFL 290. Prerequisite: PSYC 104, or HDFL 160, HDFL 161, HDFL 432, or consent of instructor. LEC.

PSYC 492. Psychology and Social Issues. 3 Hours. S.
A study of psychological aspects of selected social issues in contemporary American society. Race relations and the civil rights movement. Political extremism. Public opinion and social change. Social psychological approaches to a variety of social problems. Prerequisite: PSYC 360 or 361, or consent of instructor. LEC.

PSYC 499. Conceptual Issues in Psychology. 3 Hours. S.
This course examines classic issues in psychology--free will and determinism, nature and nurture, the mind-body problem, approaches to human action, cultural influences on psychological theories, the evolution of intellectual paradigms, and inductive and deductive approaches to social scientific research--from multiple perspectives within psychology and related social sciences. Prerequisite: PSYC 104 or equivalent. LEC.

PSYC 500. Intermediate Statistics in Psychological Research. 3 Hours. U.
A second course in statistics with emphasis on applications. Analysis of variance, regression, analysis, analysis of contingency tables; possibly selected further topics. Prerequisite: Grade of B- or better in PSYC 210 or PSYC 211. LEC.

PSYC 502. Human Sexuality. 3 Hours. S.
An introduction to the field of human sexuality. Topics to be covered include sexual anatomy and physiology, fertilization, pregnancy, birth and lactation, contraception, human sexual response, sexuality across the life cycle, love, marriage, alternatives to marriage, sexual orientation, sex differences in behavior, parenthood, sexually transmitted diseases, sex and the law, and sex education. Prerequisite: PSYC 104. LEC.

PSYC 511. Laboratory Research in Infant Behavior. 3 Hours. S.
Optional course for students currently enrolled in PSYC 510 or may be taken after completion of PSYC 510. Will offer students practical experience in an infant research laboratory. Students must spend a minimum of nine hours a week (on three different half days) in laboratory. They will learn to observe and record infant behavior, to handle data from experiments and participate in the planning and discussion of laboratory research. Acquaintance with and involvement in the issues of obtaining informed consent and ethical aspects of infant research will be included. Prerequisite: Current enrollment or previous enrollment in PSYC 510 and consent of instructor. LAB.

PSYC 518. Human Memory. 3 Hours. S.
In-depth coverage of human memory phenomena, including phenomena concerning acquisition, storage and retrieval, unconscious forms of memory, memory monitoring and control, and practical aspects of memory such as autobiographical memory, mnemonic techniques and eyewitness memory. Prerequisite: PSYC 104. LEC.

PSYC 520. Memory and Eyewitness Testimony in Children. 3 Hours. S.
A review of the literature on the development of memory in young children, and the implications of this research for understanding children’s eyewitness testimony. The course will present current research on children’s long-term memory abilities, the impact of stress on recall performance, the effectiveness of various types of interviewing techniques, and the suggestibility of children’s recollections. Policy issues and potential guidelines for the elicitation and evaluation of children’s memory reports in both clinical and legal arenas will be discussed. Prerequisite: PSYC 104 or ABSC/HDFL 160, or consent of instructor. LEC.

PSYC 521. Women and Violence. 3 Hours. S.
An examination of research on women and violence, including rape, domestic violence, sexual harassment, stalking, and child sexual abuse. The nature, prevalence, causes, and consequences of violence against women are discussed. (Same as WGSS 521.) Prerequisite: PSYC 104. LEC.

PSYC 531. Language Development. 3 Hours. S.
Introduction to the study of language development; emphasis on the psychological processes underlying syntactic, semantic, and pragmatic aspects of language development in children. Prerequisite: One of the following courses - PSYC 318, 319, 333, or 334; or consent of instructor. LEC.

PSYC 535. Developmental Psychopathology. 3 Hours. S.
A review of the literature on contemporary psychological and developmental disorders of children and youth. Course will present current models of psychopathology, classification systems, assessment methods, and treatment approaches designed for the individual, the family, and the community. Specific attention will be given to age, gender, and cultural differences and similarities. Topics include: anxiety disorders, oppositional behavior disorders, physical/sexual abuse, learning disabilities, and autism. (Same as ABSC 535.) Prerequisite: ABSC 160, PSYC 333, or consent of instructor. LEC.

PSYC 536. The Psychology of Language. 3 Hours. S.
An introduction to the study of language—linguistics, phonetics, phonology, syntax, semantics, and pragmatics. Course will present the psychological processes underlying the production and comprehension of language. Prerequisite: PSYC 104. LEC.

PSYC 545. Culture and Psychology. 3 Hours. S.
The course considers the relationship between culture and psyche. One theme throughout the course involves revealing the cultural grounding of psychological functioning. The second and complementary theme involves identifying the psychological processes involved in the phenomenon of culture. Prerequisite: PSYC 333, 334, 360 or 361 or consent of instructor. LEC.

PSYC 555. Evolutionary Psychology. 3 Hours. S.
A review of evolutionary theory and its application to human personality, cognition, interpersonal relationships, family dynamics, and development. Prerequisite: PSYC 104 and at least 3 additional hours in Psychology, or consent of instructor. LEC.
PSYC 565. Applied Developmental Psychology. 3 Hours. S.
An advanced study of the application of theories and concepts of developmental and behavioral psychology to a range of specific issues and problems of childhood and adolescence. This course will rely heavily upon the empirical research literature. Topics include contemporary social issues and child development, research in applied settings, assessment, intervention, and prevention, as well as program evaluation. (Same as ABSC 565.) Prerequisite: ABSC 160 or PSYC 333, and ABSC/PSYC 535.LEC.

PSYC 566. Psychology and the Law. 3 Hours. S.
An application of psychological processes and concepts to the American legal system. Among the topics covered are the socialization of legal attitudes, opinions about the purposes of the criminal justice system and especially of prisons, the concept of “dangerousness,” the nature of jury decision making, and the rights of prisoners, patients, and children. LEC.

PSYC 570. Group Dynamics. 3 Hours. S.
A study of the processes underlying the dynamics of the group, including the observation of group phenomena and a consideration of their relation to research findings. Prerequisite: PSYC 360 or 361, or consent of instructor. LEC.

PSYC 572. Psychology and International Conflict. 3 Hours. S.
A study of psychological approaches to analysis and intervention in the field of international conflict and peace-making. Focus on major contributions and important paradigms for explanation and action. Prerequisite: PSYC 360 or consent of instructor. Background study in international relations or recent world history desirable. LEC.

PSYC 578. Social Attitudes. 3 Hours. S.
An introduction to the study of attitudes focusing on problems of measurement and on empirical findings and theories of attitude acquisition and change. Prerequisite: PSYC 360, 361, or consent of instructor. LEC.

PSYC 580. Research Lab. 1-5 Hours. S.
Supervised research under the guidance of a faculty member in the Department of Psychology. Students will be part of a collaborative laboratory environment, and will be involved in research design, data collection, and data analysis, and will take part in regularly scheduled laboratory meetings. Prerequisite: Permission of instructor. LEC.

PSYC 581. Psychology of Religion. 3 Hours. S.
Consideration of the psychological antecedents of religious experience, the nature of religious experience, and the behavioral consequences of religion. Focus will be on psychological theory and research relevant to religious thought, feeling, belief, and behavior. (Same as REL 581.) Prerequisite: PSYC 104. LEC.

PSYC 590. Nonverbal Communication. 3 Hours. S.
Examination of non-linguistic behavior in human communication, including proxemics (spacing), kinesics (movement and expression), and paralinguistics (voice quality). Includes phylogenetic and developmental perspectives, methods of analysis, applications to interpersonal problems. (Same as COMS 590.) Prerequisite: COMS 356 or PSYC 210 or PSYC 211. LEC.

PSYC 592. Psychological Significance of Physical Illness and Disability. 3 Hours. S.
A lecture course to help students become more aware of and responsive to the psychological needs of persons with physical illnesses or disabilities. Emphasis is upon the meanings of such conditions in individuals’ lives and the effects of treatment and rehabilitation settings on psychological adaptation. Prerequisite: PSYC 104. LEC.

PSYC 598. Positive Psychology. 3 Hours. S.
An introduction to the core assumptions and research findings associated with human strengths and positive emotions. Also an exploration of interventions and applications informed by positive psychology in counseling and psychotherapy, and its application to school, work, family and other close relationships. (Same as PRE 580.) Prerequisite: PSYC 104 or consent of instructor. LEC.

PSYC 602. Basis and Nature of Individuality. 3 Hours. S.
Individuality in cognitive and personality attributes is surveyed, and analyzed by current psychological theory. The course includes topics on the structure of intellect and personality, cognitive theory, brain research and behavior genetics as relevant to the understanding of individuality. Prerequisite: An introductory course in psychology. LEC.

PSYC 605. Health Psychology. 3 Hours. S.
Review of research and theory concerning the role of psychological factors in the development of physical illness and the contribution of psychologists to the treatment and prevention of physical illness. Prerequisite: PSYC 104. LEC.

PSYC 608. Sex Role Development. 3 Hours. S.
An examination of the theory and literature on sex role development in childhood, adolescence, and adulthood. Particular attention is given to approaches stressing androgyny and variations on traditional roles. Processes of socialization into both traditional and non-traditional roles are stressed. Literature on females is emphasized, but male sex role development is also covered. Prerequisite: PSYC 104 or HDFL 160. LEC.

PSYC 610. Advanced Personality. 3 Hours. S.
A survey of selected topics in the area of personality (e.g., defense mechanisms, aggression, interpersonal relations). Prerequisite: PSYC 120 or PSYC 420 or consent of instructor. LEC.

PSYC 613. History and Systems in Psychology. 3 Hours. S.
A survey of the historical development of modern theoretical systems in psychology. Prerequisite: PSYC 104, plus twelve hours in psychology. LEC.

PSYC 616. Foundations of Learning. 3 Hours. S.
A consideration of experimental findings and theories concerning classical and instrumental conditioning. Prerequisite: PSYC 104. LEC.

PSYC 618. Experimental Psychology: Human Learning. 6 Hours. AE61 / S.
Lectures and laboratory research on human information processing as related to theories of word recognition, reading, and language comprehension. Major emphasis on experimental design, data analysis, interpretation, and scientific writing. Prerequisite: PSYC 104 and PSYC 210 or PSYC 211 or consent of instructor. LEC.

PSYC 620. Experimental Psychology: Sensation, Perception, and Cognition. 6 Hours. AE61 / S.
Lectures and laboratory work on human sensory processes and how they result in perceptions of the environment. Experience is provided in designing and implementing research as well as in the skills necessary for statistical analysis, interpretation of data, and scientific writing. Prerequisite: PSYC 104 and PSYC 210 or PSYC 211 or consent of instructor. LEC.

PSYC 622. Experimental Psychology: Social Behavior. 6 Hours. AE61 / S.
Lectures, laboratory and field work on various issues in research in social psychology (e.g., conformity, attitude change, social processes). Two two-hour periods a week and appointment for research. Prerequisite: PSYC 104, PSYC 360, and PSYC 210 or PSYC 211 or consent of instructor. LEC.
PSYC 624. Experimental Psychology: Clinical Psychology. 6 Hours. AE61 / S.
Lectures and laboratory research on contemporary issues in clinical psychology. Emphasis on experimental design, data analysis, interpretation of data, and scientific writing. Prerequisite: PSYC 104 and PSYC 210 or PSYC 211 or consent of instructor. LEC.

PSYC 625. Experimental Psychology: Methods in Neuropsychology and Psychophysiology. 6 Hours. AE61 / S.
Lectures and laboratory work on psychophysiology and neuropsychology research methods. Overview of psychophysiological tools to measure the central and peripheral nervous systems. Experience designing and implementing neuropsychology and psychophysiology research. Prerequisite: PSYC 104 and PSYC 210 or PSYC 211 or consent of instructor. LEC.

PSYC 626. Psychology of Adolescence. 3 Hours. S.
Impact of factors of social environment and physical growth upon psychological development from puberty to young adulthood. (Same as ABSC 626.) Prerequisite: PSYC 104, PSYC 333, or HDFL/ABSC 160. LEC.

PSYC 630. Clinical Psychology. 3 Hours. S.
The historical and empirical foundations of clinical psychology. Significant trends in theory, research, and social organization which have shaped clinical practice. A review of clinical practice. Prerequisite: PSYC 104. LEC.

PSYC 632. Advanced Child Behavior and Development. 3 Hours. S.
An advanced course in child development that includes a survey of the field’s principles and theoretical approaches, and current issues in research and practice. Topics will include: prenatal development, cognition and language, social-emotional development, socialization influences in childhood, developmental psychopathology, and social policies. (Same as ABSC 632.) Prerequisite: ABSC/HDFL 160, PSYC 333, or instructor permission, and senior or graduate status. LEC.

PSYC 642. The Psychology of Families. 3 Hours. S.
Study of the family as a psychosocial system. Emphasis is placed on factors affecting contemporary families including family structures, development, communication patterns, disorders, and treatment approaches. Theory, empirical evidence, and practical principles that may lead to maximizing individual growth in the family unit are discussed. Prerequisite: PSYC 104. LEC.

PSYC 644. Behavioral Pharmacology. 3 Hours. S.
Addresses psychological and behavioral effects of drugs, including psychotropic medications. A central theme is that effects of drugs frequently cannot be characterized solely from a pharmacological perspective. Thus, emphasis is placed on examining the interaction of pharmacological and behavioral variables. For example, how do psychological factors moderate responses to drugs? The nature of this area assumes some knowledge of general psychology, research methods, biology, chemistry, neurophysiology, and the nervous system. Prerequisite: PSYC 104 or consent of instructor. LEC.

PSYC 646. Mental Health and Aging. 3 Hours. S.
Reviews recent research and application in the field of mental health and aging. Theoretical perspectives appropriate for understanding mental health issues with increased age are discussed. The epidemiology, assessment, diagnosis, and treatment methods associated with a variety of mental health conditions are surveyed. The community mental health resources available for older adults are discussed as well as practically-related issues such as evaluations of functional independence and competency among older adults. Prerequisite: PSYC 104 or consent of instructor. LEC.

PSYC 650. Statistical Methods in Behavioral and Social Science Research I. 4 Hours. S.
Elementary distribution theory; t-test; simple regression and correlation; multiple regression and multiple correlation; curvilinear regression; logistic regression; general linear model. Applications across the behavioral and social sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Students taking this course as PSYC 790 will have different course requirements. Prerequisite: A grade of B- or better in a beginning course in statistics (e.g., PSYC 210 or PSYC 211, MATH 365, POLS 306, COMS 356, SOC 510, or equivalent) is recommended, or consent of instructor. LEC.

PSYC 651. Anova and Other Factorial Designs. 4 Hours. S.
Course covers one-way analysis of variance, linear trends, contrasts, post hoc tests; multi-way analysis of variance for crossed, blocked, nested, and incomplete designs; analysis of covariance; repeated measures analysis of variance; general linear model. Applications across the social, educational, and behavior sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Students taking this course as PSYC 791 will have different course requirements. Prerequisite: PSYC 650 or equivalent, or consent of instructor. LEC.

PSYC 652. Behavior Therapy. 3 Hours. S.
A review of the principal techniques of behavior therapy, exclusive of operant-based therapies. Emphasis upon systematic desensitization, implosion, assertion training, and modeling techniques. Special attention given to outcome research relevant to the effectiveness of these techniques. Recommended: A course in abnormal psychology. Prerequisite: PSYC 104. LEC.

PSYC 678. Drugs and Behavior. 3 Hours. S.
A survey of the methods used to study the effects of drugs on behavior, and of the effect of selected drugs on behavior, particularly the narcotics, hallucinogens, and drugs used in the treatment of mental illness. Prerequisite: PSYC 104. LEC.

PSYC 679. Applied Nonparametric Statistical Methods. 4 Hours. S.
This course covers nonparametric statistical methods for testing hypotheses. Topics include a review of parametric statistics, sampling distributions, hypothesis testing, and motivations for using nonparametric techniques. In-depth coverage is given to distribution-free procedures, goodness-of-fit tests, resampling methods, and theory underlying nonparametric methods. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Students taking this course as PSYC 879 will have different course requirements. Prerequisite: PSYC 650 or equivalent, or consent of instructor. LEC.

PSYC 685. Human Factors Psychology. 3 Hours. S.
Research techniques and methods useful in quantifying parameters of human performance that affect system functioning. Special emphasis is placed on modeling visual, auditory, and orienting systems and on human information processing. Prerequisite: PSYC 210 or PSYC 211 or consent of instructor. LEC.

PSYC 687. Factor Analysis. 4 Hours. S.
This course covers the theory behind, and application of, exploratory factor analysis. Topics include a review of multiple linear regression and matrix algebra. In-depth coverage is devoted to diagrams, model specification, goodness of fit, model selection, parameter estimation, rotation methods, scale development, and sample size and power issues. Extensions to confirmatory settings are elaborated. Both the theory underlying factor analytic techniques and hands-on application using software are emphasized. Applications across the social and behavioral
Introduction to statistical methods for modeling latent variables. Topics include a review of ordinary least squares regression analysis, random effects ANOVA, intraclass correlation, multilevel regression, testing and probing interactions, maximum likelihood estimation, model assumptions, model evaluation, and the analysis of longitudinal data. Emphasis will be on the theory underlying multilevel modeling techniques and hands-on application using software. Applications across the behavioral and social sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Students taking this course as PSYC 895 will have different course requirements. Prerequisite: PSYC 650 or equivalent, or consent of instructor. LEC.

PSYC 695. Categorical Data Analysis. 4 Hours. S.
Introduction to multivariate analyses of count data, including error models, statistical inference, loglinear models, logit models, logistic regression, homogeneity, symmetry, and selected other topics. Applications across the behavioral and social sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Students taking this course as PSYC 895 will have different course requirements. Prerequisite: PSYC 650 or equivalent, or consent of instructor. LEC.
PSYC 725. Cognitive Neuroscience. 3 Hours.
A survey of the critical issues within cognitive and behavioral neuroscience. The course will provide information about neuronal physiology, functional neuroanatomy, and psychophysiological research methods. Human cognition and the neurophysiology that subserves the primary cognitive functions will be discussed. LEC.

PSYC 735. Psycholinguistics I. 3 Hours.
A detailed examination of issues in the processing of language. The course will provide a survey of research and theory in psycholinguistics, reflecting the influence of linguistic theory and experimental psychology. Spoken and written language comprehension and language production processing will be examined. (Same as LING 735.) LEC.

PSYC 737. Psycholinguistics II. 3 Hours.
An in-depth examination of selected topics in psycholinguistics. Topics may include spoken language processing, written language processing, neurolinguistics, prosody, and syntactic processing. (Same as LING 737.) Prerequisite: PSYC 735/LING 735 or consent of instructor. LEC.

PSYC 750. Advanced Seminar in Gender Identity and Sexual Orientation. 3 Hours.
Design and execution of research on the causes and consequences of variations in gender identity, sexual orientation or affections, sex roles, and sex-linked behaviors. Prerequisite: Consent of instructor. LEC.

PSYC 757. Theories of Perception. 3 Hours.
A consideration of the facts and theories of human perception. The emphasis will be on vision, although hearing, smell, pain, and other senses will also be discussed. Of particular concern is the question of perceptual modifiability and the response of the human observer to unusual sensory environments. Prerequisite: PSYC 104. LEC.

PSYC 774. Advanced Social Psychology I. 3 Hours.
First semester of a two-semester course. Designed to provide a thorough background in social psychology and to motivate a continuing exploration of theoretical problems and issues in the field. Combines examination of historical development of theories and methods in social psychology with analysis of theoretical and methodological approaches to a variety of contemporary topics. LEC.

PSYC 775. Advanced Social Psychology II. 3 Hours.
A continuation of PSYC 774. LEC.

PSYC 777. Social Psychology: Theory, Research, and Clinical Applications. 3 Hours.
Basic theories in social psychology, as well as their applications to the process of coping with life events. The focus is on the nature of each theory, including the history and more recent developments; however, where clinical applications have been made of a particular theory, these will be discussed. LEC.

PSYC 780. Research Lab. 1-5 Hours. S.
Supervised research under the guidance of a faculty member in the Department of Psychology. Students will be part of a collaborative laboratory environment, and will be involved in research design, data collection, and data analysis, and will take part in regularly scheduled laboratory meetings. Prerequisite: Permission of instructor. LEC.

PSYC 782. Research Methods in Child Language. 3 Hours.
A survey of methods for studying phonological, morphological, syntactic, and semantic change during language development. Methods include: diary interpretation, language sample analysis, probe elicitation tasks, and clinical assessment. (Same as LING 782.) LEC.

PSYC 784. Proseminar in Communication and Aging. 1 Hour.
A weekly forum for students and faculty to discuss professional issues and interdisciplinary research in communication and aging. May be repeated for credit. (Same as COMS 784.) (Same as SPLH 784.) Prerequisite: Consent of instructor. LEC.

PSYC 787. Gerontology Proseminar. 3 Hours.
A proseminar coordinated by the Gerontology Center. The proseminar explores essential areas of gerontology for researchers and practitioners, providing a multidisciplinary (psychology, biology, sociology, and communication) perspective on aging. The proseminar surveys contemporary basic and applied research, service programs, and policy and management issues in gerontology. (Same as ABSC 787, AMS 767, COMS 787, and SOC 767.) (Formerly HDFL 787.) LEC.

A course emphasizing the practical application of inferential statistics to a variety of research designs and outcome variables. Topics will include both parametric and nonparametric statistical procedures, and various applications of both ANOVA and multiple regressions. Prerequisite: Graduate standing in the Department of Psychology or consent of instructor. LEC.

PSYC 790. Statistical Methods in Psychology I. 4 Hours.
Elementary distribution theory; t-test; simple regression and correlation; multiple regression and multiple correlation; curvilinear regression; logistic regression; general linear model. Applications across the behavioral and social sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Prerequisite: A beginning course in statistics and graduate standing, or consent of instructor. LEC.

PSYC 791. Statistical Methods in Psychology II. 4 Hours.
Continuation of PSYC 790. One-way analysis of variance, linear trends, contrasts, post hoc tests; multi-way analysis of variance for crossed, blocked, nested, and incomplete designs; analysis of covariance; repeated measures analysis of variance; general linear model. Applications across the social, educational, and behavior sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Prerequisite: PSYC 790 or equivalent, or consent of instructor. LEC.

PSYC 795. Computing and Psychology. 3 Hours.
Introduction to the use of personal computers to facilitate and standardize administration of research protocols and to automate data collection. Lectures and projects emphasize direct application to research in the behavioral sciences. Prerequisite: Graduate standing in the Department of Psychology and consent of instructor. LEC.

PSYC 796. Computer Models of Brain and Behavior. 3 Hours.
An introduction to the techniques of computer modeling with applications in the study of brain-behavior mechanisms. Early and contemporary efforts to simulate the neuron, neural networks, and neural processes which regulate behavior, are reviewed. Application of modeling techniques in sample brain-behavior problem areas are used to illustrate the operation of thresholds, feedback, dynamic equilibrium, redundancy, plasticity, network structure, and similar constructs. Programming skill in a high-level language available on personal computers or mainframe is required. Prerequisite: EECS 128 or EECS 138 or PSYC 795, and PSYC 370, or equivalent courses or experience. LEC.

PSYC 798. Introduction to Mathematical Methods in Psychology. 3 Hours.
A first course in scaling and modeling psychological processes. Substantive areas treated selected from sensation, perception, learning,
memory, preference, choice and decision processes, problem solving, games, social interaction, and individual differences. May be repeated with permission. Prerequisite: Previous course work beyond the introductory level in psychology or a closely related area, a course in statistics, and a course in calculus. LEC.

**PSYC 799. Proseminar in Child Language.** 2 Hours.
A review and discussion of current issues in children's language acquisition. May be repeated for credit. Students are graded S/F. (Same as ABSC 797, LING 799, and SPLH 799.) (Formerly HDFL 797.) LEC.

**PSYC 800. Experimental Psychology: _____ 3 Hours.**
An advanced survey of theory and research in a selected area of experimental psychology. Continual enrollment for four semesters is required of entering graduate students in experimental psychology. Open to other students with graduate standing in psychology or a closely related field. May be repeated with permission. LEC.

**PSYC 802. Social-Psychological Aspects of Health, Disability, and Associated Life Stress.** 3 Hours.
Disabling myths; perception of causes and effects of disease and disability; attitudes and interpersonal relations; hoping, coping, and reality issues; values; professional-client relations; public media and societal rehabilitation. A departmental core course for graduate students. LEC.

**PSYC 803. Fundamentals of Psychological Assessment and Intervention with Children.** 3 Hours.
Lecture and supervised experience covering the theoretical and empirical literature on assessment and intervention methods for children, adolescents, and families. Students will learn and demonstrate evidence-based clinical interviewing skills, behavioral observation techniques, risk assessment techniques, therapeutic communication approaches, strategies for providing assessment feedback to families, and ethical principles related to the provision of assessment and psychotherapy (including client file and resource management.) The course requires interaction with clinical populations and communication with referral sources. (Same as ABSC 803.) Prerequisite: Graduate student in clinical child psychology program. LEC.

**PSYC 805. History of Psychology.** 3 Hours.
A historical survey of basic concepts and theories in psychology with emphasis on their relationship to contemporary problems in theory. LEC.

**PSYC 809. Professional Issues: Clinical Child Psychology.** 1 Hour.
Consideration of special problems confronting the child and family oriented scientist-practitioner, and in the development of a professional identity. Topics include critical issues including ethical, legal, cultural, empirical, and clinical aspects of research and practice. May be repeated. (Same as ABSC 809, formerly HDFL 809.) Prerequisite: Graduate standing in clinical child psychology. LEC.

**PSYC 811. Achievement and Intellectual Assessment in Clinical Child Psychology.** 3 Hours.
Course covers the basic theory, research, administration, and reporting of psychological assessment of development, intelligence, and achievement for children, adolescents, and adults within cultural and developmental contexts. The range of psychological instruments examined includes, for example, WIAT, K-ABC, W-J, S-B, WISC, WAIS, and WPPSI. (Same as ABSC 811.) Prerequisite: Graduate student in clinical child psychology. LEC.

**PSYC 812. Behavioral and Personality Assessment of Children.** 3 Hours.
Lecture, laboratory, field work, and supervision appointment. Theory and applications in the psychological evaluation of children with standardized assessment techniques. The administration, scoring, interpretation, and reporting of behavioral and personality functioning in children. (Same as ABSC 812, formerly HDFL 812.) Prerequisite: Graduate standing in clinical child psychology. LEC.

**PSYC 814. Advanced Child and Family Assessment.** 3 Hours.
Lecture, laboratory, field work, and supervision appointment. Supervised experience in specialized psychological assessment approaches for children and families. Emphasis on interviewing, observation, psychometric scales, and consultation. Rationale, administration, analysis, and reporting of mental health functioning of children and families. Experience with clinical populations, and communication with referral sources. (Same as ABSC 814, formerly HDFL 814.) Prerequisite: Graduate student in clinical child psychology. LEC.

**PSYC 815. Design and Analysis for Developmental Research.** 3 Hours.
Coverage of the philosophy and basic principles of group-design research, with a special emphasis on designs that are appropriate for developmental studies. Designs for both experimental and quasi-experimental research are covered, and appropriate statistical procedures are presented concomitantly with the designs. Individual-difference analyses and statistical control issues are also addressed. LEC.

**PSYC 816. Design and Analysis for Neuroimaging Research.** 3 Hours.
Course covers research design and analysis issues for event-related potential (ERP) and functional magnetic resonance imaging (fMRI) studies. Repeated measures, statistical parametric mapping, principal components analysis, and independent components analysis techniques are covered. Both practical and theoretical aspects of these statistical techniques will be explored in Matlab environment. Matrix algebra recommended but not required. Prerequisite: PSYC 790 and 791 or equivalent are required. LEC.

**PSYC 818. Experimental Research Methods in Social Psychology.** 3 Hours.
Systematic discussion of the techniques of research in social psychology, with practice in the utilization of selected methods. Prerequisite: One course in social psychology in addition to introductory social psychology. LEC.

**PSYC 819. Field and Evaluation Research Methods in Social Psychology.** 3 Hours.
Basic principles and practices of field methods in basic and applied research in social psychology and related fields; relationships between field and laboratory studies; special emphasis on survey and evaluation research methods and study designs; client and respondent relationships; research and public policy. LEC.

**PSYC 820. Advanced Child Development.** 3 Hours.
A survey of the basic empirical research in the field of child development, covering intelligence, cognition, perception, attention, personality, social behavior, and socialization processes. These literatures are integrated and their implications for social application are addressed. (Same as ABSC 820, formerly HDFL 820.) Prerequisite: A course in child development or equivalent. LEC.

**PSYC 821. Women and Violence.** 3 Hours.
An examination of research on women and violence, including rape, domestic violence, sexual harassment, stalking, and child sexual abuse. Research on the nature, prevalence, causes, and consequences of violence against women is discussed. (Same as WGSS 821.)
Prerequisite: Six hours in WGSS and/or PSYC, or permission of instructor. LEC.

**PSYC 825. Social Development.** 3 Hours.
A lecture and discussion course in social development. It includes such topics as theoretical approaches to the study of social development, as
well as the literature on family processes, peer relations, aggression and prosocial behavior, child abuse and neglect, family violence, child care, and the media. (Formerly PSYC 880.) (Same as ABSC 825.) Prerequisite: A course in child psychology or development. LEC.

PSYC 831. Advanced Human Learning and Memory. 3 Hours. An in-depth analysis of current research and theory. Focus will be on experimental methodology in these areas. LEC.

PSYC 832. Clinical Health Psychology I: Health Promotion and Disease Prevention. 3 Hours. An overview of the field of health psychology as applied to health promotion and disease prevention. Content areas include history and current research regarding behavioral and psychosocial risk factors for disease, as well as empirically supported assessment and therapeutic techniques for risk factor reduction and health promotion. Prerequisite: Graduate student in psychology or health-related fields, or permission of instructor. LEC.

PSYC 833. Clinical Health Psychology II: Acute and Chronic Illness. 3 Hours. An overview of the field of health psychology as applied to acute and chronic illness in adult, adolescent, and child populations. Content areas include psychosocial aspects of acute and chronic illness, including relevant empirically supported assessment and intervention strategies, adherence to medical regimens, pain, and enhancement of the psychologist's role in medical settings. Prerequisite: Graduate student in psychology or health-related fields, or by permission of instructor. LEC.

PSYC 834. Clinical Health Psychology III: Physical Aspects of Health and Disease. 3 Hours. An overview of physical manifestations of health and disease. Content areas include overview of anatomy and physiology of each body system, description of how deviations from normal anatomical development and physiological function result in common disorders, methods for distinguishing psychological from organic etiologies, indications of side effects of medications for common disorders, and description of roles of key members of health care team members. Prerequisite: Graduate student in psychology or health-related fields, or permission of instructor. LEC.

PSYC 835. Clinical Practicum IV: Health. 3 Hours. Supervised assessment and treatment of individuals and families within a medical setting, as well as multidisciplinary consultation. Inpatient and outpatient clinical health psychology rotations may include pediatrics, oncology, pain, rehabilitation, and other health psychology related fields. Emphasis in selection of and training in psychological intervention strategies is on the use of empirically supported treatments where possible. Grading on Satisfactory/Fail basis. Prerequisite: PSYC 970 and graduate student in clinical health psychology specialty. FLD.

PSYC 836. Clinical Practicum V: Health. 3 Hours. Continuation of PSYC 835. Prerequisite: Graduate student in clinical health psychology specialty. FLD.

PSYC 838. Pain and Its Management. 3 Hours. Focuses on biological, cognitive/affective, and social causes and effects of pain. Emphasis on basic research methods in pain, origins of pain, and how the experience of pain alters many aspects of the individual’s life. Topics include anatomy and physiology of pain, impact of pain on a variety of aspects of individuals’ lives, treatments for pain, and the role of various health care professionals in treating pain. Discussions will also include basic research methods in pain, tools for assessing pain, barriers to adequate pain management, and ethical/legal/public policy issues in working with pain patients. Prerequisite: Graduate student in psychology or health-related fields, or by permission of instructor. LEC.

PSYC 839. Palliative Care in Health Psychology. 3 Hours. Based on the biopsychosocial model, this course focuses on the current practice of palliative care in community and hospital settings by health care professionals. Classes will be discussion based, centered on current issues and controversies in care of the chronically ill and dying. Recent research will be highlighted, as will cultural perspectives on death. Students will be expected to identify applicable literature for presentation and class discussion, along with assigned readings. Prerequisite: Graduate student in psychology or health-related fields, or by permission of instructor. LEC.

PSYC 840. Psychology of Women’s Health. 3 Hours. A seminar devoted to examination of psychosocial and behavioral factors in women’s health. Content areas include women and the health care system, social roles and health, gender differences, and similarities in morbidity and mortality, gynecologic health, chronic diseases, and health-related behaviors. Prerequisite: Graduate student in psychology or health-related field, or by permission of instructor. LEC.

PSYC 841. Stress and Coping. 3 Hours. Theories and research on conceptualization, assessment, and effects of stress. Focus on coping processes and other determinants of adjustment to stressful conditions. Discussion of psychological interventions for managing stress and trauma. Prerequisite: Graduate student in psychology or related fields. LEC.

PSYC 842. Specialized Health Psychology Practicum. 1-3 Hours. Specialized advanced practicum in clinical health psychology, with an area of emphasis mutually defined by student and instructor. Prerequisite: Consent of instructor. FLD.

PSYC 843. Behavioral Pharmacology. 3 Hours. Addresses psychological and behavioral effects of drugs, including psychotropic medications. A central theme is that effects of drugs frequently cannot be characterized solely from a pharmacological perspective. Thus, emphasis will be placed on examining the interaction of pharmacological and behavioral variables. For example, how do psychological factors moderate responses to drugs? The nature of this area assumes some knowledge of general psychology, research methods, biology, chemistry, neurophysiology, and the nervous system. Specific course structure will be modified to suit student interests. Prerequisite: Graduate student in psychology or health-related fields, or by permission of instructor. LEC.

PSYC 844. Mental Health and Aging. 3 Hours. Reviews recent research and application in the field of mental health and aging. Theoretical perspectives appropriate for understanding mental health issues with increased age are discussed. The epidemiology, assessment, diagnosis, and treatment methods associated with a variety of mental health conditions are surveyed. The community mental health resources available for older adults are discussed as well as practically-related issues such as evaluations of functional independence and competency among older adults. Prerequisite: Graduate student in psychology or related health field, or permission of instructor. LEC.

PSYC 845. Impression Formation and Interpersonal Behavior. 3 Hours. Intensive investigations of the processes involved in impression formation and of the effects of established impressions upon interpersonal communications. (Same as COMS 835.) Prerequisite: PSYC 670 or COMS 535. LEC.

PSYC 846. Practicum in Clinical Child Psychology I. 1-3 Hours. Lecture, laboratory, field work, and supervision appointment. Psychological evaluation and treatment of children and their families; supervised, progressive experience in psychological interventions in
clinical child psychology. (Same as ABSC 846, formerly HDFL 846.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. FLD.

**PSYC 847. Practicum in Clinical Child Psychology II. 1-3 Hours.** 
A continuation of ABSC 846/PSYC 846. (Same as ABSC 847, formerly HDFL 848.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. FLD.

**PSYC 850. Assessment I: Foundations of Psychological Assessment. 3 Hours.** 
Introduction to the history, methods and theory underlying psychological assessment techniques and methods. Students learn to administer, score, and interpret mental status exams and intelligence tests for children, adolescents and adults. Structured diagnostic assessments are introduced and practiced. Psychological report writing is introduced and practiced. The psychometric theory underlying the construction and validation of personality assessment instruments is reviewed. Prerequisite: Graduate student in clinical psychology or consent of instructor. FLD.

**PSYC 853. Advanced Acoustical and Psychological Aspects of Musical Behavior. 3 Hours.** 
Study and experimental investigation of acoustic, psychoacoustic, and psychological phenomena as they influence music. Attention will be given to physical parameters; perception of pitch, loudness, and timbre; magnitude estimation; theories of consonance; experimental aesthetics; and measurement and prediction of musical ability. Each student will be expected to complete an experiment or quasi-experiment related to human musical behavior. (Same as MEMT 953.) Prerequisite: PSYC 453 or equivalent; or consent of instructor. LEC.

**PSYC 855. Assessment II: Integrative Psychological Assessment. 3 Hours.** 
Lecture, laboratory and field work. Students learn to administer, score and interpret various personality assessment instruments. Students apply skills acquired in previous coursework to write integrated psychological assessment reports based on anamnesis, structured interview data, intelligence tests, and both objective and projective personality assessment instruments. Prerequisite: PSYC 850 or consent of instructor. FLD.

**PSYC 863. Clinical Neuropsychology Across the Lifespan. 3 Hours.** 
Reviews neural development and the brain-behavior relationships in intact, injured, and diseased brain systems. Details basic issues in clinical assessment and reporting of cognitive impairment resulting from developmental disorders, stroke, traumatic brain injury, and brain-disease. Selected topics include perception, speech, memory/dementia, judgment, and attention. Prerequisite: Graduate status and PSYC 961 or consent of instructor. LEC.

**PSYC 864. Clinical Neuropsychology. 3 Hours.** 
Brain-behavior relationships in humans; structure and function of the brain; evaluation of function; the interpretation of neuropsychological data. Lecture and laboratory. LEC.

**PSYC 865. Advanced Psychological Assessment: Interview Based Techniques. 3 Hours.** 
Lecture and fieldwork. Advanced clinical interviewing. Structured diagnostic interviewing. Coverage of specialized areas of clinical interviewing (e.g., motivational interviewing). Report writing focused on documentation of clinical and structured interviewing. Prerequisite: PSYC 855 or consent of instructor. FLD.

**PSYC 870. Cognitive Development. 3 Hours.** 
A lecture/discussion course in cognitive development. The course will contrast the theory and research of Jean Piaget and his followers, with an information processing or cognitive psychology approach to issues. Topics include development of perception, attention and information getting; memory and metamemory; problem solving; discrimination learning and concept formation; and individual differences in cognitive styles and strategies. Prerequisite: A course in child psychology or development, a course in cognitive psychology, or consent of instructor. LEC.

**PSYC 872. Attention, Perception, and Learning in Infancy. 3 Hours.** 
Coverage of the basic literatures on perceptual-cognitive behavior during the first three years of life, as assessed by measures of attention, perception, learning, and memory. Course material is approached from an information-processing framework. LEC.

**PSYC 875. Advanced Assessment: Integration of Assessment Techniques. 3 Hours.** 
Lecture and fieldwork on selection, administration, scoring and interpretation and integration of data from personality and abilities tests. Focus on assessments includes history, theory and application in psychological assessment batteries. Emphasis on advanced training in objective personality assessment, projective personality assessment, psychometric theory and integrated report writing. Prerequisite: PSYC 855 or consent of instructor. FLD.

**PSYC 879. Applied Nonparametric Statistical Methods. 4 Hours.** 
This course covers nonparametric statistical methods for testing hypotheses when the assumptions of ordinary parametric statistics are not met. Topics include a review of parametric statistics, sampling distributions, the logic of hypothesis testing, and motivations for using nonparametric techniques. In-depth coverage will be given to distribution-free procedures, sign tests, contingency tables, median tests, chi-square and other goodness-of-fit tests, rank correlations, randomness tests, Monte Carlo methods, resampling methods, tests of independence, 1-sample, 2-sample, and k-sample methods, permutation tests, and function smoothing and splines. There will be an emphasis on the theory underlying nonparametric methods. Applications across the behavioral and social sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Prerequisite: PSYC 790 and 791 or equivalent, or consent of instructor. LEC.

**PSYC 881. Proseminar in Quantitative Behavioral and Social Sciences. 1 Hour.** 
This course is an open forum discussion of issues, topics, and presentations in quantitative behavioral and social sciences. The course can be repeated for credit and is open to any graduate student in any discipline across the behavioral and social sciences. SEM.

**PSYC 882. Theory and Method for Research of Human Environments. 3 Hours.** 
Conceptual and technical methods for analysis of behavioral environments; theory and research utilization of behavior settings and other ecobehavioral units. Prerequisite: Nine hours of social science including at least one course dealing with research methods and consent of instructor. LEC.

**PSYC 885. Altruism and Helping Behavior. 3 Hours.** 
Review of contemporary research of prosocial behavior. Topics to be covered include the existence of altruism, why people do and do not help others, and the effect of institutional roles on the behavior of service professionals such as therapists, counselors, and social workers. LEC.

**PSYC 886. Item Response Theory. 4 Hours.** 
This course covers the basic concepts and methods of item response models. Focal topics include the theory underlying IRT models and their general properties. Also covered are methods for checking model
assumptions and interpreting IRT estimates. The course uses examples from the social and behavioral sciences to demonstrate how IRT methods can be used to inform and refine survey development, to assess measurement equivalence, link survey scores, and build item banks for short forms or computer-adaptive testing (CAT). Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Prerequisite: PSYC 790 and 791 or equivalent, or consent of instructor. LEC.

PSYC 887. Factor Analysis. 4 Hours.
This course covers the theory behind, and application of, exploratory factor analysis. Topics include a review of multiple linear regression and matrix algebra. In-depth coverage is devoted to diagrams, model specification, goodness of fit, model selection, parameter estimation, rotation methods, scale development, and sample size and power issues. Extensions to confirmatory settings are elaborated. Both the theory underlying factor analytic techniques and hands-on application using software are emphasized. Applications across the social and behavioral sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Prerequisite: PSYC 790 or equivalent, or consent of instructor. LEC.

PSYC 888. Diversity Issues in Clinical Psychology. 3 Hours.
Review of individual differences pertaining to culture, ethnicity, race, gender, sexual orientation, age, etc., as these have an impact upon theory, research, assessment, and treatment issues in clinical psychology. (Same as ABSC 888.) Prerequisite: Graduate status in clinical psychology, or instructor permission. LEC.

PSYC 889. Conceptual Issues in Human Sexuality. 3 Hours.
An examination of the social construction of sexuality and research methods and issues relevant to sexuality. These concepts are applied to various topics, such as defining and conceptualizing sex and gender, sexual dysfunction, sexual orientation, the social control of sexuality, sexual coercion and abuse, and abstinence-only sex education. The course does not cover anatomical or physiological aspects of sexuality. (Same as WGSS 889.) Prerequisite: Six hours in WGSS and/or PSYC, or permission of instructor. LEC.

PSYC 891. Intelligence and Cognition. 3 Hours.
This course concerns the nature of intelligence. Theory and research on cognitive abilities, reasoning, and complex problem solving are surveyed. Special emphasis is given to contemporary cognitive ability research that applies both experimental and correlation methods to understand the nature of intelligence. LEC.

PSYC 892. Test Theory. 4 Hours.
This course begins with recommendations for how to write a test (with or without correct answers, for assessing a wide variety of constructs of interest in social and behavioral sciences), covers basics of classical test theory, and then emphasizes modern statistical methods for analyzing item data. Methods include factor analysis of categorical responses, methods for identifying measurement invariance (differential item functioning), and item response theory. Lectures and Laboratory. This course is offered at the 600 and 800 levels, with additional assignments at the 800 level. Prerequisite: PSYC 790/650 or equivalent, or consent of instructor. LEC.

PSYC 893. Multivariate Analysis. 4 Hours.
Introduction to the central methods used in the analysis of multivariate data. Includes linear transformations, multivariate analysis of variance, multivariate multiple regression, discriminant analysis, canonical correlation, factor analysis, and an introduction to methods for clustering and classification. Applications across the behavior and social sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Prerequisite: PSYC 790 or equivalent, or consent of instructor. LEC.

PSYC 894. Multilevel Modeling. 4 Hours.
Statistical methods for modeling multilevel (hierarchically structured) data. Topics include a review of ordinary least squares regression analysis, random effects ANOVA, intraclass correlation, multilevel regression, testing and probing interactions, maximum likelihood estimation, model assumptions, model evaluation, and the analysis of longitudinal data. There will be a heavy emphasis on the theory underlying multilevel modeling techniques and hands-on application using software. Applications across the social, educational, and behavior sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Prerequisite: PSYC 790 or equivalent, or consent of instructor. LEC.

PSYC 895. Categorical Data Analysis. 4 Hours.
Multivariate analyses of count data. Error models, statistical inference, loglinear models, logit models, logistic regression. Homogeneity, symmetry, and selected other topics. Applications across the behavioral and social sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Prerequisite: PSYC 790 or equivalent, or consent of instructor. LEC.

PSYC 896. Structural Equation Modeling I. 4 Hours.
Introduction to statistical methods for modeling latent variables. Topics include a review latent variables, covariance structures analysis, mean structures analysis, confirmatory factor analysis (CFA), structural equation modeling (SEM), multiple group CFA, longitudinal CFA, longitudinal SEM, Hierarchical CFA, and Multi-trait Multi-Method SEM. Applications across the behavioral and social sciences are emphasized. Course consists of three hours of lecture and a required one-hour lab session where computing applications are taught. Prerequisite: PSYC 790 or equivalent, or consent of instructor. LEC.

PSYC 897. Master's Thesis in Clinical Child Psychology. 1-10 Hours.
Supervised research experience completing thesis leading to master’s degree. (Same as ABSC 897.) RSH.

PSYC 898. Proseminar: Professional Issues in Clinical and Health Psychology. 1 Hour.
Discussion of current theoretical, empirical, and applied issues in clinical and clinical health psychology involving students, faculty, guest speakers. Prerequisite: Graduate student in clinical psychology. RSH.

PSYC 899. Thesis. 1-10 Hours.
Graded on a satisfactory/unsatisfactory basis. THE.

PSYC 902. Proseminar in Experimental Psychology. 1 Hour.
Seminar in experimental psychology to be conducted in rotation by the experimental psychologists on the staff and a monthly visiting experimental psychologist. LEC.

PSYC 903. Proseminar in Social Psychology. 1 Hour.
A series of research talks on topics relevant to social and personality psychology featuring different weekly speakers from inside and outside the university. SEM.

PSYC 905. Psychopathology in Children. 3 Hours.
Diagnosis and treatment of psychological problems in childhood and adolescence. (Same as ABSC 905.) Preference given to graduate students in child clinical psychology, school psychology, and counseling psychology. Prerequisite: Fifteen hours of graduate credit in psychology or consent of instructor. LEC.
PSYC 921. Seminar in Early Development. 3 Hours.
A seminar devoted to factors affecting early human development with some attention to theoretical formulations and the relevant animal literature. LEC.

PSYC 923. History and Systems of Developmental Psychology: Developmental Theory. 3 Hours.
An intensive study of traditional and recent developmental theories with an emphasis upon the role of heredity, early stimulation, reinforcement, and modification as each affects the course of the development of children. LEC.

PSYC 927. Seminar in Psychobiology. 3 Hours.
A detailed study of a specific research area dealing with the biological foundations of behavior. Each week articles will be assigned from the journal literature. LEC.

PSYC 930. Research Seminar on Intimate Relationships. 3 Hours.
Consideration of current psychological theory and research on adult intimate relationships: friendship, dating, committed relationships, dissolution of committed relationships. Students will be expected to be involved in on-going empirical research in the area. Prerequisite: Graduate level courses in research design and statistics. LEC.

PSYC 933. Seminar: The Measurement of Attitudes. 3 Hours.
An examination of the concept of attitude and the methods developed to assess the various aspects of attitudes. Prerequisite: PSYC 578 or consent of instructor. LEC.

PSYC 935. Seminar in Group Dynamics. 3 Hours.
Intensive examination of selected problems in the functioning of small groups. May be taken for two semesters. LEC.

PSYC 936. Group Therapeutic Techniques. 3 Hours. LEC.

PSYC 943. Advanced Practicum in Clinical Child Psychology III. 1-3 Hours.
Lecture, laboratory, field work, and supervision appointment. Advanced psychological intervention techniques for children, youth, and families; supervised progressive experience in application of behavioral and psycho-therapeutic methods to behavioral and emotional problems. (Same as ABSC 943, formerly HDFL 943.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. FLD.

PSYC 944. Advanced Practicum in Clinical Child Psychology IV. 1-3 Hours.
A continuation of ABSC/HDFL 943 and PSYC 943. (Same as ABSC 944, formerly HDFL 944.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. FLD.

PSYC 946. Theories and Methods of Psychotherapy. 3 Hours.
Comparative examination and analysis of major theories and approaches to psychotherapeutic interventions, core principles of therapeutic change, scientific approaches to establishing treatment efficacy, current intervention issues. Prerequisite: Nine hours in graduate clinical psychology or consent of instructor. LEC.

PSYC 947. Advanced Practicum in Clinical Child Psychology V. 1-5 Hours.
A continuation of ABSC/HDFL 944 and PSYC 944. May be taken in more than one semester. (Same as ABSC 947.) Prerequisite: Graduate standing in clinical child psychology and instructor permission. FLD.

PSYC 949. Empirically Supported Treatment. 3 Hours.
This course provides an overview of theoretical and applied issues germane to the contemporary empirically supported treatments movement in clinical psychology. The course will include an in-depth examination of several psychotherapy protocols (e.g., cognitive therapy for depression) which have been identified as “empirically supported,” with considerable attention accorded to implementation of the characteristic techniques of such interventions. LEC.

PSYC 950. Clinical Supervision and Consultation: Theory & Research. 1 Hour.
Lecture, readings, and discussion of theory and research related to the practices of clinical supervision and consultation. Developmental and competency based approaches to supervision with exposure to other approaches. Professional issues, ethics, and multicultural aspects of supervision and consultation. Prerequisite: Previous or concurrent enrollment in PSYC 969 or consent of instructor. LEC.

PSYC 951. Clinical Supervision Practicum. 1-3 Hours.
Fieldwork in supervision under direction of instructor. Practice in supervision of clinical work, assessment, psychotherapy, and documentation. Prerequisite: Previous or concurrent enrollment in PSYC 950 and PSYC 969, or consent of instructor. LEC.

PSYC 955. Close Relationships and Adult Attachment: Theory, Research, and Current Controversies. 3 Hours.
Review of attachment theory literature and the research it has generated in clinical developmental, personality, and social psychology. The course will allow discussion of a wide range of issues including the evolution of behavioral systems that underlie close human relationships, the developmental roots of relational styles and affect-regulation processes, the role of mental representations in interpersonal behavior, and some of the attachment and close relationship processes involved in good and poor mental health. Prerequisite: Graduate standing or consent of instructor. LEC.

PSYC 956. Social Neuroscience. 3 Hours.
Acquaint students with the Social Neuroscience approach as well as recent findings using this approach. The course will focus on particular social phenomena and (a) evaluate the utility of current social neuroscience research examining these phenomena and (b) consider future experimental designs using the Social Neuroscience approach to further inform our understanding of each phenomenon. After being acquainted with foundational concepts, students will analyze findings in a number of core content domains (including emotions, emotion regulation, self, stereotyping, attitudes and beliefs, social decision making, cooperation, close relationships), focusing on neuroscience’s contribution beyond traditional methods. Prerequisite: Graduate standing or consent of instructor. LEC.

PSYC 960. Advanced Psychopathology. 3 Hours.
Review of current nosology of adult psychopathological syndromes emphasizing development of diagnostic skills. Critical survey of recent research and theory related to the etiology, course, prognosis, and treatment of adult psychopathological conditions. Prerequisite: Graduate student status in clinical psychology, clinical child psychology, or counseling psychology. LEC.

PSYC 961. Biological Foundations of Psychopathology. 3 Hours.
A review of fundamental topics in the neurosciences and their relevance to selected psychopathological disorders. The fundamental topics are taken from genetics, neuroanatomy, neurophysiology, and neurochemistry. The disorders include schizophrenia, depression, anxiety disorders, Alzheimer’s disease, Parkinson’s disease, and Huntington’s disease. Prerequisite: Graduate student in clinical psychology or consent of instructor. LEC.

PSYC 962. Advanced Personality. 3 Hours.
A survey of selected advanced topics in the area of personality. Includes review of theoretical and research issues in the area of personality. Prerequisite: Consent of instructor. LEC.
PSYC 963. Clinical Child Psychology Internship. 1 Hour.
Three consecutive enrollments, covering a minimum of eleven months of experience in an approved clinical psychology field setting; supervision by qualified clinical child psychology faculty and field staff clinicians. Required of all clinical child psychology program students. An intensive guided experience in application of clinical child psychology theory, methods, and practices. Integrates scientific and clinical aspects of field. (Same as ABSC 963, formerly HDFL 963.) Prerequisite: Completion of Ph.D. comprehensive examinations and permission of clinical child psychology faculty. FLD.

PSYC 964. Clinical Practicum I. 3 Hours.
Lecture, laboratory and field work, and supervision appointment. Psychological evaluation and treatment of individuals, couples, families, and groups; supervised, progressive experience in psychological treatment and in the clinical evaluation of intellectual, personality, and social functioning. Emphasis in selection of and training in psychological intervention strategies is on the use of empirically supported treatments where possible. Grading on Satisfactory/Fail basis. Prerequisite: Graduate student in clinical psychology program. FLD.

PSYC 965. Clinical Practicum II. 3 Hours.
A continuation of PSYC 964. Grading on Satisfactory/Fail basis. Prerequisite: PSYC 964 or permission of instructor. FLD.

PSYC 966. Clinical Practicum III. 3 Hours.
A continuation of PSYC 964. Grading on Satisfactory/Fail basis. Prerequisite: PSYC 964 or permission of instructor. FLD.

PSYC 967. Psychotherapy with Families. 3 Hours.
Clinical approaches to marriage and family therapy. Intensive consideration of the theoretical positions, research findings, clinical methods, and technical problems in marriage and family therapy. Prerequisite: PSYC 946. LEC.

PSYC 968. Research Methods in Clinical Psychology. 3 Hours.
Systematic consideration of research methods in clinical psychology including identification of a research problem, selection of the research design and assessment strategies, and methods of evaluating the results. The principles, pitfalls, artifacts, biases, and sources of controversy in research in this area are also covered. Prerequisite: Graduate standing in clinical or counseling psychology. LEC.

PSYC 969. Clinical Practicum IV. 3 Hours.
Lecture, laboratory, field work, and supervision appointment. Advanced psychological treatment of the individual, couple, family, and group client; supervised, progressive experience in the clinical application of psychotherapeutic treatment methods with emphasis on the use of empirically supported interventions where possible. Grading on Satisfactory/Fail basis. Prerequisite: PSYC 966 or consent of instructor. FLD.

PSYC 970. Clinical Practicum V. 3 Hours.
A continuation of PSYC 969. Grading on Satisfactory/Fail basis. Prerequisite: PSYC 969 or consent of instructor. FLD.

PSYC 974. Clinical Psychology Internship. 1-3 Hours.
Three consecutive enrollments, covering a minimum of eleven months of experience in an approved clinical psychology field setting; supervision by clinical psychology faculty and field staff clinical psychologists. Required of all clinical psychology program students. An intensive guided experience in the application of clinical psychology theory, methods, and practices. An emphasis upon the relationships between scientific and clinical functions. Integrations between research and clinical practice. Prerequisite: Completion of Ph.D. comprehensive examinations and consent of clinical psychology faculty. FLD.

PSYC 975. Professional and Ethical Problems in Clinical Psychology. 3 Hours.
Interprofessional relationships, case security, legal aspects, ethical code of practice, clinic administration, and problems in the clinical practice of psychology. Issues involving ethics in research will also be explored. Prerequisite: Consent of instructor. LEC.

PSYC 976. Therapeutic Interventions with Children. 3-5 Hours.
Clinical approaches to the therapeutic treatment of children with special emphasis on research findings and laboratory (practicum) experience. A survey of relationship therapies, operant strategies, system approaches, parent education and play therapy by the right therapist for a specific child with a particular problem. (Same as ABSC 976.) Prerequisite: Instructor permission. FLD.

PSYC 977. Specialized Clinical Practicum. 1-4 Hours.
Lecture; laboratory and field work, and supervision appointment. Specialized psychological services for the evaluation and/or treatment of the individual client or the group or the institution. Investigation of and experience in a special practicum area not covered in regular courses. Prerequisite: Students must consult with members of the clinical faculty and propose an acceptable project in advance of enrollment. FLD.

PSYC 980. Special Problems in Psychology. 1-5 Hours.
Investigation of a special research problem or directed reading in an area not covered in regular courses. Prerequisite: Consent of instructor. RSH.

PSYC 981. Teaching Psychology. 1 Hour.
Discussion of the problems and techniques of teaching psychology at the undergraduate level. A minimum of one credit of this course must be taken by all assistant instructors during the two semesters of the first year of their appointment in the department. Only three hours may count toward the Ph.D. degree. LEC.

PSYC 982. Issues in Scientific Conduct. 3 Hours.
Lectures and discussion on issues in the conduct of a scientific career, with emphasis on practical topics of special importance in behavioral science. Topics will include the academic and scientific roles of behavioral scientists, establishing a research lab, communicating research findings, tenure processes, gender equity, ethical conduct, and good scientific citizenship. Discussions will highlight important case studies. (Same as SPLH 982.) LEC.

PSYC 983. Methodology. 3 Hours.
Inferential problems in experimental psychology. Prerequisite: PSYC 790 and PSYC 791 or consent of instructor. LEC.

PSYC 990. Methods for Clustering and Classification. 3 Hours.
Statistical methods for identifying classes, clusters, and taxa. Topics include k-means, discriminant analysis, hierarchical clustering algorithms, additive trees, neural network models for clustering, latent class models, finite mixture models, and models for skills/cognitive diagnosis. Applications across the social and behavior sciences are emphasized. Prerequisite: PSYC 790 and PSYC 791 or equivalent, or consent of instructor. LEC.

PSYC 991. Longitudinal Data Analysis. 3 Hours.
Reviews and contrasts various statistical methods for the analysis of change. Course focuses on various techniques to analyze longitudinal (repeated-measures) data beyond the repeated-measures ANOVA framework. Techniques covered include latent change scores, latent difference scores, individual-differences modeling of latent residual and change scores, intra-individual differences modeling (e.g., growth curve, mixed modeling) and growth mixture modeling. Applications across the behavioral and social sciences are emphasized. Prerequisite: PSYC 896 or equivalent, or consent of instructor. LEC.
PSYC 993. Seminar: _____. 1-5 Hours. LEC.

PSYC 996. Structural Equation Modeling II. 3 Hours. Continuation of PSYC 896. Advanced applications of modern methods for testing hypotheses on multivariate correlational data in the behavioral and social sciences. Topics include advanced confirmatory factor analysis, mediation and moderation among latent variables, latent growth curve modeling, and other latent variable mean and covariance structures analysis techniques. Applications across the behavioral and social sciences are emphasized. Prerequisite: PSYC 896 or equivalent, or consent of instructor. LEC.

PSYC 998. Doctoral Dissertation in Clinical Child Psychology. 1-10 Hours. Research experience making original contribution to literature in clinical child psychology. (Same as ABSC 998, formerly HDFL 998.) THE.

PSYC 999. Dissertation. 1-12 Hours. Graded on a satisfactory/unsatisfactory basis. THE.

Bachelor of Arts and Bachelor of General Studies in Psychology

Why study psychology?
Because the understanding of mind, behavior, and the human experience is best achieved through the rigorous application of the scientific method.

Admission to the Major

Admission Requirements

Application term
Students should apply to the major during the semester in which major admission criteria will be completed; normally no later than 60 hours, or for transfer students, normally during the initial term at KU. Application to this major after completion of 60 hours, or the initial KU term for transfer students, will likely delay graduation.

Courses Required

Orientation Seminar in Psychology Satisfied by:
- PSYC 102 Orientation Seminar in Psychology 1

General Psychology. Satisfied by:
- PSYC 104 General Psychology 3
- or PSYC 105 General Psychology, Honors

Research Methods in Psychology or Statistics in Psychological Research. Satisfied by:
- PSYC 200 Research Methods in Psychology 3
- or PSYC 201 Research Methods in Psychology, Honors
- PSYC 210 Statistics in Psychological Research 3
- or PSYC 211 Statistics in Psychological Research, Honors

Core Psychology Course. Satisfied by one of the following:
- PSYC 318 Cognitive Psychology 3
- or PSYC 319 Cognitive Psychology, Honors
- PSYC 333 Child Development 3
- or PSYC 334 Child Development, Honors
- PSYC 350 Abnormal Psychology 3
- or PSYC 351 Abnormal Psychology, Honors

Must complete at least 1 but not more than 3 of the psychology core courses in order to apply to the psychology major.

Admission GPA
A minimum 2.5 GPA is required in all courses listed above that have been completed at the time of application to the major. University Course Repeat Policy will apply.

The undergraduate advisory committee evaluates applications. Students providing documentation of meeting the criteria are admitted when they apply. Faculty members are aware of the dangers associated with relying solely on grade-point average in selecting students. The department is committed to promoting cultural diversity in its programs, and the undergraduate advisory committee is guided by principles of affirmative action.

Requirements for the B.A. or B.G.S. Major

B.A. or B.G.S. Major in Psychology

Psychology Major Course Requirements

Psychology Prerequisite or Co-Requisite Knowledge (3)
Majors must complete courses as specified in each of the following areas. These hours do not contribute to the minimum number of hours required for the major.

College Algebra or Pre-Calculus. Satisfied by:
- MATH 101 College Algebra 3
- or MATH 104 Precalculus Mathematics

Psychology Core Knowledge and Skills (25)
Majors must complete a course in each of the following 9 areas:

Orientation Seminar in Psychology. Satisfied by:
- PSYC 102 Orientation Seminar in Psychology 1

General Psychology. Satisfied by:
- PSYC 104 General Psychology 3
- or PSYC 105 General Psychology, Honors

Research Methods in Psychology. Satisfied by:
- PSYC 200 Research Methods in Psychology 3
- or PSYC 201 Research Methods in Psychology, Honors

Statistics in Psychological Research. Satisfied by:
- PSYC 210 Statistics in Psychological Research 3
- or PSYC 211 Statistics in Psychological Research, Honors

Cognitive Psychology. Satisfied by:
- PSYC 318 Cognitive Psychology 3
- or PSYC 319 Cognitive Psychology, Honors

Child Development. Satisfied by:
- PSYC 333 Child Development 3
Bachelor of Science in Behavioral Neuroscience

Why study psychology?
Because the understanding of mind, behavior, and the human experience is best achieved through the rigorous application of the scientific method.

Admission to the Major

Behavioral Neuroscience Major Admission Criteria

Application Term
Students should apply to the major during the semester in which major admission criteria will be completed; normally no later than 60 hours, or for transfer students, normally during the initial term at KU. Application to this major after completion of 60 hours, or the initial KU term for transfer students, will likely delay graduation.

Courses Required

Orientation Seminar in Psychology. Satisfied by:
- PSYC 102 Orientation Seminar in Psychology
- PSYC 104 General Psychology
- or PSYC 105 General Psychology, Honors

Research Methods in Psychology or Statistics in Psychological Research. Satisfied by one of the following:
- PSYC 200 Research Methods in Psychology
- or PSYC 201 Research Methods in Psychology, Honors
- PSYC 210 Statistics in Psychological Research
- or PSYC 211 Statistics in Psychological Research, Honors

Core Psychology Course. Satisfied by one of the following:
- PSYC 370 Behavioral Neuroscience
- or PSYC 371 Behavior Neuroscience, Honors
- PSYC 375 Cognitive Neuroscience
- PSYC 380 Clinical Neuroscience
- or PSYC 381 Clinical Neuroscience, Honors

Admission GPA

A minimum 3.0 GPA is required in all courses listed above that have been completed at the time of application to the major. University Course Repeat Policy will apply.

Requirements for the B.S. Degree

B.S. in Behavioral Neuroscience

Humanities (24 hrs.)

Written Communication - Core Skill and Critical Inquiry
Composition (0)
Satisfied by one of the following. Requirement must be completed during initial term of admission at KU.
- ENGL 101 Composition
The University of Kansas

ACT English score of 27 or above or SAT English score of 600 or above
AP English Literature & Composition score of 3 or above
Equivalent transfer course

Critical Reading and Writing (0)
Satisfied by one of the following. Requirement must be completed within the first academic year at KU.
ENGL 102 Critical Reading and Writing
ENGL 105 Freshman Honors English
AP English Literature & Composition score of 3 or above
Equivalent transfer course

Sophomore Reading and Writing II (0)
Satisfied by one of the following:
ENGL 203 Topics in Reading and Writing: _____
ENGL 205 Freshman-Sophomore Honors Proseminar: _____
ENGL 209 Introduction to Fiction
ENGL 210 Introduction to Poetry
ENGL 211 Introduction to the Drama
AP English Literature & Composition score of 5 or above
Equivalent transfer course

Argument and Reason
Satisfied by one of the following:
COMS 130 Speaker-Audience Communication
PHIL 148 Reason and Argument
Equivalent course

Western Civilization - Exploration of One’s Own and Diverse Cultures
Advising Alert: Requires sophomore-level standing. Courses at other universities may have the same title but may not meet this requirement.
Satisfied by:
HWC 204 Western Civilization I 3
or HWC 114 Western Civilization I Honors
HWC 205 Western Civilization II 3
or HWC 115 Western Civilization II Honors

Humanities - Understanding the Human Condition
Satisfied by completing 2 courses (6 hrs.) in any of the following categories: historical studies (requirement code HT), literature and the arts (requirement code HL), philosophy and religion (requirement code HR) and humanities (requirement code H). Approved courses may be searched for availability through the Kyou portal.

Natural Science (14 hrs. minimum)
Satisfied by completing 2 of the following 4 sequences AND an extension of 1 sequence (1 additional advanced course), or an approved alternative (14 hrs. minimum).

Biology:
BIOL 150 Principles of Molecular and Cellular Biology
& BIOL 152 and Principles of Organismal Biology

Chemistry:
CHEM 130 General Chemistry I
& CHEM 135 and General Chemistry II

Physics:
PHSX 114 College Physics I
& PHSX 115 and College Physics II

Biological Anthropology:
ANTH 104/304 Fundamentals of Physical Anthropology
or ANTH 104 Human Variation and Evolution
or ANTH 341 Human Evolution
or ANTH 350 Human Adaptation
or ANTH 442 Anthropological Genetics
or ANTH 447 Human Behavioral Genetics

Mathematics (14 hrs. minimum)
Satisfied by completing a total of 4 mathematics courses totaling at least 14 hours, of which at least 6 hours must be calculus or calculus based. The 6-10 hours of calculus can be satisfied by taking at least one calculus I course (MATH 115 or 121) and one calculus II course (MATH 116 or 122). The remaining four to eight hours of mathematics can be satisfied by taking a minimum of two additional math courses at any level (excluding MATH 002).

Computing (6 hrs. minimum)
Satisfied by:
EECS 138 Introduction to Computing: _____

An additional course
The second 3 hours could either be a second semester of EECS 138 (focused on a second programming language) or be from an additional approved course that provides an opportunity to gain computing experience. This second course could be PSYC 480 or PSYC 481 if this Independent Study requires independent, original application of the student’s computing skills such as computer simulation of cognitive processes, or experience with computationally complex neuroscience techniques, such as brain imaging and mapping, or physiological data collection and analysis. (3)

The second 3 hours could either be a second semester of EECS 138 (focused on a second programming language) or be from an additional approved course that provides an opportunity to gain computing experience. This second course could be PSYC 480 or PSYC 481 if this Independent Study requires independent, original application of the student’s computing skills such as computer simulation of cognitive processes, or experience with computationally complex neuroscience techniques, such as brain imaging and mapping, or physiological data collection and analysis.

Behavioral Neuroscience Major Course Requirements

Behavioral Neuroscience Prerequisite or Co-Requisite Knowledge (10)

Behavioral Neuroscience Major Course Requirements

Major must complete courses as specified in each of the following areas. These hours do not contribute to the minimum number of hours required for the major.
Orientation Seminar in Psychology. Satisfied by:
PSYC 102 Orientation Seminar in Psychology 1
General Psychology. Satisfied by:
PSYC 104 General Psychology 3
or PSYC 105 General Psychology, Honors
College Algebra or Pre-Calculus. Satisfied by:
MATH 101 College Algebra (or equivalent) 3
or MATH 104 Precalculus Mathematics
Introductory Biology Course. Satisfied by
BIOL 100 Principles of Biology 3
or BIOL 150 Principles of Molecular and Cellular Biology

Behavioral Neuroscience Core Knowledge and Skills (28)
Majors must complete coursework in each of the following 4 areas:
Behavioral Neuroscience Courses (6 hours minimum). Satisfied by one of the following:
PSYC 370 Behavioral Neuroscience
or PSYC 371 Behavior Neuroscience, Honors
PSYC 375 Cognitive Neuroscience
PSYC 380 Clinical Neuroscience
or PSYC 381 Clinical Neuroscience, Honors
Laboratory Courses (9 hours minimum). Satisfied by the following:
PSYC 200 Research Methods in Psychology 3
or PSYC 201 Research Methods in Psychology, Honors
PSYC 625 Experimental Psychology: Methods in Neuropsychology and Psychophysiology 6
Quantitative Courses (9 hours minimum). Satisfied by one of the following:
PSYC 210 Statistics in Psychological Research
or PSYC 211 Statistics in Psychological Research, Honors
PSYC 500 Intermediate Statistics in Psychological Research
PSYC 650 Anova and Other Factorial Designs
PSYC 679 Applied Nonparametric Statistical Methods
PSYC 687 Factor Analysis
PSYC 692 Test Theory
PSYC 693 Multivariate Analysis
PSYC 694 Multilevel Modeling I
PSYC 695 Categorical Data Analysis
PSYC 696 Structural Equation Modeling I
Applied Research Experience (4 hours minimum). Satisfied by one of the following:
PSYC 449 Laboratory/Field Work in Human Biology
PSYC 460 Honors in Psychology
PSYC 480 Independent Study
PSYC 481 Research Practicum

Elective Courses in Psychology or Other Disciplines (12)
Majors must complete 12 hours minimum (other electives may be accepted with permission of the B.S. director) Satisfied by:
PSYC 418 Introduction to Cognitive Science
or PSYC 318 Cognitive Psychology
PSYC 432 Human Behavioral Genetics
PSYC 482 Sensation and Perception
PSYC 535 Developmental Psychopathology
PSYC 555 Evolutionary Psychology
PSYC 605 Health Psychology
PSYC 630 Clinical Psychology
PSYC 644 Behavioral Pharmacology
PSYC 646 Mental Health and Aging
PSYC 678 Drugs and Behavior
PSYC 691 The Psychology of Aging
LING 438 Neurolinguistics I
SPLH 320 The Communicating Brain: The Ultimate Personal Computer

Behavioral Neuroscience Major Hours & GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:
Major Hours
Satisfied by 40 hours of major courses.
Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.
Major Junior/Senior Hours
Satisfied by 28 hours of junior/senior level major coursework.
Major Junior/Senior (300+) Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Departmental Honors
Students may inquire about departmental honors as soon as they are admitted to the undergraduate major. The department website (http://psych.ku.edu) has details. Participation usually begins in the senior year. A 3.25 grade-point average overall and a 3.5 grade-point average in psychology courses are required. Students follow individualized courses of study arranged through the director. Students who complete PSYC 460, individual research, and a paper under the direction of an instructor may graduate with departmental honors.

Minor in Psychology
Why study psychology?
Because the understanding of mind, behavior, and the human experience is best achieved through the rigorous application of the scientific method.

Requirements for the Minor
Students selecting this minor must complete each of the following:
General Psychology (3)
Satisfied by:
PSYC 104 General Psychology 3
or PSYC 105 General Psychology, Honors
Psychology Required Electives - Choice Electives (6)
Satisfied by 2 courses chosen from:
PSYC 318 Cognitive Psychology
or PSYC 319 Cognitive Psychology, Honors
PSYC 333 Child Development
or PSYC 334 Child Development, Honors
PSYC 350 Abnormal Psychology
or PSYC 351  Abnormal Psychology, Honors
PSYC 360  Social Psychology
or PSYC 361  Social Psychology, Honors
PSYC 370  Behavioral Neuroscience
or PSYC 371  Behavior Neuroscience, Honors
PSYC 375  Cognitive Neuroscience
PSYC 380  Clinical Neuroscience
or PSYC 381  Clinical Neuroscience, Honors

Psychology Minor Remaining Electives (9)
The remaining elective courses may include any undergraduate courses offered by the Department of Psychology including:

PSYC 480  Independent Study
PSYC 481  Research Practicum
PSYC 483  Undergraduate Internship in Psychology

A maximum of 3 hours of PSYC 480 or PSYC 481 or PSYC 483, or any combination of these 3 courses totaling 3 hours may count toward the minor.

Psychology Minor Hours & Minor GPA
While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 junior/senior (300+) hours of KU resident credit in the minor.

Minor Junior/Senior (300+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses (300+) in the minor. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Social and Behavioral Sciences Methodology
Why study psychology?
Because the understanding of mind, behavior, and the human experience is best achieved through the rigorous application of the scientific method.

Requirements for the Social and Behavioral Sciences Methodology Minor
Social and Behavioral Science Methodology Minor Course Requirements
Students selecting this minor must complete each of the following:

Prerequisite Knowledge for Minor
Satisfied by a course in elementary statistics with a B- or better grade (e.g., COMS 356; MATH 365, MATH 526; POLS 306; PSYC 210; PUAD 332; SOC 510). This prerequisite does not count towards the SBSM minor hours.

Minor Course Requirements (17-19)
Statistical Methods in Behavioral and Social Science Research I.
Satisfied by:
PSYC 650  Statistical Methods in Behavioral and Social Science Research I (or equivalent)
Guided Research. Satisfied by a minimum of 3 hours of the following:
PSYC 480  Independent Study
or PSYC 481  Research Practicum
Specialized Methodology. Satisfied by a minimum of two courses from the following. The specific courses to be taken should be determined based on a student’s research needs and overall career objectives.
PSYC 651  Anova and Other Factorial Designs
PSYC 687  Factor Analysis
PSYC 692  Test Theory
PSYC 693  Multivariate Analysis
PSYC 694  Multilevel Modeling I
PSYC 695  Categorical Data Analysis
PSYC 696  Structural Equation Modeling I
PSYC 697  Longitudinal Data Analysis
Minor Electives. Satisfied by additional graduate-level courses or guided research experience as needed to bring total hours completed to the minimum of 18 hours required for the minor. Options include:
PSYC 480  Independent Study
PSYC 481  Research Practicum
PSYC 483  Undergraduate Internship in Psychology
PSYC 651  Anova and Other Factorial Designs
PSYC 687  Factor Analysis
PSYC 692  Test Theory
PSYC 694  Multilevel Modeling I
PSYC 695  Categorical Data Analysis
PSYC 696  Structural Equation Modeling I
PSYC 697  Longitudinal Data Analysis

Social and Behavioral Methods Minor Hours & Minor GPA
While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Junior/Senior (300+) Hours in Residence
Satisfied by a minimum of 9 hours of KU resident credit in the minor.

Minor Junior/Senior (300+) Hours
Satisfied by a minimum of 18 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses (300+) in the minor. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).
Sample Plan

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 650</td>
<td>Statistical Methods in Behavioral and Social</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Science Research I</td>
<td></td>
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<tr>
<td>PSYC 480</td>
<td>Independent Study (or equivalent independent</td>
<td>4</td>
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<td></td>
<td>study with a research active faculty member or</td>
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<td></td>
<td>as an intern in the Center for Research Methods</td>
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<tr>
<td>PSYC 481</td>
<td>Research Practicum (or equivalent research</td>
<td>3</td>
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<td></td>
<td>intensive experience with a research active</td>
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<td></td>
<td>faculty member or as an intern in the Center</td>
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<td></td>
<td>for Research Methods and Data Analysis )</td>
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<tr>
<td>PSYC 696</td>
<td>Structural Equation Modeling I</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 697</td>
<td>Longitudinal Data Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

Master of Arts in Psychology

Why study psychology?
Because the understanding of mind, behavior, and the human experience is best achieved through the rigorous application of the scientific method.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

Students enter the department with the expectation of earning the Ph.D. The department does not admit students seeking the terminal master’s degree.

Applicants must have earned either the bachelor’s degree or the master’s degree. Although most applicants have majored in psychology as undergraduates, this is not required. It is necessary, however, to have earned 15 credit hours in psychology, including a first course in statistics and a course in experimental psychology or psychological research methods. Admission is competitive. The Graduate Record Examination is required. The GRE subject test is preferred but not required. Prior research and relevant work experience, honors, awards, and other achievements are taken into account. The deadline for completed applications is December 1 for the following fall semester.

Submit your graduate application online (http://www.graduate.ku.edu). Have official transcripts sent to the Graduate Application Processing Center.

Send all other requested application materials to the department:

The University of Kansas
Department of Psychology
Graduate Officer

M.A. Degree Requirements

Within 2 years of first enrollment in the Ph.D. program, the student must earn at least 30 graduate credit hours, no more than 6 of which may be in courses offered by other departments. The student must complete an acceptable thesis based on an empirical study and pass an oral examination. The oral examination may cover the thesis as well as more general material. Courses required for the M.A. degree are determined in consultation with faculty of the program in which the student is enrolled as part of the process of development of an individualized program. No more than 6 thesis hours may be applied to the 30 hours required for the M.A.

Doctor of Philosophy in Psychology

Why study psychology?
Because the understanding of mind, behavior, and the human experience is best achieved through the rigorous application of the scientific method.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

Students enter the department with the expectation of earning the Ph.D. The department does not admit students seeking the terminal master’s degree.

Applicants must have earned either the bachelor’s degree or the master’s degree. Although most applicants have majored in psychology as undergraduates, this is not required. It is necessary, however, to have earned 15 credit hours in psychology, including a first course in statistics and a course in experimental psychology or psychological research methods. Admission is competitive. The Graduate Record Examination is required. The GRE subject test is preferred but not required. Prior research and relevant work experience, honors, awards, and other achievements are taken into account. The deadline for completed applications is December 1 for the following fall semester.

Submit your graduate application online (http://www.graduate.ku.edu). Have official transcripts sent to the Graduate Application Processing Center.

Send all other requested application materials to the department:

The University of Kansas
Dual-title Ph.D. Program in Psychology and Gerontology

KU is implementing a dual-title Ph.D. option in Psychology and Gerontology. The dual-title degree will enable students at KU to meet the challenge of undertaking graduate education in the emerging, interdisciplinary field of gerontology that is combined with training in established, traditional disciplines. Interested students apply and are admitted to the psychology Ph.D. program. After completing an M.A. in psychology, they may apply to undertake the dual-title option. The student’s diploma will carry the name of both fields.

This option is designed to appeal to students who are strong in a traditional discipline but also motivated to study across disciplinary lines. In the course of study, students can avail themselves of disciplinary depth and interdisciplinary breadth.

Ph.D. Degree Requirements

Although graduate education is offered through separate programs, each student prepares an individualized plan of study in consultation with faculty members. These plans indicate how the student proposes to fulfill the requirements for the M.A. and Ph.D. degrees, including all general requirements and conditions.

Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current policies on Doctoral Research Skills and Responsible Scholarship are listed in the KU Policy Library.

Social Psychology

Monica Biernat, Social Psychology Program Director

The social psychology (http://psych.ku.edu/social) program is an intensive research training experience seeking students who are committed to empirical, scholarly work. The major research interests of faculty members are stereotyping, prejudice, intergroup relations, person perception, close relationships, emotion and motivation, self and identity, culture.

In addition to course work, the central requirement of the program is continuous involvement in research. Research opportunities range from laboratory experimentation to field research. Depending on backgrounds and goals, students may move from one research setting to another or concentrate on a particular type of research throughout their training.

Requirements

Students are guided by individually tailored plans called contracts. These describe sequences of learning experiences developed by the student and a 3-member faculty committee. Beginning students are urged to enroll in basic courses in theory and research in social psychology and statistics. The contract specifies students’ long-range goals, specialties, other fields of psychology or related disciplines in which they will become proficient, proposed sequence of course work, research and teaching experiences they hope to obtain, plans for the M.A. proposal, comprehensive requirements and dissertation landmarks, and an approximate timetable. Contract details can be changed by agreement of the student and faculty committee.

The contract is a general framework that permits students’ graduate work to be adapted to their interests and abilities and provides a standard against which progress can be assessed. Students’ contracts must specify how the research skills and responsible scholarship requirement is to be met. The research skills requirement typically is met by completion of 6 graduate courses in statistics and research design. The responsible scholarship requirement is met via coursework as specified in the contract, completion of online tutorials, and attendance at ethics seminars. All contracts must comply with other departmental and general rules including residence and time limits.

Cognitive Psychology

Paul Atchley, Cognitive Psychology Program Director

The cognitive psychology (http://psych.ku.edu/cognitive) program seeks students with the intellectual potential, motivation, and quantitative aptitude to engage in productive scholarship in a basic or applied area of interest.

Interdisciplinary training is also available in

- Cognitive neuroscience
- Developmental science
- Aging and cognition
- Child language
- Quantitative methods

The training program emphasizes the development of a broad-based foundation in theory, research methods, technical skills, and quantitative analysis for application in a variety of basic and applied research settings. Areas of focus of current faculty members include memory, cognitive development, language, perception, attention, aging, and cognition.

Recent graduates have found employment in academic programs, research organizations, and applied research units in industry and government. The rate of employment for graduates is high. General program requirements are listed below. Applicants are encouraged to consult the department’s website (http://psych.ku.edu) for details.

The admission process includes evaluation of submitted materials and may include additional interviews by individual faculty members, as appropriate. The program follows a mentorship model: students are admitted to work with specific faculty members rather than to the program at large. During the application process, applicants are encouraged to contact faculty members with whom they are interested in working.

General Program Requirements

(with recommended completion time)

- Research activity (continuous)
- Course requirements (before oral comprehensive examinations)
- Master’s thesis and oral defense (year 2 or 3)
- Written preliminary examination (year 3 or 4)
- Research skills and responsible scholarship requirement (year 3 or 4)
- Comprehensive oral examination (year 4 or 5)
Course Requirements

**Statistics/Methods Core (13)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 790</td>
<td>4</td>
</tr>
<tr>
<td>1 additional advanced quantitative psychology course</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 982</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 983</td>
<td>3</td>
</tr>
</tbody>
</table>

**Content Core (9)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 723</td>
<td>3</td>
</tr>
<tr>
<td>Plus 2 subsequent classes in spring semester; these have previously included:</td>
<td>6</td>
</tr>
<tr>
<td>PSYC 725 Cognitive Neuroscience</td>
<td></td>
</tr>
<tr>
<td>PSYC 737 Psycholinguistics II</td>
<td></td>
</tr>
<tr>
<td>PSYC 757 Theories of Perception</td>
<td></td>
</tr>
<tr>
<td>PSYC 831 Advanced Human Learning and Memory</td>
<td></td>
</tr>
<tr>
<td>PSYC 870 Cognitive Development</td>
<td></td>
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</tbody>
</table>

**Breadth/Depth (12)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breadth I and II</td>
<td>6</td>
</tr>
<tr>
<td>Depth I and II</td>
<td>6</td>
</tr>
</tbody>
</table>

Breadth/depth courses may come from a number of sources, depending on student interests and advisor suggestions. Students are expected to use this requirement to gain additional specialization in 2 areas in addition to cognitive psychology. Examples include Quantitative (courses in psychology and PRE), Language (courses in linguistics or speech-language-hearing), Neuroscience (courses in psychology, biology, or pharmacology), Philosophy, or Computer Science. These courses also can be used to help meet research skills and responsible scholarship requirements with breadth goals set out by the advisor.

**Seminar (continuous enrollment) (1)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 902 Proseminar in Experimental Psychology</td>
<td>1</td>
</tr>
</tbody>
</table>

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Quantitative Psychology

**Carol Woods, Interim Quantitative Psychology Program Director**

The quantitative psychology (http://www.quant.ku.edu/main/Main_Page) program provides a unique doctoral training experience. Graduate students are trained as quantitative specialists who can interface quantitative methods with substantive issues across the behavioral and social sciences. Students develop a substantial background in quantitative methods. Some students pursue more depth in quantitative content areas, and some pursue complementary expertise in a nonquantitative content area (e.g., clinical, cognitive, developmental, health, social). The exact nature of a student’s nonquantitative focus depends on the interests and goals of the student and the faculty mentor. Current methodological interests include psychometric methods, item response theory, structural equation modeling, multivariate statistics, multilevel modeling, differential equation modeling and dynamical systems, nonparametric statistics, and other topics in quantitative methods as applied in the behavioral and social sciences.

Recent graduates are employed in academic programs, basic research units in academic and organizational settings, applied research, and freelance consultation. Nearly all graduates proceed directly to full-time employment. About half the positions are academic, nearly all in upper-tier universities with graduate programs. Quantitative specialists have substantial technical expertise that provides an advantage in the job market. They often earn higher starting salaries and have access to additional income-enhancing activities such as grants and departmental consulting.

The program requires a total of 58 nonthesis hours (15 courses). Requirements are as follows:

**Quantitative Training**

**Quantitative Foundations (4)**

Quantitative foundations is 1 semester of basic psychological statistics, offered yearly:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 790 Statistical Methods in Psychology I</td>
<td>4</td>
</tr>
</tbody>
</table>

**Area-Specific Methodology (3)**

(1 course, 3 hours minimum). e.g.:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 815 Design and Analysis for Developmental Research</td>
<td>3</td>
</tr>
</tbody>
</table>

**Quantitative Core (27)**

(7 courses, 27 hours minimum). The quantitative core is a more intense series of courses in fundamental quantitative areas, currently including (other courses may be substituted with the director’s consent):

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 791 Statistical Methods in Psychology II</td>
<td>6</td>
</tr>
<tr>
<td>PSYC 887 Factor Analysis</td>
<td></td>
</tr>
<tr>
<td>Nonparametric Statistical Methods</td>
<td></td>
</tr>
<tr>
<td>PSYC 879 Applied Nonparametric Statistical Methods</td>
<td></td>
</tr>
<tr>
<td>PSYC 892 Test Theory</td>
<td></td>
</tr>
<tr>
<td>PSYC 893 Multivariate Analysis</td>
<td></td>
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<tr>
<td>PSYC 894 Multilevel Modeling</td>
<td></td>
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<tr>
<td>PSYC 895 Categorical Data Analysis</td>
<td></td>
</tr>
<tr>
<td>PSYC 896 Structural Equation Modeling I</td>
<td></td>
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</tbody>
</table>

**Quantitative Concentration (9)**

(3 courses, 9 hours minimum). The quantitative concentration focuses on a range of specialized applications, currently including:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 990 Methods for Clustering and Classification</td>
<td>9</td>
</tr>
<tr>
<td>PSYC 991 Longitudinal Data Analysis</td>
<td></td>
</tr>
<tr>
<td>PSYC 993 Seminar: _____ (Advanced Quantitative Topics)</td>
<td></td>
</tr>
<tr>
<td>PSYC 996 Structural Equation Modeling II</td>
<td></td>
</tr>
</tbody>
</table>

Advanced courses offered in other departments or schools also may be taken with the director’s consent.

**Proseminar in Quantitative Behavioral and Social Sciences (6)**

(6 semesters, 1 hour a semester, 6 hours minimum)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 881 Proseminar in Quantitative Behavioral and Social Sciences</td>
<td>6</td>
</tr>
</tbody>
</table>

The quantitative proseminar is an ongoing discussion series covering advanced topics and emerging issues.
Courses will be added to these offerings. In addition, students complete at least 1 semester of a research methodology course. Methodology courses associated with the different substantive foci are available.

**Minor Concentration (9)**

(3 courses, 9 hours minimum, e.g., Cognitive Psychology, Developmental Psychology, Health Psychology, Social Psychology, Education, Mathematical Statistics). The minor concentration is fulfilled by taking 3 or more courses in a specialized area, education (e.g., testing, evaluation), mathematical statistics, or a tailored curriculum that meets the goals and objectives of the student (e.g., business).

**General Requirements**

**Research Skills and Responsible Scholarship**

- Because the quantitative training track is all about research methods and statistics, the research skills requirement is met by completion of the core requirements in statistics and research design. The responsible scholarship requirement is additionally met via attendance at ethics proseminar presentations offered each semester, and through direct mentoring with the faculty advisor.
- M.A. thesis (1-9 hours plus public defense, typically completed by the end of the second year of training, 3-person committee).
- Comprehensive oral examinations (review paper, dissertation proposal, elaborate project, or written examination plus public defense, typically completed during the fourth year of training, 5-person committee with 1 outside member).
- Dissertation (1-12 hours plus public defense, 5-person committee with 1 outside member).

**Additional Graduate Experiences**

Quantitative psychology students have opportunities for experience in teaching, statistical consulting, and data analysis through employment in various settings. Students also are expected to participate and assist with our regular summer training institutes on advanced quantitative techniques. Opportunities may include teaching undergraduate statistics in psychology, research assistantships in quantitative projects, assisting in research at an institute such as the Institute for Life Span Studies (http://www.lsi.ku.edu), or working in the Center for Research Methods and Data Analysis (http://www.crmda.ku.edu/main/Main_Page). Students have access to quantitative workshops and brown-bag lunches offered regularly by the quantitative training program. Workshops are conducted by national leaders in quantitative methods. Special resources for attending national workshops and conventions are also available.

**Quantitative Minor**

A minor in quantitative psychology is offered for graduate students in any of the department’s major programs and for select programs in the College of Liberal Arts and Sciences (e.g., sociology). The quantitative minor is an addition to the regular program and does not replace any existing or future requirements of the student’s major program. Students desiring a major emphasis in quantitative psychology should apply directly to the quantitative psychology program.

The minor consists of advanced course work in statistics, measurement, and methodology. The quantitative minor provides the student with elevated levels of quantitative expertise to enhance the overall quality of the research program. It gives students a competitive edge in the job market. Many faculty positions now request expertise in both a specific content area and in quantitative methods. Advanced quantitative skills also offer students additional job opportunities. The quantitative minor provides the additional credentials needed to pursue these jobs.

The minor requires 5 courses in quantitative methodology beyond the basic foundations course requirement (PSYC 790). The classes are normally taken in the department but can come from other departments with approval. Currently available courses include Analysis of Variance, Categorical Methods, Nonparametric Statistics, Multivariate Methods, Multilevel Modeling I, Structural Equation Modeling I and II, Test Theory, Factor Analysis, and regularly offered Advanced Topics in Quantitative Psychology seminars with varying topics.

For more information, contact Carol Woods, cmw@ku.edu.

**Developmental Psychology**

Andrea Greenhoot, Developmental Psychology Program Director

Training in developmental psychology (http://psych.ku.edu/developmental_psychology) is interdisciplinary and collaborative. The developmental emphasis profits significantly from affiliated faculty in other academic units such as Speech-Language-Hearing: Sciences and Disorders, the School of Education, and doctoral programs in Clinical Child Psychology, Child Language, Gerontology, and Neurosciences. The developmental emphasis is substantively linked to the Schiefelbusch Institute for Life Span Studies, the Kansas Intellectual and Developmental Disabilities Research Center, and the Center for Biobehavioral Neurosciences in Communication Disorders. Many of the developmental psychology faculty have affiliations with more than one entity on campus. This breadth offers students multidisciplinary exposure and experiences that train them to conduct cutting-edge research on developmental phenomena across the life span. The program includes a number of concentrations, including cognitive, social, evolutionary, language, and quantitative. Students work with a faculty mentor to customize a concentration that suits the needs of the student and the expertise of the available faculty. The program is appropriate for students who wish to be trained in the traditional divisions of psychology (e.g., cognitive-developmental, social-developmental, quantitative-developmental) as well as those whose interests may not fall squarely within traditional divisions.

**Curriculum**

The curriculum involves 35 hours of formal developmental courses in addition to master’s, research skills and responsible scholarship, and dissertation research hours. Students are expected to enroll in a biweekly Proseminar on Developmental Science (6 semesters minimum). The program allows students to pursue their developmental research interests and accumulate academic credentials that give access to the job market of their choice. Formal course requirements are as follows:

**Statistics, Design, and Professional Issues (13 hours, minimum)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 790</td>
<td>Statistical Methods in Psychology I</td>
<td>4</td>
</tr>
<tr>
<td>1 additional advanced quantitative psychology course</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>PSYC 815</td>
<td>Design and Analysis for Developmental Research</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 982</td>
<td>Issues in Scientific Conduct</td>
<td>3</td>
</tr>
</tbody>
</table>

**Core Developmental Courses (12 hours)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 691</td>
<td>The Psychology of Aging</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 870</td>
<td>Cognitive Development</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 825</td>
<td>Social Development</td>
<td>3</td>
</tr>
</tbody>
</table>
**Concentration (9 hours, minimum)**

The concentration builds expertise in an area chosen by the student in conjunction with the faculty advisor. Courses offered outside the department may count toward the concentration. The concentration can be either very focused or a uniquely tailored hybrid of courses. Some examples of concentrations that students may create are listed below. Many related courses may be substituted for the same general theme of the concentration and students can create a concentration that fits with their interests and educational objectives. Possible concentrations include:

**General Cognitive Development**
- PSYC 723 Advanced Cognitive Psychology 3
- PSYC 800 Experimental Psychology: _____ (Cognition and Aging) 3
- PSYC 872 Attention, Perception, and Learning in Infancy 3

**Social-Personality Development**
- PSYC 777 Social Psychology: Theory, Research, and Clinical Applications 3
- PSYC 962 Advanced Personality 3

**Quantitative Developmental Methods**
- PSYC 896 Structural Equation Modeling I 4
- PSYC 996 Structural Equation Modeling II 3
- PSYC 893 Multivariate Analysis 4

**Developmental Evolutionary Psychology**
- PSYC 993 Seminar: _____ (Developmental Evolutionary Psychology) 1-5
- BIOL 625 Behavioral Ecology and Sociobiology 3
- BIOL 668 Evolutionary Ecology 3

**Developmental Cognitive Neuroscience**
- PSYC 725 Cognitive Neuroscience 3
- PSYC 800 Experimental Psychology: _____ (Neuroscience Methods) 3
- PSYC 800 Experimental Psychology: _____ (Developmental Cognitive Neuroscience) 3

**Language Development**
- PSYC 735 Psycholinguistics I 3
- PSYC 993 Seminar: _____ (Research Methods in Language Development) 1-5
- SPLH 816 Language Development 3

**Developmental Research Skills and Responsible Scholarship (8 hours, minimum)**

The RSRS requirement generally is satisfied by taking 2 additional quantitative courses and PSYC 982 PSYC 982 PSYC 982 PSYC 982 PSYC 982 Issues in Scientific Conduct. Satisfying the RSRS requirement in this way also lends itself to the completion of a graduate minor in quantitative psychology (6 quantitative courses total are required for the minor). For more information, contact Andrea Greenhoot, agreenhoot@ku.edu

**Clinical Psychology**

Rick Ingram, Director of Clinical Training

The clinical psychology (http://psych.ku.edu/clinical) program educates students to master knowledge in the field of scientific psychology so that they can generate new scientific knowledge and theory related to the field of clinical psychology, and can make independent contributions to the evolving base of skills and scientific knowledge required for clinical practice. All students take basic course work and practica in academic/research and clinical application. Students may take electives or practica to augment either aspect of training. About half the graduates pursue academic/research-oriented careers, and the rest undertake careers emphasizing applied activities (e.g., psychotherapy in community mental health centers or hospitals). Information is available from the graduate admission secretary or online (http://psych.ku.edu/clinical).

**Health and Rehabilitation Specialty**

Work centers on the psychosocial and biomedical aspects of physical health, illness, and disability. Students apply the knowledge and techniques to problems of prevention, assessment, treatment, and rehabilitation. A detailed overview is available from the graduate admission secretary or online (http://psych.ku.edu/clinical).

**Requirements**

Individual plans of study are designed to meet the standards established by state licensing boards and professional organizations. Individualization is achieved by selecting among alternate ways of meeting specific requirements and by selected electives or choosing the health and rehabilitation emphasis. The plan of study constitutes an agreement between the student and the entire clinical faculty. Program requirements:

**General Core Requirements for Clinical Psychology (13-17 credit hours)**

**Quantitative Analysis of Behavior (6-7)**
- PSYC 789 Psychological Statistics: Foundations and Applications 3
- or PSYC 790 Statistical Methods in Psychology I

Select 1 of the following: 3-4
- PSYC 791 Statistical Methods in Psychology II
- PSYC 795 Computing and Psychology
- PRE 811 Analysis of Variance
- PSYC 879 Applied Nonparametric Statistical Methods
- PSYC 887 Factor Analysis
- PSYC 892 Test Theory
- PSYC 893 Multivariate Analysis
- PSYC 894 Multilevel Modeling
- PSYC 895 Categorical Data Analysis
Note: Because this is an American Psychological Association-approved clinical program, the faculty expect all students to operate within the APA Code of Ethics in professional and personal behavior. Adherence to the ethical principles is part of the normal evaluation of students during the degree program.
should be completed by the end of the second year and written in a form suitable for journal submission.

Electives/Independent Study (6 credit hours, minimum)

Because a minimum of 86 hours of graduate credit is required for the degree, the hours not included in the requirements above may be elective courses selected by the student and his or her advisor.

Examinations: Task

Each student must propose and demonstrate competence in one task or project. This task typically is done in the third year. It may be in applied/clinical, research/methodology, or program evaluation. A complete description is available from the clinic office or online (http://psych.ku.edu/clinical).

Upon completion of all degree requirements except the dissertation and internship, the student must pass the oral comprehensive examination. This examination addresses a proposal for the dissertation as well as related, general questions in the field. It should be taken before completion of 4 calendar years for students entering with the B.A. and 3 years for students entering with the M.A. The faculty believes that the student is best served by completing the entire dissertation before the internship.

Internship (3 hours)

Students must complete a 12-month predoctoral internship at a setting approved by the Clinical Psychology faculty. Clinical students may complete their internships at any setting approved by the American Psychology Association.

School of Public Affairs and Administration

Why study public affairs and administration?

The School of Public Affairs and Administration develops skilled leaders, innovators and problem solvers who are ready to confront pressing social and economic challenges at the local, state and national levels. Our graduates become public management practitioners who exemplify a deep commitment to ethical and professional public service administration within a wide variety of public and nonprofit sector professions.

The School of Public Affairs and Administration

The School of Public Affairs and Administration is ranked among the top five programs in the nation in public management administration by U.S. News and World Report.

Founded in 1948, and ranked top program in the nation in city management and urban policy since 1998, the M.P.A. program in city management and urban policy prepares students to assume management and leadership roles in local government. The School also provides a career track for working professionals who want to earn their MPA without a career interruption.

The Public Management Center (PMC), also under SPAA, offers educational programs to meet the leadership training needs for public service professionals. The PMC is the only agency in the state of Kansas that can teach the nationally-accredited Kansas Certified Public Manager® program.

Mission

The mission of the School of Public Affairs & Administration of the University of Kansas is to educate exceptional public professionals and generate thought leadership that provides solutions to the most pressing global and community challenges by advancing the public good, democratic values, and ethical public management practices.

Undergraduate Programs

A bachelor’s degree in public administration provides undergraduate students with the knowledge and skills needed for planning, implementing and evaluating public programs. As students learn to think critically and analytically about public policy, they will better understand the dynamics in their own communities and how to be more effective citizens and public officials.

Graduates of the program will be ready to work in settings like local and state government, nonprofit organizations and private sector businesses.

Graduate Programs

The department offers an M.P.A. degree and a Ph.D. degree. The M.P.A. offers two tracks.

- The Intern track M.P.A. is designed for students who have little or no public administration experience and are willing to commit to one year of full-time study and a second year in a full-time internship to prepare themselves for careers in city or county management.
- The Career track M.P.A. is designed for working professionals seeking to strengthen their leadership skills for careers in public service professions or advance in their current profession without a career interruption.
- The Ph.D. degree is designed primarily for students anticipating careers in research and teaching.

Courses

PUAD 177. First Year Seminar: _____. 3 Hours. SF GE11.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in public administration. May not contribute to major requirements in public administration. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

PUAD 330. Introduction to Public Administration. 3 Hours. S.
Introduction to administration, public policy and policy makings is the study of government workers, the organizations in which they work, how they are financed, and how government engages citizens to help form and maintain community. In various ways, the class sessions explore the three important issues of public administration: discretion, authority, and accountability. (Same as POLS 330.) Prerequisite: POLS 110. LEC.

PUAD 331. Introduction to Public Administration, Honors. 3 Hours. S.
Introduction to administration, public policy, and policy making, for honors students is the study of government workers, the organizations in which they work, how they are financed, and how government engages citizens to help form and maintain community. In various ways, the class sessions explore the three important issues of public administration: discretion,
authority, and accountability. (Same as POLS 331.) Prerequisite: POLS 110. LEC.

**PUAD 332. Quantitative Methods for Public Administration. 3 Hours. S.**
Focuses on building the quantitative analysis skills of students in public administration. Students learn basic and intermediate statistics, and methods of data analysis and interpretation. Students gain exposure to the uses of data in public organizational settings. Prerequisite: Math 101 or equivalent placement. LEC.

**PUAD 333. Hard Choices in Public Administration: ____. 3 Hours. S.**
Focuses on some of America’s most vexing public policy challenges and emphasizes the political context of difficult choices. Course examines models of decision-making and the process of policy analysis. Students learn how to apply the tools of policy analysis to make policy judgments. Prerequisite: PUAD 330 or PUAD 331. LEC.

**PUAD 431. Bureaucracy, Public Administration, and the Private Sector. 3 Hours. S.**
Examines the problems posed by behaviors within and by bureaucracies. Provides students with a set of conceptual tools for understanding the organizational environment in which policy analysts ply their profession and the role of a manager within such organizations. Offers strategies for the policy professional seeking to navigate large bureaucracies. Readings and class discussions integrate theoretical analyses of organizations with detailed case studies. Prerequisite: PUAD 330 or PUAD 331. LEC.

**PUAD 432. Conducting the People’s Business Ethically. 3 Hours. AE51 / S.**
Addresses the moral challenges facing leaders in the public and nonprofit sectors. Examines the values and virtues important to sustained ethical leadership, as well as strategies to build strong institutional cultures and support ethical practices in institutions. Considers moral and political theory by focusing on contemporary cases and issues. Students learn how to identify moral issues in public life and public management. There is a special focus on the integration of moral concerns into public discussion in a manner that contributes to good policy and does not polarize issues. This course considers moral and political theory by focusing on contemporary cases and issues. Prerequisite: PUAD 330 or PUAD 331. LEC.

**PUAD 433. Metropolitics and Macroproblems: The American City in Local and Global Context. 3 Hours. S.**
An interdisciplinary study of American cities, focusing on the rapidly changing demographic, physical, political, social, and economic changes. Sunbelt cities, edge cities, the rustbelt cities, planned and unplanned suburban communities, as well as declining center cities and newly revitalized downtowns are considered. The role of immigration and migration in reshaping the urban environment, and the effects of globalization are also examined. Prerequisite: PUAD 330 or PUAD 331. LEC.

**PUAD 435. Generating, Allocating and Managing Public Resources. 3 Hours. U.**
This course is devoted to topics in public budgeting, finance and financial management. These activities play a central role in public management. The intent of this course is to understand the role these activities play in local, state, and federal governments and to see how policy and management are shaped and influenced by budgets, financial reports, and tax policy. Prerequisite: PUAD 330 or PUAD 331. LEC.

**PUAD 436. Managing People in Public Organizations. 3 Hours. U.**
Effective human resources management is one of the key goals of organizations in both the public and private sectors. This course focuses on human resources management in a public sector context with particular emphasis placed upon past, current, and future challenges in the field. The course covers topics such as the recruitment, selection, and compensation of public sector employees, as well as more contemporary issues such as diversity management and public sector personnel reform. Prerequisite: PUAD 330 or PUAD 331. LEC.

**PUAD 494. Topics in Public Administration: ____. 3 Hours. S.**
An introductory study of selected topics in public affairs and administration. Course may be repeated for credit if content varies. Course may be offered in lecture or online format. Prerequisite: PUAD 330 or PUAD 331. LEC.

**PUAD 601. Crime and Punishment. 3 Hours. S.**
Examines the administration of justice and focuses on differential and discriminatory treatment in policing, criminal prosecutions, trials, sentencing, or imprisonment. Also considered are the basis and impact of racial profiling, harassment, arbitrary detention, and abusive treatment of members of racial and ethnic groups, immigrants, and/or other vulnerable groups by law enforcement, and disparate treatment by prosecutors and the courts. Prerequisite: PUAD 330 or PUAD 331. LEC.

**PUAD 602. Diversity in Public Administration. 3 Hours. AE41 / S.**
Analyzes diversity and leadership in public and private institutions along ethnic, racial, and gender lines and the challenges of the facilitation of open dialogue on diversity. Examines the political, historical, social, and economic reasons why Americans of different ethnic, racial, and gender groups hold divergent views about major public policy areas, as well as fundamental views about democratic participation. Prerequisite: PUAD 330 or PUAD 331. LEC.

**PUAD 603. Foundations of the Nonprofit Sector. 3 Hours. H/S.**
This course provides an overview of the U.S. nonprofit sector, its history, scope, diversity and its positioning among and between the private and public sectors of the U.S. economy. The course explores the legal framework under which nonprofit organizations operate and are regulated. Economic, political, social, organizational and giving theories of the sector are reviewed in order to understand the sectors existence, roles and activities with particular attention to philanthropy and voluntarism. Distinct contributions to society as well as contemporary challenges faced by the sector are examined. Prerequisite: PUAD 330, or POLS 110, or MGMT 305, or a PUAD master's core course, or consent of instructor. Junior status or above is also required. LEC.

**PUAD 604. Resource Development and Management in Nonprofit Organizations. 3 Hours. H.**
This course provides an overview of the broad range of activities relevant to acquisition, management and utilization of resources in nonprofit organizations. The course identifies the primary strategies through which resources are generated with emphases on grantwriting, fundraising, social entrepreneurship, and public/private partnerships. Development of organizational identity and management of public relations is examined in relation to resource and relationship development. Strategies for management of resources to ensure long-term benefit and sustainability are explored. Prerequisite: PUAD 603. LEC.

**PUAD 605. Managing Nonprofit Relationships. 3 Hours. H.**
This course considers the set of relationships that nonprofit leaders must balance within the organization and beyond organizational boundaries. Both internal relationships (with staff, volunteers, and board members) and external relationships (with stakeholders, other organizations, and the community at large) are critical to mission accomplishment. This course provides students with the resources necessary to understand the challenges and opportunities related to building and LEC.
PUAD 606. Nonprofit Accountability: Public Needs and Public Values. 3 Hours. H.
This course examines the role of the nonprofit sector in society by posing broad questions about why nonprofit organizations are held accountable, to whom they are accountable, and detailing how organizations can satisfy accountability demands. The course investigates the public role of the nonprofit sector in society, identifies the stakeholders that are integral to an organization’s mission, and describes and critiques the financial and evaluation tools that nonprofits can use to ensure their social viability. Prerequisite: PUAD 603. LEC.

PUAD 639. Concepts of Civil Society. 3 Hours. U.
Concepts of community, social capital, and civil capacity building, and their relations to effective community functioning, democratic politics, and administrative expertise. LEC.

PUAD 641. Public Service Leadership. 3 Hours. U.
Concepts of leadership in community, political, and administrative settings. These settings include government and all non-business organizations (e.g., certain for-profit organizations). LEC.

PUAD 660. Organizations and Management I. 3 Hours. U.
An exploration of management in the context of public organizations. Management is explored at the individual, group and organizational level including conflict resolution, problem-solving, planning and legal aspects of organizations. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Permission of instructor. LEC.

PUAD 661. Organizations and Management II. 3 Hours. U.
A continuation of PUAD 660. The context for leading public organizations is explored through knowledge management, collaboration, innovation, process improvement and leadership succession. Graded on a satisfactory/unsatisfactory basis. Prerequisite: PUAD 660, and permission of instructor. LEC.

PUAD 691. Internship in Public Service. 1-6 Hours. U.
Designed to provide public administration students an applied learning experience in either a public or nonprofit organization. Open to majors in Public Administration only. Prerequisite: One of the following: PUAD 330, 331, PUAD 332, PUAD 333, and consent of instructor required. FLD.

PUAD 692. Research Experience in Public Administration. 1-6 Hours. U.
Designed for advanced public administration students. Students learn research skills by working one-on-one with a faculty member to assist in his/her program of research. Open to majors in Public Administration only. Students are required to complete a final project or presentation, through advising and consultation with the designated faculty member. Prerequisite: One of the following: PUAD 330, 331, PUAD 332, PUAD 333 and consent of instructor required. LEC.

PUAD 693. Directed Readings. 1-3 Hours. U.
For advanced undergraduate students who wish to study a specific topic of interest that is not covered in the curriculum. Each student must complete a proposal outlining his or her topic request and submit to the Undergraduate Advisor. Intended for students majoring in Public Administration. Prerequisite: One of the following: PUAD 330, 331, PUAD 332, PUAD 333, and consent of instructor. IND.

PUAD 694. Topics in Public Administration: ______. 3 Hours. U.
Study of selected topics in public administration. Course may be repeated for credit if content varies. Course may be offered in lecture or online format. Prerequisite: PUAD 330 or PUAD 331. LEC.

PUAD 824. Public Policy and Administration. 3 Hours.
An exploration of the ways in which public policy is made in the United States, focusing on the role of the administrator at each stage of the policy process: formulation, implementation, and evaluation. Various theories of policy-making with application to specific areas of public policy will be examined. LEC.

PUAD 825. Public Policy and Urban Administration. 3 Hours.
An exploration of policy development, implementation, and evaluation in the local government context. Various theories of the policy process and their application to municipal government are examined. (Same as POLS 825.) LEC.

PUAD 826. Public Policy and Administration of State Government. 3 Hours.
An examination of political and administrative aspects of state government focusing on legislative and executive branches of government. LEC.

PUAD 827. Health Care Policy and Administration. 3 Hours.
A seminar designed to explore the development of public health policy in the United States. Particular attention will be given to (1) the development of public institutions and policy goals; (2) current policy problems such as expenditure-cost controls, prospective reimbursement, utilization review, access, and public and private investment planning; and (3) administrative problems in the current health care system. (Same as HPM 837.) LEC.

PUAD 828. Nonprofit Management and Policy. 3 Hours.
This course focuses on the economic, social, and legal foundations of the nonprofit sector. Nonprofits are examined in the context of a three-sector economy, with emphasis on the ways in which nonprofits compensate for market failures and government failures. The course examines government-nonprofit relations in the modern welfare and offers an in-depth examination of the health, education, and welfare functions as performed by nonprofits. This course also provides exposure to selected topics in nonprofit management such as grant writing, board relations, advocacy, fundraising and volunteer management. LEC.

PUAD 830. Administrative Ethics. 3 Hours.
A survey of ethical issues faced by public administrators. Special attention will be given to ethical problems arising within hierarchical organizations and to the ethical implications of particular public policies. LEC.

PUAD 831. Public Administration Practicum. 1 Hour.
Exposes students to day-to-day operational facets of public management through workshops, speakers, exercises. LEC.

PUAD 832. Organizational Theory. 3 Hours.
An introductory theory course designed to develop an understanding about organizations, their environments, and the political subsystems in which they exist. LEC.

PUAD 833. Administrative Behavior. 3 Hours.
An examination of individual and group behavior within organizations, focusing on motivation, leadership, conflict and conflict resolution, group dynamics and communication. LEC.

PUAD 834. Human Resource Management. 3 Hours.
This course presents the context and practice of effective human resource management, with emphasis on the political, legal, historical, and ethical dimensions of public employment. This course considers the functions of workforce management, including: 1) planning of work and the allocation of labor to that work, 2) acquisition of employees and their competencies, knowledge, skills, and abilities, 3) development of employees to channel, improve and create new knowledge, skills, and abilities, and 4) maintaining the working relationship between employee and employer. Students will apply workforce management theories and techniques to contemporary organizational challenges and investigate the tensions inherent to balancing competing values (such as: responsiveness/neutrality and efficiency/equity) and meeting conflicting demands of organizational stakeholders and society. LEC.
PUAD 835. State and Local Public Finance. 3 Hours.
Focuses on the tax, spending, and debt practices of state and local governments. Drawing on the tools of positive and normative economic analysis, the course explores the implications of these activities on broader economic outcomes, including private allocation of resources and the distribution of wealth. LEC.

PUAD 836. Introduction to Quantitative Methods. 4 Hours.
Introduces quantitative approaches to examine public management and public policy decisions. Concepts of research design, probability, and inferential statistics are covered. LEC.

PUAD 837. Budgeting and Resource Allocation. 3 Hours.
Examines the practices and the political, economic, and organizational contexts of public and nonprofit budgeting, tools of financial analysis, and ethics of financial management. LEC.

PUAD 838. Urban Service Delivery. 3 Hours.
Focuses on organizational arrangements for the provision of basic urban services and the character of service delivery policies. Methods for evaluating the efficiency and responsiveness of alternative organizational arrangements are treated. LEC.

PUAD 839. Topics in Public Administration: _______. 3 Hours.
Study of selected topics in public administration. LEC.

PUAD 840. Theory of Public Administration. 3 Hours.
Survey of the development of ideas about public administration among public officials and research investigators. Emphasis on basic concepts, research reports, and theoretical treatises on the nature of public administration. LEC.

PUAD 841. The Role, Context, and Ethics of Public Administration in American Society. 3 Hours.
Provides students with an overview of the social context of public administration with an emphasis on political issues, intellectual history, ethics, and the tensions between democracy and bureaucracy. LEC.

PUAD 842. Law and Public Management. 3 Hours.
Course investigates major concepts that make up the legal environment of public administration. The accepted uses and procedures of the field, relationships among courts, agencies, the legislature, and basic legal research are examined. LEC.

PUAD 843. Constitutional Foundations of Public Administration. 3 Hours.
This course provides a grounding in the constitutional premises of public administration including executive, legislative, and judicial powers, and federalism, and those issues associated with the development of economic institutions and processes such as taxation, employment regulation, and commerce controls. LEC.

PUAD 844. Advanced Seminar in State and Local Budgeting. 3 Hours.
This course studies the theories behind selected topics in public budgeting and compares the theories with the actual practice of budgeting in the State of Kansas and its communities. LEC.

PUAD 845. Organizational Analysis and Public Management. 3 Hours.
Explores concepts and practices in organization behavior and management theory as they apply to public organizations. Emphasis is placed on understanding the dynamics of individuals, groups, and teams within organizations, dynamics associated with organizational structures, accountability, and culture and dynamics of risk in leadership, collaboration, and contracting. LEC.

PUAD 846. Kansas and Its Government. 3 Hours.
This course is designed to offer students the opportunity to obtain a comprehensive overview of the culture, history, economy, and geography of Kansas along with the review of state and local government infrastructure. The review of governments will include the financing of governments in Kansas. LEC.

PUAD 847. Legislative Process. 3 Hours.
This course is designed to acquaint students with the workings of the policy process at the level of state government. Its focus will give students an understanding of the political process to enable them to function more effectively in state policy development and implementation. Prerequisite: PUAD 824, PUAD 825, PUAD 826 or PUAD 827. LEC.

PUAD 848. Advanced Management Practices in State Government. 3 Hours.
This course offers the student an opportunity to enhance skills developed in PUAD 826 in an experiential learning environment that simulates actual management practice. Complex cases will be ranked ordered and resolved on a work schedule developed by each work group. Groups will work simultaneously on two or more cases at all times. Prerequisite: PUAD 826. LEC.

PUAD 849. Law, Courts, and Public Policy. 3 Hours.
This course provides an overview of the role of law, litigation, and courts in the public policy process, with an emphasis on bureaucratic institutions. The course covers the main theories and empirical research on the policy effects of litigation and intervention, with a particular focus on civil rights in the areas of employment, policing, welfare, prisons, and environmental policy. (Same as POLS 849.) Prerequisite: Graduate standing or consent of instructor. LEC.

PUAD 850. Intergovernmental Relations. 3 Hours.
This course focuses on the fiscal and administrative relationships among the three levels of government - federal, state, and local - in the United States. A number of topics will be examined, including a history of intergovernmental relations, the political, constitutional, and legal foundations of the intergovernmental system, and intergovernmental fiscal policy. The impact of the intergovernmental system will be assessed from the perspective of specific areas and intergovernmental programs. LEC.

PUAD 851. Infra-Structure Management. 3 Hours.
A survey of land-use, infra-structure, and technology issues in municipalities. LEC.

PUAD 852. Comparative Public Policy and Administration. 3 Hours.
This seminar examines the application of theories in public administration, public management, and public policy in international and comparative contexts. Particular attention is given to how governments and publics are connected by way of intergovernmental strategies, governance, and differing political and administrative arrangements. LEC.

PUAD 853. Policy Analysis and Evaluation. 3 Hours.
This course will introduce students to the conceptual foundations and applied techniques associated with identifying, describing, and seeking solutions to public policy problems (policy analysis) and evaluating the performance of public programs and organizations (program evaluation). Basic microeconomic theory is introduced. LEC.

PUAD 854. Innovation and Organizational Change. 3 Hours.
This course will examine theories of innovation and organizational change as applied to public organizations. Particular emphasis will be placed on the concepts of innovation in bureaucratic organizations, on the process of successful change in organizations, and on leadership and employees' roles. LEC.
PUAD 855. Financial Management for Public and Not-for-Profit Organizations. 3 Hours.
Financial management focuses on the use of financial information for decision making and evaluation. This course will rely on fundamental accounting concepts as they relate to the basic financial statements of government and not-for-profit organizations. Time will also be spent on financial management practices (e.g. cash management, debt management, etc.) and financial condition analysis. Material presented in this course expands on the foundational material covered in PUAD 837. Prerequisite: PUAD 837 or permission from the instructor. LEC.

PUAD 856. Management and Information Technology. 3 Hours.
An introduction to the concepts of information policy and management of technology within governmental organizations. The course covers the effects of technology on government and society as well as information policy (privacy, security and access) and their importance to democracy. The course also includes a leadership perspective on planning, funding, and implementation of technology systems in governmental organizations as well as the role of Chief Information Officer. LEC.

PUAD 857. Performance Management and Governance. 3 Hours.
This course examines the practice and governance challenges of performance management and budgeting in the public sector. Topics covered in this course include: a) the governance context of performance measurement and management; b) the historical and theoretical foundation of performance measurement and management; c) the global trend of performance-oriented reforms; d) the practice and politics of performance measurement and management; and e) governance and ethical issues in managing for results. LEC.

PUAD 858. Performance Audit. 3 Hours.
This course examines the practice of performance audit at the national, state, and local levels. Topics covered in the course include: a) the concept of performance audit and the roles of auditors in performance management; b) performance audit systems and standards at the national, state and local levels; c) performance audit methodologies and techniques; d) the establishment of audit criteria; e) the concept and practice of risk and vulnerability analysis; f) the reporting and communication of performance audit results. LEC.

PUAD 859. Service Management. 3 Hours.
This course provides an introduction to service management in the public sector and will focus on providing students with the conceptual understanding and skills to design, promote, manage, and deliver public services. The course will integrate concepts of service management with quality assurance, business process analysis, and project management. Through this course, students will develop a better understanding of methods for improving responsiveness and accountability to organizational goals and mission. LEC.

PUAD 890. Public Administration Internship. 3 Hours.
A part-time supervised professional work experience designed to provide students with the knowledge, background, and practical experience in public service. A written summary of the experience including a job description, projects the student, and a reflective statement on integrating the internship with theoretical issues regarding public administration. This course brings theory and practice together. Graded on a satisfactory/unsatisfactory basis. LEC.

PUAD 892. Public Administration Internship. 3 Hours.
A part-time supervised professional work experience designed to provide students with the knowledge, background, and practical experience in public service. A written summary of the experience including a job description, projects the student, and a reflective statement on integrating the internship with theoretical issues regarding public administration. This course brings theory and practice together. Graded on a satisfactory/unsatisfactory basis. FLD.

PUAD 893. Directed Readings. 1-3 Hours.
Designed to meet the needs of advanced students whose study in public administration cannot be met with current course work. RSH.

PUAD 894. Professional Development Seminar I. 3 Hours.
Open only to precareer students with internships, this intensive seminar is designed around issues intern confront in their working relationships. Emphasis is placed on the transition of the student from an academic environment to a professional work environment. Class sessions deal with issues affecting the work environment and administrative change. Graded on a satisfactory/unsatisfactory basis. FLD.

PUAD 895. Professional Development Seminar II. 3 Hours.
Continuation of PUAD 894. Graded on a satisfactory/unsatisfactory basis. FLD.

PUAD 897. Service Management. 3 Hours.
This course exposes students to the contemporary issues in public management and analysis of competencies for public management in four theme areas. Students will participate in discussions of issues and in three assessments of their preparation to lead public organizations. Students will complete the MPA Final Essay which focuses on integration of course and work experience in relation to the values theme of the MPA program. Graded on a satisfactory/unsatisfactory basis. LAB.

PUAD 898. Leadership, Professionalism, and Citizen Engagement. 3 Hours.
This course exposes students to the contemporary issues in public management and analysis of competencies for public management in four theme areas. Students will participate in discussions of issues and in three assessments of their preparation to lead public organizations. Students will complete the MPA Final Essay which focuses on integration of course and work experience in relation to the values theme of the MPA program. Graded on a satisfactory/unsatisfactory basis. LAB.

PUAD 900. Seminar in Public Administration. 3 Hours.
This seminar will assist students to develop a thorough competence in both theory and application of multivariate statistical models of the types that are commonly used to study questions of organization and policy in the public sector. These will include inference for the general linear regression model under a wide variety of specifications, as well as a
consideration of path models and systems of simultaneous equations. The principal goal of this course is to strengthen the ability of doctoral students in public administration to work methodologically as independent scholars using relatively advanced designs and technique in their work. SEM.

PUAD 936. Policy Analysis and Program Evaluation. 3 Hours.
This course examines the theoretical foundations and analytical components of policy analysis and program evaluation, common tools for assessing alternative courses of public action and program effectiveness. This examination will include a review and critique of common quantitative and qualitative approaches, including cost-benefit analysis, cost-effectiveness analysis, and quasi-experimental design. LEC.

PUAD 937. Qualitative Methods in Public Administration. 3 Hours.
This course examines the concepts and practices of qualitative research. The focus will be on field research and the collection of "textual data" through observation, interviewing, and documents. The course will also examine the interpretation and analysis of qualitative data and how to present qualitative findings. RSH.

PUAD 939. Topics in Public Administration: ____. 1-3 Hours.
A study of selective topics in public administration. Course may be taken more than once. LEC.

PUAD 943. Constitutional Foundations of Public Administration. 3 Hours.
This course provides grounding in the constitutional premises of public administration including executive, legislative, and judicial powers, and federalism, and those issues associated with the development of economic institutions and processes such as taxation, employment regulation, and commerce controls. LEC.

PUAD 949. Law, Courts, and Public Policy. 3 Hours.
This course provides an in-depth analysis of the role of law, litigation, and courts in the public policy process, with an emphasis on bureaucratic institutions. The course covers the main theories and empirical research on the policy effects of litigation and intervention, with a particular focus on civil rights in the areas of employment, policing, welfare, prisons, and environmental policy. As part of the course requirements, students will conduct original empirical research. LEC.

PUAD 990. Research Practicum in Public Policy and Administration. 3 Hours.
This course will provide students with an opportunity to conduct applied research in a field setting with faculty guidance. May be pursued as an independent study or as a regularly scheduled class with a group of students. Prerequisite: PUAD 934 and PUAD 935. RSH.

PUAD 998. Directed Reading on Public Administration. 1-6 Hours.
Designed to meet the needs of graduate students whose study in public administration cannot be met with present course. Prerequisite: consent of instructor. RSH.

PUAD 999. Dissertation. 1-15 Hours.
Enrollment for writing doctoral dissertations. Graded on a satisfactory/unsatisfactory basis. THE.

Bachelor of Arts and Bachelor of General Studies in Public Administration

Why study public affairs and administration?
Our programs prepare leaders and build professionalism in the public and nonprofit sectors and link KU resources to the challenges of public management. We produce skilled leaders, innovators, and problem-solvers, ready to confront pressing social and economic challenges at the local, state, and national levels.

Since 1998, U.S. News & World Report has ranked the M.P.A. degree program in city management and urban policy first in the nation and the school is ranked fifth in public management.

First-and Second-Year Preparation
KU Edwards Campus
The undergraduate program in public administration is offered in its entirety only at the KU Edwards Campus (http://edwardscampus.ku.edu), 12600 Quivira Rd., Overland Park, KS 66213. This program is designed for students who have earned an associate’s degree or equivalent hours and wish to complete the upper-level courses necessary for a bachelor’s degree.

Public Administration Program
The major accommodates both traditional and nontraditional students. Public administration offers students the necessary knowledge and skills for planning, implementing, and evaluating public programs. Students will be able to work in such settings as local and state government, nonprofit organizations, and private sector businesses.

Students fulfill their first-year and sophomore hours through general education requirements. Students are encouraged, but not required to take POLS 110 as part of their general education hours. Students considering the major should contact the CLAS undergraduate advisor on the Edwards Campus, Dan Mueller, dmueller@ku.edu, 864-8659 (from Lawrence) or 913-897-8659 (outside of Lawrence) for advising on general education requirements. Students are encouraged, but not required to take POLS 110 as part of their general education hours. Students considering the major should contact the CLAS undergraduate advisor on the Edwards Campus, Dan Mueller, dmueller@ku.edu, 864-8659 (from Lawrence) or 913-897-8659 (outside of Lawrence) for advising on general education requirements leading up to the major.

Requirements for the B.A. or B.G.S. Major

Public Administration Required Courses (12)

<table>
<thead>
<tr>
<th>Majors must complete a course in each of the following areas:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Public Administration. Satisfied by:</td>
</tr>
<tr>
<td>PUAD 330 Introduction to Public Administration 3</td>
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<tr>
<td>or PUAD 331 Introduction to Public Administration, Honors</td>
</tr>
<tr>
<td>Quantitative Methods for Public Administration. Satisfied by:</td>
</tr>
<tr>
<td>PUAD 332 Quantitative Methods for Public Administration (PSYC 210 or MATH 365 and their equivalents may be substituted for this course requirement but students would need to complete another junior/senior PUAD elective for the PUAD major. )</td>
</tr>
<tr>
<td>Hard Choices in Public Administration. Satisfied by:</td>
</tr>
<tr>
<td>PUAD 333 Hard Choices in Public Administration: _____ 3</td>
</tr>
</tbody>
</table>
### Public Administration Required Electives (18)

Majors must complete 6 courses (18 hours) from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>PUAD 431</td>
<td>Bureaucracy, Public Administration, and the Private Sector</td>
</tr>
<tr>
<td>PUAD 432</td>
<td>Conducting the People's Business Ethically</td>
</tr>
<tr>
<td>PUAD 433</td>
<td>Metropolitics and Macroproblems: The American City in Local and Global Context</td>
</tr>
<tr>
<td>PUAD 435</td>
<td>Generating, Allocating and Managing Public Resources</td>
</tr>
<tr>
<td>PUAD 436</td>
<td>Managing People in Public Organizations</td>
</tr>
<tr>
<td>PUAD 601</td>
<td>Crime and Punishment</td>
</tr>
<tr>
<td>PUAD 602</td>
<td>Diversity in Public Administration</td>
</tr>
<tr>
<td>PUAD 603</td>
<td>Foundations of the Nonprofit Sector</td>
</tr>
<tr>
<td>PUAD 604</td>
<td>Resource Development and Management in Nonprofit Organizations</td>
</tr>
<tr>
<td>PUAD 605</td>
<td>Managing Nonprofit Relationships</td>
</tr>
<tr>
<td>PUAD 606</td>
<td>Nonprofit Accountability: Public Needs and Public Values</td>
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<tr>
<td>PUAD 639</td>
<td>Concepts of Civil Society</td>
</tr>
<tr>
<td>PUAD 691</td>
<td>Internship in Public Service</td>
</tr>
<tr>
<td>PUAD 692</td>
<td>Research Experience in Public Administration</td>
</tr>
<tr>
<td>PUAD 693</td>
<td>Directed Readings</td>
</tr>
<tr>
<td>PUAD 694</td>
<td>Topics in Public Administration: _____</td>
</tr>
</tbody>
</table>

#### Requirements for the Minor

#### KU Edwards Campus

All minor course work is offered on the KU Edwards Campus (http://edwardscampus.ku.edu), although PUAD 330/PUAD 331 can be taken in Lawrence.

### Public Administration Minor Core Courses (6)

Minors must complete a course in each of the following areas:

- **Introduction to Public Administration.** Satisfied by:
  - PUAD 330 Introduction to Public Administration 3
  - or PUAD 331 Introduction to Public Administration, Honors

- **Hard Choices in Public Administration.** Satisfied by:
  - PUAD 333 Hard Choices in Public Administration: _____ 3

### Public Administration Required Electives (12)

Minors must complete 4 courses (12 hours) from the following:

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<tr>
<td>PUAD 694</td>
<td>Topics in Public Administration: _____</td>
</tr>
</tbody>
</table>

### Minor Hours & Minor GPA

While completing all required courses, minors must also meet each of the following hour and grade-point average minimum standards:

- **Minor Hours**
  - Satisfied by 18 hours of minor courses.

- **Minor Hours in Residence**
  - Satisfied by a minimum of 9 hours of KU resident credit in the minor.

- **Minor Junior/Senior Hours**
  - Satisfied by a minimum of 18 hours from junior/senior courses (300+) in the minor.

### Graduation Plan

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please consult the program for details.

### Minor in Public Administration

**Why study public affairs and administration?**

The School of Public Affairs and Administration also offers a minor. All coursework related to the minor is offered at the KU Edwards Campus in Overland Park, Kansas, although PUAD 330/331 is also offered in Lawrence. The minor requires 18 hours of PUAD coursework. Six of these credits will consist of required core coursework, and the additional twelve will consist of elective PUAD courses.
Minor Junior/Senior Graduation GPA
Satisfactory minimum of a 2.0 KU GPA in all departmental courses (300+) in the minor. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Master of Public Administration

Why study public affairs and administration?

Our programs prepare leaders and build professionalism in the public and nonprofit sectors and link KU resources to the challenges of public management. We produce skilled leaders, innovators, and problem-solvers, ready to confront pressing social and economic challenges at the local, state, and national levels.

Since 1998, U.S. News & World Report has ranked the M.P.A. degree program in city management and urban policy first in the nation and the school is ranked fifth in public management.

M.P.A. Admission

The academic prerequisites for regular admission to the M.P.A. program are

1. Completion of a bachelor’s degree, preferably with a background in the social sciences, including basic college algebra and statistics courses.
2. A grade-point average of B (3.0 on a 4.0 scale) for all previous university or college work (in certain circumstances, when the GPA is slightly below 3.0, other factors, such as strong Graduate Record Examination scores or exceptional letters of recommendation may be considered).

Admission is competitive and limited. For all applicants, a completed application includes

1. Online Graduate Studies application (http://www.graduate.ku.edu).
2. A nonrefundable application fee, submitted online with the application form. For domestic applicants, the application fee is $55; for international applicants, the application fee is $65.
3. 1 official transcript from the degree-granting college or university and any post-graduate college or university attended.
4. 3 letters of recommendation. If possible, at least 1 should be an academic reference. The MPA reference form, available through the website (https://kupa.drupal.ku.edu/admissions-intern-option), must be submitted with each letter.
5. A 3- to 5-page essay describing your background and career goals and clearly indicating how the M.P.A. degree fits into those goals and addressing any deficiencies in your academic preparation.
6. A current résumé.
7. A writing sample that is at least 5 pages long. It should be a well-cited work in which you critically analyze (not just summarize) an issue.

Additionally, an M.P.A. alum or faculty member may be assigned to interview you. That person’s comments are placed in and considered a part of your application packet.

Additional Requirements for International Applicants:

- Graduate Record Examination scores (General test only — verbal, analytical, and quantitative). For reporting GRE scores to the KU School of Public Affairs and Administration, the institution code is 6871 and the department code is 4801.
- An official Test of English as a Foreign Language score report. Please note that any international students admitted to a KU program must also be tested by the Applied English Center (http://www.aec.ku.edu) upon arrival, regardless of TOEFL score.

Deadlines

Applications for intern-option applicants must be received by February 1.

Applications for career-option applicants: Deadlines are May 1 and June 15 for fall admission and November 1 for spring admission. Note: No preference is given to applications received by the earlier deadlines. We offer the earlier dates to accommodate applicants who need an earlier decision for planning purposes.

International students: The deadline for international students is February 1.

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to

The University of Kansas
School of Public Affairs and Administration
Attn: M.P.A. Admissions
4060 Wescoe Hall
1445 Jayhawk Blvd.
Lawrence, KS 66045-7594

or via email to: padept@ku.edu

Campuses

The M.P.A. degree program is also offered at the following location:

KU Edwards Campus
KU offers a variety of graduate and undergraduate programs on the KU Edwards Campus in Overland Park, Kansas. The Edwards Campus offers late-afternoon and evening classes, catering to working professionals. For more information, call the Edwards Campus at 864-8400 from Lawrence or 913- 897-8400 from other locations.

Topeka, Kansas

Each semester, select courses are offered at the Brown v. Board of Education National Historic Site in Topeka, Kansas.

Master of Public Administration Degree

The School of Public Affairs and Administration is home to the Edwin O. Stene Graduate Program in Public Administration and offers a Master of Public Administration degree. The Edwin O. Stene Master’s program is one of the oldest and most respected programs in the United States, with our local government leadership program dating to 1948. Since 1998,
our tradition of excellence in educating students at the masters' level has been recognized by U.S. News and World Report with a #1 ranking in city management and urban policy. The MPA degree may be obtained through course work in Lawrence, Topeka, and the KU Edwards Campus in Overland Park for the Kansas City area.

The KU MPA offers 2 tracks:

1. The Intern track is designed for students who have little or no public administration experience and are willing to commit to one year of full-time study and a second year in a full-time internship to prepare themselves for careers in city or county management.

2. The Career track is designed for working professionals seeking to strengthen their leadership skills for careers in public service professions or advance in their current profession without a career interruption. Most career-track students attend part-time.

Intern track students begin the program in the summer semester, and complete the majority of their coursework over three semesters (summer, fall, spring). Career-track students may begin in any semester.

M.P.A. Degree Requirements

The master’s degree is awarded after successful completion of 43 credit hours of course work. This includes 31 hours (10 courses) of required core courses (listed below) that all students complete, and 12 hours (4 courses) tailored to the student’s interests and/or track (intern or career). In addition, all students must pass a written master’s examination (final paper) to complete the requirements for the M.P.A. degree which is part of the PUAD 897 core course. Once a student begins the program, all degree requirements must be completed within 7 years.

The MPA core coursework includes the following courses (31 credit hours):

- PUAD Policy course (824 or 825 or 826 or 827 or 828) (3 hours)
- PUAD 834 Human Resource Management (3 hours)
- PUAD 835 Financing Public Services (3 hours)
- PUAD 836 Introduction to Quantitative Methods (4 hours)
- PUAD 837 Resource Allocation and Control (3 hours)
- PUAD 841 Role & Context of PA (3 hours)
- PUAD 842 Law and Public Management (3 hours)
- PUAD 845 Organizational Analysis and Public Management (3 hours)
- PUAD 853 Policy Analysis and Program Evaluation (3 hours)
- PUAD 897 Public Administration Contemporary Issues and Competency Assessment (3 hours)

Intern track students will take the following courses to complete the program: PUAD 892 Public Administration Internship (3 hours), PUAD 898 Leadership, Professionalism and Citizen Engagement (3 hours) and two electives (6 hours).

Career track students will take four electives (12 hours) to complete the program.

Master of Public Administration and Juris Doctor

M.P.A.-J.D. Combined Program

The joint degree program is designed for the student who intends to combine career preparation in law and public administration. Examples of career objectives for this degree are the practice of law in communities (for example, a city attorney, who may be called upon to perform legal services for a municipality) and for city managers (who may need to deal with legal questions and interact with legal professionals). The program combines into 4 years the normal 3-year Juris Doctor (p. 776) program offered by the School of Law (http://www.law.ku.edu) and the 2-year M.P.A. program offered by the School of Public Affairs and Administration (http://www2.ku.edu/~kupa). Students must complete 116 total credit hours: 78 credit hours in the School of Law (42 required and 36 elective), 26 hours in the School of Public Affairs and Administration, and 12 hours of electives of which only 3 hours may be law courses.

Of the 25 required hours in public administration, 6 hours are earned during the internship in the fourth year. The internship may not be taken concurrently with course work. At the conclusion of the internship year, each candidate must successfully pass a final written examination administered by public administration. The J.D. degree is awarded at the completion of the total required credit hours other than those associated with the internship. The M.P.A. degree is awarded upon successful completion of the internship and final examination. All course work counted toward any master’s degree requires a B average for the award of the degree. Specifically, students should understand that if they elect 6 or fewer hours of law requirements, the grades received in those law courses are incorporated into the M.P.A. grade-point average, which must be 3.0 for the award of the M.P.A.

For admission a student must meet requirements of both programs. Dual admission requires submitting separate sets of application materials as required by the respective programs. The M.P.A./J.D. program is open to those who have earned baccalaureate degrees and whose undergraduate academic records indicate that they have the capacity to complete these programs.

Since the total course work, excluding the internship, is 109 hours, students pursuing the joint degree should plan to enroll in course work for 2, and in some instances 3, summers.

M.P.A. Admission

The academic prerequisites for regular admission to the M.P.A. program are

1. Completion of a bachelor’s degree, preferably with a background in the social sciences, including basic college algebra and statistics courses.

2. A grade-point average of B (3.0 on a 4.0 scale) for all previous university or college work (in certain circumstances, when the GPA is slightly below 3.0, other factors, such as strong Graduate Record Examination scores or exceptional letters of recommendation may be considered).

Admission is competitive and limited. For all applicants, a completed application includes

1. Online Graduate Studies application (http://www.graduate.ku.edu).

2. A nonrefundable application fee, submitted online with the application form. For domestic applicants, the application fee is $55; for international applicants, the application fee is $65.

3. 1 official transcript from the degree-granting college or university and any post-graduate college or university attended.

4. 3 letters of recommendation. If possible, at least 1 should be an academic reference. The MPA reference form, available through the
The M.P.A. degree program is also offered at the following location:

Campuses

The KU Edwards Campus is located in Overland Park, Kansas, and offers late-afternoon and evening classes, catering to working professionals. For more information, call the Edwards Campus at 864-8400 from Lawrence or 913-897-8400 from other locations.

Topeka, Kansas

Each semester, select courses are offered at the Brown v. Board of Education National Historic Site in Topeka, Kansas.

Master of Public Administration and Master of Urban Planning

M.P.A.-M.U.P. Combined Program

This program is designed for the student with career goals that center on assuming administrative and management responsibilities in urban planning and urban affairs. It combines into 3 years (excluding the 1-year internship required for the M.P.A. program) the normal course work required for the 2-year Master of Urban Planning (p. 93) degree and the 2-year M.P.A. degree. The program offers students experience not only in public policy management, but also in management with particular expertise in urban problem resolution.

A student must meet admission requirements of both programs. Dual admission requires submitting separate sets of application materials as required by the respective programs. The M.P.A./M.U.P. program is open to those who have earned baccalaureate degrees and whose undergraduate academic records indicate that they have the capacity to complete these graduate programs.

Contact the School of Public Affairs and Administration (http://www2.ku.edu/~kupa) or the Department of Urban Planning (http://www.sadp.ku.edu/urban-planning) for more information.

M.P.A. Admission

The academic prerequisites for regular admission to the M.P.A. program are

1. Completion of a bachelor’s degree, preferably with a background in the social sciences, including basic college algebra and statistics courses.
2. A grade-point average of B (3.0 on a 4.0 scale) for all previous university or college work (in certain circumstances, when the GPA is slightly below 3.0, other factors, such as strong Graduate Record Examination scores or exceptional letters of recommendation may be considered).

Admission is competitive and limited. For all applicants, a completed application includes

1. Online Graduate Studies application (http://www.graduate.ku.edu).
2. A nonrefundable application fee, submitted online with the application form. For domestic applicants, the application fee is $55; for international applicants, the application fee is $85.
3. 1 official transcript from the degree-granting college or university and any post-graduate college or university attended.
4. 3 letters of recommendation. If possible, at least 1 should be an academic reference. The MPA reference form, available through the website (https://kupa.drupal.ku.edu/admissions-intern-option), must be submitted with each letter.
5. A 3- to 5-page essay describing your background and career goals and clearly indicating how the M.P.A. degree fits into those goals and addressing any deficiencies in your academic preparation.
6. A current résumé.
7. A writing sample that is at least 5 pages long. It should be a well-cited work in which you critically analyze (not just summarize) an issue.

Additional Requirements for Intern-option Applicants:
• Graduate Record Examination scores (General test only — verbal, analytical, and quantitative).
• Additionally, an M.P.A. alum or faculty member may be assigned to interview you. That person’s comments are placed in and considered a part of your application packet.

Additional Requirements for International Applicants:
• Graduate Record Examination scores (General test only — verbal, analytical, and quantitative). For reporting GRE scores to the KU School of Public Affairs and Administration, the institution code is 6871 and the department code is 4801.
• An official Test of English as a Foreign Language score report. Please note that any international students admitted to a KU program must also be tested by the Applied English Center (http://www.aec.ku.edu) upon arrival, regardless of TOEFL score.

Deadlines
Applications for intern-option applicants must be received by February 1.

Applications for career-option applicants: Deadlines are May 1 and June 15 for fall admission and November 1 for spring admission. Note: No preference is given to applications received by the earlier deadlines. We offer the earlier dates to accommodate applicants who need an earlier decision for planning purposes.

International students: The deadline for international students is February 1.

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to

The University of Kansas
School of Public Affairs and Administration
Attn: M.P.A. Admissions
4060 Wescoe Hall
1445 Jayhawk Blvd.
Lawrence, KS 66045-7594

or via email to: padept@ku.edu

Campuses
The M.P.A. degree program is also offered at the following location:

KU Edwards Campus

KU offers a variety of graduate and undergraduate programs on the KU Edwards Campus in Overland Park, Kansas. The Edwards Campus offers late-afternoon and evening classes, catering to working professionals. For more information, call the Edwards Campus at 864-8400 from Lawrence or 913-897-8400 from other locations.

Topeka, Kansas

Each semester, select courses are offered at the Brown v. Board of Education National Historic Site in Topeka, Kansas.

Doctor of Philosophy in Public Administration

Why study public affairs and administration?

The mission of the doctoral program in the KU School of Public Affairs and Administration is to provide advanced graduate education in theory and research in order to prepare students for academic and research careers in public administration, as well as professional careers in advanced practice of public administration.

KU SPAA doctoral students are expected to:
• Assist in research being conducted by a public administration faculty member;
• Serve as teaching assistants to gain experience and contribute to the production function of the School;
• Co-author a refereed article with a faculty member;
• Present a scholarly paper at a national conference.

For additional doctoral program data, view doctoral program profiles on the Graduate Studies website (click on Public Affairs and Administration under College of Liberal Arts and Sciences).

Ph.D. Admission

Admission is based on the applicant’s undergraduate and/or graduate academic record, standardized test scores, and references from instructors. All applicants must have completed a bachelor’s degree and an M.P.A. or equivalent degree. Students without an M.P.A. or equivalent degree must complete KU core M.P.A. requirements as part of their doctoral studies.

A completed application must include
• Online application and nonrefundable application fee (see Admission in the Graduate Studies section of the online catalog);
• Graduate Record Examination results — verbal, quantitative, and analytical;
• 2-page statement of goals and research interests including evidence of research aptitude and interest;
• 3 letters of recommendation, preferably from faculty members who can comment on the applicant’s potential for doctoral study;
• A writing sample that reflects the applicant’s interest in and ability to conduct research;
• A current resume; and
• 1 official transcript from each college or university attended.

In addition, international students must submit Test of English as a Foreign Language (TOEFL) scores from an examination administered no more than 2 years before the date of application. Immigration requirements and a financial statement are available from the Office of International Student and Scholar Services (http://www.iss.ku.edu). All materials must be received before the application can be considered.
For fall admission and financial aid, the application file must be completed by January 25. Applicants who do not meet this deadline are unlikely to be considered for financial aid, even though applications may be considered throughout the year.

Please refer to the School of Public Affairs and Administration’s website (https://kupa.drupal.ku.edu/admissions-phd) for complete details regarding Ph.D. admission requirements. Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to:

The University of Kansas
School of Public Affairs and Administration
Attn: Doctoral Admissions
4060 Wescoe Hall
1445 Jayhawk Blvd.
Lawrence, KS 66045-7594

Ph.D. Degree Requirements

The Ph.D. program requires a minimum of 66 credit hours of courses, including up to 30 hours earned completing the M.P.A. degree or its equivalent, plus a minimum of 9 hours for the dissertation, for a total of 75 credit hours. (An applicant with a KU M.P.A. may apply 30 hours toward the 75-hour course work requirement.)

All students who enter the Ph.D. program must already have completed the core curriculum (8 courses) for the KU M.P.A. degree or the equivalent at another university, or they must take the appropriate courses after entering the program.

The requirements for the Ph.D. are based on formal course work and independent study in several fields:

• Foundations of public administration
• Specialization field within public administration
• Cognate field
• Methods sequence

Foundations of Public Administration

4 of the 5 courses listed below are required of all doctoral students.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUAD 930</td>
<td>Research Seminar in Public Administration and</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Democracy</td>
<td></td>
</tr>
<tr>
<td>PUAD 931</td>
<td>Research Seminar in Public Management</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 932</td>
<td>Seminar in the Intellectual History of Public</td>
<td>3</td>
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<tr>
<td></td>
<td>Administration</td>
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<tr>
<td>PUAD 943</td>
<td>Constitutional Foundations of Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>or PUAD 949</td>
<td>Law, Courts, and Public Policy</td>
<td></td>
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</tbody>
</table>

Substitutions require the approval of the coordinator of doctoral studies.

Public Administration Specialization

In consultation with the coordinator of doctoral studies, each student must develop a public administration specialization of at least 3 courses. Common specializations include budgeting, public finance, human resources management, public policy analysis and evaluation, public values and ethics, organizations and organization theory, public law and administration, and urban policy/politics and community building. Each has a basic course that is regularly taught in the present graduate curriculum at the 800 level, and it is presumed that at least an additional course would come from independent study. A third course could come from the school or could be taken outside. Potential cooperating units include the Departments of Political Science, Communication Studies, and Economics, and the Schools of Education and Business. Additional subfield specializations are available in consultation with faculty.

Cognate Fields

The degree requires a cognate field in addition to the public administration specialization. The cognate field is a subfield in economics, political science, education administration, etc., or a policy specialization (environmental policy, transportation policy, etc.) The cognate field’s sequence of 3 courses requires the approval of the coordinator of doctoral studies and does not require a comprehensive examination.

Methods

The doctorate emphasizes the development of research skills. It requires PUAD 934 Research Methods in Public Administration, with the prerequisite PUAD 836 or its equivalent, and PUAD 935 Advanced Quantitative Methods for Public Administration. Students also are encouraged to take PUAD 937 Qualitative Methods in Public Administration. Substitutions require the approval of the coordinator of doctoral studies. The methods requirement satisfies Option 1 of the Foreign Language or Other Research Skills Requirement.

Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current policies on Doctoral Research Skills and Responsible Scholarship are listed in the KU Policy Library.

To become a Ph.D. candidate, the student must complete a comprehensive oral examination. No student may attempt the comprehensive oral until he or she has satisfied requirements for the cognate field and passed the preliminary written examination in both the foundations and specialization fields. The doctoral coordinator certifies that the student has met these requirements.

After passing the comprehensive oral examination, the doctoral candidate must write a dissertation approved by a dissertation committee and pass a final oral defense of the dissertation to qualify for the degree. If the aspirant receives a grade of unsatisfactory, the examination may be repeated, but under no circumstances may the student take it more than twice.

Department of Religious Studies

Why study religious studies?

Religions have been and remain among the most powerful forces shaping human history. Their discourses and practices inform the way we perceive ourselves, those around us, and existence at large, even when we are not actively religious. They are central to understanding both what divides us and unites us. The academic study of religion is a trans-disciplinary endeavor to understand from an objective perspective how religious traditions shape the lives of their adherents, without seeking to promote or disprove any specific belief system. Religious Studies acquaints students with the diversity of religious cultures and introduces them to key methods and theories employed in their examination as “religion.”
Undergraduate Programs

The undergraduate degree in the Department of Religious Studies is a research, analysis, and writing intensive program that features close work with faculty in small classroom settings. It seeks to develop a foundational knowledge of the world’s diversity of religious cultures and critical awareness of the ways in which religion shapes how we see and act toward ourselves, others, and the environment around us. Through the study of specific religious traditions and settings, students come away with a background that is invaluable to understanding and working with people of other cultures, whether in international business or simply as an informed global citizen.

Graduate Programs

The department offers a graduate program leading to the M.A. with a major in religious studies. The program enables students to pursue specialized advanced work that builds in tandem on the interests of the students and the specializations of the faculty. At all levels, interdepartmental and interdisciplinary cooperation is encouraged as important to a comprehensive program. Continuing research in religious studies is an indispensable and foundational element, intimately related both to teaching and to the wider exchange and advancement of knowledge.

A library of some 15,000 volumes, owned by the Friends of the Department of Religious Studies at the University of Kansas, is housed with and used by the department in Irma I. Smith Hall. The Department of Religious Studies at KU is also in the unusual position of being able to provide substantial financial support for students seeking the MA degree.

Courses

REL 104. Introduction to Religious Studies. 3 Hours. HR AE42/GE3H / H.
This course introduces students to the academic study of religions. It acquaints students with key methods and issues in religious studies, and provides an introductory survey of selected religions. Not open to students who have taken REL 105. LEC.

REL 105. Introduction to Religious Studies, Honors. 3 Hours. HR AE42/GE3H / H.
This course introduces students to the academic study of religions. It acquaints students with key methods and issues in religious studies, and provides an introductory survey of selected religions. Open only to students in the University Honors Program or by permission of instructor. Not open to students who have taken REL 104. LEC.

REL 106. Living Religions of the East. 3 Hours. HR/NW AE42/GE3H / H/W.
A basic introduction to religion in India, China, and Japan with emphasis upon religions that affect the modern period. Not open to students who have taken REL 108/EALC 108. (Same as EALC 105.) LEC.

REL 107. Living Religions of the West. 3 Hours. HR AE41/AE42/GE3H / H.
A basic introduction to the major religious traditions of the Near East, Europe, and the Americas, with an emphasis on their development through the modern period and their expressions in contemporary life. Not open to students who have taken REL 109. (Same as JWSH 107.) LEC.

REL 108. Living Religions of the East, Honors. 3 Hours. HR/NW AE42/GE3H / H.
A basic introduction to religion in India, China, and Japan, with emphasis upon religions that affect the modern period. Open only to students in the University Honors Program or by permission of instructor. Not open to students who have taken REL 106/EALC 105. (Same as EALC 108.) LEC.

REL 109. Living Religions of the West, Honors. 3 Hours. HR AE41/AE42/GE3H / H.
A basic introduction to the major religious traditions in the Near East, Europe, and the Americas, with an emphasis on their development through the modern period and their expressions in contemporary life. Open only to students in the University Honors Program or by permission of instructor. Not open to students who have taken REL 107. LEC.

REL 124. Understanding the Bible. 3 Hours. HR AE42/GE3H / H.
An introduction to the literature of the Bible, exploring the relationships among the various types of literature present and the function of each type in history and religion of the people who produced and used them. Cannot be taken concurrently with REL 311 or JWSH 321 or REL 315. Not open to students who have taken REL 125 or JWSH 125. (Same as JWSH 124.) LEC.

REL 125. Understanding the Bible, Honors. 3 Hours. HR AE42/GE3H / H.
An introduction to the literature of the Bible, exploring the relationships among the various types of literature present and the function of each type in history and religious life of the people who produced and used them. Open only to students in the University Honors Program or by permission of instructor. Not open to students who have taken REL 124 or JWSH 124. (Same as JWSH 125.) LEC.

REL 130. Myth, Legend, and Folk Belief in East Asia. 3 Hours. NW / H/W.
A survey of the commonly held ideas about the beginning of the world, the role of gods and spirits in daily life, and the celebrations and rituals proper to each season of the year. The purpose of the course is to present the world view of the ordinary peoples of East Asia. (Same as ANTH 293, EALC 130.) LEC.

REL 171. Religion in American Society. 3 Hours. HR AE41/GE3H / H.
A broad introduction to religion in American culture. This class emphasizes the well-established religions with large followings (viz. Judaism, Catholicism, Eastern Orthodoxy, and Protestantism). Some attention is also given to other religions active in America. Other topics covered include the relationship of church and state, religion in ethnic and racial minority groups, and women and religion. Not open to students who have taken REL 172. (Same as AMS 290.) LEC.

REL 172. Religion in American Society, Honors. 3 Hours. HR AE41/GE3H / H.
Honors version of REL 171. A broad introduction to religion in American culture. This class emphasizes the well-established religions with large followings (viz. Judaism, Catholicism, Eastern Orthodoxy, and Protestantism). Some attention is also given to other religions active in America. Other topics covered include the relationship of church and state, religion in ethnic and racial minority groups, and women and religion. Not open to students who have taken AMS 290. Open only to students in the University Honors Program or by permission of instructor. LEC.

REL 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Religious Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics
are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

REL 200. Study Abroad Introductions to: _____. 1-4 Hours. H.
This course is designed for the study of special topics in Religious Studies. Credit for coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

REL 311. Religion of Ancient Isreal. 3 Hours. H/W.
A study of the development of the Hebrew Bible from its earliest stages of oral tradition to its canonization with an emphasis on the relationship of the historical, intellectual, and cultural contexts shaping that development. (Same as JWSH 321.) Prerequisite: REL 124 or JWSH 124 or permission of instructor. LEC.

REL 315. History and Literature of Early Christianity. 3 Hours. H/W.
An examination of the literature produced by early Christians. In addition to New Testament texts, the course includes a broad range of diverse texts produced by early Christians, Jews, and others. Prerequisite: REL 124 or permission of instructor. LEC.

REL 325. Introduction to Judaism. 3 Hours. H.
Analyzes a selection of the core texts, teachings, and practices of Jewish religious traditions in terms of classical and contemporary understanding. (Same as JWSH 325.) LEC.

REL 326. Introduction to the Talmud and Interpretation. 3 Hours. H.
A study of the Talmud and the main lines of its reception and interpretation from Late Antiquity through Modernity in Rabbinic literature and the broader context of Western religion and philosophy. Prerequisite: REL 104, REL107, or REL124/125, or permission of the instructor. LEC.

REL 330. Native American Religions. 3 Hours. NW AE41 / H.
A survey of religious traditions among selected Native American peoples. Topics include religious freedom, ritual activity, cultural narrative (myth) kinship, healing practices, ecology, government relations, impact of colonization, impact of missionization, contact between cultures, and secularization. Not open to students who have completed REL 331. (Same as ISP 330.) LEC.

REL 331. Native American Religions, Honors. 3 Hours. NW AE41 / H.
A survey of religious traditions among selected Native American peoples. Topics include religious freedom, ritual activity, cultural narrative (myth) kinship, healing practices, ecology, government relations, impact of colonization, impact of missionization, contact between cultures, and secularization. Open only to students in the University Honors Program or by permission of instructor. Not open to students who have completed REL 330. (Same as ISP 331.) LEC.

REL 339. History of Religion in America. 3 Hours. H.
Survey of the development of religious institutions and ideas in America from colonial times to the present. Emphasis is given to the mainstream religious traditions (Protestant, Catholic, Jewish), but attention is also paid to other phenomena, including nonwestern and native American religions. LEC.

REL 341. Mysticism. 3 Hours. H.
The nature of mystical experience and reflection as expressed in selected mystical literature of the world’s religions. LEC.

REL 342. Religion and Literature. 3 Hours. H.
An examination of contemporary writings to explore the authors’ presuppositions concerning the nature of God, the nature of human beings, the meaning of good and evil, the significance of human existence, and the means of attaining fulfillment or salvation. LEC.

REL 345. Christianity. 3 Hours. H.
An introductory examination of the history, doctrines, and practices of Christianity. Selected readings from the creeds, papal decrees, and major Christian theologians. LEC.

REL 350. Islam. 3 Hours. NW AE42/GE3H / H/W.
Origins of Islam; the Prophet Muhammad; the Holy Koran; religious symbols and moral mandates; historical developments. (Same as AAAS 349.) LEC.

REL 355. Muslim Societies. 3 Hours. H.
In this class we study Muslim societies throughout the world. We examine variation between regions by looking at Muslim history and culture in different countries, such as Pakistan, Indonesia, Mali, Bosnia, Egypt, Yemen, and others. LEC.

REL 360. The Buddhist Tradition in Asia. 3 Hours. NW AE42/GE3H / H.
A historical and geographical survey of the Buddhist tradition from its origins in India to modern day developments in the three major regional Buddhist cultures of Southeast Asia, Tibet, and East Asia (China, Korea, and Japan). Prerequisite: Prior coursework in Asian studies or permission of instructor. LEC.

REL 365. Hinduism. 3 Hours. H.
An introduction to the diversity and richness of Hinduism from the Vedic period to the present; explores Hindu practices, beliefs, and communities using primary texts and extensive audio-visual resources. LEC.

REL 371. Religion and Society in Tension. 3 Hours. H.
Specific issues of conflict between the values of certain religious groups and those of the larger society. Includes problems of church state, birth control and abortion, civil disobedience and dissent, education, war and peace, and “civil religion. LEC.

REL 373. The Supreme Court and Religious Issues in the United States. 3 Hours. H.
Historical study of the interpretation of the religion clauses of the First Amendment with special reference to the questions of establishment, the free exercise of religion, freedom of religious belief, worship, and action, and religion and the public schools. Not open to freshmen. (Same as HIST 373.) LEC.

REL 374. Religious Perspectives on Selfhood and Sexuality. 3 Hours. H.
The nature of the self in its individual and social dimensions. Self experienced and expressed in sexuality. Survey of viewpoints in religious literature. LEC.

REL 375. The Supreme Court and Religious Issues in the United States, Honors. 3 Hours. H.
Historical study of the interpretation of the religion clauses of the First Amendment with special reference to the questions of establishment, the free exercise of religion, freedom of religious belief, worship, and action, and religion and the public schools. Open only to students in the University Honors Program or by permission of the instructor. (Same as HIST 375.) LEC.

REL 376. American Judaism: Life and Thought. 3 Hours. H.
A study of the conflicts between secularists and religious Jews, between Zionists and synagogue representatives, and the patterns of compromise in American Jewish life. Questions of Americanism and Jewish survival, support for the State of Israel, and the bureaucratic structure of rabbinical training and philanthropy in America will be raised. LEC.

REL 377. Religious Ethics and Moral Decisions. 3 Hours. AE51 / H.
When faced with ethical dilemmas how do we decide what is the right course of action? In what ways are our decisions affected by religious
ideas about morality? In this class we examine the ethical problems we encounter every day in light of the solutions offered from various religious traditions. Cases to be examined include issues of life and death, war and peace, sexual morals, torture, the treatment of animals and the environment. LEC.

REL 378. Religion and Moral Decisions, Honors. 3 Hours. H.
Honors version of REL 377. Introduction to religious viewpoints on individual and social ethics. Influence of religious thought on the making of moral decisions, and on value development. Examined in relation to specific moral issues. Open only to students who have been admitted to the University Honors Program or by permission of instructor. LEC.

REL 380. Philosophical Issues in Religion. 3 Hours. GE3H / H.
This course will consider, from a philosophical perspective, some of the problems in religion which arise in the development of “Natural Theology” broadly conceived. (Same as PHIL 350.) LEC.

REL 400. Study Abroad Special Topics: ____. 1-4 Hours. H.
This course is designed for the study of special topics in Religious Studies equivalent to courses at the 300 to 600 level at KU. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

REL 404. Undergraduate Seminar in Religion: ____. 1-3 Hours. H.
Topic, instructor, prerequisite and hours of credit to be announced in Schedule of Classes. Particular subject matter may vary from semester to semester and will respond to student interest and taking advantage of special faculty competence. Class discussion, readings, and individual projects. LEC.

REL 405. Directed Study in Religion. 1-4 Hours. AE61 / H.
Investigation of a special topic or project selected by the student with advice, approval, and supervision of an instructor. Such study may take the form of directed reading or special research. Individual reports and conferences. May be repeated, with maximum cumulative credit of four hours. Course taken for one hour of credit may not be used to fulfill College distribution requirement. Prerequisite: One previous course in religious studies at the University of Kansas and permission of instructor. IND.

REL 406. Reading Asian Religious Classics. 3 Hours. H.
A close reading of classic texts of Asian religions in English translation, with emphasis on their construction and reception as sacred “scripture” in both their indigenous Asian contexts and in the post-colonial West. No prior knowledge of Asia is required, although some background is desirable. LEC.

REL 425. Religion and Film. 3 Hours. H.
An examination of the treatment of religious themes through the medium of film and an examination of the attitudes of religious organizations toward films and film production. Selected films will be viewed and analyzed from the perspectives taken within religious studies. LEC.

REL 440. Muslim Women in Religion and Society. 3 Hours. NW / H.
This course consists of a spring break study in a Muslim country, meeting with women’s NGOs and other women’s groups and visiting sites of significance to women. Preparatory class sessions focusing on assigned readings precede the study abroad trip and a concluding class session follows it. A research paper is required. LEC.

REL 447. Islamic Law in the Digital Age. 3 Hours. H.
In this class we trace how Islamic law has changed in the modern era, beginning with an overview of shari’ah and its traditional function in Muslim society, and then examine how the practice of Islamic law was altered by colonialism and the rise of the nation state. We mark these transformations by studying how Islamic law is used in the online environment today. LEC.

REL 450. Popular Culture in the Muslim World. 3 Hours. NW / H.
A study of pop songs, television, comics, and other idioms of popular culture from different parts of the Muslim world, with attention to Muslims’ sense of humor, tragedy, aesthetics, and pertinent issues of the day. (Same as AAAS 450.) LEC.

REL 464. Visions in Art and Literature. 3 Hours. H.
A study of the phenomenon of visions, their expression in various media, and theories of visionary experience from the humanities and social sciences, with a particular emphasis on critically evaluating the relationship between the visionary experience and its expression. (Same as HWC 464). LEC.

REL 468. Illness in Art and Literature. 3 Hours. H.
An examination of how illness and health have been conceptualized, expressed, and explored in Western literature and art, as well as a consideration of issues of illness and health from the perspectives of philosophy and religious studies. (Same as HWC 468). LEC.

REL 475. Loving Relationships. 3 Hours. H.
Theories and elements of love in a variety of types of relationships, with attention to religious ethical traditions and social and behavioral sciences. Includes small group discussions and application to personal experience. Prerequisite: Junior standing or above. LEC.

REL 477. Gender and Religion. 3 Hours. H.
Examination of symbols, images, scriptures, rites and teachings that define gender in various religious traditions. (Same as HWC 477.) LEC.

REL 478. Women and Religion, Honors. 3 Hours.
Examination of symbols, images, scriptures, rites, and teachings defining women’s roles in various religious traditions. Prerequisite: Open only to students in the University Honors Program, or by permission of instructor. LEC.

REL 490. Senior Seminar in Theories and Methods. 3 Hours. AE61 / H.
a capstone course for religious studies majors to survey methods and theories in religious studies. Prerequisite: Religious Studies major or permission of the instructor. LEC.

REL 499. Undergraduate Honors Research. 1-3 Hours. AE61 / H.
Required for Departmental Honors. May be taken more than once; total credit not to exceed 6 hours. Prerequisite: Open only to candidates for degree with departmental honors and with consent of the student’s research supervisor. IND.

REL 500. Readings in Non-English Religious Texts. 1-4 Hours.
This course provides directed readings for students in either primary or secondary texts related to religious studies utilizing material in languages other than English. IND.

REL 502. Special Topics in Religion: ____. 1-4 Hours. H.
Topic and instructor to be announced in Schedule of Classes. Enables qualified students to participate in current research interests of faculty and/or pursue specific current topics. May be offered by different instructors under different subtitles, and may be taken more than once if subject matter varies sufficiently. Prerequisite: Consent of instructor. LEC.

REL 504. Millenarian Movements. 3 Hours. S.
A historical survey of millenarian movements (the belief in imminent, total, ultimate, this-worldly, collective salvation), with particular attention to their construction and reception as sacred “scripture,” with attention to religious ethical traditions and social and behavioral sciences. Includes small group discussions and application to personal experience. Prerequisite: Open only to candidates for degree with departmental honors and with consent of the student’s research supervisor. IND.
REL 507. Religion in India. 3 Hours. NW AE42/GE3H / H/W.
Survey of religious thought and practice in India from the Vedic period to the present. LEC.

REL 508. Religion in China. 3 Hours. NW AE42/GE3H / H/W.
Survey of religious thought and practice in China from the Shang to the People’s Republic. (Same as EALC 508.) LEC.

REL 509. Religion in Japan. 3 Hours. NW AE42/GE3H / H/W.
Survey of religious thought and practice in Japan from the Jomon period to the present. (Same as EALC 509.) LEC.

REL 510. Religion in Korea. 3 Hours. NW AE42/GE3H / H.
Survey of religious thought and practice in Korea from the Three Kingdoms period to the present. Prerequisite: REL 106/EALC 105; EALC 104; or permission of instructor. LEC.

REL 515. Studies in Early Christian Literature and History. 3 Hours. H.
Contemporary research in the history and literature of earliest Christianity including most of the following: (1) the use of critical method, (2) philosophical and theological contexts, (3) sociological analyses, (4) interpretation of archaeological data (5) papyrology and the medieval manuscript tradition, (6) relations between Christians and the Roman government, (7) relations between Christians and Jews, (8) development of diverse literary genres, and (9) the origins of gnosticism and Christian gnosticism. Prerequisite: REL 124 or permission of instructor. LEC.

REL 523. The Dead Sea Scrolls. 3 Hours. H.
A study of the archeological evidence and texts from the Dead Sea area that provide primary evidence for Jewish religious belief and practice in the Greek and Roman periods (ca. 250 B.C.E. - 135 C.E.). (Same as JWSH 523.) Prerequisite: REL 124 or JWSH 124 or consent of instructor LEC.

REL 524. Studies in Ancient Egyptian Culture and Religion. 3 Hours. H.
A study of the basic features of Egyptian history, culture, and religion from the beginning of the Pharaonic period (ca. 3500 B.C.E.) to the rise of Greek rule in Egypt (ca. 350 B.C.E.). Prerequisite: A principal course in Religious Studies or consent of instructor. LEC.

REL 525. Jews and Christians. 3 Hours. H/W.
This course examines the ways Jews and Christians have interacted with and characterized one another at various points in their histories. Special emphasis is placed on the gradual separation of the two religious traditions in the 1st-4th centuries. (Same as JWSH 325.) Prerequisite: A previous course in Religious Studies or Jewish Studies; or consent of instructor. LEC.

REL 526. Jewish History and Literature in the Greek and Roman Periods. 3 Hours. H/W.
The history and literature of the Jewish people from the hellenistic period (late fourth century B.C.E. to the codification of the Mishnah 210 C.E.). Select texts from the Hebrew Bible, the so-called apocrypha and pseudepigrapha, the Qumran scrolls, Philo, Josephus, related early Christian texts, and Rabbinic texts will be studied. (Same as JWSH 526.) Prerequisite: REL 124 or JWSH 124 or permission of instructor. LEC.

REL 527. Ancient Mesopotamian Culture and Religion. 3 Hours. H.
A study of the basic features of Mesopotamian history, culture and religion from the origins of writing (ca. 3500 B.C.E.) to the rise of Greek rule in the region (ca. 350 B.C.E.). Prerequisite: A principal course in religious studies or consent of instructor. LEC.

REL 528. The Apostle Paul and Early Christian Paulinism. 3 Hours. H.
Biographical issues related to the Apostle Paul, his teachings in relation to Greek and Jewish thought as exemplified in his letters, and his reception by later diverse Paulinists. Prerequisite: REL124/125, or REL 315. LEC.

REL 530. Christian Origins: from the Beginnings to Augustine. 3 Hours. H/W.
This course covers the major political, literary, and theological developments in Christianity from the first century through Augustine in the early fifth century, including: (1) the development and significance of the New Testament canon, (2) relations between Christians, Jews, and the Roman government, (3) the nature of orthodoxy and heresy, and the rise of the major gnostic systems, (4) the growth of the orthodox network, (5) theological debates and councils, and (6) the biography and theology of Augustine and his influence on the medieval church. Prerequisite: Junior standing or above. LEC.

REL 531. Studies in Christianity. 3 Hours. H.
Study of religious thought, practice, and institutions of Christianity with an emphasis on the examination of primary documents. LEC.

REL 532. Studies in Islam. 3 Hours. H.
Study of religious thought, practice, and institutions of Islam with an emphasis on the examination of primary documents. (Same as AAAS 532.) LEC.

REL 534. Studies in Ritual: ______. 3 Hours. H.
A study of ritual theory and a comparative study of ritual activity among selected religious traditions. May be taken more than once if content differs sufficiently. LEC.

REL 535. The History of Islam in Africa. 3 Hours. H/W.
A study of the history and institutions of Islam in Africa. Emphasis will be placed on the impact of Islam on African traditional religions and African civilization in general; the historiographical traditions of Islam in Africa. (Same as AAAS 542.) LEC.

REL 541. Gods and Goddesses of South Asia. 3 Hours. H.
This course explores the dynamic diversity of gods and goddesses in South Asian religious life through examination of their basic iconography, religious narratives and devotional poetry, temple images and architecture, ritual practices, performance traditions, and film. Prerequisite: An introductory course in religious studies or consent of instructor. LEC.

REL 543. Hindu Epics, Past and Present. 3 Hours. H.
This interdisciplinary course considers the roles that the two great Indian epics, the Mahabharata and the Ramayana, have played in the history of religion, literature, art, and politics in South Asia (and beyond). Prerequisite: An introductory course in religious studies or consent of instructor. LEC.

REL 545. Yoga in Theory, Practice, and History. 3 Hours. H.
Historical and thematic investigation into Yoga, including classical formulations, esoteric practices, and contemporary developments and debates. LEC.

REL 551. Shari’a, Democracy, and Society. 3 Hours. H.
In this class we examine the question of whether or not democracy and shari’a can coexist. Is there a necessary opposition between democratic visions of society and the institutionalization of Islamic law? As a case study we look at changes in the modern Egyptian political system and the role religious ideals have played in these changes, especially the push
meaning of illness and health, methods of diagnosis and treatment, and
hours. H.

REL 580. Religious Perspectives on Illness, Health, and Healing. 3 Hours. H.
A survey of the beliefs, practices, and social impact of religious minorities in
the United States, both contemporary and historical, rooted primarily in
Christianity and Judaism. LEC.

A survey of the beliefs, practices, and social impact of religious minorities
in the United States, both contemporary and historical, which have
developed primarily from sources other than Christianity and Judaism.
LEC.

REL 601. Approaches to the Study of Religion. 3 Hours. H.
An introduction to the various methods by which social scientists,
historians, philosophers, and theologians study the meaning, influence,
and significance of religion as an integral part of society and its cultural
heritage. Prerequisite: REL 104 required for undergraduate students. No
prerequisite for graduate students. LEC.

REL 604. Religion and Political Theory. 3 Hours. S.
An examination of the relationship between religious faith and politics in
Western political thought and theory. The approach will be both historical
and philosophical, beginning with Moses on the one hand, and the Greeks
on the other. Texts will include biblical, Greek philosophical, Jewish
and Christian philosophical and theological writings. (Same as POLS 604.)
Prerequisite: POLS 201, or for non-POLS majors completion of Western
Civilization requirements, or consent of instructor. LEC.

REL 650. Sufism. 3 Hours. NW / H.
A survey of developments in Sufi (Islamic Mystical) thought, poetry, and
ritual throughout Muslim history and across the Muslim world. (Same as
AAAS 657.) Prerequisite: AAAS 349/REL 350 or permission of instructor.
LEC.

REL 657. Gender in Islam and Society. 3 Hours. NW / H.
An investigation of the relationship between Islam, and gender roles and
status in religious texts (Quran and Hadith) and in societies across the
Muslim world, past and present. (Same as AAAS 657.) Prerequisite:
AAAS349/REL 350 or permission of instructor. LEC.

REL 665. Religious Ethics. 3 Hours. H.
Main themes and traditions in ethical thought. Religious thought as basis
of systems of ethics. Contemporary approaches to methods of value
organization and moral choices. Prerequisite: A basic course in religious
studies. LEC.

REL 667. Religious Perspectives on War and Peace. 3 Hours. H.
Views of war and peace in various faith traditions throughout the world.
Examination of teachings and action of religious groups and selected
individuals, including use of war rhetoric and differing theological and
social understandings of peace. Lecture, seminar discussion, and
research assignment require preparation and participation by students.
Prerequisite: Junior standing or above. LEC.

REL 669. Human Conflict and Peace. 3 Hours. H.
Study of religious, cultural, and social traditions toward understanding the
nature and purposes of human conflict. Analysis of various meanings of
peace, with emphasis on study of nonviolent approaches to management of
conflict. Class discussion, readings, and individual research projects.
(Same as COMS 669.) Prerequisite: Junior standing or above. LEC.
REL 671. American Communes. 3 Hours. H.
An examination of utopian communities in North America from the seventeenth century to the present. The course will survey the history, literature, and social dynamics of representative communal societies and movements including the Shakers, the Hutterites, the Oneida Community, Catholic religious communities, egalitarian communities, and other religious and secular communities. LEC.

REL 677. Women in Christianity. 3 Hours. H.
An examination of the roles, images, and status of women in Christianity from its origin to the contemporary period and in its missionary expansion from the ancient Near East through Europe, North and South America, Africa, and Asia. LEC.

REL 704. Russian Orthodoxy in Historical Perspective. 3 Hours.
This course examines Russian Orthodoxy as a religious system and the institution of the Russian Orthodox Church from its first appearance in Russia to the present. It focuses on beliefs and practices of the clergy and the laity; institutional structures; the relationships between Church and State; interaction with non-Orthodox religious communities; responses to Soviet atheist policies; Orthodox influences on political theory, philosophy, literature, and the fine arts. (Same as REES 704.) LEC.

REL 727. Seminar in Religion, Text and Textuality. 3 Hours.
This seminar explores issues surrounding the production and use of authoritative religious texts (sacred texts) in religious traditions, including such topics as scripturality and canon, scriptural hermeneutics, and material and ritual dimensions of scriptural practice. Specific case studies and content to be selected by the instructor. SEM.

REL 732. Seminar in Western Religious Texts: ____. 3 Hours.
An analysis of selected religious text or texts from Judaism, Islam, or Christianity in translation. May be taken more than once if subject matter varies sufficiently. Prerequisite: REL 512, REL 515, REL 526, REL 530, REL 532, REL 539, or REL 570 or permission of the instructor. LEC.

REL 733. Seminar in Eastern Religious Texts: ____. 3 Hours.
Analysis of a selected religious text or texts from India, China, or Japan, in translation. May be taken more than once if subject matter varies sufficiently. (Same as EALC 733.) Prerequisite: REL 507, REL 508, REL 509, or permission of instructor. LEC.

REL 737. Seminar in Religion, Media and Performance. 3 Hours.
This seminar explores aspects of performance and the media of performance in lived religion, which might include such topics as ritual, the body, mass media and the internet, and visual and material culture. Specific case studies and content to be selected by the instructor. SEM.

REL 747. Seminar in Religion, Society and Social Change. 3 Hours.
This seminar explores issues regarding the social dimensions of religiosity/lived religion, ranging from aspects of religious institutionalization, authority, and normativity to alternative religiosities and alterity. Specific case studies and content to be selected by the instructor. SEM.

REL 757. Seminar in Religious Subjectivity, Experience, and Narrative. 3 Hours.
This seminar explores issues regarding the subjective and experiential dimension of lived religiosity, including such things as religious experience and mysticism, modes of personal religious expression and embodiment, and dynamics of personal and collective religious narrative and identity. Specific case studies and content to be selected by the instructor. SEM.

REL 761. Seminar in Western Religious Thought: ____. 3 Hours.
An analysis of the thought of selected thinkers of the Christian, Jewish, and/or Islamic traditions. May be taken more than once if subject matter varies sufficiently. Prerequisite: REL 512, REL 515, REL 526, REL 530, REL 532, REL 539, or REL 570 or permission of the instructor. LEC.

REL 762. Seminar in Eastern Religious Thought: ____. 3 Hours.
Analysis of the religious thought of selected thinkers of India, China, and/or Japan, traditional and modern. May be taken more than once if subject matter varies sufficiently. (Same as EALC 732.) Prerequisite: REL 507, REL 508, REL 509, or permission of the instructor. LEC.

REL 767. Seminar in Theory, Method, and History in Religious Studies. 3 Hours.
This seminar explores theoretical, methodological, and historical issues that are instrumental to our notions of religion as an analytic category and foundational to the study of religion as a field of academic enquiry. Specific case studies and content to be selected by the instructor. SEM.

REL 771. Seminar in Religious Movements and Social Change: ____. 3 Hours.
Relationship of religious groups to movements for social change: influence of religious groups on social change, and the impact of efforts toward social change in religious groups. Prerequisite: REL 171, REL 371, REL 377, or equivalent. LEC.

REL 772. Seminar in Religion and Modern Social Criticism: ____. 3 Hours.
Seminar focusing on religious issues in some important texts of modern social criticism from the French Revolution to the present day. Prerequisite: An introductory course in religion. LEC.

REL 773. Seminar in Religion and National Identity: ____. 3 Hours.
Analysis of selected issues wherein religion and the formation and definition of a selected nation or nations intersect. LEC.

REL 775. Seminar in Religion and Society in the West: ____. 3 Hours.
Analysis of selected Western religions and their relationships to selected Western societies. May be taken more than once if subject matter varies sufficiently. Prerequisite: REL 512, REL 515, REL 526, REL 530, REL 532, REL 539, or REL 570 or permission of instructor. LEC.

REL 776. Seminar in Religion and Society in Asia: ____. 3 Hours.
Analysis of selected Asian religions and their relationship to selected Asian societies. May be taken more than once if subject matter varies sufficiently. (Same as EALC 776.) Prerequisite: REL 507, REL 508, REL 509, or permission of the instructor. LEC.

REL 777. Seminar in Religion and Gender. 3 Hours.
Examination of symbols, images, scriptures, rites, teachings and scholarship regarding gender definitions and performance in various religious traditions. LEC.

REL 787. Seminar in Ethical Issues in Health Care: ____. 3 Hours.
Interdisciplinary seminar, drawing on the literature of social, medical, and professional ethics, with special attention to religious perspectives on meanings of health and the delivery of health care. Of particular interest to health-related professions. Prerequisite: Permission of instructor. LEC.

REL 800. Readings. 1-4 Hours.
RSH.

REL 839. Topics in the History and Literature of Religion: ____. 3 Hours.
Selected studies, as announced in Schedule of Classes, in the history and religious literature of Judaism, Christianity, religion in America, Islam, and Asian religions. Course may be taken more than once if subject matter varies sufficiently. Prerequisite: Permission of instructor. LEC.
REL 864. Topics in Religious Thought and Symbol: _______ 3 Hours. Selected studies, as announced in Schedule of Classes, in Asian, Middle Eastern, and Western religious thought, mysticism, and religious ethics. Course may be taken more than once if subject matter varies sufficiently. Prerequisite: Permission of instructor. LEC.

REL 875. Topics in Religion and Society: _______ 3 Hours. Special topics to be announced in Schedule of Classes, according to research interests of faculty and students. A particular aspect of the study of religion and culture will be emphasized. Course may be taken more than once if the subject matter varies. Prerequisite: Permission of instructor. LEC.

REL 877. Topics in Women and Religion: _______ 3 Hours. Selected studies, as announced in Schedule of Classes, in the history and analysis of symbols, images, scriptures, rites, and teachings defining women’s roles in various religious traditions. Course may be taken more than once if the subject matter varies sufficiently. Prerequisite: Permission of instructor. LEC.

REL 899. Thesis. 1-3 Hours.

Bachelor of Arts and Bachelor of General Studies in Religious Studies

The undergraduate degree in the Department of Religious Studies is a research, analysis, and writing intensive program that features close work with faculty in small classroom settings. It seeks to develop a foundational knowledge of the world’s diversity of religious cultures and critical awareness of the ways in which religion shapes how we see and act toward ourselves, others, and the environment around us. Through the study of specific religious traditions and settings, students come away with a background that is invaluable to understanding and working with people of other cultures, whether in international business or simply as an informed global citizen.

Career Opportunities

Religious studies majors and minors develop expertise and skills that serve them well wherever life takes them. Our graduates have been successful in many different areas. Studying religion provides a solid foundation for work in fields as diverse as journalism, law, politics, nongovernmental organizations, ministry, and education. No matter what their intended careers, students benefit from the critical reading, writing, and analytical skills that the academic study of religion instills.

Admission to the Major

Application Term

Semester in which major admission criteria will be completed, normally no later than 60 hours, or for transfer students, during the initial term at KU. Application to this major after completion of 60 hours, or the initial KU term for transfer students, will likely delay graduation.

Courses Required

• **Composition.** Satisfied by ENGL 101 (unless the student has received a waiver or, for transfer students, an equivalent course).

• **Critical Reading and Writing.** Satisfied by ENGL 102 or ENGL 105 (unless the student has received a waiver or, for transfer students, an equivalent course).

• **Introduction to Religion.** Satisfied by REL 104.

• **Additional Religious Studies Course** (Elective or Requirement). Satisfied by any course with REL prefix.

Grade-Point Average Requirements

Satisfied by a 2.30 minimum GPA in required admission courses designated above. University Course Repeat Policy will apply.

Religious Studies Program

The curriculum is organized into the basic areas of Western, Eastern, and North American religions, and method and theory in the study of religion. A core of courses provides broad exposure to the range of issues, perspectives, and methods in the study of religion. The program encourages interdepartmental and interdisciplinary cooperation as part of a comprehensive program. This cooperation is reflected at the undergraduate level in cross-listed and cross-referenced courses and in the design of the major.

Requirements for the B.A. or B.G.S. Major

The major consists of at least 27 hours in religious studies. 15 hours must be in courses numbered 300 and above, and 8 of these junior/senior hours must be completed in residence at KU. The 27 hours may include no more than 12 transfer hours, no more than 12 hours from study abroad, and no more than 15 hours in combination of the two.

Religious Studies Major Course Requirements

**Religious Studies Core Knowledge and Skills (27)**

Majors must complete a course in each of the following areas:

- **Introduction to Religion.** Satisfied by:
  - REL 104  Introduction to Religious Studies
  - or REL 105  Introduction to Religious Studies, Honors

- **Understanding the Bible.** Satisfied by:
  - REL 124  Understanding the Bible
  - or REL 125  Understanding the Bible, Honors

- **Overview of Judaism, Christianity, or Islam.** Satisfied by 1 course (3 hours) chosen from the following:
  - REL 107  Living Religions of the West
  - REL 109  Living Religions of the West, Honors
  - REL 311  Religion of Ancient Isreal
  - REL 315  History and Literature of Early Christianity
  - REL 325  Introduction to Judaism
  - REL 345  Christianity
  - REL 350  Islam
  - REL 570  Studies in Judaism

- **Overview of Religious Tradition other than Judaism, Christianity, or Islam.** Satisfied by 1 course (3 hours) chosen from the following:
  - REL 106  Living Religions of the East
  - REL 108  Living Religions of the East, Honors
  - REL 360  The Buddhist Tradition in Asia
  - REL 365  Hinduism
The University of Kansas

REL 507  Religion in India
REL 508  Religion in China
REL 509  Religion in Japan
REL 510  Religion in Korea
REL 555  Buddhists and Buddhism in China

Religion of North America. Satisfied by 1 course (3 hours) chosen from the following:
REL 171  Religion in American Society
REL 172  Religion in American Society, Honors
REL 330  Native American Religions
REL 339  History of Religion in America
REL 373  The Supreme Court and Religious Issues in the United States
REL 375  The Supreme Court and Religious Issues in the United States, Honors
REL 585  New Religious Movements (Western)
REL 586  New Religious Movements (Nonwestern)
REL 671  American Communes

Religious Studies Required Electives. Satisfied by 3 courses (9 hours) within, or cross-listed with, the Religious Studies Department course offerings.

Capstone Experience. Satisfied by:
REL 490  Senior Seminar in Theories and Methods

Religious Studies Major Hours & Major GPA

While completing all required courses (above), majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 27 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 15 hours of KU resident credit in the major, of which 9 must be at the junior/senior level (300+).

**Major Junior/Senior (300+) Hours**
Satisfied by a minimum of 15 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Graduation Plan

With careful planning and commitment to a full-time course load, you can graduate in 4 years. See the department for details.

Departmental Honors

To be eligible for honors in religious studies, an undergraduate student must have a minimum grade-point average of 3.25 overall and of 3.5 in the department. The student must also complete and defend an individual research project, as evidenced by completion of at least 3 hours of REL 499: Undergraduate Honors Research with a grade of B or better.

Interested students should contact the Undergraduate Director for more information.

Minor in Religious Studies

The undergraduate minor in the Department of Religious Studies is a research, analysis, and writing intensive program that features close work with faculty in small classroom settings. It seeks to develop a foundational knowledge of the world’s diversity of religious cultures and critical awareness of the ways in which religion shapes how we see and act toward ourselves, others, and the environment around us. Through the study of specific religious traditions and settings, students come away with a background that is invaluable to understanding and working with people of other cultures, whether in international business or simply as an informed global citizen.

Career Opportunities

Religious studies majors and minors develop expertise and skills that serve them well wherever life takes them. Our graduates have been successful in many different areas. Studying religion provides a solid foundation for work in fields as diverse as journalism, law, politics, nongovernmental organizations, ministry, and education. No matter what their intended careers, students benefit from the critical reading, writing, and analytical skills that the academic study of religion instills.

Requirements for the Minor

Religious Studies Minor Course Requirements

Students selecting this minor must complete a course in each of the following areas:

**Introduction to Religion (3)**
Satisfied by one of the following:
REL 104  Introduction to Religious Studies  3
or REL 105  Introduction to Religious Studies, Honors

**Overview of Judaism, Christianity, or Islam (3)**
Satisfied by 1 course (3 hours) chosen from the following:  3
REL 107  Living Religions of the West
REL 109  Living Religions of the West, Honors
REL 311  Religion of Ancient Israel
REL 315  History and Literature of Early Christianity
REL 325  Introduction to Judaism
REL 345  Christianity
REL 350  Islam
REL 570  Studies in Judaism

**Overview of Religious Tradition other than Judaism, Christianity, or Islam (3)**
Satisfied by 1 course (3 hours) chosen from the following:  3
REL 106  Living Religions of the East
REL 108  Living Religions of the East, Honors
REL 360  The Buddhist Tradition in Asia
REL 507  Religion in India
REL 365  Hinduism
REL 508  Religion in China
REL 509  Religion in Japan
Religion of North America (3)
Satisfied by 1 course (3 hours) chosen from the following:
- REL 171 Religion in American Society
- REL 330 Native American Religions
- REL 373 The Supreme Court and Religious Issues in the United States
- REL 375 The Supreme Court and Religious Issues in the United States, Honors
- REL 585 New Religious Movements (Western)
- REL 586 New Religious Movements (Nonwestern)
- REL 671 American Communes

Religious Studies Minor Required Elective (6)
Satisfied by completing 6 additional hours in REL courses at the 300 level or above.

Religious Studies Minor Hours & Minor GPA
While completing all required courses (above), minors must also meet each of the following hour and grade-point average minimum standards:

**Minor Hours**
Satisfied by 18 hours of major courses.

**Minor Hours in Residence**
Satisfied by a minimum of 9 junior/senior (300+) hours of KU resident credit in the minor.

**Minor Junior/Senior (300+) Hours**
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

**Minor Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses in the minor. GPA calculations include courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

### Master of Arts in Religious Studies

**Why study religious studies?**
Religions have been and remain among the most powerful forces shaping human history. Their discourses and practices inform the way we perceive ourselves, those around us, and existence at large, even when we are not actively religious. They are central to understanding both what divides us and unites us. The academic study of religion is a trans-disciplinary endeavor to understand from an objective perspective how religious traditions shape the lives of their adherents, without seeking to promote or disprove any specific belief system. Religious Studies acquaints students with the diversity of religious cultures and introduces them to key methods and theories employed in their examination as "religion."

### Admission to Graduate Studies
An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

### Graduate Admission
A B.A. in religious studies is not required for admission, but the department expects applicants to show on their transcripts significant exposure to the humanities and social sciences.

The department requires Graduate Record Examination scores for admission. Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to The University of Kansas Department of Religious Studies Smith Hall 1300 Oread Ave., Room 109A Lawrence, KS 66045-7603

### M.A. Degree Requirements

**Concentration**
In addition to developing a general competence in the larger field of religious studies, its approaches, and its methods, students craft their programs of study around the following areas of concentration. Examples include

- Indigenous religions
- Islamic studies
- Jewish studies
- Religion in the Ancient Near East and Mediterranean
- Religion in Asia
- Religion in the U.S.A.
- Religious ethics
- Theories and methods of studying religion

### Degree Requirements with Thesis
The thesis track in religious studies comprises 3 aspects: required course work, comprehensive exam, and thesis.

1. A candidate for this degree must complete 30 graduate credit hours with the following stipulations:
   • (a) At least 18 credit hours must be in courses in religious studies and the rest in fields related to a declared concentration.
   • (b) Course work must include at least 12 hours (4 courses) in the articulated concentration.
   • (c) Upon completion of 12 hours of course work, the student articulates an area of concentration and a program of study,
which will culminate in the production and oral defense of a research portfolio. The student and the advisor determine whether the student will pursue a thesis or a nonthesis track and plan the remaining course work, including the acquisition of relevant linguistic and research skills.

- (d) Each student must complete REL 601 Approaches to the Study of Religion the first year in the program.
- (e) Each student must complete 2 seminars (total of 6 credit hours) from the following set of theory and method-oriented seminars:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL 727</td>
<td>Seminar in Religion, Text and Textuality</td>
<td>3</td>
</tr>
<tr>
<td>REL 737</td>
<td>Seminar in Religion, Media and Performance</td>
<td>3</td>
</tr>
<tr>
<td>REL 747</td>
<td>Seminar in Religion, Society and Social Change</td>
<td>3</td>
</tr>
<tr>
<td>REL 757</td>
<td>Seminar in Religious Subjectivity, Experience, and Narrative</td>
<td>3</td>
</tr>
<tr>
<td>REL 767</td>
<td>Seminar in Theory, Method, and History in Religious Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

- (f) Each student must complete one course from each of the following groups:

**A. Western Religious Traditions (33)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL 515</td>
<td>Studies in Early Christian Literature and History</td>
<td>3</td>
</tr>
<tr>
<td>REL 525</td>
<td>Jews and Christians</td>
<td>3</td>
</tr>
<tr>
<td>REL 530</td>
<td>Christian Origins: from the Beginnings to Augustine</td>
<td>3</td>
</tr>
<tr>
<td>REL 531</td>
<td>Studies in Christianity</td>
<td>3</td>
</tr>
<tr>
<td>REL 532</td>
<td>Studies in Islam</td>
<td>3</td>
</tr>
<tr>
<td>REL 557</td>
<td>Modern Islamic Reform Movements</td>
<td>3</td>
</tr>
<tr>
<td>REL 560</td>
<td>Classical and Contemporary Jewish Thought</td>
<td>3</td>
</tr>
<tr>
<td>REL 570</td>
<td>Studies in Judaism</td>
<td>3</td>
</tr>
<tr>
<td>REL 732</td>
<td>Seminar in Western Religious Texts: _____</td>
<td></td>
</tr>
<tr>
<td>REL 761</td>
<td>Seminar in Western Religious Thought: _____</td>
<td></td>
</tr>
<tr>
<td>REL 775</td>
<td>Seminar in Religion and Society in the West: _____</td>
<td></td>
</tr>
</tbody>
</table>

**B. Non-Western Religious Traditions (33)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>REL 507</td>
<td>Religion in India</td>
<td>3</td>
</tr>
<tr>
<td>REL 508</td>
<td>Religion in China</td>
<td>3</td>
</tr>
<tr>
<td>REL 509</td>
<td>Religion in Japan</td>
<td>3</td>
</tr>
<tr>
<td>REL 510</td>
<td>Religion in Korea</td>
<td>3</td>
</tr>
<tr>
<td>REL 541</td>
<td>Gods and Goddesses of South Asia</td>
<td>3</td>
</tr>
<tr>
<td>REL 543</td>
<td>Hindu Epics, Past and Present</td>
<td>3</td>
</tr>
<tr>
<td>REL 545</td>
<td>Yoga in Theory, Practice, and History</td>
<td>3</td>
</tr>
<tr>
<td>REL 555</td>
<td>Buddhists and Buddhism in China</td>
<td>3</td>
</tr>
<tr>
<td>REL 733</td>
<td>Seminar in Eastern Religious Texts: _____</td>
<td></td>
</tr>
<tr>
<td>REL 762</td>
<td>Seminar in Eastern Religious Thought: _____</td>
<td></td>
</tr>
<tr>
<td>REL 776</td>
<td>Seminar in Religion and Society in Asia: _____</td>
<td></td>
</tr>
</tbody>
</table>

- (g) Each student must complete 9 hours in courses numbered 700 or above, excluding REL 800 Readings and REL 899 Thesis.

Courses at the 700 level in religious studies are conducted as seminars.

2. Each student must produce and give an oral defense of a research portfolio.

3. Each student must write and successfully defend a thesis that meets minimum department and general requirements. 3 hours in REL 899 Thesis may be credited toward fulfillment of the required 30 credit hours.

**Degree Requirements, Nonthesis**

The nonthesis track comprises 2 aspects: required course work and comprehensive examination.

1. A candidate for this degree must complete 33 graduate credit hours with the following stipulations:

   - (a) At least 21 of the 33 graduate hours must be in courses in religious studies and the rest in fields related to an articulated concentration.
   - (b) Course work must include at least 12 hours (four courses) in the articulated concentration.
   - (c) Upon completion of 12 hours of course work, the student articulates an area of concentration and program of study, which will culminate in the production and oral defense of a research portfolio. The student and the advisor plan the remaining course work, including the acquisition of relevant linguistic and research skills.
   - (d) Each student must complete REL 601 Approaches to the Study of Religion the first year in the program.
   - (e) Each student must complete 2 seminars (total of 6 credit hours) from the following set of theory and method-oriented seminars:

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- (f) Each student must complete 1 course from each of these groups:

**A. Western Religious Traditions (33)**

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<td></td>
</tr>
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</table>

- (g) Each student must complete 9 hours in courses numbered 700 or above, excluding REL 800 Readings and REL 899 Thesis.
A Master of Arts degree is offered in 3 tracks:

**Graduate Programs**

- The co-major or minor also can be combined with a bachelor's degree in such schools as business or journalism.

**Undergraduate Programs**

The interdisciplinary bachelor's degree is available only as a co-major or minor in conjunction with a major in one of the traditional academic disciplines. The co-major or minor also can be combined with a bachelor's degree in such schools as business or journalism.

**Center for Russian, East European, and Eurasian Studies**

The Center for Russian, East European, and Eurasian Studies is one of 16 comprehensive National Resource Centers funded by Title VI of the U.S. Higher Education Act for the study of Russia, Ukraine, Central Asia, East Central Europe, and the Balkans. It promotes language and area study in an integrated, interdisciplinary framework and in traditional academic disciplines. Languages taught include Russian, Ukrainian, Polish, Czech, Bosnian/Croatian/Serbian, Slovenian, Turkish, and Yiddish. The center administers B.A. co-major and M.A. degree programs in Russian, East European, and Eurasian studies and supports study abroad in Russia, Poland, Croatia, and Ukraine. Each year, visiting scholars from the region join KU's 50 area faculty members in exchange, instructional, and research activities. The center also coordinates and sponsors conferences, lectures, theatre, and outreach activities of interest to KU students, faculty members, K-12 teachers, and the community. It serves as a resource to the state, the Great Plains, and the nation.

**Courses**

**REES 110. Understanding Russia and Eastern Europe. 3 Hours. SC AE42 / S.**

A multidisciplinary introduction to the former communist states of Russia, the western Newly Independent States, Central Europe, and the Balkans. The course addresses the geography and history of the region, as well as the cultures of its peoples, as presented in literature, film, and music. Special attention is devoted to the current political, economic, and social situations, as they are reflected by the transition from communism and the rise of nationalism. LEC.

**REES 111. Understanding Russia and Eastern Europe, Honors. 3 Hours. SC AE42 / S.**

A multidisciplinary introduction to the former communist states of Russia, the western Newly Independent States, Central Europe, and the Balkans. The course addresses the geography and history of the region, as well as the cultures of its peoples, as presented in literature, film, and music. Special attention is devoted to the current political, economic, and social situations, as they are affected by the transition from communism and the rise of nationalism. Prerequisite: Open only to students in the University Honors Program, or by permission of instructor. LEC.

**REES 177. First Year Seminar: ______. 3 Hours. GE11 / U.**

A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Russian, East European, and Eurasian Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**REES 220. Societies and Cultures of Eurasia. 3 Hours. NW AE42 / S.**

A broad, survey-type course that examines all the former Soviet republics-Ukraine, Belarus, Moldova, Lithuania, Latvia, Estonia, Georgia, Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan-with additional coverage of neighboring regions. The course addresses the history of the region, literature, culture, geography, religion, and the building of post-Soviet states and societies. LEC.

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**Transfer of Credit**

Transfer of graduate credit is allowed, including study abroad course credit, from other accredited institutions, up to a total of 6 hours. (View the policy on graduate credit, including transfer credit in the Graduate Studies (p. 2059) section of the online catalog. Bachelor's degree graduates from KU are permitted to transfer 8 hours. The hours may be used only when the M.A. is completed within 6 years of the time the credit was given. Application for transfer must be made by the student and the advisor to the committee on graduate studies. Normally, such applications are not made until after 12 hours of KU coursework have been completed. If the committee approves, applications are forwarded for approval.

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**Russian, East European, and Eurasian Studies Program**

**Why study Russian, East European, and Eurasian studies?**

The interdisciplinary study of Russia, Eastern Europe, and Eurasia creates culturally informed citizens who can act on national and international issues.

---

**Undergraduate Programs**

The interdisciplinary bachelor's degree is available only as a co-major or minor in conjunction with a major in one of the traditional academic disciplines. The co-major or minor also can be combined with a bachelor's degree in such schools as business or journalism.

---

**Graduate Programs**

A Master of Arts degree is offered in 3 tracks:
REES 221. Societies and Cultures of Eurasia, Honors. 3 Hours. NW AE42 / S.
Examines the unique cultures and societies of the Eurasian region (Georgia, Azerbaijan, Armenia, Kazakhstan, Uzbekistan, Kyrgyzstan, Turkmenistan, Tajikistan and to a lesser degree, Russia, Mongolia and Afghanistan). For the better part of the 20th Century, this distinct region of the world was hidden beneath the communist veneer of the Soviet Union. With the collapse of the USSR, the countries of this region are returning to their historic roots, and this course introduces students to the history, politics, economics, literature and general culture of these countries. Open only to students admitted to the University Honors Program or by permission of instructor. LEC.

REES 480. Topics in Russian and East European Studies: ____. 1-3 Hours. H.
Interdisciplinary examination of topics involving two or more disciplines in Russian, East European, and Eurasian studies. LEC.

REES 485. War and Peace in Russian Culture. 3 Hours. H/W.
Lectures, readings, oral discussion, and written analyses of selected major works of Russian writing and other modes of creative expression and discourse that treat the subject of war and peace, such as imaginative literature, works of history, memoirs, cinema, music, and painting. Reading examples are The Song of Igor’s Campaign, Alexander Pushkin’s The Captain’s Daughter and A History of Pugachev, Leo Tolstoy’s War and Peace, Nadezhda Durova’s The Notes of a Girl-Cavalryman, Boris Pasternak’s Doctor Zhivago and George Kennan’s Russia Leaves the War. Not open to students who have taken REES 685. LEC.

REES 492. Research Methods in Russian, East European, and Eurasian Studies. 3 Hours. AE61 / H.
Development of interdisciplinary research skills and familiarity with resources and issues in the study of Russian, East European, and Eurasian Studies. Preparation for REES 496. LEC.

REES 496. Capstone Research Seminar in Russian and East European, and Eurasian Studies. 3 Hours. AE61 / H.
Interdisciplinary original research conducted using at least one REES language and resulting in a research paper. Prerequisite: REES 492. LEC.

REES 498. Directed Readings. 1-3 Hours. H.
Individual and supervised readings in selected areas of Russian, East European, and Eurasian Studies. Prerequisite: Prior permission of instructor and either CREES director or associate director. LEC.

REES 499. Capstone Research Seminar in Russian, East European, and Eurasian Studies, Honors. 3 Hours. AE61 / H.
Research and writing of a substantial paper, involving interdisciplinary original research and use of sources in at least one REES language, and presentation of this paper to an Honors committee of three REES faculty members. This thesis must be substantially different from any other Honors thesis. Prerequisite: REES 492. LEC.

REES 510. Understanding Central Asia. 3 Hours. NW AE42 / S/W.
An intensive, multidisciplinary survey of Central Asia, focusing on the former Soviet republics-Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan-with additional coverage of neighboring regions (the Caucasus and the Caspian basin, Afghanistan, and western China). The course addresses the history of the region (from the Silk Road to Soviet rule), geography, religion, and the building of post-Soviet states and societies. (Same as GEOG 590.) LEC.

REES 512. Siberia: Yesterday and Today. 3 Hours. NW AE42 / H/W.
An interdisciplinary course examining the development of Siberia from its beginnings to the present day. Topics to be covered are selected from the following list: topography and natural resources; conquest and exploitation by Russian and other European settlers; Siberia’s role as a place of imprisonment and exile; the development of towns and transportation systems; Siberian historiography; Siberian Russian literature; and Siberia’s place in Russia’s economy and national defense. LEC.

REES 513. Siberia: Russia’s Eastern Frontier. 3 Hours. NW AE42 / H/W.
An interdisciplinary course examining the terrain, peoples, and cultures of the vast expanse in northern Asia known as Siberia. Areas of inquiry include geology, archeology, ethnography, religions, folk culture, the arts, science and education, politics, and environmental problems. With an emphasis on the natural and social sciences, and exploration of the relationship between Siberia and its neighbors in all directions, including the United States (Alaska, “Russian America”), this course can be taken without duplication by students who have already taken REES 512 (or SLAV 512) Siberia Yesterday and Today. LEC.

REES 532. Russian Strategy and Military Power. 3 Hours. H.
Examines the central role the Russian military has played in its country’s politics, society, and culture in the modern period. Treats Russia’s victories and defeats in war, the course highlights the continuities in Russian strategic practices and illuminates the current and future strategic policies and military developments of the contemporary Russian state. LEC.

REES 573. Borderland Between Russia & Europe. 3 Hours. H/W.
Examines the history of relations between the governments, emerging national elites, and populations of Russia, Ukraine, Poland, and other East European countries, and the different regional perceptions and stereotypes, including the new post-Soviet states and their European neighbors. LEC.

REES 574. Ethnicity and Nationalism in Eastern Europe. 3 Hours. H/W.
Examines the emergence and evolution of regional ethno-cultural and national identities in Eastern Europe. Discusses the theories and definitions of ethnicity, nationality, and nationalism, and offers a practical approach to understanding nationalism’s and nationalist movements in Eastern Europe. LEC.

REES 646. Translation in Theory and Practice. 3 Hours. H.
Students undertake substantial work in the translation of non-technical writing, (e.g. poems, short stories, novels, essays, works of history, scientific treatises), from any REES language into English, and examine the practical and theoretical problems encountered in translation from the source to the target language. Prerequisite: BCRS 508, PLSH 508, RUSS 508, or permission of instructor. LEC.

REES 685. War and Peace in Russian Culture (in Russian). 3 Hours. H/W.
This course is taught in Russian. Lectures, readings, oral discussion, and written analyses of selected major works of Russian writing and other modes of creative expression and discourse that treat the subject of war and peace, such as imaginative literature, works of history, memoirs, cinema, music, and painting. Reading examples are Slovo o polku Igoreve, Pushkin’s Kapitanskaia dochka and Istoriia Pugacheva, Tolstoy’s Voina i mir, Evgenii Tarle’s Napoleon, Pasternak’s Doktor Zhivago and Andrei Petukhov’s Pamiat’ o sluubze. Not open to students who have taken REES 485. Prerequisite: 3 years of Russian at the college level. LEC.

REES 687. Biography of a City: St. Petersburg. 3 Hours. AE42 / H.
Examination in depth of the historical, social, intellectual, and artistic development of St. Petersburg as a major urban center. LEC.
REES 704. Russian Orthodoxy in Historical Perspective. 3 Hours.
This course examines Russian Orthodoxy as a religious system and the institution of the Russian Orthodox Church from its first appearance in Russia to the present. It focuses on beliefs and practices of the clergy and laity; institutional structures; the relationships between Church and State; interactions with non-Orthodox religious communities; responses to Soviet atheist policies; Orthodox influences on political theory, philosophy, literature, and the fine arts. (Same as REL 704.) LEC.

REES 715. Seminar in the History of Russian Thought. 3 Hours.
Topics in the development of social radicalism and of philosophical positivism and materialism from Radishchev through the Russian Marxists. A reading knowledge of Russian is desirable but not required. Prerequisite: REES 723 or PHIL 580. LEC.

REES 799. Directed Readings in Russian and East European Studies. 1-5 Hours.
RSH.

REES 895. Special Problems in Area Studies: ______. 3 Hours.
Interdisciplinary examination of topics involving two or more of the cooperating disciplines in Russian and East European studies. LEC.

REES 897. Research. 1 Hour.
Enrollment to fulfill Masters continuous enrollment rule. Prerequisite: Completion of all degree requirements except submission of seminar paper or comprehensive examination. RSH.

REES 898. Seminar in Russian and East European Studies. 3 Hours.
Mastery of interdisciplinary research skills, and knowledge of resources and scholarship on the study of Russian, east European, and Eurasian Studies. LEC.

REES 899. Capstone Research Seminar in Russian, East European, and Eurasian Studies. 3 Hours.
Research, write, and present a professional-quality paper, involving interdisciplinary original research, consultation with REES faculty, and substantial use of sources in at least one REES language. Prerequisite: REES 898. SEM.

TAJ 110. Elementary Tajik I. 5 Hours. U.
Vocabulary acquisition, pronunciation, grammar, and writing. Course includes reading of simple texts. Five hours of class per week. LEC.

TAJ 120. Elementary Tajik II. 5 Hours. U.
Continuation of TAJ 110. Vocabulary acquisition, pronunciation, grammar, and writing. Course includes reading of simple texts. Five hours of class per week. Prerequisite: TAJ 110 or departmental permission. LEC.

TAJ 210. Intermediate Tajik I. 3 Hours. U.
A continuation of TAJ 120. Course emphasizes oral and written work in Tajik. Systematic review of grammar and introduction to reading in cultural texts. Prerequisite: TAJ 120 or departmental permission. LEC.

TAJ 220. Intermediate Tajik II. 3 Hours. U.
A continuation of TAJ 210. Course emphasizes oral and written work in Tajik. Systematic review of grammar and introduction to reading in cultural texts. Prerequisite: TAJ 210 or departmental permission. LEC.

TAJ 310. Advanced Tajik I. 3 Hours. U.
Enhancement of speaking, comprehension, reading and writing abilities in Tajik. Readings from Tajik literature introduced. Prerequisite: TAJ 220 or placement exam that establishes a level of proficiency in Tajik suited to Advanced Tajik I. LEC.

TAJ 320. Advanced Tajik II. 3 Hours. U.
Enhancement of speaking, comprehension, reading and writing abilities in Tajik. Readings from Tajik literature introduced. Prerequisite: TAJ 220 or placement exam that establishes a level of proficiency in Tajik suited to Advanced Tajik II. LEC.

TAJ 510. Tajik for Geographers. 1 Hour. H.
The course is designed to facilitate the use of primary sources in Tajik for carrying out research in human geography of Tajikistan. TAJ 510 compliments REES 510. Prerequisite: TAJ 220, or consent of instructor. LEC.

TAJ 532. Tajik For Sociologists. 1 Hour. H.
The course is designed to facilitate the use of primary sources in Tajik for carrying out research in sociology of Tajikistan. TAJ 532 compliments SOC 532. Prerequisite: TAJ 220, or consent of instructor. LEC.

Co-Major in Russian, East European, and Eurasian Studies

Why study Russian, East European, and Eurasian studies?
The interdisciplinary study of Russia, Eastern Europe, and Eurasia creates culturally informed citizens who can act on national and international issues.

Undergraduate Admission

Admission to KU
All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

Requirements for the Co-Major

Russian, East European, and Eurasian Studies Co-Major Course Requirements

Prerequisite Language Skills (30)

Students selecting this co-major must complete 4th semester proficiency in a Russian, Eastern European, or Eurasian language (take the courses for majors):
### Bosnian-Croatian-Serbian:
- **BCRS 208** Intermediate Bosnian/Croatian/Serbian II

### Czech:
- **CZCH 208** Intermediate Czech II

### Polish:
- **PLSH 208** Intermediate Polish II

### Russian:
- **RUSS 208** Intermediate Russian II

### Slovenian:
- **TAJ 210** Intermediate Tajik I

### Turkish:
- **TURK 208** Intermediate Turkish II

### Uyghur:
- **UYGR 202** Intermediate Uyghur II

### Ukranian:
- **UKRA 208** Intermediate Ukrainian II

### Yiddish:
- **YDSH 216** Intermediate Yiddish II

### Understanding Russia and Eastern Europe or Societies and Cultures of Eurasia (3)

Satisfied by one of the following:

- **REES 110** Understanding Russia and Eastern Europe
- **REES 111** Understanding Russia and Eastern Europe, Honors
- **REES 220** Societies and Cultures of Eurasia
- **REES 221** Societies and Cultures of Eurasia, Honors

### Slavic Languages and Literatures (0)

(5th semester)

### REES Required Electives (0)

Satisfied by the completion of 1 course in each of the following categories:

- **Literature and the Arts**
  - ANTH 315 The Prehistory of Art
  - HWC 520 Literature in Translation: ______ (Russian)
  - SLAV 140 Introduction to Russian Culture
  - SLAV 141 Introduction to Russian Culture, Honors
  - SLAV 144 Survey of Russian Literature in Translation
  - SLAV 145 Survey of Russian Literature in Translation, Honors
  - SLAV 148 Introduction to Slavic Folklore
  - SLAV 506 West Slavic Literature and Civilization (Polish and Czech)
  - SLAV 520 Russian Phonetics, Phonology, and Inflectional Morphology
  - SLAV 534 Tolstoy
  - SLAV 561 Readings in Slavic Language: ______ (Slovene)
  - SLAV 662 Russian Literary Modernism: 1880-1930
  - SLAV 678 Readings in Slavic Linguistics
  - SLAV 679 Topics in: ______ (Russian Language Pedagogy)
  - THR 302 Undergraduate Seminar in: ______ (Theatre and Genocide)

- **History**
  - HIST 115 French Revolution to the Present: Europe 1789-Present
  - HIST 340 The History of the Second World War
  - HIST 444 Frozen in Time: Politics and Culture in the Cold War, 1945-75
  - HIST 510 Topics in: ______ (Siberia: Yesterday and Today)
  - HIST 564 Medieval Russia

### Political Science

- **POLS 171** Introduction to International Politics Honors
- **POLS 654** Politics and Government of Russia and the Central Eurasian States
- **POLS 669** Topics in Comparative Politics: ______ (European Union Politics)
- **POLS 980** International Organizations

### Economics, Geography, Business, Law

- **ECON 505** History of Economic Analysis
- **ECON 620** Elements of Mathematical Economics
- **EVRN 320** Environmental Policy Analysis
- **GEOG 379** Topics in Cultural Geography: ______ (Environmental Policy)

### IBUS 701 International Business

### Capstone (6)

Satisfied by the following, completed in the senior year.

- Research Methods in Russian, East European, and Eurasian Studies.
  Satisfied by:
  - **REES 492** Research Methods in Russian, East European, and Eurasian Studies
  - **REES 496** Capstone Research Seminar in Russian and East European, and Eurasian Studies

Majors are strongly encouraged to study abroad. Please see your advisor about this opportunity.

### Russian, East European, and Eurasian Co-Major Hours & GPA

While completing all required courses (above), majors must also meet each of the following hour and grade-point average minimum standards:

#### Co-Major Hours
Satisfied by 30 hours of co-major courses.

#### Co-Major Hours in Residence
Satisfied by a minimum of 9 hours of KU resident credit in the co-major.

#### Co-Major Junior/Senior (300+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

#### Major Junior/Senior (300+) Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the co-major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Graduation Plan
With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please consult the department for details.

Honors
Departmental Honors
Honors in Russian, East European, and Eurasian studies is open to REES co-majors who have earned, both at the time of entry into the program and at graduation, an overall grade-point average of 3.25 or higher, and 3.5 or higher in courses that satisfy requirements for the REES co-major.

Students must complete REES 492 Research Methods in Russian, East European, and Eurasian Studies and REES 499 (Honors) Capstone Seminar in Russian, East European, and Eurasian Studies with a grade of B or better. The research paper produced in REES 499 must demonstrate the student’s proficiency in at least one of the REES languages through the use of foreign language sources. The paper is evaluated by an honors committee of at least three REES faculty members who have read and commented on the research paper and heard its oral defense. The committee its constituted by the student in consultation with either the director or associate director of CREES.

Study Abroad
Though not required, study abroad is strongly encouraged. Courses taken abroad may count toward the co-major if approved by the REES advisor.

Consult the Center for Russian, East European, and Eurasian Studies (http://www.crees.ku.edu) or the Office of Study Abroad (http://www.studyabroad.ku.edu) for information about programs.

Minor in Russian, East European, and Eurasian Studies

Why study Russian, East European, and Eurasian studies?
The interdisciplinary study of Russia, Eastern Europe, and Eurasia creates culturally informed citizens who can act on national and international issues.

Requirements for the Minor
Russian, East European, and Eurasian Studies Minor Course Requirements
Students selecting this minor must complete the following:

Understanding Russia and Eastern Europe or Societies and Cultures of Eurasia (3)
Satisfied by one of the following:

REES 110 Understanding Russia and Eastern Europe
or REES 111 Understanding Russia and Eastern Europe, Honors
REES 220 Societies and Cultures of Eurasia
or REES 221 Societies and Cultures of Eurasia, Honors

REES Required Electives (15)
Satisfied by the completion of 1 course in each of the following 5 categories:

<table>
<thead>
<tr>
<th>Literature and the Arts</th>
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<tbody>
<tr>
<td>ANTH 315 The Prehistory of Art</td>
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<tr>
<td>HWC 520 Literature in Translation: _____ (Russian)</td>
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<tr>
<td>SLAV 140 Introduction to Russian Culture</td>
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<tr>
<td>SLAV 141 Introduction to Russian Culture, Honors</td>
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<tr>
<td>SLAV 144 Survey of Russian Literature in Translation</td>
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<tr>
<td>SLAV 145 Survey of Russian Literature in Translation, Honors</td>
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<tr>
<td>SLAV 148 Introduction to Slavic Folklore</td>
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<tr>
<td>SLAV 506 West Slavic Literature and Civilization (Polish and Czech)</td>
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<td>SLAV 520 Russian Phonetics, Phonology, and Inflectional Morphology</td>
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<td>SLAV 534 Tolstoy</td>
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<td>SLAV 561 Readings in Slavic Language: _____ (Slovene)</td>
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<td>SLAV 662 Russian Literary Modernism: 1880-1930</td>
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<tr>
<td>SLAV 678 Readings in Slavic Linguistics</td>
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<td>SLAV 679 Topics in: _____ (Russian Language Pedagogy)</td>
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<td>THR 302 Undergraduate Seminar in: _____ (Theatre and Genocide)</td>
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<th>History</th>
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<tr>
<td>HIST 115 French Revolution to the Present: Europe 1789-Present</td>
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<tr>
<td>HIST 340 The History of the Second World War</td>
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<td>HIST 444 Frozen in Time: Politics and Culture in the Cold War, 1945-75</td>
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<td>HIST 510 Topics in: _____ (Siberia: Yesterday and Today)</td>
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<td>HIST 564 Medieval Russia</td>
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<tr>
<th>American, European, &amp; Global Studies</th>
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<tr>
<td>AMS 332 The United States in Global Context</td>
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<tr>
<td>SOC 332 The United States in Global Context</td>
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<tr>
<td>EURS 430 European Civilization in World Context: _____ (European Identity)</td>
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<td>EURS 604 The European Union</td>
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<th>Political Science</th>
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<tr>
<td>POLS 171 Introduction to International Politics Honors</td>
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<tr>
<td>POLS 654 Politics and Government of Russia and the Central Eurasian States</td>
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<tr>
<td>POLS 669 Topics in Comparative Politics: _____ (European Union Politics)</td>
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<td>POLS 980 International Organizations</td>
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<th>Economics, Geography, Business, Law</th>
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<tr>
<td>ECON 505 History of Economic Analysis</td>
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<td>ECON 620 Elements of Mathematical Economics</td>
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<tr>
<td>EVRN 320 Environmental Policy Analysis</td>
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Adjust the following application materials:

professional study in another department or school. Consider completing the M.A. degree in conjunction with academic or professional degrees. Some students may be admitted as either a degree-seeking or non-degree seeking student.

Minimum Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 junior/senior (300+) hours of KU resident credit in the minor.

Minor Junior/Senior Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the minor. GPA calculations include all junior/senior courses in the fields of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Master of Arts in Russian, East European, and Eurasian Studies

Why study Russian, East European, and Eurasian studies?
The interdisciplinary study of Russia, Eastern Europe, and Eurasia creates culturally informed citizens who can act on national and international issues.

Admission to Graduate Studies
An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission
Most applicants hold B.A. degrees in the social sciences or humanities with grade-point averages of 3.0 or higher. Students with B.S. or professional degrees are also eligible to apply. Some students may consider completing the M.A. degree in conjunction with academic or professional study in another department or school.

Students should submit the following application materials:

• Application for admission, sent to the Graduate Application Processing Center of the University of Kansas.

• A nonrefundable application fee (payable to the University of Kansas; see Admission in the Graduate Studies (p. 2059) section of the online catalog).

• 1 original transcript of all college-level work.

• Graduate Record Examination scores. International students should also submit Test of English as a Foreign Language scores.

• 3 letters of recommendation commenting on the student's ability to succeed at graduate work. These letters should be accompanied by a signed waiver form, indicating whether the applicant has waived his or her rights to see the letter.

• A 2-page statement of the student's educational and professional objectives.

Applications to begin the M.A. program should be submitted by January 1 for admission for the following fall semester. Applications may be accepted off-cycle; please consult with the graduate advisor.

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the program:

The University of Kansas
Russian, East European, and Eurasian Studies
Bailey Hall
1440 Jayhawk Blvd., Room 320
Lawrence, KS 66045-7545

The Foreign Affairs Studies (FAST) concentration within the existing MA in Russian, East European, and Eurasian Studies is a new concentration that will (1) emphasize REES in Global Context and (2) place a greater emphasis on social sciences within REES coursework. The required GIST 710 Interdisciplinary Methods for Global Context emphasizes social science methodology. We expect the audience for this concentration to be primarily Foreign Area officers (FAQs) and others already in the workforce who need an intensive program that can be completed in a year. An intensive area studies program will also serve career needs of former Peace Corps volunteers and others who have the required language proficiency and first-hand knowledge of the given region. To this end, the course sequences and availability will make it possible to complete the FAST concentration in 12 months. The FAST REES will run Fall (12 credit hours) – Spring (12 credit hours) – Summer (6 credit hours), not necessarily in this sequence.

Students must successfully complete 30 hours of coursework:

Concentration in 1 of the following 5 disciplinary areas: history; political science; philosophy and religion; literature and the arts; geography/economics/business (2 electives, total 6 hrs)

If a student chooses political science or geography/economics/business as an area of concentration, GIST 710 Interdisciplinary Methods for Global Contexts is required along with another elective in this area.

If a student chooses literature/arts, history, or philosophy/religion as an area of concentration, GIST 710 can be used to replace the distribution requirement in political science or geography/economics/business.

25% or more of coursework in GIST 898 and GIST 710 must pertain to REES geographical area.

IBUS 701 International Business

GEOG 379 Topics in Cultural Geography: _____
(Environental Policy)
The Capstone seminar sequence: REES 898 and REES 899 (6hrs)
GIST 898 Thesis/Project Writing offered in the summer (3hrs)
Advanced Language Course at 500 level or above (3hrs).

**M.A. Degree Requirements**

A Master of Arts degree is awarded in 3 tracks: Russian, East European, and Ukrainian.

**Requirements for the Degree**

1. At least 1 course in a REES-area advanced foreign language.
2. 3 courses for a total of 9 credit hours, in the department or subject group of the student’s special interest; at least 2 of these courses must be area specific.
   The 5 thematic areas are
   - Literature and the Arts
   - History
   - Political Science
   - Philosophy and Religion
   - Economics, Business, Geography
3. 1 area course in each of the other 4 subject groupings, for a total of 12 hours.
4. Successful completion of REES 898 and REES 899, an interdisciplinary M.A. seminar (6 credit hours), develops advanced research skills. REES 898, which is normally taken at the beginning of the degree program, emphasizes learning the tools and methods necessary to study this region of the world. In REES 899, students write an interdisciplinary research paper using materials in the student’s chosen target language. Before enrolling in REES 899, the student must have completed an advanced language course in the target language.
5. Pass a comprehensive examination in addition to regular course examinations. Information about opportunities and requirements for graduate work with a Russian or East European concentration in any department at KU may be obtained from the department.

Requirements may be modified in special cases with the director’s approval, particularly for students with special needs such as Experienced Teacher Fellows, Foreign Area Officers, or candidates for degrees in the professional schools. All students are encouraged to study abroad.

**Plan of Study**

The plan of study is designed by the student in consultation with the advisor.

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**Graduate Certificate in Russian, East European, and Eurasian Studies**

**Why study Russian, East European, and Eurasian studies?**

The interdisciplinary study of Russia, Eastern Europe, and Eurasia creates culturally informed citizens who can act on national and international issues.

**Admission to Graduate Studies**

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

The Russian, East European, and Eurasian Studies (REES) graduate certificate is a 12-credit hour program of study designed primarily for graduate students in CLAS and the professional schools. The program allows the students to acquire context-based interdisciplinary knowledge and expertise of the REES area. The certificate allows for that expertise to be officially recognized on the students’ KU transcript, enhancing the graduates’ career opportunities.

The main academic objectives of the graduate certificate include introducing and training graduate students in the current methodological approaches to the study of the REES area; allowing the students to acquire a deeper knowledge of the area from different disciplinary perspectives; and guiding the students in integrating their knowledge of the area, methodology, and a REES-area language. As a part of the capstone seminar, graduate certificate students write an original research paper on a REES-area topic that utilizes research in both English and the target language.

As a prerequisite to beginning the course sequence that leads to the certificate, the student must demonstrate a working knowledge of a REES-area language equivalent of at least 2 years of university study.

The CREES graduate certificate includes a 12-credit hour course sequence (4 3-credit hour courses). Out of the 4 courses, 2 are mandatory: the methodology seminars, REES 898 and REES 899.

- REES 898 is taken during the student’s first semester, as it lays out the foundation for interdisciplinary area studies in REES.
- 2 electives must be chosen from a list of REES-themed offerings from 2 different disciplines, of which 1 can overlap with the coursework taken by the student in his or her home department. The courses must be 500-level or higher and have at least 50% REES content.
- REES 899 is taken following the completion of the elective courses. The capstone seminar, in which the student identifies an original research topic, and under the professor’s supervision, produces a
capstone paper of publishable quality, a part of which is a working bibliography which includes both English and foreign-language sources. REES 899 is used to demonstrate student knowledge of area studies content and methodology, and the capstone paper is the primary outcome of this course.

REES 898 and REES 899 are taken by both REES MA students and REES graduate certificate students. These students work together on acquiring tools for researching and writing about the REES area, and then applying these tools towards individual projects.

**Department of Slavic Languages and Literatures**

The Department of Slavic Languages & Literatures offers a full array of language, culture, literature, and linguistics courses for students interested not only in Russian, but also in Polish, Bosnian/Croatian/Serbian, Ukrainian, and Turkish languages and cultures. The department also offers occasional coursework and independent study in Slovene, Czech, Yiddish, and other East European languages.

The department offers three degrees: the B.A., the M.A., and the Ph.D. The Bachelor of Arts degree program offers fundamental training in language and culture, while graduate training at the Masters and Doctoral levels focuses on Russian literature and culture, Slavic linguistics, and/or Slavic language pedagogy. The department also offers select study abroad programs. Working closely with KU’s Center for Russian, East European, and Eurasian Studies (CREES), the department offers an array of Slavic-related events throughout the year, including visiting distinguished lecturers, exhibits, and musical and theatrical performances. Students participate in an active Russian Club, language tables, and the Graduate Students’ Organization.

For more information about the department and its people, visit the department’s web site (http://slavic.ku.edu). Look for the Old Bridge at Mostar at the very top of the page. Commissioned by Suleiman the Magnificent in 1557, the bridge metaphorically connects the Ottoman Empire with Europe — it is the physical expression of the concept that Russia and the Slavs link the West and the East.

**Undergraduate Programs**

The undergraduate major in Slavic languages and literatures prepares students to pursue a range of careers connected with Russia and Central Europe, including those related to international work in business, government, nonprofit organizations, etc. The undergraduate major serves equally as solid preparation for graduate study in Slavic languages and literatures and related fields and for entrance to professional schools such as law or journalism. Students learn these languages to pursue careers with international dimensions; enhance job opportunities; connect with heritage, family, and communities; explore other literatures and cultures; and pursue personal interests.

The undergraduate program gives students solid functional language skills in speaking, reading, listening, and writing. Students develop the strategies and linguistic awareness to continue language study throughout their lives. The program acquaints undergraduates with the most significant works of the literature and culture of the Slavic region and gives them the tools and frameworks necessary to understand, analyze, and critique those works and place them in their cultural context. Students work with sources in English and in the original languages.

The department strongly encourages students to plan a substantial study abroad experience (at least a summer but preferably a semester or an academic year) as part of the major. Study abroad experience contributes to mastery of the language and facilitates students’ encounters with the people, practices, and attitudes of the culture in ways that can never be replicated on an American university campus.

**Placement**

Students may establish eligibility for enrollment in the second course in Polish, Russian, or Bosnian/Croatian/Serbian by having earned college credit in the first course in that language or by having studied the language in high school. Students with previous study should contact the department to arrange a consultation about enrollment at the appropriate level.

**Retroactive Credit**

Students with no prior college or university Russian course credit are eligible for retroactive credit according to this formula:

- 3 hours of retroactive credit are awarded to a student with 2 or 3 years of high school Russian who enrolls initially at KU in a third-level Russian course (RUSS 204 or RUSS 212) and receives a grade of C or higher.
- 6 hours of retroactive credit are awarded to a student with 3 or 4 years of high school Russian who enrolls initially at KU in a fourth-level Russian course (RUSS 208 or RUSS 216) and receives a grade of C or higher.
- 9 hours of retroactive credit are awarded to a student with 4 years of high school Russian who enrolls initially at KU in a Russian course with a fourth-level course as a prerequisite and receives a grade of C or higher.

**Courses for Nonmajors**

Some courses in Slavic literatures and cultures are taught in English and fulfill various goals and learning outcomes related to the KU CORE, as well as existing B.A. requirements in the humanities and non-Western culture.

Students may fulfill the College language requirement for the B.A. degree by taking 2 years in one of the following languages: Russian, Polish, Bosnian/Croatian/Serbian, Ukrainian, and Turkish.

Courses are available in Russian for special purposes (Russian for Reading, Russian for the Professions), RUSS 110 Intensive Elementary Russian (10 credit hours) frequently is offered in the summer.

**Graduate Programs**

The department offers programs leading to Master of Arts and Doctor of Philosophy degrees in Slavic Languages and Literatures.

**Master of Arts**

The Master of Arts degree in Slavic Languages & Literatures provides students with foundational knowledge of the language, literature, culture, and linguistics of a region of study (Russian, Polish, Bosnian-Croatian-Serbian). Working in a collegial and supportive departmental environment, M.A. students learn the general contours and common ground of the field; read key works embedded in their historical, cultural, stylistic, and genre contexts; learn various methodological and theoretical frameworks
and strategies; improve their language capacity, and develop research, writing, interpretive, and technological skills.

**Doctor of Philosophy**

The Doctor of Philosophy degree in Slavic Languages & Literatures builds further on the foundational knowledge and the structured classroom learning that students engaged in during MA work. Working under the close mentorship of their advisors, PhD students develop a minor in a related field, learn advanced pedagogical and interpretive strategies, continue to improve language skills, and engage in self-motivated, independent study to develop a coherent area of specialization. Students complete their graduate study.

Students pursuing doctoral study in the department of Slavic Languages & Literatures concentrate their advanced work in one of three areas: Russian literature and culture; Slavic language pedagogy; and Slavic linguistics.

**Departmental Funding**

While it is not guaranteed, the department does its best to provide funding in the form of Graduate Teaching Assistantship (GTA) appointments to all incoming graduate students. GTA appointments are awarded for the academic year and come with:
- a competitive academic year (9 month) salary
- a 100% tuition waiver for all courses at KU
- payment of up to 3 hours of student fees
- optional University-subsidized group health insurance

The appointments are guaranteed based on performance for up to 3 years for M.A. students, 5 years for Ph.D. students and 6 years for students who receive both an M.A. and a Ph.D. at The University of Kansas. GTAs in the department receive thorough training in language instruction, close mentoring, and the opportunity to teach at a variety of levels, providing them with a strong base of teaching experience upon entering the job market. Additional information about teaching for the department is available on the Graduate Programs overview (http://slavic.ku.edu/ma-slavic-overview) page of our departmental website.

**FLAS Fellowships**

Students in the graduate program may also be eligible for a Foreign Language and Area Studies (FLAS) (http://flas.ku.edu) fellowship. FLAS fellowships include:
- Summer award - up to $5,000 for tuition and a stipend of $2,500 for living expenses for summer language study equivalent to one full year of language study
- Academic Year award - full KU tuition and a $15,000 stipend for living expenses for academic year study that includes two semesters of language and six credits or more of East Asian culture courses.

Students in the are strongly encouraged to apply (http://flas.ku.edu/how-apply) for this funding.

**Additional Funding**

There are also university fellowships for truly outstanding students. Visit the Graduate Studies website for information about funding opportunities (http://www.graduate.ku.edu/funding-opportunities) for KU graduate students.

**Courses**

**BCRS 104. Elementary Bosnian/Croatian/Serbian I. 5 Hours. U.**
First Semester. Five hours of recitation and drill in the spoken language per week. Essentials of grammar, practice in reading, writing and speaking Bosnian/Croatian/Serbian. LEC.

**BCRS 105. Elementary Bosnian/Croatian/Serbian I, Honors. 5 Hours. U.**
Similar to BCRS 104 but with additional work aimed at accelerating the student’s progress to proficiency and widening understanding of cultural context. Prerequisite: Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

**BCRS 108. Elementary Bosnian/Croatian/Serbian II. 5 Hours. U.**
Second Semester. A continuation of BCRS 104. Prerequisite: BCRS 104. LEC.

**BCRS 109. Elementary Bosnian/Croatian/Serbian II, Honors. 5 Hours. U.**
Continues BCRS 105. Similar to BCRS 108 but with additional work aimed at accelerating the student’s progress to proficiency and widening understanding of cultural context. Prerequisite: BCRS 104 or 105. Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

**BCRS 177. First Year Seminar: _____. 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Bosnian/Croatian/Serbian. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**BCRS 204. Intermediate Bosnian/Croatian/Serbian I. 3 Hours. U.**
Second-year course in the language with emphasis on reading, composition, and conversation. Prerequisite: BCRS 108. LEC.

**BCRS 205. Intermediate Bosnian/Croatian/Serbian I, Honors. 3 Hours. U.**
Similar to BCRS 204 but with additional work aimed at accelerating the student’s progress to proficiency and widening understanding of cultural context. Prerequisite: Open only to students who have received an A in BCRS 108 or an A or B in BCRS 109, and who are admitted to the University Honors Program, or by permission of instructor. LEC.

**BCRS 208. Intermediate Bosnian/Croatian/Serbian II. 3 Hours. AE42 / U.**
A continuation of BCRS 204. Prerequisite: BCRS 204. LEC.

**BCRS 209. Intermediate Bosnian/Croatian/Serbian II, Honors. 3 Hours. AE42 / U.**
Similar to BCRS 208 but with additional work aimed at accelerating the student’s progress to proficiency and widening understanding of cultural context. Prerequisite: BCRS 204 or 205. Open only to students admitted to the University Honors Program, or by permission of instructor. LEC.

**BCRS 380. Intensive Croatian. 6 Hours. U.**
This program consists of a six-week intensive language course in intermediate and advanced Croatian phonetics, conversation, and grammar, and is offered each summer in Croatia. In addition to the practical language work, there is a program of lectures on modern Croatian history, literature, and other cultural topics. Various excursions and tours bring the students into first-hand contact with the people, natural beauty and culture of Croatia. This program is a cooperative effort between the University of Kansas and faculty of the University of Zadar. LEC.
BCRS 504. Advanced Bosnian/Croatian/Serbian I. 3 Hours. H/W. A practical Bosnian/Croatian/Serbian course involving the advanced study of the grammar, reading of texts on a variety of subjects, conversation and composition. Taught in Bosnian/Croatian/Serbian. Designed for students who have had two or more years of Bosnian/Croatian/Serbian language. Prerequisite: BCRS 208, or equivalent. LEC.

BCRS 508. Advanced Bosnian/Croatian/Serbian II. 3 Hours. H/W. A practical Bosnian/Croatian/Serbian course involving the advanced study of the grammar, reading of texts on a variety of subjects, conversation and composition. Taught in Bosnian/Croatian/Serbian. Designed for students who have had two and one-half or more years of Bosnian/Croatian/ Serbian language. Prerequisite: BCRS 504, or equivalent. LEC.

BCRS 675. Readings in Bosnian/Croatian/Serbian. 1-6 Hours. H/W. Individually tailored readings and independent work in Bosnian/Croatian/Serbian language and culture. Prerequisite: Two years of Bosnian/ Croatian/Serbian, and consent of instructor. IND.

CZCH 104. Elementary Czech I. 5 Hours. U. First semester. Essentials of grammar, practice in speaking and writing Czech. Simple readings from selected texts. LEC.

CZCH 108. Elementary Czech II. 5 Hours. U. Second semester. A continuation of CZCH 104. Prerequisite: CZCH 104. LEC.

CZCH 177. First Year Seminar: ______. 3 Hours. GE11 / U. A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Czech. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

CZCH 204. Intermediate Czech I. 3 Hours. U. Second-year course in the language with emphasis on reading, composition, and conversation. Prerequisite: CZCH 108. LEC.

CZCH 208. Intermediate Czech II. 3 Hours. U. A continuation of CZCH 204. Prerequisite: CZCH 204. LEC.

CZCH 675. Readings in Czech. 1-6 Hours. H/W. Prerequisite: Reading knowledge of Czech language, and consent of instructor. IND.

PLSH 104. Elementary Polish I. 5 Hours. U. First Semester. Essentials of grammar, practice in reading, writing, and speaking Polish. LEC.

PLSH 108. Elementary Polish II. 5 Hours. U. Second semester. A continuation of PLSH 104. Prerequisite: PLSH 104. LEC.

PLSH 177. First Year Seminar: ______. 3 Hours. GE11 / U. A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Polish. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

PLSH 204. Intermediate Polish I. 3 Hours. U. Second-year course in the language with emphasis on reading, composition, and conversation. Prerequisite: PLSH 108. LEC.

PLSH 208. Intermediate Polish II. 3 Hours. U. A continuation of PLSH 204. Prerequisite: PLSH 204. LEC.

PLSH 312. Polish Language and Civilization in Poland: Summer Program. 8 Hours. H/W. Polish grammar, conversation, and composition with select aspects of Polish civilization. Available only to participants in Polonicum, Warsaw University. LEC.

PLSH 504. Advanced Polish I. 3 Hours. H/W. A practical Polish language course involving advanced study of the grammar, reading of texts on a variety of subjects, conversation, and composition. Taught in Polish. Designed for students who have had two or more years of Polish language. Prerequisite: PLSH 208 or equivalent. LEC.

PLSH 508. Advanced Polish II. 3 Hours. H/W. A practical Polish language course involving advanced study of the grammar, reading of texts on a variety of subjects, conversation, and composition. Taught in Polish. Designed for students who have had two and one-half or more years of Polish. Prerequisite: PLSH 504 or equivalent. LEC.

PLSH 675. Readings in Polish Language and Literature. 1-6 Hours. H/W. Directed individual readings on various topics concerning Polish literature and/or language. Prerequisite: Two years or four semesters of Polish, and consent of instructor. IND.

RUSS 100. Russian Reading Course I. 3 Hours. U. A special reading course for candidates for advanced degrees, faculty members, and graduate or undergraduate students from other schools or departments, designed to aid them in obtaining a reading knowledge for purposes of research. An intensive study of the fundamentals of grammar proceeding to the reading of material of medium difficulty. The course does not satisfy any part of the undergraduate language requirement. Presupposes no previous study of Russian. LEC.

RUSS 101. Russian Reading Course II. 3 Hours. U. A continuation of RUSS 100. Completion and review of the fundamentals of grammar, with emphasis on reading and translation of learned, scientific, or technical writing and other material of an advanced nature. Each student will also have special assignments in his or her particular field. This course does not satisfy any part of the undergraduate language requirement. Prerequisite: RUSS 100. LEC.

RUSS 104. Elementary Russian I. 5 Hours. U. First semester. Five hours of basic language acquisition and two hours of oral practice per week. Essentials of grammar, practice in comprehending, speaking, and writing Russian. LEC.

RUSS 108. Elementary Russian II. 5 Hours. U. Second semester. Five hours of basic language acquisition and two hours of oral practice per week. A continuation of RUSS 104. Prerequisite: RUSS 104. LEC.

RUSS 110. Intensive Elementary Russian. 10 Hours. U. Intensive course in elementary Russian providing the student with a complete survey of Russian grammar, and proficiency in understanding, reading, and speaking basic Russian. Twenty contact hours per week. Same content as RUSS 104 and RUSS 108 combined. LEC.

RUSS 150. Beginning Russian I. 3 Hours. U. Fundamentals of Russian grammar, reading, speaking, and writing. Course designed to accommodate the needs of students regardless of age, educational background, or occupation. No previous knowledge of Russian or other foreign languages required. LEC.

RUSS 152. Beginning Russian II. 3 Hours. U. Continuation of RUSS 150. Does not fulfill BA foreign language requirement. Prerequisite: RUSS 150 or equivalent. LEC.
RUSS 177. First Year Seminar: ________. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Russian. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

RUSS 204. Intermediate Russian I. 6 Hours. U.
This course is designed to develop speaking, reading, and listening proficiency within the context of detailed grammatical review. The course meets five days a week for six hours credit. It is especially recommended for potential majors in Russian, for area-studies students, and for students intending to apply for study abroad in Russia. Prerequisite: RUSS 108, RUSS 110, or equivalent. LEC.

RUSS 208. Intermediate Russian II. 6 Hours. U.
Continuation of RUSS 204. Completes the undergraduate foreign language requirement. The course is designed to develop speaking, reading, and listening proficiency within the context of detailed grammatical review. It is especially recommended for potential majors in Russian, for area-studies students, and for students intending to apply for study abroad in Russia. Students who have completed only RUSS 212 may enroll with the permission of the instructor. Prerequisite: RUSS 204 or equivalent. LEC.

RUSS 212. Second Year Russian I. 3 Hours. U.
A review of Russian and further development of all four language skills. This course is intended for non-specialists and for students fulfilling the language requirement. Prerequisite: RUSS 108 or RUSS 110. LEC.

RUSS 216. Second Year Russian II. 3 Hours. U.
Continuation of RUSS 212. More focused development of students’ oral skills and reading abilities. This course fulfills the college foreign language requirement. Prerequisite: RUSS 204 or RUSS 212. LEC.

RUSS 250. Continuing Russian I. 3 Hours. U.
Fundamentals of Russian grammar, reading, speaking, and writing. Course designed to accommodate the needs of students regardless of age, educational background, or occupation. Does not count towards the fulfillment of the undergraduate language requirement. Does not count towards the undergraduate major in Slavic. Prerequisite: RUSS 152 or equivalent. LEC.

RUSS 252. Continuing Russian II. 3 Hours. U.
A continuation of RUSS 250. Does not count towards the fulfillment of the undergraduate language requirement. Does not count towards the undergraduate major in Slavic. Prerequisite: RUSS 250 or equivalent. LEC.

RUSS 504. Advanced Russian I. 3 Hours. H/W.
A practical Russian language course involving advanced study of the grammar, reading of texts on a variety of subjects, conversation, and composition. Taught in Russian. Designed for students who have had four semesters of Russian. Prerequisite: RUSS 208 or RUSS 216. LEC.

RUSS 508. Advanced Russian II. 3 Hours. H/W.
A practical Russian language course involving advanced study of the grammar, reading of texts on a variety of subjects, conversation, and composition. Taught in Russian. Designed for students who have had two and one-half or more years of Russian language. Prerequisite: RUSS 504. LEC.

RUSS 512. Russian for the Professions I. 3 Hours. U.
This course focuses on the active mastery of language structures and vocabulary needed for people using Russian in professional capacities, particularly such as business and journalism. Materials will be drawn from the current Russian press and electronic media. Designed for students who have had basic language training and want to develop specialized language skills. Prerequisite: RUSS 208 or RUSS 216. LEC.

RUSS 516. Russian for the Professions II. 3 Hours. U.
A continuation of RUSS 512. Prerequisite: RUSS 504, RUSS 512, or RUSS 522. LEC.

RUSS 522. Problems in Translating Russian into English I. 3 Hours. H/W.
Preparation of hitherto untranslated works, possibly with the intention of submitting for publication. Training and practice in the skills of oral interpretation. Prerequisite: Two years minimum of Russian language courses. LEC.

RUSS 526. Problems in Translating Russian into English II. 3 Hours. H/W.
A continuation of RUSS 522. LEC.

RUSS 550. Advanced Conversation, Composition, and Grammar in Russia: Summer Program. 6 Hours. H/W.
Held in Russia. Twenty-four hours of class work weekly, plus lectures and excursions, for six weeks at St. Petersburg University. Prerequisite: RUSS 208 or the equivalent of twenty-two hours of Russian language courses. LEC.

RUSS 552. Advanced Russian Language at Saint Petersburg University: Semester Program. 14 Hours. H/W.
Sixteen weeks of intensive Russian language and literature classes held at Saint Petersburg University, Russia. Classes in advanced phonetics, conversation, and grammar as well as lectures on literary and other cultural topics. Prerequisite: Minimum of five semesters of Russian language study at the college level or its equivalent. LEC.

RUSS 600. Classics of Russian Culture. 3 Hours. H.
This advanced Russian language class explores the monuments of Russian culture (1700-1980) in the context of the country’s history, customs, artistic traditions and literary trends. It is designed to develop reading, writing, and speaking skills of advanced language students and includes the preparation of written and oral reports in Russian. Discussion format; conducted entirely in Russian. Prerequisite: RUSS 508 or equivalent. LEC.

RUSS 604. Contemporary Russian Culture. 3 Hours. H/W.
This advanced Russian language class explores issues in contemporary Russian culture (literature and the arts, societal trends and issues, politics, and national life) based on Russian film, television, and print materials. It is designed to develop reading, writing, and speaking skills of advanced language students who wish to develop high levels of fluency, accuracy, and idiomatic expressiveness. Includes the preparation of both written and oral reports. Discussion format; conducted entirely in Russian. Prerequisite: RUSS 508 or equivalent. LEC.

RUSS 608. Russian Phonetics and Grammar. 3 Hours. H/W.
A survey of fundamental issues in Russian phonetics, morphology, and syntax. The course will develop reading, writing, and speaking skills necessary for discussing and analyzing the major linguistic categories of Russian. Includes the preparation of both written and oral reports. Discussion format; conducted entirely in Russian. Prerequisite: RUSS 508 or equivalent. LEC.

RUSS 612. Introduction to Russian Literature. 3 Hours. H/W.
Readings for this advanced Russian language class will be drawn from representative prose, poetry, and drama of 19th or 20th century authors. The course will develop reading, writing, and speaking skills necessary for discussing and analyzing the major texts and literary trends of the Russian tradition. Includes the preparation of both written and oral reports.
SLAV 104. Elementary Slavic Language I: ______. 5 Hours. U.
First semester. Essentials of grammar, practice in speaking and writing a Slavic language. Simple readings from selected texts. Course may be used to teach the fundamentals of any Slavic language, for example, Slovenian, Macedonian, Slovak, etc. LEC.

SLAV 108. Elementary Slavic Language II: ______. 5 Hours. U.
Second semester. Essentials of grammar, practice in speaking and writing a Slavic language. A continuation of SLAV 104 in those languages whose fundamentals were being taught in SLAV 104. Prerequisite: SLAV 104 or equivalent (in same language). LEC.

SLAV 140. Introduction to Russian Culture. 3 Hours. HT AE42/GE3H / H/W.
An introduction to the principal achievements of Russian cultural history, with particular emphasis on literature, folklore, spirituality, and the visual arts. LEC.

SLAV 141. Introduction to Russian Culture, Honors. 3 Hours. HT AE42/GE3H / H/W.
An introduction to the principal achievements of Russian cultural history, with particular emphasis on literature, folklore, spirituality, and the visual arts. LEC.

SLAV 144. Survey of Russian Literature in Translation. 3 Hours. HL AE42/GE3H / H/W.
A survey of the principal works of Russian literature including such authors as Pushkin, Gogol, Dostoevsky, Tolstoy, Chekhov, Pasternak, Solzhenitsyn, and others. LEC.

SLAV 145. Survey of Russian Literature in Translation, Honors. 3 Hours. HL AE42/GE3H / H/W.
A survey of the principal works of Russian literature including such authors as Pushkin, Gogol, Dostoevsky, Tolstoy, Chekhov, Pasternak, Solzhenitsyn, and others. LEC.

SLAV 148. Introduction to Slavic Folklore. 3 Hours. HL AE42/GE3H / H/W.
An introduction to the various forms of folklore among the Slavic peoples, with particular emphasis on the folk literature, customs, and artifacts of Russia, Poland, and the South Slavic countries. LEC.

SLAV 149. Introduction to Slavic Folklore, Honors. 3 Hours. HL AE42/GE3H / H/W.
An introduction to the various forms of folklore among the Slavic peoples, with particular emphasis on the folk literature, customs, and artifacts of Russia, Poland, and the South Slavic countries. LEC.

SLAV 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Slavic. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

SLAV 204. Intermediate Slavic Language I: ______. 3 Hours. U.
Second-year level course in a Slavic language, for example, Slovenian, Macedonian, Slovak, with emphasis on reading, composition, and conversation. Prerequisite: SLAV 108 (in same language). LEC.

SLAV 208. Intermediate Slavic Language II: ______. 3 Hours. U.
Second-year level course in a Slavic language, for example, Slovenian, Macedonian, Slovak, with emphasis on reading, composition, and conversation. Prerequisite: SLAV 204 or equivalent (in same language). LEC.

SLAV 316. The Peoples and Cultures of Southeastern Europe Through Film. 3 Hours. HL AE42/GE3H / H.
This course presents an introduction to the study of the culture of the South Slavs and other peoples of Southeastern Europe, combining background modules in geography, linguistic culture, history, folklore and contemporary cultural criticism with critical viewings of artistic films. The course serves as an introduction to humanistic inquiry about the peoples and cultures of Southeastern Europe. LEC.

SLAV 317. The Peoples and Cultures of Southeastern Europe Through Film, Honors. 3 Hours. HL AE42/GE3H / H.
This course is similar in content to SLAV 316, but with an additional honors project. Prerequisite: Eligibility for or admission to the university Honors Program. LEC.

SLAV 318. Jews and Slavs in Eastern Europe. 3 Hours. H.
Jews and Slavs have shared territory from the Middle Ages to the present day. The contact between these culturally and linguistically distinct groups have shaped many centuries of Eastern European history - from the extreme violence of the pogroms to long periods of peaceful coexistence and cooperation. "Jews and Slavs" examines the history and cultural geography of Slavic-Jewish contact from the perspectives of both groups. Through literature, film, journalism, and folklore, students learn about the profound influence Jews and Slavs have had on each other, the uneasy feelings that accompanied their interactions, and the creative and fascinating impact their interaction had on both cultures. (Same as JWSH 318.) LEC.

SLAV 340. Introduction to the Languages and Peoples of Russia and East-Central Europe. 3 Hours. HT AE42/GE3H / H.
An overview of the languages and peoples of Russia and East-Central Europe, including the Slavic and Baltic languages, Romanian, and Albanian. Topics addressed include language prehistory, writing systems, and the relationship between language and national identity. Emphasis on language issues as a background to current events in order to impart an appreciation of the area, its uniqueness and complexity. LEC.

SLAV 341. Introduction to the Languages and Peoples of Russia and East-Central Europe, Honors. 3 Hours. HT AE42/GE3H / H.
An overview of the languages and peoples of Russia and East-Central Europe, including the Slavic and Baltic languages, Romanian, and Albanian. Topics addressed include language prehistory, writing systems, and the relationship between language and national identity. Emphasis on language issues as a background to current events in order to impart an appreciation of the area, its uniqueness and complexity. Prerequisite: Membership in the College Honors Program or consent of instructor. LEC.

SLAV 370. War and Violence Russian Literature and Film. 3 Hours. S.
This course focuses on artistic representations of violence resulting from historical events such as World War II, Soviet collectivization, the Gulag, and political purges. We consider Soviet literature and film, including works by Isaac Babel, Andrei Platonov, Anna Akhmatova, and Alexander Solzhenitsyn. Readings in English. The course is offered at the 300 and 500 levels, with additional assignments at the 500 level. LEC.
SLAV 390. Slavic Folk Culture: ______. 3 Hours. H/W.
A broad exposure, both theoretical and practical, to various aspects of the traditional native culture of a particular Slavic country or ethnic group, including folk dance, song and musicianship, as well as forms of the material culture such as folk architecture, costumes and art in everyday life. Taught in the pertinent Slavic country in conjunction with the appropriate language course. LEC.

SLAV 499. Honors Thesis. 3 Hours. H/W.
Independent study and preparation of honors thesis. Required of all students working for a degree with honors in Slavic languages and literatures. IND.

SLAV 500. Russia Today. 3 Hours. H/W.
Study and discussion of contemporary problems in Russia and the former Soviet Union; readings in Russian, based on articles in newspapers, journals, etc. Conducted in Russian. Prerequisite: RUSS 208 or equivalent. LEC.

SLAV 502. Introduction to Russian Culture and Society: ______. 3 Hours. H/W.
An interdisciplinary course introducing the student to the principal features of Russian cultural and societal development in the modern era. Readings in English, no prerequisite for non-Russian majors. Majors and graduate students in Slavic languages and literatures will be required to do readings in Russian. LEC.

SLAV 503. Post-Soviet Communication. 3 Hours. H.
The course is designed to acquaint students with the shifting manner of public discourse in Post-Soviet Russia and help them to explore in some depth cross-cultural communication between America and Russia. In addition to contemporary and historical background on Russian communicative practices, students examine discourse in business development, mass media, marketing, and advertising. All readings in English. (Same as COMS 503). LEC.

SLAV 504. Introduction to East-Central European Culture and Society: ______. 3 Hours. H/W.
An interdisciplinary course introducing the student to the principal features of East-Central European cultural and societal development in the modern era. Countries that may be considered are: Poland, the Czech Republic, Slovakia, Hungary, Romania, Bulgaria, the South Slavic countries, Latvia, Lithuania, Estonia, Belorussia, and Ukraine. LEC.

SLAV 505. Introduction to Czech Culture. 3 Hours. H.
This study-abroad trip offers a survey of Czech art, architecture, literature, theater, and film from the medieval period to the present with emphasis on the late 19th and 20th centuries. Combines 18 hours of lectures on campus and a ten-day trip to Prague. LEC.

SLAV 506. West Slavic Literature and Civilization (Polish and Czech). 3 Hours. H/W.
A survey of West Slavic Literature and Civilization (Polish and Czech) from its beginnings to the present with emphasis on the most important trends: Renaissance, Romanticism, Positivism/Realism, Modernism and Avant-guard; Socialist realism, and Post-modernism. The course combines lecture, discussion and small group activities. Movie clips, recordings, and slides are used to reflect various cultural dimensions of West Slavic Civilization. No knowledge of Polish or Czech is required. LEC.

SLAV 508. South Slavic Literature and Civilization. 3 Hours. NW AE42 / H/W.
An introductory survey of the literature and culture of the South Slavic peoples: the Slovenes, Croats, Bosniacs, Serbs, Montenegrins, Macedonians and Bulgarians. No language required. LEC.

SLAV 510. The Russian Literary Genius. 3 Hours. H/W.
Topics and problems in Russian cultural history as treated in the masterworks of Russian literature. Readings selected from the works of Pushkin, Tolstoy, Dostoevsky, Pasternak, Bulgakov, Solzhenitsyn, and other great Russian writers. Readings in English, no prerequisite for non-Russian majors. Russian majors will do some of the readings in Russian. LEC.

SLAV 514. Totalitarianism and Literature in Central Europe. 3 Hours. H.
This course asks how fiction written in Central Europe engaged and grappled with the totalitarian experience imposed by Nazi and Soviet forms of government. The course focuses on the works by 20th-century Polish, Czech, and Hungarian writers that deal with totalitarianism. (Same as HWC 514.) LEC.

SLAV 516. Film Adaptations of Polish and Czech Literature. 3 Hours.
A comparative study of several most representative and best works of 19th- and 20th-century Polish and Czech fiction and drama and their film adaptations. By providing a broad cultural and historical background of the works, the course offers a thorough introduction to modern culture of Poland and the Czech Republic. Readings and discussions are in English, and no knowledge of Polish or Czech is required. LEC.

SLAV 520. Russian Phonetics, Phonology, and Inflectional Morphology. 3 Hours. H/W.
An analysis of the phonological and morphological systems of contemporary standard Russian, including normative and dialectal pronunciation of speech sounds, phonemics, morphophonemic alterations, and nominal and verbal inflections. Graduate students enrolled in this course will be held to a more stringent curriculum and grading system. Prerequisite: Two years of Russian language study or the equivalent. LEC.

SLAV 522. The Grammatical Categories of Russian: Linguistic Units, Functions and Meanings. 3 Hours. H/W.
This course covers the main grammatical categories of Russian, including word formation, case, animacy, voice and reflexive verbs, imperatives, aspect, and word order. It is intended not only for linguists but anyone seeking a better understanding of the grammatical systems of Russian. Designed as a continuation of SLAV 520. Prerequisite: Two years of Russian language study or the equivalent. LEC.

SLAV 524. Russian Since the Revolution. 3 Hours. H/W.
An examination of changes in the Russian language during the course of this century. Topics covered include changes in pronunciation, morphological and syntactic variation, and the impact of foreign borrowings, particularly from English. Graduate students enrolled in this course will be held to a more stringent curriculum and grading system. Prerequisite: Two years of Russian language study or the equivalent. LEC.

SLAV 528. Comparative Study of Slavic Literatures. 3 Hours. H/W.
The course is intended as an introduction to the most significant writers and works in Slavic literatures. The emphasis will be on some of the themes and ideological concepts that have shaped the literatures of the Slavic world. Representative works of Turgenev, Dostoevsky, Mrozek, Rozewicz, Capek, Hasek, Djilas, Havel, Ivo Andric and others, will be studied. The diversity of expression and, at the same time, homogeneity of spirit in the works of these writers will be stressed. No knowledge of Slavic languages is required. LEC.

SLAV 530. Introduction to Russian Poetry. 3 Hours. H/W.
An introduction to the principles of Russian versification and to masterpieces of Russian poetry selected from the 18th, 19th, and 20th centuries. Students will learn to read, translate, and analyze poems in
terms of rhyme, meter, euphony, metaphor, and other prosodic features. Emphasis will be placed upon preparing students for independent study and appreciation of Russian poetry in the original. Prerequisite: Language proficiency. LEC.

SLAV 532. Dostoevsky. 3 Hours. H/W.
A study of the life and works of Fyodor Dostoevsky. In translation. No prerequisite. LEC.

SLAV 534. Tolstoy. 3 Hours. H/W.
A study of the life and works of Leo Tolstoy. In translation. LEC.

SLAV 536. Turgenev. 3 Hours. H/W.
A study of the life and works of Ivan Turgenev. In translation; however, note that Russian majors will be required to read selected works in Russian. LEC.

SLAV 538. The Modern Polish Short Story. 3 Hours. H/W.
A study of the development of the Polish short story from Positivism to the present. Readings of major Polish writers including Prus, Sienkiewicz, Schulz, Borowski, Andrzejewski, and others. Emphasis on trends in the Polish short story within the context of West European literatures. No prerequisites. Readings in English. Students with knowledge of Polish will read some works in Polish. LEC.

SLAV 540. Language and Identity in East-Central Europe and the Former Soviet Union. 3 Hours. H.
The course treats the formation of modern nation states as defined by language, where the history of the linguistic community played a central, if mythic role. Focus is on sociolinguistic case studies of the connection between language and identity in the former USSR and Yugoslavia, as well as transnational groups defined by common language and culture. The impact of global English, EU membership, and migration on language and identity issues are also discussed. LEC.

SLAV 558. Readings in Slovene. 1-6 Hours. H.
Individually tailored coursework in Slovene, from beginning to advanced level. Can include development of all four skills depending on the needs of the student. Prerequisite: Consent of instructor. IND.

SLAV 560. Introduction to Slavic Language: _____. 3 Hours. H/W.
Basic introduction to the language, with emphasis on grammar and reading skills. Prerequisite: Two years of a different Slavic language at the college level. LEC.

SLAV 561. Readings in Slavic Language: _____. 1-6 Hours. H/W.
A course of readings and discussion of grammar in a Slavic language as a continuation of SLAV 560, for example, in Bulgarian, Macedonian, etc. Prerequisite: SLAV 560 or the equivalent. LEC.

SLAV 562. Russian Theatre and Drama from Stanislavski and Chekhov to the Present. 3 Hours. H/W.
A study of the development of Russian theatre and dramatic literature from 1898 to the present. Lectures and readings in English. (Same as THR 725.) LEC.

SLAV 564. The "Woman Question" in Nineteenth-Century Russian Literature. 3 Hours. H.
An exploration of the "woman question" in nineteenth-century Russia as treated in literary texts. Authors to be included are: Tolstoy, Turgenev, Dostoevsky, Chekhov, as well as women writers such as Karolina Pavlova and Evgenia Tur, and prominent literary and social critics. Readings in English. LEC.

SLAV 566. The Devil in Russian Literature. 3 Hours. H.
This course traces the various manifestations of the Devil through Russian and European folklore, myth, theology, culture, and literature. Although the focus is on Russian literature, classic European works are discussed, as they had a powerful impact on the modern Russian Conception of the Evil One. Readings in English. (Same as HWC 566.) LEC.

SLAV 568. Biblical Themes in Modern Russian Literature. 3 Hours. H.
An exploration of the creative process of modern Russian literature (1700 to present) through the ways in which Russian writers have responded to the Bible, the cornerstone of both Western and Eastern Christianity. LEC.

SLAV 570. War and Violence Russian Literature and Film. 3 Hours. S.
This course focuses on artistic representations of violence resulting from historical events such as World War II, Soviet collectivization, the Gulag, and political purges. We consider Soviet literature and film, including works by Isaac Babel, Andrei Platonov, Anna Akhmatova, and Alexander Solzhenitsyn. Readings in English. The course is offered at the 300 and 500 levels, with additional assignments at the 500 level. LEC.

SLAV 600. Biography of a City: ____. 3 Hours. H/W.
Examination in depth of the historical, social, intellectual, and artistic development of one or more major Slavic urban centers. LEC.

SLAV 612. Introduction to Russian Literature of the Nineteenth Century. 3 Hours. H/W.
Pushkin, Dostoevsky, Tolstoy, and others with an introduction to Russian culture. Lectures and readings in Russian. Prerequisite: Three years of Russian language study or its equivalent. LEC.

SLAV 614. Russian Literature in Translation: _____. 3 Hours. H/W.
A survey of the principal Russian authors and literary works of the 19th and/or 20th century. Readings in English, no prerequisites for non-Russian majors. Students with a sound knowledge of Russian will be expected to do some of the readings in Russian. LEC.

SLAV 616. Introduction to Russian Literature of the Twentieth Century. 3 Hours. H/W.
A survey of recent Russian and Soviet literature. Lectures and readings in Russian. Prerequisite: Three years of Russian language study or its equivalent. LEC.

SLAV 626. The Cultural Impact of Ottoman Empire on the South Slavs. 3 Hours. H.
An examination of the cultural development of the South Slavs in the context of the Ottoman invasions and subsequent rule (14th-19th century), focusing on the frontier aspects of the Balkans, military culture, religion, economics and banditry, as well as other aspects of material and folk culture. No language requirement. Prerequisite: SLAV 316 or SLAV 508; or consent of instructor. LEC.

SLAV 630. Slavic Folklore. 3 Hours. H/W.
Introduction to the phenomena and problems of Slavic folklore. Prerequisite: Two years of Russian on the college level. LEC.

SLAV 635. Language, Culture and Ethnicity in Prehistoric Eastern Europe. 3 Hours. S.
The course is for students who wish to understand the prehistory of Eastern Europe with special attention to the Slavs. The interdisciplinary course examines East European prehistory from the perspectives of archaeology and linguistics, considering also how ideologies have influenced the interpretation of results. No language prerequisite. (Same as ANTH 696.) LEC.

SLAV 642. Pushkin and Evgenij Onegin. 3 Hours. H/W.
Lectures, reading, and analysis of Pushkin’s “novel in verse.” Prerequisite: Three years of Russian language courses or the equivalent. LEC.

SLAV 650. The Russian Short Story. 3 Hours. H/W.
Readings from the short stories of major Russian writers of the 19th and/or 20th centuries, e.g., Pushkin, Gogol, Dostoevsky, Turgenev, Tolstoy, Chekhov; readings and discussion in English for non-Russian majors, Russian majors will be expected to read most stories in Russian.
Prerequisite: None for non-majors in the department; two years of college-level Russian for majors. LEC.

SLAV 656. Russian Literature of the Eighteenth Century. 3 Hours. H/W.
Readings from Kantemir, Trediakovsky, Lomonosov, Derzhavin, Karamzin, and others in their literary and intellectual contexts. Readings in Russian. Prerequisite: Three years of Russian language study or its equivalent. LEC.

SLAV 660. Nineteenth Century Russian Prose and Fiction. 3 Hours. H/W.
Readings from the prose works of Pushkin, Lermontov, Gogol, Turgenev, Goncharov, Dostoevsky, and Tolstoy. In translation. No prerequisite for non-Russian majors. Russian majors will be required to have achieved senior standing and will read most works in Russian. LEC.

SLAV 662. Russian Literary Modernism: 1880-1930. 3 Hours. H/W.
Readings from late Tolstoy through the period of the 1920's. In translation; no prerequisites for non-Russian majors. Russian majors will be required to have achieved senior standing and will read most works in Russian. LEC.

SLAV 664. Soviet Russian Literature: 1930-1990. 3 Hours. H/W.
Readings in the period, in all genres. In translation; no prerequisite for non-Russian majors. Russian majors are required to have senior standing and read most works in Russian. LEC.

SLAV 667. Post-Soviet Literature. 3 Hours. H.
A survey of post-Soviet literary art, from approximately 1985 to the present, dealing with a range of subjects including the emergence of literature from the strictures of socialist realism and its relationship to concepts of postmodernism and postcolonialism. LEC.

SLAV 668. Nabokov. 3 Hours. H/W.
A study of the life and works of Vladimir Nabokov. In translation. No prerequisite. LEC.

SLAV 675. Readings in Slavic Studies (English). 1-3 Hours. H.
Directed readings on Slavic culture in English. For non-majors. Prerequisite: Instructor permission. LEC.

SLAV 676. Readings in Slavic Linguistics. 1-6 Hours. H/W.
Directed individual readings on various topics concerning Slavic linguistics. Prerequisite: Proficiency in at least one Slavic language, and consent of instructor. IND.

SLAV 679. Topics in: ____. 1-6 Hours. H.
Intensive study of a selected topic from Slavic languages, literatures, linguistics, or pedagogy. IND.

SLAV 684. Main Currents of Russian Thought I. 3 Hours. H/W.
A study of philosophical, theological, and literary monuments designed to acquaint the student with main cultural forces that have shaped Russian thought and manners. From the origins to Peter the Great. (Same as PHIL 684.) LEC.

SLAV 686. Main Currents of Russian Thought II. 3 Hours. H/W.
A continuation of SLAV 684. From the age of Peter the Great to revolutions of 1917. (Same as PHIL 686.) LEC.

SLAV 710. Introduction to Slavic Languages and Linguistics. 3 Hours.
The Slavic languages and peoples, including briefly: their origin, prehistory, and early culture. Basic linguistic methodology as applied to Slavic material from the beginnings of Slavic linguistics to the present. LEC.

SLAV 711. Russian Poetry: Nineteenth Century. 3 Hours.
Readings from the works of the major poets, in Russian. Prerequisite: Three years of Russian language study or the equivalent. LEC.

SLAV 712. Russian Poetry: Twentieth Century. 3 Hours.
Readings from the works of the major poets, in Russian. Prerequisite: Language proficiency. LEC.

SLAV 714. Russian Theatre and Drama to 1900. 3 Hours.
A study of the development of Russian theatre and dramatic literature from their beginnings to 1900. Readings in English. Students with knowledge of Russian will read some works in Russian. LEC.

SLAV 715. Russian Drama and Theatre 1953 to the Present. 3 Hours.
A study of the development of Russian theatre and dramatic literature from 1953 to the present. Readings in English. Students with knowledge of Russian will read some works in Russian. LEC.

SLAV 716. History of Russian Literary Criticism: Late Eighteenth and Nineteenth Century. 3 Hours.
A study of the various literary periods, such as sentimentalism, romanticism, naturalism, realism, with particular reference to individual literary critics and critical journals. LEC.

SLAV 719. Philosophical and Aesthetic Thought of the Russian Silver Age. 3 Hours.
A survey of the works of Solovyov, Florensky, Berdyaev, Merezhkovsky, Ivanov, and others, and their relation to the literature and culture of the Silver Age. LEC.

SLAV 721. Pushkin. 3 Hours.
A study of the life and works of Alexander Pushkin. Readings in Russian, open to senior Russian majors and graduate students. Prerequisite: Three years of Russian or the equivalent. LEC.

SLAV 726. Chekhov. 3 Hours.
A study of the life and works of Anton Chekhov. Open to senior Russian majors and graduate students. Readings in Russian. Prerequisite: Three years of Russian or the equivalent. LEC.

SLAV 727. Bely and Blok. 3 Hours.
A study of the life and works of the Symbolist writers, Andrei Bely and Aleksandr Blok. Readings in Russian. LEC.

SLAV 728. 19th Century Russian Prose. 3 Hours.
Readings from the works of Turgenev, Chekhov, Leskov, Saltykov, and others. Readings and discussion in English. Russian majors will be expected to read some works in Russian. No prerequisite. LEC.

SLAV 730. Russian Emigre Literature. 3 Hours.
A study of representative works in all genres, by Russian emigre writers. Readings in English. LEC.

SLAV 740. Introduction to Graduate Studies in Slavic Languages and Literatures. 3 Hours.
This course is an introduction to the skills required of students doing graduate degrees in Slavic languages and literatures; areas covered include 1) introduction to literary theory and criticism, 2) bibliography and research methods, including database management software, 3) preparation and presentations of a research/conference paper, 4) technology training, including web design, on-line portfolio, and digital humanities, and 5) professional ethics and awareness of the academic market and alternative careers. We will also be working on practical, professionally useful goals, such as how to (better) make use of technology, how to create a CV and modify it for different positions, how to write an abstract, and how to produce a conference paper. Course requirements will include a variety of smaller assignments and two larger projects, a web-based professional portfolio and an 8 to 10-page conference paper. LEC.
SLAV 748. Old Church Slavic. 3 Hours.
A course in the first written language of the Slavs (9-12th centuries AD), with discussion of Indo-European, Baltic and Common Slavic background. Prerequisite: Two years of Russian or the study of another ancient Indo-European language. LEC.

SLAV 750. Introduction to Russian Historical Grammar. 3 Hours.
The linguistic history of Russian from the emergence of East Slavic dialects of Common Slavic to the modern period, with emphasis on fundamental structural changes and the introduction of skills necessary for the reading and analysis of Old and Middle Russian texts. Prerequisite: Three years of Russian or the equivalent. LEC.

SLAV 752. Old Russian Grammar and Texts. 3 Hours.
An examination of the Russian language from its beginnings to the 17th century through close reading of Old and Middle Russian texts and reading and discussion of the literature on issues in Russian historical linguistics. Prerequisite: SLAV 748, SLAV 750, or equivalent. LEC.

SLAV 756. Structure of Russian: ____. 3 Hours.
Synchronic study of the contemporary Russian language with special emphasis on problems of functional morphology and syntax. Prerequisite: Three years of Russian language study or its equivalent. LEC.

SLAV 799. M.A. Seminar in Slavic Linguistics. 3 Hours.
Topics in Slavic linguistics. Content will vary. May be repeated. LEC.

SLAV 802. Thesis. 1-6 Hours.

THE.

SLAV 804. Comparative Slavic Linguistics. 3 Hours.
An examination of the development of the Slavic languages from the Common Slavic period to the present, proceeding from Indo-European. Prerequisite: Graduate standing in Russian. LEC.

SLAV 806. East Slavic Linguistics. 3 Hours.
An examination of the linguistic phenomena and historical development of the East Slavic languages (Russian, Belorussian, and Ukrainian). Prerequisite: Graduate standing in Russian. LEC.

SLAV 808. West Slavic Linguistics. 3 Hours.
An examination of linguistic phenomena and historical development of the West Slavic languages (Polish, Czech, Slovak, and Upper and Lower Sorbian). LEC.

SLAV 810. South Slavic Linguistics. 3 Hours.
An examination of linguistic phenomena and historical development of Bulgarian, Macedonian, Croatian-Serbian, Slovene. LEC.

SLAV 820. Old Russian Literature: Beginnings to 1700. 3 Hours.
Readings of selected texts in Russian. Prerequisite: SLAV 752. LEC.

SLAV 822. Seminar in Russian Literature: Eighteenth Century. 3 Hours.
An investigation of specific themes or authors in the literature, culture, and thought of the 18th century. All readings in Russian. Prerequisite: Graduate standing and advanced Russian language. SEM.

SLAV 824. Proseminar in Methods of Teaching Slavic Languages I. 1-3 Hours.
Required for all teaching assistants, assistant instructors engaged in the teaching of Slavic languages and persons planning for careers in teaching Slavic languages. Combines discussion of theoretical teaching concepts with practical solution of problems arising concurrently in Slavic language courses. Students enrolled for two or three hours will study advanced Slavic grammar topics and stylistics as they apply to the teaching of Slavic languages. LEC.

SLAV 825. Investigation and Conference. 1-3 Hours.
Individual work in language or literature of the teaching of Slavic languages by qualified students under direction of members of the department. RSH.

SLAV 826. Proseminar in Methods of Teaching Slavic Languages II. 1-3 Hours.
Required for all teaching assistants, assistant instructors engaged in the teaching of Slavic languages and persons planning for careers in teaching Slavic languages. Combines discussion of theoretical teaching concepts with practical solution of problems arising currently in Slavic language courses. Students enrolled for two or three hours will study advanced Slavic grammar topics and stylistics as they apply to the teaching of Slavic languages. LEC.

SLAV 850. Seminar in Russian Literature: Nineteenth Century: ____. 3 Hours.
A regular seminar for graduate students, devoted to special problems in Russian literature. (Ancient Russian literature, Classicism, Romanticism, Realism, Symbolism, etc.) Designed to introduce the student to the more advanced methods in criticism, literary analysis, and research. Prerequisite: Graduate standing in Slavic Languages and Literatures, or permission of instructor. LEC.

SLAV 852. Seminar in Russian Literature: Twentieth Century. 3 Hours.
Various topics including pre- and post-Revolutionary poetry, the prose of the 1920s, the development of Socialist Realism, individual authors, etc. LEC.

SLAV 899. Ph.D. Seminar Slavic Linguistics. 3 Hours.
Topics in Slavic linguistics. Content will vary. May be repeated. Prerequisite: Ph.D. student in Slavic Languages and Literatures. LEC.

SLAV 912. Seminar: Topics in Contemporary Slavic Linguistics. 3 Hours.
Synchronic examination of specific topics, i.e., phonology, morphology, syntax, and lexicology of several Slavic languages. LEC.

SLAV 914. Seminar: Topics in Historical Slavic Linguistics. 3 Hours.
Diachronic examination of selected topics, i.e., phonology, morphology, syntax, or lexicology, of one or more Slavic languages. LEC.

SLAV 917. Seminar in Russian Culture and Society. 3 Hours.
Examination of selected topics in Russian cultural history, especially as treated in the works of Russian literature and intellectual history. Prerequisite: At least one course in Russian history, or one of the following courses--SLAV 502, SLAV 510, SLAV 684, SLAV 686, plus graduate standing. LEC.

SLAV 932. Seminar: Topics in Slavic Folklore. 3 Hours.
Investigation and concentrated study of one or more themes (e.g., mythology, demonology, life rituals, folklore and literature), figures (e.g., Baba Yaga), or genres (e.g., magic tales, byliny, riddles) of Slavic folklore. All readings in Russian. Prerequisite: SLAV 630. SEM.

SLAV 940. Seminar: Topics in Comparative Slavic Literature. 3 Hours.
Prerequisite: Graduate standing in Comparative Slavic Literature. LEC.

SLAV 999. Dissertation. 1-6 Hours.

THE.

TURK 104. Elementary Turkish I. 5 Hours.
Basic language acquisition, including essentials of grammar, speaking, and writing standard (Osmanli) Turkish. LEC.
TURK 108. Elementary Turkish II. 5 Hours. U.
Continuation of TURK 104. Prerequisite: TURK 104. LEC.

TURK 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Turkish. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

TURK 204. Intermediate Turkish I. 3 Hours. U.
Second-year course in Turkish language with emphasis on reading, composition, and conversation. Prerequisite: TURK 108. LEC.

TURK 208. Intermediate Turkish II. 3 Hours. U.
Second semester. Continuation of TURK 204. Prerequisite: TURK 204. LEC.

TURK 314. Turkish Culture Through Film and Literature. 3 Hours. H.
This course introduces the student to Turkish culture, with a focus on the 20th and 21st centuries, mainly through films and literature. Among the topics are Turkey’s geography, politics, history, religion, feminism, poetry, music and cuisine. This interdisciplinary course does not require any previous knowledge of Turkey or the Turkish Language; it is open to both undergraduate and graduate students. Representative works of major authors and film directors will be discussed and analyzed in their historical, political and theoretical contexts. The course is offered at the 300 and 500 levels, with additional assignments at the 500-level. LEC.

TURK 514. Turkish Culture Through Film and Literature. 3 Hours. H.
This course introduces the student to Turkish culture, with a focus on the 20th and 21st centuries, mainly through films and literature. Among the topics are Turkey’s geography, politics, history, religion, feminism, poetry, music and cuisine. This interdisciplinary course does not require any previous knowledge of Turkey or the Turkish Language; it is open to both undergraduate and graduate students. Representative works of major authors and film directors will be discussed and analyzed in their historical, political and theoretical contexts. The course is offered at the 300 and 500 levels, with additional assignments at the 500-level. LEC.

TURK 675. Readings in Turkish: ______. 3 Hours. U.
Prerequisite: Two years of college-level Turkish and consent of instructor. May be repeated for credit if content varies. IND.

UKRA 104. Elementary Ukrainian I. 5 Hours. U.
First semester. Five hours per week of recitation and drill in the spoken language. Essentials of grammar, practice reading, writing and speaking Ukrainian. LEC.

UKRA 108. Elementary Ukrainian II. 5 Hours. U.
Second semester. Continuation of UKRA 104. Prerequisite: UKRA 104. LEC.

UKRA 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Ukrainian. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

UKRA 204. Intermediate Ukrainian I. 3 Hours. U.
Second year course in Ukrainian language with emphasis on reading, composition, and conversation. Prerequisite: UKRA 108. LEC.

UKRA 208. Intermediate Ukrainian II. 3 Hours. U.
Second semester. Continuation of UKRA 204. Prerequisite: UKRA 204. LEC.

UKRA 512. Intensive Ukrainian Language and Culture I. 3 Hours. U.
A practical Ukrainian language course involving advanced study of the grammar, conversation, composition. Reading of texts on a variety of subjects (culture, literature, history, folklore etc.), taught in Ukrainian. Prerequisite: Three years of a Slavic language or permission of instructor. LEC.

UKRA 516. Intensive Ukrainian Language and Culture II. 3 Hours. U.
A practical Ukrainian language course involving advanced study of the grammar, conversation, composition. Reading of texts on a variety of subjects (culture, literature, history, folklore etc.), taught in Ukrainian. Prerequisite: Three years of a Slavic language or permission of instructor. LEC.

UKRA 675. Readings in Ukrainian Language. 1-6 Hours. H.
Directed individual readings on various topics concerning the Ukrainian language. Prerequisite: Two years of Ukrainian. IND.

YDSH 104. Elementary Yiddish I. 5 Hours. U.
Essentials of grammar, practice in speaking, reading, and writing Yiddish. Not open to native speakers of Yiddish. Prerequisite: YDSH 104 or equivalent. LEC.

YDSH 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Yiddish. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

YDSH 212. Intermediate Yiddish I. 3 Hours. U.
Structured grammar review, composition, conversation, with readings of literary and cultural texts. Not open to native speakers of Yiddish. Prerequisite: YDSH 108 or equivalent. LEC.

YDSH 216. Intermediate Yiddish II. 3 Hours. U.
A continuation of YDSH 212. Structured grammar review, composition, conversation, with readings of literary and cultural texts. Not open to native speakers of Yiddish. Prerequisite: YDSH 212 or equivalent. LEC.

YDSH 300. Studies in Yiddish: ______. 3 Hours. H.
Examination of special topics in Yiddish. May be repeated if topic varies. LEC.

YDSH 395. Study Abroad Topics in Yiddish: ______. 3-6 Hours. H.
This course is designed for the study abroad of special topics in Yiddish at the junior/senior level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

YDSH 490. Independent Study. 1-3 Hours. U.
Intensive reading or research under faculty supervision IND.

Bachelor of Arts in Slavic Languages and Literatures

Why study Slavic languages and literatures?

Because Russia and the Slavs link the West and the East.
Undergraduate Admission

Admission to KU

All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

Requirements for the B.A. Major

The student completes a minimum of 27 hours of study in one of 3 emphases: Polish, Russian, or South Slavic (Bosnian/Croatian/Serbian). The department encourages students to fulfill general education requirements from courses in the SLAV 140/SLAV 141, SLAV 144/SLAV 145, and SLAV 148/SLAV 149 series. Beyond the minimum 27 hours, students are strongly encouraged to take additional courses in the Slavic department and appropriate background courses in the history, philosophy, and political science of the Slavic regions.

Polish Studies Emphasis

Majors choosing this option must complete courses as indicated in following areas:

Prerequisite Knowledge and Skills (0)
The following courses provide fundamental skills for the major, but do not contribute to the minimum required hours for the major.

Elementary Polish I. Satisfied by:

PLSH 104  Elementary Polish I

Elementary Polish II. Satisfied by:

PLSH 108  Elementary Polish II

Intermediate Polish I. Satisfied by:

PLSH 204  Intermediate Polish I

Polish Studies Emphasis Core Knowledge and Skills (27)

Intermediate Polish II. Satisfied by:

PLSH 208  Intermediate Polish II

Advanced Polish I. Satisfied by:

PLSH 504  Advanced Polish I

Advanced Polish II. Satisfied by:

PLSH 508  Advanced Polish II

Readings in Polish Language and Literature. Satisfied by:

PLSH 675  Readings in Polish Language and Literature 3

West Slavic Literature and Civilization (Polish and Czech). Satisfied by:

SLAV 506  West Slavic Literature and Civilization (Polish and Czech) 3

Required Electives

Satisfied by 4 courses (12 hours) chosen from the following: 12

SLAV 144/145  Survey of Russian Literature in Translation

SLAV 318  Jews and Slavs in Eastern Europe

SLAV 340/341  Introduction to the Languages and Peoples of Russia and East-Central Europe

SLAV 504  Introduction to East-Central European Culture and Society: ______

SLAV 514  Totalitarianism and Literature in Central Europe

SLAV 516  Film Adaptations of Polish and Czech Literature

SLAV 635  Language, Culture and Ethnicity in Prehistoric Eastern Europe

ECON 560  Economic Systems

HIST 377  Everyday Communism in Eastern Europe

HIST 557  Nationalism and Communism in East Central Europe from 1772 to the Present

PHIL 580  Marxism (or other relevant course in philosophy)

Majors are strongly encouraged to study abroad. Please see your advisor about this opportunity.

Major Hours & Major GPA

While completing all required courses (above), majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours

Satisfied by 27 hours of major courses.

Major Hours in Residence

Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior (300+) Hours

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Major Junior/Senior (300+) Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Russian Emphasis

Majors choosing this option must complete courses as indicated in following areas:

Prerequisite Knowledge and Skills (16)
The following courses provide fundamental skills for the major, but do not contribute to the minimum required hours for the major.

Elementary Russian I. Satisfied by:

RUSS 104  Elementary Russian I 5 or RUSS 110  Intensive Elementary Russian

Elementary Russian II. Satisfied by:
**RUSS 108** Elementary Russian II  
or **RUSS 110** Intensive Elementary Russian

Intermediate Russian I. Satisfied by:

RUSS 204 Intermediate Russian I

**Russian Emphasis Core Knowledge and Skills (27)**

Intermediate Russian II. Satisfied by:

RUSS 208 Intermediate Russian II

Advanced Russian Language. Satisfied by one of the following:

- RUSS 504 Advanced Russian I  
  & RUSS 508 Advanced Russian II
- RUSS 512 Russian for the Professions I  
  & RUSS 516 Russian for the Professions II

Russian Linguistics. Satisfied by one course (3 hours, 200+)

- SLAV 340 Introduction to the Languages and Peoples of Russia and East-Central Europe
- SLAV 341 Introduction to the Languages and Peoples of Russia and East-Central Europe, Honors
- SLAV 520 Russian Phonetics, Phonology, and Inflectional Morphology
- SLAV 522 The Grammatical Categories of Russian: Linguistic Units, Functions and Meanings
- SLAV 524 Russian Since the Revolution
- SLAV 540 Language and Identity in East-Central Europe and the Former Soviet Union

Russian Literature. Satisfied by one course (3 hours, 400+)

- SLAV 510 The Russian Literary Genius
- SLAV 530 Introduction to Russian Poetry
- SLAV 532 Dostoevsky
- SLAV 534 Tolstoy
- SLAV 536 Turgenev
- SLAV 562 Russian Theatre and Drama from Stanislavski and Chekhov to the Present
- SLAV 564 The "Woman Question" in Nineteenth-Century Russian Literature
- SLAV 566 The Devil in Russian Literature
- SLAV 568 Biblical Themes in Modern Russian Literature
- SLAV 612 Introduction to Russian Literature of the Nineteenth Century
- SLAV 614 Russian Literature in Translation: ______
- SLAV 616 Introduction to Russian Literature of the Twentieth Century
- SLAV 642 Pushkin and Evgenij Onegin
- SLAV 650 The Russian Short Story
- SLAV 656 Russian Literature of the Eighteenth Century
- SLAV 660 Nineteenth Century Russian Prose and Fiction
- SLAV 662 Russian Literary Modernism: 1880-1930
- SLAV 664 Soviet Russian Literature: 1930-1990

**Required Electives**

Satisfied by 3 courses (9 hours) in Russian literature, linguistics, culture, or advanced language chosen in consultation with the major advisor. Note that only one (1) 100-level course (either SLAV 140/SLAV 145, or SLAV 148/SLAV 149) may count as a required elective for the Russian emphasis major.

**Language**

- RUSS 512 Russian for the Professions I
- RUSS 516 Russian for the Professions II
- RUSS 522 Problems in Translating Russian into English I
- RUSS 526 Problems in Translating Russian into English II
- RUSS 600 Classics of Russian Culture
- RUSS 604 Contemporary Russian Culture
- RUSS 608 Russian Phonetics and Grammar
- RUSS 612 Introduction to Russian Literature
- RUSS 616 Stylistics

**Linguistics**

- SLAV 340 Introduction to the Languages and Peoples of Russia and East-Central Europe
- SLAV 341 Introduction to the Languages and Peoples of Russia and East-Central Europe, Honors
- SLAV 520 Russian Phonetics, Phonology, and Inflectional Morphology
- SLAV 522 The Grammatical Categories of Russian: Linguistic Units, Functions and Meanings
- SLAV 524 Russian Since the Revolution
- SLAV 540 Language and Identity in East-Central Europe and the Former Soviet Union

**Culture**

- SLAV 500 Russia Today
- SLAV 502 Introduction to Russian Culture and Society: ______
- SLAV 503 Post-Soviet Communication
- SLAV 600 Biography of a City: ______
- SLAV 684 Main Currents of Russian Thought I
- SLAV 686 Main Currents of Russian Thought II

**Literature**

- SLAV 510 The Russian Literary Genius
- SLAV 530 Introduction to Russian Poetry
- SLAV 532 Dostoevsky
- SLAV 534 Tolstoy
- SLAV 536 Turgenev
- SLAV 562 Russian Theatre and Drama from Stanislavski and Chekhov to the Present
- SLAV 564 The "Woman Question" in Nineteenth-Century Russian Literature
- SLAV 566 The Devil in Russian Literature
- SLAV 568 Biblical Themes in Modern Russian Literature
- SLAV 612 Introduction to Russian Literature of the Nineteenth Century
- SLAV 614 Russian Literature in Translation: ______
- SLAV 616 Introduction to Russian Literature of the Twentieth Century
- SLAV 642 Pushkin and Evgenij Onegin
- SLAV 650 The Russian Short Story
- SLAV 656 Russian Literature of the Eighteenth Century
- SLAV 660 Nineteenth Century Russian Prose and Fiction
- SLAV 662 Russian Literary Modernism: 1880-1930
- SLAV 664 Soviet Russian Literature: 1930-1990
Majors are strongly encouraged to study abroad. Please see your advisor about this opportunity.

**Major Hours & Major GPA**

While completing all required courses (above), majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 27 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior (300+) Hours**
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior (300+) Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**South Slavic Studies Emphasis**

Majors choosing this option must complete courses as indicated in following areas:

**Prerequisite Knowledge and Skills (13)**

The following courses provide fundamental skills for the major, but do not contribute to the minimum required hours for the major.

- Elementary Bosnian/Croatian/Serbian I. Satisfied by:
  - BCRS 104
  - 5
- Elementary Bosnian/Croatian/Serbian II. Satisfied by:
  - BCRS 108
  - 5
- Intermediate Bosnian/Croatian/Serbian I. Satisfied by:
  - BCRS 204
  - 3
- Intermediate Bosnian/Croatian/Serbian II. Satisfied by:
  - BCRS 208
  - 3

**Core Knowledge and Skills (27)**

- Intermediate Bosnian/Croatian/Serbian II. Satisfied by:
  - BCRS 208
  - 3
- Advanced Bosnian/Croatian/Serbian I. Satisfied by:
  - BCRS 504
  - 3
- Advanced Bosnian/Croatian/Serbian II. Satisfied by:
  - BCRS 508
  - 3
- South Slavic Literature and Civilization. Satisfied by:
  - SLAV 508
  - 3

**Required Electives**

Satisfied by 5 courses (15 hours) chosen from the following:

- BCRS 380
- Intensive Croatian
- BCRS 675
- Readings in Bosnian/Croatian/Serbian
- ECON 560
- Economic Systems
- HIST 377
- Everyday Communism in Eastern Europe
- HIST 557
- Nationalism and Communism in East Central Europe from 1772 to the Present
- PHIL 580
- Marxism

Majors are strongly encouraged to study abroad. Please see your advisor about this opportunity.

**Major Hours & Major GPA**

While completing all required courses (above), majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 27 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior (300+) Hours**
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior (300+) Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Departmental Honors**

Undergraduates with grade-point averages of 3.25 overall and of 3.5 in Slavic courses are eligible for the honors program. Before enrolling, students must consult an undergraduate advisor to formulate an appropriate topic. Students complete SLAV 499 Honors Thesis (3 hours above the major requirements) during 1 semester of the senior year. The honors thesis is evaluated by a committee of 3 faculty members. The candidate makes an oral defense before this committee.

**Study Abroad**

The department, in conjunction with the Center for Russian, East European, and Eurasian Studies (http://www.crees.ku.edu), conducts summer institutes at universities in

- L'viv, Ukraine; and
- Zadar, Croatia.

Arrangements can be made for students to study for one semester or a full academic year at these or other universities. Some scholarship support is available.

Consult the Slavic department (http://slavic.ku.edu) office or the Office of Study Abroad (http://www.studyabroad.ku.edu). Credit for non-KU
programs is not automatic and is evaluated in consultation with the Slavic department undergraduate director.

Undergraduate and graduate students at KU are encouraged to spend a summer, semester, and/or year studying and conducting research in their country of interest.

**Slavic Language Programs in Russia and Eastern Europe**

KU students may take intermediate or advanced Bosnian/Croatian/Serbian at a 6-week summer institute in Croatia or attend a summer language program in Poland.

Graduate students at KU are encouraged to spend a summer, semester, and/or year studying and conducting research in their country of interest.

**Graduation Plan**

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please consult the department for details.

**Minor in Slavic Languages and Literatures**

**Why study Slavic languages and literatures?**

Because Russia and the Slavs link the West and the East.

**Requirements for the Minor**

4 minor tracks are offered.

**Polish Studies Track**

Students choosing this minor track must complete courses as indicated in following areas:

**Prerequisites (13)**

The following courses provide fundamental skills for the minor, but do not contribute to the minimum required hours for the minor.

Elementary Polish I. Satisfied by:
- PLSH 104 Elementary Polish I 5
- PLSH 108 Elementary Polish II 5
- Intermediate Polish I. Satisfied by:
- PLSH 204 Intermediate Polish I 3

**Polish Studies Required Courses (15)**

Intermediate Polish II. Satisfied by:
- PLSH 208 Intermediate Polish II 3
- West Slavic Literature and Civilization (Polish and Czech). Satisfied by:
- SLAV 506 West Slavic Literature and Civilization (Polish and Czech) 3

Required Electives. Satisfied by 3 courses (9 hours) chosen from the following:
- SLAV 144/145 Survey of Russian Literature in Translation
- SLAV 340/341 Introduction to the Languages and Peoples of Russia and East-Central Europe
- SLAV 504 Introduction to East-Central European Culture and Society
- SLAV 514 Totalitarianism and Literature in Central Europe
- SLAV 516 Film Adaptations of Polish and Czech Literature
- SLAV 635 Language, Culture and Ethnicity in Prehistoric Eastern Europe
- ECON 560 Economic Systems
- HIST 377 Everyday Communism in Eastern Europe
- HIST 557 Nationalism and Communism in East Central Europe from 1772 to the Present
- PHIL 580 Marxism (or other relevant course in philosophy)

**Russian Track**

Students choosing this minor track must complete courses as indicated in following areas:

**Prerequisites (16)**

The following courses provide fundamental skills for the minor, but do not contribute to the minimum required hours for the minor.

Elementary Russian I. Satisfied by:
- RUSS 104 Elementary Russian I 5
- RUSS 110 Intensive Elementary Russian

Elementary Russian II. Satisfied by:
- RUSS 108 Elementary Russian II 5
- RUSS 110 Intensive Elementary Russian

Intermediate Russian I. Satisfied by:
- RUSS 204 Intermediate Russian I 6

**Russian Required Courses (18)**

Intermediate Russian II. Satisfied by:
- RUSS 208 Intermediate Russian II 6

Russian Linguistics. Satisfied by 1 course (3 hours, 200+) chosen from:
- SLAV 340/341 Introduction to the Languages and Peoples of Russia and East-Central Europe
- SLAV 340 and SLAV 341 Introduction to the Languages and Peoples of Russia and East-Central Europe, Honors

**Minor Hours & Minor GPA**

While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

**Minor Hours**

Satisfied by 18 hours of minor courses.

**Minor Hours in Residence**

Satisfied by a minimum of 9 hours of KU resident credit in the minor.

**Minor Junior/Senior (300+) Hours**

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

**Minor Junior/Senior (300+) Graduation GPA**

Satisfied by a minimum of a 2.0 KU GPA in all departmental courses (300+) in the minor. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).
### Russian Literature
Satisfied by 1 course (3 hours, 400+) chosen from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLAV 510</td>
<td>The Russian Literary Genius</td>
</tr>
<tr>
<td>SLAV 530</td>
<td>Introduction to Russian Poetry</td>
</tr>
<tr>
<td>SLAV 532</td>
<td>Dostoevsky</td>
</tr>
<tr>
<td>SLAV 534</td>
<td>Tolstoy</td>
</tr>
<tr>
<td>SLAV 536</td>
<td>Turgenev</td>
</tr>
<tr>
<td>SLAV 562</td>
<td>Russian Theatre and Drama from Stanislavski and Chekhov to the Present</td>
</tr>
<tr>
<td>SLAV 564</td>
<td>The &quot;Woman Question&quot; in Nineteenth-Century Russian Literature</td>
</tr>
<tr>
<td>SLAV 566</td>
<td>The Devil in Russian Literature</td>
</tr>
<tr>
<td>SLAV 568</td>
<td>Biblical Themes in Modern Russian Literature</td>
</tr>
<tr>
<td>SLAV 612</td>
<td>Introduction to Russian Literature of the Nineteenth Century</td>
</tr>
<tr>
<td>SLAV 614</td>
<td>Russian Literature in Translation: _____</td>
</tr>
<tr>
<td>SLAV 616</td>
<td>Introduction to Russian Literature of the Twentieth Century</td>
</tr>
<tr>
<td>SLAV 642</td>
<td>Pushkin and Evgenij Onegin</td>
</tr>
<tr>
<td>SLAV 650</td>
<td>The Russian Short Story</td>
</tr>
<tr>
<td>SLAV 656</td>
<td>Russian Literature of the Eighteenth Century</td>
</tr>
<tr>
<td>SLAV 660</td>
<td>Nineteenth Century Russian Prose and Fiction</td>
</tr>
<tr>
<td>SLAV 662</td>
<td>Russian Literary Modernism: 1880-1930</td>
</tr>
<tr>
<td>SLAV 664</td>
<td>Soviet Russian Literature: 1930-1990</td>
</tr>
<tr>
<td>SLAV 667</td>
<td>Post-Soviet Literature</td>
</tr>
<tr>
<td>SLAV 668</td>
<td>Nabokov</td>
</tr>
</tbody>
</table>

### Major Electives
Satisfied by 2 courses (6 hours) in Russian literature, linguistics, culture, or advanced language chosen in consultation with the major advisor.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUSS 512</td>
<td>Russian for the Professions I</td>
</tr>
<tr>
<td>RUSS 516</td>
<td>Russian for the Professions II</td>
</tr>
<tr>
<td>RUSS 522</td>
<td>Problems in Translating Russian into English I</td>
</tr>
<tr>
<td>RUSS 526</td>
<td>Problems in Translating Russian into English II</td>
</tr>
<tr>
<td>RUSS 600</td>
<td>Classics of Russian Culture</td>
</tr>
<tr>
<td>RUSS 604</td>
<td>Contemporary Russian Culture</td>
</tr>
<tr>
<td>RUSS 608</td>
<td>Russian Phonetics and Grammar</td>
</tr>
<tr>
<td>RUSS 612</td>
<td>Introduction to Russian Literature</td>
</tr>
<tr>
<td>RUSS 616</td>
<td>Stylistics</td>
</tr>
</tbody>
</table>

**Minor Hours & Minor GPA**

While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

**Minor Hours**
Satisfied by 18 hours of minor courses.

**Minor Hours in Residence**
Satisfied by a minimum of 9 hours of KU resident credit in the minor.

**Minor Junior/Senior (300+) Hours**
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

**Minor Junior/Senior (300+) Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses (300+) in the minor. GPA calculations include all junior/senior courses in
the field of study including F’s and repeated courses. See the Semester/ Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Slavic Cultures in Translation Track

Students choosing this minor track must complete courses as indicated in following areas:

West Slavic Literature and Civilization or South Slavic Literature and Civilization. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLAV 506</td>
<td>West Slavic Literature and Civilization (Polish and Czech)</td>
</tr>
<tr>
<td>or SLAV 508</td>
<td>South Slavic Literature and Civilization</td>
</tr>
</tbody>
</table>

Slavic Culture. Satisfied by two of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLAV 140/141</td>
<td>Introduction to Russian Culture</td>
</tr>
<tr>
<td>SLAV 144/145</td>
<td>Survey of Russian Literature in Translation</td>
</tr>
<tr>
<td>SLAV 148/149</td>
<td>Introduction to Slavic Folklore</td>
</tr>
<tr>
<td>SLAV 340/341</td>
<td>Introduction to the Languages and Peoples of Russia and East-Central Europe</td>
</tr>
</tbody>
</table>

Junior/Senior Slavic Literature and Culture. Satisfied by 3 junior/senior (300+) SLAV courses (9 hours) from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLAV 318</td>
<td>Jews and Slavs in Eastern Europe</td>
</tr>
<tr>
<td>SLAV 510</td>
<td>The Russian Literary Genius</td>
</tr>
<tr>
<td>SLAV 514</td>
<td>Totalitarianism and Literature in Central Europe</td>
</tr>
<tr>
<td>SLAV 516</td>
<td>Film Adaptations of Polish and Czech Literature</td>
</tr>
<tr>
<td>SLAV 532</td>
<td>Dostoevsky</td>
</tr>
<tr>
<td>SLAV 534</td>
<td>Tolstoy</td>
</tr>
<tr>
<td>SLAV 536</td>
<td>Turgeney</td>
</tr>
<tr>
<td>SLAV 562</td>
<td>Russian Theatre and Drama from Stanislavski and Chekhov to the Present</td>
</tr>
<tr>
<td>SLAV 564</td>
<td>The &quot;Woman Question&quot; in Nineteenth-Century Russian Literature</td>
</tr>
<tr>
<td>SLAV 566</td>
<td>The Devil in Russian Literature</td>
</tr>
<tr>
<td>SLAV 568</td>
<td>Biblical Themes in Modern Russian Literature</td>
</tr>
<tr>
<td>SLAV 612</td>
<td>Introduction to Russian Literature of the Nineteenth Century</td>
</tr>
<tr>
<td>SLAV 614</td>
<td>Russian Literature in Translation: _____</td>
</tr>
<tr>
<td>SLAV 616</td>
<td>Introduction to Russian Literature of the Twentieth Century</td>
</tr>
<tr>
<td>SLAV 626</td>
<td>The Cultural Impact of Ottoman Empire on the South Slavs</td>
</tr>
<tr>
<td>SLAV 635</td>
<td>Language, Culture and Ethnicity in Prehistoric Eastern Europe</td>
</tr>
<tr>
<td>SLAV 650</td>
<td>The Russian Short Story</td>
</tr>
<tr>
<td>SLAV 656</td>
<td>Russian Literature of the Eighteenth Century</td>
</tr>
<tr>
<td>SLAV 660</td>
<td>Nineteenth Century Russian Prose and Fiction</td>
</tr>
<tr>
<td>SLAV 662</td>
<td>Russian Literary Modernism: 1880-1930</td>
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</tr>
<tr>
<td>SLAV 667</td>
<td>Post-Soviet Literature</td>
</tr>
<tr>
<td>SLAV 668</td>
<td>Nabokov</td>
</tr>
</tbody>
</table>

South Slavic Studies Track

Students choosing this minor track must complete courses as indicated in following areas:

Prerequisites (13)

The following courses provide fundamental skills for the minor, but do not contribute to the minimum required hours for the minor.

- Elementary Bosnian/Croatian/Serbian I. Satisfied by:
  - BCRS 104 Elementary Bosnian/Croatian/Serbian I 5
- Elementary Bosnian/Croatian/Serbian II. Satisfied by:
  - BCRS 108 Elementary Bosnian/Croatian/Serbian II 5
- Intermediate Bosnian/Croatian/Serbian I. Satisfied by:
  - BCRS 204 Intermediate Bosnian/Croatian/Serbian I 3

South Slavic Studies Required Courses (24)

- BCRS 208 Intermediate Bosnian/Croatian/Serbian II 3
- BCRS 508 Advanced Bosnian/Croatian/Serbian II 3
- 9 hours in South Slavic languages, history, cultures, or literatures at the 300 level or above, chosen from courses in the South Slavic studies emphasis 9

Required Electives. Satisfied by 3 courses (9 hours) chosen from the following:

- BCRS 380 Intensive Croatian (summer in Croatia)
- BCRS 675 Readings in Bosnian/Croatian/Serbian
- ECON 560 Economic Systems
- HIST 377 Everyday Communism in Eastern Europe
- HIST 557 Nationalism and Communism in East Central Europe from 1772 to the Present
- PHIL 580 Marxism (or other relevant course in philosophy)
- SLAV 144/145 Survey of Russian Literature in Translation
- SLAV 316 The Peoples and Cultures of Southeastern Europe Through Film
- SLAV 340/341 Introduction to the Languages and Peoples of Russia and East-Central Europe
- SLAV 558 Readings in Slovene
- SLAV 626 The Cultural Impact of Ottoman Empire on the South Slavs
- SLAV 630 Slavic Folklore
- SLAV 635 Language, Culture and Ethnicity in Prehistoric Eastern Europe
- SLAV 679 Topics in: _____ (Slavic Culture)

Minor Hours & Minor GPA

While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

Minor Hours

Satisfied by 18 hours of minor courses.

Minor Hours in Residence

Satisfied by a minimum of 9 hours of KU resident credit in the minor.

Minor Junior/Senior Hours

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Junior/Senior Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in all departmental courses (300+) in the minor. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/ Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).
Minor Hours & Minor GPA
While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 hours of KU resident credit in the minor.

Minor Junior/Senior (300+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Junior/Senior (300+) Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses (300+) in the minor. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/ Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Study Abroad
The department, in conjunction with the Center for Russian, East European, and Eurasian Studies (http://www.crees.ku.edu), conducts summer institutes at universities in

- L’viv, Ukraine; and
- Zadar, Croatia.

Arrangements can be made for students to study for one semester or a full academic year at these or other universities. Some scholarship support is available.

Consult the Slavic department (http://slavic.ku.edu) office or the Office of Study Abroad (http://www.studyabroad.ku.edu). Credit for non-KU programs is not automatic and is evaluated in consultation with the Slavic department undergraduate director.

Undergraduate and graduate students at KU are encouraged to spend a summer, semester, and/or year studying and conducting research in their country of interest.

Slavic Language Programs in Russia and Eastern Europe
KU students may take intermediate or advanced Bosnian/Croatian/ Serbian at a 6-week summer institute in Croatia or attend a summer language program in Poland.

Graduate students at KU are encouraged to spend a summer, semester, and/or year studying and conducting research in their country of interest.

Master of Arts in Slavic Languages and Literatures
M.A. Program Overview
The Master of Arts degree in Slavic Languages & Literatures provides students with foundational knowledge of the language, literature, culture, and linguistics of a region of study (Russian, Polish, Bosnian-Croatian-Serbian). Working in a collegial and supportive departmental environment, M.A. students learn the general contours and common ground of the field; read key works embedded in their historical, cultural, stylistic, and genre contexts; learn various methodological and theoretical frameworks and strategies; improve their language capacity, and develop research, writing, interpretive, and technological skills.

The M.A. prepares students for several career pathways. While completion of the M.A. is most often the gateway to Ph.D. work in the field, many students use the M.A. to build skills for a professional career. KU Slavic M.A. students go on to satisfying work in the public and private sectors, in the U.S. and abroad. See the Doers’ Profiles (http://slavic.ku.edu/doers-profiles-0) on the Department’s website.

Departmental Funding
While it is not guaranteed, the department does its best to provide funding in the form of Graduate Teaching Assistantship (GTA) appointments to all incoming graduate students. GTA appointments are awarded for the academic year and come with:

- a competitive academic year (9 month) salary
- a 100% tuition waiver for all courses at KU
- payment of up to 3 hours of student fees
- optional University-subsidized group health insurance

The appointments are guaranteed based on performance for up to 3 years for M.A. students, and 6 years for students who receive both an M.A. and a Ph.D. at The University of Kansas. GTAs in the department receive thorough training in language instruction, close mentoring, and the opportunity to teach at a variety of levels, providing them with a strong base of teaching experience upon entering the job market.

Additional information about teaching for the department is available on our Graduate Programs overview (http://slavic.ku.edu/ma-slavic-overview) page of our departmental website.

FLAS Fellowships
Students in the graduate program may also be eligible for a Foreign Language and Area Studies (FLAS) (http://flas.ku.edu) fellowship. FLAS fellowships include:

- Summer award - up to $5,000 for tuition and a stipend of $2,500 for living expenses for summer language study equivalent to one full year of language study
- Academic Year award - full KU tuition and a $15,000 stipend for living expenses for academic year study that includes two semesters of language and six credits or more of East Asian culture courses.

Students in the are strongly encouraged to apply (http://flas.ku.edu/how-apply) for this funding.

Additional Funding
There are also university fellowships for truly outstanding students. Visit the Graduate Studies website for information about funding opportunities (http://www.graduate.ku.edu/funding-opportunities) for KU graduate students.

Admission to Graduate Studies
An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of
Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

**Graduate Admission**

Apply to the graduate program via the Office of Graduate Studies online application system (http://www.graduate.ku.edu).

For additional information regarding departmental admissions requirements, deadlines and the application process, please visit the graduate page of the Slavic Languages and Literatures (http://slavic.ku.edu) website.

**M.A. Degree Requirements**

**Prerequisites for Admission**

- 30 semester hours of credit in an appropriate Slavic language and literature (of which 12 hours must have been taken on the junior/senior level), or the equivalent of such study.

**Non-thesis Degree**

1. At least 30 hours of graduate work in Slavic languages and literatures including SLAV 710 and SLAV 740, 3 courses in Slavic literature, 3 courses in Slavic linguistics, and 2 courses in either Slavic literature or linguistics. At least 1 of the literature or linguistics courses must be a graduate seminar.
2. A written and oral examination.

**Thesis Degree**

1. At least 24 hours of graduate work in Slavic languages and literatures, including SLAV 710 and SLAV 740, 3 courses in Slavic literature, and 3 courses in Slavic linguistics.
2. A thesis for which 6 credit hours may be allowed (not to be included in the 24-hour minimum).
3. A written and oral examination.

For students who plan to continue in the graduate program, the M.A. written and oral examination serves as a qualifying examination for advancement to Ph.D. work. For students who seek only the M.A. degree, successful completion of the M.A. written and oral examination signals the end of the program.

Students planning to work toward the Ph.D. may begin study of a second Slavic language during their M.A. work. Such study does not count toward M.A. degree requirements.

Students completing the M.A. degree without intent to continue to Ph.D. work have the opportunity, in consultation with the graduate advisor, to adjust their program to meet specific career goals.

**Study Abroad**

The department, in conjunction with the Center for Russian, East European, and Eurasian Studies (http://www.crees.ku.edu), conducts summer institutes at universities in

- L’viv, Ukraine; and
- Zadar, Croatia.

Arrangements can be made for students to study for one semester or a full academic year at these or other universities. Some scholarship support is available.

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Undergraduate and graduate students at KU are encouraged to spend a summer, semester, and/or year studying and conducting research in their country of interest.

**Slavic Language Programs in Russia and Eastern Europe**

KU students may take intermediate or advanced Bosnian/Croatian/Serbian at a 6-week summer institute in Croatia or attend a summer language program in Poland.

Graduate students at KU are encouraged to spend a summer, semester, and/or year studying and conducting research in their country of interest.

**Doctor of Philosophy in Slavic Languages and Literatures**

**Overview of Doctoral Program**

The Doctor of Philosophy degree in Slavic Languages & Literatures builds further on the foundational knowledge and the structured classroom learning that students engaged in during M.A. work. Working under the close mentorship of their advisors, Ph.D. students develop a minor in a related field, learn advanced pedagogical and interpretive strategies, continue to improve language skills, and engage in self-motivated, independent study to develop a coherent area of specialization. Students complete their graduate study.

While most KU Ph.D. students find positions as academics, some choose to pursue professional positions in academic support, digital humanities, research, and government service. See Ph.D. Alumni (http://slavic.ku.edu/doctor-philosophy-alumni-ku-slavic-department) on the Department’s website.

**Areas of Concentration**

Ph.D. students concentrate in one of three areas:

- Russian literature and culture
- Slavic language pedagogy
- Slavic linguistics

**Departmental Funding**

While it is not guaranteed, the department does its best to provide funding in the form of Graduate Teaching Assistantship (GTA) appointments to
all incoming graduate students. GTA appointments are awarded for the academic year and come with:

- a competitive academic year (9 month) salary
- a 100% tuition waiver for all courses at KU
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- optional University-subsidized group health insurance

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FLAS Fellowships
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Students in the area are strongly encouraged to apply for this funding.

Additional Funding
There are also university fellowships for truly outstanding students. Visit the Graduate Studies website for information about funding opportunities for KU graduate students.

Admission to Graduate Studies
An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission
Apply to the graduate program via the Office of Graduate Studies online application system.

For additional information regarding departmental admissions requirements, deadlines and the application process, please visit the graduate page of the Slavic Languages and Literatures website.

Ph.D. Degree Requirements
Students admitted to Ph.D. work in Russian literature or Slavic linguistics must fulfill M.A. requirements and pass the qualifying examination. Students also must fulfill all specific requirements in the concentration, complete comprehensive examinations, and write a dissertation.

All Ph.D. students are expected to enroll in courses in their concentrations numbered 500 and above offered in a given semester

1. If they have not previously had the courses or their equivalent,
2. If it is judged that the course material aids in preparation for comprehensive examinations, and
3. If it is feasible to incorporate such courses into a given semester’s program.

Requirements for Ph.D. Concentration in Russian Literature

- Detailed knowledge of the history and development of Russian literature
- Oral and written competence in Russian language plus an orientation in its structure and history
- Reading competence in at least one West or South Slavic language and a general knowledge of the history of its literature
- 9 to 12 graduate semester credit hours in a minor subject either from outside or inside the department
- An acceptable dissertation

Requirements for Ph.D. Concentration in Slavic Linguistics

- Detailed knowledge of the structure and history of two Slavic languages, one of which is considered the student’s major language, plus reading competence in a third Slavic language
- Oral and written competence in the major Slavic language
- 9 to 12 graduate semester credit hours in a minor subject, either from outside or inside the department
- Basic knowledge of general and comparative linguistics
- An acceptable dissertation

Examinations

Qualifying Examination
All students must take the qualifying examination to be admitted to Ph.D. work. For KU students, the M.A. examination serves as the qualifying examination. Students who hold the M.A. degree from another institution but begin Ph.D. work at KU are required to take the qualifying examination within 2 semesters of entry into the program.

Research Skills & Responsible Scholarship Requirement
The university requires that every doctoral student have training in responsible scholarship and research skills pertinent to the field of research and appropriate to the doctoral level. This requirement must
be met before taking the comprehensive oral exam. Graduate students in Slavic Languages and Literatures must demonstrate (through course work or examination) reading competence in a western European language, preferably French or German. The student must also take part in all required graduate colloquia. These cover a variety of topics intended to promote and model responsible scholarship and professional development. Faculty and graduate students participate in three colloquia each semester. Issues of responsible scholarship are also imbedded in the curriculum.

**Comprehensive Examination**

Students may take written and oral comprehensive examinations after fulfilling all other requirements for the Ph.D., with the exception of the dissertation.

**Dissertation Defense**

Students demonstrate satisfactory completion of the Ph.D. program in their final oral defense of the dissertation and its field and by prompt submission of the thesis.

**Study Abroad**

The department, in conjunction with the Center for Russian, East European, and Eurasian Studies (http://www.crees.ku.edu), conducts summer institutes at universities in

- L’viv, Ukraine; and
- Zadar, Croatia.

Arrangements can be made for students to study for one semester or a full academic year at these or other universities. Some scholarship support is available.

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**Slavic Language Programs in Russia and Eastern Europe**

KU students may take intermediate or advanced Bosnian/Croatian/Serbian at a 6-week summer institute in Croatia or attend a summer language program in Poland.

Graduate students at KU are encouraged to spend a summer, semester, and/or year studying and conducting research in their country of interest.

**Undergraduate Programs**

The department educates sociologists for careers in teaching, research, and some applied fields. Undergraduate course work in sociology can contribute to professional training in architecture, business, education, journalism, law, medicine, public health, and social work.

Sociology majors can earn a Bachelor of Arts (BA) or Bachelor of General Studies (BGS). Both the BA and the BGS require a generous sampling of courses in the humanities, social sciences, and natural sciences. Because of its compatibility with other majors, many of our students earn double majors. For example, many sociology undergraduates also major in history, philosophy, political science, or anthropology, or earn a second degree in journalism.

Students majoring in a wide range of disciplines will find a minor in Sociology enhances their perspective on their field. Sociology is often the minor of choice for students majoring in Psychology, Anthropology, American Studies, Economics, Applied Behavioral Science, History, Political Science, and Global and International Studies and those in professional schools such as Journalism, Business, or Education.

**Graduate Programs**

The department offers a full graduate program in sociology leading to the M.A. and Ph.D. degrees, educating sociologists for careers in teaching and research and for fields of practical application. It also contributes to professional education in such fields as social welfare, social policy, architecture, education, journalism, personnel administration, business, and medicine. Aside from professional interests, the department offers instruction to assist students in deepening their understanding of social relations and, hence, of the social context of their own lives.

**Dual-title Ph.D. in Sociology and Gerontology**

This dual-title degree is an option available to students who have first been admitted to the doctoral program. The dual-title degree allows the pursuit of a single degree that incorporates study within a traditional discipline and training in an interdisciplinary field; the student is awarded one degree (Ph.D.) with both titles identified on the diploma (e.g., “Ph.D. in Sociology and Gerontology”).

This option is designed to appeal to students who are strong in a traditional discipline but also motivated to study across disciplinary lines. In the course of study, students can avail themselves of disciplinary depth and interdisciplinary breadth. At the post-doctoral stage, dual-title graduates will have enhanced career and employment opportunities, able to claim expertise in one or both titles of their degree when seeking positions in education and research.

More information about this option, its admissions requirements, and plan of study can be found on the department website or the website of the Gerontology program.

**Courses**

**SOC 104. Elements of Sociology. 3 Hours. SC AE41/GE11/GE3S / S.**

The study of social life, including how human groups are organized, how they change, and how they influence individuals. Consideration is given to a variety of human organizations and social institutions and how these groups and institutions both determine, and are determined by, human
Discusses the way our identities, values, and behavior have been and continue to be shaped by social and situational factors. Attention is paid to the influence of factors like language, culture, social roles, specific social institutions, and broad structures of inequality and power on how we see ourselves and others. May not be taken by anyone who has already taken SOC 305 or its equivalent. LEC.

SOC 160. Social Problems and American Values. 3 Hours. SF AE41/ AE51/GE11 / S.
This course is designed to explore competing explanations for the causes of, and cures for, the enduring problems of American society. The course critically analyzes dominant definitions of social problems, the political and economic roots of these problems, and the public policies aimed at reducing them. May not be taken by anyone who has already completed SOC 306 or its equivalent. LEC.

SOC 161. Social Problems and American Values, Honors. 3 Hours. SF / S.
Explores competing explanations for the causes of, and cures for, the enduring problems of American society. Critically analyzes dominant definitions of social problems, the political and economic roots of these problems, and the public policies aimed at reducing them. This course may not be taken for credit by those who have taken SOC 160 or SOC 306. Open only to students admitted to the University Honors Program or by consent of instructor. LEC.

SOC 177. First Year Seminar: _____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Sociology. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

SOC 220. Sociology of Families. 3 Hours. SC AE41/GE3S / S.
Analysis of the family as a social institution primarily in the U.S. context. Topics considered are: current and historical changes in how the family is constituted, contrasting sociological theories of family relationships, sexuality in relation to family life, the coexistence of love and hate in families, family dissolution and reformation, and the care of children. A key theme is diversity: social class, gender, race/ethnicity, and age. May not be taken by anyone who has already taken SOC 308 or its equivalent. LEC.

SOC 230. Introduction to Social Inequality in the U.S.. 3 Hours. S.
By the end of this course, students will be able to describe the major dimensions of inequality in the U.S. (including race, class, and gender), understand the structural basis of inequality, critically assess how inequality exists in major social institutions, and understand how inequalities in race, class, and gender shape social interaction. LEC.

SOC 260. America's Latinos/Latinas. 3 Hours. U.
An introduction to the Latino/a population (Mexican-Americans, Puerto Ricans, Cuban-Americans, Dominican-Americans, and Central and South Americans) in the US. Students discuss how US and Latin American societies have shaped Latino incorporation into the United States. We also discuss contemporary political, cultural and social issues that pertain to Latinos/as in the US. (Same as AMS 260) LEC.

SOC 273. Women in Society. 3 Hours. S.
A sociological exploration of the image and status of women in society, including family, work, and politics. Socialization, education, and the women's movement are also analyzed. Includes an introduction to feminist theories in sociology. LEC.

SOC 295. Study Abroad Topics in: _____. 1-6 Hours. S.
This course is designed for the study of special topics in Sociology at the freshman/sophomore level. Course work must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. No more than 6 hours of SOC 295 or SOC 495 may count towards the Sociology major or minor. LEC.

SOC 304. Principles of Sociology. 3 Hours. SC AE41/GE11/GE3S / S.
An introduction to sociological concepts, methods, and substantive findings more intensive than that provided in SOC 104. Students may
take this course in lieu of SOC 104 to satisfy requirements for the major and the minor. This course may not be taken for credit by those who have taken SOC 104. LEC.

SOC 305. Principles of Self and Society. 3 Hours. SI GE11 / S.
Discusses the way our identities, values, and behavior have been and continue to be shaped by social and situational factors. Attention is paid to the influence of factors like language, culture, social roles, specific social institutions, and broad structures of inequality and power on how we see ourselves and others. This course provides a more intensive coverage of the subject matter than that provided in SOC 150. May not be taken by anyone who has already taken SOC 150 or its equivalent. LEC.

SOC 306. Principles of Social Problems. 3 Hours. SF / S.
This course is designed to explore competing explanations for the causes of, and cures for, the enduring problems of American society. The course critically analyzes dominant definitions of social problems, the political and economic roots of theses problems, and the public policies aimed at reducing them. This course provides a more intensive coverage of the subject matter than that provided in SOC 160. May not be taken by anyone who has already completed SOC 160 or its equivalent. LEC.

SOC 308. Principles of Family Sociology. 3 Hours. SC / S.
Analysis of the family as a social institution primarily in the U.S. context. Topics considered are: current and historical changes in how the family is constituted, contrasting sociological theories of family relationships, sexuality in relation to family life, the coexistence of love and hate in families, family dissolution and reformation, and the care of children. A key theme is diversity: social class, gender, race/ethnicity, and age. This course provides a more intensive coverage of the subject matter than that provided in SOC 220. May not be taken by anyone who has already taken SOC 220 or its equivalent. LEC.

SOC 310. Introduction to Social Research. 3 Hours. S.
An introduction to the nature and methods of social research. Topics may include: hypothesis formulation and testing; how to design a research project, collect and analyze data; elementary statistical procedures; and ethical issues. Prerequisite: Six hours of Sociology credit, including Sociology 104. A minimum GPA of 2.3 in all SOC courses is strongly recommended for students planning to enroll in this course. LEC.

SOC 312. Population and Society. 3 Hours. AE41 / S.
An examination of the causes and consequences of population change in the United States and around the world with special focus on the impact of changes in populations on social institutions. We use social demographic perspectives to explore patterns of birth, illness, death, population concentration, population migration and immigration, and changes in these over time. Prerequisite: One of the following: SOC 104, SOC 110, SOC 150, SOC 160, or SOC 220. LEC.

SOC 320. Organizations in Society. 3 Hours. S.
An analysis of complex organizations in modern societies. Attention is given to the rise of bureaucracy in business and government; the way organizations influence and respond to their social cultural environments; and the various roles that individuals play in organizations. Prerequisite: A principal course in sociology. LEC.

SOC 326. Health, Gender, and Society. 3 Hours. S.
Comparative examination of the health status of men and women in relation to key elements of contemporary societies, including not only medicine and health care services, but also systems of social inequality and stratification, cultural constructions of gender, and social policies. Emphasis will be placed on the U.S.; however, the course also will provide international comparisons and an overall global context. LEC.

SOC 330. American Society. 3 Hours. AE41 / S.
The social structure and organization of American society with special reference to long-term and recent social changes. (Same as AMS 330.) Not open to students with credit for SOC 132. Prerequisite: A principal course in sociology. LEC.

SOC 332. The United States in Global Context. 3 Hours. AE42 / S.
Examines the influence abroad of US culture, policies and practices and the impact of other countries on US culture, society, and politics. Among the topics that may be examined are race, ethnicity, colonialism, imperialism, migration, technology, communications and media, popular culture, language, health, domestic and transnational organizations, as well as economic, political, religious, military and educational institutions. (Same as AMS 332). LEC.

SOC 340. The Community. 3 Hours. S.
Structures, functions, and processes of change in local communities; interrelations of towns and small cities with rural areas and metropolitan centers with their hinterlands. Prerequisite: A principal course in sociology or ANTH 108 or ANTH 308. LEC.

SOC 341. Urban Sociology. 3 Hours. S.
Examination of the process of urbanization in modern societies, including the size, growth, functions, and ecology of cities and systems of cities; such urban social institutions as the economy, politics, and the family; and major contemporary urban policies and problems. Each topic will be analyzed from several sociological perspectives. Prerequisite: A principal course in sociology. LEC.

SOC 342. Sociology of Immigration. 3 Hours. S.
International migration reshapes politics, economics, social relations, and racial/ethnic identities. Using the United States and other countries as case studies, we explore the variations among immigrant groups and their experiences in social institutions such as the family, religion, education, labor market, and government. We consider the influence of national origin, gender, class, and culture on immigration and reception experiences, as well as issues of assimilation, transnationalism and identity. Prerequisite: SOC 104. LEC.

SOC 351. Africa Today. 3 Hours. U.
An examination of Africa’s social dynamics. Topics considered include: the origins of modern African societies, nations, and states; family structures and values; ethnicity, gender relations and patriarchy; social, political, economic and cultural institutions; African exceptionalism; contemporary African social dynamics; transnational migration; HIV/AIDS; political transitions; and Africa’s place in the emerging global order. Prerequisite: SOC 104. LEC.

SOC 352. Sociology of Sex Roles. 3 Hours. S.
An examination of sex roles, sex stereotypes, and major issues involved in sex-role research. Emphasizes explanations of inequality between American males and females in the family and at work. The course is designed around lectures, panels, workshops, and films. LEC.

SOC 360. Sociology of Social Control. 3 Hours. S.
This course examines changing methods of social control in society. Social control can be formal (e.g., law and criminal justice system) or informal (e.g., families, peer groups). This course examines the ways that we, as a society, attempt to respond to matters such as deviance, illness, crime, and poverty. This course will survey the many varieties of formal and informal social control faced by individuals in society, and the ways in which individuals resist and conform to various disciplinary and control regimes. Prerequisite: a principal course in Sociology. LEC.

SOC 364. Society, Popular Culture, and the Media. 3 Hours. S.
An overview of sociological theory and research on culture created and distributed through the mass media and its role in shaping our
common sense interpretations of our daily lives. Topics include the social organization of the media, the relation between popular culture and the media, themes communicated in various elements of popular culture, and how various groups interpret cultural messages and incorporate them in their lives. LEC.

SOC 365. Society, Popular Culture, and the Media, Honors. 3 Hours. S.
Similar in content to SOC 364. An overview of sociological theory and research on culture created and distributed through the mass media and its role in shaping our common sense interpretations of our daily lives. Topics include the social organization of the media, the relation between popular culture and the media, themes communicated in various elements of popular culture, and how various groups interpret cultural messages and incorporate them in their lives. Prerequisite: Membership in the University Honors Program or consent of instructor. LEC.

SOC 370. Conflict Resolution. 3 Hours. S.
This course is an introduction to the field of conflict resolution. Collaborative approaches to dealing with conflict will be examined from the micro, interpersonal group level to the macro, organizational level. The causes and consequences of conflict will be presented as well as problem solving techniques for the resolution of conflict in social groups. LEC.

SOC 371. Marginal Groups and Subcultures. 3 Hours. S.
The sociological study of groups that differ from the mainstream practices of their societies and of conditions affecting their careers. The primary objectives are to introduce and analytically apply sociological conceptualizations of groups, group careers, group mainstream interactions, and participant orientations. The principal cases examined are the Hutterites, the Shakers, and the Oneida Community, supplemented by briefer analyses of a variety of other groups. Questions concerning the formation, organization, processes, participants, and transformations of groups are emphasized. LEC.

SOC 385. Environmental Sociology. 3 Hours. S.
This course invites students to study society and its impact on the environment. Environmental problems are social problems. This course will address such items as social paradigms, theories, inequalities, movements, and research. (Same as EVRN 385.) LEC.

SOC 410. Sociology of Death and Dying. 3 Hours. S.
This course covers theoretical, practical, cross-cultural and historical aspects of death and dying. Social, psychological, biomedical, economic and legal issues surrounding death and dying are explored. Students examine their own ideas, feelings, and attitudes towards death and dying, and reflect on the origins and significance of those beliefs. Prerequisite: Junior or Senior Standing. LEC.

SOC 420. Armed Forces and Society. 3 Hours. U.
Examines the military as a social institution. Students analyze both the internal organization and practices of the armed forces and the relationships between the military and other social institutions. It considers the historical forces that have shaped the present. Thus, past events and policies as well as current ones are covered in the course. The primary focus of this course is on the American military and its relationship to American society, but considers the armed forces of other societies. Prerequisite: SOC 104 or permission of instructor. LEC.

SOC 424. Sociology of Health and Medicine. 3 Hours. S.
This introductory course in medical sociology examines how social factors influence health and the organization of medical services. Students explore the distribution and experiences of illnesses across key social categories (e.g., gender, social class, etc.) The course also addresses contemporary issues in health and medicine, such as how health care systems vary cross-nationally, the training of health care workers, patient-physician relationships, and the use of medical technologies. LEC.

SOC 427. School and Society. 3 Hours. S.
This course examines education as a social institution and the reciprocal relationship between schools and society. It focuses particularly on the relationship between education and inequality and on education in the U.S., but also includes international comparisons. LEC.

SOC 450. Gender and Society. 3 Hours. AE41 / S.
An overview of sociological theory and research on the social practices constructing men and women as "opposites" and creating systematic inequality between them in class-, race-, and nation-specific ways. We consider arguments and evidence that gender is something we are, something we do, a part of every social institution, and a major aspect of how we are organized as a society. LEC.

SOC 454. Women and Work. 3 Hours. S.
Sociological investigation of women’s changing relationship to paid and unpaid labor in the economy and the family. Several theories are compared in these contexts: Characteristics of employed women, including occupational distribution and pay; women’s experiences in "traditional" and "nontraditional" occupations, including professions and management; socialization and education for employment; integration of marriage, housework, and child care; anti-discriminatory laws and policies. Prerequisite: A principal course in Sociology. LEC.

SOC 490. Internship in Sociology. 3 Hours. AE61 / S.
The purpose of this course is to encourage students to think sociologically about social issues by working as volunteer interns for non-profit community or campus organizations. Enrollment must be approved by a faculty mentor and the departmental Undergraduate Studies Committee. For additional information go to the Sociology department website. Prerequisite: 21 credits in sociology with a 3.0 GPA and permission of the instructor. FLD.

SOC 495. Study Abroad Advanced Topics in: _____. 1-6 Hours. S.
This course is designed for the study of special topics in Sociology at the junior/senior level. Course work must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. No more than 6 hours of SOC 295 or SOC 495 may count towards the Sociology major or minor. LEC.

SOC 499. Honors Course. 3-6 Hours. AE61 / S.
Intensive study and research under faculty direction including the writing of a thesis. Enrollment may be split between two semesters, but no grade will be given until completion of the thesis. Admission to honors candidacy is open only to majors who have shown a marked capability for independent study and have completed either SOC 310 or SOC 500. IND.

SOC 500. Sociological Theory. 3 Hours. S.
An introduction to the principal texts in sociological theory and the ideas that made them important. Primary materials are emphasized, ranging from medieval to the current age. The goal of the course is to show continuity and change in the theoretical tradition of sociology, and to demonstrate the continued importance of classical ideas. Prerequisite: SOC 104 or permission of instructor. LEC.

SOC 510. Elementary Statistics and Data Analysis. 3 Hours. S.
An introduction to social scientific data analysis, with an emphasis on descriptive and inferential statistics. Specific topics include sampling, measures of association and correlation, significance testing, the logic of causal inference, the use of computer programs for data analysis, multivariate analysis, and the critical evaluation of social science research findings. Prerequisite: SOC 310 and MATH 101, or instructor permission. LEC.
SOC 519. Sociology of Global Food. 5 Hours. U.
The Sociology of Global Food offers a critical examination of the
global food system since the Industrial Revolution. Topics include the
industrialization of agriculture, sustainable agriculture, and the role of
food and agriculture in organizing society. This course discusses the
emergence of current debates around food and agriculture including food
activism, technological developments, human/environmental relationships,
and labor issues. There is a lab component to this course. (Same as
EVRN 519.) Prerequisite: Junior standing. LEC.

SOC 520. Groups and Associations. 3 Hours. S.
A comparative study of groups, associations, and institutions as types of
social systems with special attention to structural characteristics and
organizational processes; the nature of membership and leadership,
including recruitment, selection and training; the social position,
relationship, and function of these groups in communities and societies.
Prerequisite: A principal course in sociology. LEC.

SOC 521. Wealth, Power, and Inequality. 3 Hours. AE41 / S.
This class focuses on economic inequality and the political and social
forces that create and sustain it in the United States and internationally.
The variables of race, ethnicity, status, and gender are analyzed as they
relate to the differences in the distribution of wealth and power, and
attention is paid to how these multiple variables shape opportunities. LEC.

SOC 522. American Racial and Ethnic Relations. 3 Hours. AE41 / S.
Analysis of the basic sociological concepts that apply to majority/minority
relations; with special emphasis on racial and ethnic interaction in the
United States. (Same as AMS 522.) Prerequisite: A principal course in
sociology. LEC.

SOC 523. Sociology of Aging and the Life Course. 3 Hours. AE41 / S.
An advanced survey of theory and research in social gerontology, giving
primary attention to aging and the aged as affected by social organization,
including such social institutions as familial, economic, political, and health
care; organizational processes such as social stratification; and living
environments including community and housing. In these contexts, certain
demographic, cross-cultural, social-psychological, and physiological
aspects of aging will also be considered. Prerequisite: A principal course in
sociology. LEC.

SOC 524. Sociology of the Economy. 3 Hours. S.
An analysis of the social organization of production with attention being
given to such topics as: world economic crises and their social bases,
capitalist and socialist economies, primitive and advanced economic
systems, multinational corporations, the nature of housework, and the
transformation of economic systems. Prerequisite: A principal course in
sociology. LEC.

SOC 525. Sociology of Work. 3 Hours. S.
A consideration of problems in the conceptual and empirical definition
of occupations and professions. It will involve the examination of the
process of professionalization, the differentiation and integration of labor,
career patterns, the work situation, the study of leisure, and the social
consequences of changes in occupations and professions. Prerequisite: A
principal course in sociology. LEC.

SOC 529. Globalization. 3 Hours. S.
Addresses sociological aspects of the growth of transnational economic,
cultural, institutional, and political interconnections, the freer and
faster movement of goods, images, ideas, people, and institutional
forms across national borders, and the consequences and problems of
these processes. The focus is on recent (later 20th century to the
present) global restructuring in the context of historical shifts in capitalist
development. Prerequisite: SOC 104. LEC.

SOC 530. Industrial Revolution and Capitalist Development. 3 Hours.
S.
Focuses on the social forces that generated industrial capitalism.
Emphasis will be on comparative social structures and their meaning
for the nature and quality of life. The transformation from medieval to
mercantilist to industrial capitalism will be analyzed in detail. Possibilities
of post-industrial society will be discussed. This course will consider
exclusively Western development. Prerequisite: A principal course in
sociology. LEC.

SOC 531. Global Social Change. 3 Hours. S.
Comparative study of social, economic, political, and ideological factors
influencing global social change, and analysis of different theoretical
orientations related to social change in various societies. Prerequisite: A
principal course in Sociology. LEC.

SOC 532. Sociology of the Middle East. 3 Hours. NW AE42/AE61 / S.
The sociological analysis of social, historical, and contemporary issues
pertaining to the Middle East and to relations between the Middle
East and other regions of the world. We use sociological theoretical
perspectives to address such topics as nationalism and identity; religion,
race and ethnicity; gender, socioeconomic development, and sociopolitical
and economic relations with the United States. Prerequisite: One of the
following: SOC 104, SOC 110, SOC 150, SOC 160, or SOC 220. LEC.

SOC 533. Industrialization in Developing Nations. 3 Hours. S.
Comparative study of problems associated with industrialization in
developing nations, including population problems, unemployment,
social and welfare problems, and various political issues. Prerequisite: A
principal course in sociology. LEC.

SOC 534. Comparative Racial and Ethnic Relations. 3 Hours. NW
AE42 / S.
An examination of constructions of race and ethnicity around the world.
Emphasis is on the social, political, historical, cultural and economic
factors that lead to the creation of ethnic and racial identities, ethnic
conflict and accommodation, ethnic movements, and ethnic political
organization. Racial and ethnic relations in the U.S. are compared with
other countries. Major focus is placed on ethnicity in Africa, Asia, Latin
America, the Caribbean and/or the Middle East. (Same as AAAS 510 and
AMS 534.) LEC.

SOC 535. Gender in the Global Context. 3 Hours. S.
This course examines gender roles and identity in the global context
and focuses specifically on historical comparative analysis of women’s
participation in—and impact on—social, political, economic, and cultural
aspects of their communities and nations. Major emphasis will be
placed on women in Africa, Asia, Latin America, and the Middle East.
Prerequisite: A principal course in Sociology. LEC.

SOC 536. Ethnicity in the United States: ______. 3 Hours. AE41 / S.
An examination of the history, sociology, and culture of U.S. ethnic
categories (e.g., American Indians, Latinos, Asian Americans, Jewish
Americans, Irish Americans). The specific group studied varies from
semester to semester. Course may be repeated for credit. (Same as AMS
536.) Prerequisite: A principal course in American Studies, Sociology, or
Anthropology, or permission of instructor. LEC.

SOC 560. Law and Criminal Justice. 3 Hours. S.
An analysis of the sources and procedures of development of the criminal
law and analysis of the practices of law enforcement, prosecution, and
judicial action, principally in the United States. Prerequisite: A principal
course in sociology. LEC.

SOC 561. Sociology of Deviance. 3 Hours. S.
General analysis of the ways in which individuals and actions come to be
defined as deviant in a society, including the political, economic, social,
and cultural processes of labeling, rulemaking, and rule breaking: Why are some acts and groups considered deviant at some points in time and in some places, but not in others? Prerequisite: A principal course in sociology. LEC.

SOC 562. Sociology of Law. 3 Hours. S.
A survey of the effects of social structure, societal values, and social change upon the creation and alteration of law. Various perspectives from the social sciences will be employed in the introductory examination of the general place of law in societies. The emphasis of the course will be on the sociological analysis of law in Western history as well as the present. Prerequisite: A principal course in sociology. LEC.

SOC 570. Social Conflict. 3 Hours. S.
The nature of social conflict, with special emphasis on the more persistent conflict areas of modern social life such as industrial, racial, religious, and national conflicts. Prerequisite: A principal course in sociology. LEC.

SOC 571. Collective Behavior. 3 Hours. S.
An analysis of such collective phenomena as crowd behavior, social epidemics, fads, fashions, popular crazes, and mass movements; the nature of the public; functional analysis of public opinion; the problems of democracy as viewed from the standpoint of organizing collective action. Prerequisite: A principal course in sociology. LEC.

SOC 572. Dispute Settlement. 3 Hours. S.
Processes of negotiation and mediation in settling disputes in communities and organizations over controversial issues, policies, and decisions. Knowledge of skills are developed through studying theories and research findings, and by case analysis, role playing, and simulation. LEC.

SOC 573. Sociology of Violence. 3 Hours. S.
This course will examine violence in social and political life. The causes and consequences of various types of violence will be examined in a variety of social settings. Examples include violence in the family, schools, the workplace, violence in cities, and violence as a part of the political process: assassination, revolution, coups, terrorism, and government repression. Prerequisite: A principal course in sociology. LEC.

SOC 590. Sociology in the Community. 3 Hours. S.
The purpose of this course is to encourage students to develop their understanding of the relationship between individual biography and social organization while they contribute to their community by working as volunteers in non-profit community or campus organizations. Not open to students who have completed SOC 490. Prerequisite: SOC 310 and SOC 510. LEC.

SOC 598. Practicum in Crime and Delinquency Studies. 3-6 Hours. S.
A one- or two-semester course in which students are provided the opportunity, as interns, to gain practical experience working in the criminal justice system agency. A report in the format of a research paper is required at the conclusion of the practicum. Open only to Crime and Delinquency Studies majors. Prerequisite: Consent of the instructor. FLD.

SOC 600. Sociological Perspectives: ______. 3 Hours. S.
Analysis of various sociological perspectives and/or the application of various perspectives to a given social phenomenon. May be repeated as topics vary. Prerequisite: A principal course in sociology. LEC.

SOC 601. Introduction to Feminist Social Theory. 3 Hours. S.
Feminist theories accord a central role to gender and the oppression of women in developing an analysis of social life. This course will explore and evaluate accounts of social structure, social processes, and consciousness developed from a feminist perspective. A broad range of theoretical models will be presented, drawing on liberal, historical materialist, psychoanalytical, cultural, and Black feminist theories. Prerequisite: A principal course in Sociology and at least junior standing. LEC.

SOC 610. Survey Research. 3 Hours. S.
Methods and techniques of collecting and analyzing social data obtained by interviewing a sample of the population. Practice through field work and laboratory analysis. LEC.

SOC 615. Techniques of Demographic Analysis. 4 Hours. U.
Examines concepts of demographic measurement and analysis for the study of changes in size, composition and distribution of populations. Students learn to measure and analyze basic population components such as fertility, mortality, migration and health using rates, standardization, decomposition of differences and life tables. Provides an opportunity to develop quantitative skills in the context of human life course processes that might be extended to include the study of employment, incarceration, education and other phenomena. Involves some reliance on calculus, substantial use of statistical software and an extended research project. Course includes a laboratory component. Prerequisite: SOC 510 or equivalent, or permission of instructor. LEC.

SOC 617. Women and Health Care. 3 Hours. S.
Critical analysis of the current health status and health needs of women, exploring how lay, medical, and research assumptions have influenced both the clinical/scientific literature and the organization of health services. The course includes a focus on historical patterns in women’s health issues and social change actions. (Same as HPM 620.) LEC.

SOC 619. Political Sociology. 3 Hours. S.
The study of politics and society in the United States and abroad, including power and authority-who has them, how are they acquired, when are they challenged; state formation, the expansion of central governments, and patterns of political domination; political and nationalist movements; the politics of gender, class, race, and ethnicity; political culture and ideology; ethnic and nationalist conflict; revolution and political change. Prerequisite: A principal course in sociology or consent of instructor. LEC.

SOC 620. Social Organization. 3 Hours. S.
Comparative analysis of social organization in simple and complex societies. Consideration of the process of differentiation, specialization, institutionalization, and change, with special attention given to the emergence of intergroup and interorganizational forms of social organization typical of complex societies. Prerequisite: A principal course in sociology. LEC.

SOC 621. Cross-Cultural Sociology. 3 Hours. NW AE42/GE3H/GE3S / S.
A systematic introduction to cross-cultural issues from the standpoint of sociology, designed to acquaint students with the full range of substantive and methodological issues that arise in comparative sociological inquiry, with a primary focus on non-western societies. Specific topics to be addressed may include war and peace, stratification and inequality, race and ethnicity, and political authority and power, all viewed in the light of cross-cultural research and theory. Prerequisite: A previous Sociology course or consent of instructor. LEC.

SOC 622. Sociology of Science. 3 Hours. S.
The social roles of science in relation to other institutions, to technology, and to social change; and, within the scientific community, enculturation, information-flow, creativity, decision-making, administration, and leadership. Prerequisite: A principal course in sociology. LEC.

SOC 625. Work Roles in Health and Medicine. 3 Hours. S.
A sociological examination of medical and health-care occupations and professions. The selection of careers, socialization processes, and the development of professional identities. Interactions among practitioners,
health-care teams, consumers, and professional and community power structures. Control and coordination of work. The impact of increasing specialization and changes in the demographic makeup of client and professional populations. Coping with medical failure and other problems inherent in medical and health-care work. LEC.

SOC 625. Religion and Society. 3 Hours. S.
A comparative study of the nature of religion in human societies both primitive and civilized; the functioning of religion for the community and the individual; the analysis of belief, myths, rituals, sacred attitudes, cults, religious movements, and church organization. Prerequisite: A principal course in sociology or ANTH 108 or ANTH 308. LEC.

SOC 628. Families and Social Inequalities. 3 Hours. S.
This course examines families in the context of social inequalities based on race-ethnicity, social class, gender, and sexuality. It analyzes the link between family diversity and social inequalities in the U.S. and elsewhere and theorizes families using a critical lens that focuses on social policies and power relations that perpetuate social inequalities. We also explore the growing complexities of families and how they affect and are affected by other social institutions, especially the labor market. Prerequisite: SOC 220 or consent of instructor. LEC.

SOC 629. Sociology of Sport. 3 Hours. S.
Examination of organized sport as a social institution and its relation to other social institutions (e.g., political, economic, educational, and religious), with special emphasis on American society. Analysis of the social correlates of sports participation and a consideration of the role of sport in social change. (Same as AMS 629.) Prerequisite: A principal course in sociology. LEC.

SOC 630. Latin American Society. 3 Hours. S/W.
Aspects of the social organization of main Latin American nations, including, e.g., race/ethnicity, social class, gender, urbanization, socioeconomic development, revolution, and relations with the U.S. Emphasis on sociological theories of Latin American development. Prerequisite: A principal course in Sociology or ANTH 108 or ANTH 308, plus junior-senior or graduate standing. LEC.

SOC 634. The Sociology of Culture. 3 Hours. S.
An introduction to a branch of sociology, mainly European in origin, that considers the relation between social structure and "high" and "mass" culture. Specific theories of these relations will be applied to works of literature, the fine arts, or music. Some preliminary acquaintance with these subjects is desirable but not mandatory for admission to the course. LEC.

SOC 640. Political Islam. 3 Hours. NW AE42/AE51 / S.
This course gives students a basic understanding of Islam and Islamic movements, explores the economic, social, political, and cultural context in which these movements take place, and examines the impact of Islam on politics in select countries. Issues such as compatibility of political Islam and democratic politics, political economy in Muslim societies, fundamentalism in Islam, gender relations, identity politics and questions on clash of civilizations are explored. (Same as POLS 667). Prerequisite: A principal course in sociology, POLS 150, or consent of instructor. LEC.

SOC 650. Transnational Migration. 3 Hours. S.
A historically-conscious, sociological exploration of political, cultural and health issues involved in transnational migration, this course invites the student to situate current transnational migration within specific historical social processes within both postcolonial Africa and the postcolonial West. The course examines parallels from the experience of migration in other parts of the world, specifically Asia and Latin America. The aim is an understanding and appreciation of both the interconnectedness of the world’s peoples and, crucially, of the world’s histories. Prerequisite: SOC 104. LEC.

SOC 660. Sociology of Mental Illness. 3 Hours. S.
The sociology of mental illness concerns itself with the study of mental disorders as social phenomena. The course will be concerned with (1) the social factors and social processes that contribute to mental disorders, (2) the social definitions of mental disorders as forms of social deviance, (3) the social aspects of the prevention of mental disorders. Prerequisite: A principal course in sociology. LEC.

SOC 661. Causation of Crime and Delinquency. 3 Hours. S.
The individual and social processes that produce violation of legal norms, dealing with society’s responses to these violations only insofar as the responses influence the violators. Prerequisite: A principal course in sociology. LEC.

SOC 662. Corrections. 3 Hours. S.
Legal systems for handling offenders and the development of the laws creating these systems. Emphasis on the various parts (police, courts, probation, penal institutions, and parole) of the system will vary. Prerequisite: A principal course in sociology. LEC.

SOC 671. Social Movements. 3 Hours. S.
Social movements as collective action to establish forms of social organization; consideration of reform, revolutionary, sectarian and fashion movements; ideology, esprit de corps, morale and leadership as factors in development and organization. Prerequisite: A principal course in sociology. LEC.

SOC 672. Sociology of War and Peace. 3 Hours. S.
Descriptive and analytic account of cold and hot wars. The concept of enemy. Types of war. Emphasis on personal and collective action in warlike situations. War and international politics. The ideologies of war from the classics to the present. Prerequisite: A principal course in sociology. LEC.

SOC 688. Individual Undergraduate Research. 1-12 Hours. AE61 / S.
Library or field research either as part of an ongoing project or as an independent study project. One to twelve hours. May be taken from one or more faculty during one or more semesters, the total hours not to exceed 12. No more than 3 credits may be applied to satisfy requirements for the sociology major. Prerequisite: Two courses in sociology and consent of instructor. IND.

SOC 699. Capstone in Sociology. 3 Hours. AE61 / S.
In this capstone course, students synthesize the knowledge gained in their substantive courses and use the skills developed in their methodology courses to design and conduct a research project on a current social issue or meeting the research needs of a local community group. The outcome will be a professional quality research report. Prerequisite: SOC 510. LEC.

SOC 707. Seminar in Historical Sociology. 1-4 Hours.
Each seminar will explore problems at the intersection of sociology and history. Topic, instructors, and hours of credit will be announced in the Schedule of Classes. Seminars will be offered by different instructors on different topics and students may take more than one topic. No prerequisite. LEC.

SOC 722. Sociology of Gender. 3 Hours.
This course will offer a range of sociological perspectives on the role of gender in society. The particular substantive focus will vary each semester to allow flexibility for in-depth analysis of gender relationships in such areas as politics, health and aging, and work. LEC.
SOC 760. Social Inequality. 3 Hours.
A comprehensive review of the major theoretical and empirical approaches used in the study of institutionalized social inequality. Reference to the origins, forms, cultural and structural variations and their changes over time, consequences and ideologies of social inequality. Prerequisite: A distribution course in sociology. LEC.

SOC 762. Seminar in Social Deviation and Control: ______. 3 Hours.
Advanced study of theory and practice relating to deviation. May be repeated as topics vary. Prerequisite: SOC 662 or SOC 661. LEC.

SOC 767. Gerontology Proseminar. 3 Hours.
A proseminar coordinated by the Gerontology Center. The proseminar explores essential areas of gerontology for researchers and practitioners, providing a multidisciplinary (psychology, biology, sociology, and communication) perspective on aging. The proseminar surveys contemporary basic and applied research, service programs, and policy and management issues in gerontology. (Same as ABSC 787, AMS 767, COMS 787, and PSYC 787.) (Formerly HDFL 787.) LEC.

SOC 770. Social Systems and Social Change in the United States. 3 Hours.
Analysis of approaches to the study of sociocultural change in America, with special emphasis on a systems perspective. Seniors by consent of instructor. LEC.

SOC 771. Intergroup Relations and Conflict in American Society. 3 Hours.
Analysis of the dynamics of intergroup relations (e.g., class, religious, ethnic, racial, political) in America with special emphasis on the examination of major theoretical and empirical approaches employed in the study of societal conflict and consensus. LEC.

SOC 780. Advanced Topics in Sociology: ______. 3 Hours.
Topics will vary from semester to semester and instructor to instructor to allow flexibility for in-depth analysis of particular topics. LEC.

SOC 790. Proseminar. 3 Hours.
Introduction to major disciplinary issues, departmental research specialties, faculty research interests, interdisciplinary connections, funding sources, and professional writing. Required of M.A. students entering the graduate program in sociology. May not be taken by those who have credit for SOC 990. Graded on satisfactory/unsatisfactory basis. LEC.

SOC 801. The Rise of Social Theory. 3 Hours.
This is less a survey of intellectual history than an effort to trace the "preclassical" roots of sociological theory. We explore the rise of paradigmatic concerns in the writings of such key figures as Aristotle, Marsilius of Padua, Martin Luther, Étienne de la Boétie, Michel de Montaigne, Charles de Montesquieu, Jean-Jacques Rousseau, Immanuel Kant, G.W.F. Hegel, Flora Tristan, and Ludwig Feuerbach, among others. LEC.

SOC 802. Modern Social Theory. 3 Hours.
This seminar will focus on the later 19th and early 20th century "theories of society," addressing the origins and developmental tendencies of Western modernity and their relation to premodern social orders. Primary texts of the major theorists (e.g. Marx, Durkheim, Nietzsche, Weber, Simmel, and Mead) will be studied in historical context. The tradition's analytical and critical resources and problematic features will also be explored. Finally, the connections between this tradition and contemporary sociological approaches will be explored. LEC.

SOC 803. Issues in Contemporary Theory: ______. 3 Hours.
A critical examination of recent trends and debates in sociological theory. This is a thematically oriented course in which classical as well as contemporary views will be explored. Attention will be directed to theoretical issues under discussion in fields such as symbolic interactionism, semiology, ethnmethodology, critical theory, macrosociology, and others. LEC.

SOC 804. Sociology of Knowledge. 3 Hours.
This course reviews the major sociological approaches to the study of the relationship between thought and the social context within which it arises. A central concern is an examination of the relationship between ideology and social structures, particularly as expressed in the construction of official knowledge. LEC.

SOC 808. Feminist Theories. 3 Hours.
This course will explore and evaluate accounts of social structure, social processes, and consciousness developed in the feminist literature. We will review a range of theoretical arguments, including liberal, historical, materialist, psychoanalytic, cultural, and Black feminist theories. Some of the readings will focus on limitations and distortions within mainstream social theory; others will center on the development of alternative social theory using the standpoint of women as a point of departure. LEC.

SOC 810. Sociological Inquiry. 3 Hours.
The goals of this course are to understand the characteristics of sociologically interesting and rigorous research and to design a research proposal that shares those characteristics. The focus of students' proposals will be their M.A. thesis project. Students will read books and articles representing a variety of research approaches (ethnographies, surveys, interviews, document analyses, historical studies, comparative research, etc.), and will deconstruct them in order to understand their theoretical and methodological significance. Assignments will include a completed M.A. thesis proposal. LEC.

SOC 811. Sociological Research. 3 Hours.
The use of the scientific method to study social phenomena including: the formulation and testing of hypotheses; techniques for collecting data; measuring social variables; interpreting research findings; the relationship of theory and facts. Prerequisite: A distribution course in sociology. LEC.

SOC 812. Analytic Methods in Sociology. 3 Hours.
Consideration of quantitative methods of analysis including both parametric and non-parametric techniques. Prerequisite: A course in statistics. LEC.

SOC 813. Field Methods and Participant Observation. 3-5 Hours.
Will acquaint the student both theoretically and empirically with the procedures and logics of the research techniques employed by individuals or small research teams conducting qualitative fieldwork. Prerequisite: A distribution course in sociology. FLD.

SOC 814. Health Services Research: Epidemiology, Evaluation, and Survey Methods. 3 Hours.
Students learn the logic, assumptions, designs, and procedures involved in conducting the major types of research found in the health services field. Students develop an informed basis for critically evaluating the methodological adequacy of research studies in the areas of descriptive and analytic epidemiology, program evaluation, and health-related survey research as well as working knowledge of the research process itself. Emphasis is placed on examining basic health services issues such as measuring quality of care, understanding the role of social factors in the etiology of disease, determining the health status and health needs of populations, and incorporating health services research into organizational policy and decision-making. LEC.

SOC 820. Political Sociology. 3 Hours.
This course offers an overview of the different perspectives and key arguments comprising the field of political sociology, including both classical and contemporary readings. The issues studied in this field
include the nature of power and the nature of the state, relations between
state and society, and social movements, political organization and
civic participation, political culture, voting behavior, comparative political
systems, warfare, democracy and economic development, citizenship,
nationalism, revolutions, and globalization. LEC.

SOC 824. Health and Social Behavior. 3 Hours.
This course provides students with an analytic understanding of the
organization, professional, and interpersonal behavior that characterizes
contemporary health and health care. Emphasis is placed on examination
and integration of conceptual frameworks, theories, and research findings
bearing on basic behavioral/managerial issues such as authority relations
in health care settings, models of illness behavior and health services
utilization, the impact of organizational structure on employee and client
attitudes and behavior, and the culture of professional medicine in relation
to patient care. LEC.

SOC 830. Latin American Society. 3 Hours.
Aspects of the social organization of main Latin American nations,
including, e.g., race/ethnicity, social class, gender, urbanization,
socioeconomic development, revolution, and relations with the U.S.
Emphasis on sociological theories of Latin American development.
Prerequisite: A principal course in sociology or ANTH 108 or ANTH 308,
plus junior-senior or graduate student standing. LEC.

SOC 873. International Political Economy. 3 Hours.
Provides a broad survey of major developments in the field. Topics
include the intellectual origins of international political economy; the
historical evolution of the international system; North-South and Western
trade, investment, and monetary relations; foreign aid, debt technology
transfer, development, international economic institutions (e.g.,
International Monetary Funds, World Bank, Multinational Corporations,
etc.). (Same as POLS 973.) LEC.

SOC 875. The Political Economy of Globalization. 3 Hours.
The course will acquaint students with recent developments in the global
economy, including its impact on politics and society. Topics include
theories of globalization, the role of the nation-state and international
agencies in socioeconomic development, inequality from a global
perspective, immigration and citizenship, globalization and democracy,
and the rise of transnational social movements. LEC.

SOC 891. Individual Master’s Readings. 1-6 Hours.
Individual study of special topics or problems by students working on a
master's degree. RSH.

SOC 892. Teaching Seminar. 1-3 Hours.
Seminar on sociology course design and development. Topics covered
include syllabus design, exam strategies and design, course design,
content of and approaches to teaching introductory and other sociology
courses, student grading and evaluation. Required of all teaching
assistants assigned to courses in sociology. May not be repeated for
credit toward graduate degree. LEC.

SOC 899. Thesis. 1-8 Hours.
THE.

SOC 900. Seminar on Special Topics in Theory: ______. 1-4 Hours.
Each seminar will explore problems of theory in sociology. Topic,
instructor, and hours of credit will be announced in the Schedule of
Classes. Seminars will be offered by different instructors on different
topics, and a student may take more than one topic. LEC.

SOC 910. Seminar on Special Topics in Methods: ______. 1-4 Hours.
Each seminar will explore problems of methods in sociology. Topic,
instructor, and hours of credit will be announced in the Schedule of
Classes. Seminars will be offered by different instructors on different
topics, and a student may take more than one topic. LEC.

SOC 920. Seminar on Special Topics in Social Organizations: ______.
1-4 Hours.
Each seminar will explore problems of social organization in sociology.
Topic, instructor, and hours of credit will be announced in the Schedule
of Classes. Seminars will be offered by different instructors on different
topics, and a student may take more than one topic. LEC.

SOC 930. Seminar on Special Topics in Comparative Studies: ______.
1-4 Hours.
Each seminar will explore problems of comparative studies in sociology.
Topic, instructor, and hours of credit will be announced in the Schedule
of Classes. Seminars will be offered by different instructors on different
topics, and a student may take more than one topic. LEC.

SOC 940. Seminar on Topics in Demography, Ecology, and
Community: ______. 1-4 Hours.
Each seminar will explore problems of demography, ecology, and
community in sociology. Topic, instructor, and credit hours will be
announced in the Schedule of Classes. Seminars will be offered by
different instructors on different topics, and a student may take more than
one topic. LEC.

SOC 950. Seminar on Special Topics in Social Psychology: ______.
1-4 Hours.
Each seminar will explore problems of social psychology in sociology.
Topic, instructor, and credit hours will be announced in the Schedule
of Classes. Seminars will be offered by different instructors on different
topics, and a student may take more than one topic. LEC.

SOC 960. Seminar on Special Topics in Deviance and Social
Problems: ______. 1-4 Hours.
Each seminar will explore problems of deviance and social problems in
sociology. Topic, instructor, and credit hours will be announced in the
Schedule of Classes. Seminars will be offered by different instructors on
different topics, and a student may take more than one topic. LEC.

SOC 970. Seminar on Special Topics in Social Conflict and Change:
______. 1-4 Hours.
Each seminar will explore problems of social conflict and change in
sociology. Topic, instructor, and hours of credit will be announced in the
Schedule of Classes. Seminars will be offered by different instructors on
different topics, and a student may take more than one topic. LEC.

SOC 980. Special Topics in Sociology: ______. 1-3 Hours.
Topics will vary by semester and instructor to allow flexibility for in-depth
analysis of particular topics that do not fit into one of the other 900 level
seminars. LEC.

SOC 991. Individual Doctoral Readings. 1-6 Hours.
Individual study of special topics or problems by students working on a
doctorate. RSH.

SOC 999. Dissertation. 1-12 Hours.
THE.

Bachelor of Arts and Bachelor of General Studies in Sociology

Why study sociology?

Sociology investigates the social institutions and processes that shape
human behavior, histories, and opportunities.
First- and Second-Year Preparation

Admission GPA
- Satisfied by a minimum 2.5 GPA in required admission courses designated below.
- University Course Repeat Policy will apply.

Admission to the Major

Admission Requirements

Course Requirements
Math Requirement. Satisfied by one of the following:
- MATH 101 College Algebra
- MATH 104 Precalculus Mathematics
- Equivalent ACT/SAT, equivalent course, or higher course

Elements of Sociology. Satisfied by one of the following:
- SOC 104 Elements of Sociology
- SOC 105 Elements of Sociology, Honors
- SOC 304 Principles of Sociology

Sociology Admission Elective. Satisfied by sociology elective course.

Grade-Point Average Requirements
- Satisfied by a minimum 2.5 GPA in required admission courses designated above.
- University Course Repeat Policy will apply.

Application Term
Students should apply to the major during the semester in which major admission criteria will be completed, normally no later than 60 hours, or for transfer students, during the initial term at KU. Application to this major after completion of 60 hours, or the initial KU term for transfer students, will likely delay graduation.

Requirements for the B.A. or B.G.S. Major

Sociology Core Knowledge and Skills (12)
Majors must complete a course in each of the following areas:
- Elements of Sociology. Satisfied by one of the following: 3
  - SOC 104 Elements of Sociology
  - SOC 105 Elements of Sociology, Honors
  - SOC 304 Principles of Sociology
- Introduction to Social Research. Satisfied by:
  - SOC 310 Introduction to Social Research 3
- Elementary Statistics & Data Analysis. Satisfied by:
  - SOC 510 Elementary Statistics and Data Analysis 3
- Sociology Theory. Satisfied by:
  - SOC 500 Sociological Theory 3

Sociology Required Electives (21)
Majors must complete an additional 21 hours of sociology courses beyond the core courses above. At least 15 hours of these must be at the junior/senior (300+) level. Up to 3 hours may be chosen from SOC 490, SOC 598, or SOC 698, and up to 6 hours from SOC 499, to be applied to this requirement.

Upper-level sociology electives. Satisfied by 15 sociology hours at the Junior/Senior (300+) level

Additional sociology electives. Satisfied by 6 additional sociology hours at the upper or lower level

Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 33 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major. At least 15 credit hours at the 300+ level, including SOC 310, SOC 510, and SOC 500, must be taken at KU.

Major Junior/Senior Hours
Satisfied by a minimum of 24 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Graduation Plan
With careful planning and commitment to a full-time course load, you can graduate in 4 years (http://clas.ku.edu/undergrad). Download a sample 4-year plan (http://clas.ku.edu/undergrad/advising/plans) for sociology.

Double Majors
Sociology majors may want to consider a second major in philosophy; history; women’s studies; area studies; or one of the natural or social sciences; or a second degree in journalism or other professional disciplines.

Departmental Honors
Working under the supervision of a faculty mentor, the undergraduate student must complete 6 hours of work in SOC 499 culminating in a superior thesis. The thesis must be certified by 3 members of the College faculty, at least 2 of whom must be from sociology, nominated by the candidate and approved by the departmental honors coordinator. The student also must achieve a grade-point average of at least 3.5 in sociology and 3.25 overall.

Minor in Sociology

Why study sociology?
Sociology investigates the social institutions and processes that shape human behavior, histories, and opportunities.

Requirements for the Minor

Sociology Minor
Elements of Sociology (3)
Satisfied by:
- SOC 104 Elements of Sociology 3
Sociology Minor Electives (15) 15
Satisfied by 15 hours required, 12 hours at the 300-level or above.

Minor Hours & Minor GPA
While completing all required courses, minors must also meet each of the following hour and grade-point average minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 junior/senior (300+) hours of KU resident credit in the minor.

Minor Junior/Senior Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses in the minor. GPA calculations include all departmental courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Master of Arts in Sociology

Why study sociology?
Sociology investigates the social institutions and processes that shape human behavior, histories, and opportunities.

Admission to Graduate Studies
An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission
Prerequisites are 15 credit hours in sociology, a course in sociological theory, and a sociology course in statistics. Applications must include scores on the Graduate Record Examination aptitude tests. International applicants must submit scores on the GRE and either the Test of English as a Foreign Language or the academic format of the International English Language Testing System administered by the University of Cambridge ESOL Examinations.

Applications also must include
• A current résumé/curriculum vitae,
• A writing sample, and
• A nonrefundable application fee (see Admission in the Graduate Studies (p. 2059) section of the online catalog).

The applicant’s record should indicate considerable academic promise and a high level of motivation.

Submit your graduate application online (http://www.graduate.ku.edu). Send transcripts of all completed university course work to the department:

The University of Kansas
Department of Sociology
Fraser Hall
1415 Jayhawk Blvd., Room 716
Lawrence, KS 66045-7540

M.A. Degree Requirements

Thesis Option
Students must complete 36 hours of graduate credit (including SOC 790 Proseminar, SOC 810 Sociological Inquiry, SOC 811 Sociological Research, 2 graduate-level courses in sociological methods, 1 graduate-level course in sociological theory, 4 graduate-level sociology seminars, and 6 thesis hours in SOC 899) and must prepare and defend an M.A. thesis. Individual Master’s Readings courses (SOC 891) may not be used to meet these requirements except by approved petition. The defense of the M.A. thesis includes a general examination of sociological theory and research. Completion of these requirements leads to the M.A. degree, which normally allows the student to proceed to doctoral study.

Nonthesis (Terminal) Option
Students must complete 36 hours of graduate credit (excluding any credit given for thesis and including the courses specified above under the thesis option) and a final oral examination over course work in sociology. Completion of these requirements leads to the M.A. degree but does not allow the student to proceed to doctoral study.

Handbook for Graduate Students
A more detailed account of advising procedures, degree requirements, and program options is set forth in the department’s Manual of Graduate Study in Sociology, which is available online.

Doctor of Philosophy in Sociology

Why study sociology?
Sociology investigates the social institutions and processes that shape human behavior, histories, and opportunities.

Admission to Graduate Studies
An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.
Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

**Graduate Admission**

Prerequisites are 15 credit hours in sociology, a course in sociological theory, and a sociology course in statistics. Applications must include scores on the Graduate Record Examination aptitude tests. International applicants must submit scores on the GRE and either the Test of English as a Foreign Language or the academic format of the International English Language Testing System administered by the University of Cambridge ESOL Examinations.

Applications also must include

- A statement of academic interests and professional goals,
- 3 recommendation rating forms and letters from individuals who can evaluate the applicant’s academic performance,
- 1 complete set of transcripts from all colleges and universities attended,
- A current résumé/curriculum vitae,
- A writing sample, and
- A nonrefundable application fee (see Admission in the Graduate Studies section of the online catalog).

The applicant’s record should indicate considerable academic promise and a high level of motivation.

Submit your graduate application online (http://www.graduate.ku.edu). Send transcripts of all completed university course work and all other requested application materials to the department:

**The University of Kansas**  
Department of Sociology  
Fraser Hall  
1415 Jayhawk Blvd., Room 716  
Lawrence, KS 66045-7540

**Ph.D. Degree Requirements**

Students who have received an M.A. degree in sociology may be eligible to pursue the Ph.D. degree. For the Ph.D., students must complete all general requirements (including residency, research skills, comprehensive oral examination, preparation of a dissertation, and the final oral examination) and all M.A. degree requirements. In addition, the following requirements must be met:

1. Obtain admission to the Ph.D. program.
2. Complete SOC 790 Proseminar, unless completed at the M.A. level.
3. Carry out a program of study developed, initially, with a member of the graduate studies committee and, as soon as possible, with a doctoral advisory committee.
4. Attain the requisite levels of competence in the history and theory of sociology and in methods of sociological research by taking, in addition to the courses required for the thesis-option M.A. (2 sociological methods, 1 sociological theory, and 4 sociological seminars), SOC 812 Analytic Methods in Sociology, 1 graduate-level sociology methods course, 2 graduate-level courses in sociological theory, and 3 graduate-level sociology seminars with an average grade of 3.0. Individual Doctoral Readings courses (SOC 991) may not be used to meet these requirements except by approved petition.
5. Complete the Research Skills and Responsible Scholarship (RSRS) requirement. The university requires that every doctoral student have training in responsible scholarship and research skills pertinent to the field of research and appropriate to the doctoral level. This requirement must be met before taking the comprehensive oral exam. Doctoral students in sociology meet this requirement by completion of the following courses: SOC 810, SOC 811, SOC 812, SOC 910. Additional information about this requirement can be found under Doctoral Degree Requirements, Doctor of Philosophy, Research Skills in the Graduate Studies (p. 2059) section of the online catalog.
6. Students must compile portfolios of their professional work successfully demonstrating command of 2 fields of specialization within sociology and preparation to undertake dissertation research.
7. Complete 3 full academic years, or the bona fide equivalent, in study at this or another approved university, including time spent attaining the master’s degree.
8. Complete 2 semesters, normally consecutive, in study at KU. During this period, the student must be involved in full-time academic pursuits that may involve teaching or research activities. In this case, the minimum enrollment is 6 credit hours.
9. Pass an oral comprehensive examination. The candidate then enrolls for a minimum of 6 hours a semester and 3 hours a summer session until 18 hours or all requirements for the degree (whichever comes first) have been completed. If the degree is not complete after 18 hours of post-comprehensive enrollment, the candidate continues to enroll each semester and each summer session until all requirements for the degree have been met.

**Note:** Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current policies on Doctoral Research Skills and Responsible Scholarship are listed in the Graduate Studies section of the online catalog and in KU Policy Library.

**Handbook for Graduate Students**

A more detailed account of advising procedures, degree requirements, and program options is set forth in the department’s Manual of Graduate Study in Sociology, which is available online at sociology.ku.edu/gradprog.

**Department of Spanish and Portuguese**

**Why study Spanish and Portuguese?**

Because fluency in more than one language and culture and analytical understandings of literary and cultural texts create educated citizens.

**Undergraduate Programs**

The department offers course work for students seeking proficiency in a foreign language and for majors in Spanish or a related field.
Placement
Students who have not studied Spanish in high school should seek permission to enroll in SPAN 104. For permission to enroll in this course, a student must show his or her high school transcript to the advising specialist in the Department of Spanish and Portuguese. Students who have had limited study of Spanish (1 to 3 years in high school or 1 semester of Spanish at another institution of higher learning, equivalent to SPAN 104) and are not placed in the intermediate level should enroll in SPAN 111. Only students who complete SPAN 104 at KU are eligible to enroll in SPAN 108.

Students with 2 to 4 years of high school Spanish can be placed in the intermediate level (SPAN 212, SPAN 216, SPAN 220, or SPAN 324) by taking the placement examination and consulting the advising specialist.

Students registered with Disability Resources (http://www.disability.ku.edu) should contact them for placement advising.

Retroactive Credit
Students with no prior college or university Spanish course credit are eligible for retroactive credit according to this formula:

1. 3 hours of retroactive credit are awarded to a student who enrolls initially at KU in a third-level Spanish course (SPAN 212) and receives a grade of C or higher.
2. 6 hours of retroactive credit are awarded to a student who enrolls initially at KU in a fourth-level Spanish course (SPAN 216) and receives a grade of C or higher.
3. 9 hours of retroactive credit are awarded to a student who enrolls initially at KU in a 3-credit-hour Spanish course with a fourth-level course as a prerequisite and receives a grade of C or higher.

Students interested in retroactive credit should consult the department before enrolling.

Courses for Nonmajors
Students may fulfill the College foreign language requirement by

1. Passing the proficiency examination
2. Completing SPAN 216 or PORT 216
3. Completing a course in Spanish or Portuguese that has SPAN 216 or PORT 216 as a prerequisite.

Candidates for the B.S. in education who are majoring in Spanish or minoring in Brazilian Studies should consult the School of Education.

Graduate Programs
The department offers a full graduate program leading to the M.A. and the Ph.D. degrees. Students who complete their graduate studies with the M.A. degree are well prepared to enter a variety of fields, including international business, teaching, and government. The Ph.D. program takes advantage of the literature specialties of the faculty, and Ph.D. recipients generally go on to university or college teaching.

A detailed description is available from the departmental office as well as the department’s website (http://www2.ku.edu/~spanport). This includes specific distribution requirements, fields of specialization, and information on the comprehensive examinations. Students should request information and application forms as early as possible, especially if they plan to apply for financial aid.

Courses

PORT 104. Elementary Brazilian Portuguese I. 5 Hours. U.
Five hours of class per week, plus supplementary work in language laboratory. Essentials of grammar, elementary syntax and composition, easy reading. Emphasis on conversation. LEC.

PORT 106. Elementary Brazilian Portuguese, Accelerated I. 3 Hours. U.
Three meetings weekly, plus supplementary work in language laboratory. Designed for students proficient in Spanish (or with previous work in Portuguese) to acquire proficiency in Portuguese more rapidly. Covers the same material as PORT 104. Prerequisite: SPAN 216 or equivalent. LEC.

PORT 108. Elementary Brazilian Portuguese II. 5 Hours. U.
Five hours of class per week plus supplementary work in language laboratory. A continuation of PORT 104. Prerequisite: PORT 104. LEC.

PORT 110. Elementary Brazilian Portuguese, Accelerated II. 3 Hours. U.
A continuation of PORT 106. Prerequisite: PORT 106. LEC.

PORT 177. First Year Seminar: ______. 3 Hours. GE11/U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Portuguese. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

PORT 212. Intermediate Brazilian Portuguese I. 3 Hours. U.
A review of Brazilian Portuguese grammar, with practice in reading, composition, and conversation through the study and discussion of Brazilian prose selections. Prerequisite: PORT 108 or PORT 110. LEC.

PORT 216. Intermediate Brazilian Portuguese II. 3 Hours. U.
A continuation of PORT 212. Prerequisite: PORT 212. LEC.

PORT 220. Intensive Intermediate Brazilian Portuguese. 3-6 Hours. U.
Five hours of class and an additional hour in the language laboratory. The course is designed for students who began the study of Portuguese in PORT 106 and PORT 110, and for superior students in PORT 104 and PORT 108. The material covered is the same as in PORT 212 and PORT 216. Prerequisite: PORT 110, PORT 108 with a grade of A or B, or consent of instructor. Open only to members of the Summer Language Institute in Vitoria-Vila Velha, Brazil. LEC.

PORT 300. Brazilian Culture. 3 Hours. HT AE42/H.
Prehistoric and colonial Portuguese origins of Brazil and its independent development in the nineteenth and twentieth centuries. Key aspects of economic, political, and social factors; special attention to intellectual history. Readings in English. LEC.

PORT 320. Introduction to Portuguese and Brazilian Literatures. 3 Hours. H/W.
A more advanced reading course serving as an introduction to the study of Luso-Brazilian literature, with discussion in Portuguese of the material read. Prerequisite: A fourth semester course in Portuguese or consent of instructor. LEC.

PORT 340. Textual Analysis and Critical Reading. 3 Hours. HL/H.
Introduction to Brazilian cultural and literary studies. Critical readings and interpretation of Brazilian cultural expressions with emphasis on acquiring the skills and vocabulary for discussing and writing critical analyses. Conducted in Portuguese. Not open to students who have taken PORT
540. Prerequisite: Grade of A or B in PORT 216 or consent of instructor. LEC.

PORT 347. Brazilian Studies: _____. 3 Hours. H.
A topics course dedicated to the study of special historical moments, topics, authors, or themes in literary and cultural history. The course may cover multiple genres and periods. Course conducted in Portuguese and may be repeated for credit as the topic varies. Not open to students who have taken PORT 547. Prerequisite: PORT 216 or consent of instructor. LEC.

PORT 348. Portuguese Language and Brazilian Culture for Business. 3 Hours. H.
Cultural studies approach to contemporary Brazilian society for students interested in business. Explores how Brazilians negotiate their place in a global cultural context and how they perceive business (negocios). Readings include selections from literature, history, journalism, social analysis, and popular culture. Exercises help English speakers develop analytical skills as well as vocabulary and communication skills related to business and professional life in Brazil. Conducted in Portuguese. Not open to students who have taken PORT 548. Prerequisite: PORT 216 or consent of instructor. LEC.

PORT 365. Studies in Brazilian Film: _____. 3 Hours. H.
A theoretical and historical approach to Brazilian film with particular attention to thematic concerns, such as cultural and national identity, and of literary discourse. Given in Portuguese or English. May be repeated for credit as topic varies. Students will be expected to attend film screenings in addition to regular class meetings. Not open to students who have taken PORT 565. Prerequisite: Consent of instructor. LEC.

PORT 388. Intermediate Brazilian Portuguese Conversation. 1 Hour. U.
Two recitations weekly. Prerequisite: PORT 104 or PORT 106. LEC.

PORT 394. Special Readings in Brazilian Studies. 1-3 Hours. H.
Direct readings in (a) fields not covered by student’s course work, and/or (b) field of student’s special interest approved by the department. May be repeated for credit if content varies. Prerequisite: PORT 216 and three-hours upper-division credit in Portuguese, or consent of instructor. LEC.

PORT 471. Studies in Brazilian Culture and Civilization: _____. 1-3 Hours. H.
A study of Brazilian culture with emphasis on one or more of the following aspects: history, politics, ethnology, anthropology, religious and secular traditions, issues of cultural identity, music, art, architecture, and popular culture. Available only to study-abroad participants. May be repeated for credit if content varies. LEC.

PORT 475. Studies in Brazilian Literature: _____. 1-3 Hours. H.
A study of the literature of a particular author, group of authors, period, genre, region, or theme. Available only to study-abroad participants. May be repeated for credit if content varies. LEC.

PORT 488. Advanced Brazilian Portuguese Conversation. 1 Hour. U.
Two recitations weekly. More advanced than PORT 388. Prerequisite: PORT 108, PORT 110, or PORT 388. LEC.

PORT 490. Intensive Advanced Portuguese. 3-6 Hours. H/W.
Advanced composition, conversation, and stylistics, plus an introduction to Brazilian culture. Offered only during the Summer Language Institute in Brazil. Prerequisite: Four semesters of Portuguese, or consent of instructor. Open only to members of the Summer Language Institute in Vitoria-Vila Velha, Brazil. LEC.

PORT 509. Portuguese Phonetics and Phonology. 3 Hours. H/W.
A study of the phonology of the carioca (Rio de Janeiro) dialect of Brazilian Portuguese, and an introduction to other major Brazilian and Portuguese dialects. Prerequisite: Nine hours of Portuguese, or consent of instructor. LEC.

PORT 540. Textual Analysis and Critical Reading. 3 Hours. HL / H.
A more intensive treatment of the content of PORT 340. Not open to students who have taken PORT 340. Prerequisite: Consent of instructor. LEC.

PORT 547. Brazilian Studies: _____. 3 Hours. H.
A more intensive treatment of the content of PORT 347. Not open to students who have taken PORT 347. Prerequisite: PORT 216 or consent of instructor. LEC.

PORT 548. Portuguese Language and Brazilian Culture for Business. 3 Hours. H.
A more intensive treatment of the content of PORT 348. Not open to students who have taken PORT 348. Prerequisite: Consent of instructor. LEC.

PORT 560. Survey of Portuguese Literature. 3 Hours. H/W.
Emphasis on Gil Vicente, Camoes, Eca de Queiroz, and Fernando Pessoa. Prerequisite: A fourth semester course in Portuguese or consent of instructor. LEC.

PORT 565. Studies in Brazilian Film: _____. 3 Hours. H.
A more intensive treatment of the content of PORT 365. Not open to students who have taken PORT 365. Prerequisite: Consent of instructor. LEC.

PORT 611. Accelerated Basic Portuguese for Spanish Speakers. 3 Hours. U.
Contrastive phonological and morphological analysis of standard Spanish and the major dialect of Brazilian Portuguese, followed by a presentation of major grammatical and phonological stumbling blocks for Spanish speakers. Drills on grammar, syntax, and pronunciation emphasize those areas in which Brazilian Portuguese differs most significantly from Spanish. Prerequisite: Graduate student status in Spanish. Undergraduates in Spanish may be admitted with consent of instructor. LEC.

PORT 612. Accelerated Basic Portuguese for Spanish Speakers II. 3 Hours. U.
A continuation of PORT 611, with special emphasis on reading and writing skills. Prerequisite: PORT 611. LEC.

PORT 740. Survey of Brazilian Literature. 3 Hours.
A survey of Brazilian literature from 1500 to present. Prerequisite: A fourth semester course in Portuguese or consent of instructor. LEC.

PORT 742. The Brazilian Novel. 3 Hours.
The development of the novel in Brazil and analysis of representative works of the nineteenth and twentieth centuries. Prerequisite: A fourth semester course in Portuguese or consent of instructor. LEC.

PORT 746. The Brazilian Short Story. 3 Hours.
The development of the short story in Brazil and analysis of representative works of the nineteenth and twentieth centuries. Prerequisite: A fourth semester course in Portuguese or consent of instructor. LEC.

PORT 750. Brazilian Poetry. 3 Hours.
A study of the principal movements and an analysis of representative works from the colonial period to the present. Emphasis on modernists and post-modernists. Prerequisite: A fourth semester course in Portuguese or consent of instructor. LEC.

PORT 760. Contemporary Brazilian Literature. 3 Hours.
A survey of Brazilian cultural expressions and literature in the Twentieth Century. Conducted in Portuguese. Prerequisite: PORT 216 or consent of instructor. LEC.
PORT 780. Special Readings in Portuguese and Brazilian Literature. 1-3 Hours.
May be taken more than once; total credit not to exceed five hours. Directed private readings with conferences with instructor. Prerequisite: Consent of department. RSH.

PORT 785. Special Topics in Brazilian Cultural and Literary Studies: ____. 3 Hours.
Topics vary by semester. The course may be taken more than once, with full credit, provided there is no duplication in the material covered. Conducted in Portuguese. LEC.

PORT 930. Seminar in Portuguese Literature: ____. 3 Hours.
LEC.

PORT 970. Seminar in Brazilian Literature: ____. 3 Hours.
LEC.

SPAN 100. Spanish Reading Course. 3 Hours. U.
A special course for candidates for advanced degrees designed to aid them in obtaining a reading knowledge of Spanish. Intensive study of the fundamentals of grammar, proceeding to the reading of material of medium difficulty. Open to graduate students and to seniors who are applying for entrance to a graduate school. The course does not satisfy any part of the undergraduate language requirement. This course is primarily for graduate students who are fulfilling their language requirement(s) for advanced degrees. LEC.

SPAN 101. Orientation Seminar in Spanish and Portuguese. 1 Hour.
Provides an overview of the field of Hispanic Studies. Emphasizes developing an understanding of opportunities in Spanish and Portuguese at KU and the Spanish and Portuguese program curricula, exploring service-learning and other extracurricular options available at KU and beyond, and helping students plan goals for their education through an understanding of their personal values and aspirations as they relate to the field. Graded on a satisfactory/unsatisfactory basis. LEC.

SPAN 104. Elementary Spanish I. 5 Hours. U.
For beginning students of Spanish. Not open to students who have had any previous study of Spanish. Active preparation and participation required. Classes conducted in Spanish. Not open to native speakers of Spanish. Offered in fall semester. LEC.

SPAN 107. Elementary Spanish Conversation. 1-4 Hours. U.
Activities to improve elementary level conversation skills. Does not fulfill any portion of the College of Liberal Arts and Sciences foreign language requirement. Available only to study abroad participants. LEC.

SPAN 108. Elementary Spanish II. 5 Hours. U.
Only for students who have completed SPAN 104 at the University of Kansas. This course prepares students for Intermediate level study of Spanish. Active preparation and participation is required. Classes conducted in Spanish. Not open to native speakers of Spanish. Offered in spring semester. Prerequisite: SPAN 104. LEC.

SPAN 111. Intensive Elementary Spanish. 5 Hours. AE41 / U.
For students who have had some previous study of Spanish, but who do not place into the Intermediate level. This course prepares students for Intermediate level study of Spanish. Active preparation and participation required. Classes conducted in Spanish. Not open to native speakers of Spanish. Prerequisite: At least one previous high school or college course in Spanish. LEC.

SPAN 170. Hispanic Language, Culture and Civilization I-A: ____. 1-3 Hours. U.
For students in their first year of language study or the equivalent. An intensive orientation to the culture of Spanish-speaking countries. Includes elements of grammar, conversation, and composition. Available only to study abroad participants. Will not count toward the Spanish major nor the language requirement. May be repeated for credit if content varies. LEC.

SPAN 171. Hispanic Language, Culture and Civilization I-B: ____. 1-3 Hours. U.
A continuation of SPAN 170. For students in their first year of language study or the equivalent. An intensive orientation of the culture of Spanish-speaking countries. Includes elements of grammar, conversation, and composition. Available only to study abroad participants. Will not count toward the Spanish major nor the language requirement. May be repeated for credit if content varies. LEC.

SPAN 177. First Year Seminar: ____. 3 Hours. HL GE11.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in Spanish. May not contribute to major requirements in Spanish. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

SPAN 212. Intermediate Spanish I. 3 Hours. AE42 / U.
A fully integrated content-based and form-focused approach to intermediate-level Spanish. Students process and practice a wide range of vocabulary and grammatical structures in order to complete tasks that promote critical exploration of the Spanish-speaking world and the development of listening, reading, speaking, writing, and intercultural competencies. Classes conducted in Spanish. Not open to native speakers of Spanish. Prerequisite: SPAN 108 or SPAN 111 or placement. See departmental guidelines. LEC.

SPAN 213. Honors Intermediate Spanish I. 3 Hours. U.
Not open to native speakers of Spanish. Prerequisite: SPAN 108 or SPAN 111 with grade of A, or permission of the department LEC.

SPAN 216. Intermediate Spanish II. 3 Hours. AE42 / U.
A continuation of SPAN 212. A fully integrated content-based and form-focused approach to intermediate-level Spanish. Students process and practice a wide range of vocabulary and grammatical structures in order to complete tasks that promote critical exploration of the Spanish-speaking world and the development of listening, reading, speaking, writing, and intercultural competencies. Emphasis on process writing. Classes conducted in Spanish. Not open to native speakers of Spanish. Prerequisite: SPAN 212 or placement. LEC.

SPAN 217. Honors Intermediate Spanish II. 3 Hours. AE42 / U.
Not open to native speakers of Spanish. Prerequisite: SPAN 212 or SPAN 213 with a grade of A, or permission of the department LEC.

SPAN 220. Intensive Intermediate Spanish. 6 Hours. U.
This course is designed for students who would like to acquire proficiency in Spanish more rapidly. The material covered in the course is the same as in SPAN 212 and 216. Not open to native speakers of Spanish. Available only to study abroad participants in KU’s Summer Language Institute in Barcelona, Spain. Prerequisite: SPAN 108 or SPAN 111, with a grade of A or B. LEC.

SPAN 270. Hispanic Language, Culture and Civilization II-A: ____. 1-3 Hours. U.
For students in their second year of language study or the equivalent. An intensive orientation to the culture of Spanish-speaking countries. Includes elements of grammar, conversation, and composition. Available only to study abroad participants. Will not count toward the Spanish major nor the language requirement. May be repeated for credit if content varies. LEC.
SPAN 271. Hispanic Language, Culture and Civilization II-B: _____. 1-3 Hours. U.
A continuation of SPAN 270. For students in their second year of language study or the equivalent. An intensive orientation to the culture of Spanish-speaking countries. Includes elements of grammar, conversation, and composition. Available only to study abroad participants. Will not count toward the Spanish major nor the language requirement. May be repeated for credit if content varies. LEC.

SPAN 300. Developments in Hispanic Cultures. 3 Hours. HL AE42 / H.
The development of social and cultural patterns in the Spanish-speaking world, including the intersection of those patterns with issues related to politics, economics and/or personal values. Assigned readings may be in English or in Spanish. Does not count toward the Spanish major. Prerequisite: SPAN 108, SPAN 109, or SPAN 111; or two years of high school Spanish. LEC.

SPAN 302. The Spanish Inquisition. 3 Hours. H.
A broad historical study of the Spanish Inquisition from 1478 to its afterlife in modern culture, including its use in political debates and its depiction in popular culture. Topics include anti-Semitism, the nature of the inquisitorial investigation, the use of torture, censorship and the relationship between the Inquisition, the Spanish monarchy and other religious and lay authorities. Taught in English. Will not count toward the Spanish major. (Same as HIST 325 and JWSH 315.) LEC.

SPAN 322. Spanish Grammar: Form and Meaning in Context. 3 Hours. U.
Analysis of the most important morphological and syntactic phenomena with an emphasis on their form and function through a review of salient grammatical points in preparation for advanced work in Spanish. Recommended for students who have completed SPAN 216, 217, or 220 with a grade of C or higher, or placement through examination. Course does not count toward the Major. Prerequisite: Four semesters of college-level Spanish or the equivalent. Students who have taken Spanish 324 may take this course with the permission of instructor. LEC.

SPAN 323. Spanish Composition and Cultural Analysis. 3 Hours. U.
Systematic review of writing in Spanish, intensive study of vocabulary and stylistics for formal written communication, and development of essential writing and analytical skills for advanced courses in Spanish. Prerequisite: SPAN 216, or SPAN 217, or SPAN 220, or consent of instructor. LEC.

SPAN 324. Grammar and Composition. 3 Hours. U.
Systematic grammar review and development of essential writing skills for advanced courses in Spanish. Concurrent enrollment in SPAN 328 required. Recommended for students with a grade of B or better in SPAN 216, SPAN 217, or SPAN 220. Prerequisite: SPAN 216 or SPAN 217 with a grade of "C" or higher, or SPAN 220, or SPAN 322, or consent of instructor. LEC.

SPAN 326. Spanish for Health Care Workers. 3 Hours.
This course is designed to provide students with the linguistic and cultural competencies necessary to communicate with and help treat Spanish speaking patients with limited English proficiency. Includes a general review of pertinent grammar, specific vocabulary groups relating to assessment and care of patients, vocabulary to establish rapport, and discussions leading to cultural competencies. Not open to students who have completed SPAN 424 or above. Prerequisite: Completion of Spanish 216 with a grade of C or better. LEC.

SPAN 328. Intermediate Spanish Conversation. 2 Hours. U.
Conversational reinforcement of topics presented in SPAN 324 with an emphasis on oral communication skills in a cultural context. Concurrent enrollment in SPAN 324 required. Two class meetings per week. Not available to study abroad participants. Prerequisite: SPAN 216 or SPAN 217 with a grade of C or higher; or SPAN 220; or SPAN 322; or consent of instructor. LEC.

SPAN 329. Intermediate Spanish Conversation II. 1 Hour. U.
Two class meetings per week. Continuation of SPAN 328. Not open to native speakers of Spanish. Prerequisite: SPAN 328 or consent of instructor. LEC.

SPAN 330. Service Learning Internship Spanish I. 3 Hours. U.
An opportunity for students to utilize and improve their Spanish language skills in an internship or volunteer work in business, schools, government, hospitals, churches, and various types of service organizations. Students must have approval of instructor to register and must provide written confirmation of acceptance for volunteer work in an agency that provides service to a Spanish-speaking public before the course begins. Periodic supervisor evaluations and a reflection journal in Spanish are required, in addition to other materials requested by the instructor. Class format may be an independent internship taken for variable credit under instructor supervision. Will not count toward Spanish major. Prerequisite: Students must have completed a minimum of 12 hours of Spanish in courses at the 200-level or above, and completion of SPAN 324 with a grade of B or better. LEC.

SPAN 340. Textual Analysis and Critical Reading. 3 Hours. HL GE3H / H/W.
Critical readings and interpretation of Hispanic literatures, with emphasis on acquiring the skills and vocabulary necessary for discussing and writing literary analyses. Prerequisite: SPAN 323 or SPAN 324, or consent of instructor. LEC.

SPAN 346. Transatlantic Hispanic Cultures. 3 Hours. H.
This course offers an introductory overview of Hispanic cultures, focusing on the political, economic, social, linguistic, and artistic development that shaped the historical and cultural bonds between Latin America and Spain. Enhances the cultural competence acquired in previous Spanish classes and prepare students for upper-level work in the major. Taught in Spanish. Prerequisite: SPAN 324. A grade of "C" or better in SPAN 324 is strongly recommended for students enrolling in this course. Not open to students who have already taken SPAN 370, SPAN 371, SPAN 446, SPAN 447, or SPAN 471. LEC.

SPAN 370. Hispanic Language, Culture and Civilization III-A: _____. 1-3 Hours. U.
An intensive orientation to the culture of Spanish-speaking countries. Also includes elements of grammar, conversation, and composition. Available only to study-abroad participants. Will not count toward the Spanish major. May be repeated for credit if content varies. LEC.

SPAN 371. Hispanic Language, Culture and Civilization III-B: _____. 1-3 Hours. U.
A continuation of SPAN 370. An intensive orientation to the culture of Spanish-speaking countries. Also includes elements of grammar, conversation, and composition. Available only to study abroad participants. Will not count toward the Spanish major. May be repeated for credit if content varies. LEC.

SPAN 390. Interpretation of Hispanic Literature. 3 Hours. H.
A study of selected works in literary theory that are pertinent to the field of Hispanism and of selected problems in literary interpretation and comparative literature methodology, designed to examine and apply systematically basic critical principles and approaches to the field of Hispanic literature. Discussion of these approaches is related to the previous study of literature and deepened through individual papers written by participants and presented to the group. Does not count toward the major in Spanish. Prerequisite: Completion of one junior-senior course in a language and literature department. LEC.
SPAN 424. Advanced Spanish Composition and Grammar. 3 Hours. H/W.
Extensive practice in writing, with attention to vocabulary, grammar usage, and discourse structure. Thorough review of syntax and grammar. Conducted in Spanish. Concurrent enrollment in SPAN 428 is strongly recommended. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 428. Advanced Spanish Conversation. 2 Hours. U.
Emphasis on developing fluid expression of opinions, ideas, and points of view through discussion of selected texts and cultural materials. Two class meetings per week. Concurrent enrollment in SPAN 424 recommended. Prerequisite: SPAN 340 or consent of instructor. A grade of C or higher in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 429. Spanish Phonetics. 3 Hours. H/W.
An analytical and practical study of contemporary Spanish phonetics. Prerequisite: SPAN 424 and SPAN 428, or consent of instructor. LEC.

SPAN 440. Hispanic Studies: ____. 3 Hours. H/W.
A topics course dedicated to the study of special historical moments, topics, authors, or themes in literary and cultural history. Readings may include selections from both Spain and the countries of Spanish America. The course may cover multiple genres, authors, periods, or regions. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 441. Special Topics in Spanish Literature and Culture: ____. 1-3 Hours. H.
A topics course dedicated to the study of special historical moments, topics, authors, or themes in Spanish literary and cultural history. The course may cover multiple genres, authors, periods, or regions. Course conducted in Spanish and may be repeated for credit as the topic varies. This course may be used to partially or fully fulfill 400-level peninsular Spanish literature requirement. Prerequisite: SPAN 340. LEC.

SPAN 442. Special Topics Latin American Literature and Cultures: _____ 1-3 Hours. H.
A topics course dedicated to the study of special historical moments, topics, authors, or themes in Latin American literary and cultural history. The course may cover multiple genres, authors, periods, or regions. Course conducted in Spanish and may be repeated for credit as the topic varies. This course may be used to partially or fully fulfill 400-level peninsular Latin American literature requirement. Prerequisite: SPAN 340. LEC.

SPAN 446. Spanish Culture. 3 Hours. H/W.
A study of the development of Spanish culture with particular emphasis on history, customs and traditions, and literary trends and artistic tendencies that constitute Spain’s specific contribution to Western civilization. Conducted in Spanish. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 447. Latin American Cultures: ____. 3 Hours. H/W.
The description and interpretation of Latin American cultures, with particular attention to history, ethnology, folklore, and the arts. The course may focus on particular countries or geographical areas. Conducted in Spanish. May be repeated for credit as topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 448. Spanish Language and Culture for Business. 3 Hours. H.
Cultural studies approach to contemporary Spanish American societies for students with an interest in business. Explores how individuals from Spanish American countries negotiate their place in a new cultural context, and how different groups in Spanish America perceive business (negocios). Readings include selections from literature, history, journalism, social analysis, and popular culture. Exercises help non-native speakers develop analytical skills as well as vocabulary and communication skills related to international business and professional life. Conducted in Spanish. Prerequisite: SPAN 323 or SPAN 324, or consent of instructor. LEC.

SPAN 450. Medieval Spanish Studies: _____. 3 Hours. H.
Reading and analysis of Spanish literature and culture to 1500. The course may cover multiple genres, authors, periods, regions, or topics. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 451. Early Modern Spanish Studies: _____. 3 Hours. H.
Reading and analysis of Spanish literature and culture from 1500 to 1800. The course may cover multiple genres, authors, periods, regions, or topics. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 452. Nineteenth Century Spanish Studies: _____. 3 Hours. H.
Reading and analysis of the literature and culture of Spain from 1800s. The course may cover multiple genres, authors, periods, regions, or topics. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 453. Twentieth Century Spanish Studies: _____. 3 Hours. H.
Reading and analysis of the literature and culture of Spain from 1900 to the present. The course may cover multiple genres, authors, periods, regions, or topics. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 454. Colonial Spanish-American Studies: _____. 3 Hours. H.
Reading and analysis of Spanish-American literature and culture from the Conquest to Independence, organized by topic. The course may cover multiple genres, authors, periods, regions, or topics. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 461. Nineteenth Century Spanish-American Studies: _____. 3 Hours. H.
Reading and analysis of Spanish-American literature and culture from Independence to 1900, organized by topic. The course may cover multiple genres, authors, periods, regions, or topics. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.
and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of "C" or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 463. National Traditions in Spanish America: _____. 3 Hours. H.
Reading and analysis of Spanish-American literature and cultural history from the perspective of a selected nation or nations. The course explores the role of literature and cultural expression in constructing the modern nation and local traditions. Readings may cover selections from multiple genres, authors, and periods. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of C or better in SPAN 340 is strongly recommended for students enrolling in this course. LEC.

SPAN 464. Reading and Analysis of U.S. Latino/a Literatures: _____. 3 Hours. H.
The course covers multiple genres, authors, periods, regions, or topics. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 340 or consent of instructor. A grade of C or better in SPAN 340 is strongly recommended for students enrolling in this course.

SPAN 470. Studies in Spanish Culture and Civilization: _____. 1-3 Hours. H.
A study of Spanish culture with emphasis on one or more of the following aspects: history, politics, ethnology, anthropology, religious and secular traditions, issues of cultural identity, music, art, architecture, and popular culture. Available only to study-abroad participants. Maybe repeated for credit if content varies. LEC.

SPAN 471. Studies in Spanish-American Culture and Civilization: _____. 1-3 Hours. H.
A study of Spanish American national or regional culture with emphasis on one or more of the following aspects: history, politics, ethnology, anthropology, religious and secular traditions, issues of cultural identity, music, art, architecture, and popular culture. Available only to study-abroad participants. May be repeated for credit if content varies. LEC.

SPAN 474. Studies in Spanish Literature and Culture: _____. 1-3 Hours. H.
A study of the literature and cultural production of a particular author, group of authors, period, genre, region, or theme. Available only to study-abroad participants. May be repeated for credit if content varies. LEC.

SPAN 475. Studies in Latin-American Literature and Culture: _____. 1-3 Hours. H.
A study of the literature and cultural production of a particular author, group of authors, period, genre, country, region, or theme. Available only to study-abroad participants. May be repeated for credit if content varies. LEC.

SPAN 494. Special Readings in Spanish. 1-3 Hours. H/W.
Directed reading in (a) fields not covered by student's course work, and/or (b) field of student's special interest approved by the department. Conferences. May be repeated for credit if content varies. Prerequisite: Twenty-five hours of Spanish. IND.

SPAN 496. Honors in Spanish. 3 Hours. AE61 / H/W.
Honors seminar. May be repeated for credit. Required of all students working for a degree with honors in Spanish. IND.

SPAN 500. Hispanic Literature in Translation: _____. 3 Hours. H.
A study of the literature in English translation of a particular author, period, genre, country, region, or theme. Discussion in English and frequent critical papers. May be repeated for credit as the topic varies. Will not count toward the Spanish major. Prerequisite: Completion of one junior-senior level literature course in any language. LEC.

SPAN 520. Structure of Spanish. 3 Hours. H/W.
A study of the Spanish language as it is spoken today, from perspectives of contemporary linguistics. Reading and analysis of recent publications in the field. Prerequisite: SPAN 424 and SPAN 428, or consent of the instructor. LEC.

SPAN 522. Advanced Studies in Spanish Language: _____. 3 Hours. H/W.
Extensive language analysis and practice on one topic such as stylistics, translation, conversation/spoken discourse, or creative writing. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 424 and SPAN 428, or consent of the instructor. LEC.

SPAN 540. Colloquium on Hispanic Studies: _____. 3 Hours. AE61 / H.
An advanced course dedicated to the critical study of special historical moments, topics, authors or themes in literary and cultural history. This course is designed to provide sophistication, focus, and analytical depth in literary and cultural study through exploration of secondary sources as well as theoretical material. Reading may include selections from both Spain and the countries of Spanish America and may cover multiple genres, authors, periods, or regions. Course conducted in Spanish and may be repeated for credit as the topic varies. Prerequisite: SPAN 424 and six hours of 400-level Spanish literature courses. LEC.

SPAN 550. Colloquium on Spanish Film. 3 Hours. AE61 / H.
A theoretical and historical exploration of Spanish cinema with particular attention devoted to the films of Berlanga, Bunuel, Gutierrez Aragon, Saura, Erice, and Almodovar. Students will be expected to attend film screenings in addition to regular class meetings. Prerequisite: SPAN 424 and six hours of 400-level Spanish literature courses. LEC.

SPAN 560. Colloquium on Latin American Film. 3 Hours. AE61 / H.
An overview of Latin American cinema from its origins to the present with particular attention to thematic concerns, such as cultural and national identity, and of literary discourse. Students will be expected to attend film screenings in addition to regular class meetings. Prerequisite: SPAN 424 and six hours of 400-level Spanish literature courses. LEC.

SPAN 566. Latin American Folklore. 3 Hours. H.
An examination of Latin American folk traditions, the ways they are used to give meaning to life and to define local and national identity. Folk literature, songs, music, dance, foods, fiestas, and material culture are looked at in the light of current folklore theory. Lectures and discussion are in English, some readings may be in Spanish. Prerequisite: SPAN 424 and six hours of 400-level Spanish courses. LEC.

SPAN 568. Spanish Ballads. 3 Hours. H/W.
A study of the various types of ballads; traditional, artistic, and popular. Prerequisite: A survey of Spanish literature through the Golden Age. LEC.

SPAN 570. Studies in Hispanic Linguistics: _____. 3 Hours. U.
Theoretical and applied analysis of one or more of the following components of the Spanish language: phonology/phonetics, morphology, syntax, semantics, pragmatics. May be repeated for credit if content varies. Prerequisite: SPAN 424 and SPAN 428. LEC.

SPAN 681. Language Teaching for Oral Proficiency. 1 Hour. U.
A summer course designed principally for secondary school language teachers. Provides an orientation to proficiency-based models in foreign language instruction, national standards in the rating of foreign language proficiency, and curriculum development sessions which address issues of articulation in foreign language curricula. (Not applicable toward a
major or graduate degree in Spanish.) (Same as FREN 681 and GERM 681.) LEC.

SPAN 717. History of the Spanish Language. 3 Hours.
The phonological and lexical development of the Spanish language from spoken Latin to the present; major dialectal features. Prerequisite: A course in Spanish phonetics. LEC.

SPAN 720. Syntax and Composition. 3 Hours.
Syntactical analysis of modern Spanish usage; principles of expository writing. Prerequisite: A course in advanced composition or structure, or graduate standing. LEC.

SPAN 722. Special Topics in Spanish Literature: ______. 2-3 Hours.
The content of this course will vary, and the course may be taken more than once with full credit, provided there is no duplication in the material studied. Prerequisite: A survey course in Spanish peninsular literature taught in Spanish. LEC.

SPAN 730. Topics in the Literature of 13th- and 14th-Century Iberia: ______. 3 Hours.
A theoretically informed study of representative works from 13th- and 14th-century Iberia. Course may be repeated for credit provided that the topic changes. LEC.

SPAN 733. Print Culture in Early Modern Spain. 3 Hours.
A study of the literature produced during the period of early printed books with emphasis on the diffusion of new literary forms during the late 15th- and early 16th-centuries. LEC.

SPAN 735. Poetry and Sentimental Romance in Fifteenth-Century Castile. 3 Hours.
Survey of the poetry and prose of the fifteenth century with particular attention to the literature produced during the reign of Isabel de Castilla. LEC.

SPAN 739. Topics in Early Modern Spanish Drama: ______. 3 Hours.
Selected plays of such authors as Lope de Vega, Tirso de Molina, Calderón, and María de Zayas. Course may be repeated for credit provided that the topic changes. LEC.

SPAN 742. Topics in the Early Modern Spanish Prose: ______. 3 Hours.
From the Celestina to the middle of the seventeenth century. Course may be repeated for credit provided that the topic changes. LEC.

SPAN 744. Topics in Early Modern Spanish Poetry: ______. 3 Hours.
A theoretically informed study of selected works of poetry in Spanish from the 15th through 17th centuries. Course may be repeated for credit provided that the topic changes LEC.

SPAN 745. Don Quixote. 3 Hours.
Linguistic and literary study. Examination of traditional interpretations. The life and thought of Cervantes. Theoretical readings. LEC.

SPAN 752. Spanish Literature of the 18th Century. 3 Hours.
The neo-classic movement; the traditionalist reaction; the beginnings of Romanticism. Prerequisite: A survey course in Spanish literature from the 18th century to the present. LEC.

SPAN 754. Romanticism. 3 Hours.
The development of the Romantic movement in Spain. Prerequisite: A survey course in Spanish literature from the 18th century to the present. LEC.

SPAN 755. 19th Century Spanish Novel. 3 Hours.
The rise and development of realism. Prerequisite: A survey course in Spanish literature from the 18th century to the present. LEC.

SPAN 760. 19th Century Spanish Drama. 3 Hours.
A survey of the main currents and aesthetics in the nineteenth-century Spanish theatre: NeoClassicism, Romanticism, Costumbrismo, Realismo (Alta Comedia), NeoRomanticism, and the innovations of Galdos and Benavente. Prerequisite: A survey course in Spanish literature from the 18th century to the present. LEC.

SPAN 761. 20th Century Spanish Drama. 3 Hours.
A survey of major plays and playwrights of 20th century Spain with reference to critical theory of text as literature and performance. LEC.

SPAN 762. The Spanish Novel Since the Civil War. 3 Hours.
A study of the major works and movements occurring since the Spanish Civil War. LEC.

SPAN 764. Modern Spanish Poetry. 3 Hours.
Modern poetry of Spain, beginning with Becquer and ending with the “Generation of the 1920’s.” Close study of the works of the major poets; readings in poetic theory. Prerequisite: A general survey course of the literature of Spain of the 18th, 19th, and 20th centuries. LEC.

SPAN 765. Contemporary Spanish Poetry. 3 Hours.
Contemporary poetry of Spain, beginning with the “Generation of the 1920’s” and including the post-Civil War period. Close study of the work of several poets; readings in poetic theory. Prerequisite: A general survey course in the literature of Spain since the Golden Age. LEC.

SPAN 766. The Spanish Modernist Novel. 3 Hours.
A diachronic study of the syntax and morphology of Spanish from the thirteenth century to the present; sound change and orthography; evolution of literary styles. Prerequisite: A course in Spanish phonetics. LEC.

SPAN 770. Spanish-American Drama. 3 Hours.
Study of several exceptional plays of 20th century Spanish America in light of critical methodologies, national theatre movements, and performance aspects. LEC.

SPAN 771. Spanish-American Literature: ______. 3 Hours.
A survey by region or country (Mexican literature, Cuban literature, Argentine literature, Caribbean literature, etc.) of Spanish American literature from the beginning to the present, with emphasis on the 19th and 20th centuries. Course title will vary by country or region. Prerequisite: A survey course in Spanish American literature. LEC.

SPAN 772. The Modern Spanish-American Novel, 1900-1950. 3 Hours.
A study of selected novels in Spanish America from the 1900 to 1950. Topics may vary. Prerequisite: A survey course in Spanish American literature. LEC.

SPAN 773. The Modern Spanish-American Novel Since 1950. 3 Hours.
A study of selected novels in Spanish America since 1950. Topics may vary. Prerequisite: A survey course in Spanish American literature. LEC.

SPAN 774. Spanish-American Poetry. 3 Hours.
A study of the twentieth century poetic tradition in Spanish America, including major movements and a range of poets who represent the variety of writing in the genre until the 21st century. LEC.

SPAN 776. Spanish-American Short Story. 3 Hours.
A study of aspects of the short story tradition in Spanish America from its origins to the present. Topics may vary. Prerequisite: A survey course in Spanish American literature. LEC.

SPAN 781. Colonial Identities. 3 Hours.
This course centers on the dynamics of identity of Creoles, Amerindians, Blacks and members of the castes in colonial Spanish America. It
Spanish American Prose Fiction: _____, 3 Hours.
A survey by region or country (Mexican Prose Fiction, Cuban Prose Fiction, Argentine Prose Fiction, Caribbean Prose Fiction, etc.) of Spanish American Prose Fiction from the beginning to the present, with emphasis on the 19th and 20th centuries. Course title will vary by country or region. Prerequisite: A survey course in Spanish American literature. LEC.

SPAN 784. Spanish-American Modernism and Vanguards. 3 Hours.
A study of the poetry and/or prose of modernismo and the vanguards in Spanish America. Prerequisite: One course in Spanish American literature or permission of instructor. LEC.

SPAN 785. Special Topics in Spanish-American Literature: _____, 2-3 Hours.
The content of this course will vary, and the course may be taken more than once, with full credit provided there is no duplication in the material covered. Prerequisite: A survey course in Spanish American literature. LEC.

SPAN 790. Spanish Linguistics: Theory and Application to Teaching. 3 Hours.
An introduction to linguistics and applied linguistics focused on the phonology, morphology, and syntax of Spanish, including work in tagmemics and transformational grammar. Part of the course deals with problems of language instruction, testing, and use of the language laboratory. LEC.

SPAN 792. Topics in the Picaresque Novel: _____, 3 Hours.
A theoretically informed study of the picaresque mode in Spanish and Spanish-American literature. Course may be repeated for credit provided that the topic changes. LEC.

SPAN 795. Literary Theory and Criticism. 3 Hours.
Systematic study of the development of theories of literature. Emphasis usually placed on twentieth century although scope may vary. Prerequisite: 700-level course in Spanish or concurrent enrollment. LEC.

SPAN 801. Teaching Spanish in Institutions of Higher Learning. 3 Hours.
Required of all teaching assistants who teach beginning Spanish at the University of Kansas for the first time. Instruction in classroom procedures for first year Spanish, demonstration of teaching techniques, and survey of current methodology. FLD.

SPAN 802. Colloquium in Methods of Teaching Spanish Language. 1-3 Hours.
Combines discussion of theoretical teaching concepts and development of pedagogical materials with practical solutions arising concurrently in Spanish languages courses. LEC.

SPAN 817. Spanish Historical Grammar. 3 Hours.
A diachronic study of the syntax and morphology of Spanish from the thirteenth century to the present; sound change and orthography; evolution of literary styles. Prerequisite: A course in Spanish phonetics. LEC.

SPAN 898. Investigation and Conference. 1-10 Hours.
Individually directed work to fill the student’s needs not met by available organized courses. One to three hours of credit in any semester. Maximum total credit for the M.A. degree is three hours. May be taken with full credit as often as recommended by department. THE.

SPAN 922. Seminar in Spanish Literature and Culture: _____, 3 Hours.
An intensive investigation of a particular topic in Spanish Literature and Culture; content will vary in terms of topics, genres, and time periods covered. The course may be taken more than once with full credit, provided there is no duplication. Prerequisite: Graduate standing. LEC.

SPAN 940. Seminar in Trans-Atlantic Literatures and Cultures: _____, 3 Hours.
An intensive investigation of a particular topic in Spanish and Latin American Literatures and Cultures; content will vary in terms of topics, genres, and time periods covered. The course may be taken more than once, with full credit provided there is no duplication. Prerequisite: Graduate standing. SEM.

SPAN 950. Seminar: Spanish Drama: _____, 3 Hours.
LEC.

SPAN 952. Seminar: Spanish Novel: _____, 3 Hours.
LEC.

SPAN 954. Seminar: Spanish Poetry: _____, 3 Hours.
LEC.

SPAN 956. Seminar: Spanish Short Story: _____, 3 Hours.
LEC.

SPAN 958. Seminar: Spanish Essay: _____, 3 Hours.
LEC.

SPAN 961. Seminar: Medieval Literature: _____, 3 Hours.
LEC.

SPAN 962. Seminar: Cervantes: _____, 3 Hours.
LEC.

SPAN 970. Seminar: Spanish American Drama: _____, 3 Hours.
LEC.

LEC.

SPAN 974. Seminar: Spanish American Poetry: _____, 3 Hours.
LEC.

SPAN 976. Seminar: Spanish American Short Story: _____, 3 Hours.
LEC.

LEC.

SPAN 985. Seminar in Spanish American Literature and Culture: _____, 3 Hours.
An intensive investigation of a particular topic in Spanish American Literatures and Cultures; content will vary in terms of topics, genres, and time periods covered. The course may be taken more than once, with full credit provided there is no duplication. Prerequisite: Graduate standing. SEM.

SPAN 999. Dissertation. 1-12 Hours.
THE.

Bachelor of Arts in Spanish

Why study Spanish and Portuguese?
Because fluency in more than one language and culture and analytical understandings of literary and cultural texts create educated citizens.

Undergraduate Admission

Admission to KU
All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer
students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

Admission to the College of Liberal Arts and Sciences

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

First- and Second-Year Preparation

Spanish Major Prerequisite or Co-Requisite Knowledge (6)

Majors must complete the following 2 courses. These hours do not contribute to the minimum number of hours required for the major. Majors must complete SPAN 324 in order to go on to advanced-level Spanish classes.

Intermediate Composition and Grammar. Satisfied by:
SPAN 324 Grammar and Composition

Intermediate Conversation. Satisfied by:
SPAN 328 Intermediate Spanish Conversation

Spanish Major Introductory Knowledge. Majors must complete the following 2 courses:

Textual Analysis and Critical Reading. Satisfied by:
SPAN 340 Textual Analysis and Critical Reading

Transatlantic Hispanic Cultures. Satisfied by:
SPAN 346 Transatlantic Hispanic Cultures

Requirements for the B.A. Major

Spanish Major Core Knowledge and Skills (26)

Majors must complete at least 1 course (3 hours) in each of following areas:

Literature: Peninsular Spanish Literary and Cultural Studies. Satisfied by 1 of the following:
SPAN 440 Hispanic Studies: ______
SPAN 441 Special Topics in Spanish Literature and Culture: ______

SPAN 450 Medieval Spanish Studies: ______
SPAN 451 Early Modern Spanish Studies: ______
SPAN 452 Nineteenth Century Spanish Studies: ______
SPAN 453 Twentieth Century Spanish Studies: ______

Literature: Latin American Literary and Cultural Studies. Satisfied by 1 of the following:
SPAN 440 Hispanic Studies: ______
Spanish Major Capstone: Literature Colloquium. Majors must complete 1 (3 hour) capstone course in literature. Satisfied by 1 of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 540</td>
<td>Colloquium on Hispanic Studies: _____</td>
</tr>
<tr>
<td>SPAN 550</td>
<td>Colloquium on Spanish Film</td>
</tr>
<tr>
<td>SPAN 560</td>
<td>Colloquium on Latin American Film</td>
</tr>
</tbody>
</table>

Majors are strongly encouraged to study abroad in a Spanish-speaking country. Please see your advisor about this opportunity.

**Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**

Satisfied by 32 hours of major courses.

**Major Hours in Residence**

Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Graduation Plan**

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please consult the department for details.

**Departmental Honors**

Undergraduates contemplating honors work should consult their advisors. A declaration of intent form must be submitted to the department. The department notifies students of acceptance to candidacy. At graduation, the student must have a minimum grade-point average of 3.25 overall and 3.5 in Spanish. 6 hours in SPAN 496 Honors in Spanish generally are required, which may be fulfilled in a variety of ways as described here: each 3-hour SPAN 496 course will include a major research paper. While enrolled in SPAN 496, the student completes 2 courses, one in Peninsular literature and the other in Spanish American literature, from the following options:

1. Graduate courses at the 700 level;
2. Upper-division literature courses at the 500 level, including SPAN 540, SPAN 550, and SPAN 560 (only available to students who have already completed the 500-level capstone course);
3. An independent study course (may only be taken once for SPAN 496 credit).

The student attends 2 courses for SPAN 496 credit and writes 2 honors papers under the supervision of 1 or more faculty members. A committee of 3 faculty members evaluates these papers, and the student makes an oral summary of their content.

**Study Abroad**

The department offers summer programs in Barcelona, Spain; Buenos Aires, Argentina; and Salvador (Bahia), Brazil. KU offers semester/academic year programs in San José, Costa Rica; and in Ronda, Spain. More information is available from the Office of Study Abroad (http://www.studyabroad.ku.edu).

Graduate students have the opportunity to teach and conduct research during summer sessions in Puebla, Mexico; or Barcelona, Spain. The department also has a graduate exchange agreement with the University of Santiago de Compostela, Spain.

**Minor in Brazilian Studies**

Why study Spanish and Portuguese?

Because fluency in more than one language and culture and analytical understandings of literary and cultural texts create educated citizens.

**Requirements for the Brazilian Studies Minor**

This program consists of 6 3-credit-hour courses (for a total of 18 credit hours) in which students pursue Brazilian studies beyond the 3 first semesters of basic language classes. In consultation with departmental advisors, students combine their course work in several academic areas, such as language, business, economics, film and media studies, geography, history, political science, and theatre.

**Brazilian Studies Minor Course Requirements**

Students selecting this minor must complete the following:

**Prerequisite Knowledge (0)**

Satisfied by Intermediate Brazilian Portuguese I-PORT 212 or equivalent placement.

**Requirements for the Minor (18)**

Satisfied by 3 courses from each of the following groups:

**Group I:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PORT 216</td>
<td>Intermediate Brazilian Portuguese II</td>
</tr>
<tr>
<td>PORT 220</td>
<td>Intensive Intermediate Brazilian Portuguese (Open only to students abroad)</td>
</tr>
<tr>
<td>PORT 300</td>
<td>Brazilian Culture</td>
</tr>
<tr>
<td>PORT 320</td>
<td>Introduction to Portuguese and Brazilian Literatures</td>
</tr>
<tr>
<td>PORT 340</td>
<td>Textual Analysis and Critical Reading</td>
</tr>
<tr>
<td>PORT 490</td>
<td>Intensive Advanced Portuguese (Open only to students abroad)</td>
</tr>
</tbody>
</table>

**Group II:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 597</td>
<td>Geography of Brazil</td>
</tr>
<tr>
<td>HIST 579</td>
<td>The History of Brazil</td>
</tr>
<tr>
<td>PORT 347</td>
<td>Brazilian Studies: _____</td>
</tr>
<tr>
<td>PORT 348</td>
<td>Portuguese Language and Brazilian Culture for Business</td>
</tr>
<tr>
<td>PORT 365</td>
<td>Studies in Brazilian Film: _____</td>
</tr>
<tr>
<td>PORT 394</td>
<td>Special Readings in Brazilian Studies</td>
</tr>
<tr>
<td>PORT 471</td>
<td>Studies in Brazilian Culture and Civilization: _____</td>
</tr>
<tr>
<td>PORT 475</td>
<td>Studies in Brazilian Literature: _____</td>
</tr>
</tbody>
</table>
Depending on their content, the following courses may substitute for required or elective courses by petition:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 582</td>
<td>Economic Development</td>
</tr>
<tr>
<td>FMS 542</td>
<td>Latin American Film (with at least 1/3 of focus on Brazil and a paper on Brazil)</td>
</tr>
<tr>
<td>HIST 370</td>
<td>Violence and Conflict in Latin American History (with at least 1/3 of focus on Brazil and a paper on Brazil)</td>
</tr>
<tr>
<td>HIST 372</td>
<td>Violence and Conflict in Latin American History, Honors (with at least 1/3 of focus on Brazil and a paper on Brazil)</td>
</tr>
<tr>
<td>HIST 580</td>
<td>Economic History of Latin America (with at least 1/3 of focus on Brazil and a paper on Brazil)</td>
</tr>
<tr>
<td>POLS 659</td>
<td>Political Dynamics of Latin America (with at least 1/3 of focus on Brazil and a paper on Brazil)</td>
</tr>
<tr>
<td>SPAN 522</td>
<td>Advanced Studies in Spanish Language: _____ (Phonetics and Phonology of Spanish and Portuguese in Contrast. Taught in Spanish.)</td>
</tr>
</tbody>
</table>

**Minor Hours & Minor GPA**

While completing all required courses, minors must also meet each of the following hour and grade-point average minimum standards:

- **Minor Hours**
  - Satisfied by 18 hours of minor courses.

- **Minor Hours in Residence**
  - Satisfied by a minimum of 9 junior/senior (300+) hours of KU resident credit in the minor.

- **Minor Junior/Senior Hours**
  - Satisfied by a minimum of 15 hours from junior/senior courses (300+) in the minor.

- **Minor Graduation GPA**
  - Satisfied by a minimum of a 2.0 KU GPA in all departmental courses (300+) in the minor. GPA calculations include all departmental courses in the field of study including F’s and repeated courses. See the Semester/ Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Study Abroad**

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Graduate students have the opportunity to teach and conduct research during summer sessions in Puebla, Mexico; or Barcelona, Spain. The department also has a graduate exchange agreement with the University of Santiago de Compostela, Spain.

**Master of Arts in Spanish**

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**Admission to Graduate Studies**

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

**Graduate Admission**

1. The applicant must hold (or anticipate completing by the time of admission) a B.A. or B.S. degree from an accredited U.S. college or university or the equivalent degree from a foreign university, must have 15 semester hours of literature courses at the survey level or above in Spanish or the equivalent of the undergraduate major in Spanish at KU, and must have a minimum grade-point average of 3.0 on a 4.0 scale, both in Spanish and overall.

2. The selection committee gives strong consideration to letters of recommendation, the breadth and depth of preparation, and Graduate Record Examination scores, if available. Deficiencies in preparation specified by the selection committee may be made up early in the graduate program, although the time required to complete the degree is correspondingly greater.

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the department:

**The University of Kansas**
Department of Spanish and Portuguese
Wescoe Hall
1445 Jayhawk Blvd., Room 2650
Lawrence, KS 66045-7594

**M.A. Degree Requirements**

The department offers the M.A. degree with a concentration in literature or language/literature/culture.

**Literature Concentration Requirements**

1. A minimum of 30 hours of graduate credit in literature, including one seminar in Peninsular literature or in Spanish-American literature.

2. A reading knowledge of another foreign language, as approved by the department.

3. A general examination in the field of Hispanic literature, partly written and partly oral.

**Language/Literature/Culture Concentration Requirements**

1. A minimum of 30 hours of graduate credit, as listed below.

2. A general examination, partly written and partly oral, based on the appropriate department reading lists for this degree.
   a. Language and Culture (12 hours), including courses in phonetics and the structure of Spanish if they have not been taken at the undergraduate level.
b. Literature (12 hours), including at least 3 credit hours of course work in each of the three major genres (fiction, theatre, poetry). One course in this category must be a seminar.

c. One additional course in the department (3 hours) in any field. (PORT 611 counts in this category.)

d. One graduate-level course (3 hours) in a second language (excluding PORT 611).

Study Abroad

The department offers summer programs in Barcelona, Spain; Buenos Aires, Argentina; and Salvador (Bahia), Brazil. KU offers semester/academic year programs in San José, Costa Rica; and in Ronda, Spain. More information is available from the Office of Study Abroad (http://www.studyabroad.ku.edu).

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Doctor of Philosophy in Spanish

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Admission to Graduate Studies

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Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Admission

1. The applicant must hold (or anticipate completing by the time of admission) an M.A. or M.S. degree from an accredited U.S. college or university or the equivalent degree from a foreign university; must have a minimum grade-point average of 3.0 on a 4.0 scale, both in Spanish and overall; and must meet general requirements.

2. Strong consideration is given to letters of recommendation, breadth and depth of preparation, and Graduate Record Examination scores, if available.

Submit your application online (http://www.graduate.ku.edu). Send all other requested application materials to

The University of Kansas
Department of Spanish and Portuguese
Wescoe Hall
1445 Jayhawk Blvd., Room 2650
Lawrence, KS 66045-7594

Ph.D. Degree Requirements

The degree of Doctor of Philosophy is offered with emphasis on Spanish or Spanish-American literature.

Requirements

Once admitted, the aspirant must

1. Present a reading knowledge of 2 foreign languages, other than Spanish, appropriate to the specialization;

2. Complete all course work prescribed by the advisory committee (this course work is to include a minimum of 5 seminars, at least 4 at KU, and a guideline of a minimum of 24 hours in Hispanic literatures at KU beyond the 30 hours required for the M.A. degree);

3. Present a minor in a field other than Spanish or Spanish-American literature;

4. Complete a minimum of 2 semesters of quarter-time teaching or 1 semester of half-time teaching in the Department of Spanish and Portuguese;

5. Research Skills and Responsible Scholarship Requirement. The university requires that every doctoral student have training in responsible scholarship and research skills pertinent to the field of research and appropriate to the doctoral level. This requirement must be met before taking the comprehensive oral exam. Please contact your advisor or the director of graduate studies for specific requirements.

6. Pass a comprehensive examination, partly written and partly oral; and

7. Write and defend a dissertation.

Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current policies on Doctoral Research Skills and Responsible Scholarship are listed in the KU Policy Library.

See also the general requirements for the Doctor of Philosophy degree in Graduate Studies (p. 2059) section of the online catalog and in the KU Policy Library.

Study Abroad

The department offers summer programs in Barcelona, Spain; Buenos Aires, Argentina; and Salvador (Bahia), Brazil. KU offers semester/academic year programs in San José, Costa Rica; and in Ronda, Spain. More information is available from the Office of Study Abroad (http://www.studyabroad.ku.edu).

Graduate students have the opportunity to teach and conduct research during summer sessions in Puebla, Mexico; or Barcelona, Spain. The department also has a graduate exchange agreement with the University of Santiago de Compostela, Spain.
Department of Speech-Language-Hearing: Sciences and Disorders

Why study speech, language, and hearing?

Because communication is central to human behavior, and the treatment of communication disorders requires specialized knowledge and skills.

Career Opportunities

Most states have laws mandating that speech-language pathologists and audiologists be licensed to practice their profession. The minimum requirement for licensure in most states is a master's degree for speech-language pathology and the Au.D. for audiology.

Undergraduate Programs

Basic study in speech, language, and hearing is provided through B.A. and B.G.S. programs. Programs are designed for the student who seeks a career in speech, language, or hearing or is interested in normal communication development and communication disorders.

Graduate Programs

Graduate study at KU is offered through the Intercampus Program in Communicative Disorders (p. 728) with classes, research, and clinical work in Lawrence and at KU Medical Center in Kansas City.

Courses

SPLH 120. The Physics of Speech. 4 Hours. N.
An introduction to the acoustic structure of speech intended for nonscience majors. Emphasis will be placed on the methods and standards by which scientists measure and evaluate the physical characteristics of speech. Topics will include: simple harmonic motion, the propagation of sound waves, aerodynamic aspects of vocal fold vibration, resonance, digital speech processing, frequency analysis, and speech synthesis. Three class hours and one laboratory per week. (Same as LING 120.) Prerequisite: MATH 101 or 104 or equivalent. LEC.

SPLH 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Speech-Language and Hearing. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

SPLH 250. Study Abroad Topics in: ______. 1-5 Hours. S.
A course designed to enhance international experience in topic areas related to speech-language-hearing at the freshman/sophomore level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if the content differs. Prerequisite: Department permission. LEC.

SPLH 261. Survey of Communication Disorders. 3 Hours. SI GE3S / S.
Provides a general understanding of normal and deviant speech, language, and hearing in adults and children. This course considers the normal development of communication behavior, the nature of communication disorders, and the interaction of speech pathology and audiology with allied fields (e.g., education, medicine, psychology, special education). LEC.

SPLH 320. The Communicating Brain: The Ultimate Personal Computer. 3 Hours. U.
This course introduces the study of human neuroscience with a particular focus on human communication. The course provides an overview of the relevant anatomical structures and function along with an introduction to the basic methods used to investigate central nervous system function. Students are introduced to the study of perceptual, motor, and language function in the nervous system through a series of examples drawn from normal function and clinical cases. The examples are selected to highlight how these systems develop and are influenced by experience, implantable devices developed to interface with the nervous system, and how computers and animals are used as models to learn about nervous system function. LEC.

SPLH 418. Introduction to Cognitive Science. 3 Hours. S.
Examines the data and methodologies of the disciplines that comprise Cognitive Science, an inter-disciplinary approach to studying the mind and brain. Topics may include: consciousness, artificial intelligence, linguistics, education and instruction, neural networks, philosophy, psychology, anthropology, evolutionary theory, cognitive neuroscience, human-computer interaction, and robotics. (Same as LING 418, PHIL 418, and PSYC 418.) Prerequisite: Consent of instructor. LEC.

SPLH 432. Human Behavioral Genetics. 3 Hours. S.
A survey of human behavioral genetics for upper division undergraduates. Emphasis is on how the methods and theories of quantitative, population, medical, and molecular genetics can be applied to individual and group differences in humans. Both normal and abnormal behaviors are covered, including intelligence, mental retardation, language and language disorders, communication, learning, personality, and psychopathology. (Same as ANTH 447, BIOL 432, PSYC 432.) Prerequisite: Introductory courses in biology/genetics or biological anthropology and psychology are recommended. LEC.

SPLH 449. Laboratory/Field Work in Human Biology. 1-3 Hours. AE61 / N.
Faculty supervised laboratory or field research for Human Biology majors. Students design and complete a research project in collaboration with a Human Biology faculty member. (Same as ANTH 449, BIOL 449, and PSYC 449.) Prerequisite: Consent of instructor and Human Biology major. FLD.

SPLH 450. Study Abroad Topics in: ______. 1-5 Hours. S.
A course designed to enhance international experience in topic areas related to speech-language-hearing at the junior/senior level. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if the content differs. Prerequisite: Department permission. LEC.

SPLH 451. Directed Study Abroad in Speech-Language-Hearing. 1-3 Hours. S.
An independent study designed to enhance international experience in topic areas related to speech-language hearing. Investigation of special topic or project selected by the student with advice, approval, and supervision by a KU SPLH instructor and an authorized agent of the study abroad site. Experience must be arranged through the Office of KU Study Abroad. Such study may take the form of directed reading and/or directed research/clinical observation. A daily journal and final report is required. A maximum of six hours of credit may be counted, with no more than three in a single area of study. Prerequisite: Consent of instructor IND.
SPLH 464. Undergraduate Seminar in: _______. 1-3 Hours. S.
Course organized any given semester to study particular subject matter or
to take advantage of special competence by an individual faculty member.
Topics change as needs and resources develop. Class discussion,
readings, and individual projects. (Distribution credit given for two-three
hours only.) LEC.

SPLH 465. Fundamentals of Clinical Phonetics. 1 Hour. S.
Introduction to classification of American English speech sounds based
on articulatory phonetics. Practice in phonetic transcription and analysis
of normal and abnormal speech. Laboratory exercises to give students
hands-on experience with selected topics from lecture. Prerequisite or
Corequisite: SPLH 120. LEC.

SPLH 466. Language Science. 3 Hours. S.
Introduction to structure/function of human languages as it relates
to language development and disorders; processes involved in the
expression and reception of language and the methodologies employed
to study these processes. LEC.

SPLH 467. Mentored Research Experience. 2-8 Hours. AE61 / S.
Study may be directed toward either reading for integration of knowledge
and insight in Speech-Language-Hearing, or original research in the field.
Student creates a plan of activities at the beginning of each semester
under the mentor’s guidance. Student and mentor review this plan at
the end of each semester to evaluate progress. In the final semester of
enrollment, student must complete a written report or a public oral
presentation detailing the purpose, methods, results, and impact of the
research. This final product partially meets the requirements for Research
Experience Certification. (Eight hours maximum credit, which may be
distributed through 4 semesters. No student may enroll for less than
two hours credit or more than 4 hours of credit in a given semester).
Prerequisite: Consent of Departmental Research Experience Coordinator.
IND.

SPLH 468. Departmental Honors Research. 2-8 Hours. AE61 / S.
Study may be directed toward either reading for integration of knowledge
and insight in Speech-Language-Hearing, or original research in the field.
Student creates a plan of activities at the beginning of each semester
under the mentor’s guidance. Student and mentor review this plan at
the end of each semester to evaluate progress. In the final semester of
enrollment, student must complete a written report or a public oral
presentation detailing the purpose, methods, results, and impact of the
research. This final product partially fulfills the requirements for Departmental Honors. (Eight hours maximum credit, which may be
distributed through 4 semesters. No student may enroll for less than
two hours credit or more than 4 hours of credit in a given semester).
Prerequisite: Consent of Departmental Honors Coordinator. IND.

SPLH 469. Directed Study in Speech-Language-Hearing. 1-3 Hours.
AE61 / S.
Investigation of special topic or project selected by the student with
advice, approval, and supervision of an instructor. Such study may take
the form of directed reading and/or directed research/c Clinical observation.
Individual reports and conferences. (Distribution credit given for two-three
hours only.) A maximum of six hours of credit may be counted, with
not more than four in a single area of study.) Prerequisite: Consent of
instructor. IND.

SPLH 565. Language Sample Analysis Lab. 1 Hour. S.
The study of the analysis of language produced by children with respect
to its phonological, lexical, morphological, syntactic, and pragmatic
characteristics. Prerequisite or corequisite: SPLH 566. LAB.

SPLH 566. Language Development. 3 Hours. SI GE3S / S.
Study of language acquisition in children, including phonologic,
morphologic, syntactic, and semantic components. Methods of language
measurement, the role of comprehension, and pragmatic aspects of
language use are included. May be taught in lecture or online format.
LEC.

SPLH 660. Research Methods in Speech-Language-Hearing. 3 Hours.
AE61.
Research Methods is about the methods used to conduct, describe and
evaluate science in communication disorders. Goals for learner outcomes include: 1) evaluation of research including adequacy of research
to address scientific and clinical problems, 2) reading, summarizing and
describing research through a literature review, 3) describing a
hypothetical research study that addresses a specific question or hypothesis identified by the student, and 4) providing constructive peer
reviews of research paper drafts. Prerequisite: 9 credits of SPLH course
work; English 101 and ENGL 102 (or course meeting core skill in written
communication); or consent of instructor. LEC.

SPLH 662. Principles of Speech Science. 3 Hours. N.
Survey of the physiology of speech production, and the physics of sound.
Emphasis upon methodologies in the laboratory study of normal speech.
Prerequisite: SPLH 120 and SPLH 320, or concurrent enrollment in SPLH 120 and SPLH 320, or consent of instructor. LEC.

SPLH 663. Principles of Hearing Science. 3 Hours. N.
Concepts and principles relevant to the normal hearing processes: gross
anatomy, psychophysical methods, and basic subjective correlates of the
auditory system. Prerequisite: SPLH 120 and SPLH 320, or concurrent
enrollment in SPLH 120 and SPLH 320, or consent of instructor. LEC.

SPLH 668. Introduction to Audiological Assessment and
Rehabilitation. 4 Hours. U.
Introduction to methods for assessing and treating hearing disorders
in adults and children, as well as conditions that result in hearing loss.
Course includes clinical observation and extensive hands-on experience
with clinical techniques. Prerequisite: SPLH 663. LEC.

SPLH 670. Beginning Clinical Practice in Audiology. 1-3 Hours. N.
Testing of hearing using pure tone air and bone conduction tests with both
normal and hearing-impaired individuals. Prerequisite: Completion of or
concurrent enrollment in SPLH 668. FLD.

SPLH 671. Introduction to Speech-Language Pathology. 4 Hours. U.
This course provides training in clinical management of communicative
disorders in children and adults. Principles of evaluation, application of
diagnostic information, intervention planning, intervention process, data
collection and application, report writing, and interactions with parents
and other professionals are examined. Participation in observation and
laboratory activities is required. LEC.

SPLH 672. Clinical Practice in Speech-Language Pathology. 3 Hours.
S.
Clinical practice with children and adults. Group and individual
conferences with staff required. Repeatable once for credit. Prerequisite:
SPLH 671 and consent of instructor. FLD.

SPLH 699. Speech-Language Pathology. 3 Hours. S.
Concepts and principles relevant to the perception of speech with
emphasis on the auditory system; acoustics, psychophysical methods,
and basic subjective correlates of speech perception. Prerequisite: SPLH 662 and SPLH 663, or consent of instructor. LEC.

SPLH 761. Aural Rehabilitation. 3 Hours.
Study of the communication problems associated with hearing loss.
Introduction to aural habilitative intervention related to speech, language,
and academic achievement in children with early hearing loss, as well as, communication strategies training for adults with acquired hearing loss. Prerequisite: SPLH 669 or equivalent. LEC.

SPLH 764. Seminar in: ______. 1-3 Hours. The subject matter of this seminar will be special topics from speech pathology and audiology. Special prerequisite may be established for a given topic. LEC.

SPLH 784. Proseminar in Communication and Aging. 1 Hour. A weekly forum for students and faculty to discuss professional issues and interdisciplinary research in communication and aging. May be repeated for credit. (Same as COMS 784.) (Same as PSYC 784.) Prerequisite: Consent of instructor. LEC.

SPLH 799. Proseminar in Child Language. 2 Hours. A review and discussion of current issues in children's language acquisition. May be repeated for credit. Students are graded S/F. (Same as ABSC 797, LING 799 and PSYC 799.) (Formerly HDFL 797.) LEC.

SPLH 816. Language Development. 3 Hours. Study of language acquisition in children, including the morphologic, syntactic, and semantic components. Methods of language measurement, the role of comprehension, and pragmatic aspects of language use will be included. Not open to students who have credit for SPLH 566. Laboratory by appointment. LEC.

SPLH 820. Developmental Phonological Disorders. 2 Hours. Focuses on speech and non-speech characteristics of children with developmental phonological disorders. Emphasis placed on collection and phonetic transcription of speech samples, phonological analysis of transcribed data, and decision-making processes in assessment and intervention. LEC.

SPLH 822. Dysarthria/Apraxia. 2 Hours. This course describes the neuroanatomic bases of motor-speech processes, the diagnosis, classification, assessment, prognosis, and treatment of dysarthria(s) and apraxia(s). LEC.

SPLH 824. Fluency Disorders. 2 Hours. The nature of stuttering in children and adults is discussed. Theories regarding etiology, development, and maintenance of the disorder are presented. Emphasis is placed on various clinical approaches to assessment, measurement, and treatment. LEC.

SPLH 826. Phonatory Disorders. 2 Hours. This course reviews the function of the laryngeal and respiratory mechanisms including the parameters and processes of phonation. Primary content addresses diagnosis, description, and treatment of organic and non-organic disorders of phonation. LEC.

SPLH 828. Speech Disorders in Special Populations. 2 Hours. This course reviews anatomy and physiology of the velopharyngeal mechanism. Diagnosis and management of velopharyngeal dysfunction and associated problems considered. Anatomy, physiology, and rehabilitation associated with certain oral, pharyngeal, and laryngeal abnormalities discussed. Emphasis is on the speech problems of adults following medical management. Populations include individuals with laryngectomies, glossectomies, and tracheotomies. LEC.

SPLH 832. Dysphagia. 2 Hours. This course covers normal and disordered swallowing. Evaluation and treatment of swallowing disorders, the dysphagia team, and dysphagia in special populations are considered. LEC.

SPLH 836. Genetics of Communication and Learning Disorders. 2 Hours. This course focuses on the description, assessment, and treatment of communication problems associated with particular genetic syndromes (e.g., Down's, Turner's syndromes). Also covered are current data about the genetic factors involved in nonsyndromic communication and learning problems, such as those commonly seen in the schools. Ethical and practical issues in these areas are discussed. LEC.

SPLH 840. Language Disorders of Children: Infants and Toddlers. 2 Hours. This course examines factors relating to language disorders in the birth to three population. At-risk populations, as well as those with known etiologies, are considered. Information on assessment, intervention, and service delivery models is addressed. Issues relating to Public Law 99-457 are also examined. LEC.

SPLH 842. Language Disorders of Children: Preschool. 2 Hours. This course examines language disorders of preschool-age children in the late preschool years. The course includes information on incidence, characteristics, assessment, and intervention. Theoretical issues and their implication for language intervention are also examined. LEC.

SPLH 844. Language Disorders of Children: School Age. 2 Hours. This course examines language development during the school years and how problems in this development interact with school performance. Emphasis is placed on the role of the speech-language pathologist in the early identification, assessment, and remediation of language-learning problems. LEC.

SPLH 846. Language Disorders of Adults. 2 Hours. Neurological aspects of language processes, classification of aphasia, and assessment of language deficits are discussed. Management approaches including intervention strategies and rehabilitation are also considered. LEC.

SPLH 848. Language Disorders of Special Populations. 2 Hours. This course focuses on the unique language impairments of individuals with mental retardation, autism, cerebral palsy, hearing impairments, dual sensory impairments, and other communication disorders (e.g., ADD). Language characteristics as well as assessment and intervention strategies are studied. LEC.

SPLH 850. Language Disorders Secondary to Closed Head Injury and Dementia. 2 Hours. Neuroanatomy and physiology relevant to diffuse brain injury are discussed. Characteristics and intervention strategies relating to traumatic brain injury and dementia are studied. LEC.

SPLH 852. Augmentative and Alternative Communication. 2 Hours. This course describes augmentative and alternative communication (AAC) assessment and intervention issues as they apply to children and adults with both congenital and acquired speech and/or language disabilities. Areas of study include AAC systems, assessment strategies and procedures, intervention strategies, and AAC information resources. LEC.

SPLH 854. Reading Disorders. 2 Hours. This course addresses the perceptual, linguistic, and cognitive processes utilized in written communication. Acquired and developmental disorders of written language are examined in relation to issues concerning characteristics, etiology, early identification, assessment, and remediation. LEC.

SPLH 860. Evaluation of Speech and Language. 2 Hours. Provides a general framework for speech and language evaluations. Issues related to initiation and termination of treatment are discussed. Practice is provided in evaluating norm- and criterion-referenced information used in diagnostic, referral, and treatment decisions. LEC.
SPLH 861. Seminar in Research Methodology in Speech Pathology and Audiology: _____. 3 Hours.
This seminar is concerned with the design, instrumentation, execution, and reporting of research in audiology and speech pathology. SPLH 760 or its equivalent and some statistics are recommended before entering this seminar. LEC.

SPLH 862. Clinical Processes. 1 Hour.
Orients student to clinical procedures, policies, requirements, and expectations of program. Therapy models, planning, and philosophies are discussed along with implementation and evaluation of therapy procedures. Professional issues are also considered. May be repeated for credit. LEC.

SPLH 864. Advanced Clinical Practice in Speech-Language Pathology. 1-6 Hours.
Students conduct supervised clinical work in a variety of settings. May be repeated for credit. Prerequisite: Department approval. Group and individual conferences with staff required. FLD.

SPLH 866. Field Study in Speech-Language Pathology. 5-12 Hours.
The field study provides work experiences in clinical and/or research activities. The student takes this course near the end of the degree program. Assignments include supervised work in a variety of approved settings. May be repeated for credit. Prerequisite: Consent of instructor. FLD.

SPLH 868. Professional Seminar. 1 Hour.
Forum for the presentation and discussion of scientific and professional issues by faculty and advanced graduate students. May be repeated for credit. LEC.

SPLH 874. Research Practicum. 1-3 Hours.
Application of research methodology in a laboratory situation. Emphasis is on direct participation in designing and conducting an experimental investigation in speech, language, or hearing. May be repeated for up to a maximum of 3 credits. Prerequisite: SPLH 660 or equivalent research methods course. RSH.

Investigation of special topics by individual master’s level students. Paper required. Prerequisite: Consent of instructor. RSH.

SPLH 880. Seminar in Speech-Language Pathology: _____. 1-3 Hours.
May be repeated for credit. LEC.

SPLH 898. Investigation and Conference (For Master’s Candidates). 1-6 Hours.
(Limited to six hours credit toward the M.A. degree.) Directed research and experimentation for M.A. students in some phase of speech science. RSH.

SPLH 899. Master’s Thesis. 1-6 Hours.
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SPLH 900. Proseminar in Communicative Disorders. 1 Hour.
A weekly forum for students and faculty to discuss professional issues and interdisciplinary research in communicative disorders and related fields. May be repeated for credit. Limited to two hours credit counted toward an MA or AuD degree. Limited to four hours credit counted toward the PhD degree. Graded on satisfactory/unsatisfactory basis. SEM.

SPLH 961. Experimental Phonetics I. 3 Hours.
This course will provide a description of the acoustic properties of the major classes of speech sounds, and will describe how these properties are utilized perceptually. It will also provide an understanding of the acoustic theory of speech production, and will discuss the implications of that theory relative to the modification of impaired speech. LEC.

SPLH 962. Experimental Phonetics II. 3 Hours.
This course will examine the current methodologies utilized in speech physiology research, and will review the findings of recent research into the movement patterns of individual speech articulators. The course will emphasize the interpretation of individual research results in terms of an overall theory of speech motor timing and control. LEC.

SPLH 963. Seminar in Hearing Science. 3 Hours.
Considers more advanced research problems in hearing science including psychoacoustics, speech perception, physiology. Prerequisite: Consent of instructor. LEC.

SPLH 964. Seminar in: _____. 1-3 Hours.
The subject matter of this seminar will be special topics from speech pathology and audiology, including those related to research methodology and research or academic careers. Special prerequisites may be established for a given topic. LEC.

SPLH 966. Seminar in Language Development. 3 Hours.
The course pertains to relevant research regarding infant speech development, vocabulary development, linguistic development, articulation development, and language retardation. (Same as ABSC 920, formerly HDFL 920.) LEC.

SPLH 967. Seminar in Articulation. 3 Hours.
Research and important clinical procedures pertaining to discrimination, structural, and physiological considerations, causal factors in defective articulation, and principal therapeutic approaches are carefully examined. LEC.

SPLH 968. Seminar in Communication Disorders. 3 Hours.
Study in depth of the communication behavior associated with brain injury and/or oral anomalies. LEC.

SPLH 969. Laboratory Instrumentation for Speech and Hearing Research. 3 Hours.
Instruments for speech and hearing research, their design and application. Experimental projects using laboratory equipment. Designing equipment for special purposes. Prerequisite: SPLH 962. FLD.

SPLH 970. Independent Study in Problems of Speech and Hearing. 1-6 Hours.
Investigation of special topics by individual students. Paper required. RSH.

SPLH 972. Extensions of Clinical Management. 3 Hours.
This course is designed to provide didactic and practical experience in methods of obtaining diagnostic information and generalization of speech and language responses away from the clinical setting. Models for effecting behavioral change and data collection will be discussed and utilized. FLD.

SPLH 974. Research Practicum. 1-6 Hours.
Application of research methodology in a laboratory situation. Emphasis is on direct participation in designing and conducting an experimental investigation in speech or hearing. FLD.

SPLH 975. Directed Teaching: Speech Pathology and Audiology. 1-3 Hours.
Provides experiences in classroom and laboratory instruction under supervision of graduate faculty. Variable credit to reflect amount of instructional responsibility assumed. May be repeated up to a maximum of six semester hours. FLD.

SPLH 976. Independent Study in Grant Writing. 1-3 Hours.
Students will identify a funding agency appropriate for their research, learn the application procedures for that agency, and draft a grant application following the identified agency’s format. The faculty mentor will
arrange for a review of the grant application following the agency's review criteria and format. May be repeated up to a maximum of three credits. IND.

**SPLH 982. Issues in Scientific Conduct. 3 Hours.** Lectures and discussion on issues in the conduct of a scientific career, with emphasis on practical topics of special importance in behavioral science. Topics will include the academic and scientific roles of behavioral scientists, establishing a research lab, communicating research findings, tenure processes, gender equity, ethical conduct, and good scientific citizenship. Discussions will highlight important case studies. (Same as PSYC 982.) LEC.

**SPLH 998. Investigation and Conference (For Doctoral Candidates). 1-8 Hours.** (Limited to eight hours credit towards the Ph.D. degree.) Directed research and experimentation for Ph.D. students in some phase of speech science. RSH.

**SPLH 999. Doctoral Dissertation. 1-12 Hours.** THE.

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**Bachelor of Arts and Bachelor of General Studies in Speech-Language-Hearing**

**Why study speech, language, and hearing?**

Because communication is central to human behavior, and the treatment of communication disorders requires specialized knowledge and skills.

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**Undergraduate Admission**

**Admission to KU**

All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

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**Admission to the College of Liberal Arts and Sciences**

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

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**First- and Second-Year Preparation**

Both the B.A. and the B.G.S. aspirant should fulfill the College general education requirements. Students also should complete SPLH 120, SPLH 261, SPLH 320, SPLH 465, SPLH 466, SPLH 663, and elective courses in human physiology, psychology, and linguistics during their first 2 years. Faculty members can help students select appropriate course work.

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**Requirements for the B.A. or B.G.S. Major**

**Speech-Language-Hearing Prerequisite or Co-Requisite Requirements (0)**

Majors must complete this requirement, however, these hours do not contribute to the minimum number of hours required for the major.

**Mathematics. Satisfied by one of the following:**

- MATH 101 College Algebra
- MATH 104 Precalculus Mathematics
- Or upper-level placement

**Statistics. An introductory statistics course (PSYC 210, MATH 365) is recommended.**

**Speech-Language-Hearing Introductory Knowledge (17)**

Majors must complete a course in the following areas (recommended within first and second year):

- **The Physics of Speech.** Satisfied by:
  - SPLH 120 The Physics of Speech 4
- **Survey Communication Disorders.** Satisfied by:
  - SPLH 261 Survey of Communication Disorders 3
- **The Communicating Brain: The Ultimate Personal Computer.** Satisfied by:
  - SPLH 320 The Communicating Brain: The Ultimate Personal Computer 3
- **Language Science.** Satisfied by:
  - SPLH 466 Language Science 3
- **Fundamentals of Clinical Phonetics.** Satisfied by:
  - SPLH 465 Fundamentals of Clinical Phonetics 1
- **Principles of Hearing Science.** Satisfied by:
  - SPLH 663 Principles of Hearing Science 3

**Speech-Language-Hearing Core Knowledge and Skills (18)**

Majors must complete a course in the following areas:

- **Language Sample Analysis Laboratory.** Satisfied by:
  - SPLH 565 Language Sample Analysis Lab 1
- **Language Development.** Satisfied by:
  - SPLH 566 Language Development 3
- **Research Methods in Speech-Language-Hearing.** Satisfied by:
  - SPLH 660 Research Methods in Speech-Language-Hearing 3
- **Principles of Speech Science.** Satisfied by:
  - SPLH 662 Principles of Speech Science 3
- **Introduction to Audiological Assessment & Rehabilitation.** Satisfied by:
  - SPLH 668 Introduction to Audiological Assessment and Rehabilitation 4
- **Introduction to Speech-Language Pathology.** Satisfied by:
  - SPLH 671 Introduction to Speech-Language Pathology 4

**Further Speech-Language-Hearing Study (0)**

After completing the requirements, students with grade-point averages of 3.0 or higher may enroll in any one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPLH 670</td>
<td>Beginning Clinical Practice in Audiology</td>
</tr>
<tr>
<td>SPLH 672</td>
<td>Clinical Practice in Speech-Language Pathology</td>
</tr>
</tbody>
</table>

**Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 35 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**
Satisfied by a minimum of 28 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

**Graduation Plan**

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please consult the department for details.

**Departmental Honors**

The honors program offers exceptional undergraduates the opportunity to work closely with individual faculty members on scholarly projects over an extended period of time. Students are admitted to the program and matched with faculty through an application process that occurs each semester during course enrollment. Contact the Honors Coordinator for details. The following are required:

1. A grade-point average at graduation of at least 3.25 overall and of 3.5 in the major.
2. Completion of 6 to 8 credit hours in SPLH 498 Departmental Honors Research. Students work under the direction of a faculty member. Students may change areas of interest or faculty supervisors at the beginning of a semester with the consent of the honors coordinator. In the final semester of SPLH 498 enrollment, students also must complete a written report or public oral presentation detailing the purpose, methods, results, and impact of the research. Academic credit but no honors designation is given to students who meet the requirements for any semester but do not complete all requirements for departmental honors.

**Minor in Speech-Language-Hearing**

Why study speech, language, and hearing?

Because communication is central to human behavior, and the treatment of communication disorders requires specialized knowledge and skills.

**Requirements for the Minor**

**Speech-Language-Hearing Minor Course Requirements (15)**

Students selecting this minor must complete the following:

- Survey Communication Disorders. Satisfied by:
  - SPLH 261 Survey of Communication Disorders 3
- Speech-Language-Hearing Required Electives. Satisfied by at least 4
  - SPLH courses (12 hours) from the following:
  - SPLH 120 The Physics of Speech
  - SPLH 320 The Communicating Brain: The Ultimate Personal Computer
  - SPLH 464 Undergraduate Seminar in: 
  - SPLH 465 Fundamentals of Clinical Phonetics
  - SPLH 466 Language Science
  - SPLH 499 Directed Study in Speech-Language-Hearing
  - SPLH 565 Language Sample Analysis Lab
  - SPLH 566 Language Development
  - SPLH 660 Research Methods in Speech-Language-Hearing
  - SPLH 662 Principles of Speech Science
  - SPLH 663 Principles of Hearing Science

Courses with clinical content can be taken as directed study with the permission and support of a faculty mentor.

**Minor Hours & Minor GPA**

While completing all required courses, minors must also meet each of the following hour and grade-point average minimum standards:

**Minor Hours**
Satisfied by 18 hours of minor courses.

**Minor Hours in Residence**
Satisfied by a minimum of 9 junior/senior (300+) hours of KU resident credit in the minor.

**Minor Junior/Senior Hours**
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

**Master of Arts in Speech-Language Pathology**

**Financial Aid**

Students in the speech-language pathology and audiology programs may apply for teaching, clinical, and research assistantships, U.S. Office of
Education fellowships, Veterans’ Administration Hospital traineeships, and other types of financial assistance.

Visit the Graduate Studies website for information about funding opportunities (http://www.graduate.ku.edu/funding-opportunities) for graduate students at KU. Financial Aid and Scholarships (http://affordability.ku.edu/steps/index.shtml) administers grants, loans, and need-based financial aid.

Graduate Admission

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the program:

The University of Kansas Medical Center Department of Hearing and Speech
Attn: Angela Carrasco
3031 H.C. Miller Bldg.,
Mail Stop 3039, 3901 Rainbow Blvd.
Kansas City, KS 66160
acarrasco@kumc.edu

Requirements for the M.A. Degree with a Major in Speech-Language Pathology

Prerequisites

• An acceptable bachelor’s degree
• 34 hours of credit in speech-language-hearing, including SPLH 120, SPLH 261, SPLH 320, SPLH 465, SPLH 466, SPLH 565, SPLH 566, SPLH 660, SPLH 662, SPLH 663, SPLH 668, and SPLH 671, or their equivalents
• 20 hours of credit in allied fields, including courses in physiology, linguistics, and psychology

Degree Requirements

The program requires 34 credit hours of experiences for breadth and an additional 12 to 16 hours for depth.

Required Graduate Experiences for Breadth (34)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPLH 764</td>
<td>Seminar in: ____ (Multicultural Issues)</td>
<td>2</td>
</tr>
<tr>
<td>SPLH 860</td>
<td>Evaluation of Speech and Language</td>
<td>2</td>
</tr>
<tr>
<td>SPLH 862</td>
<td>Clinical Processes</td>
<td>2</td>
</tr>
<tr>
<td>SPLH 864</td>
<td>Advanced Clinical Practice in Speech-Language Pathology</td>
<td>7</td>
</tr>
<tr>
<td>SPLH 868</td>
<td>Professional Seminar</td>
<td>2</td>
</tr>
<tr>
<td>Research experience (thesis or nonthesis option)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SPLH electives (8 seminars, 2 credit hours each)</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Required Graduate Experiences for Depth (12-16)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPLH 866</td>
<td>Field Study in Speech-Language Pathology</td>
<td>5</td>
</tr>
<tr>
<td>Advanced electives (SPLH, outside department, or thesis)</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Second field study or fourth practicum experience</td>
<td>1-5</td>
<td></td>
</tr>
</tbody>
</table>

Students also must pass the Speech-Language Pathology PRAXIS examination with a score of at least 600.

Requirements for the M.S. in Education Degree with a Specialization in Deaf Education

For information, see Special Education (p. 458) in the School of Education section of the online catalog.

Doctor of Audiology

The Au.D. (Doctor of Audiology) degree is intended to produce audiologists for clinical practice and is designed to be completed in four years (including summers). This program has been planned to meet the academic and clinical requirements of the American Speech-Language-Hearing Association (ASHA). The ASHA Council on Academic Accreditation in Audiology and Speech-Language Pathology accredits this program.

A combined Au.D./Ph.D. track also is available. This track facilitates the completion of both degrees in a 6-year post-baccalaureate period. Students who wish to earn both Au.D. (http://splh.ku.edu/ipcd/AuD/AuD_Requirements_from_Handbook-2012.pdf) and Ph.D. (http://splh.ku.edu/ipcd/PhD/requirements.shtml) degrees should contact their advisor.

Graduate Admission

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to the program:

The University of Kansas Medical Center Department of Hearing and Speech
Attn: Angela Carrasco
3031 H.C. Miller Bldg.,
Mail Stop 3039, 3901 Rainbow Blvd.
Kansas City, KS 66160
acarrasco@kumc.edu

The Au.D. program prepares students to meet the academic and clinical requirements for the ASHA Certificate of Clinical Competence. The degree is designed to be completed in 4 years (including summers, with a common entry point in fall semester). A minimum of 102 credit hours including academic course work, independent research, and clinical practicum is required.

To obtain the Certificate of Clinical Competence in Audiology, a minimum of 1820 clock hours of supervised clinical experience must be completed while enrolled in an accredited educational program. KU’s Au.D. program is designed to provide the required clinical experience. Specific guidelines for certification are contained in the ASHA Certification and Membership Handbook, available on the ASHA website www.asha.org.

Degree Requirements

Audiology Didactic Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUD 810</td>
<td>Diagnostic Audiology</td>
<td>4</td>
</tr>
<tr>
<td>AUD 811</td>
<td>Hearing Disorders</td>
<td>3</td>
</tr>
<tr>
<td>AUD 813</td>
<td>Psychoacoustics and Theories of Hearing</td>
<td>3</td>
</tr>
<tr>
<td>AUD 814</td>
<td>Hearing Conservation</td>
<td>2</td>
</tr>
<tr>
<td>AUD 816</td>
<td>Speech Perception</td>
<td>2</td>
</tr>
</tbody>
</table>
A minimum of 29 credit hours is required:

- During Years 1 and 2: AUD 843 Clinic Practice in Audiology (minimum of 9 credit hours; 1 credit hour equals 1-half day a week in clinic during fall and spring, 1 day a week in summer)
- During Year 3: AUD 944 Clinical Rotation (minimum of 5 credit hours; 1 credit hour equals 1 day a week in clinic during fall and spring, 2 days a week in summer).
- During Year 4: AUD 945 Clinical Externship (40 hours per week in clinic: 6 credit hours in fall and spring, 3 credit hours in summer).

**Elective Courses**

The Au.D. curriculum requires a total of 4-5 elective courses (12 credits); a minimum of two of these (6 credits) must be statistics courses.

Choice of statistics and elective courses will be determined in consultation with the academic advisor.

**PRAXIS Examination and Research Project**

In addition to didactic, clinical, and elective courses, students must successfully complete the PRAXIS examination at the end of 3 full years of graduate study and a research project completed through enrollment in a minimum of 4 hours of AUD 846 Independent Study in Problems in Audiology. Projects are to be completed and presented to a faculty-student forum in the spring of Year 3.

**Other Degree Requirements**

Students must successfully complete an oral, comprehensive examination during Year 3.

**Note:** Contact your department or program for more information about the Research Skills and Responsible Scholarship requirement for doctoral students. Also, please see this policy listed in the Graduate Studies section of the online catalog and in the KU Policy Library.

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**Doctor of Philosophy in Speech-Language Pathology or Audiology**

The Intercampus Program in Communicative Disorders offers Ph.D. programs in both speech-language pathology and in audiology for post-baccalaureate study of normal and disordered aspects of communication. These programs are designed to prepare suitably qualified individuals for leadership positions in research and academia. A major focus of these programs is to advance the science of these fields, and to elucidate the scientific basis for the procedures and processes used in clinical practice.

A combined Au.D./Ph.D. track also is available. This track facilitates the completion of both degrees in a 6-year post-baccalaureate period. Students who wish to earn both Au.D. and Ph.D. degrees should contact their advisor.

**Graduate Admission**

Submit your graduate application online (http://www.graduate.ku.edu).

Send all other requested application materials to the program:

**The University of Kansas Medical Center Department of Hearing and Speech**

Attn: Angela Carrasco
3031 H.C. Miller Bldg.,
Mail Stop 3039, 3901 Rainbow Blvd.
Kansas City, KS 66160
acarrasco@kumc.edu

Upon admission, the student and his or her adviser choose a doctoral advisory committee. The committee is responsible for guiding the student’s progress through the selected program of study.

Incoming students who have not completed a substantive graduate research project (e.g., a master’s thesis, Au.D. research project, etc.) must initiate a thesis-equivalent research project, under the direction of a three-member committee, during the first year of enrollment. This project must be completed before the comprehensive oral examination.

Minimum requirements for both the Ph.D. program in Speech-Language Pathology and Audiology are:

- A minimum of 24 graduate hours in a major area of interest
- Completion of a preliminary research experience
- A minimum of 15 graduate hours in research skills/responsible scholarship
- A minimum of 12 graduate hours in a correlative area
- Satisfactory performance on annual reviews
- Satisfactory performance on written and oral comprehensive examination
- Satisfactory completion of a dissertation including written and oral prospectus, and written dissertation and oral defense

Note that the above are the MINIMUM requirements. Each student’s plan of study will vary depending on entry skills (i.e., relevant knowledge and skills acquired through prior training, work or research experience), chosen specialization, and career aspirations.

The essential steps toward a Ph.D. are the following:
1. Completion of academic coursework (major area, correlative area, research skills/responsible scholarship)
2. Preliminary research participation
3. Written comprehensive examinations
4. Comprehensive oral examinations
5. Dissertation prospectus
6. Written dissertation
7. Oral defense of the dissertation
8. Submission of the dissertation to the Office of Graduate Studies

Students in this program must meet the general requirements of the university including the research skills and responsible scholarship requirement (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm) and fulfill the basic program requirements to receive the Ph.D. degree.

Certificate Program

Systems Analysis and Design Certificate Program

Systems Analysis and Design

*NOTE - This program is no longer accepting any new students.*

KU Edwards Campus

Courses are offered only on the KU Edwards Campus (http://edwardscampus.ku.edu), 12600 Quivira Rd., Overland Park, KS 66213. They lead to a 15-hour undergraduate certificate in systems analysis and design. The certificate offers working adults the opportunity to develop knowledge and skills to prepare for roles as systems analysts.

A systems analyst analyzes, designs, and implements improvements in business processes through computer information systems so those systems are useful to planners and decision-makers who develop business strategy. Contact the CLAS undergraduate advisor on the Edwards Campus, Dan Mueller, dmueller@ku.edu, 864-8659 (from Lawrence) or 913-897-8659 (outside of Lawrence) for more information.

Courses

SA&D 401. Introduction to Systems Analysis and Design. 3 Hours. U.
An introduction to the Systems Development Life Cycle (SDLC) and alternatives to SDLC uses in information studies projects and applications. Case studies will be used to illustrate methods of successful analysis of entire projects, including problem definition and analysis, design processes, testing, and implementation. Prerequisite: One year of programming experience or classes. Restricted to students admitted to the Systems Analysis and Design Certificate program. LEC.

SA&D 402. Introduction to Project Management. 3 Hours. U.
An introduction to the Project Management Body of Knowledge (PMBOK) including the need for project management, phases of the project life cycle, tools and techniques for planning (PERT, CPM), and the role of team work and communication. Not open to students with credit for BBA 410 Project Management. LEC.

SA&D 404. Software Development Methods. 3 Hours. U.
This course will focus on the specifications through implementation phase of the Systems Development Life Cycle (SDLC) at an advanced level including technical design, coding and testing, problem management, systems testing, implementation and post-implementation. Prerequisite: SAD 401. Restricted to students admitted to the Systems Analysis and Design Certificate program. LEC.

SA&D 405. Object Oriented Analysis and Design. 3 Hours. U.
Introduces the student to the basic Object Oriented (OO) terminology and how OO differs from a procedural approach. It details the deliverables that are created in the analysis and design phase using the Unified Modeling Language (UML). Students will also learn to use a CASE tool to document the analysis and design deliverables. Prerequisite: SAD 401. Restricted to students admitted to the Systems Analysis and Design Certificate program. LEC.

SA&D 406. Systems Architecture. 3 Hours. U.
Survey of elements of systems architecture including types of architecture, quality attributes, design patterns and frameworks, deployment issues, and developing architecture plans. Prerequisite: SAD 401. Restricted to students admitted to the Systems Analysis and Design Certificate program. LEC.

Department of Theatre

KU Theatre: A Family of Students, Artists, Scholars, and Arts Professionals

The Department of Theatre offers outstanding theatre training in a liberal arts context. Our undergraduate programs are grounded in the philosophy that good theatre artists are thinking theatre artists. Our students work intensively on acquiring theatre skills and knowledge in our classrooms, studios, and laboratories. They receive small-school individual attention while benefiting from big-school academic choices and a vast array of programs. KU theatre students often undertake secondary study in areas such as business, journalism, art, and English. The Department of Theatre is internationally recognized for its graduate education. Our M.A. and Ph.D. programs are unique for combining intensive study of theatre and performance with the production training necessary for theatre careers in higher education. Our groundbreaking M.F.A. in Scenography is unique for having an integrated approach to scenic, lighting, and costume design that prepares artists for professional and academic careers.

Home of the University Theatre

Classroom meets the stage in the University Theatre, a leading arts program serving the KU and Lawrence communities. KU Theatre students, faculty and professional staff work together to create up to ten fully produced shows each year, from dramas to musicals to opera. In our fully-equipped facilities students engage in all aspects of production onstage and backstage. Production continues year round with the Kansas Summer Theatre program.

Highly Qualified Faculty Scholars and Artists

The faculty of the Department of Theatre are creative artists and researchers working in the areas of theatre stagecraft, performance, design, dramatic literature, dramaturgy, pedagogy, as well as the historical, literary, and cultural study of theatre and performance. Our faculty include award-winning teachers and internationally recognized scholars and artists working in professional theatre, authoring books and establishing research and outreach programs.

Support for Students

The Department of Theatre offers students financial aid in the form of dozens of scholarships, awards, and teaching assistantships each year to graduate and undergraduate students. A strong community of support
is found in the Friends of the Theatre (FROTH), a community group dedicated to enhancing the mission of the University Theatre. Once students graduate our program they join a wide network of theatre Alumni and Professional Advisors.

Undergraduate Programs

The department offers Bachelor of Arts and Bachelor of General Studies degrees, as well as a minor in theatre. The program leading to the Bachelor of Fine Arts degree in theatre design is offered cooperatively by the Department of Visual Art and the Department of Theatre.

Undergraduates may choose from 5 emphases: the B.A. or B.G.S with an emphasis in Theatre, Culture, and Society; the B.A. or B.G.S. with an emphasis in Performance; and a B.F.A. in Theatre Design. The concentration in Theatre, Culture, and Society acquaints students with the overall field of theatre and prepares them for possible graduate study. The concentration in Performance prepares students for professional work in theatre and for M.F.A. study in acting or directing. The B.F.A in Theatre Design is intended as general preparation for the professional designer of scenery, costumes or lighting working in theatre and/or film or as preparation for graduate studies.

The B.A., B.G.S. and B.F.A. requirements are quite different, so it is important to consult with a department advisor. Theatre production experience is provided through coursework in conjunction with the University Theatre Program.

Courses for Nonmajors

The department offers many courses (including KU Core fulfillment) open to non-majors who wish to learn more about theatre, including but not limited to:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 100</td>
<td>Introduction to the Theatre</td>
<td>3</td>
</tr>
<tr>
<td>THR 106</td>
<td>Acting I</td>
<td>3</td>
</tr>
<tr>
<td>THR 215</td>
<td>Approaching Design</td>
<td>3</td>
</tr>
<tr>
<td>THR 380</td>
<td>Popular Culture: ______</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduate Programs

The Department of Theatre offers graduate programs leading to a Master of Arts degree in theatre studies and a Doctor of Philosophy degree in theatre. In collaboration with the Department of Visual Art, the Department of Theatre also offers a Master of Fine Arts degree in theatre design with a concentration in scenography.

Courses

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 100</td>
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</tr>
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<td>Approaching Design</td>
<td>3</td>
</tr>
<tr>
<td>THR 380</td>
<td>Popular Culture: ______</td>
<td>3</td>
</tr>
</tbody>
</table>

THR 105. Improvisation. 3 Hours. H.

Designed to free the beginning actor physically, vocally, and emotionally. Beginning with basic physical action and sense memory exercises performed by individuals, the work will progress to pair and small-group improvisations in preparation for scene work. Open to freshmen and sophomores only. LEC.

THR 106. Acting I. 3 Hours. HL GE3H / H.

Fundamental techniques in acting. Practice in character creation, body language, and effective stage speech. LEC.

THR 111. Make-Up. 1 Hour. H.

The techniques in application of make-up for specific characterizations, both straight and character. Study of the structure of the face and hands for stage make-up. Should be taken concurrently with THR 106, if possible. LEC.

THR 116. Scenographic Techniques. 3 Hours. H.

Emphasis on drafting, model building, and presentational techniques for the theatrical designer or art director. Some work in computer drafting for the designer-technician. Lecture and laboratory periods. LEC.

THR 177. First Year Seminar: ______. 3 Hours. HT GE11.

A limited-enrollment, seminar course for first-time freshmen, organized around current issues in Theatre. May not contribute to major requirements in theatre. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

THR 201. Theatre Practicum II. 1 Hour. H.

Involvement in theatre performance and/or production. One acting role in a University Theatre production or classroom project plus one crew assignment, or two crew assignments qualify for credit. May be repeated for credit. This course will be graded satisfactory/unsatisfactory. Prerequisite: THR 101. ACT.

THR 204. Study Abroad Topics in: ______. 1-6 Hours. H.

This course is designed for the study of special topics in Theatre at the freshman/sophomore level. Credit for coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

THR 206. Acting II. 3 Hours. H.

The study of roles and scenes from plays. Practice in character analysis, creation of roles, rehearsal of scenes, and ensemble work. Prerequisite: THR 106. LEC.

THR 209. Play Reading for Performance. 3 Hours. H.

This course is designed to prepare students for upper-level courses in theatre by developing and enhancing their ability to read plays. Close reading of plays introduces students to a variety of different dramatic genres and theatrical styles. Emphasis is placed on comprehension and analysis of dramatic literature for theatrical performance. LEC.

THR 210. Musical Performance for the Actor I. 3 Hours. H.

Beginning Studies in Musical Theatre Performance: practical application of voice, acting and movement techniques for musical theatre, solo and group performance. LEC.

THR 212. Beginning Voice and Speech for Actors. 3 Hours. H.

A foundation course; introduction to phonetics; training in Standard American Stage Speech; articulation skills; resonance and voice placement. LEC.

THR 213. Movement I: The Acting Instrument. 3 Hours. H.

A foundational course in discovering ease and efficient use of the body in a performance context, developing non-verbal communication and partnering skills, and establishing the connection of movement to voice
THR 215. Approaching Design. 3 Hours. HL GE3H / H.
Conceptualization and visualization of the elements involved in creative design for theatre, dance, television, and film. LEC.

THR 216. Scenic Production. 2 Hours. H.
Introduction to the planning, construction, and mounting of scenery for theatre, television, and film. Concentration on the technical organization of scenic production. Lecture, discussion, and laboratory periods. LEC.

THR 220. Costume Production. 2 Hours. H.
Introduction to techniques of costume construction, including study of fabrics, color, fundamentals of pattern making, and draping of costumes for theatre, television, and film. Concentration on the technical organization of costume production. Lecture, discussion, and laboratory periods. LEC.

THR 222. Lighting Production. 2 Hours. H.
Introduction to the planning and execution of lighting for theatre, television, and film. Concentration organized any given semester to study particular subject matter or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. LEC.

THR 226. Introduction to African Dance Theatre. 2 Hours. NW / H.
Introduction to the general techniques of non-verbal theatrical conventions in African cultures. Practical training in movement vocabulary supplemented by lectures on the "text" of performance. There will be an end of semester "studio performance." (Same as AAAS 334 and DANC 230.) LEC.

THR 301. Theatre Practicum III. 1 Hour. H.
Involvement in theatre production and/or production. One acting role in a University Theatre production or classroom project plus one crew assignment, or two crew assignments qualify for credit. May be repeated for credit. This course will be graded satisfactory/unsatisfactory. Prerequisite: THR 201. ACT.

THR 302. Undergraduate Seminar in: _______, 3 Hours. H.
Course organized any given semester to study a particular subject matter or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. LEC.

THR 303. Summer Theatre. 1-6 Hours. H.
Provides experience in a wide range of theatre activity related to the summer theatre production or productions. Work may include activity in the following areas: acting, directing, design, technical theatre, voice and/or movement. Specialized skills are developed through individual classes, production preparation and performance. Prerequisite: Consent of instructor. ACT.

THR 304. Study Abroad Topics in: _______, 1-6 Hours. H.
This course is designed for the study of special topics in Theatre at the junior/senior level. Credit for coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

THR 305. Honors Seminar in: _______, 3 Hours. H.
Special topics seminar serving students enrolled in the University Honors Program. Course organized any given semester to study a particular subject matter or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Prerequisite: Students must be enrolled in the University Honors Program. LEC.

THR 306. Acting III. 3 Hours. H.
Advanced projects in acting. Character and scene analysis, scoring the role, rehearsal, and performance. Prerequisite: THR 206. LEC.

THR 307. Undergraduate Theatre Internship. 1-3 Hours. AE61 / H.
Supervised study with an approved theater company or project. May be repeated for credit. No more than six hours may be applied to the B.A. or B.G.S. degrees. This course will be graded satisfactory/unsatisfactory. Prerequisite: Consent of instructor and at least seven hours credit in the department. FLD.

THR 308. Script Analysis. 3 Hours. H.
This course provides knowledge and methods enabling students to conduct in-depth study of dramatic scripts. Emphasis is given to the analysis skills appropriate to practitioners of stage and screen arts. LEC.

THR 310. Musical Performance for the Actor II. 3 Hours. H.
Intermediate Studies in Musical Theatre Performance: practical application of voice, acting and movement techniques for musical theatre, solo and group performance. Prerequisite: THR 106 and THR 210. LEC.

THR 312. Acting with an Accent. 3 Hours. H.
A performance class for actors using monologues and scenes involving the use of accents and dialects. The course will also provide instruction in many of the most used American regional, British regional dialects, and foreign language accents. Prerequisite: THR 212, or by permission of instructor after the student demonstrates an ability in the International Phonetic Alphabet. LEC.

THR 313. Movement II: Physical Characterization. 3 Hours. H.
The study of diverse physical acting techniques, and an investigation into creating a character through manipulation of the acting instrument. Actor training in performance neutrality, mask work, age, and gender distinctions. Prerequisite: THR 213 and permission of instructor. LEC.

THR 316. Beginning Scene Design. 3 Hours. H.
Study of scenic design process with beginning problems in textual analysis, style, historical research, and preliminary and finished methods of design presentation. Concentration on developing fundamental design skills and awareness. Prerequisite: THR 116 and THR 215, or permission of instructor. LEC.

THR 320. Beginning Costume Design. 3 Hours. H.
Study of the costume design process with beginning problems in textual analysis, style, historical research, and preliminary and finished methods of design presentation. Concentration on developing fundamental design skills and awareness. Prerequisite: THR 215. LEC.

THR 324. Beginning Lighting Design. 3 Hours. H.
Study of the lighting design process with beginning problems in textual analysis, style, historical research, with preliminary and finished methods of design presentation. Concentration on developing fundamental design skills and awareness. Prerequisite: THR 116 and THR 215, or permission of instructor. LEC.

THR 326. African Theatre and Drama. 3 Hours. NW / H/W.
A study of the origin and development of continental African theatre and its affinity to the Levant. Traditional, colonial and contemporary dramatic theories and experiments will be examined in play selections. (Same as AAAS 355.) LEC.

THR 327. African-American Theatre and Drama. 3 Hours. AE41 / H.
A historical study of Black Theatre in the U.S.A. from its African genesis to its contemporary Americanness. Epochs in African-American dramaturgy will be critically examined. (Same as AAAS 356.) LEC.

THR 380. Popular Culture: ______. 3 Hours. HL GE3H / H.
Interdisciplinary examination of popular culture oriented around a specific genre or theme. Objects of study may include popular forms of live
THR 401. Stage Management and Assistant Direction. 1 Hour. H.
Majors are assigned to stage manage or assistant direct a University Theatre production, or to take related workshops in stage management or assistant directing. May be repeated for credit. This course will be graded satisfactory/unsatisfactory. ACT.

THR 404. Children and Drama. 3 Hours. HL / H.
Exploration of forms, methods, and materials appropriate for development of elementary-age children in dramatic arts. LEC.

THR 405. Children and Media. 3 Hours. H.
The applied study of child development theories and research methods on the influences and effects of television and related visual media on childhood in the contexts of families, schools, and society. (Same as ABSC 405 and PSYC 405.) LEC.

THR 406. Audition Techniques. 3 Hours. H.
This course prepares students for all types of audition experiences. It includes study in techniques of prepared auditions, cold readings, interviews, and the musical audition for actors. Emphasis is placed upon developing resumes and photo portfolios as well as concentrated study in professional contracts, unions, and agent acquisition. Prerequisite: THR 206. LEC.

THR 410. Musical Performance for the Actor III. 3 Hours. H.
Advanced Studies in Musical Theatre Performance: practical application of voice, acting and movement techniques for musical theatre, solo and group performance. Prerequisite: THR 106, THR 210, and THR 310. LEC.

THR 413. Stage Combat Skills. 3 Hours. U.
Study of the illusion of violence in a dramatic context and the special skills necessary for creating believable and safe stage fights. Actor training in armed and unarmed combat, including one or more of the following: rapier and dagger, broadsword, and quarter staff. Prerequisite: THR 313 and permission of instructor. LEC.

THR 416. Design Forum. 3 Hours. U.
Depending on student qualifications and specialization, focus is on scenic, costume, and/or lighting design. Special attention placed on developing collaborative awareness and the conceptual and presentation skills that underlie and inform the design process. Prerequisite: THR 316 or THR 320 or THR 324. LEC.

THR 429. Postcolonial Theatre and Drama. 3 Hours. NW AE42/GE3H / H.
The course develops an understanding of the postcolonial concept and its different manifestations in theatre and drama across nations and cultures. It approaches postcolonialism as a way of reading theatre, and as a genre within theatre by exploring how the “colonial project” has reconfigured the concept, content, and context of theatre in both colonized and colonizing cultures. In addition to the study of postcolonial playwrights and their works, the course is also an introduction to postcolonial theory and its critics. (Same as AAAS 429.) LEC.

THR 445. Teaching Theatre in the Middle/Secondary Schools. 3 Hours. H.
Study of philosophy and methods appropriate to teaching improvisation, acting, stagecraft, directing, playwriting, dramatic literature, and theatre history in middle/secondary schools. Includes curriculum development, instructional and evaluative strategies, and management of co-curricular theatre programs. Prerequisite: Consent of instructor. LEC.

THR 498. Honors Seminar. 2-6 Hours. AE61 / H.
Study may be directed toward either (1) reading for integration of knowledge and insight in theatre or (2) original research, i.e., investigation of a specific problem in theatre. Six hours maximum credit, which may be distributed through four semesters. Prerequisite: Consent of Departmental Honors Committee. IND.

THR 499. Directed Study in Theatre. 1-6 Hours. AE61 / H.
Investigation of a special topic or project selected by the student with advice, approval, and supervision by an instructor. Such study may take the form of directed reading or special research. Individual reports and conferences. A maximum of six hours credit may be counted toward a degree. Prerequisite: At least seven hours credit in the department and consent of instructor. IND.

THR 501. Colloquium on American Theatre. 1 Hour. U.
A series of fourteen weekly lecture/discussions led by invited guests both from the university and outside it on various topics central to the study of theatre. The first four meetings, led by the course coordinator, are a brief survey of the history of theatre in America and a preparation for the ten lecture/discussions to follow. LEC.

THR 506. Acting for the Camera. 3 Hours. H.
A study of acting techniques appropriate to the requirements of the camera. Emphasis is placed on developing audition skills necessary to compete for roles in dramatic features, corporate videos, and commercials. Actors acquire skills essential to the transition from stage to camera. Prerequisite: Permission of instructor. LEC.

THR 508. Fundamentals of Directing. 3 Hours. H.
Offered as a first course in play directing. Designed primarily for theatre majors and secondary education majors in language arts with a theatre and drama concentration. The content is principally descriptive in nature with some practical experience. Lecture and laboratory periods. Prerequisite: THR 308. LEC.

THR 509. Dramatic Script Writing. 3 Hours. H.
Study and practice in the fundamental techniques of dramatic writing and the application of such techniques most specifically to theatre. Open upon consent of instructor to students who have completed one course in advanced composition and one course in the theory or history of drama. LEC.

THR 512. A Vocal Approach to the Classics. 3 Hours. H.
This is an advanced voice and speech course for actors aiming to further increase their command over tone, rhythm, pacing, and diction. Their range and power will be extended. Through discovery of the demands of a variety of classical texts, the actor will be challenged both in verse and in prose to develop the skills necessary to fully interpret that material. Prerequisite: THR 212. LEC.

THR 516. Scenic Painting Techniques. 3 Hours. H.
Study of painting equipment, tools, pigments, binders, and vehicles, and their relationship to the surfaces to be painted. Instruction in basic painting techniques. Prerequisite: THR 115 and THR 215. LEC.

THR 517. Computer-Aided Design. 3 Hours. U.
Study of new media in theatre and film/video production, primarily computer technologies and methods for the theatrical designer or art director. Emphasis on computer 3-D modeling and color rendering. Prerequisite: THR 116, THR 215, or permission of instructor. LEC.

THR 518. Scenography and the Classic Script. 3 Hours. H.
Holistic production design, including lighting, scenery, and costumes, for classic theatre scripts. Contrasts historical styles of production with styles for contemporary spaces and audiences. Projects tailored to the needs and level of the students. Prerequisite: Consent of instructor. LEC.
THR 519. Scenography and the Modern Script. 3 Hours. H.
Holistic production design, including lighting, scenery, and costumes, for modern theatre scripts. Examines modern styles of production. Projects tailored to the needs and level of the students. Prerequisite: Consent of instructor. LEC.

THR 520. History of Period Style I. 3 Hours. H.
A survey of Western style from ancient Egypt to the Restoration. Focus is placed on developing a comprehensive understanding of the stylistic relationships between art, architecture, clothing, decor, manners, and social and political history. Prerequisite: Nine hours in theatre/design/technical courses or consent of instructor. LEC.

THR 521. History of Period Style II. 3 Hours. H.
Continuation of THR 520, from the Restoration to the present day. Prerequisite: Nine hours in theatre/design/technical courses or consent of instructor. LEC.

THR 525. History of Theatre. 3 Hours. H.
Study of developments in world theatre and drama from the ancient world to the eighteenth century. LEC.

THR 526. History of Theatre II. 3 Hours. H.
Study of developments in world theatre and drama since the eighteenth century. LEC.

THR 527. Asian Theatre and Performance. 3 Hours. NW / H/W.
A survey of traditional and modern theatre and performance in Asia, with greatest attention given to India, China, and Japan. A study of plays, dramatic genres, history, conventions of play production, acting styles and other performance forms. (Same as EALC 527.) LEC.

THR 528. History of U.S. Theatre and Drama. 3 Hours. H.
Historical approach to the development of theatre and performing arts in the United States. LEC.

THR 529. Race and the American Theatre. 3 Hours. U.
The representation(s) of race in significant texts and performance styles in American theatre analyzed according to political ideologies, dramatic movements and the impact of these factors on the representation of the "other" in the theatre. (Same as AAAS 585 and AMS 529.) LEC.

THR 550. Applied and Interactive Theatre. 3 Hours. H.
This course is an exploration of interactive drama techniques and practices of the evolving field of applied theatre. The tools of applied theatre serve varied purposes and are being used around the world for community-building, personal empowerment, to address social and political issues, and to strengthen communication skills. The class will work specifically on community-based dialogue and classroom situations that students and professors encounter in their daily lives. LEC.

THR 599. Special Topics in Scenography. 1-6 Hours. U.
Individual studio activity. Course content to be determined by the student under the supervision of a faculty member. May be repeated for credit in subsequent semesters. Prerequisite: Permission of instructor. IND.

THR 603. Theatre for Young Audiences. 3 Hours. U.
A survey of theories, history, literature, criticism, production methods, and audience research about theatre performed by adults for children and adolescents. Emphasis is on child development and community outreach. Prerequisite: THR 308 or consent of instructor. LEC.

THR 604. Drama with Young People. 1-3 Hours. U.
A laboratory experience in developing and conducting improvisational drama workshops with children or adolescents in local schools. Includes readings by leading theorists and practitioners. Prerequisite: Actors cast in current KU Theatre for Young People production, or THR 404, or consent of instructor. LEC.

THR 609. Play Directing. 3 Hours. H.
Readings, lectures, and practice dealing with the relationship between actor and director. Prerequisite: THR 508. LEC.

THR 617. Computer-Aided Design II. 3 Hours. U.
Continuation of THR 517. Emphasis on computer-generated images as scenic media in production situations. Prerequisite: THR 517, or permission of instructor. LEC.

THR 618. Scenography and the Musical Theatre. 3 Hours. H.
Holistic production design, including lighting, scenery, and costumes, for musical theatre, opera, and dance. Examines development and changes in design styles in the evolution of musical theatre, opera, and dance and the special requirements of these forms. Projects tailored to the needs and level of the students. Prerequisite: Consent of instructor. LEC.

THR 619. Scenography and the Contemporary Script. 3 Hours. H.
Holistic production design, including lighting, scenery, and costumes, for contemporary scripts. Examines contemporary episodic scripts written for the stage that are based on a filmic structure, the special problems of these kinds of scripts, and the respective problems of designing for theatre and film. Projects tailored to the needs and level of the students. Prerequisite: Consent of instructor. LEC.

THR 620. Scenography and the Experimental Production. 3 Hours. H.
Holistic production design, including lighting, scenery, and costumes, for experimental scripts/scenarios. Examines experimental approaches to a variety of script/scenarios, including mixed-media production. Projects tailored to the needs and level of the students. Prerequisite: Consent of instructor. LEC.

THR 626. Myth and the Dramatist. 3 Hours. U.
This seminar critically explores myths in dramatic literature from ancient to contemporary times, using select authors from different cultures. Analysis of the works will be based on both conventional and post-structuralist theories and specific emphasis will be on myths that have been adapted cross-culturally and/or in different time perspectives. LEC.

THR 702. Graduate Seminar in: ______. 3 Hours.
Course organized any given semester to study particular subject matter or to take advantage of special competency by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. LEC.

THR 703. Directed Readings in Theatre. 1-3 Hours.
Research reading and presentation of reports on specific subjects related to the students major area of specialization. May be repeated up to a total of six credits on petition. Required of all MFA Scenography students. IND.

THR 704. Study Abroad Topics in: ______. 1-6 Hours.
This course is designed for the study of specific topics in Theatre. Credit for coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

THR 707. Theatre Internship. 3-12 Hours.
Study with an approved theatre company. Emphasis may be in one or all of the following areas: acting, directing, stage management, technical theatre, promotion management. No more than six hours may be applied to an M.A. degree. Course will be graded satisfactory/unsatisfactory. Prerequisite: Consent of instructor. FLD.

THR 709. Advanced Dramatic Script Writing. 3 Hours.
The purpose of this course is to permit selected students, by consent of instructor, to develop or continue dramatic writing projects in theatre, film, television, and radio under the individual supervision of the instructor. LEC.
THR 711. Styles of Acting: Shakespearean. 3 Hours.
An approach to acting styles of the period, based on a study of the art, customs, spirit, and the theatre of the times applied to scene studies taken from the works of Shakespeare. Prerequisite: THR 106 and THR 206 or consent of instructor. LEC.

THR 713. Styles of Acting: Restoration and 18th Century English. 3 Hours.
An approach to acting styles of the period, based on a study of the art, customs, spirit, and the theatre of the times applied to scene studies taken from the works of English Restoration dramatists and those 18th century English playwrights writing in the Restoration mode. Prerequisite: THR 106 and THR 206 or consent of instructor. LEC.

THR 715. Problems and Techniques of Direction. 3 Hours.
Practical experience in directing. Prerequisite: THR 609. RSH.

THR 719. M.F.A. Production Seminar. 3 Hours.
To be taken by M.F.A. candidates during those semesters in which they are assigned to design one or more elements in a production to be mounted on one of our stages. Weekly critique and discussion of solutions to practical design problems from conception through execution. May be repeated for a total of no more than six hours credit. Prerequisite: Consent of instructor. IND.

THR 725. Russian Theatre and Drama from Stanislavski and Chekhov to the Present. 3 Hours.
A study of the development of Russian theatre and dramatic literature from 1898 to the present. Lectures and readings in English. (Same as SLAV 562.) LEC.

THR 800. Introduction to Graduate Study in Theatre. 3 Hours.
Major emphasis is placed upon the principles of research, bibliographical data, and research methods useful in theatre and performance studies. The course should be taken at the beginning of the graduate student's program. LEC.

THR 801. Professional Development Seminar. 1 Hour.
Preparation for faculty careers in theatre and related fields, including issues of research, teaching, and service. At least three hours per semester will be devoted to training in responsible scholarship. May be repeated for credit. RSH.

THR 802. Master's Projects. 3-6 Hours.
Advanced creative projects which may be elected by master's degree candidates in lieu of thesis. RSH.

THR 803. Summer Theatre: Graduate. 1-3 Hours.
Provides graduate level experience in a wide range of theatre activity related to the summer theatre production or productions. Work may include activity in the following areas: acting, directing, design, technical theatre, voice and/or movement. Specialized skills are developed through individual classes, production preparation, and performance. Prerequisite: Consent of instructor. FLD.

THR 815. Advanced Play Production. 1-3 Hours.
Individually supervised directing of theatre pieces for public presentation. In special cases credit may be given for musical direction, choreography, or stage management. Prerequisite: THR 715. FLD.

THR 817. Theory of Acting and Directing. 3 Hours.
Readings, lectures, discussions and papers on acting and directing theory; is concerned with the divergence between presentational and representational acting methods and the emergence of directing art. Prerequisite: THR 609 or THR 715. LEC.

THR 819. Advanced M.F.A. Production Seminar. 3 Hours.
Continuation of THR 719, but production design assignments will be more complex and larger in scope. May be repeated for maximum of six hours credit. Prerequisite: Six hours of THR 719 and consent of instructor. IND.

THR 826. Seminar in African Theatre. 3 Hours.
A study of developments in African theatre in the 20th Century focusing on themes, concepts, styles, and critical perspectives. The course will investigate the idea of an "African theatre" and identify different periods and movements within national and international contexts. The analysis of representative works and authors will be grounded within appropriate theoretical frameworks. LEC.

THR 828. Seminar in American Theatre and Drama to 1895. 3 Hours.
Intensive investigation of selected topics. Individual study emphasized. LEC.

THR 829. Seminar in American Theatre and Drama from 1895. 3 Hours.
Intensive investigation of selected topics. Individual study emphasized. LEC.

THR 898. Investigation and Conference (for Master's Students). 1-8 Hours.
Directed research and experimentation in theatre. Limited to eight hours credit toward the Master’s degree. RSH.

THR 899. Master's Thesis. 1-6 Hours.
THE.

THR 901. Theatre Seminar in: ______. 3 Hours.
A graduate seminar devoted to selected historical, theoretical, or critical issues in theatre. Prerequisite: Consent of instructor. LEC.

THR 914. Theories of Race and Performance. 3 Hours.
Theories of Race and Performance is an inter-textual graduate course that explores interdisciplinary scholarship on race and performance. It seeks to translate these theories into practical application in various visual, audio and performance texts in popular culture. The course is divided into modules aimed at gaining an understanding of the shifting meaning of race over time and its relationship to ethnicity, gender, sexuality, class, nation, and power. How do we perform our identities? How is race constructed and maintained through performance? To begin to answer these questions, we will examine the ways in which racial identities are created through performance. SEM.

THR 915. Modern Theatre and Drama. 3 Hours.
A study of the movements in playwriting and theatrical production in Europe and America from the mid-19th century to World War II. Prerequisite: THR 525 and THR 526 or comparable courses. LEC.

THR 916. Postmodern Theatre and Drama. 3 Hours.
A study of developments in Europe and American playwriting, directing, acting, and design from World War II to the present. SEM.

THR 917. Dramatic Theory I. 3 Hours.
A survey of dramatic theory from Plato to Lessing. LEC.

THR 918. Dramatic Theory II. 3 Hours.
A survey of dramatic theory from Lessing to Langer. LEC.

THR 919. Dramatic Theory Seminar. 3 Hours.
Study in depth of selected theorists. Offered as determined by faculty availability and student interest. LEC.

THR 920. Practicum in Criticism. 3 Hours.
Contemporary approaches to theatre and drama criticism. Emphasis on actual practice, using a variety of critical methods. FLD.
THR 922. Theatre Historiography. 3 Hours.
This course focuses on the advanced study of research methods, subjects, interpretative paradigms, theoretical frameworks, and philosophies of history employed in contemporary approaches to writing and teaching theatre history. Prerequisite: THR 525 and THR 526 or equivalent. LEC.

THR 998. Investigation and Conference (for Doctoral Students). 1-8 Hours.
RSH.

THR 999. Doctoral Dissertation. 1-12 Hours.
The.

Bachelor of Arts and Bachelor of General Studies in Theatre

Department of Theatre B.A. and B.G.S. students work intensively on acquiring theatre skills and knowledge in classrooms, studios, and laboratories. Undergraduates pursuing the B.A. or B.G.S. may choose from two emphases: Theatre, Culture, and Society or Performance.

The Performance concentration prepares theatre majors for a career as a professional actor. Through small-class studio courses and department productions, our program provides talented performing artists with a solid foundation in acting, movement, voice and speech, improvisation, and musical theatre.

The Theatre, Culture and Society concentration is designed for students interested in studying the cultural and social underpinnings of theatre and performance along with courses in acting, directing and design and with participation in University Theatre production. The TCS concentration provides the critical, analytical, and historical education that is the foundation of a liberal arts degree.

Both the Bachelor of Arts (B.A.) and Bachelor of General Studies (B.G.S.) require 40 hours. The primary distinctions between the B.A. and the B.G.S. degree are the foreign language requirement (required of the B.A. but not the B.G.S.) and 18 hours junior/senior concentration or minor (required for the B.G.S but not the B.A.).

There are no major admission requirements for the B.A. or B.G.S. in Theatre.

Students considering a theatre major should enroll in THR 106 and THR 101 and complete all 100- and 200-level courses in the first 2 years of study. It is imperative that theatre students earn practicum credit (THR101, 201, 301) early in their careers at KU.

Requirements for the B.A. and B.G.S. Major

Both the B.A. and B.G.S. require 40 hours. The distinction between the B.G.S. degree and the B.A. degree is found in College of Liberal Arts and Sciences requirements.

Theatre, Culture, and Society Emphasis

The following 40 hours are required: (40 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>THR 101</td>
<td>Theatre Practicum I</td>
<td>1</td>
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<tr>
<td>THR 106</td>
<td>Acting I</td>
<td>3</td>
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<tr>
<td>THR 201</td>
<td>Theatre Practicum II</td>
<td>1</td>
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<tr>
<td>THR 215</td>
<td>Approaching Design</td>
<td>3</td>
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<tr>
<td>THR 308</td>
<td>Script Analysis</td>
<td>3</td>
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<tr>
<td>Select two of the following:</td>
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<tr>
<td>THR 216</td>
<td>Scenic Production</td>
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<tr>
<td>THR 220</td>
<td>Costume Production</td>
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<tr>
<td>THR 224</td>
<td>Lighting Production</td>
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<tr>
<td>Select one of the following:</td>
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<td>1</td>
</tr>
<tr>
<td>THR 301</td>
<td>Theatre Practicum III</td>
<td></td>
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<tr>
<td>THR 401</td>
<td>Stage Management and Assistant Direction</td>
<td>6</td>
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<tr>
<td>Select 18 hours from the following:</td>
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<td>18</td>
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<tr>
<td>THR 209</td>
<td>Play Reading for Performance</td>
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<tr>
<td>THR 302</td>
<td>Undergraduate Seminar in: _____</td>
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<tr>
<td>THR 304</td>
<td>Study Abroad Topics in: _____</td>
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<tr>
<td>THR 312</td>
<td>Acting with an Accent</td>
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<tr>
<td>THR 404</td>
<td>Children and Drama</td>
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<tr>
<td>THR 429</td>
<td>Postcolonial Theatre and Drama</td>
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<tr>
<td>THR 508</td>
<td>Fundamentals of Directing</td>
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<tr>
<td>THR 525</td>
<td>History of Theatre (if not taken for core)</td>
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<tr>
<td>THR 526</td>
<td>History of Theatre II (if not taken for core)</td>
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<tr>
<td>THR 528</td>
<td>History of U.S. Theatre and Drama (if not taken for core)</td>
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<tr>
<td>THR 529</td>
<td>Race and the American Theatre</td>
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<tr>
<td>THR 603</td>
<td>Theatre for Young Audiences</td>
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<tr>
<td>THR 626</td>
<td>Myth and the Dramatist</td>
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</tbody>
</table>

1 Other THR courses (such as special topics) not listed among the electives above are normally eligible as substitutes with advisor’s permission. Up to 3 hours may be taken in a drama, cultural studies, or related course outside the department, with a faculty advisor’s approval.

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 40 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).
## Performance Emphasis

The following 40 hours are required: (40 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 101</td>
<td>Theatre Practicum I</td>
<td>1</td>
</tr>
<tr>
<td>THR 106</td>
<td>Acting I</td>
<td>3</td>
</tr>
<tr>
<td>THR 201</td>
<td>Theatre Practicum II</td>
<td>1</td>
</tr>
<tr>
<td>THR 206</td>
<td>Acting II</td>
<td>3</td>
</tr>
<tr>
<td>THR 212</td>
<td>Beginning Voice and Speech for Actors</td>
<td>3</td>
</tr>
<tr>
<td>THR 213</td>
<td>Movement I: The Acting Instrument</td>
<td>3</td>
</tr>
<tr>
<td>THR 215</td>
<td>Approaching Design</td>
<td>3</td>
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<tr>
<td>THR 308</td>
<td>Script Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

Select two of the following:

- THR 216 Scenic Production
- THR 220 Costume Production
- THR 224 Lighting Production

Select one of the following:

- THR 301 Theatre Practicum III
- THR 401 Stage Management and Assistant Direction

Select two of the following:

- THR 525 History of Theatre
- THR 526 History of Theatre II
- THR 528 History of U.S. Theatre and Drama

Select 9 hours from the following:  

- THR 210 Musical Performance for the Actor I
- THR 306 Acting III
- THR 310 Musical Performance for the Actor II
- THR 312 Acting with an Accent
- THR 313 Movement II: Physical Characterization
- THR 401 Stage Management and Assistant Direction (if not taken for core)
- THR 404 Children and Drama
- THR 406 Audition Techniques
- THR 410 Musical Performance for the Actor III
- THR 506 Acting for the Camera
- THR 508 Fundamentals of Directing
- THR 512 A Vocal Approach to the Classics
- THR 603 Theatre for Young Audiences
- THR 609 Play Directing

1. Other THR courses (such as special topics) not listed among the electives above are normally eligible as substitutes with advisor’s permission.

## Major Junior/Senior Hours

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

## Major Junior/Senior Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

## Graduation Plan

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please consult the department for details.

## Departmental Honors

An undergraduate interested in honors in theatre must present a written declaration of intention to the department’s honors coordinator as early as possible in the junior or senior year. The following are required:

1. A grade-point average at the time of declaration and at graduation of at least 3.25 overall and 3.5 in theatre courses.
2. A maximum of 6 hours in THR 498 Honors Seminar. Enrollment in this course must be approved by the honors coordinator. Students in the honors seminar work under the direction of one instructor for each semester. The instructor conducts an examination at the end of each semester’s work and assigns a grade. Credit only is given to students who complete the work assigned for any semester but do not complete the requirements for honors. Students may change area of interest or instructor at the beginning of a semester with the consent of the honors coordinator.
3. Satisfactory performance in a final oral examination given approximately one month before graduation.

## Bachelor of Fine Arts in Theatre Design

Bachelor of Fine Arts (B.F.A.) in Theatre Design is intended as general preparation for the professional designer of scenery, costumes or lighting working in theatre and/or film or as preparation for graduate studies. Students learn through small-class studio courses, laboratories, and involvement in productions in the University Theatre. The degree is offered cooperatively by the Department of Theatre and Department of Visual Arts. Student in the B.F.A. Theatre Design take 69 hours in the Departments of Theatre, Visual Art, and Art History in addition to the KU Core and electives.

## B.F.A. in Theatre Design Degree Requirements

The program leading to the B.F.A. degree in theatre design is offered cooperatively by the School of the Arts and the Department of Theatre. It requires 6 hours of foundational coursework, 63 additional hours in the major, and completion of the KU Core, as well as additional general electives, for a total of 120 hours.
Foundations: Art and Design (57)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 102</td>
<td>Drawing II</td>
<td>3</td>
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Core Theatre Courses (30)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 100</td>
<td>Introduction to the Theatre</td>
</tr>
<tr>
<td>or THR 106</td>
<td>Acting I</td>
</tr>
<tr>
<td>THR 215</td>
<td>Approaching Design</td>
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<tr>
<td>THR 216</td>
<td>Scenic Production</td>
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<td>THR 220</td>
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<td>THR 224</td>
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<td>THR 308</td>
<td>Script Analysis</td>
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<tr>
<td>THR 508</td>
<td>Fundamentals of Directing</td>
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<tr>
<td>THR 520</td>
<td>History of Period Style I</td>
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<tr>
<td>THR 521</td>
<td>History of Period Style II</td>
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<tr>
<td>THR 525</td>
<td>History of Theatre</td>
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<tr>
<td>THR 526</td>
<td>History of Theatre II</td>
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</table>

Theatre Design Concentration (3)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>THR 116</td>
<td>Scenographic Techniques</td>
</tr>
<tr>
<td>THR 316</td>
<td>Beginning Scene Design</td>
</tr>
<tr>
<td>THR 320</td>
<td>Beginning Costume Design</td>
</tr>
<tr>
<td>THR 324</td>
<td>Beginning Lighting Design</td>
</tr>
</tbody>
</table>

Theatre design electives from an approved list (9)

History of Art (6)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA 150</td>
<td>Western Art History I: Ancient Through Medieval Art</td>
</tr>
<tr>
<td>HA 151</td>
<td>Western Art History II: Renaissance to Contemporary Art</td>
</tr>
</tbody>
</table>

History of or architecture electives (3)

General Education Courses

Completion of the KU Core.

General Electives

- Additional credit hours of general electives are needed to meet the minimum total hours required for graduation.

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours

Satisfied by 69 hours of major courses.

Major Hours in Residence

Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours

Satisfied by a minimum of 27 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (http://www.collegesas.ku.edu/GPACalculator.shtml).

Minor in Theatre

The Department of Theatre welcomes non-majors who wish to learn more about acting, drama, design, theatre history, and technical theatre through the completion of a minor. Students minoring in theatre are welcome to audition for department productions and serve on backstage technical crews.

Requirements for the Minor

A minimum of 18 hours is required for the minor; 12 hours must be numbered 300 and above.

Theatre Minor Course Requirements

Minors must complete each of the following:

Theatre Core Knowledge and Skills (12)

Minors must complete courses in each of the following core areas:

- Theatre Practicum I. Satisfied by:
  - THR 101 Theatre Practicum I 1
  - Acting I. Satisfied by:
    - THR 106 Acting I 3
  - Theatre Production. Satisfied by completion of one of the courses:
    - THR 216 Scenic Production
    - THR 220 Costume Production
    - THR 224 Lighting Production

Select two of the following:

- History of Theatre I. Satisfied by:
  - THR 525 History of Theatre
- History of Theatre II. Satisfied by:
  - THR 526 History of Theatre II
- History of U.S. Theatre and Drama. Satisfied by:
  - THR 528 History of U.S. Theatre and Drama

Theatre Required Electives (6)

Satisfied by 2 courses (6 hours) from the following*:

- THR 302 Undergraduate Seminar in: _____
- THR 326 African Theatre and Drama
- THR 327 African-American Theatre and Drama
- THR 404 Children and Drama
- THR 405 Children and Media
- THR 527 Asian Theatre and Performance
- THR 528 History of U.S. Theatre and Drama
- THR 529 Race and the American Theatre
- THR 603 Theatre for Young Audiences
- THR 626 Myth and the Dramatist
- THR 725 Russian Theatre and Drama from Stanislavski and Chekhov to the Present

Minor Hours

Satisfied by 18 hours of minor courses.

Minor Hours in Residence

Satisfied by a minimum of 9 hours of KU resident credit in the minor.
Minor Junior/Senior (300+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses (300+) in the minor. GPA calculations include all departmental courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://www.collegesas.ku.edu/GPACalculator.shtml).

Master of Arts in Theatre
The Master of Arts in Theatre Studies helps students to begin developing a broad, comparative grasp of the major methods, approaches and protocols currently used in both the study and practice of theatre and related art forms. Special emphasis is placed on (1) an analytic understanding of specific episodes in the history of theatre and similar genres of enactment, (2) the ability to grasp the assumptions and practical protocols that are or have been influential in the creation of theatrical art, and (3) the capacity to examine and appreciate the way theatre influences and is influenced by the context in which it occurs.

By virtue of its broad regard for the way context and live performance interact, the M. A. helps to prepare students for leadership roles in community and regional arts organizations, especially when course work is complemented by a thesis about the arts in community. Several states regard an M. A. in theatre to be a creditable enhancement of a teacher’s qualifications in grades K-12. In addition, the focus on those assumptions and history that shape theatre studies and production provide students with a strong transition to a Ph.D. program.

Graduate Admission
To be admitted, a student ordinarily is expected to have a Graduate Record Examination score of at least 148 (verbal), 144 (quantitative), and 4.5 (analytical writing). Students who took the GRE before the implementation of the analytical writing section (i.e., before October 2002) will be expected to have an analytical score of 600 or above.

How to Apply
To apply for Fall admission, please submit all application materials no later than: January 1 (to be considered for admission with financial support) or February 15 (for admission consideration without financial support). The Department does not admit new students for the Spring or Summer terms.

Please visit the Department of Theatre (http://www.theatre.ku.edu) for more information about graduate application materials required.

M.A. Degree Requirements
The Master of Arts in theatre is an academic degree, but students are expected to complete 6 hours in theatrical production. All M.A. students must write a thesis as the culmination of the degree.

To complete the M.A., the student must sustain a grade-point average of 3.0 or higher through 33 graduate credit hours.

Requirements for the M.A. in Theatre
A total of 33 hours is required.

Core Requirement (15)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 800</td>
<td>Introduction to Graduate Study in Theatre (to be taken the first semester in residence)</td>
<td>3</td>
</tr>
</tbody>
</table>

In consultation with an advisor, students choose from among departmental courses in theatre history, dramatic literature, theory, and criticism.

Production - Select two courses in either directing or scenography: 6

A. Directing
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 609</td>
<td>Play Directing</td>
<td></td>
</tr>
<tr>
<td>THR 715</td>
<td>Problems and Techniques of Direction</td>
<td></td>
</tr>
<tr>
<td>THR 815</td>
<td>Advanced Play Production</td>
<td></td>
</tr>
</tbody>
</table>

B. Scenography
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 516</td>
<td>Scenic Painting Techniques</td>
<td></td>
</tr>
<tr>
<td>THR 517</td>
<td>Computer-Aided Design</td>
<td></td>
</tr>
<tr>
<td>THR 518</td>
<td>Scenography and the Classic Script</td>
<td></td>
</tr>
<tr>
<td>THR 519</td>
<td>Scenography and the Modern Script</td>
<td></td>
</tr>
<tr>
<td>THR 618</td>
<td>Scenography and the Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>THR 619</td>
<td>Scenography and the Contemporary Script</td>
<td></td>
</tr>
<tr>
<td>THR 620</td>
<td>Scenography and the Experimental Production</td>
<td></td>
</tr>
</tbody>
</table>

General Theatre Studies (15)
Select 15 hours of courses from graduate offerings in theatre history, dramatic literature, history and criticism: Of these 15 hours, up to 6 may be graduate courses from other areas such as film and media studies; child psychology; American studies; African and African-American studies; women, gender, and sexuality studies; developmental psychology; English; and pertinent offerings from language and culture programs.

Completion of the Degree (3)
An oral examination structured around a thesis based on scholarly and/or creative research:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 899</td>
<td>Master’s Thesis</td>
<td>3</td>
</tr>
</tbody>
</table>

All courses should be selected in consultation with the advisor.

Master of Fine Arts in Theatre Design-Scenography Concentration
The M.F.A. in Scenography is a three-year integrated program of study leading to a Master of Fine Arts degree, the terminal degree for professionals working in design for theatre, film, and television. Scenography classes are at the core of the curriculum and students will develop a portfolio in a wide variety of theatrical and performance genres. Students will design in both the large Crafton-Preyer proscenium stage and the William Inge Memorial theatre (black box). Opportunities exist to work with new technologies in theatre design, including Virtual Realities.

To be admitted, a prospective M.F.A. candidate must have a cumulative undergraduate GPA of at least 3.0 on a 4.0 scale and submit a design portfolio with work record and three letters of recommendation.
M.F.A. in Theatre Design with a Concentration in Scenography Degree Requirements

Scenography classes are at the core of the curriculum. While in the program, students will design at least 4 realized productions in the University Theatre program. They will do at least 1 lighting, 1 costume and 1 scenic design, and preferably a combination of 2 or all design areas for 1 production. Design assignments, made by the scenography faculty, will be based on the students' experience and interests (i.e., a student with little experience in lighting design will be given a less challenging project in the smaller theatre).

Students work with the KU Theatre's professional staff in the realization of their designs. Successful scenography students at the University of Kansas have come from a variety of backgrounds, including theatre, art and design, illustration and architecture. Students with deficiencies in theatre production, theatre and/or art history, and painting and drawing may be required to take undergraduate courses in these areas, which could result in a longer program.

To complete the M.F.A., the student must sustain a grade-point average of 3.0 or higher through 60 graduate credit hours. The following guidelines govern the distribution of hours:

Core Requirement (3)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 703</td>
<td>Directed Readings in Theatre</td>
<td>3</td>
</tr>
</tbody>
</table>

Concentration Requirements (57)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 518</td>
<td>Scenography and the Classic Script</td>
<td>3</td>
</tr>
<tr>
<td>THR 519</td>
<td>Scenography and the Modern Script</td>
<td>3</td>
</tr>
<tr>
<td>THR 618</td>
<td>Scenography and the Musical Theatre</td>
<td>3</td>
</tr>
<tr>
<td>THR 619</td>
<td>Scenography and the Contemporary Script</td>
<td>3</td>
</tr>
<tr>
<td>THR 620</td>
<td>Scenography and the Experimental Production</td>
<td>3</td>
</tr>
<tr>
<td>THR 719</td>
<td>M.F.A. Production Seminar (3 hour course taken 2 times)</td>
<td>6</td>
</tr>
</tbody>
</table>

THR 801 Professional Development Seminar 1
THR 802 Master’s Projects 6
THR 819 Advanced M.F.A. Production Seminar 3
THR 819 Advanced M.F.A. Production Seminar 3
THR 898 Investigation and Conference (for Master’s Students) 6
THR 899 Master’s Thesis 2

Electives: no limit, but a minimum of 15 hours for a total of 60 hours 15

Doctor of Philosophy in Theatre

The purpose of the Ph.D. in Theatre is to develop leaders in the areas of both studies and practice. The curriculum requires an intense exposure to critical theory, history and historiography, and the craft and art of performance, especially directing. The majority of graduates become teachers in higher education, artists or both. Recent and former students from the M.A. and Ph.D. programs work or have worked across a wide array of academic and artistic settings, including Southern Methodist University, The Ohio State University System, Chapman College, Washburn University, CBS, Disney Productions, University of Costa Rica, University of Minnesota (Morehead), Southern Illinois University, University of Georgia, Texas Christian University, University of Minnesota (Duluth), University of Arizona, and Converse College.

How to Apply

To apply for Fall admission into the Ph.D. program, please submit all application materials no later than: January 1 (to be considered for admission with financial support) or February 15 (for admission consideration without financial support). The Department does not admit new students for the Spring or Summer terms.

Applicants for the Ph.D. program in Theatre must hold the M.A. or M.F.A. in theatre or a related field. To be admitted, a student will ordinarily be expected to have a Graduate Record Examination score of at least 148 (verbal), 144 (quantitative), and 4.5 (analytical writing). Students who took the GRE before the implementation of the analytical writing section (i.e. before October 2002) will be expected to have an analytical score of 600 or above. Applicants should also have a grade-point average of at least 3.2 for undergraduate and at least 3.5 for graduate work; and a master’s degree acceptable to the graduate faculty. Deficiencies in a student’s background may necessitate remedial courses. These courses do not count toward the degree requirements.

Visit the Department of Theatre (http://theatre.ku.edu) for more information about application materials required.

Ph.D. Degree Requirements

The Ph.D. is an academic degree, but students must demonstrate competence in at least 1 production area. Normally the Ph.D. requires 60 hours not including Research Skills and Responsible Scholarship requirements. All courses must be chosen in consultation with an advisor.

Core Requirements

12 hours of core courses are required. In consultation with an advisor, students choose from departmental courses in theatre history, dramatic literature, theory, and criticism.

Elective Requirements

9 hours of electives are required. Elective courses focus on the academic study of theatre/performance history, theory, and related methodologies. Courses are selected with a graduate advisor to reflect the student’s special interest. Some courses may be taken outside theatre, for example in film and media studies, English, American studies, African and African-American studies, and history.

Secondary Field Requirements

Students choose 9 hours at the graduate level from outside the department to assist them in writing the dissertation. Courses are related to the student’s proposed specialization. (See examples under Elective Requirements.)

Production Courses

6 hours of production courses are required. To become competent artists as well as developing research scholars, students choose a sequence of graduate courses in either scenography or directing.
Research Skills and Responsible Scholarship

Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current policies on Doctoral Research Skills and Responsible Scholarship are listed under Degree Requirements in Graduate Studies section of the online catalog.

Comprehensive Examination

The comprehensive examination (6 credit hours) is an essential element of the doctoral program, providing an opportunity for students to focus and consolidate the diverse strands of their graduate course work, to demonstrate competence for teaching in particular subject areas, and to establish a strong foundation for moving on to the dissertation. It consists of 3 parts:

1. A written examination, which covers 4 or 5 areas of expertise. Ordinarily, each area corresponds to a member of the student’s committee.
2. Submission of 2 publishable papers of article length (5,000 to 8,000 words) that demonstrate the student’s ability to research and write original scholarship at a level appropriate to the field. Publishable papers may be revised versions of papers submitted in KU courses. Publishable papers must be submitted on the first day of the written examination.
3. An oral examination, given 2 to 4 weeks after the written examination. The oral examination lasts about 90 minutes and may revisit material covered in the written examination, the publishable papers, and/or other material as deemed appropriate by the committee. While preparing for the examination, students may enroll twice in THR 998 Investigation and Conference (for Doctoral Students).

Dissertation

Doctoral candidates are required, after passing the comprehensive oral examination, to be continuously enrolled in one or more hours of dissertation or programmatically equivalent coursework that both moves the student towards degree completion and reflects, as accurately as possible, the candidate’s demands on faculty time and university facilities. During this time, until all requirements for the degree are completed (including the filing of the dissertation) or until 18 post-comprehensive hours have been completed (whichever comes first), the candidate must enroll for a minimum of 6 hours a semester and 3 hours a summer session.

Department of Visual Art

Introduction

The University of Kansas is a member of the National Association of Schools of Art and Design (http://nasad.arts-accredit.org). The entrance and graduation requirements in this catalog conform to the published guidelines of those organizations.

Undergraduate Programs

Advanced Placement in Art and Design

Students who score 3, 4, or 5 on the CEEB Advanced Placement Examination may receive up to 3 credit hours in art studio electives.

Advanced placement credit does not exempt students from foundations requirements.

Advising

Students admitted to work toward B.F.A., B.A., or B.A.E. degrees are advised by the advising specialist until foundations courses are complete, usually two semesters. After a student has completed 12 hours of foundations courses, he or she is advised by faculty members in their chosen concentration. Check sheets describing each program in complete detail are available from the Art and Design office, 300 Art and Design Building, or online (http://art.ku.edu). History of Art, information is available from the Kress Foundation Department of Art History (http://www2.ku.edu/~kuarth). Students are encouraged to seek advice from any faculty member in a specific area of interest.

Students are expected to spend time outside of class working in the studio. For each credit hour in class another three hours of work will be expected outside of class time. It is normally expected that for 3 credit hours of studio a student will spend 9-15 hours per week working and studying for the entire 15 weeks during the semester.

Graduate Programs

The Department of Visual Art offers graduate programs leading to the Master of Fine Arts degree in visual art. Concentrations include ceramics, drawing and painting, expanded media, fibers, metalsmithing and jewelry, printmaking, and sculpture. A Master of Arts degree in visual art education and graduate licensure in art education are also available through the Department of Visual Art.

Courses

ADSC 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Advanced Design Studies College. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

ADSC 560. Topics in Design: ______. 1-3 Hours.
A study of different topics in different semesters in a special area of interest to a staff member and suitable qualified students. May be repeated for credit. Prerequisite: Junior standing in department. LAB.

ADSC 580. Special Problems in Design. 1-6 Hours.
A study of current problems in design or crafts with an emphasis on research. Special problems proposals must be discussed with and approved by the instructor and advisor prior to enrollment in the course. A student may not take more than six credit hours of special problems in any one semester. Prerequisite: Junior standing in department. IND.

ADSC 810. Orientation Seminar. 1 Hour.
Studies directed to development of a thesis plan. Required of all graduate students. Offered in fall semester only. Graded S or F. LEC.

ART 101. Drawing I. 3 Hours. GE3H.
Basic problems in drawing. LAB.

ART 102. Drawing II. 3 Hours.
Continuation of ART 101. Prerequisite: ART 101. LAB.

ART 103. Art Concepts and Practice. 3 Hours. U.
A companion course to ART 104. Lecture and studio experiences across disciplines emphasizing conceptual fundamentals, technical/skill
development, visual sensibility, critical thinking and professional topics in art. LEC.

**ART 104. Art Principles and Practice. 3 Hours. U.**
A companion course to ART 103. Lecture and studio experiences across disciplines emphasizing conceptual/fundamental technical/skill development, visual sensibility, critical thinking and professional topics in art. LEC.

**ART 120. Fundamentals of Drawing and Painting. 3 Hours.**
Open to all university students. Specifically for students with limited or no previous experience. An exploration of basic technical and expressive possibilities in drawing and painting; may include field trips, films, visiting lecturers. Six hours scheduled studio activity and three hours outside work weekly. LAB.

**ART 121. Fundamentals of Printmaking. 3 Hours.**
Open to all university students. Specifically for students with limited or no previous experience. An exploration of basic technical and expressive possibilities in printmaking, including woodcut, etching, lithography and silk screen; may include field trips, films, visiting lecturers. Six hours scheduled studio activity and three hours outside work weekly. LAB.

**ART 122. Fundamentals of Sculpture. 3 Hours.**
Open to all university students. Specifically for students with limited or no previous experience. An exploration of basic technical and expressive possibilities in three-dimensional form and space, including sculpture, modeling, carving, and construction; may include field trips, films, visiting lecturers. Six hours scheduled studio activity and three hours outside work weekly. LAB.

**ART 123. Fundamentals of Expanded Media. 3 Hours. GE3H / U.**
Open to all university students. Specifically for students with limited or no previous experience. An exploration of basic technical and expressive possibilities in Expanded Media, including Installation, Performance, Video and other Digital technologies; may include field trips, films, and/or visiting lecturers. Six hours scheduled studio activity and three hours outside work weekly. LAB.

**ART 130. Fundamentals of Fiber Forms. 3 Hours. U.**
Open to all university students. Studio exploration of fibers as an art form and means of personal expression. Emphasis is placed on three-dimensional objects. A variety of interlacement, construction, and dye techniques are introduced. LAB.

**ART 131. Fundamentals of Ceramics. 3 Hours.**
Open to all university students. Specifically for students with limited or no previous experience. An introduction to ceramics including throwing, handbuilding, glazing, firing, and related activities. LAB.

**ART 132. Fundamentals of Metalsmithing/Jewelry. 3 Hours. GE3H.**
Open to all university students. Specifically for students with limited or no previous experience. A comprehensive study of the field of jewelry and metalsmithing with an emphasis on the tools, processes, and techniques used in the design and fabrication of objects from metals such as aluminum, brass, copper, bronze, sterling and related materials. Studio experience will include lectures, slide presentations, demonstrations, visiting artist, and student projects. LAB.

**ART 133. Fundamentals of Fibers. 3 Hours. GE3H / U.**
Open to all university students. Studio exploration of fibers as an art form and means of personal expression. A variety of dyeing, construction, and surface embellishment techniques will be introduced. LAB.

**ART 177. First Year Seminar: ______. 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Art. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**ART 201. Color Theory. 3 Hours.**
An introduction to the basic color theories and their application. Presentation of the relationship between pigment and light, and of additive and subtractive color mixing. Prerequisite: ART 101, and ART 103 or ART 104. LAB.

**ART 300. Special Topics in Visual Art: ______. 1-4 Hours.**
Course to be offered in related areas of research, mixed media or interdisciplinary exploration. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LAB.

**ART 305. Visual Language. 3 Hours. H.**
This course explores visual language and its relationship to cultural meaning. We examine the ways that cultural experience both influences and is influenced by artistic expression. An investigation of artistic practice and its basic elements and principles is used to demonstrate the connections between visual perception and the interpretation of visual experience. Examples from the arts and popular culture are used to illustrate the ways that we create meaning from the things we see. This course is open to all university students. Prerequisite: ENGL 101 and ENGL 102 or equivalent, or completion of the KU Core Written Communication requirements (Goal 2.1). LEC.

**ART 310. Build Smart. 3 Hours. U.**
Introduction to the experience and culture of building projects by hand. Students analyze and determine the best ways to build. Students also become familiar with tools, machines, building practices and material necessary for wood and steel fabrication. Prerequisite: ART 103, ART 104, or permission of the instructor. LEC.

**ART 375. Directed Readings in Visual Art. 1-3 Hours. U.**
Directed reading in specific areas of visual art. May be repeated for credit in subsequent semesters. Prerequisite: ART 102, ART 103 and ART 104; and six hours of Visual Art courses, or permission of instructor. IND.

**ART 395. Study Abroad Topics in: ______. 1-6 Hours. H.**
This course is designed for the study of special topics in Visual Art. Credit for course work must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. Open to all students. LEC.

**ART 500. Advanced Special Topics in Visual Art: ______. 1-4 Hours.**
Course to be offered in related areas of research, mixed media or interdisciplinary exploration. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Visual Art courses, or permission of instructor. LEC.

**ART 540. Professional Activities Seminar. 3 Hours.**
Comprehensive development of skills and strategies needed to pursue a career as a professional studio artist. Prerequisite: Twenty-four hours of departmental electives or permission of instructor. LEC.

**ART 575. Advanced Directed Reading in Visual Art. 1-3 Hours.**
Directed reading in specific areas of visual art. May be repeated for credit in subsequent semesters. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Visual Art courses, or permission of instructor. IND.

**ART 590. Internship in Visual Art. 1-3 Hours. U.**
Practical experience in the use of artistic skills in approved and supervised academic or professional settings. May be repeated for credit; no more than six hours may be applied to the B.A. or B.F.A. degree. Credit hours are graded on a satisfactory/unsatisfactory basis, according to the written recommendation provided by the internship supervisor to Liberal Arts & Sciences
the faculty advisor. Prerequisite: ART 102, ART 103, and ART 104; and fifteen hours of Visual Art courses; and prerequisite of instructor. FLD.

ART 595. Advanced Study Abroad Topics in: __________. 1-6 Hours. H. This course is designed for the study of special topics in Visual Art at the senior/graduate level. Credit for course work must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. Open to seniors and graduate level students. LEC.

ART 598. Special Topics: Studio Theory and Criticism. 3 Hours. Lecture, discussion, and supervised research in current topics related to contemporary studio theory and criticism. May be repeated for credit as topics vary. This course will be counted as free electives in course distribution. Prerequisite: Eighteen hours of departmental electives. LEC.

ART 599. Individual Studies in Visual Art. 1-6 Hours. AE61. Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor's degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Visual Art courses; and permission of instructor. Does not fulfill ART 695/ART 696 requirement. IND.

ART 695. Directed Study I. 3 Hours. Individual studio activity under direction of faculty advisor; capstone experience. Prerequisite: Thirty hours of departmental electives, consent of department, and permission of instructor. IND.

ART 696. Directed Study II. 4 Hours. AE61. Continuation of ART 695; capstone experience. May be repeated for credit in subsequent semesters. Prerequisite: ART 695 and permission of instructor. IND.

ART 801. Directed Study III. 2-5 Hours. Individual studio activity under the direction of faculty member. May be repeated for credit in subsequent semesters. Prerequisite: Permission of graduate director and enrollment in the Visual Art MFA program. RSH.

ART 802. Directed Study IV. 2-5 Hours. Continuation of Directed Study III. Prerequisite: Enrollment in the Visual Art MFA Program. RSH.

ART 803. Directed Study V. 2-5 Hours. Continuation of Directed Study IV. Prerequisite: Enrollment in the Visual Art MFA Program. RSH.

ART 805. Graduate Studio. 1-3 Hours. Individual graduate studio research in visual art. Course content to be determined by the student under the supervision of a graduate faculty member. May be repeated for credit. Prerequisite: Graduate standing in The School of The Arts and permission of the instructor. RSH.

ART 861. Directed Reading in Visual Art. 1-3 Hours. Research reading and presentation of reports on specific subjects related to the student's major area of specialization. Prerequisite: Enrollment in the MFA Program in the Department of Visual Art. RSH.

ART 877. Graduate Seminar. 3 Hours. The graduate seminar emphasizes professional preparation for contemporary artists focusing on writing skills, oral presentations, critiques of individual creative research/artwork, critical thinking about and visual analysis of current art forms and contemporary approaches to the teaching of studio art. Prerequisite: Admission to the Graduate Program in Visual Art. SEM.

ART 896. Special Topics: Studio Theory and Criticism. 3 Hours. Lecture, discussion, and supervised research in current topics related to contemporary studio theory and criticism. May be repeated for credit as topics vary. This course will be counted as a graduate level academic elective in course and credit distribution. LEC.

ART 899. Graduate Seminar. 1 Hour. Weekly discussion of issues and/or work in art. (Graded on a satisfactory/ or F basis.) Repeat for credit in subsequent semesters. SEM.

ART 906. Graduate Studio. 1-3 Hours. Individual graduate studio research in visual art. Course content to be determined by the student under the supervision of a graduate faculty member. May be repeated for credit. Prerequisite: ART 805 and permission of the instructor. RSH.

ART 950. Thesis in Visual Art. 1-6 Hours. Original research in visual art culminating in a thesis exhibition. May be repeated for credit. Prerequisite: Thirty-six credit hours of graduate credit and permission of the graduate review committee. THE.

CER 177. First Year Seminar: __________. 3 Hours. GE11 / U. A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Ceramics. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

CER 208. Ceramics I. 3 Hours. The development of form and surface through the use of handbuilding and wheel thrown techniques. Stoneware and Raku are explored. Prerequisite: ART 102 and ART 104. LAB.

CER 300. Special Topics in Ceramics: __________. 1-4 Hours. U. Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

CER 301. Ceramics II. 3 Hours. A continuation of ART 131 and/or CER 208 with emphasis in firing low temperature ceramics. An introduction to glaze formulation and firing procedures through the use of earthenware and low temperature talc bodies. Prerequisite: ART 131 or CER 208. LAB.

CER 402. Ceramics III. 3 Hours. A study of high fire ceramics using stoneware and porcelain. The development of ceramic forms and shapes utilizing traditional and nontraditional techniques such as salt glaze, wood firing, oxidation, and reductions. Prerequisite: ART 131 or CER 208. LAB.

CER 500. Advanced Special Topics Ceramics: __________. 1-4 Hours. U. Course to be offered in an area of specific interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Ceramics courses, or permission of instructor. LEC.

CER 504. Kilns. 3 Hours. The principles in kiln design, including up-draft, down-draft, cross-draft, and electric kilns, and burner technology. Prerequisite: CER 301. LEC.

CER 505. Clay and Glaze Formulation. 3 Hours. Formulation of the various clay bodies and glazes associated with ceramics. Prerequisite: CER 301. LEC.

CER 506. Production. 6 Hours. Procedures, techniques, problems, and solutions for setting up and operating a production pottery studio, including the development of ceramic forms and glazes related to marketability and design and mold
production for industry. May be repeated for credit. Prerequisite: CER 301 and CER 302. LAB.

CER 515. Advanced Ceramics I. 3-6 Hours. AE61.
Development of individual direction in ceramics based on experience, research, and skills acquired in previous courses; capstone experience. May be repeated for credit. Prerequisite: CER 301 and CER 402. LAB.

CER 520. Advanced Ceramics II. 3-6 Hours. AE61 / U.
Continuation of CER 515; capstone experience. May be repeated for credit. Prerequisite: CER 515. LAB.

CER 590. Internship in Ceramics. 1-3 Hours. U.
Practical experience in the use of artistic skills in approved and supervised academic or professional settings. May be repeated for credit; no more than six hours may be applied to the B.A. or B.F.A. degree. Credit hours are graded on a satisfactory/unsatisfactory basis, according to the written recommendation provided by the internship supervisor to the faculty advisor. Prerequisite: ART 102, ART 103, and ART 104; and fifteen hours of Visual Art courses; and permission of instructor. FLD.

CER 599. Individual Studies in Ceramics. 1-6 Hours. AE61 / U.
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor’s degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Ceramics courses or permission of instructor. IND.

CER 715. Ceramics. 2-6 Hours.
Individual research. Prerequisite: CER 515 or equivalent. RSH.

CER 725. Glass. 2-6 Hours.
Individual research. Prerequisite: Approval of instructor. RSH.

CER 815. Ceramics. 2-6 Hours.
Continuation of CER 805. RSH.

CER 825. Glass. 2-6 Hours.
Individual research. Prerequisite: Approval of instructor. RSH.

DRWG 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Drawing. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

DRWG 203. Drawing III. 3 Hours.
Advanced problems in drawing. Prerequisite: ART 102. LAB.

DRWG 213. Life Drawing I. 3 Hours.
Figure drawing. Prerequisite: ART 102 and ART 103 or ART 104. LAB.

DRWG 300. Special Topics in Drawing: ____. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

DRWG 304. Drawing IV. 3 Hours.
Continuation of DRWG 203. Prerequisite: DRWG 203. LAB.

DRWG 314. Life Drawing II. 3 Hours.
Continuation of DRWG 213. Prerequisite: DRWG 213. LAB.

DRWG 318. Life Drawing II, Honors. 3 Hours.
Figure drawing, a continuation of DRWG 213. Prerequisite: DRWG 213; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

DRWG 335. Special Topics in Drawing: ____. 3 Hours.
Course to be offered in area of special interest to individual faculty, and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: DRWG 203, or DRWG 213, or permission of instructor. LAB.

DRWG 500. Advanced Special Topics in Drawing: ____. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Drawing courses, or permission of instructor. LEC.

DRWG 505. Drawing V. 3 Hours.
Continuation of DRWG 304. Prerequisite: DRWG 304. LAB.

DRWG 506. Drawing VI. 3 Hours.
Continuation of DRWG 505. May be repeated for credit in subsequent semesters. Prerequisite: DRWG 505. LAB.

DRWG 515. Life Drawing III. 3 Hours.
Continuation of DRWG 314. Prerequisite: DRWG 314. LAB.

DRWG 516. Life Drawing IV. 3 Hours.
Continuation of DRWG 515. May be repeated for credit in subsequent semesters. Prerequisite: DRWG 515. LAB.

DRWG 518. Life Drawing III, Honors. 3 Hours.
Figure drawing, a continuation of DRWG 314 or DRWG 318. May be repeated for credit in subsequent semesters. Prerequisite: DRWG 314 or DRWG 318; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

DRWG 519. Life Drawing IV, Honors. 3 Hours.
Figure drawing, a continuation of DRWG 515 or DRWG 518. May be repeated for credit in subsequent semesters. Prerequisite: DRWG 515 or DRWG 518; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

DRWG 535. Special Topics in Drawing: ____. 3 Hours.
Course to be offered in area of special interest to individual faculty, and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: 12 hours of drawing and permission of instructor. LAB.

DRWG 599. Individual Studies in Drawing. 1-6 Hours. AE61 / U.
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor’s degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Drawing courses, or permission of instructor. IND.

DRWG 807. Drawing VII. 3 Hours.
Individual research in drawing. Prerequisite: DRWG 506. RSH.

DRWG 817. Life Drawing V. 3 Hours.
Individual research in figure drawing. Prerequisite: DRWG 516. RSH.

DRWG 908. Drawing VIII. 3 Hours.
Continuation of DRWG 807. Prerequisite: DRWG 807. RSH.

DRWG 918. Life Drawing VI. 3 Hours.
Continuation of DRWG 817. Prerequisite: DRWG 817. RSH.

EXM 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Expanded Media. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.
thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

EXM 274. Expanded Media. 3 Hours. U.
Beginning course to introduce the fundamental concepts, strategies, and technologies that comprise the Expanded Media area of the Department of Visual Art: Installation, Performance, and Digital Image. Emphasis is placed on forming ideas and strategies, and creating artwork that considers the core connections within Expanded Media: time, space, the body, the viewer, and society at large. Computer-based technologies and time-based media that are inherent to Expanded Media practice support studio assignments. Coursework includes the investigation and discussion of historic precedents and the development of an appropriate critical dialogue with which to discuss their work. Prerequisite: ART 102, ART 103, and ART 104. LAB.

EXM 300. Special Topics in Expanded Media: ______. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

EXM 301. The Digital Image I. 3 Hours.
Introduction to various still digital processes and skills that encourage the use of digital imagery within a variety of other media. Focus on content issues as they relate to development of artwork incorporating digital imagery. LAB.

EXM 302. Performance Art I. 3 Hours. U.
An introduction to the understanding and production of performance art. Students gain proficiency in conceptualization and production of performance time-based art in an Interdisciplinary art-making environment. Prerequisite: ART 102, ART 103, and ART 104. LAB.

EXM 303. Intermedia I. 3 Hours.
An introduction to the use/handling and integration of diverse, new and traditional materials, techniques and processes. Problems will involve strategies for discovering and managing combinations of drawn, painted, digital and constructed forms. Studio sessions will include research, lecture, demos, and guest speakers. Prerequisite: Permission of instructor. LAB.

EXM 307. Installation Art I. 3 Hours. U.
An introduction to the understanding and production of installed art environments using a variety of media and approaches to art-making. Students gain proficiency in conceptualization and production of installation art in an interdisciplinary art-making environment. Prerequisite: ART 102, ART 103, and ART 104. LAB.

EXM 314. Alternative Approaches in Photography I. 3 Hours. U.
An introduction to the understanding and production of art-making using alternative approaches in photography. Students gain proficiency in conceptualization and production of artwork using alternative approaches in photography in an interdisciplinary art-making environment. Prerequisite: ART 102, ART 103, and ART 104. LAB.

EXM 326. Video and Time-Based Media I. 3 Hours. U.
An introduction to the understanding and production of video and time-based art. Students gain proficiency in conceptualization and production of video and time-based art in an interdisciplinary art-making environment. Prerequisite: EXM 274. LAB.

EXM 500. Advanced Special Topics in Expanded Media: ______. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

EXM 501. The Digital Image II. 3 Hours.
Continuation of EXM 301, The Digital Image I. May be repeated for credit. LAB.

EXM 503. Intermedia II. 3 Hours.
Continuation of EXM 303, Intermedia I. May be repeated for credit. Prerequisite: Permission of instructor. LAB.

EXM 514. Alternative Approaches in Photography II. 3 Hours. U.
Continuation of EXM 314. Prerequisite: EXM 314. LAB.

EXM 526. Video and Time-Based Media II. 3 Hours. U.
Continuation of EXM 326. Prerequisite: EXM 326. LAB.

EXM 535. Intermediate Expanded Media. 3 Hours.
Continuation of Expanded Media studio research. Prerequisite: Two (200- and/or 300-level) Expanded Media courses. LAB.

EXM 536. Intermediate Expanded Media, Honors. 3 Hours.
Continuation of Expanded Media studio research. Prerequisite: Two (200- and/or 300-level) Expanded Media courses; membership in the University Honors Program or 3.25 minimum cumulative grade point average with permission of the department. LAB.

EXM 537. Advanced Expanded Media. 3 Hours.
Continuation of EXM 535. May be repeated for credit. Prerequisite: EXM 535 or EXM 536. LAB.

EXM 538. Advanced Expanded Media, Honors. 3 Hours.
Continuation of EXM 536. May be repeated for credit. Prerequisite: EXM 535 or EXM 536; membership in the University Honors Program or 3.25 minimum cumulative grade point average with permission of the department. LAB.

EXM 541. Graduate Performance Art. 3 Hours.
Students will gain proficiency in conceptualization and production of performance time-based art in an interdisciplinary art-making environment. Prerequisite: Permission of instructor. LAB.

EXM 542. Graduate Installation Art. 3 Hours.
Advanced problems toward the creation of environments using a variety of media including traditional and non-traditional approaches to art-making. Prerequisite: Permission of instructor. LAB.

EXM 543. Graduate: The Digital Image. 3 Hours.
Advanced work focusing on content issues as they relate to development of artwork incorporating digital imagery. Prerequisite: Permission of instructor. LAB.

EXM 544. Graduate Intermedia. 3 Hours.
Advanced work in the use/handling and integration of diverse, new and traditional materials, techniques and processes. Advanced problems will involve strategies for discovering and managing combinations of drawn, painted, digital, and constructed forms. Studio sessions will include research, lecture, demos, and guest speakers. Prerequisite: Permission of instructor. LAB.

EXM 546. Graduate Expanded Media V. 3 Hours.
Continuation of Expanded Media studio research. Prerequisite: Permission of instructor. LAB.

EXM 573. Performance Art II. 3 Hours. U.
Continuation of EXM 302. Prerequisite: EXM 302. LAB.
EXM 574. Performance Art II, Honors. 3 Hours. U.
Continuation of EXM 302. Prerequisite: EXM 302; and membership in the University Honors Program or 3.25 minimum cumulative grade point average with permission of the department. LAB.

EXM 577. Installation Art II. 3 Hours. U.
Continuation of EXM 303. Prerequisite: EXM 303. LAB.

EXM 578. Installation Art II, Honors. 3 Hours. U.
Continuation of EXM 303. Prerequisite: EXM 303; and membership in the University Honors Program or 3.25 minimum cumulative grade point average with permission of the department. LAB.

EXM 599. Individual Studies in Expanded Media. 1-6 Hours. AE61 / U.
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor's degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Expanded Media courses, of permission of instructor. IND.

EXM 846. Graduate Expanded Media VI. 3 Hours.
Continuation of Expanded Media studio research. Prerequisite: Permission of instructor. LAB.

EXM 946. Graduate Expanded Media VII. 3 Hours.
Continuation of Expanded Media studio research. Prerequisite: Permission of instructor. LAB.

METL 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Metalsmithing/Jewelry. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

METL 211. Jewelry. 3 Hours. GE3S.
Introduction to metalsmithing and jewelry design, materials and processes. Student projects explore the joining, forming, and surface embellishment of metals such as copper, brass, bronze, and sterling. Prerequisites: ART 102 and ART 104. LAB.

METL 300. Special Topics in Metalsmithing: ______. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

METL 301. Introduction to Casting for Jewelry. 3 Hours.
Introduction to casting and mold making processes used for jewelry and small sculpture. Students explore various methods and materials for creating molds for casting in bronze or silver including wax carving, wax modeling, and the use of natural and synthetic materials as models. Models are cast using centrifugal and vacuum casting processes. Basic mold making in clay and silicone are also explored. Prerequisite: ART 132 or METL 211. LAB.

METL 302. Professional Practices. 3 Hours.
The development of a portfolio including designing, rendering, and model making for future projects. Photographing completed objects and discussing professional aspects of the jewelry/metal smithing field. Prerequisite: Six hours of metalsmithing. LAB.

METL 360. Holloware. 3 Hours.
Problems related to specific smithing techniques such as raising, stretching, shell structures and seam fabrications. Metal manipulation on a large scale. Prerequisite: METL 301. LAB.

METL 362. Metalsmithing. 6 Hours.
Advanced metalworking with an emphasis on the refinement of design and techniques. Processes may include linkage, marriage of metals, metal inlays, hinge and catch fabrication. Prerequisite: METL 301. LAB.

METL 364. Enameling. 6 Hours.
Problems of basic and advanced enameling as applied to jewelry design and metalsmithing objects. Exploration of major enameling techniques: such as limoges, cloissoné, champleve, and bassetaille. Prerequisite: Six hours of metalsmithing or consent of instructor. LAB.

METL 500. Advanced Special Topics in Metalsmithing: ______. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

METL 501. Seminar. 3 Hours.
Lectures and demonstrations on techniques of contemporary interest outside of typical classroom activity. Prerequisite: Six hours of metalsmithing. LEC.

METL 503. Gemology. 3 Hours. H.
Students study the optical and physical characteristics of gemstones in order to identify them using gemological instruments. This laboratory and discussion class explores related topics including the principles of optics that support this methodology, history and geographical distribution of gemstones, gemstone cutting and pearl farming, the history of DeBeers and the development of the world demand for diamond, quality analysis of diamond, colored gemstones and pearls, including the history of diamond grading, the development and identification of synthetics, imitations and laboratory enhancements as well as the use of gemstones in designing jewelry. Prerequisite: ART 132. LAB.

METL 504. A History of Jewelry. 3 Hours. H.
This course explores the history from Sumeria to the 21st century of the use of metals and gemstones in the creation of decorative art for personal adornment. Students explore the evolution of the role of jewelry in ancient culture and modern society and survey individuals whose ideas and work influenced generations of goldsmiths and jewelers around the globe. The class studies primitive tools and modern manufacturing techniques, the history of gemstone cutting and setting and the origin and development of gemstones as symbols. Prerequisite: ART 132. LEC.

METL 505. Digital Jewelry Design I. 3 Hours. H.
Matrix is a 3-D CAD program based on Rhino developed by Rhino, specifically for jewelry design. The goal of this course is to instruct beginners in the Matrix design program. Students learn to transform their 2-D designs from their sketchbooks into 3-D models in Matrix, which can be milled in wax, and cast in metal. Students also learn how to render their 3-D Matrix models to appear as if they were a finished object. The class time is structured as a combination of instructor-led tutorials and working labs. Prerequisite: ART 132. LAB.

METL 506. Digital Jewelry Design II. 3 Hours. H.
The second semester of Matrix increases the operating and design skills building on the knowledge of DG I. The focus of the class is producing wax models on the Revo Digital Mill. Digi II covers the advanced modeling skills including T-spline and Rhino. Students also learn how to make a customized tool path for Revo C mill program and how to solve milling problems. Students also learn how to convert Rhino files to produce a 3D print for outsourcing to other 3D modeling programs. Prerequisite: ART 132, METL 301, METL 505. LAB.
METL 515. Advanced Metals I. 6 Hours. AE61.
Emphasis on individual design aesthetic through intensive designing, rendering, and modelmaking as preparation for fabricated pieces of jewelry, holloware, and/or small objects; capstone experience. Prerequisite: METL 562. LAB.

METL 520. Advanced Metals II. 6 Hours. AE61 / U.
Continuation of METL 515; capstone experience. This course requires a final presentation of a complete portfolio including resume, renderings and photographs of the finished work. Prerequisite: METL 515. LAB.

METL 590. Internship in Metalsmithing/Jewelry. 1-3 Hours. U.
Practical experience in the use of artistic skills in approved and supervised academic or professional settings. May be repeated for credit; no more than six hours may be applied to the B.A. or B.F.A. degree. Credit hours are graded on a satisfactory/unsatisfactory basis, according to the written recommendation provided by the internship supervisor to the faculty advisor. Prerequisite: ART 102, and ART 103, and ART 104; and fifteen hours of Visual Art Courses; and permission of instructor. FLD.

METL 715. Metals/Jewelry. 2-6 Hours.
Individual research. Prerequisite: METL 515 or equivalent. RSH.

METL 815. Metals/Jewelry. 2-6 Hours.
Continuation of METL 715. RSH.

PNTG 177. First Year Seminar: _____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Painting. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

PNTG 263. Painting I. 3 Hours.
Basic problems in painting. Prerequisite: ART 102, and ART 103 or ART 104. LAB.

PNTG 300. Special Topics in Painting: _____. 1-4 Hours.
Course to be offered in an area of studio activity of specific interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Painting courses, or permission of instructor. LAB.

PNTG 337. Watercolor. 3 Hours.
Sessions deal with the preparation of watercolor paints and equipment, but the main emphasis is placed on relational concepts affecting tone, structure, and unity in work. While the students are expected to explore some of the traditional approaches to watercolor, they also are encouraged to work with new and innovative ones. May be repeated for credit. Prerequisite: PNTG 263 or permission of instructor. LAB.

PNTG 338. Landscape Painting. 3 Hours.
An introduction to landscape painting. Considerable work is done out-of-doors. Emphasis is placed upon experiencing the environment and the development of individual approach. May be repeated for credit. Prerequisite: PNTG 263 and permission of instructor. LAB.

PNTG 364. Painting II. 3 Hours.
Continuation of PNTG 263. Prerequisite: PNTG 263. LAB.

PNTG 368. Painting II, Honors. 3 Hours.
Continuation of PNTG 263. Prerequisite: PNTG 263; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PNTG 500. Advanced Special Topics in Painting: _____. 1-4 Hours.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Painting courses, or permission of instructor. LAB.

PNTG 565. Painting III. 3 Hours.
Continuation of PNTG 364. Prerequisite: PNTG 364. LAB.

PNTG 566. Painting IV. 3 Hours.
Continuation of PNTG 565. May be repeated for credit. Prerequisite: PNTG 565. LAB.

PNTG 567. Painting III, Honors. 3 Hours.
Continuation of PNTG 364 or PNTG 368. Prerequisite: PNTG 364 or PNTG 368; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PNTG 569. Painting IV, Honors. 3 Hours.
Continuation of PNTG 565 or PNTG 568. Prerequisite: PNTG 565 or PNTG 568; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PNTG 585. The Figure I. 3 Hours.
The figure and its environment in various media. Prerequisite: DRWG 314 and PNTG 364. LAB.

PNTG 586. The Figure II. 3 Hours.
Continuation of PNTG 585. May be repeated for credit. Prerequisite: PNTG 585. LAB.

PNTG 588. The Figure I, Honors. 3 Hours.
The figure and its environment in various media. Prerequisite: DRWG 314 or DRWG 318 and PNTG 364 and PNTG 368; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PNTG 589. The Figure II, Honors. 3 Hours.
Continuation of PNTG 585 or PNTG 588. May be repeated for credit. Prerequisite: PNTG 585 or PNTG 588; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PNTG 599. Individual Studies in Painting. 1-6 Hours.
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor's degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Metalsmithing/Jewelry courses, or permission of instructor. IND.

PNTG 655. Painting III. 3 Hours.
Continuation of PNTG 364. Prerequisite: PNTG 364. LAB.

PNTG 656. Painting IV. 3 Hours.
Continuation of PNTG 565. May be repeated for credit. Prerequisite: PNTG 565. LAB.

PNTG 657. Painting III, Honors. 3 Hours.
Continuation of PNTG 364 or PNTG 368. Prerequisite: PNTG 364 or PNTG 368; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PNTG 659. Painting IV, Honors. 3 Hours.
Continuation of PNTG 565 or PNTG 568. Prerequisite: PNTG 565 or PNTG 568; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PNTG 658. The Figure I, Honors. 3 Hours.
The figure and its environment in various media. Prerequisite: DRWG 314 and PNTG 364. LAB.

PNTG 687. The Figure III. 3 Hours.
Continuation of PNTG 667. Prerequisite: PNTG 667. LAB.

PNTG 668. Painting VI. 3 Hours.
Continuation of PNTG 364 or PNTG 368. Prerequisite: PNTG 364 or PNTG 368; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PNTG 689. Painting VII, Honors. 3 Hours.
Continuation of PNTG 565 or PNTG 568. Prerequisite: PNTG 565 or PNTG 568; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.
PNTG 688. The Figure IV. 3 Hours.
Continuation of PNTG 687. May be repeated for credit. Prerequisite: PNTG 687. LAB.

PNTG 869. Painting VII. 3 Hours.
Individual research in painting. Prerequisite: PNTG 868. RSH.

PNTG 889. The Figure V. 3 Hours.
Individual research in the figure and its environment in various media. Prerequisite: PNTG 888. RSH.

PNTG 970. Painting VIII. 3 Hours.
Continuation of PNTG 869. Prerequisite: PNTG 889. RSH.

PNTG 990. The Figure VI. 3 Hours.
Continuation of PNTG 889. Prerequisite: PNTG 889. RSH.

PRNT 177. First Year Seminar: ______. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Printmaking. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

PRNT 223. Intaglio I. 3 Hours.
Introduction to intaglio. Prerequisite: ART 102, and ART 103 or ART 104. LAB.

PRNT 224. Relief I. 3 Hours.
Introduction to relief printing. Prerequisite: ART 102, and ART 103 or ART 104. LAB.

PRNT 233. Lithography I. 3 Hours.
Introduction to lithography. Prerequisite: ART 102, and ART 103 or ART 104. LAB.

PRNT 243. Serigraphy I. 3 Hours.
Introduction to serigraphy. Prerequisite: ART 102, and ART 103 or ART 104. LAB.

PRNT 300. Special Topics in Printmaking: ______. 3 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; or permission of instructor. LEC.

PRNT 324. Intaglio II. 3 Hours.
Continuation of PRNT 223. Prerequisite: PRNT 223, or permission of instructor. LAB.

PRNT 325. Relief II. 3 Hours.
Continuation of PRNT 224. Prerequisite: PRNT 224, or permission of instructor. LAB.

PRNT 328. Intaglio II, Honors. 3 Hours.
Continuation of PRNT 223. Prerequisite: PRNT 223; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PRNT 329. Relief II, Honors. 3 Hours.
Continuation of PRNT 224. Prerequisite: PRNT 224; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PRNT 334. Lithography II. 3 Hours.
Continuation of PRNT 233. Prerequisite: PRNT 233 or permission of instructor. LAB.

PRNT 338. Lithography II, Honors. 3 Hours.
Continuation of PRNT 233. Prerequisite: PRNT 233; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PRNT 344. Serigraphy II. 3 Hours.
Continuation of PRNT 243. Prerequisite: PRNT 243 or permission of instructor. LAB.

PRNT 348. Special Problems in Printmaking--Color Printing in Relief and Intaglio. 3 Hours.
Multiple block and plate printing in color. (This course is not regularly offered. The current Schedule of Classes should be consulted.) Prerequisite: PRNT 223 and permission of instructor. LAB.

PRNT 349. Serigraphy II, Honors. 3 Hours.
Continuation of PRNT 243. Prerequisite: PRNT 243; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

PRNT 500. Advanced Special Topics in Printmaking: ______. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Printmaking courses, or permission of instructor. LEC.

PRNT 523. Printmaking III A (Intaglio). 3 Hours.
Prerequisite: PRNT 324 or permission of instructor. LAB.

PRNT 524. Printmaking III B (Lithography). 3 Hours.
Prerequisite: PRNT 334 or permission of instructor. LAB.

PRNT 525. Printmaking III C (Serigraphy). 3 Hours.
Prerequisite: PRNT 344 or permission of instructor. LAB.

PRNT 526. Printmaking IV A (Intaglio). 3 Hours.
Prerequisite: PRNT 523 or permission of instructor. LAB.

PRNT 527. Printmaking IV B (Lithography). 3 Hours.
Prerequisite: PRNT 524 or permission of instructor. LAB.

PRNT 528. Printmaking IV C (Serigraphy). 3 Hours.
Prerequisite: PRNT 525 or permission of instructor. LAB.

PRNT 599. Individual Studies in Printmaking. 1-6 Hours. AE61 / U.
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours may apply toward the bachelor's degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Printmaking courses, or permission of instructor. IND.

PRNT 662. Printmaking V. 3 Hours.
Individual research in printmaking. Prerequisite: PRNT 526 or PRNT 527 or PRNT 528. LAB.

PRNT 663. Printmaking VI. 3 Hours.
Continuation of PRNT 662. Prerequisite: PRNT 662. LAB.

PRNT 802. Special Problems in Printmaking. 3 Hours.
Individual research in printmaking; course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters. Prerequisite: PRNT 579 and permission of instructor. RSH.

PRNT 827. Printmaking VII. 3 Hours.
Continuation of PRNT 663. Prerequisite: PRNT 663. LAB.
**PRNT 903. Special Problems in Printmaking. 3 Hours.**
Individual research in printmaking; course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters. Prerequisite: PRNT 802 and permission of instructor. RSH.

**PRNT 928. Printmaking VIII. 3 Hours.**
Continuation of PRNT 827. Prerequisite: PRNT 827. LAB.

**SCUL 177. First Year Seminar: ______. 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Sculpture. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**SCUL 253. Sculpture I. 3 Hours.**
Introduction to sculpture. Prerequisite: ART 102, ART 103, and ART 104, or permission of instructor. LAB.

**SCUL 300. Special Topics in Sculpture: ______. 1-4 Hours.**
Course to be offered in an area of studio activity of specific interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104, or permission of instructor. LAB.

**SCUL 349. Metal and Glass Casting. 3 Hours.**
A course in foundry techniques as related to sculpture. Both traditional and experimental procedures for casting bronze, aluminum, and iron sculpture will be explored. May be repeated for credit. Prerequisite: SCUL 253. LAB.

**SCUL 350. Direct Metal Fabrication. 3 Hours.**
The course will present a variety of techniques for fabricating metal sculpture. Oxyacetylene and electric arc welding processes will be included. May be repeated for credit. Prerequisite: SCUL 253. LAB.

**SCUL 354. Sculpture II. 3 Hours.**
Continuation of SCUL 253. Prerequisite: SCUL 253. LAB.

**SCUL 355. Sculpture III. 3 Hours.**
Continuation of SCUL 354. Prerequisite: SCUL 354. LAB.

**SCUL 358. Sculpture II, Honors. 3 Hours.**
Continuation of SCUL 253. Prerequisite: SCUL 253; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

**SCUL 359. Sculpture III, Honors. 3 Hours.**
Continuation of SCUL 354 or SCUL 358. Prerequisite: SCUL 354 or SCUL 358; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

**SCUL 500. Advanced Special Topics in Sculpture: ______. 1-4 Hours. U.**
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Sculpture courses, or permission of instructor. LEC.

**SCUL 556. Sculpture IV. 3 Hours.**
Continuation of SCUL 355. May be repeated for credit. Prerequisite: SCUL 355. LAB.

**SCUL 558. Sculpture IV, Honors. 3 Hours.**
Continuation of SCUL 355 or SCUL 359. May be repeated for credit. Prerequisite: SCUL 355 or SCUL 359; membership in the University Honors Program or 3.25 minimum cumulative grade-point average; and permission of the department. LEC.

**SCUL 599. Individual Studies in Sculpture. 1-6 Hours. AE61 / U.**
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours can apply toward the bachelor’s degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Sculpture courses, or permission of instructor. IND.

**SCUL 657. Sculpture V. 3 Hours.**
Continuation of SCUL 556. Prerequisite: SCUL 556. LAB.

**SCUL 658. Sculpture VI. 3 Hours.**
Continuation of SCUL 657. May be repeated for credit in subsequent semesters. Prerequisite: SCUL 657. LAB.

**SCUL 804. Special Problems in Sculpture. 3 Hours.**
Individual research in sculpture: course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters. Prerequisite: SCUL 559 and permission of instructor. RSH.

**SCUL 859. Sculpture VII. 3 Hours.**
Individual research in sculpture. Prerequisite: SCUL 658. RSH.

**SCUL 905. Special Problems in Sculpture. 3 Hours.**
Individual research in sculpture: course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters. Prerequisite: SCUL 804 and permission of instructor. RSH.

**SCUL 960. Sculpture VIII. 3 Hours.**
Continuation of SCUL 859. Prerequisite: SCUL 859. RSH.

**TD 130. Introduction to Weaving. 3 Hours.**
Specifically for students with limited or no previous experience. Application to art and design principles to four-harness loom structures. Emphasis on the use of color and texture in loom controlled and weaver controlled techniques. Counts only as a studio elective or general elective for a B.F.A. in Art or Design. LAB.

**TD 133. Introduction to Fibers. 3 Hours.**
Studio exploration of fibers as an art and design form. Techniques include dyeing, spinning yarn, soft sculpture, embellishment, crochet. Open to all university students. LAB.

**TD 177. First Year Seminar: ______. 3 Hours. GE11 / U.**
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Textile Design. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

**TD 300. Special Topics in Textiles/Fibers: ______. 1-4 Hours. U.**
Course to be offered in an area of special interest to individual faculty and qualified students. May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104, or permission of instructor. LAB.

**TD 313. Fiber Forms. 3 Hours.**
Studio exploration of fibers as an art form. Techniques include feltmaking, papermaking, basketry, and dyeing. Prerequisite: ART 101, and ART 130 or ART 133. LAB.

**TD 314. Introduction to Weaving. 3 Hours. U.**
Application of art and design principles to four-harness loom structures. Emphasis on the use of color and texture in loom controlled and weaver controlled techniques. Prerequisite: ART 101, and ART 130 or ART 133. LAB.
TD 315. Textile Handprinting and Resist Processes. 3 Hours. U.
Fundamentals of resist and dye techniques on textiles: batik, tie-dye, discharge, and direct application. Prerequisite: ART 101, and ART 130 or ART 133. LAB.

TD 316. Screenprinting Textiles. 3 Hours.
Design problems in textile printing with emphasis on screenprinting and photo techniques. Prerequisite: ART 101, and ART 130 or ART 133. LAB.

TD 401. Weave Structures. 3 Hours. U.
Continuation of TD 314. Research and analysis of multiple-harness weave structures. Weave drafts. Design problems to develop the use of color, form, and surface in simple and compound weaves. Prerequisite: TD 314. LAB.

TD 402. Techniques in Weaving. 3 Hours. U.
Development of individual art and design concepts in relation to woven structures and/or forms. Emphasis on weaver-controlled techniques used to create images and composition. Prerequisite: TD 314. LAB.

TD 403. Intermediate Textile Printing. 3 Hours.
Individual problems in textile printing and dyeing processes. Prerequisite: TD 316. LAB.

TD 404. Surface Design. 3 Hours.
Textile pattern design for art and/or industry. Prerequisite: Twelve hours in Visual Art or Design, or permission of the instructor. LAB.

TD 414. Experimental Concepts in Weaving. 3 Hours.
Experimentation with resist dyeing, painted warps and/or "Fiber Forms" techniques in woven structures. Individual research and development of thematic concepts. Prerequisite: TD 313, and TD 301 or TD 302. LAB.

TD 500. Advanced Special Topics in Textiles/Fibers: ____. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Textiles/Fibers courses, or permission of instructor. LEC.

TD 503. Advanced Surface Design/Screenprinting. 1-6 Hours. U.
Directed study of advanced surface design and screenprinting methods. May be repeated for credit. Prerequisite: TD 403. IND.

TD 504. History of Textiles, Lecture. 3 Hours.
Study of historical textiles, their design development, and the techniques employed. Prerequisite: Junior standing in department or permission of instructor. LEC.

TD 506. Advanced Fiber Forms. 1-6 Hours. U.
Directed study of three-dimensional and off-loom methods and techniques. May be repeated for credit. Prerequisite: TD 313. IND.

TD 514. Advanced Techniques in Weaving. 1-6 Hours. U.
Directed study of advanced loom-controlled and weaver-controlled methods. May be repeated for credit. Prerequisite: TD 401 and TD 402. IND.

TD 515. Advanced Textiles/Fibers I. 3-6 Hours. AE61.
Development of individual direction in textiles based on experience, research, and skills acquired in preceding courses; capstone experience. Prerequisite: Twenty-four credits in Textiles/Fibers and consent of instructor. LAB.

TD 520. Advanced Textiles/Fibers II. 3-6 Hours. AE61.
Continuation of TD 515, capstone experience. Prerequisite: TD 515. LAB.

TD 590. Internship in Textiles/Fibers. 1-3 Hours. U.
Practical experience in the use of artistic skills in approved and supervised academic or professional settings. May be repeated for credit; no more than six hours may be applied to the B.A. or B.F.A. degree. Credit hours are graded on a satisfactory/unsatisfactory basis, according to the written recommendation provided by the internship supervisor to the faculty advisor. Prerequisite: ART 102, ART 103, and ART 104; and fifteen hours of Visual Art courses. FLD.

TD 599. Individual Studies in Textiles/Fibers. 1-6 Hours. AE61 / U.
Individual studio activity; capstone experience. Course content to be determined by the student under supervision of a faculty member. May be repeated for credit in subsequent semesters; a maximum of nine hours can apply toward the bachelor’s degree. Prerequisite: ART 102, ART 103, and ART 104; and twelve hours of Textiles/Fibers courses, or permission of instructor. IND.

TD 715. Textile Design in Weaving, Printing, and Dyeing. 2-6 Hours.
Individual research. Prerequisite: TD 520 or TD 525 or equivalent. RSH.

TD 750. Graduate Seminar. 0.5 Hours.
Discussion of issues and/or work in textiles. Graded on satisfactory/unsatisfactory basis. LEC.

TD 815. Textile Design in Weaving, Printing, and Dyeing. 2-6 Hours.
Continuation of TD 715. RSH.

VAE 100. Introduction to the Profession of Art Education. 3 Hours.
This course is designed to acquaint students with the profession of art education by helping to increase an awareness of the role and characteristics of an effective art teacher. Large and small group activities and assignments are dispersed throughout the semester to facilitate these outcomes. Students are involved in observation of and participation with art teachers and pupils in the public school classrooms, which complement course activities and assignments. VAE 100 is a professional course. LEC.

VAE 130. Art and Design in Daily Life. 3 Hours. U.
The course aims to develop students’ appreciation of designed objects in contemporary life whether they are historical icons or everyday items in the immediate environment. The instructional materials and activities assist students in acquiring the knowledge and skills for critically analyzing, discussing, and evaluating objects. Course content is interdisciplinary with a focus on design history. The class is open to all students and is relevant to those who have taken classes in art, design, architecture, and art history. Not open to students with credit in VAE 530. LEC.

VAE 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Visual Art Education. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

VAE 300. Special Topics in Visual Art Education: ____. 1-4 Hours. U.
Course to be offered in an area of special interest to individual faculty and qualified students. (This course is not regularly offered. The current Schedule of Classes should be consulted.) May be repeated for credit. Prerequisite: ART 102, ART 103, and ART 104, or permission of instructor. LEC.

VAE 320. Instruction and Curriculum I. 3 Hours.
This methods course provides an overview of the professional practices of K-12 art educators. Course content deals with the art education program, K-12, in relationship to the rest of the curriculum. This encompasses goals, objective sequence, courses offered at various levels, finance, staffing and administration. Prerequisite: Junior standing or consent of the instructor. LEC.
VAE 325. Education in Multicultural Society. 2 Hours.
The course is designed to provide the student with an awareness of and sensitivity to the concept of multicultural education. Topics related to the rationale for and processes of providing a multicultural perspective within the schools will be addressed. Field experiences will be structured to provide students with opportunities to observe the diversity within our society. LEC.

VAE 330. Fundamentals of Art. 3 Hours.
An introduction to art designed for the general university student. Designed to facilitate understanding and viewing works of art. Basic information including elements and principles of art, materials and techniques used by artists, and the function of art in society. LEC.

VAE 341. Instructional Strategies in Art for Elementary Classroom Teachers. 2 Hours.
Child growth and development in art. Materials as they relate to a sequential art education curriculum in the elementary school. Prerequisite: Admission to the School of Education or the education division of the graduate school. LEC.

VAE 395. Community Collaborations in Art Education. 3 Hours. U.
A focused examination of existing community organizations, models, and resources alongside collaborative strategies for working with these entities to achieve common goals for art education. Students in this class will learn of collaborative community models, explore entrepreneurial and other educational initiatives that contribute to the general purpose of art education, and recognize the role of families and other community members in contributing to the arts. LEC.

VAE 410. Instruction and Curriculum II. 3 Hours.
This methods course provides an overview of the professional practices of K-12 art educators. Course content deals with the art education program, K-12, in relationship to the rest of the curriculum. This encompasses goals, objective sequence, courses offered at various levels, finance, staffing and administration. Prerequisite: Junior standing or consent of the instructor. LEC.

VAE 420. Artistic Media and Processes in Art Education. 3 Hours.
Building on course content in VAE 320, this course concentrates on instructional strategies and presentation models in art education. Students examine and explore the media appropriate to teaching art in various settings and levels as well as how art program budgets are derived and impact overall curriculum development. Prerequisite: VAE 320 or permission of instructor. LEC.

VAE 497. Independent Study. 1-3 Hours.
Only one enrollment permitted each semester; a maximum of four hours will apply toward the bachelor's degree. Prerequisite: Recommendation of advisor and consent of instructor. IND.

VAE 500. Student Teaching. 6 Hours. AE61.
A supervised teaching experience in an approved school setting, with level and subject area to be selected according to the teaching field. Prerequisite: Admission to the student teaching program. FLD.

VAE 520. Instructional Technology in Art Education. 3 Hours.
This course addresses technology that is pertinent to professional art educators. Students use technology to develop a professional portfolio and technology-related resources for teaching art in PreK-12 schools and community settings. LEC.

VAE 530. Art and Design in Daily Life. 3 Hours.
The course aims to develop students' appreciation of designed objects in contemporary life whether they are historical icons or everyday items in the immediate environment. The instructional materials and activities will assist students in acquiring the knowledge and skills for critically analyzing, discussing, and evaluating objects. Course content is interdisciplinary with a focus on design history. The class is open to all students and is relevant to those who have taken classes in art, design, architecture, and art history. Not open to students with credit in VAE 130. LEC.

VAE 596. Practicum in Teaching Art. 2 Hours.
A supervised art teaching practicum in which students will learn to employ different teaching strategies with children pre-school through high school in the school or museum setting. Prerequisite: VAE 320, VAE 410, VAE 795 or consent of instructor. LEC.

VAE 598. Special Course: ______. 1-5 Hours.
A special course of study to meet current needs of education students; primarily for undergraduates. LEC.

VAE 599. Community Based Project in Art Education. 1-6 Hours. AE61 / U.
Individual activity and project that serves as an alternate capstone experience to VAE 500 (Student Teaching). Will involve the development of an independent, community-based arts education project developed by the student under the supervision of a VAE faculty member. Prerequisite: Forty credits of Visual Art, fifteen credits of Visual Art Education Courses, and permission of the instructor. IND.

VAE 600. Evaluation and Measurement in Art Education. 3 Hours.
An introduction to the concepts and skills for the development and implementation of evaluation procedures for art education. Topics will include the development of student evaluation, the relationship between instructional objectives and evaluation, various evaluation techniques for art education, grading, and providing grades and feedback (to) students, parents, and schools. Prerequisite: VAE 320 and VAE 410. LEC.

VAE 680. Internship in Teaching Art. 5-16 Hours.
A supervised internship experience leading to initial art teacher certification. The student assumes the total professional role as a teacher of art in an approved school setting. LEC.

VAE 698. Education of Women in the Arts. 2-3 Hours.
This course will examine the education of women in the arts at all levels of schooling (preschool, primary, secondary, and university) and in nonformal settings (art clubs, women's leagues, tutoring, etc.). The intent is to further a historical and contemporary based understanding of gender characteristics and discrimination as they affect the education of women in the arts. Students enrolled in three hours credit will be required to write a case study on the education of a woman artist. LEC.

VAE 710. Assessment in Art Education. 3 Hours.
The course is designed to introduce students to evaluation procedures in art education as they apply to public school teaching K-12. The material will incorporate methods of evaluating student learning in art, the effectiveness of instruction, the designing of instruments, grading procedures including the provision of feedback to students, parents, and schools. Concepts and skills for both formative and summative evaluation will be related to the development of objectives, instruction, and curriculum development as a whole. LEC.

VAE 716. Teaching Art: ______. 1-4 Hours.
Instructional techniques, methodology, materials, and evaluation. Processes for the specific art area named. May be repeated for credit in different media. LEC.

VAE 750. Introduction to Art Museum Education. 1-4 Hours.
This course provides a general overview to the museum education field. Course readings include current ideas and issues on learning, art education, criticism, the museum in education, and museum education practices. LEC.
VAE 774. Art for Exceptional Children. 2 Hours.
A study of the psychology, philosophy, content, and media in art expression and its relationship to mental and creative growth with exceptional children. Prerequisite: SPED 741, which may be taken concurrently. LEC.

VAE 780. Internship in Teaching Art. 9 Hours.
A supervised internship experience leading to initial art teacher certification. The student assumes the total professional role as a teacher of art in an approved school setting. LEC.

VAE 790. Applications of Technology in Art Education. 1-3 Hours.
The course is designed to provide students with the skills necessary for using and assessing the impact of microcomputers, video recorders, and other technological developments in art education. Prerequisite: TL 601 or equivalent. LEC.

VAE 798. Special Course: ____. 1-5 Hours.
A special course of study to meet current needs of education professionals; primarily for graduate students. LEC.

VAE 800. Visual Art Education Curriculum Development. 1-3 Hours.
A study of research, resources, and media as they relate to learning goals in a sequential art curriculum for use by teachers. The amount of credit reflects the extent of the curriculum being developed and the amount of work involved in the development process. LEC.

VAE 825. Seminar in: ____. 1-4 Hours.
LEC.

VAE 830. Seminar in: ____. 1-4 Hours.
LEC.

VAE 842. Teaching Art Criticism. 3 Hours.
An examination of the four phases of art criticism (description, analysis, interpretation and judgment) will be followed by practice in using these phases in the development of effective art curriculum for all developmental levels. Prerequisite: PRE 702 and PRE 704 or equivalents. LEC.

VAE 850. Aesthetics, the Arts and Education. 3 Hours.
Theoretical introduction to the problems involved in teaching critical appreciation of the arts; examination of materials from aesthetics, art history, and criticism. LEC.

VAE 869. History of Art Education. 3 Hours.
A study of the historical development of art education. Prerequisite: Nine hours of education. LEC.

VAE 875. Research in Art Education. 3 Hours.
This course examines the issues and procedures commonly used to conduct research in art education in preparation for students' graduate theses or projects. Research methods are adapted and applied to students' professional needs and interests in the form of a research proposal. LEC.

VAE 890. Preparation for the M.A. Examination. 1 Hour.
An independent reading course in preparation for the M.A. Examination. The grade will be an S or U, as determined by the performance on the examination. The examination will be evaluated separately. Prerequisite: Permission of the instructor. LEC.

VAE 895. Field Experience in: ____. 1-6 Hours.
Supervised and directed experiences in selected professional settings and cooperating agencies. Prerequisite: Permission of instructor. FLD.

VAE 897. Independent Study. 1-4 Hours.
Prerequisite: Consent of advisor and instructor. RSH.

VAE 898. Master's Project. 1-4 Hours.
RSH.

VAE 899. Master's Thesis. 1-6 Hours.
THE.

VAE 900. Supervision and Evaluation of Visual Arts Programs. 3 Hours.
A study of the administration of school, museum, and community arts education programs. Topics will include curriculum development, personnel supervision, finance, and the quantitative and qualitative evaluation of arts programs. Prerequisite: TL 703 or equivalent. LEC.

VAE 929. Research in Art Education. 3 Hours.
An examination of research methodology in visual arts education. Emphasis will be on philosophical, historical, qualitative, and quantitative research development. Prerequisite: PRE 715 or equivalent. LEC.

VAE 949. Artistic Learning and Development. 3 Hours.
Research from psychology, sociology, and anthropology will be examined for its implications for the artistic development of the child. Topics include cross-cultural and age comparisons of children's graphic symbol development, aesthetic judgments, and perceptual skills. Prerequisite: PRE 702 and PRE 704 or equivalents. LEC.

VAE 995. Field Experience in: ____. 1-5 Hours.
Supervised and directed experiences in selected educational settings. The advisor will schedule regular observations of the field experience and conferences with the student. Written summaries and evaluations of the field experiences will be prepared independently by the student, a representative of the cooperating agency, and the advisor. Open only to advanced students. Field experience credit in any one semester may not exceed five hours, and total credit may not exceed eight hours. LEC.

VAE 996. College Teaching Experience in: ____. 2 Hours.
To meet the college teaching experience requirement for doctoral programs, a student shall engage in a semester long, planned, instructional activity that shall include college classroom teaching under supervision. Planning shall be done with the advisor and/or member of the faculty who will supervise the experience. The activity shall be done under the supervision of a member of the University of Kansas faculty or by an individual or individuals designated by the candidate's committee. RSH.

VAE 997. Individual Study. 1-4 Hours.
Prerequisite: Prior graduate course work in the area of study and consent of instructor. RSH.

VAE 998. Seminar in: ____. 1-4 Hours.
LEC.

VAE 999. Doctoral Dissertation. 1-15 Hours.
THE.

Bachelor of Fine Arts in Visual Art

First-Year Preparation: Foundations

A minimum of 12 hours in foundations courses is required before a student may enroll in further studio classes for a B.F.A., B.A., or B.A.E. degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ART 101</td>
<td>Drawing I</td>
<td>3</td>
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<tr>
<td>ART 102</td>
<td>Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART 103</td>
<td>Art Concepts and Practice</td>
<td>3</td>
</tr>
<tr>
<td>ART 104</td>
<td>Art Principles and Practice</td>
<td>3</td>
</tr>
</tbody>
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Additional specified prerequisites must be completed before enrollment in advanced visual art studio courses.
The foundations enrollment should be followed for 2 semesters (15 hours each semester):

**Foundations (12)**
- ART 101 Drawing I 3
- ART 102 Drawing II 3
- ART 103 Art Concepts and Practice 3
- ART 104 Art Principles and Practice 3

**English (6)**
- ENGL 101 Composition 3
- ENGL 102 Critical Reading and Writing 3

**History of Art (6)**
- HA 150 Western Art History I: Ancient Through Medieval Art 3
- HA 151 Western Art History II: Renaissance to Contemporary Art 3

### Bachelor of Fine Arts in Visual Art Degree Requirements

The Department of Visual Art offers the B.F.A. in visual art, including the areas of ceramics, drawing, expanded media, metalsmithing/jewelry, painting, printmaking, sculpture, and textiles/fibers. A total of 120 hours is required for the degree, including 45 junior/senior hours (courses numbered 300 or higher). 30 of these 45 junior/senior hours must be taken in residence at the University of Kansas. In addition to the 12-hour foundations requirement, a minimum of 48 hours in departmental courses is required, including 2 semesters of directed study.

The Department of Visual Art reserves the right to retain examples of student work and to use images of student work on internet websites and for university publication purposes.

### B.F.A. Major Requirements

#### General Option

**General Education Requirements**
- Completion of KU Core Requirements (see KU Core)
- BFA-specific requirements
- Writing Requirement - ENGL 101 and ENGL 102, or placement in and completion of ENGL 102/105 and an additional Goal 2, Outcome 1 course.

**Foundations Studies (12)**
- ART 101 Drawing I 3
- ART 102 Drawing II 3
- ART 103 Art Concepts and Practice 3
- ART 104 Art Principles and Practice 3

**History of Art (9)**
- HA 150 Western Art History I: Ancient Through Medieval Art (fall only) 3
- HA 151 Western Art History II: Renaissance to Contemporary Art (spring only) 3

**Non-Western History of Art**
- HA 300+ level elective (6)

BFA General students must choose one of the following courses covering art history from 1900-1945:
- or HA 380 History of Photography 3
- or HA 580 History of Photography
- or HA 564 European Art, 1900-1945
- or HA 571 Modern Sculpture
- or HA 583 American Art 1900-1945: Rise of Modernism
- or HA 588 Modern and Contemporary Visual Arts of Japan

**School of the Arts Elective (3)**

Satisfied by one course from the Dance (DANC), Film & Media Studies (FMS), Theatre (THR), or Visual Art (ART, CER, EXM, METL, PNTG, PRNT, SCUL, TD, VAE) department.

**Electives**

- Additional credit hours of general electives are needed to meet the minimum total hours required for graduation.

### Major Requirements - General Option

The general option requires 49 major hours, including a minimum of 15 junior/senior hours in the major, a minimum of 15 major hours in residence, and a minimum 2.0 KU junior/senior grade-point average in the major.

**Visual Art Core Courses (18)**

Select one course in 5 of the following areas: 15

- **Ceramics**
  - ART 131 Fundamentals of Ceramics (or any 200-level CER course)

- **Expanded Media**
  - ART 123 Fundamentals of Expanded Media (or any 200-level EXM course)

- **Metalsmithing/Jewelry**
  - ART 132 Fundamentals of Metalsmithing/Jewelry (or any 200-level METL course)

- **Painting**
  - ART 120 Fundamentals of Painting and Drawing (or any 200-level PNTG course)

- **Printmaking**
  - ART 121 Fundamentals of Printmaking (or any 200-level PRNT course)

- **Sculpture**
  - ART 122 Fundamentals of Sculpture (or any 200-level SCUL course)

- **Textiles/Fibers**
  - ART 130 Fundamentals of Fiber Forms
ART 133  Fundamentals of Fibers
Or any 200-level TD course

Visual Art Studies (15)
Select one of the following:
DRWG 203  Drawing III
DRWG 213  Life Drawing I
DRWG 300  Special Topics in Drawing: _____

Electives: Satisfied by 12 hours selected from the Visual Art Department (ART, CER, EXM, METL, PNTG, PRNT, SCUL, TD, VAE)

Studio Electives (21)
Select 21 hours

Additional Required Visual Art and Design Electives (6)
(6 hours, not counted toward major)
PHMD elective 3
SCUL 253  Sculpture I 3
or SCUL 349  Metal and Glass Casting

Metalsmithing/Jewelry Option

General Education Requirements
Completion of KU Core Requirements (see KU Core)
BFA-specific requirements
Writing Requirement – ENGL 101 and 102, or placement in and completion of ENGL 102/105 and an additional Goal 2 Outcome 1 course.

Foundation Studies (12)
ART 101  Drawing I 3
ART 102  Drawing II 3
ART 103  Art Concepts and Practice 3
ART 104  Art Principles and Practice 3

History of Art (15)
HA 150  Western Art History I: Ancient Through Medieval Art 3
(fall only- HA 150 must be taken before HA 151)
HA 151  Western Art History II: Renaissance to Contemporary Art 3
(spring only)
Non-Western history of art 3
HA Electives 6

School of the Arts Elective (3)
Satisfied by 1 course (3 hours) from the Dance (DANC), Film & Media Studies (FMS), Theatre (THR), or Visual Art (ART, CER, EXM, METL, PNTG, PRNT, SCUL, TD, VAE) department.
Electives Additional credit hours of general electives are needed to meet the minimum total hours required for graduation.

Major Requirements - Metallurgy Option

The metallurgy option requires 48 major hours, including a minimum of 24 junior/senior hours in the major, a minimum of 15 major hours in residence, and a minimum 2.0 KU junior/senior grade-point average in the major.

Metallurgy (39)
ART 132  Fundamentals of Metallurgy 3
or METL 211  Metallurgy
The University of Kansas

METL 301  Introduction to Casting for Jewelry (ART 132 then METL 301 must be completed before taking further METL classes)  3
METL 302  Professional Practices  3
METL 360  Holloware  3
METL 362  Metalsmithing  6
METL 364  Enameling  6
METL 501  Seminar  3
METL 515  Advanced Metals I  6
METL 520  Advanced Metals II  6

Studio Electives (9)
Satisfied by completing 9 hours of coursework with subject code (ART, CER, EXM, METL, PNTG, PRNT, SCUL, TD, VAE, PHMD, INTD, ILLU, INDD, BDS, VISC, ADS)  9

Textiles/Fibers Option

General Education Requirements
Completion of KU Core (see KU Core)
BFA-specific requirements
Writing Requirement – ENGL 101 and 102, or placement in and completion of ENGL 102/105 and an additional Goal 2 Outcome 1 course.  6

Foundations Studies (12)
ART 101  Drawing I  3
ART 102  Drawing II  3
ART 103  Art Concepts and Practice  3
ART 104  Art Principles and Practice  3

Additional Foundation Requirements (9 hours, not counted toward major) (9)
ART 130  Fundamentals of Fiber Forms  3
or ART 133  Fundamentals of Fibers
TD 314  Introduction to Weaving  3
TD 315  Textile Handprinting and Resist Processes  3

History of Art (12)
HA 150  Western Art History I: Ancient Through Medieval Art  3
(fall only - HA 150 must be taken before HA 151)
HA 151  Western Art History II: Renaissance to Contemporary Art  3
Non-Western history of art  3
HA Elective  3

School of the Arts Elective (DANC, FMS, THR course) (3)  3

Major Requirements - Textiles/Fibers Option

The textiles/fibers option requires 48 major hours, including a minimum of 30 junior/senior hours in the major, a minimum of 15 major hours in residence, and a minimum 2.0 KU junior/senior grade-point average in the major.

Intermediate Textiles/Fibers Courses (12)
TD 313  Fiber Forms (required)  3
TD 316  Screenprinting Textiles (required)  3
TD 401  Weave Structures  3

or TD 402  Techniques in Weaving  3
or TD 403  Intermediate Textile Printing  3
or TD 404  Surface Design  3
or TD 414  Experimental Concepts in Weaving  3

Advanced Textiles/Fibers Courses (18)
TD 504  History of Textiles, Lecture  3
TD 515  Advanced Textiles/Fibers I (Students may sub 3 hours of TD 515 for one of the Textile concentrations listed below)  3
or TD 503  Advanced Surface Design/Screenprinting  3
or TD 506  Advanced Fiber Forms  3
or TD 514  Advanced Techniques in Weaving  3
TD 520  Advanced Textiles/Fibers II (Students may sub 3 hours of TD 520 for one of the Textile concentrations listed below)  3
or TD 503  Advanced Surface Design/Screenprinting  3
or TD 506  Advanced Fiber Forms  3
or TD 514  Advanced Techniques in Weaving  3

Studio Electives (18)
(any Visual Art, Design, or applicable studio courses)  18

Bachelor of Fine Arts in History of Art

First-Year Preparation

A minimum of 12 hours in foundations courses is required before a student may enroll in further studio classes for a B.F.A., B.A., or B.A.E. degree:

ART 101  Drawing I  3
ART 102  Drawing II  3
ART 103  Art Concepts and Practice  3
ART 104  Art Principles and Practice  3
ENGL 101  Composition  3

Additional specified prerequisites must be completed before enrollment in advanced visual art studio courses.

The foundations enrollment should be followed for 2 semesters (15 hours each semester):

Foundations (12)
ART 101  Drawing I  3
ART 102  Drawing II  3
ART 103  Art Concepts and Practice  3
ART 104  Art Principles and Practice  3

Advanced (6)
ENGL 101  Composition  3
Bachelor of Fine Arts in History of Art

Degree Requirements

A major in the history of art is available to candidates for the B.F.A. degree. This major combines a 30-hour concentration in art history with 18 hours of studio training (beyond the 12 hours of foundation courses). A total of 120 hours is required for the degree, including 45 junior/senior hours (courses numbered 300 or higher). 30 of these 45 junior/senior hours must be taken in residence at the University of Kansas. The B.A. and B.G.S. degrees (p. 152) are offered by the College of Liberal Arts and Sciences.

Requirements for the B.F.A. Degree

Major Program Courses (48)

History of art:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA 150</td>
<td>Western Art History I: Ancient Through Medieval Art</td>
<td>3</td>
</tr>
<tr>
<td>HA 151</td>
<td>Western Art History II: Renaissance to Contemporary Art</td>
<td>3</td>
</tr>
</tbody>
</table>

Select at least one course at or above the 200 level in each of the following five categories: 15

1. Ancient or medieval art;
2. Renaissance or baroque art;
3. Modern art, which includes 19th- and 20th-century art, American art, and history of photography. HA 261 does not fulfill requirement;
4. East Asian;
5. Non-Western (East Asian or African).

History of art electives 9

Electives in art and design: Satisfied by completing 18 hours of coursework with subject code (ART, CER, EXM, METL, PNTG, PRNT, SCUL, TD, VAE, PHMD, INTD, ILLU, INDD, BDS, VISC, ADS) 18

General Education Courses (0)

Completion of KU Core Requirements. (see KU Core section of the catalog)

Liberal Arts and Sciences/Foundational Studies Courses (43) 43

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 102</td>
<td>Drawing II</td>
<td>3</td>
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<td>3</td>
</tr>
<tr>
<td>ART 104</td>
<td>Art Principles and Practice</td>
<td>3</td>
</tr>
</tbody>
</table>

Writing Requirement – ENGL 101 and 102, or placement in and completion of ENGL 102/105 and an additional Goal 2 Outcome 1 course.

Bachelor of Arts in Visual Art

First-Year Preparation: Foundations

Students must submit a portfolio to be accepted as a visual art major and to enroll in foundations courses. A minimum of 12 hours in foundations courses is required before a student may enroll in further studio classes for a B.F.A., B.A., or B.A.E. degree:

<table>
<thead>
<tr>
<th>Course</th>
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<th>Hours</th>
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<td>3</td>
</tr>
<tr>
<td>ART 104</td>
<td>Art Principles and Practice</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional specified prerequisites must be completed before enrollment in advanced visual art studio courses.

The foundations enrollment should be followed for 2 semesters (15 hours each semester):

Foundations (12)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
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</tr>
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<td>ART 104</td>
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<td>3</td>
</tr>
</tbody>
</table>

English (6)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

History of art (6)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA 150</td>
<td>Western Art History I: Ancient Through Medieval Art</td>
<td>3</td>
</tr>
<tr>
<td>HA 151</td>
<td>Western Art History II: Renaissance to Contemporary Art</td>
<td>3</td>
</tr>
</tbody>
</table>

Mathematics (6)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 101</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Second MATH course</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Bachelor of Arts in Visual Art

A Bachelor of Arts degree is offered in visual art. A total of 120 hours is required for the degree, including 45 junior/senior hours (courses numbered 300 or higher). 30 of these 45 junior/senior hours must be taken in residence at the University of Kansas.

Liberal Arts and Sciences Requirements

Completion of KU Core Requirements

Completion of College BA degree specific requirements (see College BA requirements)

Foundations (12)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
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<td>3</td>
</tr>
<tr>
<td>ART 103</td>
<td>Art Concepts and Practice</td>
<td>3</td>
</tr>
</tbody>
</table>
Visual Art Major (36)

Visual Art Major Studies

(Including a minimum of 15 junior/senior hours in the major, a minimum of 15 major hours in residence, and a minimum 2.0 KU junior/senior grade-point average in the major)

Visual Art Concentration: (24 hours)

Any Visual Art (ART, CER, EXM, METL, PNTG, PRNT, SCUL, TD, VAE) and Photomedia (PHMD) classes.

History of Art: (12 hours)

HA 150 Western Art History I: Ancient Through Medieval Art (fall only)

HA 151 Western Art History II: Renaissance to Contemporary Art (spring only)

Advising

Beginning with the first year, all students intending to become visual art education majors should be advised by faculty in the Department of Visual Art. Consult the department for assignment to an advisor.

Undergraduate Admission

Students who wish to teach art should seek admission to the School of the Arts by submitting a portfolio. Applicants should also consult the Department of Visual Art for assignment of an advisor and requirement information. In the first 2 years, students enroll as art education majors in prerequisites. These prerequisites are necessary for admission to the VAE professional sequence in the junior year:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 101</td>
<td>College Algebra (or higher)</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 104</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>HSES 260</td>
<td>Personal and Community Health</td>
<td>3</td>
</tr>
<tr>
<td>COMS 130</td>
<td>Speaker-Audience Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>HA 150</td>
<td>Western Art History I: Ancient Through Medieval Art</td>
<td>3</td>
</tr>
<tr>
<td>HA 151</td>
<td>Western Art History II: Renaissance to Contemporary Art</td>
<td>3</td>
</tr>
</tbody>
</table>

Students must apply for admission to the professional sequence upon completing the first semester of the sophomore year. Transfer students with more than 45 hours must apply the first semester at KU. Students may not enroll in the professional sequence before formal approval by VAE. Admission to the professional sequence is based on the following minimum criteria:

1. Cumulative grade-point average of 2.5.
2. Grade-point average of 2.75 in required course work.
3. Minimum scores on the Pre-Professional Skills Test of 172 on the writing test, 173 on the reading test, and 172 on the mathematics test.
4. Successful completion of the application form (typed).
5. Satisfactory faculty evaluations in the areas relevant to visual art education including art and history of art. Each applicant’s applied instructor must complete a special recommendation form.
6. No grade lower than a C in any course in the professional education sequence.
Recommendation for Student Teaching and Internship

The capstone experience of student teaching and internship in art education requires a strong knowledge base particularly in certain content areas. Academic performance in content areas is a predictor of success in this capstone experience. Therefore, it is strongly recommended that students have a minimum grade of B- in all visual art education classes and an academic record with a grade-point average of at least 3.0 in the following areas: visual art education, the history of art, studio art, and education.

Note: Students must complete the student teaching experience with grades of C or higher to continue with their internships.

Note: To be licensed as an art teacher in Kansas, a student must fulfill an application, pay a fee, pass all 3 parts of the Pre-Professional Skills Test and the Professional Knowledge component of the National Teachers’ Examination, and complete other specified academic degree requirements. Information is available in 211 J.R. Pearson Hall.

Students who do not meet all criteria may be admitted to the professional sequence on a provisional basis and may enroll in a maximum of 5 credit hours of professional sequence courses during the first term of the junior year. Students assigned provisional status must complete all requirements by the end of that term. Candidates are reviewed for admission twice a year. The deadline for all applications is March 1 for fall or October 1 for spring, by 5 p.m. Submit applications to visual art education, 300 Art and Design Building. Students who are denied admission may reapply for the next deadline but must resubmit a complete application. Students who transfer into the program with more than 45 credit hours may be admitted to the professional sequence on a provisional basis but must complete this application by the first deadline that occurs during their residence at KU. They also must register for classes that fulfill any deficiencies they might have on arrival at KU.

On admission to the professional sequence, students enroll as visual art education majors (code AEPS-BAE) and identify their emphases in studio art. The emphasis must be one in which KU offers the B.F.A. Students must select appropriate courses in the emphasis in consultation with the visual art education advisor. To enter the final year of the extended program, the student must be admitted to Graduate Studies (http://www.graduate.ku.edu). Regular admission requires a cumulative grade-point average of 3.0 or higher in the baccalaureate degree curriculum. Students with cumulative undergraduate grade-point averages of 2.75 may be admitted on probation.

Requirements for the B.A.E. Degree

The Bachelor of Art Education degree requires a minimum of 125 credit hours distributed among general studies, the major, and professional education. 45 of the 125 undergraduate credit hours must be taken at the junior/senior level (courses numbered 300 or higher). 30 of the 45 junior/senior hours must be taken in residence at the University of Kansas. At least 15 major hours must be taken in residence at the University of Kansas. The program requires either VAE 500 (Student Teaching), which leads to PreK-12 licensure, or VAE 599 (Community Based Project in Art Education), which completes the degree without licensure eligibility.

General Studies in Liberal Arts and Sciences (28-29)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

(Fulfills KU Core Goal 2, LO 1, 1st unit) (3)
Written Communication (KU Core Goal 2, LO 1, 2nd unit) (3) 3
COMS 130 Speaker-Audience Communication 3
(Fulfills KU Core Goal 2, LO 2)
PSYC 104 General Psychology 3
(Fulfills KU Core Goal 3, Social/Behavioral Science)
Natural science with lab (KU Core Goal 3, Natural Science) (4-5) 4-5
MATH 101 College Algebra 3
(Fulfills KU Core Goal 1, LO 2)
MATH 105 Introduction to Topics in Mathematics 3
ABSC 150 Community Leadership 3

Teacher Education (40)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PRE 306</td>
<td>Development and Learning of the Adolescent</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;T 235</td>
<td>Multicultural Education</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;T 359</td>
<td>Basic Processes of Reading</td>
<td>1</td>
</tr>
<tr>
<td>ELPS 250</td>
<td>Education and Society</td>
<td>3</td>
</tr>
<tr>
<td>SPED 326</td>
<td>Teaching Exceptional Children and Youth in General Education</td>
<td>3</td>
</tr>
<tr>
<td>ELPS 537</td>
<td>The Governance and Organization of Schools</td>
<td>3</td>
</tr>
<tr>
<td>VAE 320</td>
<td>Instruction and Curriculum I</td>
<td>3</td>
</tr>
<tr>
<td>VAE 395</td>
<td>Community Collaborations in Art Education</td>
<td>3</td>
</tr>
<tr>
<td>VAE 410</td>
<td>Instruction and Curriculum II</td>
<td>3</td>
</tr>
<tr>
<td>VAE 420</td>
<td>Artistic Media and Processes in Art Education</td>
<td>3</td>
</tr>
<tr>
<td>VAE 500</td>
<td>Student Teaching</td>
<td>9</td>
</tr>
<tr>
<td>VAE 520</td>
<td>Instructional Technology in Art Education</td>
<td>3</td>
</tr>
</tbody>
</table>

Visual Art (33)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 102</td>
<td>Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART 103</td>
<td>Art Concepts and Practice</td>
<td>3</td>
</tr>
<tr>
<td>ART 104</td>
<td>Art Principles and Practice</td>
<td>3</td>
</tr>
</tbody>
</table>

(When completing the area requirements below, with the exception of PNTG 263, which is a specific course requirement, any courses with the following prefixes may be taken: CER, METL, SCUL, EXM, TD, and for courses in photography, PHMD or ART may apply.)

Ceramics 3
Metalsmithing/Jewelry 3
PNTG 263 Painting I 3
Expanded Media 3
Photography 3
Sculpture 3
Textiles 3

History of Art (12)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA 150</td>
<td>Western Art History I: Ancient Through Medieval Art</td>
<td>3</td>
</tr>
</tbody>
</table>

(Fulfills KU Core Goal 3, Arts/Humanities)

<table>
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</thead>
<tbody>
<tr>
<td>HA 151</td>
<td>Western Art History II: Renaissance to Contemporary Art</td>
<td>3</td>
</tr>
</tbody>
</table>

Non-Western history of art chosen from: HA 266, HA 267, HA 268, or HA 269 (Fulfills KU Core Goal 4, LO 2)
Contemporary art history at the junior/senior level, chosen from: HA 565, HA 566, HA 567, HA 571

Area of Emphasis (9)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
</table>

Critical thinking and quantitative literacy (KU Core Goal 1, LO 1) (3) 3

(Fulfills KU Core Goal 2, LO 1, 1st unit) (3)
Studio art study in 1 area selected from those offered for the B.F.A. in visual art, design, or history of art (9) Must be taken at the 300 level or above. (The selected area may be chosen using courses with one of the following prefixes: DRWG, PNTG, PRNT, SCUL, EXM, EXM, METL, TD, CER, ART, HA, PHMD, ADS, ILLU, INDD, VISC. The following combinations of areas are also acceptable: DRWG and PNTG; ILLU and VISC; ART with any of the following: DRWG, PNTG, PRNT, SCUL, EXM, CER, TD, METL, PHMD. For questions, please consult with visual art education advisor.)

Additional Non-Licensure Option Elective (3)

Students completing the B.A.E. Degree without licensure must also take an additional elective at the junior/senior level (3) in any area in order to meet the University’s minimum junior/senior hour requirement for degree completion.

Master of Fine Arts in Visual Art

The Department of Visual Art has been authorized by the University and the Kansas Board of Regents to offer the Master of Fine Arts (M.F.A.) in Visual Art. The Department of Visual Art offers graduate programs leading to the Master of Fine Arts degree in studio art. Concentrations include ceramics, drawing and painting, expanded media, metalsmithing and jewelry, printmaking, sculpture, and textiles and fibers. The MFA degree in the Department of Visual Art is a terminal professional studio degree. The program’s goals are to develop each student’s critical thinking and studio skills so that they have the necessary tools and experience to pursue a career as a studio artist and to otherwise participate in the creative community both on a regional and national level.

Introduction

The University of Kansas is a member of the National Association of Schools of Art and Design (http://nasadarts-accredit.org). The entrance and graduation requirements in this catalog conform to the published guidelines of those organizations.

Graduate Admission - M.F.A.

To be admitted, students must have undergraduate backgrounds judged by the graduate faculty to be appropriate preparation for the specific specialization selected for graduate study. A strong preference exists for applicants whose undergraduate backgrounds are in visual art.

Departmental faculty selection and review committees evaluate each applicant’s transcripts, portfolios, and letters of recommendation to determine their qualifications for admission. The committees expect applicants to have the B.F.A. degree or equivalent experience. In general, committees expect applicants to present about 70 hours of undergraduate credit in studio or related professional courses including about 36 hours of studio credit in a major area, to have maintained an undergraduate overall grade-point average of 3.0 on a 4.0 scale in the proposed major, and to have had a minimum of 9 hours of credit in art history. The department encourages full-time residence.

Application to the program is competitive, by permission of the Kansas Board of Regents application for admission to graduate programs in Visual Art may be refused if available instructional space does not allow for addition of more students. The deadline for fall admission is January 15.

Submit your graduate application (http://www.graduate.ku.edu) and fee online, print it, and send it along with

• 1 official transcript of all college and university coursework,
• statement of purpose,
• 3 letters of recommendation,
• digital portfolio,
• printed image index,
• application form for financial aid,
• statement of financial resources (international students) and
• proof of proficiency in English (international students)

in 1 envelope to the department:

The University of Kansas
Department of Visual Art
Director of Graduate Studies
Art and Design Bldg.
1467 Jayhawk Blvd., Room 300
Lawrence, KS 66045-7531

M.F.A. in Visual Art Degree Requirements

Concentrations in Ceramics, Drawing and Painting, Expanded Media, Fibers, Metalsmithing and Jewelry, Printmaking, and Sculpture

The graduate program consists of 60 semester hours of graduate credit, including thesis exhibition, in courses approved by the graduate director and the graduate thesis committee. A student may concentrate in one or more specializations. When the student has completed 2 semesters, the faculty selection and review committee reviews the student’s work. The graduate director gives the student a written assessment of progress, signed by the committee. At the end of the third semester, the same committee conducts a thesis review that determines whether the student is prepared to begin thesis work, needs additional coursework, or is to be dropped from the program.

Upon approval by the review committee, the candidate begins work toward the thesis. Students not receiving approval may continue to work toward the next review unless denied by the committee. A student who is approved for thesis work may enroll in Thesis in Art. Before thesis enrollment, the student selects a graduate thesis committee consisting of 3 members of the graduate art faculty. The committee advises the student, conducts regularly scheduled reviews of the work, and determines whether the requirements for the thesis have been completed. The graduate director must approve the membership of the graduate thesis committee.

The final departmental requirements are

• A thesis exhibition of the student’s work,
• An oral examination, and
• A thesis folio of the exhibition.

The thesis folio includes a statement written by the candidate concerning the work and a visual record of the exhibition. The department reserves the option of selecting and retaining one example of each graduate
student’s work. Upon enrolling, the student automatically accepts these requirements and conditions.

Required Courses (60)

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<th>Course</th>
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<td>Concentration</td>
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Master of Arts in Visual Art Education

Introduction

The University of Kansas is a member of the National Association of Schools of Art and Design (http://nasad.accredit.org). The entrance and graduation requirements in this catalog conform to the published guidelines of those organizations.

The Department of Visual Art has been authorized by the University and the Kansas Board of Regents to offer the Master of Arts (M.A.) in Visual Art Education. The Visual Art Education graduate program strives to advance students’ understanding of art education with a complement of courses that explores historical studies of art education, art criticism, studio work, and aesthetics. An important goal of the curriculum is the development of a broad perspective of art education through multicultural studies, cognitive approaches in teaching and learning, assessment in teaching, and technological issues that arise in contemporary society. Students’ programs are tailored to their interests for specialties in areas such as studio, art history, evaluation, and others.

Graduate Admission - M.A. Visual Art Education

Application deadlines:

- December 1 - Spring admission
- May 1 - Fall admission

Admission requirements for regular status:

1. Entrance into the M.A. degree program requires a bachelor’s degree, from an accredited institution, which encompasses a minimum of 40 semester hours in fine arts studio (courses in drawing, painting, sculpture, design, printmaking, ceramics, metalsmithing/jewelry, weaving, lettering, commercial art, graphic design, constructive design, etc.), 9 hours in history of art, and 8 hours in visual art education. Applicants must have an overall undergraduate grade-point average of at least 3.0 on a 4-point scale.

2. 1 official transcript.

3. A minimum of 3 letters of recommendation from former or current instructors and/or those able to recommend the applicant on the basis of professional experience (e.g., principals, supervisors, or former employers). The letters of recommendation must address the applicant’s potential to take initiative as a graduate student and ability to be a self-starter.


Submit your graduate application (http://www.graduate.ku.edu) and fee online, then print a copy and send it along with

- 1 official transcript of all college and university coursework,
- Graduate Student Information Questionnaire,
- 3 letters of recommendation,
- Graduate Licensure applicants only, Praxis I test scores
- statement of financial resources (international students) and
- proof of proficiency in English (international students)

in one envelope to the department:

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M.A. in Visual Art Education

The graduate program includes advanced professional and scholarly study for art educators and teaching licensure for those with baccalaureate degrees in other fields who wish to enter art education licensure typically also requires collateral undergraduate study) and advanced study for individuals in related disciplines. Details may be found in the Visual Art Education M.A. handbook, available from the Department of Visual Art (http://art.ku.edu).

M.A. Degree Requirements

At least 15 and no more than 18 hours in visual art education are required. The remainder of the coursework can be in related fields such as history of art, education, psychology, etc. This emphasis is appropriate for the student desiring to improve his or her fine arts knowledge and research skills in art education.

Thesis Option

The student completes 9 credit hours of core courses (VAE 800, VAE 869, and VAE 875), additional elective hours, and an independent experimental, descriptive, historical, or philosophical investigation of a topic related to visual art education. A total of 30 credit hours is required.

Project Option

The student completes 9 credit hours of core courses (VAE 800, VAE 869, and VAE 875), and additional elective hours. A substantial application of theory, principles, and/or products of visual art education in a pedagogical setting must be documented. A total of 30 credit hours is required.

Examination Option

Students take a total of 37 credit hours in required core courses (including VAE 875 Research in Art Education) and elective courses with 36 credit hours in regularly scheduled classes. Students also take a 1-credit-hour course, VAE 890 Preparation for the M.A. Examination, devoted to preparing for a written final examination. Preparation for the examination occurs during the first half of the semester and provides the basis for...
the course grade. The written examination, taken during the second half of the semester, requires students to demonstrate their knowledge of current issues in the field. If the written exam is deemed unsatisfactory by a majority of the student’s committee, the student will be required to retake the exam. The exact content and format of the second examination will be determined by the student’s committee members.

Graduate Licensure in Art Education
Students who seek to be art teachers in public schools (PreK-12) may obtain licensure as part of the M.A. degree. The licensure track is for individuals with especially strong academic and artistic backgrounds who have completed baccalaureate degrees in studio art, design, art history, or other art-related fields. Coursework is taken at the undergraduate and graduate levels. Upon completion, individuals are recommended by the university for PreK-12 art licensure in Kansas and have earned a significant amount of credit required for the M.A. in Visual Art Education. Prospective students must meet all application requirements for the master’s degree to be considered for licensure in art. For further information, contact the Department of Visual Art (http://art.ku.edu) at 785-864-4401.

Department of Women, Gender and Sexuality Studies
Why study women, gender and sexuality studies?
Because much of what people think they know about women, gender, and sex is myth.

Undergraduate Programs
Women, gender, and sexuality studies offers an interdisciplinary program of courses with primary or significant emphasis on women. Courses are offered by the department or are cross-referenced with the department.

Graduate Programs
The Department of Women, Gender and Sexuality Studies supports interdisciplinary research on topics pertaining to women, gender, and sexuality and administers an interdisciplinary program leading to a graduate certificate and a Ph.D. degree. Additional cross-referenced courses are available to complete requirements for the graduate certificate and doctoral degree. Students may pursue the graduate certificate in addition to a KU graduate degree or as a standalone certificate and doctoral degree. Students may pursue the graduate certificate and a Ph.D. degree. Additional cross-referenced courses are available to complete requirements for the graduate certificate and doctoral degree. Students may pursue the graduate certificate in addition to a KU graduate degree or as a standalone program.

Courses
WGSS 101. Introduction to Women, Gender, and Sexuality Studies. 3 Hours. SC AE41/GE3S / S.
This course examines the extensive role of gender in human life and examines the ways that gender structures power relations among individuals and within economic, political, educational and other social structures, with special attention paid to women’s issues and movements in the United States and globally. Through readings drawn from the fields of women’s studies, gender studies, and sexuality studies, this course examines and explores alternatives to traditional and/or normative constructions of gender and sexuality, and also considers other markers of difference, such as disability, race, class, and religion, which intersect with gender identity and sexual identity. LEC.

WGSS 102. Introduction to Women, Gender, and Sexuality Studies, Honors. 3 Hours. SC AE41/GE3S / S.
This course examines the extensive role of gender in human life and examines the ways that gender structures power relations among individuals and within economic, political, educational and other social structures, with special attention paid to women’s issues and movements in the United States and globally. Through readings drawn from the fields of women’s studies, gender studies, and sexuality studies, this course examines and explores alternatives to traditional and/or normative constructions of gender and sexuality, and also considers other markers of difference, such as disability, race, class, and religion, which intersect with gender identity and sexual identity. Similar in content to WGSS 201. Open only to students in the University Honors Program or by consent of the instructor. LEC.

WGSS 177. First Year Seminar: ____. 3 Hours. GE11 / U.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in Women, Gender and Sexuality Studies. Course is designed to meet the critical thinking learning outcome of the KU Core. First-Year Seminar topics are coordinated and approved by the Office of First-Year Experience. Prerequisite: First-time freshman status. LEC.

WGSS 196. Study Abroad Topics in: ____. 1-6 Hours. S.
This course is designed for the study of special topics in Women’s Studies. Coursework must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

WGSS 317. African American Women: Colonial Era to the Present. 3 Hours. H.
This interdisciplinary course covers the history of African American women, beginning in West and Central Africa, extending across the Middle Passage into the Americas, and stretching through enslavement and freedom into the 21st century. The readings cover their experiences through secondary and tertiary source materials, as well as autobiographies and letters, plays and music, and poems, novels, and speeches. (Same as AAAS 317, AMS 317, and HIST 317.) LEC.

WGSS 320. From Goddesses to Witches: Women in Premodern Europe. 3 Hours. HT GE11/GE3H / H.
This course examines the social, cultural, and political contexts of women’s spirituality and their relations to gender relations in Europe from about 30,000 B.C.E. to the 16th century Protestant Reformation. Lectures move both chronologically and topically, covering such subjects as goddess-worshipping cultures, women’s roles in Christian and Jewish societies, symbols of women, and male attitudes toward women. Students will be able to participate in weekly discussions of primary and secondary source readings about women. (Same as HIST 320.) LEC.

WGSS 321. From Mystics to Feminists: Women’s History in Europe 1600 to the Present. 3 Hours. HT AE42/GE11/GE3H / H.
This survey of women’s history in Europe looks at changing patterns of women’s economic roles and family structures in preindustrial and industrial society, the importance of women in religious life, cultural assumptions underlying gender roles, and the relationship of women to political movements, including the rise of feminism. (Same as HIST 321.) LEC.

WGSS 324. History of Women and the Body. 3 Hours. H.
This course examines different notions about women and their bodies from a historical perspective. It discusses the arguments and circumstances that have shaped women’s lives in relation to their bodies, and women’s responses to those arguments and circumstances. This course covers a wide geographical and chronological spectrum, from
Ancient societies to the present, from Latin America and the Middle East, to North America and Western Europe. (Same as HIST 324.) LEC.

WGSS 327. Perspectives in Lesbian, Gay, Bisexual, and Transgender Studies. 3 Hours. AE41 / S.
An exploration of the experiences and histories of people who identify as lesbian, gay, bisexual, and/or transgender (LGBT); of the influences on these experiences by individuals, the state, and artistic, legal and medical discourses; and of the intersections between sexual orientation, sexuality, ethnicity, class, and religion. LEC.

WGSS 330. Women in Contemporary African Literature. 3 Hours. NW AE42/GE3H / H.
A critical study of issues and questions raised about women in contemporary African literature and implications for the larger society through the analysis of theme, language, characterization, roles and functions of women in selected works. (Same as AAAS 340.) LEC.

WGSS 333. The Politics of Physical Appearance. 3 Hours. AE41 / S.
An interdisciplinary analysis of standards of physical attractiveness and cultural conceptions of women’s bodies. Includes analysis of how these standards change across time and cultural groups, and of the impact of these standards on women as individuals and on social and political outcomes. LEC.

WGSS 345. Popular Culture in Africa: Spiritual Thrills, Romance and Sexualities. 3 Hours. H.
This course examines how the different constituents of popular culture mobilize, construct and structure gender, and spiritual and sexual identities in select contemporary African countries. Discussions also focus on how popular culture mediates the contesting spaces of indigenous local constructs and the push and pull of global forces to create geographic and contemporary specificities. (Same as AAAS 345.) LEC.

WGSS 351. Women and Leadership: The Legislative Process. 3 Hours. S.
Examines current and historical roles and impacts of women involved in legislatures. Explores what difference women make when they are public officials. Students meet with local women legislators, lobbyists and political officials. Students learn how to analyze issues, access power, lobby, and organize at the grassroots. The course is designed to prepare students for an optional legislative internship during the subsequent semester. LEC.

WGSS 363. Gendered Modernity in East Asia. 3 Hours. S.
This course explores rapidly changing gender relationships and the sense of being “modern” in East Asia by examining marriage and family systems, work, education, consumer culture, and geopolitics. The class seeks to understand how uneven state control over men and women shapes desires, practices, and norms and how men and women act upon such forces. Avoiding biological or social determinism, this course treats gender as an analytical category and examines how modern nation-states and global geopolitics are constituted and operated. (Same as ANTH 363 and EALC 363.) LEC.

WGSS 381. Feminism and Philosophy. 3 Hours. AE41/GE3H / H.
An examination of topics of philosophical interest that are important in the feminist movement such as the nature of sexism, the concept of sexual equality, the ethics of sexual behavior, the nature of love, feminist analyses of the value of marriage and family, the ethics of abortion and justifications for preferential treatment of women. (Same as PHIL 381.) LEC.

WGSS 389. The Anthropology of Gender: Female, Male, and Beyond. 3 Hours. NW AE42/GE21/GE3H/GE3S / S.
This course will introduce students to cultural constructions and performances of masculinity, femininity, and alternative genders across time and space. Topics and cases will be drawn from primarily non-Western cultures, ranging from Japanese markets to Pacific Rim gardens, and from Haitian voudou to Maya royal politics. This course uses research by archeologists, linguists, biological anthropologists, and sociocultural anthropologists. (Same as ANTH 389.) LEC.

WGSS 396. Studies in: _______. 3 Hours. H.
The interdisciplinary study of selected and different aspects of women’s studies in different semesters. LEC.

WGSS 397. Study Abroad Topic in: _______. 1-6 Hours.
This course is designed for the study of special topics in Women’s Studies at the junior/senior level. Course work must be arranged through the Office of KU Study Abroad. May be repeated for credit if content varies. LEC.

WGSS 440. Communication and Gender. 3 Hours. AE41 / S.
Focuses attention on the relationship between communication and gender, including both physical and psychological dimensions. Topics include: sex role orientations and stereotypes; perceived and actual differences in verbal and nonverbal communication behaviors; the influence of gender on communication in a variety of contexts. (Same as COMS 440.) Prerequisite: COMS 130, COMS 150, or COMS 230. LEC.

WGSS 468. Psychology of Women. 3 Hours. S.
A survey of the psychological theories about women; similarities and differences in the behavior of women and men; the effects of biological and social factors on the behavior of women and men; and issues of concern to women of different races, sexual orientations, ages, and so forth. (Same as PSYC 468.) Prerequisite: PSYC 104 or WGSS 201. LEC.

WGSS 498. Independent Study. 1-3 Hours. S.
Intensive reading or research under faculty supervision culminating in the writing of a paper or research report. IND.

WGSS 499. Honors in Women’s Studies. 3 Hours. S.
An individual research project under the direction of a specialist in the area of the student’s interest. May be counted towards the total hours required for the major. Prerequisite: Majors only, with approval of the project advisor and the Women’s Studies honors coordinator. IND.

WGSS 510. History of American Women: Colonial Times to 1870. 3 Hours. H.
A survey of women’s history in the United States, which will consider women’s roles as housewives, mothers, consumers, workers, and citizens in pre-industrial, commercial and early industrial America. (Same as AMS 510 and HIST 530.) LEC.

WGSS 511. History of American Women: 1870 to Present. 3 Hours. AE41 / H.
A survey of women’s history in the United States, which includes radical and reform movements, the impact of war and depression, professionalization, immigration, women’s work, and the biographies of leading figures in women’s history. (Same as AMS 511 and HIST 531.) LEC.

WGSS 512. History of Women and Work in Comparative Perspective. 3 Hours. H.
This course explores the connection between historical changes in the labor process and the occupational choices available to women in different countries. Through discussion and analyses of texts, students will evaluate the construction of a gendered division of work as shaped over time by economic, cultural, and political forces. The chronological
and geographical focus may vary depending on the instructor. (Same as AMS 512 and HIST 532.) LEC.

WGSS 513. Modern American Women in Film and Literature. 3 Hours. H.
Exploration of the images both real and ideal found in twentieth century popular culture. By using popular culture as social history, it examines the connections between these images and the life experiences of women in the family, at work, in war, and in economic depression. LEC.

WGSS 515. Gender and Sexuality in Greek Culture. 3 Hours. H.
This course explores various approaches to the study of gender and sexuality in Greek antiquity. Contents will vary, and the course may focus on methodology and case studies, or on particular themes, historical periods, or artistic or literary genres. No knowledge of Greek or Latin is required. (Same as CLSX 515.) Prerequisite: Graduate status, or 6 credit hours in Classics, Greek, Latin, or Women, Gender and “Sexuality Studies; or permission of instructor. LEC.

WGSS 516. Gender and Sexuality in Roman Culture. 3 Hours. H.
This course explores various approaches to the study of gender and sexuality in Roman antiquity. Contents vary, and the course may focus on methodology and case studies, or on particular themes, historical periods, or artistic or literary genres. No knowledge of Greek or Latin is required. (Same as CLSX 516.) Prerequisite: Graduate status, or 6 credit hours in Classics, Greek, Latin, or Women, Gender and “Sexuality Studies; or permission of instructor. LEC.

WGSS 521. Women and Violence. 3 Hours. S.
An examination of research on women and violence, including rape, domestic violence, sexual harassment, stalking, and child sexual abuse. The nature, prevalence, causes, and consequences of violence against women are discussed. (Same as PSYC 521.) Prerequisite: PSYC 104. LEC.

WGSS 530. Gender and Sexuality in Cyberspace. 3 Hours. S.
Students examine the construction of cyberspace as a transnational space and how gender and various categories of sexuality have been constructed in this disembodied arena. Students learn how the Internet helps produce new and alternative modes of expressing and experiencing sexuality and how sexual desires, fantasies, and identities are articulated in this cyberspace LEC.

WGSS 549. History of Feminist Theory. 3 Hours. H.
This discussion course will cover the development of feminist theories from the late Middle Ages to the 1970s. Reading will include Pisan, Wollstonecraft, Mill, Freud, Woolf, Beauvoir, Friedman, Daly, Kristeva, and others. (Same as HIST 649.) LEC.

WGSS 560. Race, Gender, and Post-Colonial Discourses. 3 Hours. H.
An examination of the ways in which the concept of race, gender, and post-colonialism frame African literatures from the Caribbean, North America, and the continent itself. The course will focus on these discourses grounding them in critical frameworks within which they can be contextually analyzed and evaluated, at the same time examining their impact in literary praxis and theory. (Same as AAAS 560.) LEC.

WGSS 562. Women and Politics. 3 Hours. S.
This course exposes students to contemporary research on women and politics by surveying the sub-fields of political science. Topics include women’s representation in the U.S., women and U.S. public policy, gender and legal theory, international women’s movements, women and revolution, and women as political elites. We will examine the ways in which feminist theory and women’s activism have challenged the narrow focus of the discipline as well as redefined women’s place in society. (Same as POLS 562.) Prerequisite: A 100-level POLS course or WGSS 201 or permission of instructor. LEC.

WGSS 563. Gender, Sexuality and the Law. 3 Hours. AE41/GE11 / H.
This course provides a broad introduction to Western legal systems (especially the American legal system) and then focuses on how sex, gender, and sexuality operate in and are understood by those systems and how the law is a site of social and political struggle. Topics may include intimate relations, First Amendment law, sexual harassment and employment discrimination; reproduction policies and governance; rape and sexual assault; gender identity discrimination; and the legal understandings and constructions of equal protection and due process. No prior knowledge of legal concepts is necessary. LEC.

WGSS 565. Gender, Culture, and Migration. 3 Hours. H.
This course brings a human face to the 21st century manifestation of globalization by focusing on the issues of culture, gender and migration. How do these three aspects create the “global village” amongst both the host and donor peoples? When people move from one place to another, what do they leave behind, what do they take with them? What is gained, or lost by the host community? What is the impact of migration on a specific group’s and individual’s sense of identity? How has migration affected the people’s construction, understanding, and practice of gender? Given their primary roles in the home and within the culture, these questions and more are posed with particular attention to women. Migration theories, interviews and personal testimonies as well as literary and dramatic works are critical to our analyses of the issues raised and enable us to hold conversations with, and listen to the stories of the ordinary people who make globalization happen and sustain it. (Same as AAAS 565 and AMS 565.) LEC.

WGSS 570. Men and Masculinities. 3 Hours. H.
An intensive examination of the history and theory of masculinities in the Western world. Students become acquainted with some of the key theories of men and masculinities, and develop research projects on a topic negotiated with the instructor. (Same as HIST 626, HWC 570.) Prerequisite: An upper-division course in HIST, HWC, or WGSS; or permission of instructor. LEC.

WGSS 575. Body, Self and Society. 3 Hours. H.
An intensive examination of the role of the human body in the creation of personal and social identities in the Western world. Students become acquainted with contemporary theories of embodiment and the senses as they are applied to a variety of historical themes, and develop research projects on a topic negotiated with the instructor. (Same as HIST 625, HWC 575.) Prerequisite: An upper-division course in HIST, HWC, or WGSS; or permission of instructor. LEC.

WGSS 580. Feminism and Anthropology. 3 Hours. S.
This seminar will introduce students to feminism in anthropology, including feminist theories, methodologies, ethnographic styles, and the history of women in the discipline since the late 1800s. Emphasis is on the social contexts for feminist theory-building since the 1960s and changing ideas about gender and power. (Same as ANTH 580.) Prerequisite: One of the following: ANTH 389, ANTH 460, WGSS 201; or permission of instructor. LEC.

WGSS 583. Love, Sex, and Globalization. 3 Hours. S.
Escalating transnational flows of information, commodities, and people have created innumerable kinds of “intimate” contacts on a global scale, such as mail order brides, child adoption, sex tourism, commodified romance, and emotional labor. Exploring the ways that cultural artifacts of intimacy are rendered, fetishized, and reified in a free market economy, this course examines how discourses on love and sex encounter, confront, and negotiate the logistics of the capitalist market, the discrepant narratives of (colonial) modernity, and the ethics of pleasure. In so doing, this course navigates the treacherous interplay among emotions-
specifically love, sex, and money, seeking the potential and limits of cultural politics of emotions. (Same as ANTH 583.) LEC.

WGSS 600. Contemporary Feminist Political Theory. 3 Hours. S.
A detailed introduction to feminist thought post-1960. Examines feminism in relation to the categories of political theory: liberal feminism, socialist feminism, radical feminism, and postmodern feminism. Within these categories and separately, we will also consider feminism as it is influenced by women traditionally excluded from mainstream feminist thought, namely U.S. women of color and women of post-colonial societies. (Same as POLS 600.) Prerequisite: WGSS 201 or a 100-level POLS course or permission of instructor. LEC.

WGSS 601. Seminar in Women’s Studies. 3 Hours. AE61 / S.
Investigation of a topic related to women from an interdisciplinary perspective. Open only to women’s studies majors and required of them. Suggested for the senior year. LEC.

WGSS 630. Politics of Identity. 3 Hours. S.
This seminar explores the nature of identity and how identity is relevant to politics and policy with a focus on political attitudes and behavior, institutions, and public policy. Topics include individual and group identity, identities such as gender, racial, sexual orientation, and partisan, and the enduring importance of identity for understanding politics as well as the policy process. The approach is multidisciplinary but political science perspectives are relied on more heavily. (Same as POLS 630.) Prerequisite: POLS 110 and POLS 206 are recommended. LEC.

WGSS 640. Politics of Reproductive Policy. 3 Hours. S.
Reproductive policy has historically been a highly politicized policy arena, which has elicited attention from the political community as well as the public. This course moves beyond the popular rhetoric associated with reproductive issues, by critically investigating the history, development, implementation and the relative success of various reproductive policies in the United States. These policies are compared to, and assessed against, policies governing similar topics in various countries. (Same as POLS 640.) Prerequisite: POLS 110 or consent of instructor. LEC.

WGSS 646. Witches in European History and Historiography. 3 Hours. H.
This course examines witches, witchcraft, and magic in Europe in the late medieval and early modern period (approximately 1200-1700 C.E.). Particular emphasis will be on the variety of historical and anthropological approaches that have been used to study the subject and their meaning in the context of gender politics and gender theory. (Same as HIST 646.) LEC.

WGSS 650. Service Learning in Women’s Studies. 3 Hours. S.
This course, to be taken in the senior year, is designed to give students the opportunity to apply women’s studies knowledge and ideas gained through course work to real-life situations in various agencies and women’s centers. Open to Women’s Studies majors and others with significant Women’s Studies backgrounds. Permission of instructor is required. FLD.

WGSS 651. Women and Politics in Latin America. 3 Hours. S.
This course examines the ways in which Latin American women have engaged in politics in the past two decades. Cases will draw from a variety of countries in Latin America. Students are expected to develop insights, through comparative analysis, into why women “do politics” in certain ways, the role of the State in women’s politics, the (dis)advantages of various political strategies, and the ways in which political, economic, and social changes over time have affected women’s political opportunities and interests. (Same as POLS 651.) Prerequisite: Six hours of course work in Political Science and/or Women’s Studies and/or Latin American Studies. LEC.

WGSS 652. Jazz and American Culture. 3 Hours. H.
This course considers cultural and social histories of jazz, from the 1920s through the present day, as sites for exploring ideological struggles over such fields as race, class, gender, sexuality, democracy, capitalism, freedom, community, Americaness, and globalization in the U.S. The course will explore such questions as the following: What music was called jazz at what times and places? What did it mean to whom? Who played it? Who wrote about it? Who listened to it? Who danced to it? Who policed it? Who produced it? Who used it to rebel? Who used it to survive? What did all of these practices mean to participants? The course will examine struggles over social meanings in the U.S. through a study of jazz performance, labor, representation, marketing, consumption, censorship, and historiography. Prerequisite: A course in American studies, American history, or consent of instructor. (Same as AMS 650.) LEC.

WGSS 653. Gender, War, and Peace. 3 Hours. S.
This course explores ways in which militarization and warfare are gendered processes. We ask, what does war tell us about gender, and what does gender tell us about war? Though the majority of fighters are men, women are essential to war efforts. They also represent a high proportion of the casualties of war. Yet women are rarely examined in relation to war; thus we work to uncover women’s experiences of war. We also look to women’s contributions to the peace movement in terms of both theory and practice, asking: Is peace a feminist issue? Should feminists support women’s access to combat positions or oppose the military? What if women ruled the world–would that end wars? Does militarized masculinity harm men more than benefit them? How do states mobilize citizens to war and how is the process gendered? (Same as POLS 653.) Prerequisite: One of the following: POLS 150, POLS 151, POLS 170, POLS 171, WGSS 201, WGSS 202. LEC.

WGSS 660. Human Reproduction: Culture, Power, and Politics. 3 Hours. S.
This seminar analyzes and critiques the socially constructed nature of reproductive practices and their articulation with relations of power. Topics range from conception to menopause, infertility to population. Cases are drawn from a wide variety of cultural contexts. This course is the second part of a two-semester sequence (beginning with ANTH 650) that examines in detail biological and cultural determinants of human reproduction. (Same as ANTH 660.) Prerequisite: ANTH 650, or 6 hours in Women’s Studies, or permission of instructor. LEC.

WGSS 662. Gender and Politics in Africa. 3 Hours. S.
This course is designed to explore the field of gender and African politics. We begin by paying particular attention to African women’s political roles during the pre-colonial and colonial society. Next, we examine the impetus, methods, and path of liberation struggles and how gender roles were shaped, shifted, and changed during these struggles. The majority of the class focuses on current issues in African politics, including gender and development; HIV/AIDS and women’s health; gender and militarism. We also explore women’s roles in political institutions; civil society organizations; trade and labor unions; and transnational movements. We also examine contemporary constructions of masculinity and femininity in African states and explore how these constructions affect social policy and national political agendas. (Same as AAAS 662.) LEC.

WGSS 665. Women, Health, and Healing in Latin America. 3 Hours. S.
This seminar uses a life-cycle approach to examine women’s health (physical, mental, and spiritual) and their roles as healers. Special consideration is given to the effects of development programs on well-being, access to health care, and hanging roles for women as healers. Cases will be drawn from a variety of Latin American contexts. (Same as ANTH 665 and LAA 665.) Prerequisite: 6 hours coursework in
Anthropology and/or Women’s Studies and/or Latin American Studies. LEC.

WGSS 689. Conceptual Issues in Human Sexuality. 3 Hours. S.
An examination of the social construction of sexuality and research methods and issues relevant to sexuality. These concepts are applied to various topics, such as defining and conceptualizing sex and gender, sexual dysfunction, sexual orientation, the social control of sexuality, sexual coercion and abuse, and abstinence-only sex education. The course does not cover anatomical or physiological aspects of sexuality. (Same as PSYC 689.) Prerequisite: PSYC 104 or WGSS 201. LEC.

WGSS 896. Studies in: ______. 3 Hours. S.
Interdisciplinary study of different aspects of women’s studies in different semesters. LEC.

WGSS 701. Seminar in: ______. 3 Hours.
A research seminar in women’s studies. Instructor and topic will vary. LEC.

WGSS 789. Anthropology of Gender: Advanced Seminar in the Four Fields. 3 Hours.
This seminar is intended primarily for graduate students in anthropology or other disciplines who share an interest in any of the subdisciplines of anthropology (archaeology, linguistics, biological anthropology, and sociocultural anthropology) and/or anthropological theories and methods. Undergraduates pursuing Honors or other major research projects are also encouraged to participate. Students will receive training in the contemporary theories, research, and pedagogies informing the anthropology of gender. Class participants will explore how these materials intersect with their current thesis or research projects and develop syllabi specific to their subdiscipline. (Same as ANTH 789.) Prerequisite: Permission of instructor. LEC.

WGSS 797. Directed Readings. 1-3 Hours.
Directed reading in an area of women’s studies in which there is no appropriate course in the offerings of the Women’s Studies Program, but in which there is a member of the cooperating graduate faculty competent and willing to direct the program of study. RSH.

WGSS 800. History of Women, Gender and Sexuality Studies. 3 Hours.
An introduction to the field of women, gender, and sexuality studies, paying particular attention to its development, its reception by and influence on academic disciplines, and its institutionalization. Prerequisite: Graduate standing and consent of the instructor. SEM.

WGSS 801. Feminist Theory. 3 Hours.
A survey of contemporary feminist theories produced within and across disciplines (including but not limited to, eco-feminism, and liberal, cultural, materialist, psychoanalytic, radical, and black feminist thought). Prerequisite: Graduate standing and consent of the instructor. LEC.

WGSS 802. Feminist Methodologies. 3 Hours.
An introduction to the methods used in feminist research in the humanities, social sciences, and natural sciences (e.g., qualitative and quantitative research methods, archival research, and oral histories). We will consider examples of applications of each method, the strengths and limitations of each method, and how each method relates to feminist theories and principles. Prerequisite: Graduate standing and consent of the instructor. SEM.

WGSS 803. Topics in Feminist Pedagogy: ______. 0.5 Hours.
The goal of the course is to teach students to teach. By reading core texts of feminist pedagogy, understanding critical theories, and attending seminars at the Center for Teaching Excellence selected by instructor and student, students will learn how to present knowledge and stimulate learning in the classroom, as well as such practical skills as leading discussion sections, preparing and presenting class sessions, developing syllabi, devising fair grading and helpful advising, and solving pedagogical problems like maintaining civility in the classroom and coping with academic misconduct. Must be repeated twice for a total of 1 credit hour while actively teaching. Prerequisite: Must be Women, Gender, and Sexuality Studies graduate students. SEM.

WGSS 804. Topics in Professional Development: ______. 1 Hour.
The goal of this course is to train students in the skills essential to becoming effective scholars and educators, and successful members of the profession. The material to be covered by these three iterations includes 1) the ethics and practice of feminist research (e.g., protection of human subjects, conflicts of interest, confidentiality, legal strictures); 2) the practical aspects of producing knowledge (e.g., writing research papers, proper citation methods, conference presenting, responding to peer reviews); and 3) acquiring and securing a place in the work force (e.g., CV preparation, job interviews, grant writing, getting promotion [and, in the academy, tenure]). Must be repeated three times for a total of 3 credit hours. Prerequisite: Must be Women, Gender, and Sexuality Studies graduate students. SEM.

WGSS 810. Comparative Sexualities. 3 Hours.
Employing an interdisciplinary and comparative perspective, this course introduces the study of human sexuality in various disciplines. Students will also gain an understanding of the historical development and cross-cultural analysis of sexuality research, including the methodological, theoretical, and ethical issues involved in investigating sexual behavior and meanings. Prerequisite: Graduate standing and consent of the instructor. SEM.

WGSS 821. Woman and Violence. 3 Hours.
An examination of research on women and violence, including rape, domestic violence, sexual harassment, stalking, and child sexual abuse. Research on the nature, prevalence, causes, and consequences of violence against women is discussed. (Same as PSYC 821.) Prerequisite: Six hours in WGSS and/or PSYC, or permission of instructor. LEC.

WGSS 835. Colloquium in the History of Gender. 3 Hours.
This colloquium will cover theoretical and topical readings on the history of manhood, womanhood, and gender systems. (Same as AMS 835 and HIST 895.) LEC.

WGSS 836. Colloquium in United States Women’s History. 3 Hours.
This colloquium will cover theoretical and topical readings on the history of women in the United States from the pre-contact period to the present. It is designed to familiarize students with the most important and current historiography in the field. (Same as AMS 836 and HIST 896.) LEC.

WGSS 837. Comparative Colloquium in Women’s History. 3 Hours.
This colloquium will approach the history of women from a comparative perspective through theoretical and topical readings on women in at least two different cultures. (Same as AMS 837 and HIST 897.) LEC.

WGSS 873. Seminar in United States Women’s History. 3 Hours.
This research seminar will focus on the history of women in the United States from the pre-contact period to the present. Students will research and write a paper using primary sources, and present those papers to the seminar for evaluation. (Same as HIST 973 and AMS 973.) LEC.

WGSS 880. Advanced Feminist Anthropology: ______. 3-6 Hours.
Intensive consideration of special problems in feminist anthropology. Topics for the semester to be announced. May be repeated for a total of six hours credit. (Same as ANTH 880.) Prerequisite: Permission of instructor. LEC.
**WGSS 889. Conceptual Issues in Human Sexuality. 3 Hours.**
An examination of the social construction of sexuality and research methods and issues relevant to sexuality. These concepts are applied to various topics, such as defining and conceptualizing sex and gender, sexual dysfunction, sexual orientation, the social control of sexuality, sexual coercion and abuse, and abstinence-only sex education. The course does not cover anatomical or physiological aspects of sexuality. (Same as PSYC 889.) Prerequisite: Six hours in WGSS and/or PSYC, or permission of instructor. LEC.

**WGSS 898. Research Colloquium. 3 Hours.**
This course is the "capstone" to the Women's Studies Graduate Certificate program. Members of the seminar will produce a major paper and will share their research. During the first part of the term a small number of visitors (professors at KU and/or visiting speakers from other universities) will be invited to assign readings and subsequently present their work on women and gender. Students will be expected to attend the Gender Seminar of the Hall Center for the Humanities. Prerequisite: WGSS 801 and at least 3 hours of other graduate work in the Women’s Studies graduate certificate program, or by special permission. LEC.

**WGSS 999. Doctoral Dissertation. 1-12 Hours.**
Original research that is to be incorporated into a PhD dissertation. THE.

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**Bachelor of Arts and Bachelor of General Studies in Women's Studies**

**Why study women, gender and sexuality studies?**

Because much of what people think they know about women, gender, and sex is myth.

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**Undergraduate Admission**

**Admission to KU**

All students applying for admission must send high school and college transcripts to the Office of Admissions. Unless they are college transfer students with at least 24 hours of credit, prospective students must send ACT or SAT scores to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (http://admissions.ku.edu) for application deadlines and specific admission requirements.

Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (http://admissions.ku.edu/~admiss/credit/transfer) website.

**Admission to the College of Liberal Arts and Sciences**

Admission to the College is a different process from admission to a major field. Some CLAS departments have admission requirements. See individual department/program sections for departmental admission requirements.

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**First- and Second-Year Preparation**

It is recommended that students complete WGSS 101, the introductory course, and consult the undergraduate advisor.

**Requirements for the B.A. or B.G.S. Major Women's Studies Major Course Requirements**

**Women's Studies Core Knowledge and Skills (18)**

Majors must complete a course in each of the following areas:

- Introduction to Women, Gender, and Sexuality Studies. Satisfied by:
  - **WGSS 101** Introduction to Women, Gender, and Sexuality Studies
  - or
  - **WGSS 102** Introduction to Women, Gender, and Sexuality Studies, Honors

**Social Science Core. Satisfied by 1 course (3 hours) chosen from the following:**

- **WGSS/ANTH 389** The Anthropology of Gender: Female, Male, and Beyond
- **WGSS/PSYC 468** Psychology of Women
- **WGSS 521** Women and Violence
- **WGSS/POLS 562** Women and Politics
- **WGSS/POLS 640** Politics of Reproductive Policy
- **WGSS/POLS 653** Gender, War, and Peace (S (Int))
- **WGSS/ANTH 660** Human Reproduction: Culture, Power, and Politics
- **WGSS/PSYC 689** Conceptual Issues in Human Sexuality

**Humanities Core. Core satisfied by 1 course (3 hours) chosen from the following:**

- **WGSS/AAAS/AMS/HIST 317** African American Women: Colonial Era to the Present
- **WGSS/HIST 320** From Goddesses to Witches: Women in Premodern Europe
- **WGSS/HIST 321** From Mystics to Feminists: Women's History in Europe 1600 to the Present
- **WGSS 327** Perspectives in Lesbian, Gay, Bisexual, and Transgender Studies
- **WGSS 330/AAAS 340** Women in Contemporary African Literature
- **WGSS/AMS 510/HIST 530** History of American Women: Colonial Times to 1870
- **WGSS/AMS 511/HIST 531** History of American Women: 1870 to Present

**Theory. Satisfied by 1 course (3 hours) chosen from the following:**

- **WGSS/PHIL 381** Feminism and Philosophy
- **WGSS 549/HIST 649** History of Feminist Theory
<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>WGSS/AAAS</td>
<td>Race, Gender, and Post-Colonial Discourses 560</td>
</tr>
<tr>
<td>WGSS/ANTH</td>
<td>Feminism and Anthropology 580</td>
</tr>
<tr>
<td>WGSS/POLS</td>
<td>Contemporary Feminist Political Theory 600</td>
</tr>
<tr>
<td>SOC 601</td>
<td>Introduction to Feminist Social Theory</td>
</tr>
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</table>

International focus. Satisfied by 1 course (3 hours) chosen from the following (not satisfying requirement above):

<table>
<thead>
<tr>
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<tr>
<td>WGSS/HIST</td>
<td>From Goddesses to Witches: Women in Premodern Europe 320</td>
</tr>
<tr>
<td>WGSS/HIST</td>
<td>From Mystics to Feminists: Women's History in Europe 1600 to the Present 321</td>
</tr>
<tr>
<td>WGSS 330/AAAS</td>
<td>Women in Contemporary African Literature 340</td>
</tr>
<tr>
<td>WGSS/ANTH</td>
<td>The Anthropology of Gender: Female, Male, and Beyond 389</td>
</tr>
<tr>
<td>WGSS/AAAS</td>
<td>Race, Gender, and Post-Colonial Discourses 560</td>
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<tr>
<td>WGSS/POLS</td>
<td>Women and Politics 562</td>
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<tr>
<td>WGSS/POLS</td>
<td>Gender, War, and Peace 653</td>
</tr>
<tr>
<td>WGSS/ANTH</td>
<td>Human Reproduction: Culture, Power, and Politics 660</td>
</tr>
</tbody>
</table>

**Women's Studies Required Electives (15)**

Humanities Elective. Satisfied by any core humanities course not already satisfying core requirement above or any of the approved humanities electives (see catalog).

<table>
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<tbody>
<tr>
<td>WGSS/AAAS/AMS/HIST 317</td>
<td>African American Women: Colonial Era to the Present 320</td>
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<td>Women in Contemporary African Literature 340</td>
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<tr>
<td>WGSS/AMS 510/HIST 530</td>
<td>History of American Women: Colonial Times to 1870</td>
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<tr>
<td>WGSS/AMS 511/HIST 531</td>
<td>History of American Women: 1870 to Present</td>
</tr>
<tr>
<td>WGSS/AAAS 345</td>
<td>Popular Culture in Africa: Spiritual Thrills, Romance and Sexualities</td>
</tr>
<tr>
<td>WGSS/AMS 512/HIST 532</td>
<td>History of Women and Work in Comparative Perspective</td>
</tr>
<tr>
<td>WGSS 513</td>
<td>Modern American Women in Film and Literature</td>
</tr>
<tr>
<td>WGSS 549/HIST 649</td>
<td>History of Feminist Theory</td>
</tr>
<tr>
<td>WGSS/AAAS 560</td>
<td>Race, Gender, and Post-Colonial Discourses (if not already used)</td>
</tr>
<tr>
<td>WGSS/AAAS/AMS 565</td>
<td>Gender, Culture, and Migration</td>
</tr>
<tr>
<td>WGSS/HWC 570</td>
<td>Men and Masculinities</td>
</tr>
<tr>
<td>WGSS/HWC 575</td>
<td>Body, Self and Society</td>
</tr>
<tr>
<td>WGSS/HIST 576</td>
<td>Witches in European History and Historiography</td>
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<tr>
<td>AAAS 434</td>
<td>African Women Writers</td>
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<tr>
<td>AMS 515</td>
<td>American Women and World War II</td>
</tr>
<tr>
<td>EALC 575</td>
<td>Love, Sexuality and Gender in Japanese Literature</td>
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<tr>
<td>ENGL 572</td>
<td>Women and Literature: ______</td>
</tr>
<tr>
<td>FMS 410</td>
<td>Race, Class, and Gender in Visual Culture</td>
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<tr>
<td>FMS 620</td>
<td>International Women Filmmakers</td>
</tr>
<tr>
<td>HIST 533</td>
<td>The History of Women and the Family in Europe, from 1500 to the Present</td>
</tr>
<tr>
<td>REL 477</td>
<td>Gender and Religion</td>
</tr>
<tr>
<td>REL 677</td>
<td>Women in Christianity</td>
</tr>
<tr>
<td>Social Sciences Elective. Satisfied by any core social science course not already satisfying core requirements above or any approved social science elective.</td>
<td></td>
</tr>
<tr>
<td>WGSS/ANTH</td>
<td>The Anthropology of Gender: Female, Male, and Beyond 389</td>
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<td>WGSS/PSYC</td>
<td>Psychology of Women 468</td>
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<td>WGSS/PSYC</td>
<td>Women and Violence 521</td>
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<td>WGSS/POLS</td>
<td>Politics of Reproductive Policy 640</td>
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<td>WGSS/POLS</td>
<td>Gender, War, and Peace 653</td>
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<td>WGSS/ANTH</td>
<td>Human Reproduction: Culture, Power, and Politics 660</td>
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<tr>
<td>WGSS/PSYC</td>
<td>Conceptual Issues in Human Sexuality 689</td>
</tr>
<tr>
<td>WGSS 333</td>
<td>The Politics of Physical Appearance</td>
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<td>WGSS 351</td>
<td>Women and Leadership: The Legislative Process</td>
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<tr>
<td>WGSS/ANTH/EALC 363</td>
<td>Gendered Modernity in East Asia</td>
</tr>
<tr>
<td>WGSS/ANTH</td>
<td>Feminism and Anthropology (if not already used) 580</td>
</tr>
<tr>
<td>WGSS/ANTH</td>
<td>Love, Sex, and Globalization 583</td>
</tr>
<tr>
<td>WGSS/POLS</td>
<td>Contemporary Feminist Political Theory (if not already used) 600</td>
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<tr>
<td>WGSS/POLS</td>
<td>Women and Politics in Latin America 651</td>
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<td>WGSS/AAAS</td>
<td>Gender and Politics in Africa 662</td>
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<td>WGSS/ANTH/LAA 665</td>
<td>Women, Health, and Healing in Latin America</td>
</tr>
<tr>
<td>WGSS/ANTH</td>
<td>Anthropology of Gender: Advanced Seminar in the Four Fields 789</td>
</tr>
<tr>
<td>AAAS 388</td>
<td>The Black Woman</td>
</tr>
<tr>
<td>AAAS 415</td>
<td>Women and Islam</td>
</tr>
<tr>
<td>COMS 440</td>
<td>Communication and Gender</td>
</tr>
<tr>
<td>COMS 552</td>
<td>The Rhetoric of Women's Rights</td>
</tr>
</tbody>
</table>
With careful planning and commitment to a full-time course load, you can graduate in 4 years. See the department for details. A major in women’s studies can be combined with a complementary second major in the humanities, social sciences, or natural sciences. Students in the professional schools also may integrate women’s studies with their programs.

Women’s Studies Major Hours & Major GPA

While completing all required courses (above), majors also must meet each of the following hour and grade-point average minimum standards:

**Major Hours**

Satisfied by 30 hours of major courses.

**Major Hours in Residence**

Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior (300+) Hours**

Satisfied by a minimum of 18 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior (300+) Graduation GPA**

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

With care cylinder planning and commitment to a full-time course load, you can graduate in 4 years. See the department for details. A major in women’s studies can be combined with a complementary second major in the humanities, social sciences, or natural sciences. Students in the professional schools also may integrate women’s studies with their programs.

**Women’s Studies Minor Course Requirements**

The minor requires 18 hours. At least 12 hours must be at the junior/senior (300+) level or higher.

Students selecting this minor must complete the following:

1. The candidate must enroll in WGSS 499 Honors in Women’s Studies or in Independent Study in women’s studies or another department for 2 semesters, 3 hours a semester, and earn a grade of B or higher in the first semester and a grade of A in the second semester.
2. The candidate should inform the honors coordinator of her or his intention to earn departmental honors.
3. The results of the candidate’s project must be presented in written form, or in another form appropriate to the project, to a panel of at least 3 members of the College faculty, at least 1 of whom must be a member of the women, gender, and sexuality studies advisory board. This panel must certify the successful completion of the honors project.
4. If the candidate is earning a double major and is attempting to earn departmental honors in 2 different departments, 1 research project may be used to satisfy the requirements of both departments if the candidate obtains approval from both. Both departments must be represented on the student’s committee.

The department may petition to award graduation with departmental honors to deserving students who, for good reason, do not meet every requirement. Petitions should be sent to the College committee on undergraduate studies and advising. When the candidate finishes all the requirements for departmental honors, the honors coordinator notifies College Student Academic Services (http://clas.ku.edu/undergrad) in writing.

**Minor in Women's Studies**

**Why study women, gender and sexuality studies?**

Because much of what people think they know about women, gender, and sex is myth.

**Requirements for the Minor**

**Women’s Studies Minor Course Requirements**

The minor requires 18 hours. At least 12 hours must be at the junior/senior (300+) level or higher.

Students selecting this minor must complete the following:

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**Departmental Honors**

Candidates must declare an intention to work for departmental honors to the honors coordinator, Charlene Muehlenhard, no later than enrollment for the first semester of the senior year. Return the intent form to College Student Academic Services (http://clas.ku.edu/undergrad).

At the end of the final undergraduate semester, the candidate must have an overall grade-point average of at least 3.25 and of at least 3.5 in the major (i.e., the 30 hours of course work applied toward the major). Both overall and major grade-point averages include work done at other institutions as well as at KU. Each candidate must complete an independent research project, or its equivalent, related to women’s studies.

1. The candidate must enroll in WGSS 499 Honors in Women’s Studies or in Independent Study in women’s studies or another department for 2 semesters, 3 hours a semester, and earn a grade of B or higher in the first semester and a grade of A in the second semester.
2. The candidate should inform the honors coordinator of her or his intention to earn departmental honors.
3. The results of the candidate’s project must be presented in written form, or in another form appropriate to the project, to a panel of at least 3 members of the College faculty, at least 1 of whom must be a member of the women, gender, and sexuality studies advisory board. This panel must certify the successful completion of the honors project.
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**Women’s Studies Minor Course Requirements**

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<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>WGSS 101</td>
<td>Introduction to Women, Gender, and Sexuality Studies</td>
<td>3</td>
</tr>
<tr>
<td>or WGSS 102</td>
<td>Introduction to Women, Gender, and Sexuality Studies, Honors</td>
<td>3</td>
</tr>
</tbody>
</table>

**Social Science or Humanities Core. Satisfied by 1 course (3 hours) chosen from the following:** (3)

- **Social Sciences**
  - WGSS/ANTH 389 The Anthropology of Gender: Female, Male, and Beyond
  - WGSS/PSYC 468 Psychology of Women
  - WGSS/PSYC 521 Women and Violence
  - WGSS/POLS 562 Women and Politics
  - WGSS/POLS 640 Politics of Reproductive Policy
  - WGSS/POLS 653 Gender, War, and Peace
  - WGSS/ANTH 660 Human Reproduction: Culture, Power, and Politics
  - WGSS/PSYC 689 Conceptual Issues in Human Sexuality

- **Humanities**
  - WGSS/AAAS/AMS/HIST 317/317 Present African American Women: Colonial Era to the Present
  - WGSS/HIST 320 From Goddesses to Witches: Women in Premodern Europe
  - WGSS/HIST 321 From Mystics to Feminists: Women’s History in Europe 1600 to the Present
  - WGSS 327 Perspectives in Lesbian, Gay, Bisexual, and Transgender Studies
  - WGSS 330/AAAS 340 Women in Lesbian, Gay, Bisexual, and Transgender Studies
  - WGSS/AMS 510/HIST 530 History of American Women: Colonial Times to 1870
  - WGSS/AMS 511/HIST 531 History of American Women: 1870 to Present
  - WGSS/AAAS 545 Popular Culture in Africa: Spiritual Thrills, Romance and Sexualities
  - WGSS/AMS 512/HIST 532 History of Women and Work in Comparative Perspective
  - WGSS 513 Modern American Women in Film and Literature
  - WGSS 549/HIST 649 History of Feminist Theory
  - WGSS/AMS 560 Race, Gender, and Post-Colonial Discourses (if not already used)
  - WGSS/AAAS/AMS 565 Gender, Culture, and Migration
  - WGSS/HWC 570 Men and Masculinities
  - WGSS/HWC 575 Body, Self and Society
  - WGSS 646 Witches in European History and Historiography
  - AAAS 434 African Women Writers
  - AMS 515 American Women and World War II
  - COMS 552 The Rhetoric of Women’s Rights
  - EALC 575 Love, Sexuality and Gender in Japanese Literature
  - ENGL 572 Women and Literature: _____
  - FMS 410 Race, Class, and Gender in Visual Culture
  - FMS 620 International Women Filmmakers
  - HIST 533 The History of Women and the Family in Europe, from 1500 to the Present
  - PHIL 381 Feminism and Philosophy (if not already used for theory requirement)
  - REL 477 Gender and Religion
  - ENGL 203 Topics in Reading and Writing: _____ (Literature of Love and Marriage)
  - ENGL 203 Topics in Reading and Writing: _____ (Women’s Writing and Autobiography)
  - ENGL 203 Topics in Reading and Writing: _____ (Major Women Writers)
  - ENGL 570 Topics in American Literature: _____
  - HA 505 Special Study: _____ (Women/Modern Art)
  - HIST 319 History, Women, and Diversity in the U.S.

**Humanities Elective. Satisfied by any core humanities course not already satisfying core requirement above or any of the following approved humanities electives:** (3)

- WGSS/PHIL 381 Feminism and Philosophy
- WGSS 549/HIST 649 History of Feminist Theory
- WGSS/AAAS 560 Race, Gender, and Post-Colonial Discourses
- WGSS/ANTH 580 Feminism and Anthropology
- WGSS/POLS 600 Contemporary Feminist Political Theory
- SOC 601 Introduction to Feminist Social Theory

**Women’s Studies Required Electives (9)**
Social Sciences Elective. Satisfied by any core social science course not already satisfying core requirements above or any approved social science elective.

WGSS/ANTH 389 The Anthropology of Gender: Female, Male, and Beyond
WGSS/PSYC 468 Psychology of Women
WGSS 521 Women and Violence
WGSS/POLS 562 Women and Politics
WGSS/POLS 630 Politics of Identity
WGSS/POLS 640 Politics of Reproductive Policy
WGSS/POLS 653 Gender, War, and Peace
WGSS/ANTH 660 Human Reproduction: Culture, Power, and Politics
WGSS/PSYC 689 Conceptual Issues in Human Sexuality
WGSS 333 The Politics of Physical Appearance
WGSS 351 Women and Leadership: The Legislative Process
WGSS/ANTH/EALC 363 Gendered Modernity in East Asia
WGSS/ANTH 580 Feminism and Anthropology (if not already used)
WGSS/ANTH 583 Love, Sex, and Globalization
WGSS/POLS 600 Contemporary Feminist Political Theory (if not already used)
WGSS/POLS 651 Women and Politics in Latin America
WGSS/AAAS 662 Gender and Politics in Africa
WGSS/ANTH/LAA 665 Women, Health, and Healing in Latin America
WGSS/ANTH 789 Anthropology of Gender: Advanced Seminar in the Four Fields
AAAS 388 The Black Woman
COMS 440 Communication and Gender
PSYC 465 Stereotyping and Prejudice Across Cultures
SOC 273 Women in Society
SOC 352 Sociology of Sex Roles
PSYC 502 Human Sexuality
REL 374 Religious Perspectives on Selfhood and Sexuality
SOC 220/628 Sociology of Families
WGSS 498 Independent Study (may be petitioned to satisfy a social science or humanities elective)
WGSS 701 Seminar in: _____ (may be petitioned to satisfy a social science or humanities elective)
WGSS 797 Directed Readings (may be petitioned to satisfy a social science or humanities elective)

Women’s Studies Electives. Satisfied by any course not already satisfying core requirements above or any approved social science elective.

WGSS 396 Studies in: _____
WGSS 498 Independent Study

WGSS 499 Honors in Women’s Studies
WGSS 650 Service Learning in Women’s Studies
WGSS 696 Studies in: _____
WGSS 701 Seminar in: _____
WGSS 797 Directed Readings

Women’s Studies Minor Hours & Minor GPA
While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the minor.

Minor Junior/Senior (300+) Hours
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

Minor Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses in the minor. GPA calculations include all departmental courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Minor in Human Sexuality
Why study women, gender and sexuality studies?
Because much of what people think they know about women, gender, and sex is myth.

Requirements for the Minor

Human Sexuality Minor Course Requirements
The minor requires 18 hours. At least 12 hours must be at the junior/senior (300+) level or higher. Students selecting this minor must complete the following:

Survey Course of Human Sexuality (3) 3
Satisfied by one of the following:
SW 303 Human Sexuality in Everyday Life
PSYC 502 Human Sexuality
HSES 489 Health and Human Sexuality

Human Sexuality Discipline Perspective (9)
Human Sexuality Discipline Perspective. Satisfied by 3 core courses (9 hours) with a primary focus on sexuality. Students should take at least 1 humanities course and at least 1 social or biological science course.

Humanities Perspective. Satisfied by 1 of the following approved humanities electives:
AAAS/HIST 598 Sexuality and Gender in African History
CLSX/HWC 374 Gender and Sexuality, Ancient and Modern
EALC 575 Love, Sexuality and Gender in Japanese Literature

Women’s Studies Electives. Satisfied by any course not already satisfying core requirements above or any approved social science elective.

WGSS 396 Studies in: _____
WGSS 498 Independent Study
### Human Sexuality Minor

**Human Sexuality Required Electives (6) -- 6**  
Satisfied by 2 courses (6 hours) chosen from any course above not used to satisfy a requirement or any of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS 554</td>
<td>Contemporary Health Issues in Africa</td>
</tr>
<tr>
<td>ANTH 545</td>
<td>Anthropology of Sex</td>
</tr>
<tr>
<td>ABSC 268</td>
<td>Introduction to Marriage and Family Relations</td>
</tr>
<tr>
<td>ABSC/PSYC</td>
<td>Psychology of Adolescence</td>
</tr>
<tr>
<td>626</td>
<td></td>
</tr>
<tr>
<td>AMS 344/</td>
<td>Case Study in American Studies: _____ (Colonial Era to</td>
</tr>
<tr>
<td>WGS 396</td>
<td>the Present)</td>
</tr>
<tr>
<td>ANTH/WGSS</td>
<td>Anthropology of Gender: Female, Male, and Beyond</td>
</tr>
<tr>
<td>389</td>
<td></td>
</tr>
<tr>
<td>COMS 344</td>
<td>Relational Communication</td>
</tr>
<tr>
<td>COMS 440</td>
<td>Communication and Gender</td>
</tr>
<tr>
<td>COMS 552</td>
<td>The Rhetoric of Women’s Rights</td>
</tr>
<tr>
<td>HIST/WGSS</td>
<td>History of Women and the Body</td>
</tr>
<tr>
<td>324</td>
<td></td>
</tr>
<tr>
<td>PHIL 674</td>
<td>Philosophy of Law</td>
</tr>
<tr>
<td>POLS/WGSS</td>
<td>Contemporary Feminist Political Theory</td>
</tr>
<tr>
<td>600</td>
<td></td>
</tr>
<tr>
<td>PSYC 465</td>
<td>Stereotyping and Prejudice Across Cultures</td>
</tr>
<tr>
<td>PSYC/WGSS</td>
<td>Psychology of Women</td>
</tr>
<tr>
<td>468</td>
<td></td>
</tr>
<tr>
<td>PSYC 642</td>
<td>The Psychology of Families</td>
</tr>
<tr>
<td>SOC 220</td>
<td>Sociology of Families</td>
</tr>
<tr>
<td>SOC 617/</td>
<td>Women and Health Care</td>
</tr>
<tr>
<td>HP&amp;M 620</td>
<td></td>
</tr>
<tr>
<td>SOC 628</td>
<td>Families and Social Inequalities</td>
</tr>
<tr>
<td>WGSS 333</td>
<td>The Politics of Physical Appearance</td>
</tr>
<tr>
<td>WGSS/HWC</td>
<td>Men and Masculinities</td>
</tr>
<tr>
<td>570</td>
<td></td>
</tr>
<tr>
<td>WGSS/HWC</td>
<td>Body, Self and Society</td>
</tr>
<tr>
<td>575</td>
<td></td>
</tr>
</tbody>
</table>

### Human Sexuality Minor Hours & Minor GPA

While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

**Minor Hours**  
Satisfied by 18 hours of minor courses.

**Minor Hours in Residence**  
Satisfied by a minimum of 15 hours of KU resident credit in the minor.

**Minor Junior/Senior (300+) Hours**  
Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the minor.

**Minor Graduation GPA**  
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses in the minor. GPA calculations include all departmental courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

### Doctor of Philosophy in Women, Gender, and Sexuality Studies

**Why study women, gender and sexuality studies?**

Because much of what people think they know about women, gender, and sex is myth.

### Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (p. 2059) section of the online catalog.

Please consult the Departments & Programs (p. 783) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

### Graduate Admission

Admission requires a bachelor’s degree and acceptance by Graduate Studies. Submit your graduate application online (http://
Phi.D. Program

The Ph.D. program requires completion of core and elective courses and demonstration of depth in a chosen concentration or track. Candidates must complete a minimum of 13 credit hours of required courses in WGSS and 15 credit hours of elective WGSS courses. In addition, the student must take a minimum of 18 credit hours (3 in theory, 3 in methods, and 3 in a designated field) in an approved concentration or track selected from the list below.

Students must also fulfill Research Skills and Responsible Scholarship requirement as outlined in the WGSS Graduate Handbook (available online). At the end of 30 hours of course work (21 in WGSS and 9 in a concentration), Students will take a qualifying exam in their fourth semester (administered by the instructors of WGSS 800, WGSS 801, WGSS 802). Results of this exam will determine whether or not the student is given a terminal M.A. and leaves the program or the student continues on towards the Ph.D. After completion of 31 credit hours and the Research Skills and Responsible Scholarship requirement, students take a comprehensive oral examination, the centerpiece of which is a portfolio of all major written work (exams, papers, syllabi), and a professional essay. Within 3 months of passing this exam the student defends a dissertation prospectus and enrolls in dissertation hours.

For more information, see the Ph.D. program website (http://wgss.ku.edu/graduate/phd/index.shtml) and the Graduate Student Manual, accessible on that website.

Required Graduate Courses in WGSS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>WGSS 800</td>
<td>History of Women, Gender and Sexuality Studies</td>
<td>3</td>
</tr>
<tr>
<td>WGSS 801</td>
<td>Feminist Theory</td>
<td>3</td>
</tr>
<tr>
<td>WGSS 802</td>
<td>Feminist Methodologies</td>
<td>3</td>
</tr>
<tr>
<td>WGSS 803</td>
<td>Topics in Feminist Pedagogy: _____ (0.5 hour, taken 2 times)</td>
<td>1</td>
</tr>
<tr>
<td>WGSS 804</td>
<td>Topics in Professional Development: _____ (1 hour, taken 3 times)</td>
<td>3</td>
</tr>
</tbody>
</table>

Concentrations


The WGSS graduate student handbook lists a selection of the approved courses in the concentrations.
and/or WGSS 802 Feminist Methodologies and two 3-credit electives chosen from a list of recommended graduate courses or approved by the graduate director.
## School of Medicine

Founded in 1905, the KU School of Medicine is proud of its rich legacy as Kansas’ only medical school and its international reputation as a leader in biomedical research. Every day, KU medical students learn basic and clinical sciences from those on the cutting edge of discovery.

### Masters and Ph.D. Programs

#### The School of Medicine

**Graduate Programs**

Academic programs at the University of Kansas Medical Center are offered through the Schools of Health Professions, Medicine, and Nursing. The Office of Graduate Studies on the Medical Center campus handles matters related to these graduate programs.

Basic admission requirements are listed in the Medical Center campus Graduate Studies section of the online catalog. Individual graduate programs have specific requirements including prerequisite undergraduate courses. These are listed or referenced in the individual program descriptions.

Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU. Other years’ catalogs (http://catalog.ku.edu/archive)

### Anatomy and Cell Biology (p. 1778)

- Master of Arts in Cell Biology and Anatomy (p. 1780)
- Doctor of Philosophy in Cell Biology and Anatomy (p. 1780)

**Biochemistry and Molecular Biology (p. 1781)**

- Master of Science in Biochemistry and Molecular Biology (p. 1782)
- Doctor of Philosophy in Biochemistry and Molecular Biology (p. 1782)

**Biostatistics (p. 1783)**

- Master of Science in Biostatistics (p. 1786)
- Doctor of Philosophy in Biostatistics (p. 1787)
- Statistical Applications Graduate Certificate (p. 1788)
- Statistics Graduate Certificate (p. 1790)

**Cancer Biology** (http://catalog.ku.edu/medicine/cancer-biology)

**Health Policy and Management (p. 1791)**

- Master of Health Services Administration (p. 1795)
- Doctor of Philosophy in Health Policy and Management (p. 1797)

**History and Philosophy of Medicine (p. 1798)**

**Interdisciplinary Graduate Program in Biomedical Sciences (p. 1821)**

**Microbiology, Molecular Genetics, and Immunology (p. 1798)**

- Master of Arts in Microbiology (p. 1799)
- Doctor of Philosophy in Microbiology (p. 1799)

**Molecular and Integrative Physiology (p. 1800)**

- Master of Science in Molecular and Integrative Physiology (p. 1801)
- Doctor of Philosophy in Molecular and Integrative Physiology (p. 1802)

**Neurosciences Program (p. 1825)**

- Doctor of Philosophy in Neurosciences (p. 1826)

**Pathology and Laboratory Medicine (p. 1802)**

- Master of Arts in Pathology (p. 1804)
- Doctor of Philosophy in Pathology (p. 1804)

**Pharmacology, Toxicology, and Therapeutics (p. 1805)**

- Master of Arts in Pharmacology (p. 1807)
- Master of Science in Pharmacology (p. 1807)
- Master of Science in Toxicology (p. 1808)
- Doctor of Philosophy in Pharmacology (p. 1808)
- Doctor of Philosophy in Toxicology (p. 1809)

**Preventive Medicine and Public Health (p. 1810)**

- Master of Public Health (p. 1818)
- Graduate Certificate in Community-Based Participatory Research (p. 1817)
- Master of Science in Clinical Research (p. 1820)
- Graduate Certificate in Clinical and Translational Research (p. 1816)

### Interdisciplinary Programs:

- Health informatics (p. 1823): (p. 1981)
  - Master of Science
  - M.D.-Ph.D. Combined Degrees (p. 1826)

### Other Programs

The School of Medicine also offers the Doctor of Medicine degree. M.D. program information is detailed in the School of Medicine’s Doctor of Medicine (p. 1827) section of this online catalog.

### Department of Anatomy and Cell Biology

**Anatomy and Cell Biology Graduate Programs**

The graduate program in Anatomy and Cell Biology prepares the student for a research and/or teaching career with concentrations in one or more of the following:

- Cell Biology,
- Developmental Biology, and
- Neuroscience.

The program emphasizes research and the skills and knowledge required to perform and communicate the results of research. In addition, because the Anatomy graduate program is in the School of Medicine, students have opportunities to learn aspects of science that are related to important

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1778  School of Medicine
problems in medicine and to take elective courses oriented toward human biology. Modern biomedical researchers/educators must be versed in a number of disciplines, so the course of study in the department is broadly based; students are encouraged, and in some cases required, to enroll in courses offered by other departments. Research opportunities in the department are widely varied and can accommodate many interests.

The Anatomy and Cell Biology graduate program is designed primarily for the Ph.D. degree. The M.A. degree may be granted in appropriate circumstances. Ph.D. students in the basic sciences at the KU School of Medicine are admitted to the Interdisciplinary Graduate Program in the Biomedical Sciences (IGPBS). After the initial year of course work, students choose a research mentor, then join the department of the mentor. Applications may be made online at the IGPBS website (http://www.kumc.edu/igpbs.html).

Courses

ANAT 832. Electron Microscopy Techniques. 3 Hours.
Basic methods in preparation of tissues and cells for ultrastructural studies; use of electron microscopy in specific research problems; interpretation of biological ultrastructure; reading assignments and discussion sessions. Prerequisite: ANAT 830, or consent of course instructor. LEC.

ANAT 845. Graduate Histology. 2 Hours.
This course will bridge student knowledge of systems/organs with cellular histology and is designed as an accelerated introduction to histological techniques, microscope/optics, and histology. The course will be held within a one month period in the summer. Individual tissues will be covered by a brief 30 minute lecture followed by a 90 minute session of observing the tissues under the microscope. Prerequisite: Advanced course in cell biology (IGPBS module 4 or equivalent) or consent of instructor. LEC.

ANAT 846. Advanced Neuroscience. 5 Hours.
Team taught, in-depth neuroscience course focusing on normal and diseased brain function at the molecular, cellular and systems levels. Lectures and discussions will emphasize current issues in neuroscience research. (Same as PHCL 846, PHSL 846 and NURO 846). Prerequisite: Permission of course director. LEC.

ANAT 847. Developmental Neurobiology. 2 Hours.
Development of the nervous system from early induction to the development of learning and memory. Topics include: Induction; Cellular Differentiation; Axon Growth and Guidance; Target Selection; Cell Survival and Growth; Synapse Formation; Synapse Elimination; and Development of Behavior. (Same as NURO 847 and PHSL 847.) Prerequisite: Advanced Neuroscience (ANAT 846; NURO 846; PHSL 846) or consent of instructor. LEC.

ANAT 848. Molecular Mechanisms of Neurological Disorders. 3 Hours.
An in-depth coverage of pathogenic mechanisms in neurological diseases; cellular and molecular responses to brain injury and disease, neuroinflammatory diseases (e.g., multiple sclerosis), neurodegenerative diseases (e.g., Alzheimer’s, Parkinson’s, Huntington’s, amyotrophic lateral sclerosis, and prion diseases), neurogenetic diseases (e.g., lysosomal and peroxisomal disorders, Down’s syndrome and fragile X), trauma, stroke, and viral diseases (e.g., HIV encephalitis). (Same as NURO 848, PHCL 848, and PHSL 848.) Prerequisite: Advanced Neuroscience (ANAT 846, PHCL 846 or PHSL 846) or an equivalent course and consent of instructor. LEC.

ANAT 868. Advanced Developmental Biology. 2 Hours.
In-depth exposure to the classically important aspects of development using several different animal systems. The course addresses a selected number of topics and bring students up to date with regard to cutting edge research accomplishments in each topic. The materials selected are designed to qualify students for future teaching assignments in Developmental Biology and enhance their research capabilities. Prerequisite: IGPBS Core Curriculum or consent of instructor. LEC.

ANAT 869. Grant Writing. 3 Hours.
All aspects of preparing grant applications are covered. This includes writing an actual grant application containing all the usual elements of grants - budgets, biosketches, resources, and scientific text. In addition, different funding agencies, building research teams, the review process, responding to reviewers, and resubmitting grants will be covered. (Same as HPM 878 and NRSG 889.) Prerequisite: Appropriate research methods and statistics courses in student’s current graduate program; and permission of the instructor. For students in the Outcomes Management and Research concentration, HPM 821. LEC.

ANAT 870. Techniques in Anatomy and Cell Biology. 1-3 Hours.
Advanced study allowing a student to pursue a particular research or educational skill through directed laboratory work. Prerequisite: Consent of instructor. LEC.

ANAT 880. Advanced Topics: _____. 1-5 Hours.
Special study allowing a student to pursue a particular subject through readings, laboratory work, and conferences with a faculty member. Prerequisite: Consent of instructor. IND.

ANAT 885. Seminar. 1 Hour.
Research-oriented presentations in a seminar format by students, faculty, and guests. LEC.

ANAT 890. Master’s Research. 1-10 Hours.
Independent laboratory investigation approved by and under the supervision of the student’s advisor, and in partial fulfillment of the requirements for the M.A. degree. Prerequisite: Consent of advisor. RSH.

ANAT 899. Master’s Thesis. 1-6 Hours.
Preparation of the formal thesis based upon independent research and in partial fulfillment of the requirements for the M.A. degree. Credits will be given only after the thesis has been accepted by the department. Prerequisite: Consent of advisor. THE.

ANAT 900. Analysis of Scientific Papers. 1 Hour.
Research articles are analyzed by the student with the guidance of an instructor in terms of quality of scientific content and mechanics of the presentation. One or more articles are discussed in each tutorial session. The research topics and the instructor are chosen in accordance with the research interest of the student. LAB.

ANAT 990. Doctoral Research. 1-12 Hours.
Original and independent laboratory investigation, approved by and conducted under the supervision of the students’ advisor and advisory committee, in partial fulfillment of the requirements for the Ph.D. degree. Prerequisite: Consent of advisor. LEC.

ANAT 999. Doctoral Dissertation. 1-12 Hours.
Preparation of the dissertation based upon original research and in partial fulfillment of the requirements for the Ph.D. degree. Credits will be given only after the dissertation has been accepted by the student’s dissertation committee. Prerequisite: Consent of advisor. THE.
**Master of Arts in Cell Biology and Anatomy**

**Anatomy and Cell Biology Graduate Programs**

The graduate program in Anatomy and Cell Biology prepares the student for a research and/or teaching career with concentrations in one or more of the following:

- Cell Biology,
- Developmental Biology, and
- Neuroscience.

The program emphasizes research and the skills and knowledge required to perform and communicate the results of research. In addition, because the Anatomy graduate program is in the School of Medicine, students have opportunities to learn aspects of science that are related to important problems in medicine and to take elective courses oriented toward human biology. Modern biomedical researchers/educators must be versed in a number of disciplines, so the course of study in the department is broadly based; students are encouraged, and in some cases required, to enroll in courses offered by other departments. Research opportunities in the department are widely varied and can accommodate many interests.

The Anatomy and Cell Biology graduate program is designed primarily for the Ph.D. degree. The M.A. degree may be granted in appropriate circumstances. Ph.D. students in the basic sciences at the KU School of Medicine are admitted to the Interdisciplinary Graduate Program in the Biomedical Sciences (IGPBS). After the initial year of course work, students choose a research mentor, then join the department of the mentor. Applications may be made online at the IGPBS website (http://www.kumc.edu/igpbs.html).

**Graduate Admission**

Application to the graduate program in Anatomy and Cell Biology is facilitated through the Interdisciplinary Graduate Program in Biomedical Sciences. See the IGPBS section for a description of the program and the admission requirements (http://catalog.dept.ku.edu/201314/schools/med/departments). In certain cases, students may be admitted directly into the department. Applicants specifically interested in the Anatomy and Cell Biology graduate programs should contact the department directly for information and review the Direct Admit Checklist on the Graduate Studies website (http://www.kumc.edu/academic-affairs/graduate-studies.html).

**M.A. Degree Requirements**

M.A. degrees are only granted in specific circumstances. Course work and degree requirements are developed on an individual basis by the student, mentor, and the Department of Anatomy and Cell Biology graduate committee.

A minimum of 30 credit hours is required. These hours are divided between formal course work and research/thesis. The student must satisfactorily pass a final general examination or prepare and defend a written thesis in an open seminar.

**Doctor of Philosophy in Cell Biology and Anatomy**

**Anatomy and Cell Biology Graduate Programs**

The graduate program in Anatomy and Cell Biology prepares the student for a research and/or teaching career with concentrations in one or more of the following:

- Cell Biology,
- Developmental Biology, and
- Neuroscience.

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**Graduate Admission**

Application to the graduate program in Anatomy and Cell Biology is facilitated through the Interdisciplinary Graduate Program in Biomedical Sciences. See the IGPBS section for a description of the program and the admission requirements (http://catalog.dept.ku.edu/201314/schools/med/departments). In certain cases, students may be admitted directly into the department. Applicants specifically interested in the Anatomy and Cell Biology graduate programs should contact the department directly for information and review the Direct Admit Checklist on the Graduate Studies website (http://www.kumc.edu/academic-affairs/graduate-studies.html).

**Ph.D. Degree Requirements**

**Course Requirements**

All students must take the courses of the Interdisciplinary Graduate Program in Biomedical Sciences or an equivalent set of courses approved by the Department Graduate Studies Committee. After completing IGPBS courses, students must take ANAT 900 (http://catalog.ku.edu/201314/allcourses?type=department&group=ANAT&catalog_nbr=900&toggle=0) (Analysis of Scientific Papers) and ANAT 885 (http://catalog.ku.edu/201314/allcourses?type=department&group=ANAT&catalog_nbr=885&toggle=0)
Satisfactorily defend it in a final public seminar and oral examination. The student must complete original research, write a dissertation, and be given in two separate semesters, not including the one in which the student defends. Two presentations in the regular departmental seminar series, or an equivalent seminar approved by the graduate education director, are to be performed for the dissertation. The oral portion of the exam is based in part on the written exam, and is contingent upon the comprehensive exam committee’s preliminary approval of the written exam.

Research Skills and Responsible Scholarship Requirement

All students in doctoral programs must meet the research skills and responsible scholarship requirement (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm) of the university. Anatomy Ph.D. students meet these requirements during their IGPBS year of study by taking GSMC 857 (http://catalog.ku.edu/201314/allcourses?type=department&group=GSMC&catalog_nbr=857&toggle=0) (Biographics); GSMC 852 (http://catalog.ku.edu/201314/allcourses?type=department&group=GSMC&catalog_nbr=852&toggle=0)/GSMC 855 (http://catalog.ku.edu/201314/allcourses?type=department&group=GSMC&catalog_nbr=855&toggle=0) (Introduction to Biomedical Research I and II); and GSMC 856 (http://catalog.ku.edu/201314/allcourses?type=department&group=GSMC&catalog_nbr=856&toggle=0) (Introduction to Research Ethics). Anatomy MDPhD students meet the "responsible research" requirement by taking either GSMC 856 (Introduction to Research Ethics) the fall semester of their first year in the graduate phase or the Stowers Research Integrity Course the spring semester of their first year in the graduate phase.

Comprehensive Exam

Anatomy Ph.D. students must pass a comprehensive exam by the end of the Fall semester of their third year of graduate school. Anatomy MDPhD students must pass a comprehensive exam by the end of the Fall semester of their second year in their graduate phase of study. The comprehensive exam contains a written and an oral portion. The written portion consists of an NIH-style grant written on the research expected to be performed for the dissertation. The oral portion of the exam is based in part on the written exam, and is contingent upon the comprehensive exam committee’s preliminary approval of the written exam.

Seminar Presentations

Two presentations in the regular departmental seminar series, or an equivalent seminar approved by the graduate education director, are to be given in two separate semesters, not including the one in which the student defends.

Teaching Expertise

Each student must gain teaching experience by assisting in selected courses, chosen with the help of the adviser and the graduate education director.

Dissertation

The student must complete original research, write a dissertation, and satisfactorily defend it in a final public seminar and oral examination. The dissertation must contain data suitable for publication in appropriate peer-reviewed scientific journals.

Department of Biochemistry and Molecular Biology

Biochemistry and Molecular Biology Graduate Programs

The M.S. and Ph.D. degrees may be earned with a major in biochemistry and molecular biology. The M.S. in biochemistry and molecular biology normally leads to positions at the advanced technical level in academic research, industry, or government. It may lead to teaching positions at the secondary or junior college level. The Ph.D. is required for careers in independent research in biochemistry and molecular biology. The Ph.D. most often is followed by one or more years of postdoctoral training in a specific area of research. Ph.D. degree holders in biochemistry and molecular biology may find positions in industry or government and, with some postdoctoral experience, may obtain faculty positions at the college or university level.

Courses

BCHM 801. Research in Biochemistry. 1-10 Hours.
LEC.
BCHM 802. Biochemistry Seminar. 1 Hour.
Weekly meetings. LEC.
BCHM 808. Methods for Analyzing Biomolecules. 3 Hours.
Application of physical techniques to the study of biological macromolecules in solution. Emphasis on utilization of data obtained from such studies in interpreting biological processes at the molecular level. Course will be taught in the spring. Prerequisite: Consent of instructor. LEC.
BCHM 850. Topics in Biochemistry. 1-3 Hours.
Selected topics in biochemistry with varying subject matter. Students should inquire before enrolling. Topics are in-depth studies of current research areas. The course may consist of formal lectures and/or directed readings and studies. IND.
BCHM 862. Biochemical Research-Literature Seminar. 1 Hour.
Students and faculty meet once weekly to discuss the research of students or the current biochemical literature. The student is required to make one presentation. Prerequisite: Consent of instructor. LEC.
BCHM 890. Master's Research. 1-15 Hours.
Research for the M.A. degree. RSH.
BCHM 899. Master's Thesis. 1-15 Hours.
Restricted to the writing of the master's thesis. THE.
BCHM 922. Advanced Molecular Genetics. 3 Hours.
An in-depth analysis of the structure and function of gene regulatory proteins and the mechanisms of gene transcription, and DNA replication and repair. Lectures and discussion of current literature. Prerequisite: consent of instructor. Course will be presented in the fall semester and will include several faculty leading discussions in their area of research interests. LEC.
BCHM 923. Protein Structure and Function. 3 Hours.
The relationship between protein structure, binding, and physiological function. Emphasis is on proteins as enzymes, structural components, and regulators. Course will be taught in the spring. Prerequisite: consent of instructor. LEC.
BCHM 990. Doctoral Research. 1-15 Hours.
Research for the doctoral degree. RSH.

BCHM 999. Doctoral Dissertation. 1-15 Hours.
Restricted to the writing of the doctoral dissertation. THE.

Master of Science in Biochemistry and Molecular Biology

Biochemistry and Molecular Biology Graduate Programs

The M.S. and Ph.D. degrees may be earned with a major in biochemistry and molecular biology. The M.S. in biochemistry and molecular biology normally leads to positions at the advanced technical level in academic research, industry, or government. It may lead to teaching positions at the secondary or junior college level. The Ph.D. is required for careers in independent research in biochemistry and molecular biology. The Ph.D. most often is followed by one or more years of postdoctoral training in a specific area of research. Ph.D. degree holders in biochemistry and molecular biology may find positions in industry or government and, with some postdoctoral experience, may obtain faculty positions at the college or university level.

Graduate Admission

Application to the doctoral program in biochemistry and molecular biology is facilitated through the Interdisciplinary Graduate Program in Biomedical Sciences. See the IGPBS section for a description of the program and the admission requirements (p. 1778). In certain cases, doctoral students may be admitted directly into the department. Applicants specifically interested in the biochemistry and molecular biology graduate program should contact Liskin Swint-Kruse, lswint-kruse@kumc.edu and review the Direct Admit Checklist on the Graduate Studies website (http://www.kumc.edu/academic-affairs/graduate-studies.html).

Applicants interested in the master’s program should identify the specific research program in which they are interested and contact the faculty in charge of that program as well as Liskin Swint-Kruse, lswint-kruse@kumc.edu and review the Direct Admit Checklist on the Graduate Studies website (http://www.kumc.edu/academic-affairs/graduate-studies.html).

M.S. Degree Requirements

The curriculum normally requires a minimum of 30 semester credit hours. Half of these hours are usually formal course work and the remainder research and thesis. Students generally must complete the IGPBS core curriculum. Other required courses are BCHM 862, BCHM 890, and BCHM 899. The student is expected to participate in the teaching program during the second year of study.

The student must maintain a B average in nonresearch and seminar credit hours as well as an overall grade-point average of B. Upon completion of research work, the student writes a thesis, presents it as a formal seminar, and defends it to a thesis committee. A final draft of the thesis, approved by the research advisor, is given to the thesis committee at least 3 weeks before the final oral defense.

Doctor of Philosophy in Biochemistry and Molecular Biology

Biochemistry and Molecular Biology Graduate Programs

The M.S. and Ph.D. degrees may be earned with a major in biochemistry and molecular biology. The M.S. in biochemistry and molecular biology normally leads to positions at the advanced technical level in academic research, industry, or government. It may lead to teaching positions at the secondary or junior college level. The Ph.D. is required for careers in independent research in biochemistry and molecular biology. The Ph.D. most often is followed by one or more years of postdoctoral training in a specific area of research. Ph.D. degree holders in biochemistry and molecular biology may find positions in industry or government and, with some postdoctoral experience, may obtain faculty positions at the college or university level.

Ph.D. Degree Requirements

Prerequisites

In addition to the IGPBS admission requirements, the applicant should have taken mathematics through calculus, 2 semesters of organic chemistry, and have a background in the biological or physical sciences. Physical chemistry is recommended but not required.

Course Requirements

Complete the IGPBS core curriculum. Students who have not previously mastered undergraduate biochemistry strengthen any areas of weakness by taking BCHM 850 Topics in Biochemistry in the summer between the IGPBS and Year Two.

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Total Hours: 20-36

Additional electives include the following courses; they may be substituted for a required elective on a case-by-case basis.
The student must maintain at least a B average in all nonresearch and nonseminar courses. Credit in research cannot be used to earn this grade-point average. The student completes her or his curriculum by enrolling in BCHM 990 Doctoral Research and writing and defending a Doctoral Dissertation for BCHM 999. All graduate students on half-time assistantships are required to enroll in at least 6 credit hours each regular semester and 3 credit hours for the summer session.

**Research Skills and Responsible Research Requirement**

All students in doctoral programs must meet the research skills and responsible scholarship requirement (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm) of the university.

Biochemistry Ph.D. students meet these requirements during their IGPBS year of study by taking GSMC 857 Biographics, GSMC 852/GSMC 855 Introduction to Biomedical Research I and II, and GSMC 856 Introduction to Research Ethics.

**Examinations**

Comprehensive written and oral examinations are administered during the Year Two spring semester. The written examination comprises an NIH-style proposal independently developed by the student. The oral examination covers aspects of biochemistry and molecular biology related to the proposal as well as the broader subject area.

**Dissertation**

The student must complete original research, write a dissertation that is acceptable to a dissertation committee, present the results in a formal seminar, and defend the dissertation to a doctoral committee. Students must be enrolled in BCHM 999 Doctoral Dissertation the semester they defend the dissertation.

**Teaching Experience**

Graduate students may gain teaching experience as tutors for medical biochemistry topics and as participants in departmental seminar programs.

**Combined M.D.-Ph.D. Degree**

Outstanding students who are qualified to do so may participate concurrently in work leading to the M.D. and Ph.D. degrees. Credit hours earned in the medical curriculum cannot be transferred as graduate credit hours toward the requirements for the Ph.D. degree, although recognition of satisfactory performance in appropriate medical courses may be given by the Ph.D. program when formulating the student’s additional Ph.D. curriculum. All the requirements for both degrees must be met. The combined degree requirements and application information for the combined M.D.-Ph.D. program are posted on the M.D.-Ph.D. website (http://www.kumc.edu/md-phd-program.html).

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### Department of Biostatistics

**Biostatistics Graduate Programs**

The biostatistics M.S. and Ph.D. programs were created to help meet the ever-increasing demand for biostatisticians to take leadership roles in careers as researchers and educators in academia, government, and industry. Faculty members are active researchers collaborating and consulting in research projects and initiatives at the Medical Center, in addition to pursuing of their own research agendas and participating in curricular instruction. Expertise in the department includes linear, nonlinear, and longitudinal modeling; clinical trial and experimental design; survival analysis; categorical data analysis; robust statistics; psychometric methods; and Bayesian methodology.

**Courses**

- **BIOS 704. Principles of Statistics in Public Health. 3 Hours.** Introductory course concerning the concepts of statistical reasoning and the role of statistical principles as the scientific basis for public health research and practice. Prerequisite: Permission of instructor. LEC.

- **BIOS 714. Fundamentals of Biostatistics I. 3 Hours.** First-semester course of a two-semester introductory statistics course that provides an understanding of the proper application of statistical methods to scientific research with emphasis on the application of statistical methodology to public health practice and research. This course focuses on basic principles of statistical inference with emphasis on one or two sample methods for continuous and categorical data. This course fulfills the core biostatistics requirement. Prerequisite: Calculus or Permission of Instructor. LEC.

- **BIOS 715. Introduction to Data Management using RedCap and SAS. 3 Hours.** This course will cover the utilization of Redcap and SAS for data management. Data collection and management using Redcap will be covered. Data cleaning and preparation for analysis will be covered using SAS. In addition, some of the basic descriptive analysis procedures will be covered in SAS. Prereq-/Co-requisites: BIOS 704 or BIOS 714 or equivalent with permission of instructor. LEC.

- **BIOS 717. Fundamentals of Biostatistics II. 3 Hours.** Second level statistics course that provides an understanding of more advanced statistical methods to scientific research with an emphasis on the application of statistical methodology to public health practice, public health research, and clinical research. Special focus will be upon the utilization of regression methodology and computer applications of such methodology. Prerequisite: BIOS 714 or equivalent. LEC.

- **BIOS 720. Analysis of Variance. 3 Hours.** Methods for designed experiments including one-way analysis of variance (ANOVA), two-way ANOVA, repeated measures ANOVA, and analysis of covariance are emphasized. Post-ANOVA tests, power and testing assumptions required in NOVA are discussed and applied. Outlier detection using robust estimators also are incorporated. Boxplots, histograms and scatterplots are used to display data. Prerequisite: PRE 710/711 or BIOS 714/717 or equivalent. Preferred: BIOS 715. Knowledge of statistical software, basic statistical plotting methods, p-values, two-sample t-test and simple linear regression is assumed. LEC.

- **BIOS 725. Applied Nonparametric Statistics. 3 Hours.** This course will study nonparametric methods in many situations as highlighted by the following topics: Students will learn how nonparametric methods provide exact p-values for tests, exact coverage probabilities for confidence intervals, exact experimentwise error rates for multiple
BIOS 730. Applied Linear Regression. 3 Hours.
Simple linear regression, multiple regression, logistic regression, nonlinear regression, neural networks, autocorrelation, interactions, and residual diagnostics. Applications of the methods will focus on health related data. Prerequisite: 1) Fundamentals of Biostatistics I (BIOS 714) or the equivalent and 2) Fundamentals of Biostatistics II (BIOS 717) or Analysis of Variance (BIOS 720) or Permission of the Instructor. LEC.

BIOS 735. Categorical Data and Survival Analysis. 3 Hours.
An intermediate level statistics course that provides an understanding of the more advanced statistical methods to scientific research with emphasis on the application of statistical methodology to clinical research, public health practice, public health research and epidemiology. Prerequisite: BIOS 714, BIOS 715, and BIOS 717 or permission of the instructor. LEC.

BIOS 740. Applied Multivariate Methods. 3 Hours.
This course is an advanced statistical course for students who have had fundamental biostatistics and linear regression. Topics to be covered include Hotelling’s T-squared test, MANOVA, principal components, factor analysis, discriminant analysis, canonical analysis, and cluster analysis. More advanced topics such as Multidimensional Scaling or Structural Equation Modeling might be introduced if time allows. Computers will be extensively used through the whole course, and students are suggested to be familiar with some statistical software before taking this course. Although students are allowed to use the software they are comfortable with, SAS will be the primary statistical package used to demonstrate examples in this course. PREREQUISITES: BIOS 730 Applied Linear Regression or equivalents or permission of instructor. LEC.

BIOS 799. Introduction to Statistical Genomics. 3 Hours.
This survey course will provide a high-level introduction to various statistical and bioinformatics methods involved in the study of biological systems. In particular, this course will provide an overview of the analytical aspects involved in: the study DNA, RNA, and DNA methylation data measured from both microarray and next-generation sequencing (NGS) technologies. This course will be held in a block format with 4 hours of lectures a day for two weeks (one week in June and one week in July), with readings and homework assignments assigned throughout the summer semester. Prerequisites: BIOS 714 Fundamentals of Biostatistics I and BIOS 717 Fundamentals of Biostatistics II; Experience with a higher level programming language is preferred. LEC.

BIOS 806. Special Topics in Biostatistics. 1-3 Hours.
This course allows exploration of special topics that are not routinely a part of the curriculum. Prerequisite: Permission of the instructor. LEC.

BIOS 810. Clinical Trials. 3 Hours.
The design, implementations, analysis, and assessment of controlled clinical trials. Basic biostatistical concepts and models will be emphasized. Issues of current concern to trialists will be explored. Prerequisite: By permission of instructor. LEC.

BIOS 820. Statistical Computing/SAS Base L1. 3 Hours.
This is a graduate level course preparing a student for the SAS base programming certification exam. We will cover the topics required for a student to pass the SAS base programming certification exam given by SAS. To this end, topics we will study include, referencing files and setting options, creating list reports, understanding data step processing, creating and managing variables, reading and combining SAS data sets, do loops, arrays, and reading raw data from files. After the completion of the course the student should be able to create SAS programs to read data from external files, manipulate the data into variables to be used in an analysis, generate basic reports showing the results. Prerequisite: Permission of the Instructor LEC.

BIOS 821. Statistical Computing II. 3 Hours.
This is a graduate level course preparing a student for the SAS advanced programming certification exam. We will cover the topics required for a student to pass the SAS advanced programming certification exam given by SAS. To this end, topics we will study include array processing, use of data step views, using the data step to write SAS programs, efficient use of the sort procedure, introduction to the macro language in SAS, and accessing data using SAS PROC SQL. After the completion of the course the student should be able to create SAS programs to read data from external files, manipulate the data into variables to be used in an analysis, generate basic reports showing the results. Prerequisites: BIOS 820 or equivalent (SAS Certified BASE programmer for SAS or at least one year of experience as a data analyst/programmer). LEC.

BIOS 823. Introduction to Programming and Applied Statistics in R. 3 Hours.
This course will provide students with the opportunity to learn advanced statistical programming. The development of new statistical or computational methods often implies the development of programming codes to support its application. Much of this type of development is currently carried out in the R (or S-Plus) language. Indeed much of the recent development of statistical genetics is based on the R programming language and environment. This course provides an introduction to programming in the R language and its applications to applied statistical problems. Prerequisites: Some previous exposure to computer programming. Some basic statistics at the Applied Regression or Applied Design level and permission of instructor. LEC.

BIOS 825. Nonparametric Methods. 3 Hours.
This course is an introduction to nonparametric statistical methods for data that do not satisfy the normality or other usual distributional assumptions. We will cover most of the popular nonparametric methods used for different scenarios, such as a single sample, two independent or related samples, three or more independent or related samples, goodness-of-fit tests, and measures of association. Power and sample size topics will also be covered. The course will cover the theoretical basis of the methods at an intermediate mathematical level, and will also present applications using real world data and statistical software. Prerequisite: Permission of instructor. LEC.

BIOS 830. Experimental Design. 3 Hours.
The emphasis of this course is on learning the basics of experimental design and the appropriate application and interpretation of statistical analysis of variance techniques. Prerequisite: Permission of instructor, BIOS 820 recommended. LEC.

BIOS 833. Sampling Methods. 3 Hours.
Students will be introduced to the design and analysis techniques when sampling from finite populations using simple, stratified, multistage, systematic, and complex sampling designs. Prerequisites: BIOS 830 and BIOS 872 or by permission of instructor. LEC.

BIOS 835. Categorical Data Analysis. 3 Hours.
This course provides an understanding of both the mathematical theory and practical applications for the analysis of data for response measures that are ordinal or nominal categorical variables. This includes univariate analysis, contingency tables, and generalized linear models for categorical response measures. Regression techniques covered for categorical response variables, such as logistic regression and Poisson regression methods, will include those categorical and/or continuous explanatory variables, both with and without interaction.
effects. Prerequisite: By permission of instructor; BIOS 820 and BIOS 840 are recommended. LEC.

**BIOS 840. Linear Regression. 3 Hours.**
This course is an introduction to model building using regression techniques. We will cover many of the popular topics in Linear Regression including: simple linear regression, multiple regression, model selection and validation, diagnostics and remedial measures. Throughout the semester, we will be utilizing primarily SAS. Prerequisite: By permission of the instructor. LEC.

**BIOS 845. Survival Analysis. 3 Hours.**
This class provides an understanding of both the mathematical theory and practical applications for the analysis of time to event data with censoring. This includes univariate analysis, group comparisons, and regression techniques for survival analysis. Parametric and semi-parametric regression techniques covered will include those with categorical and/or continuous explanatory variables, both with and without interaction effects. Prerequisites: BIOS 820, 835, 840, and 871, or by permission of instructor. LEC.

**BIOS 850. Multivariate Statistics. 3 Hours.**
This course will introduce the theory and methods of applied multivariate analysis. As the field of multivariate analysis is very wide and well developed, the course will focus on those methods that are more frequently used in biostatistical applications. Some knowledge of basic matrix algebra is necessary and will be reviewed as the course progresses. Theoretical exercises and analysis of data sets will be assigned to the student. Emphasis will be on biostatistical applications. Prerequisites: BIOS 820 Statistical Computing, BIOS 830 Experimental Design, BIOS 840 Linear Regression. LEC.

**BIOS 855. Statistical Methods in Genomics Research. 3 Hours.**
This survey course will provide a high-level introduction to various statistical and bioinformatics methods involved in the study of biological systems. In particular, this course will provide an overview of the analytical aspects involved in: the study DNA, RNA, and DNA methylation data measured from both microarray and next-generation sequencing (NGS) technologies. This course will be held in a block format with 4 hours of lectures a day for two weeks (one week in June and one week in July), with readings and homework assignments assigned throughout the summer semester. During the last week of the summer semester, students will be required to participate in a group seminar session in which they will present the results from their assigned genomics projects. Prerequisites: BIOS 820 Statistical Computing OR experience programming in a higher level programming language; BIOS 840 Linear Regression; OR by permission of the instructor. LEC.

**BIOS 871. Mathematical Statistics. 3 Hours.**
This course introduces the fundamentals of probability theory, random variables, distribution and density functions, expectations, transformations of random variables, moment generating functions, convergence concepts, sampling distributions, and order statistics. Prerequisite: By permission of instructor. LEC.

**BIOS 872. Mathematical Statistics II. 3 Hours.**
This course introduces the fundamentals of statistical estimation and hypothesis testing, including point and interval estimation, likelihood and sufficiency principles, properties of estimators, loss functions, Bayesian analysis, and asymptotic convergence. Prerequisite: BIOS 871 or by permission of instructor. LEC.

**BIOS 898. Collaborative Research Experience. 3 Hours.**
This course provides students with experience in collaborative research under the supervision of an experienced researcher. The student will spend one semester working under an investigator or faculty member, making independent contributions to a research project. Prerequisites: BIOS 820, 835, 840, 871, and 872, or by permission of instructor. LEC.

**BIOS 900. Linear Models. 3 Hours.**
This course introduces the theory and methods of linear models for data analysis. The course includes the theory of general linear models including regression models, experimental design models, and variance component models. Least squares estimation, the Gauss-Markov theorem, and less than full rank hypotheses will be covered. Prerequisites: BIOS 871 and BIOS 872 or by permission of instructor; BIOS 820 recommended. LEC.

**BIOS 902. Bayesian Statistics. 3 Hours.**
This course introduces Bayesian theory and methods for data analysis. The course includes an overview of the Bayesian approach to statistical inference, performance of Bayesian procedures, Bayesian computational issues, model criticism, and model selection. Case studies from a variety of fields are incorporated into the course. Implementation of models using Markov chain Monte Carlo methods is emphasized. Prerequisites: BIOS 871 and 872 or by permissions of instructor; BIOS 820 recommended. LEC.

**BIOS 905. Theory of Statistical Inference. 3 Hours.**
This course covers advanced aspects of statistical inference. It is aimed at preparing Ph.D. BIOS students for the Ph.D. comprehensive exam and will emphasize advanced biostatistical ideas as well as problem solving techniques. Prerequisites: Mathematical Statistics I, Mathematical Statistics II. By permission of instructor. LEC.

**BIOS 906. Advanced Special Topics in Biostatistics. 1-3 Hours.**
This course allows exploration of special topics that are not routinely a part of the Biostatistics Ph.D. curriculum. Prerequisite: Passing grade on the Ph.D Qualifying exam. Permission of the instructor. LEC.

**BIOS 908. Advanced Clinical Trials. 3 Hours.**
This course provides an introduction to recent innovations in clinical trial designs and analysis methods. Topics include concepts of controls, randomization; common trial designs by phase of clinical development; sample size calculations; interim analysis; and adaptive clinical trials. Traditional frequentist and likelihood approaches to trial design and analysis will be covered in the first half of the course; the Bayesian approach (including adaptive clinical trials designs) will be emphasized in the second half of the course. Prerequisites: BIOS 810, BIOS 820, BIOS 830, BIOS 835, BIOS 840. BIOS 821 recommended. Permission of the Instructor. LEC.

**BIOS 910. Generalized Linear Models. 3 Hours.**
This course on Generalized Linear Models (GLM) is designed for both the applied and theoretical statistician. In this course we introduce the theoretical foundations and key applications of generalized linear models. Prerequisites: BIOS 835 Categorical Data Analysis, BIOS 840 Linear Regression, BIOS 890 Linear Models or by permission of instructor. LEC.

**BIOS 911. Nonlinear Models. 3 Hours.**
This course will involve both theory and applications of nonlinear models, with emphasis in biological, medical, and pharmaceutical research. Applications to dose-response studies, bioassay studies and clinical pharmacokinetics and pharmacodynamics studies will be discussed. Nonlinear mixed effects models will also be examined, as well as criteria for optimal experimental designs based on nonlinear models. This course will cover the theoretical basis of the methods at an intermediate mathematical level, and will also present applications using real world data and statistical software. Prerequisite: BIOS 890 Linear Models. LEC.
BIOS 915. Longitudinal Data Analysis. 3 Hours.
A longitudinal study is a research study that involves repeated observations of the same individuals and events over extended periods of time. It is typically a type of observational study, though may have design components. In medical settings these studies and related models are used to observe the developmental path of a disease or treatment through time. Often this is in the context of follow-up and long-term study of both progress and potential side-effects. As the study involves the same individuals (subject to drop-out) through several time points, statistical methods must employ random effects or "mixed models" incorporating various correlation structures. This is typically done using generalized estimating equations and marginal model approaches. Bayesian methods may also be appropriate here. Students will, after completing this course, be able to design and analyze longitudinal studies. The computer package to be employed is SAS. Prerequisites: BIOS 820, BIOS 830, BIOS 840, BIOS 871, BIOS 872, and BIOS 890 or by permission of instructor. LEC.

BIOS 920. Latent Variable Analysis. 3 Hours.
Latent variables refer to random variables whose realization values are not observable or cannot be measured without error, and their inferences rely on statistical models connecting latent and other observed variables. This course aims to introduce a family of such statistical models and their applications in biomedical and public health research. The course is designed as an elective course for students in the Biostatistics graduate program. We will use the statistical packages of M-plus, R, and/or SAS for the course. Prerequisite: BIOS 835 and BIOS 890, or by permission of instructor. Familiarity with vectors and matrices is strongly encouraged. LEC.

BIOS 930. Data Mining. 3 Hours.
This is a graduate level course introducing students to common steps used in data mining such as accessing and assaying prepared data, pattern discovery, predictive modeling using decision trees, regression, neural networks, and model assessment methods. Prerequisites: BIOS 820, BIOS 821, BIOS 850, BIOS 890, and permission of instructor. LEC.

BIOS 999. Doctoral Dissertation. 1-6 Hours.
Preparation of the doctoral dissertation based upon original research and in partial fulfillment of the requirements for the Ph.D. degree. Credits will be given only after the dissertation has been accepted by the student's dissertation committee. Prerequisite: Successful completion of the Department of Biostatistics Ph.D. Comprehensive Exam and consent of advisor. LEC.

Master of Science in Biostatistics

Biostatistics Graduate Programs

The biostatistics M.S. and Ph.D. programs were created to help meet the ever-increasing demand for biostatisticians to take leadership roles in careers as researchers and educators in academia, government, and industry. Faculty members are active researchers collaborating and consulting in research projects and initiatives at the Medical Center, in addition to pursuing of their own research agendas and participating in curricular instruction. Expertise in the department includes linear, nonlinear, and longitudinal modeling; clinical trial and experimental design; survival analysis; categorical data analysis; robust statistics; psychometric methods; and Bayesian methodology.

Graduate Admission

Biostatistics Admission Criteria, Materials, and Timeline

Candidates pursuing the biostatistics degree must meet general KUMC requirements for admission to graduate studies. Admission is competitive and limited.

- Students applying for the M.S. program must have a bachelor’s degree from an accredited institution.
- Students applying directly to the Ph.D. program must have a master’s degree in statistics, biostatistics, mathematics, or applied mathematics from an accredited program or a terminal degree (M.D., Ph.D.) in another field and must get approval from the graduate program. Otherwise, applicants should apply for the M.S. program.

In addition to these degree requirements, the minimum requirements for admission to the biostatistics program include:

1. An undergraduate grade-point average of 3.0 on a 4.0 scale (applicants with GPAs below 3.0 may be considered for admission on provisional status),
2. A B average in calculus I through III (or equivalent),
3. Successful completion of a course in any computer programming language,
4. Successful completion of at least 1 of the following courses: linear algebra, differential equations, numerical analysis.
5. A background check (http://www.kumc.edu/student-services/vice-chancellor-of-student-services/criminal-background-checks-for-students.html) is required during the admission process; it may affect the student’s eligibility to enter the program.

Applications for the fall semester should be received by March 1 for consideration. All biostatistics applications must be supported by:

1. Official transcripts bearing the seal from each college or university in which course work was taken,
2. Graduate Record Examination scores,
3. 3 letters of recommendation,
4. A current resume or curriculum vitae,
5. A personal statement regarding your interest in biostatistics and in biomedical research.

Applicants whose native language is not English or who graduated from a foreign institution must submit TOEFL scores less than 2 years old. The complete minimum English proficiency requirements for KUMC students can be found on the International Programs website (http://www.kumc.edu/international-programs/academic-english-requirements.html). Applicants who earned a degree outside the United States must submit a transcript evaluation for U.S. equivalent degree and grade-point average.

Online application and procedures can be found on the department’s website (http://biostatistics.kumc.edu).

M.S. Degree Program

The M.S. program prepares students to function as biostatisticians or biostatistical consultants. Upon completion of the M.S. in biostatistics, the student has an extensive understanding of biostatistical theory and
practice and is proficient in the computation and application of statistical methods to one or more areas in the health sciences.

M.S. Degree Requirements
The biostatistics M.S. program consists of 36 credit hours including collaborative research experience, annual evaluations, and the successful completion of the master’s general examination.

The course plan consists of 27 credit hours from required biostatistics core courses including 3 credit hours of Collaborative Research Experience. This requirement ensures the completion of a research component through collaborative effort within or external to the department.

A minimum of 9 credit hours in elective courses is also required. Elective credit hours include a minimum of 3 and a maximum of 6 credit hours in approved courses from outside the department and a minimum of 3 and maximum of 6 credit hours in biostatistics electives. Biostatistics electives can be chosen from the list of elective classes and the required Ph.D. courses.

Required Biostatistics M.S. Core Courses (27 credit hours)

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<td>BIOS 810</td>
<td>Clinical Trials</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 820</td>
<td>Statistical Computing/SAS Base L1</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 830</td>
<td>Experimental Design</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 835</td>
<td>Categorical Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 840</td>
<td>Linear Regression</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 871</td>
<td>Mathematical Statistics</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 872</td>
<td>Mathematical Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 900</td>
<td>Linear Models</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 898</td>
<td>Collaborative Research Experience</td>
<td>3</td>
</tr>
</tbody>
</table>

Annual Evaluations
Students are evaluated each April by their graduate advisors and the director of the graduate program. These evaluations provide feedback to the student regarding the progress they are making in meeting program requirements, classroom performance, and research performance.

Master’s General Examination
The master’s general examination is given after a student’s third full semester in residence, assuming the completion of the following courses: Mathematical Statistics I and II, Statistical Computing, Experimental Design, Linear Regression, and Categorical Data Analysis. The examination has 3 purposes: to assess the student’s strengths and weaknesses; to determine whether the student should be awarded the M.S. degree; and, if it is a degree goal, to determine whether the student is prepared to continue into the Ph.D. program.

Doctor of Philosophy in Biostatistics

Biostatistics Graduate Programs
The biostatistics M.S. and Ph.D. programs were created to help meet the ever-increasing demand for biostatisticians to take leadership roles in careers as researchers and educators in academia, government, and industry. Faculty members are active researchers collaborating and consulting in research projects and initiatives at the Medical Center, in addition to pursuing of their own research agendas and participating in curricular instruction. Expertise in the department includes linear, nonlinear, and longitudinal modeling; clinical trial and experimental design; survival analysis; categorical data analysis; robust statistics; psychometric methods; and Bayesian methodology.

Graduate Admission
Biostatistics Admission Criteria, Materials, and Timeline
Candidates pursuing the biostatistics degree must meet general KUMC requirements for admission to graduate studies. Admission is competitive and limited.

- Students applying for the M.S. program must have a bachelor's degree from an accredited institution.
- Students applying directly to the Ph.D. program must have a master’s degree in statistics, biostatistics, mathematics, or applied mathematics from an accredited program or a terminal degree (M.D., Ph.D.) in another field and must get approval from the graduate program.
- Otherwise, applicants should apply for the M.S. program.

In addition to these degree requirements, the minimum requirements for admission to the biostatistics program include

1. An undergraduate grade-point average of 3.0 on a 4.0 scale (applicants with GPAs below 3.0 may be considered for admission on provisional status),
2. A B average in calculus I through III (or equivalent),
3. Successful completion of a course in any computer programming language,
4. Successful completion of at least 1 of the following courses: linear algebra, differential equations, numerical analysis.
5. A background check (http://www.kumc.edu/student-services/vice-chancellor-of-student-services/criminal-background-checks-for-students.html) is required during the admission process; it may affect the student’s eligibility to enter the program.

Applications for the fall semester should be received by March 1 for consideration. All biostatistics applications must be supported by

1. Official transcripts bearing the seal from each college or university in which course work was taken,
2. Graduate Record Examination scores,
3. 3 letters of recommendation,
4. A current resume or curriculum vitae,
5. A personal statement regarding your interest in biostatistics and in biomedical research.

Applicants whose native language is not English or who graduated from a foreign institution must submit TOEFL scores less than 2 years old. The complete minimum English proficiency requirements for KUMC students can be found on the International Programs website (http://www.kumc.edu/international-programs/academic-english-requirements.html). Applicants who earned a degree outside the United States must submit a transcript evaluation for U.S. equivalent degree and grade-point average.

Online application and procedures can be found on the department’s website (http://biostatistics.kumc.edu).
Ph.D. Degree Program

The Ph.D. program produces biostatisticians who can develop biostatistical methodology that can be used to solve problems in public health and the biomedical sciences. In addition, graduates are prepared to apply biostatistical and epidemiology methodology for the design and analysis of public health and biomedical research investigations. Finally, graduates are well suited to function as collaborators or team leaders on research projects in the biomedical and public health sciences.

Ph.D. Degree Requirements

The program consists of 63 credit hours including collaborative research experience, annual evaluations, graduate examinations, and the successful completion of a doctoral dissertation. Dissertation research culminates in a final dissertation examination consisting of an oral presentation by the candidate and an examination by the faculty.

Relevant prior graduate work is taken into consideration in setting up individual programs of study leading to the Ph.D. The typical course plan consisting of 63 credit hours is designed for students who have not previously completed a M.S. in biostatistics or directly relevant area. The course plan for a student who has previously completed a M.S. in biostatistics or directly relevant area is customized to account for master’s-level courses already taken; therefore the total credit hours required will vary. Students applying directly to the Ph.D. program must have a master’s degree in statistics, applied statistics, biostatistics, mathematics, or applied mathematics from an accredited program or a terminal degree (M.D., Ph.D.) in another field and must get approval from the graduate program. Otherwise, applicants should apply for the M.S. program.

The typical program consists of 63 credit hours including collaborative research experience, annual evaluations, graduate examinations, and the successful completion of a doctoral dissertation.

Required Biostatistics Ph.D. Core Courses (42 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOS 810</td>
<td>Clinical Trials</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 820</td>
<td>Statistical Computing/SAS Base L1</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 825</td>
<td>Nonparametric Methods</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 830</td>
<td>Experimental Design</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 835</td>
<td>Categorical Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 840</td>
<td>Linear Regression</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 845</td>
<td>Survival Analysis</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 871</td>
<td>Mathematical Statistics</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 872</td>
<td>Mathematical Statistics II</td>
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</tr>
<tr>
<td>BIOS 902</td>
<td>Bayesian Statistics</td>
<td>3</td>
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<td>BIOS 900</td>
<td>Linear Models</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 898</td>
<td>Collaborative Research Experience</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 910</td>
<td>Generalized Linear Models</td>
<td>3</td>
</tr>
</tbody>
</table>

Annual Evaluations

Students are evaluated each April by their graduate advisors and the director of the graduate program. These evaluations provide feedback to the student regarding the progress they are making in meeting program requirements, classroom performance, and research performance.

Qualifying Examination

The qualifying examination is given after a student’s third full semester in residence, assuming the completion of the following courses: Mathematical Statistics I and II, Statistical Computing, Experimental Design, Linear Regression, and Categorical Data Analysis. The examination has two purposes: to assess the student’s strengths and weaknesses and to determine whether the student is sufficiently prepared to continue in the Ph.D. program.

Comprehensive Examination

The comprehensive examination is typically given at the end of a student’s fifth full semester in residence, when a doctoral aspirant has completed the major portion of the course work at a satisfactory level and met all other program, school, and general requirements prerequisite to the comprehensive examination, including the research skill and responsible scholarship requirements (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm) of the university.

The examination assesses the student’s strengths and weaknesses and determines whether the student should continue in the Ph.D. program. There is both a written component to the exam and a subsequent presentation and defense of a dissertation proposal.

Dissertation

Students are recognized as formal candidates for the Ph.D. only after they have passed the comprehensive examination and completed all residency and departmental requirements. The candidate must present a dissertation showing the planning, conduct, and results of original research and scholarly activity. The purpose of the dissertation is to encourage and ensure the development of broad intellectual capabilities as well as to demonstrate an intensive focus on a problem or research area. This work is carried out under the guidance of a dissertation advisor.

Final Oral Examination

When the completed dissertation has been accepted by the dissertation committee in final draft form and all other degree requirements have been satisfied the chair of the committee requests (at least 3 weeks before the date of the examination) the Graduate Division to schedule the final oral examination. The student is required to be enrolled in BIOS 999 Dissertation the semester they defend the dissertation.

Statistical Applications Graduate Certificate

The Statistical Applications Graduate Certificate is awarded to those who have demonstrated specialized knowledge in a scientific field, but not to the level required by a postgraduate master’s degree. The Graduate Certificate in Statistical Applications proposed herein requires individuals to acquire sufficient knowledge and expertise to permit them to work at the frontier of their field through:

1. Becoming familiar with statistical methods in research, business, and industry.
2. Becoming excellent consumers of the literature where statistical applications are utilized.
3. Applying many of the common statistical methods to compliment his or her every day job duties. Course work in this proposal is designed with this purpose in mind.
Characteristics of Graduates:
Upon completion of the Graduate Certificate in Statistical Applications, the student should be prepared to apply many of the common statistical methods to compliment his or her every day job duties. Therefore the student must have a basic understanding of statistical practice and should be proficient in the application of common statistical methods to one or more areas application. At the completion of the Graduate Certificate in Statistical Applications the graduate should be able to:

1. Demonstrate a basic knowledge and understanding of the applications of some of the more common statistical methods.
2. Function as a collaborator on a research team.
3. Critically evaluate the literature where statistical applications are used.
4. Take a leadership role in the implementation of a research project.
5. Prepare reports and publications resulting from research studies.
6. Serve as an advocate for proper statistical application and interpretation of results in his or her field.

To pursue the Graduate Certificate, the applicant must meet the general KU requirements for admission to graduate studies. The minimum requirements for admission into the Statistics Graduate Certificate program are:

1. An undergraduate GPA of 3.0 or better is required for regular admission status. Provisional status may be granted for applicants with GPAs of less than 3.0, provided they meet the academic standards of the Department without excessive deficiencies in prerequisites.
2. Letter grade B or better in calculus I (or equivalent) or a quantitative GRE score in the 70th percentile or higher.
3. Letter grade B or better in a graduate-level introductory statistics course (e.g., BIOS 717: Fundamentals of Biostatistics II or equivalent). Note: Students not meeting this requirement may fulfill this with completion of BIOS 717.

An applicant meeting the fore going standards is referred to the Biostatistics admissions committee for approval or disapproval.

Additional reference to KUMC Graduate Studies: http://catalog.ku.edu/201314/schools/gs/certificates

No student may work toward a graduate certificate without being accepted as a graduate certificate student in a specific graduate certificate program. Graduate certificates are not granted retroactively. An individual who is not currently a degree-seeking graduate student at KU must apply and may be admitted directly to a graduate certificate program.

Degree-seeking graduate students admitted to a certificate program must be in good standing (3.0 or higher grade-point average) with their departments. A degree-seeking student currently enrolled in a graduate degree program who wishes to pursue a simultaneous graduate certificate in another department must inform the graduate director/advisor/coordinator in the home department of his or her intent to seek the certificate, in addition to applying directly to a graduate certificate program.

The graduate certificate program is not a means of entry into a graduate degree program. If students admitted to a graduate certificate program are later admitted to a graduate degree program as degree-seeking, applicable courses taken for the graduate certificate program may, upon recommendation of the department or program to its Graduate Division and within general guidelines, be approved by the division to be counted toward the degree.

While the courses comprising a graduate certificate may be used as evidence in support of a student’s application for admission to a graduate degree program, the certificate itself is not considered to be a prerequisite and does not guarantee admission into any graduate degree program. The certificate program is not intended to serve as a default system for students in a degree program who find that they are not able to complete the degree for academic or other reasons. Should a student drop out of a degree program and seek admission to a certificate program, all certificate admission requirements must be followed for admission and conferred.

Graduate credit from another institution may not be transferred to a KU graduate certificate program.

Application for admission to the Statistics Graduate Certificate program is through the Department of Biostatistics. The following materials are required for admission:

2. An official transcript bearing the official seal from each college or university in which coursework had been taken. Evidence of a Bachelor’s Degree from an accredited college or university is required.
3. Graduate Record Examination (GRE) scores.
4. Students currently enrolled in graduate programs at KUMC or KU must be in good standing (3.0 or higher GPA) and have a letter of approval from their current graduate program director and/or department chair indicating support for enrolling into the certificate program.
5. An application fee of $75.00 is required for each student application. For those students that are currently enrolled in a KUMC, KU Lawrence, KU School of Medicine Wichita and Salina program the application fee will be waived in full upon verification.
6. If an applicant is a current KU or KUMC student we must receive a letter of approval from the program department at which the student is enrolled in.
7. A background check (http://www.kumc.edu/student-services/vice-chancellor-of-student-services/criminal-background-checks-for-students.html) is required during the admission process; it may affect the student’s eligibility to enter the program.

Applicants whose native language is not English or who graduated from a foreign institution must submit TOEFL scores less than 2 years old. The complete minimum English proficiency requirements for KUMC students can be found on the International Programs website (http://www.kumc.edu/international-programs/academic-english-requirements.html).

Applicants who earned a degree outside the United States must submit a transcript evaluation for U.S. equivalent degree and grade-point average.

Online application and procedures can be found on the department’s website (http://biostatistics.kumc.edu).

Course Plan/Certificate Requirements For Students Seeking a Graduate Degree:
For individuals already seeking a post-graduate degree at KUMC, KU-L, KU Wichita or Salina campuses a minimum of 12 post-Bachelor’s Degree credit hours are required with a B or better grade in each course to be awarded the Graduate Certificate. Biostatistics courses required by their current program cannot count toward the 12 credit hours. The course plan consists of 12 credit hours from courses in statistical applications through the Department of Biostatistics:

**Statistical Application Courses (12 credit hours, choose 4):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOS 715</td>
<td>Introduction to Data Management using RedCap and SAS</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 720</td>
<td>Analysis of Variance</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 730</td>
<td>Applied Linear Regression</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 725</td>
<td>Applied Nonparametric Statistics</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 735</td>
<td>Categorical Data and Survival Analysis</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 740</td>
<td>Applied Multivariate Methods</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 799</td>
<td>Introduction to Statistical Genomics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Course Requirements For Students Not Seeking Post-Graduate Degree:**

For individuals who are otherwise not seeking a post-graduate degree at KUMC or KU-L, a minimum of 12 post-Bachelor’s Degree credit hours are required with a B or better grade in each course to be awarded the Graduate Certificate. The course plan consists of 12 credit hours from courses in statistical applications through the Department of Biostatistics:

**Required Courses (6 credit hours):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOS 720</td>
<td>Analysis of Variance</td>
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</tr>
<tr>
<td>BIOS 730</td>
<td>Applied Linear Regression</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Courses (6 credit hours, choose 2):**

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
</thead>
<tbody>
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</tr>
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<td>Applied Multivariate Methods</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 799</td>
<td>Introduction to Statistical Genomics</td>
<td>3</td>
</tr>
</tbody>
</table>

*All course prerequisites must be met for enrollment to courses.


*KUMC Department of Biostatistics Website - http://www.kumc.edu/school-of-medicine/department-of-biostatistics/biostatistics-graduate-program.html.

**Statistics Graduate Certificate**

The Statistics Graduate Certificate is awarded to those who have demonstrated specialized knowledge in a scientific field, but not to the level required by a postgraduate master’s degree. The certificate program requires individuals to acquire focused knowledge in statistical theory, with an emphasis on application.

**Characteristics of Graduates:**

Upon completion of the Graduate Certificate in Statistics, the student should be prepared to apply many of the common statistical methods to compliment his or her every day job duties. Therefore the student must have a basic understanding of the statistical theory and practice and should be proficient in the application of common statistical methods to one or more areas application. At the completion of the Graduate Certificate in Statistics the graduate should be able to:

1. Demonstrate a basic knowledge and understanding of the statistical theory and practice as applicable to his or her field.
2. Function as a collaborator on a research team.
3. Critically evaluate the literature where statistical applications are used.
4. Take a leadership role in the design and implementation of a research project.
5. Assume responsibility for the design and implementation of analyses for a research project.
6. Prepare reports and publications resulting from research studies.
7. Serve as an advocate for proper statistical design and interpretation of results in his or her field.

To pursue the Graduate Certificate, the applicant must meet the general KU requirements for admission to graduate studies. The minimum requirements for admission into the Statistics Graduate Certificate program are:

1. An undergraduate GPA of 3.0 or better is required for regular admission status. Provisional status may be granted for applicants with GPAs of less than 3.0, provided they meet the academic standards of the Department without excessive deficiencies in prerequisites.
2. Letter grade B or better in calculus I – III (or equivalent).
3. Successful completion of a course in any computer programming language.
4. Successful completion of at least one of the following courses: linear algebra, differential equations, numerical analysis.

An applicant meeting the foregoing standards is referred to the Biostatistics admissions committee for approval or disapproval.

Additional reference to KUMC Graduate Studies: http://catalog.ku.edu/201314/schools/gs/certificates

No student may work toward a graduate certificate without being accepted as a graduate certificate student in a specific graduate certificate program. Graduate certificates are not granted retroactively. An individual who is not currently a degree-seeking graduate student at KU must apply and may be admitted directly to a graduate certificate program.

Degree-seeking graduate students admitted to a certificate program must be in good standing (3.0 or higher grade-point average) with their departments. A degree-seeking student currently enrolled in a graduate degree program who wishes to pursue a simultaneous graduate certificate in another department must inform the graduate director/advisor/coordinator in the home department of his or her intent to seek the certificate, in addition to applying directly to a graduate certificate program.

The graduate certificate program is not a means of entry into a graduate degree program. If students admitted to a graduate certificate program are later admitted to a graduate degree program as degree-seeking, applicable courses taken for the graduate certificate program may, upon recommendation of the department or program to its Graduate Division
and within general guidelines, be approved by the division to be counted toward the degree.

While the courses comprising a graduate certificate may be used as evidence in support of a student’s application for admission to a graduate degree program, the certificate itself is not considered to be a prerequisite and does not guarantee admission into any graduate degree program. The certificate program is not intended to serve as a default system for students in a degree program who find that they are not able to complete the degree for academic or other reasons. Should a student drop out of a degree program and seek admission to a certificate program, all certificate admission requirements must be followed for admission and conferral.

Graduate credit from another institution may not be transferred to a KU graduate certificate program.

Application for admission to the Statistics Graduate Certificate program is through the Department of Biostatistics. The following materials are required for admission:

2. An official transcript bearing the official seal from each college or university in which coursework had been taken. Evidence of a Bachelor’s Degree from an accredited college or university is required.
3. Three (3) letters of recommendation.
4. Graduate Record Examination (GRE) scores.
5. Students currently enrolled in graduate programs at KUMC or KU must be in good standing (3.0 or higher GPA) and have a letter of approval from their current graduate program director and/or department chair indicating support for enrolling into the certificate program.
6. An application fee of $75.00 is required for each student application. An application fee will be waived in full upon verification.
7. If an applicant is a current KU or KUMC student we must receive a letter of approval from the program department at which the student is enrolled in.
8. A background check (http://www.kumc.edu/student-services/vice-chancellor-of-student-services/criminal-background-checks-for-students.html) is required during the admission process; it may affect the student’s eligibility to enter the program.

Applicants whose native language is not English or who graduated from a foreign institution must submit TOEFL scores less than 2 years old. The complete minimum English proficiency requirements for KUMC students can be found on the International Programs website (http://www.kumc.edu/international-programs/academic-english-requirements.html).

Applicants who earned a degree outside the United States must submit a transcript evaluation for U.S. equivalent degree and grade-point average.

Online application and procedures can be found on the department’s website (http://biostatistics.kumc.edu).

**Course Plan/Certificate Requirements:**

A minimum of 15 post-Bachelor’s Degree credit hours are required with a letter grade B or better, which include 9 credit hours of required courses and 6 elective credit hours of courses taught through the Department of Biostatistics:

**Required Courses (9 credit hours):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOS 871</td>
<td>Mathematical Statistics</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 830</td>
<td>Experimental Design</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 840</td>
<td>Linear Regression</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Courses (6 credit hours, choose 2):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOS 820</td>
<td>Statistical Computing/SAS Base L1</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 821</td>
<td>Statistical Computing II</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 823</td>
<td>Introduction to Programming and Applied Statistics in R</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 825</td>
<td>Nonparametric Methods</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 833</td>
<td>Sampling Methods</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 835</td>
<td>Categorical Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 845</td>
<td>Survival Analysis</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 850</td>
<td>Multivariate Statistics</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 855</td>
<td>Statistical Methods in Genomics Research</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 872</td>
<td>Mathematical Statistics II</td>
<td>3</td>
</tr>
</tbody>
</table>

*All course prerequisites must be met for enrollment to courses.*


*KUMC Department of Biostatistics Website - http://www.kumc.edu/school-of-medicine/department-of-biostatistics/biostatistics-graduate-program.html.*

**Department of Health Policy and Management**

**Health Policy and Management Graduate Programs**

The Department of Health Policy and Management offers the Master of Health Services Administration and the Doctor of Philosophy in Health Policy and Management degrees.

**Courses**

**HP&M 610. The Health Care System. 4 Hours.**

This course introduces students to the health care system of the United States. The course stresses the system’s historical development, distinguishing features, financing, management, resources, and politics. Requirements include position papers, class discussions, examinations, and site visits to health care facilities LEC.

**HP&M 620. Women and Health Care. 3 Hours.**

A gender analysis of the organization of health care in the United States, using sociohistorical and sociological perspectives. Considers the health status and health care problems of women in relation to cultural aspects of medicine and health care; the roles of both informal and professional health care providers; the political economy of health care systems; and the relationship between gender and the state. (Same as SOC 617.) Prerequisite: HPM 601 or permission of instructor. LEC.
HP&M 810. The Health Care System. 3 Hours.
The structure and function of the components of the U.S. healthcare system are introduced in the context of the history, values and social forces that influenced its development and evolution. Students gain exposure to the concepts and vocabulary associated with aspects of the system, including delivery (providers, institutions, services), resources (finance, payment, insurance), population and public health, and outcomes (cost, access, quality). Healthcare outcomes from consumer, clinical, and societal perspectives are explored. LEC LEC.

HP&M 819. Research for Health Care Leaders. 3 Hours.
Introduces epidemiology, survey research, and evaluation research. Examines quantitative and qualitative methods. Focuses on role of research in health policy and health management. Incorporates lecture, discussion, papers and presentations. LEC.

HP&M 822. Health Care Economics. 3 Hours.
This course introduces the core concepts from economics to healthcare with a focus on helping healthcare managers use economic tools in making sound decisions. The demand for healthcare products, the structure of insurance, and the supply of healthcare products are examined. Students will apply a variety of economic analyses to health policy and health system issues. LEC LEC.

HP&M 825. Financial Concepts in Healthcare Management. 3 Hours.
Financial accountability is a critical responsibility of health services administrators. This course presents basic concepts and techniques for effective decision-making and stewardship, including financial statement analysis; strategic financial planning; capital formation; responsibility and cost accounting; operational, capital and cash budgeting; capital project analysis; and working capital management. LEC LEC.

HP&M 827. Financial Applications in Healthcare Management. 3 Hours.
Administrative applications of economic and financial concepts are applied to support strategic and financial goals. The concept of integrating operational and strategic planning into a strategic financial plan is developed. This course will foster integration and confidence in performing and applying financial analytical procedures such as financial statement ratio analysis; revenue and expense forecasting (budgeting); credit worthiness determination; break-even analysis and working capital management in a variety of healthcare settings including long-term care and public health. Prerequisite: HPM 825, Financial Concepts in Healthcare Management. LEC LEC.

HP&M 830. Health Care Management. 3 Hours.
This course introduces key concepts and skills for health care managers. Emphasizing self-discovery and professional development, the course examines how to become an informed employee, an effective team member, and a successful manager. Course topics include interpersonal skills, delegation, leadership, performance management, and organizational change. Learning methods include lectures, case analyses, experiential exercises, and discussion. Prerequisites: HPM 810 or permission of instructor. LEC.

HP&M 831. Reimbursement and Fiscal Policy. 2 Hours.
Reimbursement and fiscal policy practices impact the success and the economic well-being of healthcare institutions, payers and patients. This course develops the student’s understanding of complex reimbursement methodologies from the perspective of providers and payers. Students will explore the strengths and weaknesses of the major methods of third party reimbursement, the types of managed care organizations and the payment methodologies employed. Students are also prepared to approach reimbursement policy issues both from the payer and the provider viewpoint. LEC LEC.

HP&M 832. Governance and Health Law. 2 Hours.
A survey course of the law as it affects governance, health care administration and health care generally. This course will develop the student’s understanding of health law and its impact on many aspects of health care governance and administration. The student should be able to identify and understand various legal issues they may encounter and when to engage legal counsel’s advice. Prerequisite: HPM 810. LEC.

HP&M 833. Ethics. 2 Hours.
An introduction to the principles and concepts in the ethics of health services administration. The course will help students further develop their skills to recognize and analyze ethical dilemmas, and to explain, justify and evaluate the decisions they make in response to such dilemmas. LEC.

HP&M 837. Health Policy. 3 Hours.
This course examines the development, implementation, and evaluation of federal, state, and local health policy in the United States. Particular attention will be given to (1) the development of public institutions and policy goals; and (2) current policy problems such as cost controls, reimbursement, health services utilization, program assessment and evaluation, public health, and public/private investment and resource planning. Students will be expected to synthesize and integrate knowledge to apply theory and principles in ways consistent with professional practice as a health policy analyst. LEC LEC.

HP&M 838. Rural Health Care. 3 Hours.
Provides students with (a) an understanding of major issues in rural health and the rural environment in which health care providers and administrators provide service; (b) an understanding of the demographics, economics, services and challenges associated with the health care delivery systems in rural America and (c) an overview of federal and state health policy and its effect on rural health systems. Special emphasis will be placed on identifying, understanding, and addressing rural health challenges from administrative and policy perspectives. Prerequisites: None. LEC.

HP&M 840. Organizational Foundations for Leading Change. 3 Hours.
Self-discovery as a foundation for professional development while exploring the concepts of leader, manager, and follower is emphasized. Analysis and prediction of an organization’s stages of development and its capacity for linear and social change are introduced through the lens of complexity science. Political, legal, ethical, and other issues that constrain and destabilize organizations and strategies to restore equilibrium are explored. (Same as NRSG 880). LEC LEC.

HP&M 842. Roles, Functions and Care Models. 2 Hours.
This course examines the nature and characteristics of the healthcare workforce needed to deliver direct, indirect, and support services. Healthcare worker roles are analyzed through the lens of key organizational functions and care delivery modalities. Common care delivery models, such as primary, team, and patient-centered care approaches to organizing care delivery are explored in various clinical settings, including acute and long-term care and community and public health entities. Administrative challenges and opportunities for managing a diverse workforce are presented. LEC. LEC.

HP&M 844. Communication for the Healthcare Executive. 2 Hours.
This course focuses on attaining proficient communication skills to deliver high impact messages to stakeholders ranging from board members, to diverse communities of interest, to policymakers and regulators. Verbal and written skill development addresses executive presence to perform communication functions such as conducting an ‘ask’ from a policymaker or potential benefactor, using storytelling and data to shape critical messages to the media, and communicating value-driven
memoranda to internal audiences. The use of emerging technologies to aid in communication effectiveness will also be presented. LEC.

HP&M 846. Managing Information Systems and Technology. 3 Hours.
This course covers fundamental concepts of management information systems; current and developing health and business information systems of interest to managers in health services organizations; healthcare information system architecture; security and privacy issues; uses of healthcare information for clinical and strategic analysis and decision support; techniques required to develop and evaluate a technological request for proposal; and thoughts on the future of healthcare information systems including bio-informatics, community health systems and web-based access to health information. The course will also cover current information and issues regarding the latest technology applications. LEC LEC.

HP&M 848. Designing Health Care Organizations. 2 Hours.
This class examines how design affects a broad range of health care organizations. It considers designs for jobs, processes, equipment, buildings, and organizations, and explores implications for safety, customer satisfaction, worker satisfaction, productivity, effectiveness, and profitability. Students analyze varied cases that approach design as a management decision-making process. LEC.

HP&M 850. Introduction to Operations. 3 Hours.
Examines performance of health care organizations, sources of variation, methods of measurement, and strategies for improving performance. Considers several approaches to performance improvement and examines tools widely used in operations management. Incorporates lecture, discussion, and fieldwork. (Same as NRSG 882.) LEC.

HP&M 852. Strategic Marketing. 2 Hours.
Provides students with a framework for executive-level, strategic market planning and analysis. Topics covered include: the strategic marketing organization; the impact of organizational culture on strategy development; environmental assignments and competitor analysis; market research; and the impact of the marketing fours (price, positioning, promotion, and product) in health care. LEC.

HP&M 853. Strategic Management. 2 Hours.
Explores internal and external analysis for health care organizations. Examines development, analysis, execution, and monitoring of strategies. Application of critical thinking skills to strategy. Lecture and discussion. Prerequisites: Completion of HPM Level I courses or permission of instructor. LEC.

HP&M 854. Human Resources and Workforce Development. 3 Hours.
The focus of this course is to understand the leadership functions of human resource management in organizations to create a competitive edge through employee empowerment. Core human resource concepts are introduced and applied to optimize human capital within a variety of healthcare settings, including compensation and benefits, employee recognition, and employee/labor relations. National, regional and local strategies and workforce trends are discussed related to best practices for the selection, retention, and management as a healthcare employer of choice. (Same as NRSG 891). LEC LEC.

HP&M 857. Evaluating Outcomes of Healthcare. 3 Hours.
This course will trace the development of the outcomes research movement and provide examples of methodologies, assessment instruments and issues that guide outcomes research. It will also review the methods for linking research findings with clinical practice (i.e., clinical practice guidelines). Obstacles to acceptance of practice guidelines will be discussed. Finally, translation of outcomes research methodology into programs to improve health quality will be presented. Prerequisite: Permission of instructor. LEC.

HP&M 858. Health and Social Behavior. 3 Hours.
Healthcare as a cultural and socio-behavioral system is presented. Using research and theory, students explore alternative perspectives on the nature of medicine and healing within comparative health systems, both U.S. and abroad. Students examine at an advanced level how healthcare organizational structures contribute to patient health outcomes and influence employee behaviors. The course reinforces the nature and characteristics of the health professions, particularly medicine and nursing perceptions, and the complex behavioral dynamics of health professionals with organizational leaders. LEC LEC.

HP&M 859. Professional Development. 1 Hour.
Prepares students for an initial professional job search. Explores professional networking, search strategies, resume construction, and interviewing. Reviews professional communication. Incorporates lecture, discussion, and fieldwork. Prerequisite: Permission of instructor. LEC.

HP&M 860. Graduate Internship in Healthcare Services Administration. 1-3 Hours.
This course is designed to meet the needs of individual students to advance their career functioning and set in motion a professional development plan. The inexperienced administrator will use the internship as a mid-curriculum opportunity to apply and synthesize in the practice setting knowledge, skills, and abilities. Students who come to the program with mid-level to advanced experience use the practicum to advance their career through exposure to additional experiences that extends their knowledge, skills, and abilities and demonstrates synthesis of program competencies. FLD FLD.

HP&M 861. Capstone Seminar. 2 Hours.
The knowledge, skills, and abilities learned throughout the program are validated in capstone experience. A case study approach will be used to synthesize and apply principles including, but not limited to, change theory and quality improvement, research and information technologies, strategy and communication tools, human resource management, financial and economic analysis, and advanced decision-making and management of organizational behavior. Students will present their cases to peers, faculty, and external reviewers for dialogue, critique, and a plan for professional skills development. IND. RSH.

HP&M 862. Research Practicum in Health Services Administration. 3 Hours.
A course to explore applied research topics associated with specific health services delivery of management problems. Prerequisites: HPM 821 and HPM 830. RSH RSH.

HP&M 863. Independent Study. 1-3 Hours.
This course is designed to meet the needs of students who have a special interest that cannot be met by existing courses. IND IND.

HP&M 866. Field Immersion in Health Systems Issues and Trends. 1 Hour.
This field-based experience exposes students to a range of issues and trends in health care organizations - public and private, profit and nonprofit. The aim is to engage students in the realities of health system challenges and problems, which can be informed by health services research. Site visits and contacts with executives and policy leaders serve as the basis for scholarly analysis. Prerequisite: Permission of the instructor. FLD.

HP&M 869. Field Immersion in Health Systems Data Management. 1 Hour.
This field-based experience exposes students to current managerial realities and trends in information technology and data management within health care and policy settings. The aim is to engage students in
information technology roles and functions, data set and performance metrics, available systems of technology support, and the scope of data collection, organization and management issues faced by health systems. Prerequisites: HPM 888 or permission of the instructor. LEC.

HP&M 870. Research Inquiry I: Defining and Supporting the Research Problem. 1 Hour.
Students select a problem area, critically review and analyze the research literature related to it and develop a research question(s) and working hypotheses. The analysis of the problem integrates field experiences with relevant literature, and translates ideas from the practice and/or policy setting into the context of scholarly inquiry. Prerequisite: Permission of the instructor. LEC.

HP&M 871. Research Inquiry II: Research Design. 1 Hour.
Students build on a problem area of interest with potential benefit to the health care field and examine methodologies that would support a hypothesis or significant research question. The course guides students in translating their questions into a credible, methodologically defensible research design, including overall strategy, measurement, study population and/or sample. Focus will be placed on critical analysis of design trade-offs and limitations. Prerequisites: HPM 870 or permission of the instructor. LEC.

HP&M 872. Research Inquiry III: Data Analysis Techniques and Strategies. 1 Hour.
Students learn to assess and choose appropriate analytic techniques, whether qualitative or quantitative, and develop a data analysis and presentation plan. Emphasis is placed on evaluating the relative advantages and disadvantages of various analytic strategies in the context of a specific question and research design. Prerequisites: HPM 871 or permission of the instructor. LEC.

HP&M 873. Statistical Applications Using Large Data Bases. 3 Hours.
The management of large data sets is a critical analytic skill for health policy and management research. This course exposes students to the various types and configurations of large data sets and provides hands-on analytic experience using an array of statistical techniques and procedures. Attention is placed on the criteria for designing and evaluating, including the trade-offs in selecting one plan over another. Students actually carry out an analysis plan for a variety of data types. Prerequisites: HPM 819, or permission of the instructor. LEC.

HP&M 874. Statistics for Decision Making. 3 Hours.
Elementary statistical techniques to include descriptive statistics, probability, sampling, and statistical inference of means and proportions; advanced statistical techniques include multivariate analysis of qualitative and quantitative variables using multiple linear and logistic regression. LEC LEC.

HP&M 875. Modeling in Health Services Research. 3 Hours.
Provides an opportunity for students to use a number of common analysis models in health services research. Emphasizes a conceptual understanding of appropriate modeling techniques and use of statistical software packages. The course focuses on application of methods to health services research questions, with emphasis on regression design and interpretation. Prerequisites: HPM 874 or permission of the instructor. LEC.

HP&M 876. Medicare and Medicaid. 3 Hours.
Provides students with an in-depth understanding of the three publicly financed health programs that impact virtually all aspects of the American healthcare system - Medicare, Medicaid and Children's Health Insurance Programs (CHIP), Explores history and evolution of each program, plus specific operational issues such as eligibility, financing, management reporting, state/federal coordination, quality of care and outcomes management and influence of recent legislation. Prerequisite: Permission of the instructor. LEC.

HP&M 877. Women and Healthcare. 3 Hours.
A gender analysis of the organization of healthcare in the United States, using sociohistorical and sociological perspectives. Considers the health status and healthcare problems of women in relation to cultural aspects of medicine and healthcare; the roles of both informal and professional healthcare providers; the political economy of healthcare systems; and the relationship between gender and state. Prerequisite: HPM 810, or permission of instructor. LEC LEC.

HP&M 878. Grant Writing. 3 Hours.
The course is designed to take the principles and mechanics learned in introductory epidemiology and biostatistics and apply them in the design of epidemiologic studies. The strategy and data collection for studies will be emphasized rather than the methods of statistical analysis. The student will learn how to develop a proposal/grant that addresses the entire array of concerns regarding such studies and propose a realistic, scientifically justified study. (Same as ANAT 869 and NRSG 889.) Prerequisite: HPM 819 or HPM 821, and NRSG 886. LEC.

HP&M 879. Comparative Healthcare Systems. 3 Hours.
Critical examination of the structure and function of healthcare systems in major, advanced, capitalist countries (e.g., Canada, Japan, United Kingdom, France, Germany, and Sweden) in comparison to each other and to the healthcare system of the United States. Patterns in control and financing will be studied in relation to issues of cost, quality, access, and in relation to cultural values. Special attention will be placed on comparative analysis of reform efforts. Prerequisite: HPM 810 or permission of instructor. LEC LEC.

HP&M 880. Health Care and Social Policies in Sweden. 3 Hours.
Sweden leads the world in major health outcomes despite spending significantly less than the U.S. This course provides students the opportunity to visit Sweden and see the operation of its health care and social welfare system firsthand. Learn about Swedish history and culture as you re-examine many commonly held assumptions about both the U.S. and Sweden. An intensive schedule of site visits and lectures in the Stockholm-Uppsala area, assigned readings, and a major paper. LEC.

HP&M 882. Health Services Research Using Public Payer Data. 3 Hours.
Several contemporary health reforms have rendered analyses of public payer data more feasible and valuable for population health, health services research, and quality improvement. The addition of an outpatient drug benefit to standard inpatient and outpatient service coverage for Medicare, for example, has stimulated a growth industry in comparative effectiveness research and expanded policy research across the health care system. Pending expansion of States' Medicaid programs under the Affordable Care Act will undoubtedly create the largest public health care insurance program in the United States. The Centers for Medicare Medicaid Services (CMS) have streamlined researchers' access to national Medicare and Medicaid populations for health services and quality improvement projects through contracts with the Research Data Center at the University of Minnesota and the Chronic Condition Warehouse. In addition, Kansas Medicaid has invested in a Data Analytic Interface that offers ready access to our state's employees, Medicaid beneficiaries, and private health insurance claims data for enterprising researchers including tremendous opportunities for state of the art, contemporary policy analyses. This is indeed an exciting and opportune time for students embarking on careers in health services, policy, and population health research. This course is designed to prepare students for real world analyses using standard public payer claims data. LEC.
HP&M 883. Cost-Effectiveness and Decision Analysis. 3 Hours.
This course examines techniques that are used in making clinical and management decisions when outcomes are uncertain. The course begins with a review of probabilistic decision making, then explores methods of analyzing choices with uncertain outcomes, stressing the use of decision trees and sensitivity analysis. The course examines cost minimization analysis, cost effectiveness analysis, and cost benefit analysis. (SAME as PRVM 878). LEC LEC.

HP&M 884. Clinical and Administrative Data Analysis. 3 Hours.
This course presents advanced techniques in statistical analysis and information management to help understand, process, and use health services data. The three broad areas of health services data will be used: clinical, program, and population-based. Ways in which these data can be used as both management and research tools will be discussed. Implications for improving patient care and delivery of health services will be emphasized. Labs will stress the use of both manipulative techniques such as merging, matching, sorting, and file construction, as well as focus on analysis, using univariate, bivariate, and multivariate techniques. Recent methodology related to outcomes, case-mix, and performance assessment will be presented, and their application to health services administration demonstrated. LEC LEC.

HP&M 885. Instructional Methods in Health Services Education. 1 Hour.
An overview of pedagogical approaches and learning strategies for higher education courses in health policy and management. Content will include course organization, syllabus design, techniques for teaching in the classroom and online, learning styles, strategies for classroom management, and evaluation/grading methods. Prerequisites: HPM 868 or permission of the instructor. LEC.

HP&M 886. Applied Health Services Research. 3 Hours.
Students in this course apply the full spectrum of the research process to a specific hypothesis or research question, drawn from practical health systems observations and/or supported by critical analysis of the health services research literature. Moving step by step through the research process, students work to develop a complete research plan and proposal suitable to investigate their chosen question. Group discussion and guest researchers provide elaboration for each stage of research plan development. Prerequisites: HPM 872 and HPM 873 or permission of the instructor. RSC.

HP&M 887. Practicum in Health Services Education. 2 Hours.
Application of the approaches and methods described in HPM 885. Students will serve as a teaching assistant for one semester, working with a teaching mentor. In addition to assisting with the class, students will meet regularly with the mentor to critique and analyze content and classroom processes, plan and develop teaching activities, and evaluate learning and performance in the classroom. Prerequisite: HPM 868 or permission of the instructor. HPM 887 may be taken concurrently with HPM 885. LEC.

HP&M 890. Topics in Health Policy and Management. 1-3 Hours.
This course allows exploration of special topics that are not routinely a part of the curriculum. Prerequisite: Consent of the instructor. IND LEC.

HP&M 901. Doctoral Seminar in Health Policy. 3 Hours.
Students will investigate, review, and critically analyze major concepts, theoretical and methodological approaches and sub-areas in the field of health policy research. The course will cover comparative health policy analyses as well as both micro and macro system perspectives. Prerequisite: Permission of the instructor. SEM.

HP&M 903. Doctoral Seminar in Health Management. 3 Hours.
Students will investigate, review and critically examine major concepts, theories, issues, methodological approaches and sub-areas in the health services management research literature. Special attention will be placed on using research to develop evidence-based practice and suggesting interventional strategies for complex problems, both micro- and macro-organizational. Prerequisite: Permission of the instructor. SEM.

HP&M 990. Advanced Topics in Health Policy and Management. 1-3 Hours.
This course allows exploration of special topics that are not routinely a part of the curriculum. Prerequisite: Admission to a PhD program and consent of the instructor. IND. LEC.

HP&M 991. Individual Doctoral Readings. 1-3 Hours.
Individual study of special topics or problems by students working on a doctorate. Prerequisite: Admission to a PhD program and consent of the instructor. LEC.

HP&M 999. Dissertation. 1-12 Hours.
THE.

Master of Health Services Administration

Overview
The Master of Health Services Administration degree prepares students for leadership roles in the health care sector, including positions in hospitals, health care systems, long-term care facilities, clinics, insurance firms, health departments, and government agencies. The M.H.S.A. Program offers a systemic overview of the health care system, a clear perspective on contemporary health policy, a mastery of analytic methods, and a broad exposure to the practice of health care management.

Joint Degree Programs
The Department of Health Policy and Management offers 4 joint programs in conjunction with the Schools of Law, Nursing, and Medicine (M.D. program). Please contact the respective schools for complete information.

J.D.-M.H.S.A.
The J.D./M.H.S.A. joint degree program combines into 4 years of full-time study the Juris Doctor (p. 776) (J.D.) program offered by the School of Law (http://www.law.ku.edu) and the Master of Health Services Administration (M.H.S.A.) program offered by the Department of Health Policy and Management. The program offers students who plan to practice health law or health services management a thorough academic grounding in both disciplines. Students must be admitted to each program to pursue the joint degree.

M.S. in Nursing-M.H.S.A.
The joint Master of Science in Nursing/M.H.S.A. degree program combines the M.H.S.A. degree offered by the Department of Health Policy and Management and the Master of Science (p. 1980) degree offered by the School of Nursing. This program gives students the opportunity to acquire training in the convergent fields of nursing and health services administration. The program combines course work, allowing the two degrees to be completed in 8 semesters. Students must be admitted to each program to pursue the joint degree.
M.D.-M.H.S.A.
The joint M.D./M.H.S.A. degree program prepares students to enter careers as physician executives or to provide administrative support for their medical practice. As the health care environment becomes more complex and competitive, administrative skills can be extremely important to individuals starting careers in medicine or those seeking to enhance their current careers. The M.S.H.A. portion of the curriculum combines social science and business content in the context of health care and prepares students for management and executive positions in health care organizations. Students complete requirements for the M.D. degree as specified by the School of Medicine. M.D. programs are described in the School of Medicine Catalog (http://www2.kumc.edu/somcatalog). Both programs can be completed in 5 years. Students must be admitted to each program to pursue the joint degree.

B.S.H.I.M.-M.H.S.A.
The joint Bachelor of Science in Health Information Management (http://www.kumc.edu/school-of-health-professions/health-information-management.html) and Master of Health Services Administration program is offered through the Department of Health Policy and Management in association with the Department of Health Information Management. By participating in this intensive, full-time bridge program, students can achieve both degrees in five years. Students pursuing the B.S.H.I.M./M.H.S.A. will be prepared to assume management and executive positions in health-related organizations and to bring their expertise in health information management to these positions.

M.H.S.A. Admission Criteria, Materials, and Timeline
Admission is based on the applicant’s undergraduate and/or graduate record, references and interview. Completion of a bachelor’s degree is required. Admission is competitive and limited. The application process is online; see the Health Policy and Management website for information.

Materials required include
1. Successful completion of a bachelor’s degree or equivalent with a minimum grade-point average of 3.0 on a 4.0 scale,
2. A completed application form and application fee,
3. A statement of goals/purpose,
4. 3 letters of recommendation,
5. An official transcript from each institution beyond the secondary level where courses have been taken, and
6. For international students, fulfillment of minimum English Proficiency (http://www.kumc.edu/international/esi_req.html) Requirements and transcript evaluation are also required. See KUMC Graduate Studies (http://www.kumc.edu/academic-affairs/graduate-studies.html), the KUMC Office of International Programs (http://www.kumc.edu/international/esi_req.html), and the Health Policy and Management website (http://www.kumc.edu/school-of-medicine/hpm.html) for more information.

A background check (http://www.kumc.edu/student-services/vice-chancellor-of-student-services/criminal-background-checks-for-students.html) is required during the admission process; it may affect the student’s eligibility to enter the program.

Applicants must also have completed a prerequisite 3-credit hour course in statistics. A personal interview is also required of all applicants who meet the minimum admissions standards. If travel to the area is impossible, a telephone or on-line interview may be substituted. Students are admitted for the fall semester only. The application deadline is March 1.

M.H.S.A. Degree Requirements
All candidates must complete, at a satisfactory level, 56 credit hours of courses and achieve competency in the following areas:
- Leadership and professionalism;
- Health care systems and policy;
- Communication and relationship management;
- Inquiry, problem-solving, and decision-making; and
- Management knowledge and skills.

An internship is required of all students. Full-time students are encouraged to seek a residency/fellowship after graduation.

Courses are taught in late afternoons and evenings on the Medical Center campus in Kansas City. Students begin course work with foundation courses and proceed through the curriculum in a predefined sequence.

Required Courses for the M.H.S.A.

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HP&amp;M 810</td>
<td>The Health Care System</td>
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<tr>
<td>HP&amp;M 819</td>
<td>Research for Health Care Leaders</td>
<td>3</td>
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<tr>
<td>HP&amp;M 822</td>
<td>Health Care Economics</td>
<td>3</td>
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<tr>
<td>HP&amp;M 825</td>
<td>Financial Concepts in Health Care Management</td>
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<td>Health Care Management</td>
<td>3</td>
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<tr>
<td>HP&amp;M 840</td>
<td>Organizational Foundations for Leading Change</td>
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<td>HP&amp;M 831</td>
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<td>HP&amp;M 832</td>
<td>Governance and Health Law</td>
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<td>HP&amp;M 833</td>
<td>Ethics</td>
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<td>HP&amp;M 837</td>
<td>Health Policy</td>
<td>2</td>
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<tr>
<td>HP&amp;M 846</td>
<td>Managing Information Systems</td>
<td>3</td>
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<tr>
<td>HP&amp;M 848</td>
<td>Designing Health Care Systems</td>
<td>2</td>
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<td>HP&amp;M 850</td>
<td>Introduction to Operations</td>
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<td>HP&amp;M 861</td>
<td>Capstone Seminar</td>
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BIOS 704 Principles of Statistics in Public Health (3)
Elective (3)

Doctor of Philosophy in Health Policy and Management

Ph.D. Degree Program Overview

The Ph.D. in Health Policy and Management prepares experts in health services research for careers in academic settings or in public and private organizations where advanced research and analytic skills are required.

Health services research is a multidisciplinary field that examines the uses, costs, quality, accessibility, delivery, organization, financing and health outcomes of healthcare systems in the U.S. and elsewhere. Health Services researchers investigate and interpret the complexities of healthcare systems, including how social factors, financing systems, organizational structures and processes, health technologies, and individual and group behaviors affect access, cost and quality of care. The program is offered on a full-time basis only with course work at the KUMC campus.

Ph.D. Admission Criteria, Materials, and Timeline

Applications are accepted from individuals with the following credentials:

1. A master’s degree in health services administration or a related field (e.g. public health, public administration, business, social sciences, biological sciences, nursing).
2. Minimum grade-point average of 3.5 (on a 4.0 scale) for all post-baccalaureate course work.
3. At least 1 graduate-level statistics course.
4. A set of prerequisite courses must also be completed before applying. Applicants should demonstrate successful completion of the following course work (a minimum of 3 graduate-level credit hours in each area) during their prior education:
   - Health delivery systems
   - Health economics
   - Health care finance
   - Health care management
   - Health behavior/organizations
   - Health policy

Please note that the application process is online; see the Healthy Policy & Management website for instructions. The following materials are required:

1. A completed KUMC online graduate application for admission.
2. A nonrefundable application fee.
3. 3 academic letters of recommendation.
4. A statement of career objectives and purpose.
5. Transcripts of all post-secondary academic work.
6. Graduate Record Examination general exam scores not more than 5 years old, submitted to the department directly by Educational Testing Service.
7. A copy of the applicant’s master’s thesis, graduate-level research paper or other example of the applicant’s scholarly research writing.
8. A copy of the applicant’s resume or curriculum vitae.

In the case of international applicants, completion of the TOEFL within the last 2 years, demonstrating high proficiency, is required. When submitting test scores to KUMC, please submit only original scores sent directly from the testing agency. Photocopies will not be accepted. For testing purposes, the ETS school code is 6895. Transcript evaluation is also required. See the Health Policy and Management website (http://www.kumc.edu/school-of-medicine/hpm.html) for additional information.

A background check (http://www.kumc.edu/student-services/vice-chancellor-of-student-services/criminal-background-checks-for-students.html) is required during the admission process; it may affect the student’s eligibility to enter the program.

The above materials must be submitted online no later than February 15 for entry the following August.

Ph.D. in Health Policy and Management

Plan of Study

Year 1

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<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
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Year 2

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Year 3

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Year 4

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Total Hours: 47-80

Ph.D. Degree Requirements

The doctoral program is a 56-credit-hour, post-master’s, competency-based program in health services research consisting of 3 stages. A
set of prerequisite courses representing 6 core areas of health policy and management and graduate-level statistics are required prior to entering the program. The program, including dissertation, is designed to be completed in a minimum of 4 academic years (see Plan of Study). Students are expected to maintain continuous, full-time enrollment.

Stage 1 consists of basic courses in health policy, health care management, and quantitative and qualitative research methods. A notable feature of this stage is that students begin to participate in the research process immediately upon beginning the program through a series of five 1-credit-hour immersion courses, taken within the first 2 semesters along with other basic courses.

Stage 2 involves specialization in a specific substantive area of either policy or management research or a combination, as well as advanced statistical analysis and research methods. Students also complete a teaching seminar and practicum.

Stage 3 consists of the doctoral dissertation demonstrating the development, execution, and results of original research. Students work primarily with their dissertation advisor and doctoral committee at this stage in order to prepare and defend their dissertation proposal and to carry out and complete their dissertation research project. There are two options for the written dissertation, the traditional book format or a three publishable articles format. The written dissertation is formatted and published according to university guidelines. See Electronic Thesis and Dissertations (http://www.graduate.ku.edu/electronic-thesis-and-dissertation) on the Graduate Studies website.

Research and Responsible Scholarship Requirement

Before taking the comprehensive oral examination, the student must meet the research skills and responsible scholarship requirement (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm) of the university.

HPM Ph.D. students meet these requirements as follows:

The research skills requirement for the Ph.D. in Health Policy and Management is met through completion of the required sequence of health services research methods courses with an average grade of 3.0. The sequence consists of HP&M 819, HP&M 870, HP&M 871, HP&M 872, HP&M 873, HP&M 875, and HP&M 886, and a graduate-level course in qualitative research methods.

The responsible scholarship requirement for the Ph.D. in Health Policy and Management is met through the research ethics modules in HP&M 819, HP&M 870, and HP&M 886. Topics include protection of human subjects, conflicts of interest, data management, mentor/student responsibilities, collaborative research, authorship/publication issues, peer review, confidentiality, and research misconduct. Students also are expected to complete the KUMC Human Subjects Protection training module during the first semester of the doctoral program and keep their certification current throughout their tenure in the Ph.D. program.

Department of History and Philosophy of Medicine

History and Philosophy of Medicine

No graduate program is offered in this area, but H&PM course work may be taken for graduate credit.

Courses

H&PM 902. Ethics and the Research Scientist. 1 Hour.
Concepts basic to conducting biomedical research ethically: fraud, plagiarism, and misrepresentation; intellectual property; collection and interpretation of data; conflicts of interest; reporting misconduct by others. Animal research issues. Human research issues, including federal regulatory structure and informed consent. No prerequisites. LEC.

Department of Microbiology, Molecular Genetics, and Immunology

Microbiology, Molecular Genetics, and Immunology Graduate Programs

This multidisciplinary program offers education and training leading to M.A. or Ph.D. degrees. The faculty in this program have diverse research interests ranging from the molecular pathogenesis of infectious agents (bacteria and viruses) to the understanding of immune function. Students with undergraduate degrees in microbiology, biochemistry or other similar disciplines are encouraged to apply. An M.A. in microbiology is suitable for obtaining positions at more advanced levels in academic research, biotech industry, or government (CDC, FDA, or USDA). A Ph.D. is required for careers in independent academic research in microbiology and immunology. The Ph.D. degree is most often followed by two or more years of postdoctoral training in a specific area of research. Ph.D. graduates in microbiology, with appropriate postdoctoral experience, are ready to compete effectively for faculty positions at a college or university, senior level positions in biotech industry and government.

Courses

MICR 801. Principles of Immunology. 1 Hour.
An introductory course in immunology; cells and tissues of the immune system; B and T cells and their receptors; major histocompatibility complex; antigen presentation; regulation of immune responses; immunity and vaccination. Prerequisite: IGPBS courses or permission of instructor. LEC.

MICR 802. Principles of Virology. 1 Hour.
An introductory course in virology; replication of RNA and DNA viruses; viral RNA processing and translation; reverse transcription; virus assembly; viral pathogenesis; viruses as vectors. Prerequisite: MICR 801 or permission of instructor. LEC.

MICR 803. Principles of Bacterial Genetics and Pathogenesis. 1 Hour.
An introductory course in bacteriology; cell structure and function; chromosome and plasmid replication; genetic engineering; bacteriophage; gene regulation; quorum sensing; antibiotics; protein secretion; bacterial pathogenesis. Prerequisite: MICR 801 MICR 802 or permission of instructor. LEC.
MICR 805. Teaching in Higher Education. 1 Hour.
Theoretical and practical aspects of teaching in a graduate degree
program with emphasis on program and curriculum design, student
assessment, communicating learning expectations, selecting optimal
teaching methods aligned with expectations, understanding diverse
learning styles, apprenticeship teaching, developing as a teacher and
applying contemporary educational theory to the classroom or research
laboratory. Prerequisite: Any graduate degree or current enrollment in a
graduate degree program or permission of instructor. LEC.

MICR 808. Immunology. 3 Hours.
Molecular and cellular aspects of immunity. Specific topics will include
immunoglobulin and receptor structure/function, attributes of antigenicity,
antigen-antibody reactions, immunocompetent cells, cellular interactions,
soluble mediators of immune responses and normal and abnormal
immune regulation. Prerequisite: Permission of course director. LEC.

MICR 820. Bacterial Genetics and Pathogenesis. 3 Hours.
Genetics of bacteria with emphasis on bacterial pathogens. Topics
include: gene regulation, recombination, bacteriophages, transposons,
genetic exchange, plasmids, genetics of virulence, bacterial adherence
and colonization, immune evasion mechanisms, bacterial toxins,
vaccines and antimicrobials, re-emerging bacterial diseases. Prerequisite:
Permission of instructor. LEC.

MICR 825. Virology. 3 Hours.
Molecular biology of animal viruses. Aspects of various virus groups to be
covered include structure, replication, and host cell responses. Lectures
and student seminars. Prerequisite: Permission of the course director.
LEC.

MICR 830. Seminar in Microbiology. 1 Hour.
Reports on research and literature. LEC.

MICR 835. Research in Microbiology. 1-6 Hours.
This course is specifically designed to provide supervised research
experience in various laboratories in the department. LEC.

MICR 855. Host-Pathogen Interactions. 3 Hours.
1. Understand the basic concepts of host-pathogen interactions, with
an emphasis on pathogen adhesion, invasion and intracellular survival,
cell death pathways, innate immunity, and extracellular matrices. 2.
Discuss the latest trends in host-pathogen interactions through paper
discussion. 3. Provide graduate students opportunity to improve their
communication skills. 4. Promote the scientific reasoning capabilities
of graduate students. Prerequisites: This course is intended for the
second-year microbiology graduate students who have taken Principles
courses. Any graduate students from other departments may take this
course. However, it is highly recommended to see the instructors before
enrollment. LEC.

MICR 890. Research for M.A. in Microbiology. 1-10 Hours.
This course is designated for thesis research leading to the M.A. degree.
LEC.

MICR 899. Thesis for M.A. in Microbiology. 1-10 Hours.
Restricted to writing of the thesis. THE.

MICR 930. Advanced Topics in Microbiology. 1-8 Hours.
An advanced approach to selected topics in any of the major disciplines
in microbiology. Readings and conferences, or advanced laboratory
techniques. LEC.

MICR 990. Research for Ph.D. in Microbiology. 1-10 Hours.
This course is restricted entirely to dissertation research. RSH.

MICR 999. Dissertation for Ph.D. in Microbiology. 1-10 Hours.
Restricted to actual writing of dissertation. THE.

Master of Arts in Microbiology

Microbiology, Molecular Genetics, and
Immunology Graduate Programs

Graduate programs in microbiology and related areas are primarily for
students who wish to earn the Ph.D. degree. The M.A. degree may be
granted in appropriate circumstances.

Graduate Admission

Application to the Ph.D. and master’s programs in microbiology, molecular
genetics and immunology are facilitated through the Interdisciplinary
Graduate Program in Biomedical Sciences. See the IGPBS section for
a description of the program and the admission requirements (p. 1778).
In certain cases, students may be admitted directly into the department.
Applicants specifically interested in the microbiology, molecular genetics,
and immunology graduate programs should contact the department
directly for information and review the Direct Admit Checklist on the
KUMC Graduate Studies website (http://www.kumc.edu/academic-affairs/
graduate-studies.html).

M.A. Degree Requirements

Students must demonstrate competence in the content of the IGPBS
curriculum and in 2 of the following areas:

- Immunology,
- Virology, and
- Bacteriology.

Each degree candidate must submit a written thesis detailing original
laboratory research and defend it orally before a thesis committee.
The student must enroll in MICR 899 Thesis the semester they defend the
thesis.

During the first year, students enroll in the IGPBS curriculum and do
rotations. At the end of the first year, students select an advisor and begin
thesis research. During the second year students, enroll in the Principles
of Microbiology series, take 2 additional courses, participate in literature
seminar series, and continue research. A minimum of 30 credit hours is
required to complete the degree.

Doctor of Philosophy in Microbiology

Microbiology, Molecular Genetics, and
Immunology Graduate Programs

Graduate programs in microbiology and related areas are primarily for
students who wish to earn the Ph.D. degree. The M.A. degree may be
granted in appropriate circumstances.

Graduate Admission

Application to the Ph.D. and master’s programs in microbiology, molecular
genetics and immunology are facilitated through the Interdisciplinary
Graduate Program in Biomedical Sciences. See the IGPBS section for
a description of the program and the admission requirements (p. 1778).
In certain cases, students may be admitted directly into the department. Applicants specifically interested in the microbiology, molecular genetics, and immunology graduate programs should contact the department directly for information and review the Direct Admit Checklist on the KUMC Graduate Studies website (http://www.kumc.edu/academic-affairs/graduate-studies.html).

**Ph.D. Degree Requirements**

Students must demonstrate competence in the content of the IGPBS curriculum and in 2 of the following areas:

- Immunology,
- Virology, and
- Bacteriology.

Students should also take an advanced course in the student’s research area. Students also must present literature seminars and participate in the Research in Progress series.

All students in doctoral programs must meet the research skills and responsible scholarship requirement (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsibe_Scholarship.htm) of the university.

Microbiology Ph.D. students meet these requirements during their IGPBS year of study by taking GS&MC 857 Biographies, GS&MC 852/GS&MC 855 Introduction to Biomedical Research I and II, and GS&MC 856 Introduction to Research Ethics.

The student takes an oral comprehensive examination based in part on defense of an original written research proposal. This examination evaluates the student’s ability to write and defend an original research proposal, design experiments, and interpret results in a sound and critical manner.

Doctoral candidates are expected to conduct original research, prepare a written dissertation detailing the results, and defend the dissertation in a final oral examination. The student must be enrolled in MICR 999 Dissertation the semester they defend the dissertation. It is expected that the research will be published in reputable scientific journals.

**Plan of Study**

During the first year students, enroll in the IGPBS curriculum and do rotations. At the end of the first year, students select an advisor and commence thesis research. During the second year, students enroll in the Principles of Microbiology series, take 2 additional courses, participate in literature seminar series, and continue research. As the beginning of the third year, students complete the oral examination and continue to do dissertation research.

**Combined M.D.-Ph.D. Degree**

Outstanding students who are qualified to do so may participate concurrently in work leading to the M.D. and Ph.D. degrees. Credit hours earned in the medical curriculum cannot be transferred as graduate credit hours toward the requirements for the Ph.D. degree, although recognition of satisfactory performance in appropriate medical courses may be given by the Ph.D. program when formulating the student’s additional Ph.D. curriculum. All the requirements for both degrees must be met. The combined degree requirements and application information for the combined M.D.-Ph.D. program are posted on the M.D.-Ph.D. website (http://www.kumc.edu/md-phd-program.html).

**Department of Molecular and Integrative Physiology**

**Molecular and Integrative Physiology Graduate Programs**

Programs range from factors controlling gene expression to whole animal adaptations; the common thread is that all programs endeavor to understand biological function in health and disease. The program provides outstanding didactic instruction and laboratory experiences that enable students to become effective teachers and independent investigators.

The department participates in the Interdisciplinary Graduate Program in Biomedical Sciences at KUMC and provides research emphases in cardiovascular biology, cell and developmental biology, molecular and cellular biophysics, cellular and molecular immunology, molecular biology and genetics, neuroscience, reproductive biology, signal transduction, and cancer biology. The program is for the student pursuing the Ph.D. although the M.S. degree may be granted in appropriate circumstances. Degrees are granted to persons who fulfill all requirements.

**Courses**

**PHSL 784. Faculty Research Programs. 1 Hour.**

The new student will be introduced to the faculty research programs. Each faculty member will present his/her research interests using one or more of the following formats: laboratory demonstrations, computer simulations and lectures. The objectives are to assist the new student in selecting his/her area of dissertation research and acquainting the new student with the department research resources. LEC.

**PHSL 834. Reproductive Physiology. 5 Hours.**

All aspects of reproductive physiology including an in depth study of ovarian and testicular development/function, neuroendocrine development/function, implantation, placentation, puberty, pregnancy and fertility regulation are covered. Historical and current scientific literature will be used to support a graduate level text and didactic lectures. Prerequisite: a general endocrinology/physiology course, an equivalent course and/or consent of instructor. LEC.

**PHSL 835. Integrative Physiology of Exercise. 3 Hours.**

To understand how the major physiological systems of the body respond to exercise with an emphasis on integration and function. Historical and current scientific literature will be used to generate discussion and support didactic material. Fundamentals of exercise physiology will be covered, but a background in exercise physiology is not required. Prerequisite: a general physiology course, an equivalent course and/or consent of instructor. LEC.

**PHSL 838. Advanced Topics. 1-3 Hours.**

Special studies designed and arranged on an individual basis to allow a student to pursue a particular subject through reading, special laboratory work, and conferences with a senior staff member. LEC.

**PHSL 840. Advanced Genetic Analysis. 3 Hours.**

This course will focus on principles that underlie genetic analysis, including mutation, complementation, recombination, segregation, and regulation. The genetics of commonly used model organisms such as yeast, flies, worms and mice will be examined, classic genetic screens performed to study phase assembly, cell cycle regulation, sex
determination and X-chromosome inactivation will be discussed and modern-day techniques used to study inheritance and gene function in various systems will be analyzed. Human genetic analysis will also be covered, including population genetics, techniques for gene mapping, inherited diseases, genetic testing and gene therapy. Through reading and discussion of scientific literature and problem-based homework and exams, students will learn how to evaluate and interpret genetic data as well as develop and design genetic strategies to solve current biological problems. Prerequisite: Completion of IGPBS Core Curriculum or equivalent, or permission of Course Director. LEC.

PHSL 842. Comprehensive Human Physiology. 5 Hours.
Advanced course on modern human physiology. The course focuses on organ systems of the human body including nervous, cardiovascular, endocrine, digestive, respiratory, reproductive and urinary systems. This course emphasizes the use of modern experimental approaches that take advantage of cellular and molecular technologies. Prerequisite: NONE LEC.

PHSL 844. Neurophysiology. 3 Hours.
Somatosensory, motor and cognitive function of the brain will be discussed using a combination of lecture and student presentation formats. Current issues and evidence underlying accepted concepts and mechanisms will be emphasized. (Same as NURO 844. ) Prerequisite: Introductory course in neuroscience and consent of instructor. LEC.

PHSL 846. Advanced Neurosciences. 5 Hours.
Team taught, in-depth neuroscience course focusing on normal and diseased brain function at the molecular, cellular and systems levels. Lectures and discussions will emphasize current issues in neuroscience research. (Same as ANAT 846, PHCL 846 and NURO 846). Prerequisite: Permission of course director. LEC.

PHSL 847. Developmental Neurobiology. 2 Hours.
Development of the nervous system from early induction to the development of learning and memory. Topics include: Induction; Cellular Differentiation; Axon Growth and Guidance; Target Selection; Cell Survival and Growth; Synapse Formation; Synapse Elimination; and Development of Behavior. (Same as ANAT 847 and NURO 847.) Prerequisite: Advanced Neurosciences (ANAT 846; NURO 846; PHSL 846) or consent of instructor. LEC.

PHSL 848. Molecular Mechanisms of Neurological Disorders. 3 Hours.
An in-depth coverage of pathogenic mechanisms in neurological diseases: cellular and molecular responses to brain injury and disease, neuroinflammatory diseases (e.g., multiple sclerosis), neurodegenerative diseases (e.g., Alzheimer’s, Parkinson’s, Huntington’s, amyotrophic lateral sclerosis, and prion diseases), neurogenetic diseases (e.g., lysosomal and peroxisomal disorders, Down’s syndrome and fragile X), trauma, stroke, and viral diseases (e.g., HIV encephalitis). (Same as ANAT 848, NURO 848, and PHCL 848.) Prerequisite: Advanced Neurosciences (ANAT 846, PHCL 846 or PHSL 846) or an equivalent course and consent of instructor. LEC.

PHSL 850. Research. 1-10 Hours.
Original laboratory investigation conducted under the supervision of a senior staff member. RSH.

PHSL 851. Seminar. 1 Hour.
Student participation (attendance and presentation) in weekly Departmental seminar series. The topics examined in these seminars are dictated by the interests of students and staff. Prerequisite: student must have passed their oral comprehensive exam. LEC.

PHSL 899. Master’s Thesis. 1-5 Hours.
Preparation of the formal thesis based on library research or independent research and in partial fulfillment of the requirements for the master’s degree. Credits will be given only after the thesis has been accepted by the student’s thesis committee. THE.

PHSL 999. Doctoral Dissertation. 1-10 Hours.
Preparation of the Dissertation based on original research and in partial fulfillment of the requirements for the Ph.D. degree. Credits will be given only after the dissertation has been accepted by the student’s dissertation committee. THE.

Master of Science in Molecular and Integrative Physiology

Molecular and Integrative Physiology Graduate Programs

Programs range from factors controlling gene expression to whole animal adaptations; the common thread is that all programs endeavor to understand biological function in health and disease. The program provides outstanding didactic instruction and laboratory experiences that enable students to become effective teachers and independent investigators.

The department participates in the Interdisciplinary Graduate Program in Biomedical Sciences at KUMC and provides research emphases in cardiovascular biology, cell and developmental biology, molecular and cellular biophysics, cellular and molecular immunology, molecular biology and genetics, neuroscience, reproductive biology, signal transduction, and cancer biology. The program is for the student pursuing the Ph.D. although the M.S. degree may be granted in appropriate circumstances. Degrees are granted to persons who fulfill all requirements.

Graduate Admission

Application to the Ph.D. and master’s programs in molecular and integrative physiology are facilitated through the Interdisciplinary Graduate Program in Biomedical Sciences. See the IGPBS section for a description of the program and the admission requirements (p. 1778). In certain cases, students may be admitted directly into the department. Applicants specifically interested in the physiology graduate programs should contact the department directly for information and review the Direct Admit Checklist on the KUMC Graduate Studies website (http://www.kumc.edu/academic-affairs/graduate-studies.html).

M.S. Degree Requirements

Students are admitted to the M.S. program only if they have compelling reasons for pursuing advanced study, but the Ph.D. degree is not practical for them. Course requirements generally are the same as for the Ph.D., but the research component is of more limited scope. The student must defend the thesis satisfactorily in an open seminar as part of the final examination.
Doctor of Philosophy in Molecular and Integrative Physiology

Molecular and Integrative Physiology Graduate Programs

Programs range from factors controlling gene expression to whole animal adaptations; the common thread is that all programs endeavor to understand biological function in health and disease. The program provides outstanding didactic instruction and laboratory experiences that enable students to become effective teachers and independent investigators.

The department participates in the Interdisciplinary Graduate Program in Biomedical Sciences at KUMC and provides research emphases in cardiovascular biology, cell and developmental biology, molecular and cellular biophysics, cellular and molecular immunology, molecular biology and genetics, neuroscience, reproductive biology, signal transduction, and cancer biology. The program is for the student pursuing the Ph.D. although the M.S. degree may be granted in appropriate circumstances. Degrees are granted to persons who fulfill all requirements.

Graduate Admission

Application to the Ph.D. and master’s programs in molecular and integrative physiology are facilitated through the Interdisciplinary Graduate Program in Biomedical Sciences. See the IGPBS section for a description of the program and the admission requirements (p. 1778). In certain cases, students may be admitted directly into the department. Applicants specifically interested in the physiology graduate programs should contact the department directly for information and review the Direct Admit Checklist on the KUMC Graduate Studies website (http://www.kumc.edu/academic-affairs/graduate-studies.html).

Ph.D. Degree Requirements

Students take the core curriculum (or equivalent) of the Interdisciplinary Graduate Program in Biomedical Sciences. The curriculum is posted on the IGPBS website (http://www.kumc.edu/igpbs.html). In most cases, students take additional course work in the fall and spring of the second year including PHSL 842 Comprehensive Human Physiology and advanced courses in the student’s research area. Students must also be enrolled in PHSL 999 Doctoral Dissertation the semester they defend the dissertation.

Research Skill

All students in doctoral programs must meet the research skills and responsible scholarship requirement (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm) of the university.

Physiology Ph.D. students meet these requirements during their IGPBS year of study by taking GSMC 857 Biographics, GSMC 852/GSMC 855 Introduction to Biomedical Research I and II, and GSMC 856 Introduction to Research Ethics.

Examinations and Dissertation

Following completion of the courses, the student must successfully complete a comprehensive qualifying examination consisting of a research proposal written in the form of a National Institutes of Health grant application, which the student defends orally. The student, with the guidance of his or her dissertation advisor, conducts an original research project. The outcomes of that research are assembled as a written dissertation generally consisting of a compilation of scientific papers submitted by the student for publication. A more traditional dissertation format also can be used. The student defends this research in a seminar open to all interested parties.

Combined M.D.-Ph.D. Degree

Outstanding students who are qualified to do so may participate concurrently in work leading to the M.D. and Ph.D. degrees. Credit hours earned in the medical curriculum cannot be transferred as graduate credit hours toward the requirements for the Ph.D. degree, although recognition of satisfactory performance in appropriate medical courses may be given by the Ph.D. program when formulating the student’s additional Ph.D. curriculum. All the requirements for both degrees must be met. The combined degree requirements and application information for the combined M.D.-Ph.D. program are posted on the M.D.-Ph.D. website (http://www.kumc.edu/md-phd-program.html).

Department of Pathology & Laboratory Medicine

Pathology and Laboratory Medicine Graduate Programs

The Department of Pathology and Laboratory Medicine offers a graduate program leading to the M.A. or Ph.D. degree including research opportunities with emphasis on developmental biology and cell differentiation, cancer biology, stem cell biology, microbial and viral pathogenesis, gene regulation, and experimental pathology. This curriculum is designed for advanced research study in molecular and cellular biology and experimental pathology. The Graduate Training Program participates in the degree granting curriculum of the University of Kansas Medical Center in concert with the IGPBS. Our program provides comprehensive training in understanding the molecular basis of disease and the fundamental mechanisms of cell growth and differentiation.

The Pathology Graduate Training Program is designed to provide in-depth training of the molecular basis of disease. Several points are emphasized in the Pathology Graduate Training Program at KUMC:

1. Specialized thesis research in understanding the basic mechanisms of disease and cell differentiation
2. Familiarization with the current scientific literature
3. Critical analysis of scientific work
4. Contributing to the body of scientific knowledge by publishing research works
5. Oral presentation and scientific writing skills

Please refer to pages included in this catalog on both Master of Arts and Doctor of Philosophy in Pathology for additional information regarding each program.

Program Director:

Soumen Paul, PhD
Associate Professor
Director, Pathology Graduate Studies Program
Division of Cancer and Developmental Biology
Department of Pathology and Laboratory Medicine

Apply for the Graduate Training Program directly through the Department of Pathology and Laboratory Medicine (http://www.kumc.edu/igpbs.html)

Courses

PATH 800. General Pathology. 7 Hours.
The basic mechanisms of human disease, including cellular pathology, inflammation, diseases of immunity, neoplasia, infectious and circulatory diseases and aging are considered through the mechanisms of lectures, small-group problem based care study and autopsy demonstration. Prerequisite: Courses in cell biology, biochemistry, and physiology, or equivalent. LEC.

PATH 801. Systemic Pathology. 9 Hours.
Human disease is studied by organ systems to include cardiovascular, hematologic, renal, respiratory, gastrointestinal, genitourinary, musculoskeletal, endocrine, and nervous system diseases. The pathobiology of all major diseases occurring within each organ system are considered by lectures, problem based case study and autopsy participation. Since final comprehensive examination at the end of Pathology II will include material from both Pathology I and Pathology II. Prerequisite: Successful completion of Pathology LEC.

PATH 802. Special Pathology. 6 Hours.
A detailed study of diseases involving the endocrine, genitourinary, neuromuscular, and skeletal systems. Prerequisite: PATH 800 and courses in histology, biochemistry, and physiology, or equivalent. LEC.

PATH 803. Stem Cell Biology. 2 Hours.
Current concepts in the study of stem cells, and the clinical potential in modern disease treatment. Students will learn concepts of stem cells: origin, regulation of pluripotency, and differentiative potential; experimental isolation and manipulation; and clinical application of isolated stem cells. Current scientific literature will be used to highlight recent advances in stem cell biology. Special emphasis will be placed on the ethical and legal issues surrounding the use of stem cells of both adult and embryonic origin. Prerequisite: Course in cell biology (IGPBS module 4, or equivalent); consent of instructor. LEC.

PATH 804. Selected Topics in Signal Transduction. 1 Hour.
A survey of the basic principles and contemporary literature of signal transduction pathways involved in cancer development and developmental biology. Faculty lecture and student presentations will address selected topics in cellular signal transduction. Student seminars will focus on the scientific content of the publication with emphasis on appropriate presentation of background information, experimental methods, results and potential future directions. Critical discussion of papers will be provided by participating students and faculty. Prerequisite: Course in Molecular Biology (IGPBS module 3, or equivalent). LEC.

PATH 805. Seminars in Pathology. 1 Hour.
Presentation of Pathology Department graduate student research in progress. Students will conduct a one-hour seminar in which updates of their current research project(s) in pathology will be reported. The seminars are interactive and students are encouraged to participate in discussion of the presented work. Prerequisite: Completion of the IGPBS core curriculum and status as a second-year graduate student; consent of instructor. RSC.

PATH 806. Epigenetics. 2 Hours.
Current concepts in epigenetic regulation of transcription, including its involvement in disease. Current scientific literature will be used to examine recent advances in the role of epigenetic regulation in transcription and its impact on cellular processes, including growth, differentiation, development, and disease. Students will learn the fundamental concepts of epigenetic regulation and the role of the epigenetic regulation in various gene expression systems. The role of epigenetics in long-range DNA interactions will also be studied, with an emphasis on enhancer, silencer, and locus control region function. Recent advances in the role of epigenetics in disease, including cancer, will also be examined. The course will examine current experimental methods to study epigenetics and gene regulation. Prerequisite: Completion of the IGPBS core curriculum or equivalent; consent of instructor. LEC.

PATH 899. Master’s Thesis. 1-7 Hours.
THE.

PATH 903. Pathology Techniques Laboratory. 1-3 Hours.
A laboratory course in which students may select no more than three of the following: electron microscopy, fluorescence microscopy, cell typing, morphometrics, immunohistochemistry, flow cytometry, DNA probe, autopsy technique. LAB.

PATH 905. Cellular Biology and Pathophysiology of Bone. 3-5 Hours.
Normal bone development, ultrastructure of bone, and the calcification mechanism. Developmental and genetic abnormalities of bone including dwarfism and osteogenesis imperfecta. Metabolic bone diseases including osteoporosis, Paget’s disease and osteomalacia. Methods of diagnosis by morphometry of undecalcified bone biopsy. Common primary bone tumors, and the mechanism of bone loss or bone over growth caused by metastatic malignant tumors. There will be practical laboratory portion. Prerequisite: PATH 800 or permission of instructor. LAB.

PATH 907. Infection and Immunity. 1 Hour.
Microbial factors, host reaction, and disease. Emphasis on recovery from infection, response to reinfection, the resultant clearance of microbes, or the development of chronic infection. Hypersensitivity phenomena will also be considered in the light of data from transplantation immunity. Prerequisite: PATH 800. LAB.

PATH 911. Research in Pathology. 1-10 Hours.
RSH.

PATH 912. Advanced Topics. 1-3 Hours.
Offered by arrangement. Prerequisite: Approval of the instructor and completion of the IGPBS core curriculum or its equivalent. IND.

PATH 913. Introduction to Grant Proposal Writing. 1 Hour.
This course will teach the fundamentals of writing a grant proposal with an emphasis on NIH proposals. This course is open to any graduate students interested in applying for pre-doctoral fellowships, and especially to graduate students in the Department of Pathology who will be conducting their comprehensive qualifying exams in the upcoming year. This course involves a combination of didactic lectures, student coursework and discussion. This course will include different principal investigators from the Pathology Department as guest speakers. Topics will include different sources of funding, grant submission and post-submission review process. However, the core component of this course will involve teaching the basic framework and components of an NIH R01 application. This course is designed to give practical structural guidance in scientific writing at a professional level and does not give guidance on specific research projects. Prerequisites: IGPBS coursework or equivalent, permission of instructor. LEC.

PATH 915. Advanced Pathology. 3 Hours.
A lecture and literature review course in which molecular, subcellular, and supracellular organization and function are considered in normal and disease states. Prerequisite: PATH 800. LEC.
PATH 939. Carcinogenesis and Cancer Biology. 3 Hours.

PATH 999. Doctoral Dissertation. 1-7 Hours.
THE.

Master of Arts in Pathology

Pathology and Laboratory Medicine Graduate Programs

The Department of Pathology and Laboratory Medicine offers a graduate program leading to the M.A. degree including research opportunities with emphasis on developmental biology and cell differentiation, cancer biology, stem cell biology, microbial and viral pathogenesis, gene regulation, and experimental pathology. This curriculum is designed for advanced research study in molecular and cellular biology and experimental pathology.

The Graduate Training Program in the Department of Pathology & Laboratory Medicine participates in the degree granting curriculum of the University of Kansas Medical Center in concert with the IGPBS. Our program provides comprehensive training in understanding the molecular basis of disease and the fundamental mechanisms of cell growth and differentiation. Program details and applications may be obtained online at: Interdisciplinary Graduate Program in Biomedical Sciences (IGPBS). (http://www.kumc.edu/igpbs.html)

The course requirements of the Pathology Department Graduate Program are designed to provide maximum flexibility for the student’s specialized needs. Students enrolled in the program are required to take graduate coursework in fields related to molecular and experimental pathology and to choose electives from either Pathology or other KUMC departments related to their major thesis work. Substantial portions of the research efforts should result in published works in peer-reviewed scientific journals. Students are required to enroll in a minimum of one hour, PATH 899 Master’s Thesis during the semester they defend their thesis.

Graduate Admission

Applications to the master’s program in Pathology and Laboratory Medicine is facilitated through the Interdisciplinary Graduate Program in Biomedical Sciences (IGPBS). See the IGPBS (p. 1821) section of this online catalog for a description of the program and the admission requirements. In certain cases, students may be admitted directly into the department. Applicants specifically interested in the pathology and laboratory medicine program should write to the department at PathologyGraduateProgram@kumc.edu for information.

M.A. Degree Requirements

All general requirements for the M.A. as defined by the University of Kansas must be met. Students must complete the IGPBS core curriculum or its equivalent (as determined by departmental graduate advisory committee). Students must complete a minimum of 5 credit hours of advanced graduate course work in fields related to molecular and cellular biology and experimental pathology (including the IGPBS core curriculum and PATH 804).

Recommended courses include but are not limited to the following (other course work may be assigned based on the recommendation of the student’s graduate student advisory committee):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PATH 803</td>
<td>Stem Cell Biology</td>
<td>2</td>
</tr>
<tr>
<td>PATH 806</td>
<td>Epigenetics</td>
<td>2</td>
</tr>
<tr>
<td>PATH 939</td>
<td>Carcinogenesis and Cancer Biology</td>
<td>3</td>
</tr>
<tr>
<td>ANAT 868</td>
<td>Advanced Developmental Biology</td>
<td>2</td>
</tr>
<tr>
<td>PHSL 834</td>
<td>Reproductive Physiology</td>
<td>5</td>
</tr>
<tr>
<td>BCHM 922</td>
<td>Advanced Molecular Genetics</td>
<td>3</td>
</tr>
<tr>
<td>PATH 912</td>
<td>Advanced Topics</td>
<td>1-3</td>
</tr>
</tbody>
</table>

In addition, students must take PATH 805 Seminars in Pathology (1 credit hour a semester) each year until successful completion of the program. Students must defend the master’s thesis successfully to earn the master's degree and are required to enroll in a minimum of one hour, PATH 899 Master’s Thesis during the semester they defend their thesis.

Doctor of Philosophy in Pathology

Pathology and Laboratory Medicine Graduate Programs

The Department of Pathology and Laboratory Medicine offers a graduate program leading to the Ph.D. degree including research opportunities with emphasis on developmental biology and cell differentiation, cancer biology, stem cell biology, microbial and viral pathogenesis, gene regulation, and experimental pathology. This curriculum is designed for advanced research study in molecular and cellular biology and experimental pathology.

The Graduate Training Program in the Department of Pathology & Laboratory Medicine participates in the degree granting curriculum of the University of Kansas Medical Center in concert with the IGPBS. Our program provides comprehensive training in understanding the molecular basis of disease and the fundamental mechanisms of cell growth and differentiation. Program details and applications may be obtained online at: Interdisciplinary Graduate Program in Biomedical Sciences (IGPBS). (http://www.kumc.edu/igpbs.html)

The course requirements of the Pathology Department Graduate Program are designed to provide maximum flexibility for the student’s specialized needs. Students enrolled in the program are required to take graduate coursework in fields related to molecular and experimental pathology and to choose electives from either Pathology or other KUMC departments related to their major thesis work. After passing the Comprehensive Examination, students will devote most of their time to laboratory experimentation and developing a research project. Substantial portions of the research efforts should result in published works in peer-reviewed scientific journals.
Graduate Admission

Applications to the master's program in Pathology and Laboratory Medicine is facilitated through the Interdisciplinary Graduate Program in Biomedical Sciences (IGPBS). See the IGPBS (p. 1821) section of this online catalog for a description of the program and the admission requirements. In certain cases, students may be admitted directly into the department. Applicants specifically interested in the pathology and laboratory medicine program should write to the department at PathologyGraduateProgram@kumc.edu for information.

Ph.D. Degree Requirements

All general requirements for the Ph.D. as defined by the University of Kansas must be met. Students must complete the IGPBS core curriculum or its equivalent (as determined by departmental graduate advisory committee). In addition, students must take PATH 804 Selected Topics in Signal Transduction (1 credit hour) each year before the successful completion of the comprehensive examination; PATH 805 Seminars in Pathology (1 credit hour) each year until the successful completion of the doctoral program; and 1 credit hour of a course directly related to grant writing and submission. Students must complete a minimum of 5 credit hours of advanced graduate course work in fields related to molecular and cellular biology and experimental pathology (including PATH 804).

Recommended courses include but are not limited to the following (other course work may be assigned on the recommendation of the student's graduate student advisory committee):

PATH 803 Stem Cell Biology 2
PATH 806 Epigenetics 2
PATH 939 Carcinogenesis and Cancer Biology 3
ANAT 868 Advanced Developmental Biology 2
PHSL 834 Reproductive Physiology 5
BCHM 922 Advanced Molecular Genetics 3
PATH 912 Advanced Topics (Credit hours are defined by the student's mentor. No more than 3 credit hours are possible each semester.)

Students must complete the comprehensive oral examination successfully. Before scheduling the comprehensive oral examination, the student must meet the research skills and responsible scholarship requirement (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm) of the university.

Pathology Ph.D. students must meet these requirements during their IGPBS year of study by taking GSMC 857 Biographics, GSMC 852/GSMC 855 Introduction to Biomedical Research I and II, and GSMC 856 Introduction to Research Ethics.

The student must defend the dissertation successfully as determined by the student's advisory committee and are required to enroll in a minimum of one hour, PATH 999 Doctoral Dissertation during the semester they defend.

All students participating in graduate training offered by the University of Kansas Medical Center’s Department of Pathology and Laboratory Medicine are required to publish in a peer-reviewed scientific journal before completion of the degree. The journal and its impact factor is subject to the approval of the student’s mentor.

Combined M.D.-Ph.D. Degree

Outstanding students who are qualified to do so may participate concurrently in work leading to the M.D. and Ph.D. degrees. Credit hours earned in the medical curriculum cannot be transferred as graduate credit hours toward the requirements for the Ph.D. degree, although recognition of satisfactory performance in appropriate medical courses may be given by the Ph.D. program when formulating the student's additional Ph.D. curriculum. All the requirements for both degrees must be met. The combined degree requirements and application information for the combined M.D.-Ph.D. program are posted on the M.D.-Ph.D. website (http://www.kumc.edu/md-phd-program.html).

Department of Pharmacology, Toxicology, and Therapeutics

Pharmacology, Toxicology, and Therapeutics Graduate Programs

The Department of Pharmacology, Toxicology, and Therapeutics offers programs leading to master’s or Ph.D. degrees in either of 2 areas pharmacology or toxicology. A Ph.D. degree may be earned in pharmacology with specialization in a number of subfields. The department is one of a very few nationally also to grant the Ph.D. degree in toxicology, again with opportunities for specialization in several subfields. Although a master's degree may be granted in appropriate circumstances, graduate work is primarily for students planning to earn the Ph.D. degree since the broad background required for work in pharmacology and toxicology makes only the doctoral program appropriate for most students.

Because the emphasis in training students is to provide the broad background needed in pharmacological and toxicological sciences, the program encompasses a spectrum of the biomedical sciences. This includes participation in the Interdisciplinary Graduate Program in Biomedical Sciences core curriculum as well as appropriate electives in other basic sciences.

Research areas emphasized in both pharmacology and toxicology programs are transporters, drug metabolism, hepatotoxicity, pharmacogenomics, metabonomics, gene regulation, nuclear receptors, epigenetics, pain, neurodevelopment, etc.

Courses

PHCL 761. General Principles of Pharmacology. 1 Hour.
General principles of pharmacology, including pharmacokinetics, pharmacodynamics, adverse effects, pharmacotherapeutics plus miscellaneous agents (antacids, cathartics, biologicals). Open to advanced B.S. students and graduate students in Nursing, Allied Health, and other health related programs. Independent study program with use of computer assisted instruction, textbooks, syllabi, consultation with staff and exams as primary teaching instruments. Students are encouraged to complete this course the semester they enroll. If this course is not completed, students will receive an Incomplete grade. Prerequisite: An Enrollment Permission Form must be signed by the student and the instructor. In addition, the enrollment card must be stamped by the instructor. LEC.

PHCL 762. Pharmacology of the Autonomic Nervous System. 1 Hour.
General principles of the autonomic nervous system, cholinergics, muscarinics, nicotinics, neuromuscular blockers, beta adrenergics, alpha adrenergics, and miscellaneous ANS agents. Students are encouraged
to complete this course the semester they enroll. If this course is not completed, students will receive an incomplete grade. Prerequisite: PHCL 761 and an Enrollment Permission Form must be signed by the student and the instructor. In addition, the enrollment card must be stamped by the instructor. LEC.

PHCL 763. Cardiovascular-Renal Pharmacology. 1 Hour.
Antihypertensives, antiarrhythmics, vasodilators, cardiac glycosides, serotonin, histamine, polypeptides, diuretics, antilipidemics. Students are encouraged to complete this course the semester they enroll. If this course is not completed, students will receive an incomplete grade. Prerequisite: PHCL 761 and an Enrollment Permission Form must be signed by the student and the instructor. In addition, the enrollment card must be stamped by the instructor. LEC.

PHCL 764. Pharmacology of the Central Nervous System. 1 Hour.
General principles of the central nervous system, stimulants, hallucinogens, depressants (hypnotics and sedatives), general and local anesthesia, antiparkinson agents, tranquilizers, analgesics and anticonvulsants. Students are encouraged to complete this course the semester they enroll. If this course is not completed, students will receive an incomplete grade. Prerequisite: PHCL 761 and an Enrollment Permission Form must be signed by the student and the instructor. In addition, the enrollment card must be stamped by the instructor. LEC.

PHCL 765. Chemotherapy. 1 Hour.
Principles of chemotherapy, sulfonamides, penicillins, aminoglycosides, anticancer and antifungal agents, antimalarials, broad spectrum antibiotics, antiparasitic agents, and antiseptics. Students are encouraged to complete this course the semester they enroll. If this course is not completed, students will receive an incomplete grade. Prerequisite: PHCL 761 and an Enrollment Permission Form must be signed by the student and the instructor. In addition, the enrollment card must be stamped by the instructor. LEC.

PHCL 766. Blood-Endocrine Pharmacology. 1 Hour.
General principles of endocrine function and use, thyroid drugs, insulin, sex hormones, oxytocics, adrenal steroids, antiinflammatory agents, blood drugs, anticoagulants and vitamins. Students are encouraged to complete this course the semester they enroll. If this course is not completed, students will receive an incomplete grade. Prerequisite: PHCL 761 and an Enrollment Permission Form must be signed by the student and the instructor. In addition, the enrollment card must be stamped by the instructor. LEC.

PHCL 767. Toxicology. 1 Hour.
General principles of toxicology, clinical toxicology, solvents, metals, gases and dusts, corrosives, plant and animal toxins, pesticides, radiation, miscellaneous. Students are encouraged to complete this course the semester they enroll. If this course is not completed, students will receive an incomplete grade. Prerequisite: PHCL 761 and an Enrollment Permission Form must be signed by the student and the instructor. In addition, the enrollment card must be stamped by the instructor. LEC.

PHCL 809. Seminar in Pharmacology. 1 Hour.
Weekly meetings. LEC.

PHCL 846. Advanced Neuroscience. 5 Hours.
Team taught, in-depth neuroscience course focusing on normal and diseased brain function at the molecular, cellular and systems levels. Lectures and discussions will emphasize current issues in neuroscience research. (Same as ANAT 846, PHSL 846 and NURO 846). Prerequisite: Permission of course director. LEC.

PHCL 848. Molecular Mechanisms of Neurological Disorders. 3 Hours.
An in-depth coverage of pathogenic mechanisms in neurological diseases; cellular and molecular responses to brain injury and disease, neuroinflammatory diseases (e.g., multiple sclerosis), neurodegenerative diseases (e.g., Alzheimer’s, Parkinson’s, Huntington’s, amyotrophic lateral sclerosis, and prion diseases), neurogenic diseases (e.g., lysosomal and peroxisomal disorders, Down’s syndrome and fragile X), trauma, stroke, and viral diseases (e.g., HIV encephalitis). (Same as ANAT 848, NURO 848, and PHSL 848.) Prerequisite: Advanced Neuroscience (ANAT 846, PHCL 846 or PHSL 846) or an equivalent course and consent of instructor. LEC.

PHCL 880. Essentials of Pharmacology. 4 Hours.
Introduction to Pharmacology for Graduate Students. Autonomic, Cardiovascular and Renal, Endocrine, Neuro, Antivirals Pharmacology. Autocoids; Workshop; Historical and Contemporary Methods used to Elucidate Mechanisms of Drug Action. Prerequisite: Successful completion of the Interdisciplinary Program in Biomedical Sciences or permission of the Instructor. LEC.

PHCL 890. Research in Pharmacology. 1-10 Hours.
For graduate students beginning their research training. RSH.

PHCL 898. Principles of Pharmacology. 1 Hour.
Chemical fundamentals in structure, actions and metabolism of drugs and toxicants. Included are molecular features of drugs and toxicants, steroisomerism, receptor theory, dose-response relationships, agonists and antagonists, absorption, pharmacokinetics and structure-activity relationships. LEC.

PHCL 899. Thesis in Pharmacology. 1-10 Hours.
For students in a master’s program in pharmacology. THE.

PHCL 924. Clinical Pharmacology. 5 Hours.
Designed to give practical and theoretical experience with drug trials in humans. Includes animal experimentation when warranted. Clinical principles of drug therapy will be emphasized. IND.

PHCL 939. Carcinogenesis and Cancer Biology. 3 Hours.
Multidisciplinary approach. Cancer pathology, Mutagenesis, Genetics, Carcinogen metabolism. Signal Transduction, Apoptosis, Initiation and promotion. Tumor Immunology. Cell proliferation. Protooncogenes and suppressor genes. Hormonal carcinogenesis. Cancer epidemiology. Dietary and environmental causation and prevention. Cancer in various organ systems. (Same as PATH 939 and PTOX 939.) Prerequisite: Completion of one of the following: IGPBS modules 1-4 or equivalent or permission of instructor. LEC.

PHCL 990. Research for Dissertation in Pharmacology. 1-10 Hours.
Prerequisite: PHCL 890. RSH.

PHCL 999. Dissertation in Pharmacology. 1-10 Hours.
Prerequisite: Open to students of advanced standing enrolled in the doctoral program in Pharmacology. THE.

PTOX 830. Introduction to Clinical and Translational Cancer Research. 3 Hours.
Instruct students in developmental steps used in translating a basic science experiment with clinical applications into a proof of concept application and human trial. Multidisciplinary approach; lectures from faculty in Pharmacology, KU Cancer Ctr, KUMCRI. Curriculum: Levels of evidence-clinical impact, Pre-Clinical modeling, In-Vitro studies Animal models, Cancer Drug Development-pharmacokinetics toxicity, Pre-Clinical Proof of Concept FDA, Creating a Pilot Study, Biostatistics 101, Phases of Clinical Trials, Data Collection, Support Staff, Regulatory and DSMBs, IRB and HIPPA, Funding Study: Grants Parma, Advertising
study meeting accrual goals, Goals of Phase I study, Goals Objectives of Phase II Efficacy study, Phase 3 Multicenter Study: Value of Numbers Utilizing Cooperative Groups. Prerequisite: Completion of first 2 years of Med School or graduate school, or enrollment in MD/PhD program. Students no meeting one of these criteria will require permission from course instructor. LEC.

PTOX 887. Toxicologic Pathology. 4 Hours.
Introductory pathology course for graduate students preparing for a career in basic toxicology research. Topics to be presented and discussed include: cell injury, inflammation, repair and regeneration, immunopathology, neoplasia, tumor pathology, respiratory pathology, liver pathology, neuropathology, miscellaneous organ pathology, and lab animal clinical chemistry. LEC.

PTOX 889. Research in Toxicology. 1-10 Hours.
Introductory pathology course for planning on being research toxicologists. Topics to be presented and discussed: cell injury, inflammation, repair and regeneration, immunopathology, neoplasia, tumor pathology, respiratory pathology, liver pathology, neuropathology, miscellaneous organ pathology, and lab animal clinical chemistry. LEC.

PTOX 898. Principles of Toxicology. 1 Hour.
Chemical fundamentals in structure, actions and metabolism of toxicants and drugs. Included are molecular features of toxicants and drugs, stereoisomerism, receptor theory, dose-response relationships, agonists and antagonists, absorption, pharmacokinetics, and structure-activity relationships. LEC.

PTOX 899. Thesis in Toxicology. 1-10 Hours.
For students in a master’s program in toxicology. THE.

PTOX 900. Research for Dissertation in Toxicology. 1-10 Hours.
Prerequisite: PTOX 889. RSH.

PTOX 999. Dissertation in Toxicology. 1-10 Hours.
Prerequisite: Open to students of advanced standing enrolled in the doctoral program in toxicology. THE.

## Master of Arts in Pharmacology

### Pharmacology, Toxicology, and Therapeutics Graduate Programs

The Department of Pharmacology, Toxicology, and Therapeutics offers programs leading to master’s or Ph.D. degrees in either of 2 areas pharmacology or toxicology. A Ph.D. degree may be earned in pharmacology with specialization in a number of subfields. The department is one of a very few nationally also to grant the Ph.D. degree in toxicology, again with opportunities for specialization in several subfields. Although a master’s degree may be granted in appropriate circumstances, graduate work is primarily for students planning to earn the Ph.D. degree since the broad background required for work in pharmacology and toxicology makes only the doctoral program appropriate for most students.

Because the emphasis in training students is to provide the broad background needed in pharmacological and toxicological sciences, the program encompasses a spectrum of the biomedical sciences. This includes participation in the Interdisciplinary Graduate Program in Biomedical Sciences core curriculum as well as appropriate electives in other basic sciences.

Research areas emphasized in both pharmacology and toxicology programs are transporters, drug metabolism, hepatotoxicity, pharmacogenomics, metabonomics, gene regulation, nuclear receptors, epigenetics, pain, neurodevelopment, etc.

### Graduate Admission

Applications to the Ph.D. and master’s programs in pharmacology or toxicology are facilitated through the Interdisciplinary Graduate Program in Biomedical Sciences. See the IGPBS section for a description of the program and admission requirements (p. 1778). In certain cases, students may be admitted directly into the department. Applicants specifically interested in the pharmacology and toxicology graduate programs should contact the department directly for information and review the Direct Admit Checklist on the KUMC Graduate Studies website (http://www.kumc.edu/academic-affairs/graduate-studies.html).

### M.A. in Pharmacology Degree Requirements

A minimum of 30 credit hours is required. These hours are divided between formal course work and a research project. The student must satisfactorily defend the project in an open seminar as part of the final examination.

### Master of Science in Pharmacology

### Pharmacology, Toxicology, and Therapeutics Graduate Programs

The Department of Pharmacology, Toxicology, and Therapeutics offers programs leading to master’s or Ph.D. degrees in either of 2 areas pharmacology or toxicology. A Ph.D. degree may be earned in pharmacology with specialization in a number of subfields. The
department is one of a very few nationally also to grant the Ph.D. degree in toxicology, again with opportunities for specialization in several subfields. Although a master's degree may be granted in appropriate circumstances, graduate work is primarily for students planning to earn the Ph.D. degree since the broad background required for work in pharmacology and toxicology makes only the doctoral program appropriate for most students.

Because the emphasis in training students is to provide the broad background needed in pharmacological and toxicological sciences, the program encompasses a spectrum of the biomedical sciences. This includes participation in the Interdisciplinary Graduate Program in Biomedical Sciences core curriculum as well as appropriate electives in other basic sciences.

Research areas emphasized in both pharmacology and toxicology programs are transporters, drug metabolism, hepatotoxicity, pharmacogenomics, metabonomics, gene regulation, nuclear receptors, epigenetics, pain, neurodevelopment, etc.

Graduate Admission

Applications to the Ph.D. and master’s programs in pharmacology or toxicology are facilitated through the Interdisciplinary Graduate Program in Biomedical Sciences. See the IGPBS section for a description of the program and admission requirements (p. 1778). In certain cases, students may be admitted directly into the department. Applicants specifically interested in the pharmacology and toxicology graduate programs should contact the department directly for information and review the Direct Admit Checklist on the KUMC Graduate Studies website (http://www.kumc.edu/academic-affairs/graduate-studies.html).

M.S. in Toxicology Degree Requirements

A minimum of 30 credit hours is required. These hours are divided between formal course work and research/thesis. The student must satisfactorily defend the thesis in an open seminar as part of the final examination. Enrollment in a minimum of one hour PHCL 899 Thesis in Pharmacology is required the semester the thesis is defended.

Master of Science in Toxicology

Pharmacology, Toxicology, and Therapeutics Graduate Programs

The Department of Pharmacology, Toxicology, and Therapeutics offers programs leading to master's or Ph.D. degrees in either of 2 areas pharmacology or toxicology. A Ph.D. degree may be earned in pharmacology with specialization in a number of subfields. The department is one of a very few nationally also to grant the Ph.D. degree in toxicology, again with opportunities for specialization in several subfields. Although a master’s degree may be granted in appropriate circumstances, graduate work is primarily for students planning to earn the Ph.D. degree since the broad background required for work in pharmacology and toxicology makes only the doctoral program appropriate for most students.

Because the emphasis in training students is to provide the broad background needed in pharmacological and toxicological sciences, the program encompasses a spectrum of the biomedical sciences.
Graduate Admission

Applications to the Ph.D. and master’s programs in pharmacology or toxicology are facilitated through the Interdisciplinary Graduate Program in Biomedical Sciences. See the IGPBS section for a description of the program and admission requirements (p. 1778). In certain cases, students may be admitted directly into the department. Applicants specifically interested in the pharmacology and toxicology graduate programs should contact the department directly for information and review the Direct Admit Checklist on the KUMC Graduate Studies website (http://www.kumc.edu/academic-affairs/graduate-studies.html).

Ph.D. Degree Requirements

All students must take the courses of the Interdisciplinary Graduate Program in Biomedical Sciences or an equivalent set of courses approved by the Departmental Graduate Committee. After completion of IGPBS, the following courses are required for the Ph.D. in Pharmacology:

1. Credit hours equivalent to at least 3 full academic years.
2. PHCL 880 Essentials of Pharmacology, PHCL 898 Principles of Pharmacology, PTOX 917 Disposition of Xenobiotics, PTOX 918 Toxicology.
3. At least 2 elective courses (at least 2 credit hours each) approved by the student’s dissertation committee.
4. Other courses considered necessary by the student’s major advisor and dissertation committee.

All students in doctoral programs must meet the research skills and responsible scholarship requirement (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm) of the university. Pharmacology Ph.D. students meet these requirements during their IGPBS year of study by taking GSMC 857 Biographics: Biographics, GSMC 852/GSMC 855 Introduction to Biomedical Research I and II, and GSMC 856 Introduction to Research Ethics.

Examinations

1. Oral comprehensive examination. To be taken after completion of most course requirements and after the research skills and responsible scholarship requirements have been met (normally the exam takes place during the third year of full-time graduate study).
2. Final examination. To be taken after all other requirements, including the dissertation, are completed. Enrollment in a minimum of one hour PHCL 999 Dissertation in Toxicology is required the semester the dissertation is defended.

Combined M.D.-Ph.D. Degree

Outstanding students who are qualified to do so may participate concurrently in work leading to the M.D. and Ph.D. degrees. Credit hours earned in the medical curriculum cannot be transferred as graduate credit hours toward the requirements for the Ph.D. degree, although recognition of satisfactory performance in appropriate medical courses may be given by the Ph.D. program when formulating the student’s additional Ph.D. curriculum. All the requirements for both degrees must be met. The combined degree requirements and application information for the combined M.D.-Ph.D. program are posted on the M.D.-Ph.D. website (http://www.kumc.edu/md-phd-program.html).

Doctor of Philosophy in Toxicology

Pharmacology, Toxicology, and Therapeutics Graduate Programs

The Department of Pharmacology, Toxicology, and Therapeutics offers programs leading to master’s or Ph.D. degrees in either of 2 areas: pharmacology or toxicology. A Ph.D. degree may be earned in pharmacology with specialization in a number of subfields. The department is one of a very few nationally to also grant the Ph.D. degree in toxicology, again with opportunities for specialization in several subfields. Although a master’s degree may be granted in appropriate circumstances, graduate work is primarily for students planning to earn the Ph.D. degree since the broad background required for work in pharmacology and toxicology makes only the doctoral program appropriate for most students.

Because the emphasis in training students is to provide the background needed in pharmacological and toxicological sciences, the program encompasses a spectrum of the biomedical sciences. This includes participation in the Interdisciplinary Graduate Program in Biomedical Sciences core curriculum as well as appropriate electives in other basic sciences.

Research areas emphasized in both pharmacology and toxicology programs are transporters, drug metabolism, hepatotoxicity, pharmacogenomics, metabolomics, gene regulation, nuclear receptors, epigenetics, pain, neurodevelopment, etc.

Graduate Admission

Applications to the Ph.D. and master’s programs in pharmacology or toxicology are facilitated through the Interdisciplinary Graduate Program in Biomedical Sciences. See the IGPBS section for a description of the program and admission requirements (p. 1778). In certain cases, students may be admitted directly into the department. Applicants specifically interested in the pharmacology and toxicology graduate programs should contact the department directly for information and review the Direct Admit Checklist on the KUMC Graduate Studies website (http://www.kumc.edu/academic-affairs/graduate-studies.html).

Ph.D. Degree Requirements

All students must take the courses of the Interdisciplinary Graduate Program in Biomedical Sciences or an equivalent set of courses approved by the Departmental Graduate Committee. After completion of IGPBS, the following courses are required for the Ph.D. in Toxicology:

1. Credit hours equivalent to at least 3 full academic years.
2. PHCL 880 Essentials of Pharmacology, PTOX 898 Principles of Toxicology, PTOX 917 Disposition of Xenobiotics, PTOX 918 Toxicology, PTOX 940 Techniques in Industrial Toxicology.
3. At least 2 elective courses (at least 2 credit hours each) approved by the student’s dissertation committee.
4. Other courses considered necessary by the student’s major advisor and dissertation committee.

All students in doctoral programs must meet the research skills and responsible scholarship requirement (https://documents.ku.edu/policies/
Graduate Studies/Research Skills and Responsible Scholarship.htm) of the university. Toxicology Ph.D. students meet these requirements during their IGPBS year of study by taking GSMC 857 Biographies: Biographics, GSMC 852/GSMC 855 Introduction to Biomedical Research I and II, and GSMC 856 Introduction to Research Ethics.

Examinations

1. Oral comprehensive examination. To be taken after completion of most course requirements and after the research skills and responsible scholarship requirements have been met (normally the exam takes place during the third year of full-time graduate study).

2. Final examination. To be taken after all other requirements, including the dissertation, are completed. Enrollment in a minimum of 1 hour PTOX 999 Dissertation in Toxicology is required the semester the dissertation is defended.

Combined M.D.-Ph.D. Degree

Outstanding students who are qualified to do so may participate concurrently in work leading to the M.D. and Ph.D. degrees. Credit hours earned in the medical curriculum cannot be transferred as graduate credit hours toward the requirements for the Ph.D. degree, although recognition of satisfactory performance in appropriate medical courses may be given by the Ph.D. program when formulating the student’s additional Ph.D. curriculum. All the requirements for both degrees must be met. The combined degree requirements and application information for the combined M.D.-Ph.D. program are posted on the M.D.-Ph.D. website (http://www.kumc.edu/md-phd-program.html).

Department of Preventive Medicine and Public Health

Preventive Medicine and Public Health Graduate Programs

Several graduate degree and certificate programs are offered through the Departments of Preventive Medicine and Public Health in Kansas City and Wichita. These programs are designed to develop public health practice and research skills for those students with clinical and other health related backgrounds.

Courses

PRVM 800. Principles of Epidemiology. 3 Hours.
Basic concepts of epidemiology and methods for identification of factors influencing health and disease in human populations. Considerations are centered on physical, biological, psychosocial and cultural factors in relation to infectious and non-infectious diseases, interactions between agent, host, and environmental factors as determinants of health and disease; application of the epidemiologic approach to health services; retrospective and prospective analysis of morbidity and mortality data. LEC.

PRVM 802. Principles of Epidemiology Lab. 1 Hour.
This course is an additional supplement to the Principles of Epidemiology course. We will review articles and discuss the major principles of epidemiology through the use of the medical literature. This course is designed for students to obtain practical training in epidemiologic concepts and methods. Prerequisite: Concurrent enrollment in PRVM 800. LEC.

PRVM 803. Introduction to Clinical Research. 1 Hour.
Course will provide a comprehensive overview to clinical research. The student will gain an understanding of how to develop clinical research questions including protocol design and the factors that should be considered in initiating a clinical research study. This will include biostatistical considerations, the recruitment of study participants, regulatory issues, and data management, and defining measures and instruments. Students will gain knowledge of how to define clinical research among the various institutional entities involved with clinical research at the University of Kansas Medical Center such as the Research Institute (RI), General Clinical Research Center (GCRC) and the Human Subjects Committee (HSC). Additionally, one component of the course will focus on how to apply for funding (grantsmanship), critical appraisal of research studies, and how to present research data. Prerequisite: Consent of instructor. LEC.

PRVM 805. Public Health Seminar. 1 Hour.
This course will focus on public health practice. Guest lectures from national, state, and local public health agencies will present problems and how these problems are being addressed. Topics are expected to vary somewhat from year to year, depending on the priorities of the agencies. However, topics might include such issues as smoking prevention, automobile accidents, foodborne outbreaks, cryptococcosis outbreaks, lead poisoning in children, asthma in children, sexuality transmitted diseases, diabetes, cancer control, nutrition, cardiovascular diseases, bioterrorism, legal issues and administration of public health. This course is the same as Public Health Grand Rounds. FLD.

PRVM 806. Special Topics. 1-4 Hours.
In-depth, individualized investigation of special problems in community health. Designed especially for students with limited background in community health. Prerequisite: Permission of instructor. RSH.

PRVM 807. Introduction to Field Epidemiology. 3 Hours.
This course presents an overview of the methods used in epidemiologic field investigations. It provides students with a comprehensive review of the basic components of an outbreak investigation, an introduction to public health surveillance, and an overview of specific types of investigations in which a field epidemiologist might become involved, including traceback studies, environmental health assessments, noninfectious health event investigations, contact tracing, and forensic epidemiology. In addition, resources that often come into play in outbreak investigations are presented, such as public health laboratories, the incident command system, and geographic information systems. Prerequisite: PRVM 800. RSH.

PRVM 808. Clinical and Translational Research Seminar. 1 Hour.
This seminar will present locally and nationally recognized clinicians and researchers to discuss various areas of clinical research. The course is designed to expose students to a variety of ongoing research and features speakers from a variety of disciplines including physicians, epidemiologists, biostatisticians behavioral scientists, nursing faculty, nursing students, medical students, allied health faculty and others. Prerequisite: Permission of instructor. LEC.

PRVM 809. Introduction to Public Health. 3 Hours.
An introduction to contemporary public health principles and practice addressing the history, philosophy, and scope of public health practice with emphasis on current organization and administration of programs, recent developments and trends, public health law and regulations and the interface of public and other health related systems. Prerequisite: Permission of instructor. LEC.

PRVM 810. Cardiovascular Disease Epidemiology. 3 Hours.
This will be a study of Cardiovascular Disease risk factors, expression, treatment, and prevention from a population-based standpoint.
Participants will gain knowledge of cardiovascular disease prevalence, incidence, risk factors, outcomes, and prevention strategies. The goal of this course is to understand major aspects of cardiovascular epidemiology and current strategies for primary and secondary prevention of major cardiovascular diseases. Attention will be given to physiologic mechanisms leading to atherosclerosis; traditional and novel coronary heart disease risk factors; prevention methodologies for cardiovascular disease, and the role of lifestyle, dietary, and genetic factors in the development of cardiac and vascular diseases. The course will be evidence- and outcomes-based, with reference to landmark studies and major publications. Relevant historical breakthroughs and current controversies in CVD will be discussed using recent publications from the lay press and peer-reviewed journals. Emphasis will be placed on coronary artery disease and its clinical manifestations. Participants will learn to critically assess public health measures undertaken to recognize, manage, and treat atherosclerotic disease processes. LEC.

PRVM 811. Introduction to Pharmacoepidemiology. 3 Hours.
Pharmacoepidemiology is the application of the principles of epidemiology to the study of medications and their effects of health. Evaluating a drug’s effects commences when a chemical entity becomes a drug candidate, intensifies through clinical trials, and continues after products reach the market. These studies are critical for supporting the proper use of medications in terms of efficacy, effectiveness, and cost-effectiveness. This course provides a broad introduction to the principles of pharmacoepidemiology with a focus on applications in the medical literature. Prerequisite: PRVM 800. LEC.

PRVM 812. Introduction To One Health. 2 Hours.
“One Health” encompasses the complex interrelationships among humans and animals, humans and the environment, and animals and the environment. Incorporates original videos of leading subject matter experts and researchers, case studies, and scientific readings. It addresses zoonotic diseases (those that may be transferred between humans and animals) and environmental issues that impact human, animal, and ecosystem health. Topics include disease surveillance, the human-animal bond, the built environment, disaster response, sanitation, rural/suburban/urban interface, and food safety and security. Prerequisites: Two courses in the biological sciences. Course Format: This is an interactive online course led by the instructor. LEC.

PRVM 814. Health Literacy. 3 Hours.
This is a graduate-level course designed to teach students about literacy and its implications on public health practice and research in the United States, with a focus on health literacy. Students will be introduced to the different types of literacy, including health, prose, quantitative, document, and computer, and how to evaluate them. In addition, students will learn how to lower literacy levels of health education materials for practical application. Cultural competency in literacy will also be discussed, with a focus on culturally competent health communication and education. LEC.

PRVM 815. Surveillance and Control of Infectious Disease. 3 Hours.
This course is concerned with the public health aspects of infectious diseases of importance in the United States. Emphasis will be given to surveillance and control of reportable diseases transmitted via person to person spread, arthropod vectors, lower animals, and common sources. Special considerations are given to characteristics of the agent, host, and environment that influence transmission and selection of control strategies. Instruction is by lecture, seminars and problem-solving sessions. Prerequisite: PRVM 800 or permission of instructor. LEC.

PRVM 816. International Health. 3 Hours.
This course is divided into seven sections: 1) Global health introduction, 2) Health inequalities and the socio-economic context of disease, 3) Maternal and child health, the health of special populations, 4) The spread of infectious diseases, and HIV/AIDS, malaria, TB, 5) Globalizations and emerging infectious diseases, and nutrition, 6) Environmental health and the health effects of environmental change, 7) Global health payers and players, and global health priorities. Prerequisite: PRVM 800 Principles of Epidemiology or permission of the department/instructor. LEC.

PRVM 817. Gender, Race, Class, and Health. 3 Hours.
This graduate-level course examines the intersection of gender, race, and class and its effects on individual and public health. The theoretical orientation of this course is informed by Black feminist scholarship on intersectionality: that is, the intersecting oppressions of gender, sexuality, race, class, and nation. This theory is extended to contemporary public health and social problems through an examination of applied public health studies and interventions. Students’ work will be grounded in theory, but they will learn to apply theory in fieldwork-based exercises and critical analysis of public health problems. LEC.

PRVM 818. Social and Behavioral Aspects of Public Health. 3 Hours.
The course provides an overview of social and behavioral aspects of public health including the relevance of psychological and social factors for health, the principles of health behavior change, the application of these principles in various health domains, and an introduction to health behavior and health promotion interventions. The course begins with the rationale for studying social and behavioral aspects of health and examines select social and behavioral factors (e.g. gender, socioeconomic status, race/ethnicity) as they relate to physical well-being. The course also focuses on well-established theories of health behavior and examines the role of psychological and social factors in specific health topics (e.g. obesity, cancer, cardiovascular disease, smoking). Prerequisite: None. LEC.

PRVM 819. An Introduction to Geographic Information Systems (GIS) for Health. 2 Hours.
This course will provide students with an overview of Geographical Information Systems (GIS) applied in the context of health (public health, allied health and health care). Students will be introduced to GIS and health applications used locally, nationally and internationally. They will learn about pertinent data, how to visualize the data, how to design maps that represent the data, how to use spatial data, how to geocode data, and how to prepare and analyze data. Real-life examples will be used throughout the course and students will gain hands-on experience using a GIS application. Students will also be kept abreast of any new GIS resources and trends or developments in GIS as relates to health. Prerequisite: Basic computer skills. LEC.

PRVM 820. Introduction to Oral Public Health. 3 Hours.
This course is a comprehensive introduction to oral public health in general as it relates to public health in general, within the context of the U.S. healthcare system. Course content includes: Basic organizational arrangements of health services in the U.S., concepts of public health and dental public health, public health problems and oral public health problems in the context of social and community factors and social determinants of health behavior, oral public health developments from a historical perspective, oral health/dental care financing and decision making; assessments of oral health status and need for care; population-based programs for oral disease prevention/health promotion, oral/dental public health research methodology and the practice of oral public health. LEC.

PRVM 821. Research Methods in Public Health. 3 Hours.
This is an introductory behavioral research methods, course. Students will learn about research designs, hypothesis formation, measurement, sampling, ethical issues in research, and pragmatic and research issues with evaluating behavioral interventions. Students will also learn how to critically evaluate and develop behavioral randomized clinical trials.
Prerequisites: None. Social and Behavioral Aspects of Health and an Introductory statistics course are recommended but not required. LEC.

PRVM 822. Migration and Health. 3 Hours.
This course is designed to enhance students’ understanding of the immigration process and its implications on health. This course will address a wide range of health issues experienced by immigrants in the U.S. and will analyze resources, disparities, and cultural factors having an impact on immigrants’ health. This course will also review partnerships and strategies developed to address the health of immigrants in the U.S. Prerequisite: Completion of PRVM 818 Social and Behavioral Aspects of Public Health and PRVM 863 Health Disparities is recommended. Instructor or program approval is required. LEC.

PRVM 823. Field Experience in Community Health Education. 1-3 Hours.
Internships with community agencies, community preceptors in areas of concentration. Prerequisite: Permission of instructor. FLD.

PRVM 825. Child and Family Health. 3 Hours.
Family, maternal, and child health problems will be addressed. Topics will include perinatal care (maternal health and habits); fetal growth factors, well baby care (immunizations, nutrition, growth, development, behavior); developmental disabilities; adoption; adolescence; child abuse; family as a support system; long-term medical and social outcomes of chronic illness/disability in children. Subjects are covered through lecture, discussion and field visits under the supervision of a pediatrician. Prerequisite: Permission of instructor. LEC.

PRVM 826. Epidemiology for Advanced Nursing Practice. 3 Hours.
Epidemiology for Advanced Nursing Practice is a 3 credit hour graduate level course designed to synthesize basic epidemiology with clinical nursing concepts. The course is a core course required for the Doctor of Nursing Practice degree in which basic concepts of epidemiology and methods for identification of factors influencing health and disease in human populations are discussed. Considerations are centered on: 1) Physical, biological psychosocial and cultural factors in relation to infectious and non-infectious diseases; 2) Interactions between agent, host, and environmental factors as determinants of health and disease; 3) Application of the epidemiologic approach to clinical nursing; and 4) Measures of disease occurrence and risk. Prerequisites: None. LEC.

PRVM 827. Public Health Administration. 3 Hours.
This course provides students with an overview of the core functions of public health: assessment, policy development, and assurance together with an introduction to the leadership and management skills necessary to provide leadership in public health. It uses both theoretical and practical material to develop basic administrative competencies necessary for practice in community and public health. Assignments are designed to provide practice in applying course materials. LEC.

PRVM 828. Public Health Program Development and Management. 3 Hours.
Framed within the context of the core public health functions, assessment, policy development, and assurance, this course provides students with an overview of the planning process within a community setting. This course will use both theoretical and practical material to develop basic competencies in planning, implementing, and evaluating health programs; however, the predominant focus will involve the planning process and operations of a public health program. Assignments are designed to provide practice in applying course materials. Prerequisites: PRVM 818 Social and Behavioral Aspects of Public Health, PRVM 800 Principles of Epidemiology, PRVM 827 Public Health Administration. LEC.

PRVM 830. Environmental Health. 3 Hours.
This course will identify specific health effects of environmental contaminants and discuss principles of prevention. Specific problem areas will include air and water pollution, solid waste disposal, food preservation, radiation, industrial hygiene, occupational skin and lung diseases, chemical carcinogens accidents, an agricultural health and safety. A number of guest lecturers and field trips will be utilized. LEC.

PRVM 832. Environmental and Occupational Epidemiology. 3 Hours.
Epidemiological concepts applied to problems in environmental and occupational health will be discussed. This course will focus on studies of workplace and environmental exposures. exposure assessment and monitoring, hazardous exposures and adverse health effects, and approaches to prevention. Specific health effects of exposure to toxic chemical and physical agents will be discussed, as well as reading, evaluating, and interpreting epidemiologic studies. Prerequisites: PRVM 800 Principles of Epidemiology and PRVM 830 Environmental Health or permission of instructor. LEC.

PRVM 833. Community Health Education and Promotion. 3 Hours.
Designed to teach students the core concepts in community health education and promotion, students will be introduced to the scientific and practical knowledge necessary to develop successful research and implement programs. Students will learn models of analysis, management of health promotion in the workplace, health education diagnosis, planning, and evaluation. A variety of examples will be used, including the Centers for Disease Control model, and other commonly recognized approaches to community health promotion. Prerequisites: PRVM 818 Social and Behavioral Aspects of Public Health or permission of instructor. LEC.

PRVM 834. Evaluation Methods in Public Health. 3 Hours.
Principles and procedures to evaluate health promotion and disease prevention programs. Includes data collection methods, instrument scale development, measurement, and evaluation designs. Case studies of disease prevention literature on evaluation will be analyzed. Prerequisite: Permission of instructor. LEC.

PRVM 835. Epidemiology in Aging. 3 Hours.
An overview of the aging process, review of current knowledge of epidemiology of selected diseases, such as dementia and osteoporosis, and falls that primarily affect aging individuals. Emphasis on epidemiologic designs, methods, and issues (e.g., low response rate and measurements) that are pertinent to research on aging individuals. Prerequisite: PRVM 800, BMTR 811/PRVM 804, or permission of instructor. LEC.

PRVM 836. Children’s Environmental Health. 3 Hours.
Web-based course. Children rely on adults to protect them from hazards. Are we doing as much as we should? Are certain health problems in children related to environmental contamination? This course reviews and applies concepts in epidemiology, toxicology, reproductive health, and childhood development. Important children’s health problems such as asthma, attention deficit disorder, and others are addressed. Students apply principles of health communication in a project designed to prevent environmental health problems among children. Prerequisite: PRVM 800 Principles of Epidemiology. LEC.

PRVM 838. Reproductive Epidemiology. 3 Hours.
Epidemiologic concepts applied to problems in reproductive health of men and women. Critical analysis of epidemiologic studies on sociocultural, individual and pregnancy-specific risk factors to reproduction. Field trips will be used to explore methods to reduce adverse reproductive health outcomes in populations (worksites, managed care organizations, local health departments). Literature synthesis skills are used in a project.
focused on preventing adverse reproductive outcomes in a defined population. LEC.

PRVM 839. Community-oriented Primary Care Epidemiology. 3 Hours.
Overview of how population-based epidemiological concepts are applied to primary care settings, within the framework of community-oriented primary care (COPC). Community and clinic populations will be emphasized. Epidemiology theory and primary care research applications will be taught. Prerequisite: PRVM 800 or permission of instructor. LEC.

PRVM 840. Clinical Epidemiology. 3 Hours.
Application and elaboration of epidemiologic principles in the context of clinical decision-making; design and interpretation of studies relating to diagnosis, prognosis, prevention, and therapeutics; techniques of economic analysis and meta-analysis; use of clinical epidemiology to develop practice guidelines. Prerequisite: Permission of instructor. LEC.

PRVM 841. Advanced Epidemiology I: Methods in Cross-Sectional and Case-Control Studies. 3 Hours.
This course will concentrate on concepts and application of various statistical techniques in the analysis of epidemiological data. Students will be oriented toward application of SAS in data analysis and interpretation of data from cross-sectional and case-control studies. Prerequisite: Principles of Epidemiology (PRVM 800), Fundamentals of Biostatistics I (BIOS 714), and Management of Public Health Data (PRVM 875) or Statistical Computing SAS Base (BIOS 820.) LEC.

PRVM 842. Advanced Epidemiology II: Methods in Longitudinal Studies. 3 Hours.
This course will concentrate on concepts and application of various statistical techniques in the analysis of epidemiological data. Students will be oriented toward application of SAS in data analysis and interpretation of data from longitudinal studies and controlled clinical trials. Prerequisite: Principles of Epidemiology (PRVM 800), Fundamentals of Biostatistics I (BIOS 714), Advanced Epidemiology (PRVM 841), and Management of Public Health Data (PRVM 875) or Statistical Computing SAS Base (BIOS 820.) LEC.

PRVM 843. Obesity and Public Health. 3 Hours.
Obesity is becoming epidemic and pandemic throughout the world. What are the personal public health consequences of this phenomenon? Are we as focused as we should be on the effects of this growing problem? This course reviews the basic definition of obesity and defines its known personal and public health effects: including issues of bias and stigmatization. The course further examines the epidemiology, and future predications consequences of obesity and then examines personal models of treatment followed by examination of public health efforts to date. Finally, proposed interventions and areas for research are discussed and evaluated. Students apply principles of behavioral change and communication to develop proposed public health approaches to ameliorating the obesity problem in children and adults. Prerequisite: PRVM 800: Principles of Epidemiology and PRVM 818: Social and Behavioral Aspects of Public Health, or permission of instructor. LEC.

PRVM 844. Organization, Financing and Delivery of Health Care.. 3 Hours.
This course will demonstrate an understanding of the difference between health care and medical care and the place of medical care in the economic system; the role of social values and economic principles in societal decision making and the utilization of health care services; the role of NEED in the utilization of health care services; the public and private financing of the health care system; the organization of resources and types of managed care systems; the unique payment and the reimbursement mechanisms in the healthcare system; and the role of government in the healthcare system. LEC.

PRVM 845. Cultural Competency in Public Health. 3 Hours.
This course provides students with a broad range of contemporary research and writings in the area of cultural competence in public health as it relates to health disparities and health interventions. Specific attention will be paid to examining self-awareness, developing cross-cultural competence, and identifying and utilizing culturally appropriate strategies in health promotion and prevention. Students emerge from this course with an understanding of how culture operates as a critical variable in health behaviors, planning health promotion and disease prevention strategies, and in addressing health disparities. LEC.

PRVM 846. Health Economics. 3 Hours.
This course is designed to explore the application of economic theories, principles and concepts to the U.S. medical care system. Students will demonstrate an understanding of: the difference between health care and medical care and the place of medical care in the economic system; the role of social values in economic principles and societal decision making; the determinants of supply and demand of medical care services with particular attention to the relationship between supplier and demand and need and demand; complements and substitutes as they apply to medical care services; the unique nature of the medical care product; the interrelatedness of markets; the principles of and demand for health insurance and its role in the demand for medical care services; the role of government in the medical care system. LEC.

PRVM 847. Seminar in American Indian Health Disparities. 1 Hour.
This is a graduate-level course designed to teach students about current research being done around the country to address health disparities faced by American Indian communities. Students will attend a weekly one-hour seminar on-line and will be given readings to accompany each lecture. Lectures will be done by faculty at various universities, as well as members of community organizations and/or tribes who are conducting research. Students may take the course multiple times; each seminar will be unique in terms of topics and accompanying readings, as well as lecturers. Some semesters may focus on a particular health topic for the full semester, e.g.: cancer or diabetes. This course is designed to be a seminar series that changes each time it is taught. Prerequisite: Permission of instructor. SEM.

PRVM 849. Qualitative Methods in Public Health. 3 Hours.
Qualitative research has diverged from its anthropology roots to become commonplace in marketing, business, clinical and public health settings. This course is focused to basic qualitative methodologies with applications in public health, health services research, health behavior, and quality improvement. This course reviews and gives real practice with strategic planning, choice of methods, logistics, and integration with quantitative methods. Students will receive hands-on experience with logistics and actual data collection using several methods. Students will present and discuss recent journal articles reporting qualitative studies in weekly "journal club" fashion. Students will present the results of their qualitative research in an oral class presentation and poster, and in an abstract submitted to a local, regional or national conference. Prerequisite: PRVM 800 or permission of instructor. LEC.

PRVM 850. Cancer Epidemiology. 3 Hours.
Epidemiology of major malignant disease is discussed. Emphasis is placed on the identification of populations at risk, etiologic factors and foreseeable methods of prevention. Relevant information on tumor biology, immunology, and viral, chemical and physical carcinogenesis is presented. Problems unique to epidemiologic investigation of cancers are discussed. Epidemiological methodology is stressed. Prerequisite: PRVM 800. LEC.
PRVM 851. Public Health Policy and Law. 3 Hours.
This course is designed to prepare public health leaders to live and work in a world of laws, and to play an active and effective role in policy making and analysis. Students will understand the source of national, state, and local statutes and regulations and understand the role of common law. Students will understand the policy process at the national, state, and local level, and develop skills analyzing legislation and influencing policy decisions. Students will understand the rule making process at the national and state level. LEC.

PRVM 852. Health Care for Special Populations. 3 Hours.
This course examines the health and social needs of population groups with higher-than-average risk of disease, disability, and negative social outcomes. Such groups include low-income racial and ethnic minorities, urban adolescents, people in jails/prisons, the homeless, drug users, sex workers, immigrants, and people living with HIV/AIDS. The course utilizes the disciplines of social epidemiology and medical sociology to explore the individual, community, and structural-level determinants of health and implications for health care. LEC.

PRVM 853. Responsible Conduct of Research. 1 Hour.
The purpose of this course is to engage research trainees in reading about, considering, and discussing the responsible conduct of science. The course is designed as an option for meeting current federal regulations, which require that all NIH training grants provide training in the responsible conduct of research. This course provides a concise overview of key subject areas in the responsible conduct of research. It is designed to make students aware of relevant guidelines, policies and codes relating to ethical research, as well as to provide the skills for identifying and resolving ethical conflicts that may arise in research. LEC.

PRVM 854. Population and Community Mental Health. 3 Hours.
Social and social-psychological processes that shape the experience of mental health and illness and the consequences of disorders for individuals, families, and communities will be examined. Theories of systems, evidence-based treatment, epidemiologic research, diverse populations, mental health consequences of disaster and terrorism, and systems of care and change. Students will become familiar with the role of mental health risk and protective factors in the promotion of well-being. Through critical review and discussion of selected readings in this area, students will consider the implications of mental health and illness as a community or public health issue. Students will be evaluated on critical thinking and evaluation skills through written assignments and projects designed to demonstrate their ability to identify and integrate key elements of mental health theory and research. RSC.

PRVM 855. Seminar in Women's Health. 3 Hours.
Seminar in Women's Health is a 3 credit elective, graduate level course focusing on gender issues that are relevant in treatment approaches to various health issues, the differing health status of minority women, the evolution of women's health to include the entire life span and areas other than reproduction, the changing implications of health care and policy and men in women's health. No prerequisite. LEC.

PRVM 856. Community-Based Participatory Research. 3 Hours.
This is a graduate-level course designed to teach students the basic methods of conducting and evaluating community-based participatory research (CBPR). Students will be introduced to the five phases of CBPR, including partnership formation and maintenance, community assessment and diagnosis, defining the issue, documentation and evaluation of partnerships, and feedback, interpretation, and evaluation of partnerships. In addition, students will learn how to find funding mechanisms and journals that are appropriate for CBPR, as well as some of the key factors in writing about CBPR. Students will be introduced to a variety of examples of well-done CBPR and will learn what makes it different from other types of research done in community settings. PREREQUISITES: Social and Behavioral Aspects of Public Health or permission of instructor. LEC.

PRVM 857. Motivational Interviewing in Public Health Settings. 1 Hour.
The course is designed to introduce participants to Motivational Interviewing, its concepts, and to the subsequent skills required for helping people to change. This course will be cross-listed with DN 857. LEC.

PRVM 858. Public Health in Film. 2 Hours.
The Public Health in Film course will allow students the opportunity to address multiple public health issues throughout time via educational films and public health documentaries and discussion. Specific issues will include, but will not be limited to: polio, leprosy, cholera, tuberculosis, the bubonic plague, influenza, bioterrorism and natural disasters. LEC.

PRVM 859. Tobacco and Public Health. 3 Hours.
This course will provide an overview of tobacco as a public health problem and tobacco politics. Students will learn about the pharmacology of nicotine, the mechanisms leading to tobacco addiction and biologic factors that affect pharmacology and tobacco use such as the menstrual cycle and comorbid illnesses such as depression and others. Public health approaches to preventing tobacco use initiation will be studied, including which initiatives are most effective. State-of-the-art methods to assist smokers to quit will be reviewed, including pharmacologic interventions, counseling by health professionals and education/motivation support. Barriers to obtaining services will be explored, such as educational needs among various types of health professionals, and access to care in rural areas or among clients with certain types of health insurance. LEC.

PRVM 860. Community Nutrition. 3 Hours.
Comparative analysis of the demographic, geographic, and economic structure of various types of communities in Western and non-Western societies. Relationships between these compositional elements of a given community, its food and nutrition resources and services, and the nutritional status of its members. Development of alternative strategies for resource expansion and/or for delivering appropriate nutritional services to target communities. Prerequisite: Permission of instructor. LEC.

PRVM 862. Terrorism, Emergency Preparedness and Response. 3 Hours.
Through lectures, tabletop exercises, and invited speakers, the course content will include the following topics: terminology and core competencies, public health infrastructure, collaboration and communication, roles and responsibilities, psychological effects of terrorism, agricultural and zoonotic bioterrorism, law enforcements and public health, epidemiology of BT diseases (including agent specific lectures), burn injuries, risk communication, Strategic National Stockpile (SNS), National Incident Management System (NIMS), public health law as related to bioterrorism, and public health laboratory response related to bioterrorism. LEC.

PRVM 863. Health Disparities in Public Health. 3 Hours.
This course is designed to enhance students' understanding of the biopsychosocial factors that contribute to disparities in health and health care. This course will also review strategies developed to reduce health disparities. Prerequisite: PRVM 818 Social and Behavioral Aspects of Public Health is recommended. LEC.

PRVM 864. Global Public Health Impact of HIV/AIDS. 3 Hours.
Historically reviews the HIV pandemic to evaluate lessons learned in prevention and treatment of the disease and successes and failures of public policies to reduce the impact of HIV in various countries. Critically analyzes HIV prevention interventions (voluntary counseling and
testing, prevention of mother-to-child transmission, promotion of safer sex practices, clean needle exchange, methadone or buprenorphine programs, treatment with antiretroviral therapy, pre- and post-exposure prophylaxis, vaccine and microbicide development) and challenges with their implementation. LEC.

PRVM 867. Ethical Issues in Public Health. 3 Hours.
Lectures and small group discussions explore public health ethics, social justice and autonomy as they relate to public health practice and health policy. Current issues in health policy are discussed including: the right to health and health care, bioterrorism, and health inequalities, poverty and power. Weekly small group discussions include cases on MCHP, obesity and “fat taxes,” resource allocation, and disparities in infant mortality. Student evaluation is based on class participation, a small group project, and a final paper based upon a case study addressing ethical issues relevant to the student’s area of public health specialization. LEC.

PRVM 866. Seminar in Outcomes Management and Research. 1 Hour.
Political, economic, and methodologic issues that affect health care quality and outcome measurement will be discussed and analyzed in this seminar. Visiting faculty experts in outcomes research and management will present models for health care outcomes assessment and evaluation. (Same as HPM 876 and NRSG 888.) LEC.

PRVM 870. Environmental Health Law and Policy. 3 Hours.
This is a survey course that will provide a broad, practical understanding of some important local, state, and federal environmental statutes, regulations, and case law. This course will cover the fundamentals of environmental law, examining the history, development, and current status of environmental law and federalism in the United States. Environmental Law is designed to introduce the student to a variety of important environmental challenges addressed by environmental laws and policy issues surrounding environmental problems as well as the legal complexities of environmental regulatory and administrative schemes. Prerequisite: PRVM 830 Environmental Health. LEC.

PRVM 871. Environmental Monitoring and Exposure Assessment. 3 Hours.
This course will examine the various techniques and analytical methods to monitor and measure environmental contamination in air, water, and soil in both indoor and outdoor environments. Students will learn to use measurement devices and instrumentation typically used to measure and analyze these environmental contaminants. They will also learn to interpret the data and model contaminant levels in the environment and will use this data to model likely human exposures. Environmental Monitoring and Exposure Assessment is critical to the assessment of environmental hazards and identifying exposure risk to individuals and populations. The course will focus on standard sampling and analytical techniques that have been developed to assess contaminant levels, quality assurance, data analysis, pathways of exposure and the fate and transport of environmental contaminants. The course will also briefly discuss biomarkers as a tool to estimate exposure, dose or body burden, and the information they provide will be compared to and contrasted with measures of contaminant levels in the environment. Prerequisite: PRVM 830 Environmental Health. LEC.

PRVM 872. Grant Writing. 3 Hours.
This course combines instruction and practical exercises to move the participant step-by-step through all stages of planning programs, identifying funding sources, and writing grant proposals. Upon completion of the course, the student will have developed a quality proposal and be able to demonstrate skills in preparing grants. These will include: Development of fundable idea, Researching appropriate funding opportunities from foundations, corporations, and governmental sources; Finding grant information on the Internet; Reviewing federal grant applications, including NIH, NSF, and HRSA applications; Development of proposal elements and crafting a quality grant application; Review of certification and assurances required on grant applications; Review of evaluation and program outcome requirements on grant applications; Working with other participants in small groups to act as internal grant reviewers, responding to reviewers, and resubmitting grants. LEC.

PRVM 873. Scientific Writing. 2 Hours.
Includes the mechanics of how to write clearly, focusing on mechanics, structure, and style. Students will practice specific strategies for writing effectively, with in depth attention paid to how ideas are distributed through well written sentences and paragraphs. Also includes editing and revision of writing for publication and grant submission. LEC.

PRVM 874. Toxicology and Risk Assessment. 3 Hours.
This course will introduce students to basic toxicological concepts. Students will be provided opportunities to use these concepts to describe the underlying biochemical or physiological basis for health effects related to exposure to environmental toxicants and will practice interpreting the findings from student in the literature and critiquing studies. In the second part of the course students will learn the basic components of a health-based risk assessment and will practice applying these concepts by conducting a risk assessment. Prerequisites: PRVM 800 Principles of Epidemiology and 830 Environmental Health and one semester of college-level biology. Completion or concurrent enrollment in PRVM 832 Environmental and Occupational Epidemiology is recommended. Additional biology and chemistry courses may be helpful. LEC.

PRVM 875. Management of Public Health Data. 3 Hours.
A 3 credit hour graduate level course concerning basic computing skills necessary for any advanced epidemiologic or administrative quantitative methods. This course covers basics of variable and dataset creation, building, maintenance and basic descriptive (not interpretive) analysis. The course is designed to be of use to students entering a variety of research, administrative and public health settings in public health, clinical and other fields. Software covered will include SAS, SPSS, Epi Info, KPHS, Microsoft-EXCEL and ACCESS. The course can stand alone, or prepare students for Biostatistics and Epidemiology courses. Public data presentations will be stressed to prepare students to communicate data with the lay public. LEC.

PRVM 876. Health Services Research Using Public Payer Data. 3 Hours.
Several contemporary health reforms have rendered analyses of public payer data more feasible and valuable for population health, health services research, and quality improvement. The addition of an outpatient drug benefit to standard inpatient and outpatient service coverage for Medicare, for example, has stimulated a growth industry in comparative effectiveness research and expanded policy research across the health care system. Pending expansion of States’ Medicaid programs under the Affordable Care Act will undoubtedly create the largest public health care insurance program in the United States. The Centers for Medicare Medicaid Services (CMS) have streamlined researchers’ access to national Medicare and Medicaid populations for health srevices and Medicaid Services (CMS) have streamlined researchers’ access to national Medicare and Medicaid populations for health srevices and quality improvement projects through contracts with the Research Data Center at the University of Minnesota and the Chronic Condition Warehouse. In addition, Kansas Medicaid has invested in a Data Analytic Interface that offers ready access to our state’s employees, Medicaid beneficiaries, and private health insurance claims data for enterprising researchers including tremendous opportunities for state of the art, contemporary policy analyses. This is indeed an exciting and opportune time for students embarking on careers in health services, policy, and
population health research. This course is designed to prepare students for real world analyses using standard public payer claims data. LEC.

PRVM 877. Health Communication. 3 Hours.
This course is focused on community health education and promotion, especially designing and evaluating health communication programs for populations with shared risks, exposures or behaviors. Ways in which the general public receives and assigns meaning to health messages will be reviewed. The strengths and weaknesses of specific health communication initiatives will be analyzed in terms of theoretical constructs, costs and outcomes. Students apply public health principles by designing a substantive health communication piece or educational material. Prerequisite: PRVM 800; Principles of Epidemiology and PRVM 818: Social and Behavioral Aspects of Public Health. Permission of instructor may be granted in lieu of these prerequisites. LEC.

PRVM 878. Cost-effectiveness and Decision Analysis. 3 Hours.
This course examines techniques that are used in making clinical and management decisions when outcomes are uncertain. The course begins with a review of probabilistic decision making, then explores methods of analyzing choices with uncertain outcomes, stressing the use of decision trees and sensitivity analysis. The course examines cost minimization analysis, cost effectiveness analysis, and cost benefit analysis. (Same as HPM 872) LEC.

PRVM 879. Financial and Human Resource Management. 3 Hours.
This graduate-level course covers principles and skills for financial and human resource management within public health organizations. It focuses on non-profit and public settings. Financial management topics include the principles and purposes of accounting, concepts related to finance, and financial strategic planning. Human resource management topics include job design and hiring, performance management, retention, compensation/benefits, legal issues, and termination. The focus of the course is twofold: 1) understanding the concepts behind financing and in gaining skills in interpreting and using financial information; 2) gaining skills in human resources management and resource development. The course is designed for people who are interested in public health administration, but should be useful to anyone with an interest in public health leadership in any setting. Prerequisite: Departmental permission. LEC.

PRVM 880. Seminar in American Indian Health. 3 Hours.
This is a graduate-level course designed to teach students about current issues in American Indian health, as well as provide a basic historic context for understanding these issues. Students will read current literature from the academic journals and will be exposed to research being done today in American Indian communities, some of which has not yet been published. In addition, students will gain an understanding of what health disparities exist in American Indian communities and some of the reasons why they exist, including access issues and other barriers to care, from both Western and Native points of view. Students will be exposed to some of the difficulties in conducting health research in Native communities and some of the more successful techniques to overcome barriers. Prerequisites: None. LEC.

PRVM 881. Performance Improvement in Public Health. 3 Hours.
This course provides students with an overview of performance improvement and management integrated within the core public health functions: assessment, policy development and assurance. It uses both theoretical and practical material to develop basic competencies necessary for performance management in community and public health settings. Key topics will include assessment tools and models, continuous quality improvement, evidence-based practice, performance improvement methods (epidemiologic measurement, measures of central tendency, problem identification and analysis, control charts) and the development of team-based problem solving and resolution. Prerequisite: PRVM 800 Principles of Epidemiology, PRVM 875 Management of Public Data; PRVM 827 Public Health Administration is preferred. LEC.

PRVM 891. Public Health Internship. 1-3 Hours.
Students will complete a 192 hour internship in a community setting (12 hours/week for the 16 week semester) during PRVM 891 Public Health Internship. The internship is a service-learning experience for which students should consider the contribution their activities will make to the internship setting as well as activities that will be undertaken to meet the student’s learning objectives. Prerequisites: MPH core and required courses. One of the MPH core courses may be taken concurrently with PRVM 891. LEC.

PRVM 893. Public Health Capstone. 1-3 Hours.
The public health capstone is a 192 hour (12 hours/week for the 16 week semester) culminating experience that requires students to synthesize and integrate knowledge and/or apply theories and principles learned to an area of public health. The capstone is meant to be taken at the end of the student’s degree program, and is designed to give the student an opportunity to apply their skills to a variety of problems or issues in public health. The capstone should be primarily focused on addressing concentration specific competencies. While the exact activities and outcomes of the capstone will differ across concentrations all capstones, regardless of concentration, must include a written report and an oral defense. Prerequisites: All MPH core and required courses, nine of the 12 concentration credits completed, PRVM 891 Public Health Internship, last semester of enrollment. LEC.

PRVM 899. Thesis. 1-3 Hours.
Preparation of a formal thesis based on the research conducted on a community health problem. After the thesis has been completed, the student will be given an oral examination on the research methods and content. Prerequisite: PRVM 890 and departmental approval. (This course may be repeated for a maximum of 6 credit hours.) THE.

PRVM 920. Microsystems in Healthcare Operations. 3 Hours.
Competencies necessary for studying clinical microsystems and examining their influence on patient safety, satisfaction, and other clinical outcomes are developed in this course. Microsystems will be determined, deconstructed, analyzed for best practice, and re-constituted for the purpose of improved organizational performance. The roots of quality improvement are traced and quality improvement application within a microsystem environment is explored. Key topics include: assessment tools and models, continuous quality improvement theory, evidence-based practice, performance improvement methods (measurement, statistics, problem identification and analysis, control charts) and the development of team-based problem solving and resolution. Students examine productivity and cost indicators, strategic and operational planning, healthcare finance, relationship-building, collaboration techniques, and leadership principles. Prerequisites: BIOS 704 or BIOS 714, PRVM 800, PRVM 818, PRVM 827 preferred or permission of instructor. Cross-listed with NRS 920. LEC.

Graduate Certificate in Clinical and Translational Research
Graduate Certificate in Clinical and Translational Research

The Certificate in Clinical and Translational Research (CCTR), offered by the Departments of Preventive Medicine and Public Health on the
Kansas City and Wichita campuses, is designed for students who desire to advance their clinical research skills. Students must complete a total of 16 credit hours in epidemiology, biostatistics and clinical research as well as six elective hours. The CCTR can be completed on a part-time basis.

Certificate in Clinical and Translational Research - Admission

Admission to the certificate in clinical and translational research program is competitive. Candidates should meet all general requirements for admission to graduate studies including a baccalaureate degree from a regionally accredited institution and an undergraduate grade-point average of 3.0 on a 4.0 scale. Applicants also should have passed at least one semester of college calculus. One official copy of academic transcripts from all post-secondary institutions attended must be submitted at the time of application. A background check (http://www.kumc.edu/student-services/vice-chancellor-of-student-services/criminal-background-checks-for-students.html) is required during the admission process; it may affect the student’s eligibility to enter the program.

Applicants who have not earned doctoral degrees in the U.S. must submit official scores on the Graduate Record Examination or other professional test scores (such as the Graduate Management Admission Test, Medical College Admission Test, Law School Aptitude Test) that are not more than five years old. Applicants whose native language is not English also must submit scores on the Test of English as a Foreign Language that are not more than two years old. See KU Medical Center Graduate Studies (http://www.kumc.edu/academic-affairs/graduate-studies.html) and the Office of International Programs (http://www.kumc.edu/international-programs/academic-english-requirements.html) for more information.

All applications must be supported by three letters of recommendation and/or evaluation forms from persons qualified to assess the candidate’s aptitude for the program. Applicants must include a current résumé or curriculum vitae and a personal statement indicating their career goals and reasons for seeking the certificate in clinical and translational research.

Certificate in Clinical and Translational Research

Certificate is available in Kansas City and Wichita.

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<tr>
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<th>Hours</th>
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<tr>
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<td>Introduction to Clinical Research</td>
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<tr>
<td>BIOS 714</td>
<td>Fundamentals of Biostatistics I</td>
<td>3</td>
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<tr>
<td>PRVM 800</td>
<td>Principles of Epidemiology</td>
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<tr>
<td>PRVM 802</td>
<td>Principles of Epidemiology Lab</td>
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<tr>
<td>PRVM 808</td>
<td>Clinical and Translational Research Seminar</td>
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<td>PRVM 853</td>
<td>Responsible Conduct of Research</td>
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<tr>
<td>Clinical Research Selectives</td>
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<tr>
<td>Human Subjects Tutorial</td>
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Graduate Certificate in Community-Based Participatory Research

Graduate Certificate in Community-Based Participatory Research

The Certificate Program in Community-Based Participatory Research is designed to provide students and scholars with a strong foundation in community-based participatory research principles and methods. Formal training in community-based participatory research, epidemiology, health literacy, qualitative methods, and grant writing will allow scholars to enhance their current research skills.

Students may apply to the Certificate in Community-Based Participatory Research program on the Kansas City campus. The students that will participate in this certificate program can be from a broad spectrum of backgrounds including graduate students, residents, fellows and faculty working in the area of health disparities and underserved communities.

Community-Based Participatory Research Graduate Certificate

Certificate available in Kansas City.

Admission to the certificate in community-based participatory research is competitive. Candidates should meet all general requirements for admission to graduate studies including a baccalaureate degree from a regionally accredited institution and an undergraduate grade-point average of 3.0 on a 4.0 scale. Applicants also should have passed at least one semester of college algebra. One official copy of academic transcripts from all post-secondary institutions attended must be submitted at the time of application. A background check is required during the admission process; it may affect the student's eligibility to enter the program.

Applicants who have not earned doctoral degrees in the U.S. must submit official scores on the Graduate Record Examination or other professional test scores (such as the Graduate Management Admission Test, Medical College Admission Test, Law School Aptitude Test) that are not more than five years old. Applicants whose native language is not English also must submit scores on the Test of English as a Foreign Language that are not more than two years old. See KU Medical Center Graduate Studies (http://www.kumc.edu/academic-affairs/graduate-studies.html) and the KUMC Office of International Programs (http://www.kumc.edu/international-programs/academic-english-requirements.html) for more information.

All applications must be supported by three letters of recommendation from persons qualified to assess the candidate’s aptitude for the program. Applicants must include a current résumé or curriculum vitae and a personal statement indicating their career goals and reasons for seeking the certificate in community-based participatory research.

Per Graduate Studies (p. 2096) policy, no student may work toward a graduate certificate without being accepted as a graduate certificate student in a specific graduate certificate program. Graduate certificates are not granted retroactively.
Community-Based Participatory Research Graduate Certificate

Certificate is available in Kansas City.

<table>
<thead>
<tr>
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<td>PRVM 856</td>
<td>Community-Based Participatory Research</td>
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<tr>
<td>PRVM 814</td>
<td>Health Literacy</td>
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<tr>
<td>PRVM 872</td>
<td>Grant Writing</td>
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<td>PRVM 800</td>
<td>Principles of Epidemiology</td>
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<tr>
<td>PRVM 853</td>
<td>Responsible Conduct of Research</td>
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</table>

Human Subjects Tutorial
Health Disparities Selective (As approved by program director) 3

ePorfolio Requirement

Master of Public Health

M.P.H. Program

The KU Master of Public Health degree program is nationally accredited by the Council on Education for Public Health. The M.P.H. degree is offered through the Departments of Preventive Medicine and Public Health at the University of Kansas Medical Center in Kansas City and the University of Kansas School of Medicine-Wichita in Wichita. Select courses are also available in a Web-based format. Concentrations are offered in epidemiology, social and behavioral health, environmental health sciences, and public health management.

The M.P.H. degree is a 42-credit-hour program that culminates with an internship experience and capstone project. The M.P.H. student must complete 15 core course hours, a 3-credit-hour data management class, a 1-credit-hour epidemiology lab, as well as 12-credit hours of concentration specific courses. Competencies in the five basic public health specialty areas will be provided by the core course work in epidemiology, biostatistics, social and behavioral sciences, health services administration and environmental health sciences.

Dual M.D.-M.P.H. Program

This is a 5-year program in which the medical student completes the requirements for the M.P.H. degree in one year. This can be accomplished either between the second and third, or between the third and fourth years of medical school. Students must complete all degree requirements for both the M.D. and the M.P.H. programs. They complete the M.P.H. concentration in Social and Behavioral Health in three semesters, beginning in the summer (June), and proceeding through fall (August) and spring (January), and finishing by the end of May. Please contact the respective academic units offering the degree for more information. The M.D. degree is offered by the School of Medicine (http://www2.kumc.edu/somcatalog).

Joint Ph.D in Behavioral Psychology-M.P.H. Program

The Department of Applied Behavioral Science on the Lawrence campus offers a 72-credit-hour doctoral program (p. 1143) in behavioral psychology. Students learn about an array of content areas and theoretical perspectives and achieve proficiency in behavioral analysis, developmental studies, or behavioral intervention. Both the departments of Applied Behavioral Science (http://www.absc.ku.edu) and of Preventive Medicine and Public Health (http://ph.kumc.edu) promote community/public health and development through collaborative research, teaching, and service.

The joint Ph.D./M.P.H. is ideal for students interested in prevention through community and public health. Students must apply for admission to the M.P.H. and Ph.D. programs separately. Applications are reviewed by the admissions committees of both programs. Students admitted to the joint program complete the 42-hour M.P.H. requirements in addition to the Ph.D. requirements.

Public Health Graduate Admission

Admission to the M.P.H. program is competitive. Students may apply in either Kansas City or Wichita. Admission requires a baccalaureate degree from a regionally accredited institution. An undergraduate grade-point average of 3.0 on a 4.0 scale (or its equivalent) is required for regular admission. One official copy of academic transcripts from all post-secondary institutions attended must be submitted at the time of application.

One semester of college algebra or calculus is required to enter the social and behavioral health concentration, the public health management concentration, or the environmental health sciences concentration. Applicants to the environmental health concentration must also have completed at least one semester of undergraduate biology and one additional semester of biology or another physical science course. Completion of one semester of calculus is required to enter the epidemiology concentration.

Demonstration of one or more years of responsible work experience in the health field or a degree in a recognized health profession or other evidence of training or experience that indicates adequate preparation for the M.P.H. curriculum is preferred. A background check (http://www.kumc.edu/student-services/vice-chancellor-of-student-services/criminal-background-checks-for-students.html) is required during the admission process; it may affect the student’s eligibility to enter the program.

Applicants who have not earned doctoral degrees in the United States must submit official scores on the Graduate Record Examination or other professional test scores (such as the Graduate Management Admission Test, Medical College Admission Test, Law School Aptitude Test) that are not more than five years old. Applicants whose native language is not English also must submit scores on the Test of English as a Foreign Language that are not more than five years old. See KU Medical Center Graduate Studies (http://www.kumc.edu/academic-affairs/graduate-studies.html) and the KUMC Office of International Programs (http://www.kumc.edu/international-programs/academic-english-requirements.html) for more information.

All M.P.H. applications are submitted online and must be supported by three letters of recommendation from employers, instructors, or other persons who can assess the applicant’s academic and professional potential. All applicants indicate their preference of concentration and campus choice through the online application. The online application also requests a résumé or curriculum vitae, a personal written statement that describes the applicant’s career goals and motivation for seeking postgraduate training in public health, and responses to three short-answer questions.
M.P.H. Degree Requirements

Students must complete at least 42 graduate credit hours and may choose one of the following concentrations:

- Epidemiology
- Social and behavioral health
- Environmental health sciences, or
- Public health management

The M.P.H. program is accredited by the Council on Education for Public Health.

M.P.H. students must complete 15 hours in specified core courses in epidemiology, environmental health, public health administration, biostatistics, and the social and behavioral sciences. Students must complete 12 credit hours in courses as prescribed by the student’s concentration area and five credit hours of elective course work. Students must complete three credit hours of internship in a public health agency or similar organization and three credit hours of capstone including preparation and defense of a written project report developed from the capstone experience.

Students may undertake Master of Public Health studies on a part-time or full-time basis. The Office of Graduate Studies allows up to seven years to complete the degree. Most full-time students complete the M.P.H. degree program in about two years. The program’s goal is to have part-time students complete the degree within five years.

M.P.H. Requirements: Concentration in Epidemiology

Concentration is available in Kansas City and Wichita.

Each candidate must complete a minimum of 42 credit hours toward the M.P.H. degree. One semester of college algebra or calculus is required to enter the social and behavioral health concentration.

Core Courses (15)

- PRVM 800 Principles of Epidemiology 3
- BIOS 714 Fundamentals of Biostatistics I 3
- PRVM 818 Social and Behavioral Aspects of Public Health 3
- PRVM 827 Public Health Administration 3
- PRVM 830 Environmental Health 3

Program Requirement (4)

- PRVM 802 Principles of Epidemiology Lab 1
- PRVM 875 Management of Public Health Data 3
- or BIOS 715 Introduction to Data Management using RedCap and SAS

Concentration Courses (12)

(12 credit hours minimum) Students are required to take:

- PRVM 841 Advanced Epidemiology I: Methods in Cross-Sectional and Case-Control Studies 3
- PRVM 842 Advanced Epidemiology II: Methods in Longitudinal Studies 3

Students may choose 6 credit hours from:

- PRVM 810 Cardiovascular Disease Epidemiology 3
- PRVM 811 Introduction to Pharmacoepidemiology 3
- PRVM 815 Surveillance and Control of Infectious Disease 3

M.P.H. Requirements: Concentration in Social and Behavioral Health

Concentration is available in Kansas City and Wichita.

Each candidate must complete a minimum of 42 credit hours toward the M.P.H. degree. Completion of one semester of college algebra or calculus is required to enter the social and behavioral health concentration.

Core Courses (15)

- PRVM 800 Principles of Epidemiology 3
- BIOS 704 Principles of Statistics in Public Health 3
- or BIOS 714 Fundamentals of Biostatistics I 3
- PRVM 818 Social and Behavioral Aspects of Public Health 3
- PRVM 827 Public Health Administration 3
- PRVM 830 Environmental Health 3

Program Requirement (4)

- PRVM 802 Principles of Epidemiology Lab 1
- PRVM 875 Management of Public Health Data 3

Concentration Courses (12)

Methodological and Cultural Competency Foundations:

- PRVM 821 Research Methods in Public Health 3
- or PRVM 835 Evaluation Methods in Public Health 3
- PRVM 849 Qualitative Methods in Public Health 3
- or PRVM 856 Community-Based Participatory Research 3

Select one of the following:

- PRVM 845 Cultural Competency in Public Health 3
- PRVM 852 Health Care for Special Populations 3
- PRVM 863 Health Disparities in Public Health 3

Content Electives (3 credit hours minimum):

- PRVM 817 Gender, Race, Class, and Health 3
- PRVM 825 Child and Family Health 3
- PRVM 843 Obesity and Public Health 3
- PRVM 854 Population and Community Mental Health 3
- PRVM 855 Seminar in Women's Health 3
- PRVM 859 Tobacco and Public Health 3
- PRVM 877 Health Communication 3

General Elective Courses (5)

(5 credit hours minimum) 5

Capstone Courses (6)

Practicum:

- PRVM 891 Public Health Internship 3
- PRVM 893 Public Health Capstone 3
M.P.H. Requirements: Concentration in Environmental Health Sciences

Concentration is available in Kansas City and Wichita.

Each candidate must complete a minimum of 42 credit hours toward the M.P.H. degree. Completion of one semester of college algebra or calculus, one semester of undergraduate biology, and one semester of another physical science are required to enter the environmental health sciences concentration.

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<thead>
<tr>
<th>Core Courses (15)</th>
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<tr>
<td>PRVM 800 Principles of Epidemiology</td>
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<td>PRVM 830 Environmental Health</td>
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<th>Program Requirement (4)</th>
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<tbody>
<tr>
<td>PRVM 802 Principles of Epidemiology Lab</td>
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<tr>
<td>PRVM 875 Management of Public Health Data</td>
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<thead>
<tr>
<th>Concentration Courses (12)</th>
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<tr>
<td>(12 credit hours minimum)</td>
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<tr>
<td>PRVM 832 Environmental and Occupational Epidemiology</td>
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<tr>
<td>PRVM 870 Environmental Health Law and Policy</td>
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<tr>
<td>PRVM 871 Environmental Monitoring and Exposure Assessment</td>
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<td>PRVM 874 Toxicology and Risk Assessment</td>
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<tr>
<th>Capstone Courses (6)</th>
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<tr>
<td>Practicum:</td>
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<td>PRVM 891 Public Health Internship</td>
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<tr>
<td>PRVM 893 Public Health Capstone</td>
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</table>

M.P.H. Requirements: Concentration in Public Health Management

Concentration is available in Kansas City and Wichita.

Each candidate must complete a minimum of 42 credit hours toward the M.P.H. degree. Completion of one semester of college algebra or calculus is required to enter the public health management concentration.

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<tr>
<th>Core Courses (15)</th>
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<td>PRVM 830 Environmental Health</td>
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<td>PRVM 875 Management of Public Health Data</td>
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<th>Concentration Courses (12)</th>
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<tbody>
<tr>
<td>(12 credit hours minimum)</td>
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| PRVM 851 Public Health Policy and Law        |                                      | 3     |
| PRVM 828 Public Health Program Development and Management |                              | 3     |
| PRVM 879 Financial and Human Resource Management |                              | 3     |
| PRVM 861 Leadership in Public Health         |                                      | 3     |

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Master of Science in Clinical Research

Clinical Research M.S. Degree Program

The Departments of Preventive Medicine and Public Health on the Kansas City and Wichita campuses offer a 33-credit-hour M.S. degree in clinical research. The M.S. program includes nine core courses (23 hours) in epidemiology, an epidemiology laboratory, biostatistics, clinical trials, data management, advanced epidemiologic methods, grant writing, and research ethics. Students must complete seven credit hours in elective courses.

The capstone requirement, a thesis or publishable paper, accounts for the final three credit hours. Students are allowed up to seven years to complete the M.S. in clinical research degree; however, most students can complete the program in two or three years of full-time study.

Clinical Research Graduate Admission

Admission to the M.S. in clinical research degree program is competitive. Candidates should meet all general requirements for admission to graduate studies including a baccalaureate degree from a regionally accredited institution and an undergraduate grade-point average of 3.0 on a 4.0 scale. Applicants also should have passed at least one semester of college calculus. One official copy of academic transcripts from all post-secondary institutions attended must be submitted at the time of application. A background check is required during the admission process; it may affect the student’s eligibility to enter the program.

Applicants who have not earned doctoral degrees in the U.S. must submit official scores on the Graduate Record Examination or other professional test scores (such as the Graduate Management Admission Test, Medical College Admission Test, Law School Aptitude Test) that are not more than five years old. Applicants whose native language is not English also must submit scores on the Test of English as a Foreign Language that are not more than two years old. See KU Medical Center Graduate Studies and the Office of International Programs for more information.

All M.S. applications must be supported by three letters of recommendation and/or evaluation forms from persons qualified to assess the candidate’s aptitude for the program. Applicants must include a current résumé or curriculum vitae and a personal statement indicating their career goals and reasons for pursuing the M.S. in clinical research degree.
M.S. in Clinical Research Degree Requirements

Degree is available in Kansas City and Wichita.

Each candidate must complete a minimum of 33 credit hours toward the M.S. degree. The student must be enrolled in PRVM 899 Thesis the semester the student defends the thesis.

Core Courses (23)

(23 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRVM 800</td>
<td>Principles of Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>PRVM 802</td>
<td>Principles of Epidemiology Lab</td>
<td>1</td>
</tr>
<tr>
<td>BIOS 714</td>
<td>Fundamentals of Biostatistics I</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 715</td>
<td>Introduction to Data Management using RedCap and SAS</td>
<td>3</td>
</tr>
<tr>
<td>or PRVM 875</td>
<td>Management of Public Health Data</td>
<td></td>
</tr>
<tr>
<td>PRVM 841</td>
<td>Advanced Epidemiology I: Methods in Cross-Sectional and Case-Control Studies</td>
<td>3</td>
</tr>
<tr>
<td>PRVM 853</td>
<td>Responsible Conduct of Research</td>
<td>1</td>
</tr>
<tr>
<td>NRS 889/PRVM 872</td>
<td>Grant Writing</td>
<td></td>
</tr>
<tr>
<td>BIOS 717</td>
<td>Fundamentals of Biostatistics II</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 810</td>
<td>Clinical Trials</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives (7)

(7 hours) Students must receive prior approval for any elective.

Capstone Requirement (3)

(3 hours) Thesis or publishable paper.

Interdisciplinary Graduate Program in Biomedical Sciences

Interdisciplinary Graduate Program in Biomedical Sciences

Graduate research at the University of Kansas Medical Center covers a rich and diverse range of topics in both basic and translational research. Basic research is geared toward understanding the basic biological systems that control life. By understanding these systems, rationale treatments to treat disease can be devised. The discovery and refinement of these rationale treatments is translational research. With such a range of research topics, it is often difficult to choose the best lab. The interdisciplinary program allows the student to make an informed choice of labs to enter. IGPBS students hear from every researcher who is able to take a new student into their lab during the Faculty Research Series. The student then chooses 3 research rotations. At the end of the 3 rotations the student will choose the lab that is the best fit for their research goals. Once a lab is chosen, the student enters the chosen mentor’s department to complete the Ph.D.

The interdisciplinary program covers the first 2 semesters of graduate study. Students take a core group of courses that cover all aspects of cell biology, biochemistry, and cell signaling. Courses are both lecture based and discussion based. Students receive introductions to critical research techniques, work on problem sets, and critically evaluate our current knowledge base. In addition, students take courses in scientific ethics and scientific communication. Scientific communication covers graphic presentation of data and both written and oral communication.

At the end of the first year, students have built a considerable knowledge base and have skills in scientific communication, critical thinking, and problem solving. Students expand their knowledge base and skills by taking advanced courses in their chosen departments or programs. Our graduate program prepares students for successful careers in research.

IGPBS Admission

To be admitted to a basic science graduate program, the applicant must meet the following general entrance requirements:

1. Bachelor’s degree (B.S. or B.A.).
2. Graduate Record Examination (GRE) score.
3. The following academic prerequisites:
   a. 2 semesters of general chemistry
   b. 2 semesters of organic chemistry or one semester of organic chemistry and one semester of biochemistry
   c. 2 semesters of biological sciences
   d. 1 semester of calculus
   e. 1 semester of physics
4. Three letters of recommendation.
5. For international applicants, a satisfactory score on the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) taken within the last 2 years.
6. A background check (http://www.kumc.edu/student-services/vice-chancellor-of-student-services/criminal-background-checks-for-students.html) is required during the admission process; it may affect the student’s eligibility to enter the program.

Application

Applications to the Interdisciplinary Graduate Program, as well as direct applications to the basic sciences departments, are facilitated by IGPBS staff. Please complete the online application. Application details are on the IGPBS website (http://www.kumc.edu/igpbs.html).

In addition to the online application we require 1 copy of your official college transcripts, an official copy of your GRE score (institutional code 6895), and 3 letters of recommendation.

International applicants must request that an official copy of their TOEFL (or IELTS) scores be sent to the University of Kansas Medical Center (institutional code 6895).

Curriculum

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSMC 850</td>
<td>2</td>
</tr>
<tr>
<td>GSMC 851</td>
<td>2</td>
</tr>
<tr>
<td>GSMC 852</td>
<td>2</td>
</tr>
<tr>
<td>GSMC 856</td>
<td>1</td>
</tr>
<tr>
<td>GSMC 857</td>
<td>1</td>
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<tr>
<td>GSMC 858</td>
<td>1</td>
</tr>
</tbody>
</table>
Courses

GSMC 859. 2 Hours.

Total Hours: 19

GSMC 50. Science Special Studies. 0 Hours.
The aim of the course is to teach the methodologies and skills required for conducting research in the area of biomedical sciences. The learning experience will be tailored to individual needs, personalized instructions, with the opportunity to learn new skills and competencies and exposure to new developments. Depending on the selected research placement, the student will learn to: utilize a variety of basic biochemical and molecular biology laboratory skills; develop the ability to independently formulate a testable experimental hypothesis; design experiments to test formulated hypothesis in a classic application of the scientific method. Progress of the student will be monitored through weekly laboratory meetings with members of the research lab. The student will present their progress and have the ability to receive constructive feedback from laboratory members. Prerequisite: Permission of instructor. LBN.

GSMC 99. Postdoctoral Studies. 0 Hours.
Postdoctoral Studies RSH.

GSMC 800. Scientific Communication. 2 Hours.
This course is limited to non-native English speakers who need to achieve an adequate score on the SPEAK test. Emphasis will be placed on speaking but also include pronunciation, intonation, grammar, sentence organization, and word choice. Limited to 10 students. Prerequisite: Consent of instructor. LEC.

GSMC 803. Introduction to Clinical Research. 1 Hour.
Course will provide a comprehensive overview to clinical research. The student will gain an understanding of how to develop clinical research questions including protocol design and the factors that should be considered in initiating a clinical research study. This will include biostatistical considerations, the recruitment of study participants, regulatory issues, and data management, and defining measures and instruments. Students will gain knowledge of how to define clinical research among the various institutional entities involved with clinical research at the University of Kansas Medical Center such as the Research Institute (RI), General Clinical Research Center (GCRC) and the Human Subjects Committee (HSC). Additionally, one component of the course will focus on how to apply for funding (grantsmanship), critical appraisal of research studies, and how to present research data. Prerequisite: Consent of instructor. LEC.

GSMC 808. Scientific Communication. 0 Hours.
This course is limited to non-native English speakers who need to improve their oral and written skills in English for the purpose of scientific communication. Emphasis will be placed on academic writing, grammar, and vocabulary, but will also include pronunciation, reading and listening skills. Students will attend a weekly class and complete written homework. Class size will be limited to 10 students. Prerequisite: Consent of instructor. LEC.

GSMC 835. Grammar for Scientific Communication. 0 Hours.
This course is limited to non-native English speaking students who need to improve their use of English. Emphasis will be on grammar, speaking, pronunciation, vocabulary but will also include reading, listening, writing. Students will attend one weekly class and complete written homework. Students will be given an exam at the end of each section of the textbook. Class size will be limited to 15 students. Prerequisite: Consent of instructor. LEC.

GSMC 830. Introduction to Biomedical Research I. 2 Hours.
This is the first of four lecture units in the first year curriculum of the Interdisciplinary Graduate Program in the Biomedical Sciences. It will cover basic principles of cellular structure and function. Topics include the lipid bilayer, membrane proteins, and cellular organelles. Prerequisites: Permission of instructor. Students must be admitted into the Interdisciplinary Graduate Program in the Biomedical Sciences. Students must co-enroll in GSMC 850 (Introduction to Biomedical Research). LEC.

GSMC 851. Molecular Genetics. 2 Hours.
This course is the second of four lecture units in the first year curriculum of the Interdisciplinary Graduate Program in the Biomedical Sciences. It will cover basic principles of molecular genetics, DNA replication, DNA repair, transcription and translation. Prerequisites: Permission of instructor. Students must be admitted into the Interdisciplinary Graduate Program in the Biomedical Sciences. Students must co-enroll in GSMC 852 (Introduction to Biomedical Research). LEC.

GSMC 852. Introduction to Biomedical Research II. 2 Hours.
This is the second semester of a one year series in the Interdisciplinary Graduate Program in the Biomedical Sciences. The course is composed of weekly meetings to discuss research problems, methods and current literature. The course will interface with the lectures and students will learn to critically evaluate our scientific knowledge base. The students will be introduced to the tools that are available to obtain and evaluate information. The students will be challenged to identify areas of our scientific knowledge that require further experimentation and clarification. Prerequisites: Permission of instructor. Students must be admitted into the Interdisciplinary Graduate Program in the Biomedical Sciences. Students must co-enroll in GSMC 850 (Proteins and Metabolism) and GSMC 851 (Molecular Genetics). LEC.

GSMC 853. Cellular Structure. 2 Hours.
This course is the third of four lecture units in the first year curriculum of the Interdisciplinary Graduate Program in the Biomedical Sciences. It will cover basic principles of cellular structure and function. Topics include the lipid bilayer, membrane proteins, and cellular organelles. Prerequisites: Permission of instructor. Students must be admitted into the Interdisciplinary Graduate Program in the Biomedical Sciences. Students must co-enroll in GSMC 850 (Introduction to Biomedical Research). LEC.

GSMC 854. Cell Communication. 2 Hours.
This course is the fourth of four lecture units in the first year curriculum of the Interdisciplinary Graduate Program in the Biomedical Sciences. It will cover basic principles of cell communication. Topics include G-protein-coupled signaling, cellular cytoskeleton; cell cycle control; cell death; extracellular matrix; and cancer. Prerequisites: Permission of instructor. Students must be admitted into the Interdisciplinary Graduate Program in the Biomedical Sciences. Students must co-enroll in GSMC 850 (Introduction to Biomedical Research). LEC.

GSMC 850. Proteins and Metabolism. 2 Hours.
This course is the first of four lecture units in the first year curriculum of the Interdisciplinary Graduate Program in the Biomedical Sciences. It will cover basic principles of metabolism, protein structure and an introduction to nucleic acids. Prerequisites: Permission of instructor. Students must be admitted into the Interdisciplinary Graduate Program in the Biomedical Sciences. Students must co-enroll in GSMC 850 (Introduction to Biomedical Research). LEC.

GSMC 840. CLINICAL OBSERVATION IN HEALTH CARE FOR BIOENGINEERS. 3 Hours.
This course requires a 6 hour time commitment each week over the semester. During each weekly session the student will observe various medical practitioners in specific health care environments. The course gives the bioengineer an opportunity to see the inside of medical practice and exposes students to medical questions and challenges that could provide opportunities for engineers to contribute to the improvement of medical practice. Each student must select a concentration for this course from a health care specialty depending on availability. Some specialty options might include: Orthopedic, Radiology, Cardiology, Physical Therapy, etc. Grading will be pass/fail based on participation and journal keeping. PREREQUISITES: Graduate engineering standing, Consent of instructor. LEC.

GSMC 855. Clinical Observations for BIOENGINEERS. 0 Hours.
This course requires a 6 hour time commitment each week over the semester. During each weekly session the student will observe various medical practitioners in specific health care environments. The course gives the bioengineer an opportunity to see the inside of medical practice and exposes students to medical questions and challenges that could provide opportunities for engineers to contribute to the improvement of medical practice. Each student must select a concentration for this course from a health care specialty depending on availability. Some specialty options might include: Orthopedic, Radiology, Cardiology, Physical Therapy, etc. Grading will be pass/fail based on participation and journal keeping. PREREQUISITES: Graduate engineering standing, Consent of instructor. LEC.
GSMC 855. Introduction to Biomedical Research II. 2 Hours. This is the second semester of a one year series in the Interdisciplinary Graduate Program in the Biomedical Sciences. The course is composed of weekly meetings to discuss research problems, methods and current literature. The course will interface with the lectures and students will learn to critically evaluate our scientific knowledge base. The students will be introduced to the tools that are available to obtain and evaluate information. The students will be challenged to identify areas of our scientific knowledge that require further experimentation and clarification. Prerequisites: Permission of instructor. Students must be admitted into the Interdisciplinary Graduate Program in the Biomedical Sciences. Students must co-enroll in GSMC 853 (Cellular Structure) and GSMC 854 (Cell Communication). LEC.

GSMC 856. Introduction to Research Ethics. 1 Hour. The objective of this course is to introduce students to research ethics. Students will learn and discuss some of the following areas of ethics in research: 1) sources of errors in science, 2) Scientific Fraud, 3) plagiarism and misrepresentation, 4) conflicts of interest, and 5) confidentiality. Prerequisites: Permission of instructor. Students must be admitted into the Interdisciplinary Graduate Program in the Biomedical Sciences. LEC.

GSMC 857. Biographics. 1 Hour. The objective of the course is to teach students how to organize and present data in a clear and concise manner at national meetings. Students are taught basic principles of organizing data for presentation and then learn through the actual presentation of data in simulated platform sessions held in the course. Videotapes are made of the presentations, and students are then given a constructive critique of their presentation by the instructor and fellow students. Prerequisites: Permission of instructors. Students must be admitted into the Interdisciplinary Graduate Program in the Biomedical Sciences. LEC.

GSMC 858. Introduction to Faculty Research. 1 Hour. This course was created to provide students with sufficient introduction to the research conducted at KUMC. To facilitate this point, the course is designed as a seminar series. In each session of the series, three faculty members present a brief 20-minute overview of their research programs. The series will help students to select faculty for research rotations and ultimately help them determine which faculty member they will select as a research adviser for their doctoral research. Prerequisites: Permission of instructors. Students must be admitted into the Interdisciplinary Graduate Program in the Biomedical Sciences. LEC.

GSMC 859. Research Rotations. 1-4 Hours. The course will introduce students to research methods, experimental design, and the types of biomedical research conducted at KUMC. The first research rotation begins halfway through the first semester; the second and third research rotations will occur in the second semester. It is designed to help students determine which faculty member they will select as a research adviser for their doctoral research. Prerequisites: Permission of instructors. Students must be admitted into the Interdisciplinary Graduate Program in the Biomedical Sciences. LEC.

GSMC 860. Introduction to Molecular Medicine. 1 Hour. Introduction to Molecular Medicine (1 credit hour/semester) is a two semester course, taught every fall and spring semester, primarily for first year MD-PhD students. This course is taught by the Director of the MD-PhD Program, with contributions from other faculty from the basic science and clinical departments. Through lectures, small group discussion, evaluation of primary literature, analysis of scientific data and presentations/discussions with current KUMC faculty, students will be introduced to the process of investigating the molecular and cellular derangements that underlie human disease. Order of topics mirror, to some extent, the subjects of the first-year modules. There will be particular emphasis on the diverse research methods and models systems used to investigate the molecular basis of disease and understanding how such investigations can be translated to answer clinically relevant questions. Students are evaluated by both group activity and individual preparation and participation. Prerequisites: Enrollment in the MD-PhD Program or Permission of Instructor. LEC.

Health Informatics Program

The Master of Science in Health Informatics is an inter-professional graduate degree program offered through the Office of Graduate Studies (http://www.kumc.edu/academic-affairs/graduate-studies.html), with oversight by the advisory council of the University of Kansas Center for Health Informatics (http://www.kumc.edu/health-informatics.html). The program is designed for health professionals or information technology specialists who want a specialty focus in health informatics. The advisory council reflects the commitment to inter-professional collaboration as faculty with foundations in nursing, health policy and management, preventive medicine and public health, and health information management partner to offer this degree.

Find complete information about the M.S. in Health Informatics degree here (p. 1981).

Master of Science in Health Informatics

Master of Science in Health Informatics Program

Center for Health Informatics

This is an interprofessional degree offered through the Office of Graduate Studies (http://www.kumc.edu/academic-affairs/graduate-studies.html), with oversight by the University of Kansas Center for Health Informatics (http://www2.kumc.edu/healthinformatics/MSHI.htm) through its advisory council. The program is designed for health professionals or information technology specialists who want a specialty focus in health informatics. The advisory council of this program reflects this commitment to interprofessional collaboration. Faculty with foundations in nursing, health policy and management, preventive medicine and public health, and health information management partner to create this master’s degree in health informatics.

M.S. Admission

Regular admission to the Master of Science in Health Informatics program requires completion of a baccalaureate degree from an accredited college or university in a technical or health-science field, a basic graduate-level statistics course, and an undergraduate grade-point average of B or above. A background check (http://www.kumc.edu/student-services/vice-chancellor-of-student-services/criminal-background-checks-for-students.html) is required during the admission process; it may affect the student’s eligibility to enter the program. Applications are accepted once a year for the fall term. The deadline to apply is the beginning of March. For international applicants, a satisfactory score on the Test of English as a Foreign Language or the International English Language Testing System taken within the last 2 years is required. See KUMC Graduate Studies (http://www.kumc.edu/academic-affairs/graduate-studies.html) for information. Applicants who do not meet the admission criteria for regular admission status may be considered on an individual basis for
provisional admission status as either degree-seeking or nondegree-seeking students.

See also Admission (http://catalog.dept.ku.edu/201314/schools/gs/admission) in the Graduate Studies section of the online catalog.

**M.S. Degree Requirements**

The M.S. in Health Informatics requires completion of an approved curriculum with a grade-point average of B or above, a capstone project, and a general oral examination. The program’s goal is to educate professionals in health informatics who have skills in analysis, design, implementation, and evaluation of information systems that support a full range of clinical and patient care functions. Working as a translation specialist, the graduate is prepared for entry and mid-level positions with IT departments, medical practice departments, advanced nursing departments, public health organizations, and as consultants and/or staff in organizations that specialize in computer operations and knowledge management. Graduates also have the skills to enter the growing field of health information exchange, which includes regional health information organizations and the emerging personal health records field. In addition to a foundation in information technology, students acquire special skills in organizational change, project management, and impact evaluation.

**Program Components**

Students in health informatics complete 40 credit hours. The curriculum is divided into 3 cores: informatics, leadership, and discipline focus (matching that of the faculty partners). Many of the courses are online. A strength of the program is the close relationship between the student and faculty advisor. The student and advisor develop a plan of study that meets the student’s career goals. The program concludes with a capstone project and a practicum, which combines research with hands-on experience and provides an opportunity for students to take advantage of the resources at numerous clinical and business partners.

**Health Informatics Core**

The health informatics core courses (17 credit hours) provide the core knowledge and skills essential to the practice of health informatics. Courses in this area are:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPHI 850</td>
<td>Introduction to Health Informatics</td>
<td>2-3</td>
</tr>
<tr>
<td>IPHI 851</td>
<td>Transforming Health Care through Use of Information Systems and Technology</td>
<td>3</td>
</tr>
<tr>
<td>IPHI 852</td>
<td>Health Data: Theory and Practice</td>
<td>3-4</td>
</tr>
<tr>
<td>IPHI 853</td>
<td>Abstraction and Modeling of Healthcare Information</td>
<td>3</td>
</tr>
<tr>
<td>IPHI 854</td>
<td>Knowledge Management in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>IPHI 856</td>
<td>Health Informatics Practicum</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**Discipline-Specific Core**

Courses in this category (8-10 credit hours) are determined by the advisor and the student based on the student’s background and career goals.

**Leadership Core**

The following courses qualify for credit toward the leadership selective requirement (8-10 required credit hours). The student must take 1 course in health policy; there is a choice of 2 courses to meet this requirement. Courses that may be taken in this category are:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRSG 808</td>
<td>The Social Context for Health Care Policy</td>
<td>2</td>
</tr>
<tr>
<td>HP&amp;M 837</td>
<td>Health Policy</td>
<td>3</td>
</tr>
<tr>
<td>NRSG 820</td>
<td>Program, Project, and Communication Planning</td>
<td>2</td>
</tr>
<tr>
<td>HP&amp;M 833</td>
<td>Ethics</td>
<td>2</td>
</tr>
<tr>
<td>NRSG 880</td>
<td>Organizational Foundations for Leading Change</td>
<td>3</td>
</tr>
<tr>
<td>HP&amp;M 840</td>
<td>Organizational Foundations for Leading Change</td>
<td>3</td>
</tr>
<tr>
<td>NRSG 885</td>
<td>Evaluation and Analysis for Healthcare Effectiveness</td>
<td>2</td>
</tr>
<tr>
<td>NRSG 882</td>
<td>Introduction to Operations</td>
<td>3</td>
</tr>
<tr>
<td>HP&amp;M 850</td>
<td>Introduction to Operations</td>
<td>3</td>
</tr>
</tbody>
</table>

**Research**

Research courses focus on the ability of the nurse to understand and use research and to participate in the development of new knowledge in nursing and health care. Courses in this category are NRSG 754 or HP&M 819 plus a capstone project. 5 credit hours must be taken.

**Capstone Project**

The student must complete a capstone project for 2 credit hours. The project involves applying aspects of the research process to the student’s area of health informatics practice. A number of options are available for the project, including IPHI 860.

**Flexible Scheduling**

The majority of students in the M.S. program are part-time students and many are employed full time. Most on-campus classes are scheduled to accommodate employed students. In addition, many courses are offered online with synchronous and asynchronous activities. Flexible schedules and online teaching allow students to combine graduate study with work responsibilities.

**Sample Plan of Study**

This is a sample full-time plan of study for a person from a health information management or nonclinical background. Students with a clinical background have different plans of study. Students must complete a minimum of 40 credit hours.

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Fall Hours</th>
<th>Spring Hours</th>
<th>Summer Hours</th>
<th>Total Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>IPHI 810</td>
<td>3 HP&amp;M 837</td>
<td>3 IPHI 854</td>
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<tr>
<td></td>
<td>HP&amp;M 840</td>
<td>3 HP&amp;M 842</td>
<td>2</td>
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<tr>
<td></td>
<td>NRSG 754</td>
<td>3 IPHI 850</td>
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<tr>
<td></td>
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<table>
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<tr>
<th>Year 2</th>
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<th>Spring Hours</th>
<th>Summer Hours</th>
<th>Total Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>IPHI 851</td>
<td>3 HP&amp;M 833</td>
<td>2 IPHI 856</td>
<td>1-3</td>
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<tr>
<td></td>
<td>IPHI 853</td>
<td>3 HP&amp;M 846</td>
<td>3</td>
<td></td>
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<tr>
<td></td>
<td>IPHI 860</td>
<td>2 IPHI 852</td>
<td>3-4</td>
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<tr>
<td></td>
<td></td>
<td>8</td>
<td>8-9</td>
<td>1-3</td>
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</tbody>
</table>

**Total Hours: 36-40**
Neurosciences Program

Neurosciences Graduate Program

The Neuroscience Ph.D. program is a bi-campus graduate program that incorporates neuroscience faculty at the KU main campus in Lawrence and the KU Medical Center (KUMC). The Ph.D. program has different tracks or options based on the student’s research interest and the location of the faculty mentor either in Lawrence or Kansas City. Neuroscience graduate students that matriculate at KUMC participate in the integrated IGPBS graduate program their first year and have the option of taking selected courses on the main campus after their first year. Students on the Lawrence campus take neuroscience courses on the Lawrence campus, but also participate in courses offered on the KUMC campus. Students and faculty from both campuses participate regularly via the Neuroscience Seminar series, which is conducted by video conference.

Courses

NURO 710. Advanced Neurobiology. 3 Hours.
The course will build an in-depth knowledge about basic mechanisms of synaptic communication among nerve cells and their targets, and the structure and function of nervous systems. Topics will include nervous system development and synapse formation, structure and function of neurons, physiological and molecular basis of synaptic communication between neurons, mechanisms of synaptic plasticity involved in learning and memory, sensory systems (vision, auditory, vestibular, motor reflexes and pain), processing of neural information at cellular and system levels, synapse formation and diseases of the nervous system. Prerequisite: BIOL 435 (Introduction to Neurobiology), or consent of instructor. LEC.

NURO 775. Chemistry of the Nervous System. 3 Hours.
A detailed study of the molecular aspects of nerve transmission will be covered with special emphasis on the uptake, storage, release, biosynthesis, and metabolism of specific neurotransmitters. Drugs affecting these processes and current research on receptor isolation and receptor mechanisms will be discussed from a chemical viewpoint. (Same as BIOL 775, CHEM 775, MDCM 775, PTX 775, and PHCH 775.) Prerequisite: BIOL 600 or equivalent. LEC.

NURO 799. Neuroscience Seminar Series. 2 Hours.
Presentations of research papers by faculty, post-doctoral research associates, and graduate students. All graduate students in the Neuroscience program participate in this seminar series throughout their period of training. Each student has to present a seminar once every semester. Presentations by students are evaluated by other graduate students and faculty at the end of each seminar. Prerequisite: Graduate standing in the Neuroscience program. LEC.

NURO 800. Neuroscience Teaching Principles. 2 Hours.
This course is to be used by graduate students fulfilling the teaching requirements for the Ph.D. in Neuroscience. The student will function as a discussion leader and lecturer in a limited number of class sessions. Each student will meet with faculty whom he or she is assisting in preparation of presentation materials and tests. Each student will be evaluated by the faculty mentor and by the students in the class taught. Prerequisite: Graduate standing in Neuroscience. LEC.

NURO 801. Issues in Scientific Integrity. 1 Hour.
Lectures and discussion on ethical issues in the conduct of a scientific career, with emphasis on practical topics of special importance in molecular-level research in the chemical, biological, and pharmaceutical sciences. Topics will include the nature of ethics, the scientist in the laboratory, the scientist as author, grantee, reviewer, employer/employee, teacher, student, and citizen. Discussions will focus on case histories.

NURO 804. Interdisciplinary Seminar on Ethics in Science and Engineering. 1-3 Hours.
The course will cover basic techniques of moral reasoning, especially as applied to ethical issues in the physical sciences and engineering. Topics covered will include the ethical conduct of research, the federal and professional guidelines for different kinds of research, and the ethical dimensions of publication and professional life. Emphasis will be on practical applications, cases and student involvement. (Same as GS 804, MDCM 804, PTX 804, and PHCH 804.) Prerequisite: Must be admitted to the program or division of Pharmacy to enroll in this class. LEC.

NURO 825. Research in Neuroscience. 1-10 Hours.
Original investigations at an advanced level in the areas of neuroscience. The research by each student will be performed in the laboratory of one of the faculty mentors of the graduate program in Neuroscience. Prerequisite: Graduate standing in the Neuroscience program. LEC.

NURO 844. Neurophysiology. 3 Hours.
Somatosensory, motor and cognitive function of the brain will be discussed using a combination of lecture and student presentation formats. Current issues and evidence underlying accepted concepts and mechanisms will be emphasized. (Same as PHSL 844.) Prerequisite: PHSL 846 or equivalent and consent of instructor. LEC.

NURO 846. Advanced Neuroscience. 5 Hours.
Team-taught, in-depth neuroscience course focusing on normal and diseased brain function at the molecular, cellular and systems levels. Lectures and discussions will emphasize current issues in neuroscience research. (Same as ANAT 846, PHCL 846, and PHSL 846.) Prerequisite: Permission of the course instructor. LEC.

NURO 847. Developmental Neurobiology. 2 Hours.
Development of the nervous system from early induction to the development of learning and memory. Topics include: Induction; Cellular Differentiation; Axon Growth and Guidance; Target Selection; Cell Survival and Growth; Synapse Formation; Synapse Elimination; and Development of Behavior. (Same as ANAT 847 and PHSL 847.) Prerequisite: Advanced Neuroscience (ANAT 846; NURO 846; PHSL 846) or consent of instructor. LEC.

NURO 848. Molecular Mechanisms of Neurological Disorders. 3 Hours.
An in-depth coverage of pathogenic mechanisms in neurological diseases; cellular and molecular responses to brain injury and disease, neuroinflammatory diseases (e.g., multiple sclerosis), neurodegenerative diseases (e.g., Alzheimer’s, Parkinson’s, Huntington’s, amyotrophic lateral sclerosis, and prion diseases), neurogenetic diseases (e.g., lysosomal and peroxisomal disorders, Down’s syndrome and fragile X), trauma, stroke, and viral diseases (e.g., HIV encephalitis). (Same as ANAT 848, PHCL 848, and PHSL 848.) Prerequisite: Advanced Neuroscience (ANAT 846, PHCL 846 or PHSL 846) or an equivalent course and consent of instructor. LEC.

NURO 899. Neuroscience Master’s Thesis. 1-11 Hours.
Hours and credit for this course to be arranged with the mentor. Independent investigation of a research problem in neuroscience, but of limited scope. Prerequisite: Graduate standing in the Neuroscience program and consent of mentor/instructor. THE.

Hours and credit for this course to be arranged with the mentor. Conduct of original investigation in neurosciences. Prerequisite: Graduate standing.
in the Neuroscience program post-oral comprehensive examination and consent of mentor/instructor. THE.

**Doctor of Philosophy in Neurosciences**

**Neurosciences Graduate Program**

The neuroscience Ph.D. program incorporates the neuroscience faculty at the Medical Center and the main campus in Lawrence. Students earn a Ph.D. in Neuroscience. The Ph.D. program has different tracks based on the student's research interest and the location of the faculty mentor. Neuroscience graduate students at KU Medical Center take a majority of their courses at KUMC and have the option of taking selected courses on the main campus. The reverse is true of students in Lawrence. Students and faculty from both campuses come together during the Neuroscience Seminar series, which is conducted by video conference.

**Graduate Admission**

Applications to the neuroscience Ph.D. program at the Medical Center are facilitated through the Interdisciplinary Graduate Program in Biomedical Sciences. See the IGPBS section for a description of the program and the admission requirements (p. 1821). In certain cases, students may be admitted directly into the program. Applicants specifically interested in the neuroscience graduate program offered on the KU Medical Center campus should contact Doug Wright, dwright@kumc.edu, for information.

**Ph.D. Degree Program**

**Curriculum**

At the Medical Center, students begin by taking the courses offered in the Interdisciplinary Graduate Program in the Biomedical Sciences. Students take all the core courses in the IGPBS, which focus on cellular and molecular biology. In addition, students take courses in ethics and responsible conduct of research. During the first year of graduate studies, students participate in three lab rotations, performed with any of the faculty. Students choose their lab rotations. At the end of the first year students choose a mentor. Students take the following advanced courses after completing the IGPBS core courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSL 846</td>
<td>Advanced Neuroscience</td>
<td>5</td>
</tr>
<tr>
<td>ANAT 847</td>
<td>Developmental Neurobiology</td>
<td>2</td>
</tr>
<tr>
<td>PHSL 844</td>
<td>Neurophysiology</td>
<td>3</td>
</tr>
<tr>
<td>PHSL 848</td>
<td>Molecular Mechanisms of Neurological Disorders</td>
<td>3</td>
</tr>
<tr>
<td>NURO 799</td>
<td>Neuroscience Seminar Series</td>
<td>2</td>
</tr>
</tbody>
</table>

In addition, many neuroscience courses are offered on the Lawrence campus that may be taken as electives. Televideo links bridge the distance, and many students take courses on both campuses.

**Examinations**

The comprehensive written and oral examinations are administered during the second year of full-time graduate study. The student writes an NIH-style proposal that describes the proposed dissertation research. The oral portion of the comprehensive examination tests the student’s knowledge base. Before the comprehensive examination, all students in doctoral programs must meet the research skills and responsible scholarship requirement (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm) of the university. Neuroscience Ph.D. students meet these requirements during their IGPBS year of study by taking GSMC 857 Biographics, GSMC 852/GSMC 855 Introduction to Biomedical Research I and II, and GSMC 856 Introduction to Research Ethics.

The goal of the comprehensive examination is to verify that the student has the depth and breadth of knowledge needed to complete the project. After successfully completing the comprehensive examination, the student becomes a doctoral candidate. The student must complete original research and compose a dissertation. The student presents these results in formal seminars and must defend the dissertation to the doctoral committee.

**Teaching Expertise**

Each student must gain teaching experience by assisting in selected medical courses. Courses are chosen with the help of the advisor and graduate director.

**Dissertation**

The student must complete original research, write a dissertation, and satisfactorily defend it in a final public seminar and oral examination. One or more parts of the dissertation must be suitable for publication in appropriate peer-reviewed scientific journals. The student must be enrolled in NURO 999 Dissertation the semester they defend the dissertation.

**Combined M.D.-Ph.D. Degree**

Outstanding students who are qualified to do so may participate concurrently in work leading to the M.D. and Ph.D. degrees. Credit hours earned in the medical curriculum cannot be transferred as graduate credit hours toward the requirements for the Ph.D. degree, although recognition of satisfactory performance in appropriate medical courses may be given by the Ph.D. program when formulating the student's additional Ph.D. curriculum. All the requirements for both degrees must be met. The combined degree requirements and application information for the combined M.D.-Ph.D. program are posted on the M.D.-Ph.D. website (http://www.kumc.edu/md-phd-program.html).

**M.D.-Ph.D. Physician Scientist Program**

The purpose of the MD-PhD combined degree program is to prepare highly qualified and motivated post-baccalaureate students for careers as physician scientists in academic medicine and biomedical research. The program is conducted under the auspices of the Dean of Graduate Studies and the Executive Dean of the School of Medicine, with assistance from a MD-PhD program advisory committee. On average, students spend about 7-8 years in the program; the variable period usually depends on the time needed to complete their research and dissertation.

**Application & Admission**

Application for admission is through the MD-PhD Combined Degrees Admissions Committee. The Program seeks highly motivated students with outstanding academic credentials and potential, a strong interest in research, and demonstrated research experience. There are no Kansas residency requirements for admission to the MD-PhD program and...
students with exceptional potential as physician scientists are recruited from around the country.


Selected applicants will be invited for interviews in Kansas City. The interviews are usually held mid January. During the interview, applicants meet with members of the MD-PhD Admissions Committee, MD-PhD and Graduate Program Directors, students currently in the program, and research faculty.

The Program will cover each selected applicant’s basic travel expenses for interviews; details will be provided at the time of the invitation to interview. A student invited to interview but with exceptional circumstances and unable to participate on those dates may be given an alternative date and considered for admission by the Admissions Committee on an individual case basis.

Students accepted into the MD-PhD Combined Degrees program are admitted into the M.D. Program in the School of Medicine and as Ph.D. student in one of the graduate programs offered through Graduate Studies. The student must provide an official transcript indicating receipt of a Baccalaureate degree from a fully accredited institution by the time of matriculation into the program (and if applicable, transcripts for any post-baccalaureate studies/degrees).

Plan of Study

MD-PhD Students must meet the MD degree requirements of the School of Medicine as outlined in their section of this online catalog and the PhD degree requirements as outlined by their PhD department and minimum Graduate Studies requirements also outlined in their respective sections of this online catalog.

At any time throughout the course of study, if a student is not meeting the requirements of the MD-PhD program, or of the specific degrees – their tenure in the program will be reviewed by appropriate personnel and action may be taken. Continued advancement in the program is dependent on a student successfully meeting the requirements of the MD-PhD program and those of their current phase (MD or graduate) of study.

Matriculation begins with two years of a basic medical science curriculum as well as a required seminar course “Introduction to Molecular Medicine” offered by the MD-PhD program during the fall and spring semesters (total of 4 credit hours) of the first year of medical courses.

Introductory laboratory research rotations are typically performed in the summer before and the summer after the first year of medical courses. During the second year of medical courses, the student devotes time to selecting a research mentor (if not already done by this time) and begins to develop ideas for the dissertation research problem.

During the spring semester of the second year of medical courses - the MD-PhD program offers a required grant preparation seminar (1th/week). Students complete the second year by taking Step1 of United States Medical Licensing Examination (USMLE).

Years three through five (or six) of the MD-PhD Program focus primarily on the research problem and selected graduate curriculum. Students are required to complete coursework in the fall or spring semester of their third year in the program (first year in their graduate phase) to fulfill the responsible research and ethics requirement of the PhD degree. The number of years in this phase are dependent on individual progress with the required research.

Following completion of the dissertation, the student enters a transitional introductory medical clerkship prior to completing the required and elective clinical rotations.

School of Medicine Catalog

At the University of Kansas School of Medicine, future doctors are welcomed into a culture of community, forming bonds with peers and mentors by learning together, not competing separately. Through this support system, students reach common goals of serving their community, unlocking the mysteries of medicine and promoting lifelong wellness.

Top rankings

Providing students with an outstanding medical education remains at the heart of the School of Medicine’s mission.

• U.S. News & World Report ranks the School of Medicine among the top programs for training primary care physicians.

Three diverse academic environments

The School of Medicine has campuses at three locations in Kansas and has gained a national reputation for educating family, primary-care and rural physicians.

• At the Kansas City campus, students train at a large academic medical center, which has attracted innovative and accomplished researchers because of a commitment to modern research facilities and state-of-the-art equipment.

• Wichita facilities provide a community-based medical education environment, where students learn through direct patient care inside three partner hospitals as well as in doctors’ offices across the state.

• The Salina program is designed specifically for students with a strong interest in rural medicine to help alleviate the critical shortage of rural physicians in Kansas.

On the left you will find links for more information about the School of Medicine including the administration, the programs offered, the campuses, and the course catalog for the School of Medicine.

Administration

The Kansas Board of Regents (http://www.kansasregents.org/the_board_of_regents)
KU Administration (http://www.ku.edu/about/leadership)
KU Medical Center Administration (http://www.kumc.edu/kumc-leadership/kumc-organizational-chart.html)
KU School of Medicine Administration (http://www.kumc.edu/school-of-medicine/about-the-school/administration.html)

General Information

University Policies (http://ioa.ku.edu)
About KU (http://www.ku.edu/about)
About School of Medicine (http://www.kumc.edu/school-of-medicine.html)
History of School of Medicine
Special Programs (p. 1829)
Salina Campus
Wichita Campus (http://wichita.kumc.edu)
University Policies

University Policies on Nondiscrimination, Equal Opportunity, and Affirmative Action

The University of Kansas is committed to assuring that all programs and activities are readily accessible to all eligible persons. The university prohibits discrimination on the basis of race/ethnicity, color, religion, creed, national origin, ancestry, sex, age, disability, sexual orientation, or veteran status. The University of Kansas also extends equal opportunity regardless of marital or parental status. All forms of illegal discrimination, including sexual, racial, and ethnic harassment, are prohibited by university policies. The equal opportunity policies, reasonable accommodation procedures, and KUMC’s discrimination complaint procedure are on the KUMC Web site in their entirety; see www.kumc.edu/ero (http://www.kumc.edu/ero). They also can be obtained from the Equal Opportunity Office at KUMC.

The Equal Opportunity Office at KUMC provides information and educational programs regarding student rights and responsibilities, receives disability accommodation requests from students and applicants for admission, and administers the university’s discrimination complaint procedure. The Title IX and ADA/504 Coordinators are also housed in this office.

Inquiries regarding equal opportunity, nondiscrimination, and access to educational programs at the University of Kansas Medical Center should be made to Danielle Dempsey-Swopes, Director, Equal Opportunity Office, 1040 Wescoe, KU Medical Center, Mail Stop 2014, 3901 Rainbow Blvd., Kansas City, KS 66160, (913) 588-1206 (voice), (913) 588-7963 (TDD). Inquiries on the Lawrence campus may be made to Equal Opportunity, Department of Human Resources/Equal Opportunity, Carruth O’Leary Hall, 1246 West Campus Rd., Room 101, Lawrence, KS 66045-7505, (785) 864-3686.

This publication is available in alternate formats upon request. Contact Carol Wagner, (913) 588-7813, 1040 Wescoe. TDD users may call the State Relay System at (800) 766-3777.

History

The University of Kansas

On September 12, 1866, the University of Kansas opened its doors and became the first state university on the Great Plains. Three faculty members greeted 55 students at the new school. The legislative act that established and organized the university stated that “the object of the university shall be to provide the inhabitants of this state with the means of acquiring a thorough knowledge of the various branches of literature, science, and the arts.” During its history, the university has striven to meet that goal. In the process, it has attracted talented teachers and students from all over the world. Today, almost 30,000 students pursue educational goals in the College of Liberal Arts and Sciences and 12 other schools on campuses in Lawrence, Kansas City, Overland Park, and Wichita, and at numerous outreach sites throughout the state.

The Medical Center

The University of Kansas Medical Center began in the late 19th century. In 1889, a one-year preparatory course for medical school got under way in Lawrence. Students who completed the year then transferred to other medical schools. The curriculum was lengthened to two years in 1899, but no provision was made for clinical (hospital) teaching or for awarding a medical degree until 1905. In that year, clinical instruction began at the first Bell Memorial Hospital, built with funds and on land donated by Kansas City physician and entrepreneur Simeon B. Bell.

The first Bell Memorial Hospital comprised 35 beds and two dispensary buildings about one mile north of the present campus. By 1924, the school and hospital had expanded and moved to the Medical Center’s current location.

Now the Medical Center, with Schools of Allied Health, Nursing, and Medicine, and an Office of Graduate Studies, is a dynamic center for health education and patient care.

The School of Medicine enrolls 191 students each year in the four-year M.D. program. Students spend the first two years of medical school, the preclinical or basic science phase, at the Medical Center in Kansas City, in Salina or in Wichita. The final two years of instruction take place in the hospital in Kansas City, Salina or Wichita. Students from KU are welcomed to residency posts at some of the finest institutions in the country.

Graduate medical education programs (residency training) draw outstanding medical school graduates from all over the country to the Medical Center and Wichita. Off-campus residency mini-rotations take place in Topeka, Garden City, Hays, Manhattan, Pratt, Pittsburg, and other locations in Kansas. Nearly every clinical department at the Medical Center offers residency programs.

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The Medical Center's facilities are continually updated and expanded to keep abreast of the most modern teaching and treatment techniques.

The state-of-the-art, $57.2 million, Life Sciences Innovation Center on the KUMC campus was opened in January of 2007. The five-story, 205,000-square-foot facility shows the new heights reached in life sciences research for the greater Kansas City community, Kansas and the region.

The $5.5-million basic sciences facility, Orr-Major Hall, was dedicated in 1976. This building includes classrooms, laboratories, an auditorium, and a learning resources center.

Completed in 1979, the $61.5-million University of Kansas Hospital, brings nearly all the diagnostic and treatment facilities of the Medical Center under one roof. The building eases and speeds coordination between departments and enables the staff and employees to give patients the best possible care. The hospital offers complete primary and tertiary care for patients of all ages from obstetrical and newborn to geriatric care, and care for a range of problems from traumatic injuries to long-term and chronic conditions.

The Archie R. Dykes Library for Health Sciences, which opened in 1983, contains more than 171,000 print volumes, 61,000 print monographs, 14,000 Springer-Verlag e-books, 575 print journals, 15,000 electronic journal titles in the biomedical and related health sciences. The library
serves the educational and research needs of Medical Center students and faculty and the public. Membership in a national interlibrary loan program ensures that students and faculty at all Kansas state colleges and universities and health professionals in Kansas have access to this collection, as well as to the collections of other libraries across the nation. Computer searches of health-related data bases are available to students, faculty, and Kansas health professionals. As the result of a major renovation project completed Fall 2005, there is a 120 seat testing center, 2 computer ready classrooms, new study rooms, wireless connectivity, network printing both wireless and wired. Approximately 100 student workstations are located in Dykes Library, Orr Major, and the Student Service Center providing software such as Microsoft Office apps, EndNote, SPSS, SAS, and course specific software. There are a number of scanners available for use when in the library. Formal instruction is available for students, faculty and staff on the use of productivity software, copyright management, library resources. One can register for a session or review a session and the handouts at http://www2.kumc.edu/complainting/. Biomedical librarians work closely with faculty in each of the schools and are always ready to work with students and faculty in fulfilling critical information needs. The renowned Clendening History of Medicine Library has one of the top five collections of rare medical books in the country. The library contains more than 25,000 first or early editions of almost all important works in medical literature.

The Division of Student Services includes the following offices: Dean of Students, Office of the Registrar, Student Health Services, Counseling and Educational Support Services, Student Financial Aid, Student Engagement, and the Kirmayer Fitness Center. The Student Center Building is located at the corner of Olathe and Rainbow Blvd and also houses student study spaces and a lounge. Visit http://www.kumc.edu/studentcenter/ for more information.

Next to the student center is the Division of Health Care Outreach and Continuing Education. KU has offered postgraduate study in medicine almost continuously since 1911. Currently, the Division of Health Care Outreach and Continuing Education offers seminars, clinical traineeships, and programs for doctors and other health professionals.

Kirmayer Fitness Center is a two-story, 46,000-square-foot facility at the southeast corner of Rainbow and Olathe Boulevards. It promotes physical fitness and wellness among members of the KU Medical Center. All students automatically become members with payment of a fee. Fitness and recreation programs include land aerobics, water aerobics, tai-chi, yoga, karate, weight watchers at work, and intramural leagues in volleyball, basketball, softball, and racquetball/ squash, among others. Information is available from (913) 588-1KFC (1532) during business hours, 8 a.m. to 6 p.m., Monday through Friday. Regular hours are Monday through Thursday, 5:30 a.m. to 9 p.m.; Friday, 5:30 a.m. to 8 p.m.; Saturday, 8 a.m. to 6 p.m.; and Sunday, 12 to 9 p.m. Special holiday and other hours may be announced. The Kirmayer Fitness Center is for faculty, staff, students, and alumni of KU Medical Center and their spouses.

Special Programs

KU Medical Alumni Academic Societies

As part of an effort to enhance student advising and mentoring and to develop professionalism in the students of the School of Medicine, the original seven academic societies were founded in the 1999-2000 academic year and named after past leaders of the School of Medicine. With campus expansion and the opening of the Salina campus in 2011, an eighth society, Lukert, was founded. Each society is headed by a faculty director, who also serves as an assistant dean for student affairs. Society members include School of Medicine faculty, KU Hospital physicians, and the School of Medicine students. The purpose of the societies is to:

- enhance student-faculty interaction;
- enhance student interaction, particularly across classes;
- provide a structure for student advising;
- promote a sense of community for students and faculty; and
- encourage the development of professional attitudes and behaviors among students.

The KU Medical Alumni Academic Societies are a core component of the School of Medicine’s Professionalism Initiative. The Societies allow for more individualized and small-group contact between students and faculty through encouraged, open discussions about professionalism in all academic settings. This atmosphere expands the formal curriculum for the teaching of Professionalism.

Societies sponsor periodic gatherings for students and faculty. These gatherings are both academic (e.g., invited speakers) and social (e.g., dinners). Faculty members serve as academic advisers for one to two students in each class. To the extent possible, students are matched with faculty based on interests. Faculty also may provide career advice for students and serve as resources for their advisees during their entire four years at the School of Medicine.

KU Women in Medicine and Science

The KU Women in Medicine and Science (WIMS) program in the School of Medicine fosters equality in the academic community by promoting excellence through leadership, mentoring, and community involvement. The mission of the organization is to help faculty, trainees and students:

1. to be proactive and constructive in establishing and advancing the careers of women in medicine and science;
2. to educate women on relevant KU Policies and Procedures for career development and advancement;
3. to enhance and foster the professional development of all women faculty in the KU School of Medicine through encouragement and mentoring, and to encourage growth, networking and quality within our KUMC community (local and national);
4. to promote the process of developing long-term, mutually beneficial relationships and cultivating new opportunities for collaboration through a supportive exchange of ideas and resources.

For information on programming and how to get involved, please contact one of their key individuals listed on http://www.kumc.edu/wims/contact-us.html

For more information, visit the WIMS website at http://www.kumc.edu/wims.html.

Medical Education Network Sites

The Medical Education Network Sites are an integral part of the School of Medicine’s mission to implement rural health initiatives throughout the state. Each of the five sites represents a region of Kansas. Each region has a Medical Education Director (MED), a practicing physician who also works for the school’s Office of Rural Medical Education to promote rural workforce development. MEDs help coordinate rural learning opportunities
throughout Kansas. Many agencies in the state have this mission in common: the Health Policy Institute, State Data Board, Department of Health and Environment, and KUMC Offices of Admissions, Rural Health Education and Services, and Area Health Education Centers. The MEDs may work with these institutions and occasionally work with other health profession schools at KU and other Regents institutions to promote rural learning opportunities. Specific MEDs activities include:

- Support of local medical center educational programs
- Coordination of local premedical student recruitment activities
- Summer Rural Research and Practice Elective Program
- Scholars in Rural Health
- Identification and development of new health profession education sites.

Rural Track/Options

The need for rural primary care physicians continues to be critical in the majority of Kansas counties. KU-School of Medicine recently had a rural track where students spent a significant part of the clinical education in a rural setting. The rural track was in Salina which has now become a branch campus. New ways to provide rural training opportunities for students are in development.

In lieu of spending an extended period of time in one rural site, students currently have the option of receiving some of their training in Family Medicine, Surgery, Pediatrics, and Obstetrics and Gynecology in a rural site. Students can exercise this option for one of the clerkships or all of them as space permits. Students can spend from 2-6 weeks on site depending on the clerkship. Some students have spent as much as 14 weeks in rural learning sites during their 3rd year.

Nicodemus Project

Despite remarkable advances in science and health care, health disparities persist in the United States. Health disparities exist in Kansas, too, and the disparate morbidity and mortality and leading causes of death and disease for ethnic minorities in Kansas reflect those of the nation. In Kansas, African-American adults, for example, are at higher risk of death and disease due to heart disease, cancer, cerebrovascular accidents, and other chronic conditions. African-American Kansans have issues related to less access to high-quality health care and information about health promotion and disease prevention compared to nonminority Kansans.

The Nicodemus Project is a multidisciplinary, health screening, promotion of wellness, disease prevention, service learning, and community outreach project in a culturally sensitive setting. The Nicodemus Project takes place in the rural and historic African-American town of Nicodemus, Kansas, during the town’s Annual Homecoming Celebration, commemorating the exodus of former slaves to the promised land of Kansas. The Nicodemus project is coordinated and led by the School of Medicine’s Office of Cultural Enhancement and Diversity.

Scholars in Rural Health

The Scholars in Rural Health program identifies and encourages undergraduate students from rural Kansas to practice medicine in Kansas counties that are medically underserved. Using a rigorous admissions process, as many as 16 students are annually selected to participate in a two-year premedical curriculum featuring community-based primary care experiences and other activities. Selection criteria include completion of two years of undergraduate premedical education and evidence of high probability for return to a medically underserved area of Kansas.

Students who successfully complete the program during their junior and senior years are assured admission to the School of Medicine. Additional information is available at http://www.kumc.edu/school-of-medicine/premedical-programs/scholars-in-rural-health.html

Degree Programs

KU Medical Center includes the Schools of Health Professions, Medicine, Nursing, and an Office of Graduate Studies. Information about Health Professions or Nursing is available from those schools or in the appropriate sections of the KU Undergraduate Catalog and Graduate School Catalog.

Masters and Ph.D. Programs

For information about Masters and Ph.D. programs visit http://catalog.ku.edu/201314/schools/med/departments/.

Combined M.D./Ph.D. Degree Programs

The KU School of Medicine offers the combined MD/PhD degree program to prepare highly qualified and motivated post-baccalaureate students for careers as physician scientists in academic medicine and biomedical research. The program is conducted under the auspices of the Dean of Graduate Studies and the Executive Dean of the School of Medicine, with guidance from the Program Director and Associate Director and the MD-PhD Faculty Advisory Committee.

Information may be obtained from the M.D./Ph.D. Physician Scientist Program, 1123 Delp, Mail Stop 3062, KU Medical Center, 3901 Rainbow Blvd., Kansas City, KS 66160, (913) 588-5241, http://www.kumc.edu/md-phd-program.html.

M.D./M.P.H. Program

The combined M.D./Master of Public Health program is ideal for medical students interested in public health, community medicine, preventive medicine, occupational medicine, and health care administration. The integrated, five-year curriculum prepares students for careers in both the public and private sectors including local, federal, and state health care agencies; outcomes and disease management; research institutions; and private foundations. Candidates should demonstrate notable academic credentials and have at least one year of experience in a health-related field. Students in the joint program complete the three-semester, 42-hour M.P.H. requirements in addition to the four-year M.D. curriculum. The M.P.H. degree may be completed after years two or three of medical school. To obtain admission materials or for more information, call (913) 588-2720, or visit http://mph.kumc.edu/about.html#mdmph.

M.D./M.H.S.A. Program

The MD/MHSA program is ideal for medical students interested in practice, hospital, or health system management. Students in this program have several options for completing the 41-hour MHSA requirements in addition to the four-year MD curriculum.

To obtain admission materials or for more information, call (913) 588-3763 or visit http://www.kumc.edu/school-of-medicine/hpm.html. To learn more about the M.D./M.H.S.A. joint degree program visit http://www.kumc.edu/school-of-medicine/hpm/master-of-health-services-administration/joint-degree-programs/joint-mhsamd.html.
Medical School Requirements
Evaluation of Student Performance

Faculty members evaluate the academic achievement, acquisition of skills, and attitudes of medical students as superior, high satisfactory, satisfactory, or unsatisfactory. A 4.0 grade-point system is used to determine the student's class rank and grade-point average.

Repeating a Course

Repetition of any part of the curriculum is upon recommendation of the Academic and Professionalism Committee.

Withdrawal or Leave of Absence

Withdrawal or leave of absence may be granted by the associate dean of student affairs upon recommendation by the Academic and Professionalism Committee.

M.D. Degree Requirements

The degree of Doctor of Medicine is awarded by the medical faculty of the University of Kansas to a student who has satisfactorily completed the medical school curriculum. The student must also pass Steps 1 and 2 (Clinical Knowledge and Clinical Skills) of the United States Medical Licensing Examination (USMLE).

United States Medical Licensing Examination

The National Board of Medical Examiners prepares and administers a three-part examination known as the United States Medical Licensing Examination. Steps 1 and 2 of the USMLE are taken while the student is enrolled in medical school. Step 3 may be taken by a physician who has passed Steps 1 and 2 and has served at least six months of an approved hospital residency. National Board certification is awarded to candidates who successfully pass all three parts of the test and satisfy the requirements of the medical licensing authorities of most states. To graduate from the University of Kansas School of Medicine, students must pass Steps 1 and 2 of the USMLE. Students must pass Step 1 to continue in the clinical program. Applications to take both Step 1 and Step 2 are available online at https://apps.nbme.org/ciw2/prod/jsp/login.jsp. Residents register for the Step 3 exam via the same website.

Private Support and Endowment

The University of Kansas School of Medicine depends on private gifts and bequests for many of its activities and functions. Grants from national foundations and agencies of the federal government are supplemented by gifts from individuals, often donated as memorials to or in honor of friends and relatives. The Kansas University Endowment Association maintains all funds separately, and many bear the names of the donors or of the persons honored or memorialized. Donations to the Endowment Association are used solely for the purposes designated by the donor without deductions for administrative costs or overhead. Endowment funds finance student loans, lectureships, scholarships, professorships, fellowships, and acquisitions for the Medical Center libraries. They also are used for general medical research and for special research in such fields as cancer, heart disease, and problems of aging. Both loan funds and scholarship funds benefit medical students. Funds received for scholarships are invested so that the income provides scholarships indefinitely. Both long-term and short-term loans are available. Long-term loans become payable one year after graduation. Short-term loans become payable within 90 days of issue. A complete list of endowment scholarships is available from the Office of Student Affairs or online at http://www.kumc.edu/school-of-medicine/osa/scholarships-loans-and-contests.html.

Distinctions and Awards

The Academic Excellence Award is given to a senior student in recognition of outstanding academic performance.

The Advocacy Award - Kansas City is presented to a graduating student in recognition of high standards of character, conduct, and integrity and the promotion of those qualities in colleagues.

The Alpha Omega Alpha Honor Medical Society promotes scholarship and research in medical school, encourages high standards of character and conduct, and recognizes high attainment in medical science, medical practice, or related fields. Members of AOA elect new members each year as well as granting honorary memberships to those gaining recognition in fields related to medicine. Elected medical students from the Kansas Alpha Chapter, established in 1930, give promise of professional leadership and fulfillment of these ideals.

The Anesthesiology Academic Excellence Award is presented to a senior student for academic and clinical excellence in anesthesiology.

The Karl E. Becker Jr., M.D., Award is presented to a senior student from the Wichita campus for outstanding performance as a student clinician in anesthesiology. Dr. Becker was professor and chair of the Department of Anesthesiology from 1987 to 1998. This award honors his excellent teaching skills and dedication to medical education.

The Distinguished George E. "Ned" Burket, M.D., Award is presented to a senior medical student from the Wichita campus for excellence as a fourth-year student in family medicine. Dr. Burket practiced in Kingman, Kansas, for 32 years. As president of the American Academy of General Practice in 1968, he provided pivotal support in the transition of general practice to family practice. Dr. Burket was a founding member and president of the American Board of Family Practice and chair of the Residency Review Committee for Family Practice. For his distinguished efforts, he was elected to the Institutes of Medicine of the National Academy of Sciences in 1975.

The LeRoy A. Calkins Award is presented to a senior student for academic and clinical excellence in obstetrics and gynecology. The award is in memory of Dr. Calkins, who was chair of the Department of Obstetrics and Gynecology for 30 years, retiring in 1959. Dr. Calkins came to KU in 1929 from the University of Virginia, where he was department chair. He received his education and training, both M.D. and Ph.D., at the University of Minnesota. He was an outstanding teacher, a recipient of many national awards, and a leader in postgraduate and resident education. He founded many societies and groups that sought to reduce maternal-fetal mortality and morbidity in Kansas.

The Tom D.Y. Chin Preventive Medicine Excellence Award is given to a graduating senior who has excelled in public health or preventive medicine during their medical education in honor of Tom D.Y. Chin, M.D. Professor Emeritus Chin was Chair of the Department of Preventive Medicine from 1975 through 1989. He has a national and international reputation in infectious disease epidemiology and cancer epidemiology and has 30 years of dedicated service to the U.S. Public Health Service. He is an outstanding teacher, clinician, and leader in public health research both nationally and internationally. This award honors an
individual who has some of the personal attributes and characteristics that illuminated Dr. Chin's own distinguished career.

The Coghill Award is presented to a graduating medical student who has produced research of high quality and performed in a superior manner in courses in the Department of Anatomy and Cell Biology.

The P.G. Czarlinsky Family Award (in memory of Charley Czarlinsky, M.D.) is presented to a senior student from the Wichita campus for outstanding performance as a student clinician. The award recognizes integral development of superior skills in patient care and management, as well as scholarly understanding and prudent application of the principles of clinical science. It also recognizes a significant contribution to the overall environment of health care and patient education.

The Daniel C. Darrow Certificate and Award are presented to a member of the graduating class who has distinguished himself or herself in pediatrics. Dr. Darrow was a professor of pediatrics at KU from 1954 until his retirement in 1962. The principles elucidated in his studies of fluid and electrolytes serve as a basis for our current management of children with body fluid disturbance. For these and many other scientific contributions, he was world famous. The members of the Department of Pediatrics give the certificate and award to an individual they believe has some of the personal attributes and characteristics that illuminated Dr. Darrow's distinguished career.

The Mahlon H. Delp Award - Kansas City is presented in memory of Dr. Delp, Professor Emeritus of Medicine, to a senior student in internal medicine who best demonstrates integrity, compassion, and dedication to the care of patients as individuals.

The Mahlon H. Delp Award - Wichita is presented in memory of Dr. Delp, Professor Emeritus of Medicine, to a senior student in internal medicine who best demonstrates the qualities of integrity, compassion, and dedication to the care of patients as individuals.

The Louise deSchweinitz Award is presented in memory of Dr. deSchweinitz to recognize the most outstanding student performance on the clinical rotation in pediatrics.

The Emergency Medicine Award is presented to a senior student for demonstrated clinical and academic excellence in emergency medicine. It is sponsored by the Society for Academic Emergency Medicine.

The Endocrine Society's Medical Student Achievement Award is presented to a senior medical student who has shown exceptional ability and interest in endocrinology. It encourages outstanding students to pursue careers in endocrinology and related fields of medicine and basic science.

James G. Price, MD, Award for Excellence in Family Medicine is presented to a graduating senior who excelled in the study of Family Medicine in memory of Dr. Price who left rural practice in Colorado to become the Chair of Family Medicine at the University of Kansas. He finished his career at KU as the Dean of the School of Medicine. During his illustrious career Dr. Price served as President of the American Academy of Family Physicians and the American Board of Family Practice. He was a member of the National Institute of Medicine and was selected as KU Honorary Alumnus in 2008. Dr. Price was an excellent teacher, valued mentor, skilled clinician, and trusted colleague. He was an iconic figure in the field of medicine and the consummate family physician.

The George J. Farha Award for Excellence in Surgery is presented to a student from the Wichita campus for excellence during the surgical clerkship. The award is given to a student who displays knowledge of surgery as well as honesty, integrity, and compassion in the care of patients. The funds for this award were collected by Dr. Farha's former residents to honor their teacher.

John D. Foret Urology Award is presented to an outstanding graduating student who has chosen to pursue a career in urologic surgery in recognition of their exemplary clinical and or research performance. The award is named in honor of Dr. John D. Foret, a native of San Diego, California, and a graduate of the University of Chicago School of Medicine. Dr. Foret came to the University of Kansas in 1953 to begin his postgraduate medical education. After completing his urology residency in 1958, Dr. Foret was appointed to the University of Kansas School of Medicine Faculty. He spent his entire career at KU, and was recognized as an outstanding clinician and educator. In 1993, Dr. Foret retired and was named Professor Emeritus of Surgery(Urology).

The Matthew Freeman Award in Social Justice is presented to a graduating medical student who has demonstrated how a commitment to social justice and equity can be combined with medicine.

Janet M. Glasgow Memorial Achievement Citations are presented to female medical students who graduate in the top 10 percent of their class.

The Janet M. Glasgow Memorial Award is presented to a female medical student who stands first in her graduating class. Sponsored by the American Medical Women's Association, this award was established by Dr. Maude Glasgow in honor of her sister, Janet M. Glasgow. Dr. Maude Glasgow was a pioneer in preventive medicine and public health. She received her degree in 1901 from Cornell University Medical College and went on to earn her degree in public health from New York University and Bellevue Medical College. Janet M. Glasgow unselfishly gave of her time and resources to see that her sister, Maude Glasgow, completed her medical education.

The Donald W. Goodwin, M.D., Award is presented to the senior student who is entering residency in psychiatry and is perceived by the faculty to be most likely to succeed in the profession. Dr. Goodwin was Chair of Psychiatry at the University of Kansas Medical Center from 1976 to 1991. Later he was University Distinguished Professor and Professor Emeritus. Dr. Goodwin embodied the inquisitive nature required of a modern academic psychiatrist who questions traditional approaches and savors empirical developments. The philosophy influenced his work in psychiatric diagnosis, alcoholism, and phobias. Dr. Goodwin’s work has a lasting influence on the field and the character of psychiatry at KU Medical Center.

The Kyle Lee Gratny Memorial Award is presented in memory of Kyle Lee Gratny to a graduating medical student for distinguished performance in the neonatology division, Department of Pediatrics.

The Don Carlos Guffey Award is presented to a senior student who has demonstrated a keen interest in the history or philosophy of medicine. For these and many other scientific contributions, he was world famous. The members of the Department of Pediatrics give the certificate and award to an individual they believe has some of the personal attributes and characteristics that illuminated Dr. Darrow's distinguished career.

The Drs. Richard and Diana Guthrie Excellence in Pediatrics Award is presented to the outstanding graduating pediatric student from the Wichita campus.

The Russell F. Holcomb Award is presented for outstanding performance as a student in obstetrics and gynecology at KU Medical Center in
memory of Dr. Holcomb, who was a resident in the Department of Obstetrics and Gynecology at KUMC. Dr. Holcomb served a one-year rotating internship from July 1, 1961, to June 30, 1962. He interrupted his medical career to serve three years as a medical officer in the U.S. Navy with a tour in South Vietnam. He returned to KU Medical Center on July 1, 1965, to complete his three years of residency, where he earned the respect of his peers and faculty of the department. The 1969 graduating class gave Dr. Holcomb the Resident Teaching Award. That class later initiated this award in his memory. Dr. Holcomb served as a chief resident his last year of residency plus serving a clinical fellowship with the American Cancer Society in this same year. Upon completion of his residency, he practiced in the San Diego, California, area. Dr. Holcomb died in an automobile accident in Mexico, along with his wife and two sons, in 1973.

Honor in Medicine Award is awarded by the University of Kansas School of Medicine Honor Council to a student in recognition of their integrity, selflessness and high moral character.

The Norge W. Jerome Preventive Medicine Excellence Award is presented to an outstanding senior medical student who has excelled in public health or preventive medicine for minority populations during his or her medical education in honor of Norge W. Jerome, Ph.D., Professor Emerita, Department of Preventive Medicine. She conducted her first pioneering research more than 30 years ago, combining the fields of human nutrition and anthropology. This innovative approach launched the discipline of nutritional anthropology. Dr. Jerome has a strong record of public service and has been active in community development for close to 50 years, combining science with compassion to address the food, nutrition and health concerns of women, families, and communities in the United States and around the world. She serves as an inspiration to future generations of students.

The KAFP-Foundation Hostetter Award honors fourth year medical students who have promoted the values of Family Medicine during their medical school tenure.

The Paul C. Laybourne, M.D., Award is presented to the senior student who demonstrated the highest academic performance in the required psychiatry clerkship. Dr. Laybourne served the University of Kansas School of Medicine for more than 30 years. He was the founding director of the division of child psychiatry and served in that capacity until he retired. He was an important force in the evolution of child psychiatry in Kansas. An important early contribution was his pioneering work on nutrition and health concerns of women, families, and communities in the United States and around the world. She serves as an inspiration to future generations of students.

The LMMSA Award is presented to a graduating student who has been significantly involved in the Latino Minority Medical Student Association’s Kansas Chapter and the greater Kansas City Hispanic community.

The Martin Award is presented to a senior student who has chosen radiology as a career for excellence in diagnostic radiology.

Dr. Ronald L. Martin Student Scholarship Fund. The KU School of Medicine-Wichita Department of Psychiatry and Behavioral Sciences established the Dr. Ronald L. Martin Student Scholarship to recognize the many years of dedicated service of Dr. Martin, Professor and Chair from 1990 to the time of his death in 1998. This fund makes three awards available to third- and fourth-year students at the University of Kansas School of Medicine-Wichita who have successfully completed the required psychiatry clerkship.

The MaryAnn McMullan Memorial Award is presented to a graduating medical student who best demonstrates the qualities of integrity, compassion and dedication to the care of the dying patient in memory of MaryAnn McMullan. Presented by the Division of Geriatric Medicine and Palliative Care, Department of Family Medicine.

Merck Manual Awards are presented to seniors who have demonstrated outstanding scholastic achievement.

The Dr. Herbert C. Miller Award is presented to a senior medical student in recognition of distinguished performance in research in the Department of Pediatrics. The Roscoe Falls Morton, M.D., F.A.C.P., Memorial Fund Award (sponsored by the Roscoe Morton family, Arkansas City, Kansas) is presented to a graduating senior from the UKSM - Wichita campus for superior academic and clinical performance in internal medicine. The award recognizes the recipient’s deep commitment to continued study of the principles of clinical science and special interest in internal medicine as a continued study and career.

The Thomas G. Orr Sr. Award is presented to the outstanding senior medical student in surgery in memory of Dr. Orr, chair of the Department of Surgery for 25 years. Dr. Orr joined the staff of the KU medical school in 1915 from Johns Hopkins and achieved national recognition as an officer in professional societies, author, teacher, and recipient of honorary Doctor of Science degrees and numerous other honors. His bibliography contained 231 published articles and two textbooks, evidence of his interest in the investigation of clinical problems, his contributions to research, and his influence on the future study of surgery.

The Conrad Osborne, M.D., Award is presented to a senior medical student from the Wichita campus for excellence as a third-year student in family medicine. This award honors Dr. Osborne, a graduate of the KU School of Medicine. Dr. Osborne was in the first group of family practice residents in the United States, graduating from the Wesley Family Practice Residency Program in 1970. Dr. Osborne embodied the principles of family practice, serving as a caring physician, talented teacher, and trusted mentor and friend to a generation of family physicians until his untimely death from lymphoma in 1993.

The Outstanding Student in Otolaryngology Award is presented to a senior student who exhibits not only an interest, but excellence, in clinical care, academic medicine and research, related to the field of Otolaryngology Head and Neck Surgery.

The Department of Ophthalmology Medical Student Award is presented to a graduating senior from the UKSM - Wichita campus for outstanding scholastic achievement.

The Conrad Osborne, M.D., Award is presented to a senior medical student from the Wichita campus for excellence as a third-year student in family medicine. This award honors Dr. Osborne, a graduate of the KU School of Medicine. Dr. Osborne was in the first group of family practice residents in the United States, graduating from the Wesley Family Practice Residency Program in 1970. Dr. Osborne embodied the principles of family practice, serving as a caring physician, talented teacher, and trusted mentor and friend to a generation of family physicians until his untimely death from lymphoma in 1993.

The Dr. Herbert C. Miller Award is presented to a senior medical student in surgery in memory of Dr. Orr, chair of the Department of Surgery for 25 years. Dr. Orr joined the staff of the KU medical school in 1915 from Johns Hopkins and achieved national recognition as an officer in professional societies, author, teacher, and recipient of honorary Doctor of Science degrees and numerous other honors. His bibliography contained 231 published articles and two textbooks, evidence of his interest in the investigation of clinical problems, his contributions to research, and his influence on the future study of surgery.

The Conrad Osborne, M.D., Award is presented to a senior medical student from the Wichita campus for excellence as a third-year student in family medicine. This award honors Dr. Osborne, a graduate of the KU School of Medicine. Dr. Osborne was in the first group of family practice residents in the United States, graduating from the Wesley Family Practice Residency Program in 1970. Dr. Osborne embodied the principles of family practice, serving as a caring physician, talented teacher, and trusted mentor and friend to a generation of family physicians until his untimely death from lymphoma in 1993.
as Executive Dean of the School of Medicine and Vice Chancellor for Clinical Affairs from 1997 to 2002. During her tenure, Dean Powell instituted programs of professionalism for students and faculty. She initiated the White Coat Ceremony to symbolize the students’ entry into the medical profession. Dean Powell supported the establishment of the Academic Societies as part of her vision of the mentoring of students by practicing physicians. She continues to work with students and serves as an inspiration to future generations of students.

The Prakash Raghavan Clinical Student Award is presented to a senior from the Wichita campus in recognition of outstanding performance in clinical rotations.

The John B. Redford Distinguished Professorship Award is presented to a senior student for demonstrated academic and clinical excellence during the rehabilitation rotation.

The D. Cramer Reed Award recognizes a student who has displayed outstanding interest and aptitude in understanding health of populations and principles of effective disease prevention applied to individuals and groups. Dr. Reed was the founding dean of the KU School of Medicine - Wichita, founding dean of the College of Health Professions at Wichita State University, and founder of Wesley Medical Center’s Health Strategies program, one of the first major health promotion and disease prevention programs in the United States.

The Daniel K. Roberts Medical Student Award for Excellence in Women’s Health Care is presented to a medical student from the Wichita campus who exhibits excellence in clinical practice, education, and research in obstetrics and gynecology.

The Robert H. Robinson, M.D., Award is presented to a graduating student from the Wichita campus for superior academic and clinical performance in anesthesiology. Dr. Robinson was a long-time supporter of teaching medical students and residents in a clinical setting and is a former professor and the first chair of the Department of Anesthesiology at the KU School of Medicine - Wichita. This award honors the recipient’s special interest in anesthesiology.

The Jack C. and Ruth M. Schroll Family Award is presented to an academically outstanding Kansan graduating senior, who has matched in either an OB-GYN or Dermatology Residency Program. This senior is of fine character and integrity with compassion for others. The Schroll family represents the following degrees from K.U.: Jack C. Schroll, 1944, MD, Residency OB-GYN, 1955; Ruth M. Prentice Schroll, BS, 1945; daughter, Kathryn Schroll Graves, MD, 1974, Residency Dermatology, 1979; son, John T. Schroll, MD, 1976, Residency OB-GYN, 1980; grandson, Jeffery Justin Graves, MD, 2007; Residency in Dermatology. The family represents a history of 55 doctors (MD and DO), including Dr. Jack Schroll’s grandmother, Dr. Emma Hook Price, DO, 1901, Kirksville School of Osteopathy under Dr. A.T. Still, MD, founder of Osteopathy.

The Willard J. Smith, M.D., Award for Academic Achievement is presented to a graduating senior from the Wichita campus for superior academic performance. In recognition of Dr. Smith’s contributions to the development of the clinical campus at UKSM - Wichita, the award is given to a student whose academic performance reflects a dedicated commitment to the scholarly acquisition and effective application of knowledge.

The Helmut Sprinz Award is presented to a senior medical student whose academic achievements epitomize the spirit of Dr. Helmut Sprinz. Dr. Sprinz was a distinguished faculty member of the KU School of Medicine from 1976 until his death in 1990. He was tireless in his effort on behalf of students, house staff, and faculty. He was particularly fond of working with, helping, and supporting students who were willing to expend extra effort to achieve their goals. Before joining the KU faculty, Dr. Sprinz enjoyed a distinguished career as a research pathologist and was Chief of Experimental Pathology at Walter Reed Army Institute of Research.

The Walter S. Sutton Prize is given annually to the medical student whose work in original research, preferably in genetics, is considered outstanding by the research committee. An honorable mention award is also made.

The W. Clarke Wescoe Award is presented to a senior student in recognition of outstanding achievement and the pursuit of excellence in the study of pharmacology and therapeutics. W. Clarke Wescoe, M.D., was a former chair and professor of pharmacology, former dean of the School of Medicine, former KU Chancellor, and former Chairman of the Board of Sterling Drug, Inc.

The Edward V. Williams Award is presented to a minority medical student who best reflects the integrity, compassion, and commitment to patient care exemplified by Edward V. Williams, M.D. Dr. Williams was the first African American to receive a medical degree from KU. He serves as an inspiration to future generations of students and countless others to achieve beyond expectations.

## Curriculum


## Core SOM Preclinical Phase

CORE 800. Foundations of Medicine. 8 Hours.

Foundations of Medicine is an 8-week, multidisciplinary course, taught by faculty members from basic science and clinical departments. This course integrates materials from the traditional disciplines of biochemistry, cell and molecular biology, histology, physiology, epidemiology, behavioral science, and preventive medicine. This course includes clinical skills instruction in medical history, physical examination, and cultural sensitivity. Patient cases are used where appropriate. Students participate in small group discussions, problem-based learning sessions, laboratory exercises, clinical correlations, and lectures: they work collaboratively to master general principles, evaluate clinical literature, and develop tools for life-long learning. Students are evaluated by multiple-choice examination, clinical evaluation, and group activity preparation and participation.

Prerequisites: Medical School admission requirements. LEC.

CORE 805. Genetics and Neoplasia. 4 Hours.

This 4-week multidisciplinary course, taught by both basic science and clinical faculty, covers the molecular and chromosomal basis of human genetic disease, emphasizing the clinical significance of normal and abnormal genetic variation; single-gene and multifactorial diseases; and conditions caused by somatic mutation and epigenetic mechanisms. An emphasis is placed on neoplastic disorders. This course also examines the predictive value of genetic testing and the role of genetic counseling in clinical decision making; the principles of cancer therapeutics; and gender, ethnic, and behavioral considerations affecting prevention and treatment of cancer and other genetic diseases. This course includes
clinical skills instruction in history-taking and physical examination of a standardized cancer patient. Students participate in large and small group discussion, laboratory exercises, problem based learning sessions, clinical correlations, clinical skills lab sessions, and lectures; and are evaluated by small group and clinical skills performance, and by USMLE-style objective examinations. Prerequisite: Successful completion of Foundations of Medicine or permission of Associate Dean for Student Affairs. LEC.

CORE 810. Inflammation and Immunity. 4 Hours.
This 4-week multidisciplinary course, taught by faculty members from the Departments of Anatomy & Cell Biology, Microbiology, Pathology, Medicine, Family Medicine and Preventive Medicine, addresses the basic biology of the normal immune system and the basis for immune-based and inflammatory diseases. Topics will include normal lymphopoiesis and myelopoiesis, responses to infection, autoimmunity, allergy, transfusions and transplantation, immune deficiencies and the appropriate therapies for these conditions. Therapies will include immunosuppressives, anti-inflammatories, vaccines and transplantation. The course integrates instruction on disease pathogenesis with clinical skills instruction (including history-taking and physical examination skills), consideration of epidemiological, ethical, social science aspects of medicine, disease prevention and the general approaches to therapy. Students participate in small group discussions, web-based instruction, labs, clinical skills lab sessions, and lectures. Students are evaluated based on their participation in small group discussion sessions and through standardized online summative examinations. Prerequisite: Successful completion of Foundations of Medicine, Genetics and Neoplasia, or permission of Associate Dean for Student Affairs. LEC.

CORE 815. Cardiopulmonary. 0-8 Hours.
This multidisciplinary course, taught by faculty members from Anatomy, Biochemistry, Medicine, Pathology, Pharmacology, and Physiology covers the normal/abnormal processes; principles of therapeutics; and gender, ethnic, and behavioral considerations affecting disease treatment and prevention of the cardiopulmonary system. This course also includes clinical skill instruction of patient interviewing and examination. Students participate in small group discussions, laboratory exercises, clinical correlations, clinical skills lab sessions, and lectures and are evaluated by performance in small groups and on exams. Prerequisite: Successful completion of Foundations of Medicine, Genetics and Neoplasia, Inflammation and Immunity, or permission of Associate Dean for Student Affairs. LEC.

CORE 820. Gastrointestinal System and Nutrition. 4 Hours.
This 4-week multidisciplinary course is taught by faculty members from the Departments of Anatomy and Cell Biology, Molecular and Integrative Physiology, and Pathology and Laboratory Medicine, Biochemistry and Molecular Biology, Pharmacology, Toxicology, and Therapeutics, Internal Medicine, Preventive Medicine, History and Philosophy of Medicine, Health Policy Management, Microbiology, Molecular Genetics, and Immunology, Family Medicine, and Surgery in the School of Medicine and the Department of Dietetics and Nutrition in the School of Allied Health. The course covers the normal/abnormal processes; principles of therapeutics; and gender, ethnic, and behavioral considerations affecting disease treatment and prevention of the gastrointestinal system including nutrition. This course also includes clinical skills instruction in the abdominal physical examination. Students participate in small group discussions, laboratory exercises, clinical correlations, clinical skills lab sessions, and lectures are evaluated by written tests, oral exams, and assessment of PBL and clinical skills performance. Prerequisite: Successful completion of Foundations of Medicine, Genetics and Neoplasia, Inflammation and Immunity, Cardiopulmonary, or permission of Associate Dean for Student Affairs. LEC.

CORE 825. Renal and Endocrine System. 4 Hours.
This 4-week multidisciplinary course, taught by faculty members from Anatomy, Biochemistry, Medicine, Pathology, Pharmacology, and Physiology covers the normal/abnormal processes; principles of therapeutics; and gender, ethnic, and behavioral considerations affecting disease treatment and prevention of the renal and endocrine systems. This course also includes clinical skill instruction of patient interviewing and examination. Students participate in small group discussions, laboratory exercises, clinical correlations, clinical skills lab sessions, lectures and web-based directed self-study and are evaluated by performance in small groups and on exams. Prerequisite: Successful completion of Foundations of Medicine, Genetics and Neoplasia, Inflammation and Immunity, Cardiopulmonary, Gastrointestinal Tract and Nutrition or permission of Associate Dean for Student Affairs. LEC.

CORE 830. Reproduction and Sexuality. 4 Hours.
This 4-week multidisciplinary course module is taught by faculty members from the Departments of Anatomy and Cell Biology, Pathology, Psychiatry and Behavioral Sciences, Gynecology and Obstetrics, Surgical Oncology, Urology, and Family Medicine. The course covers the normal/abnormal aspects of human reproduction and sexuality; principles of therapeutics; gender, ethnic, and behavioral consideration affecting sexual function, prevention and treatment of reproductive and sexual disorders. The course also includes clinical skill instruction in sexual history-taking and physical examination. Students participate in small group discussions, laboratory exercises, clinical correlations, patient and provider panels, clinical skills laboratory sessions, lectures, and web-based learning opportunities, and are evaluated by means of formative and summative examinations and assessment of participation in various learning activities. Prerequisite: Successful completion of Foundations of Medicine, Genetics and Neoplasia, Inflammation and Immunity, Cardiopulmonary, Gastrointestinal Tract and Nutrition, Renal and Endocrine Systems, or permission of Associate Dean for Student Affairs. LEC.

CORE 835. Musculoskeletal & Soft Tissue Systems. 4 Hours.
The (4-5) week multidisciplinary course, taught by faculty members from (Anatomy and Cell Biology, Orthopedic Surgery, Pathology, Pharmacology, Internal Medicine, Family Medicine, and Pediatrics departments), covers the normal/abnormal processes; principles of therapeutics (non-drug treatment will be emphasized); and gender, ethnic, and behavioral considerations affecting disease treatment and prevention of diseases of the musculoskeletal & soft tissue systems). This course also includes clinical skill instruction in an extremities physical examination. Students participate in small group discussions, laboratory exercises, clinical correlations, clinical skills lab sessions, and lectures and are evaluated by exams, attendance, participation, and professional behavior. Prerequisite: successful completion of the first year curriculum. LEC.

CORE 840. Brain and Behavior. 8 Hours.
This 8 week multidisciplinary course, taught by faculty members from Anatomy and Cell Biology, Molecular and integrative Physiology, Otolaryngology, Neurology, Pharmacology, Pathology, Internal Medicine, and Psychiatry, covers the normal/abnormal processes of the central and peripheral nervous system, including an introduction to the principles of therapeutics. The course combines and integrates several disciplines, including neuroanatomy, neurophysiology, neuropathology, introductory neuropharmacology, basic neurology and psychiatry. Prerequisite: Successful completion of Musculoskeletal & Soft Tissue Systems or permission of Associate Dean for Student Affairs. LEC.
**CORE 845. Blood and Lymphoid System. 4 Hours.**

This 4 week multidisciplinary course, taught by faculty members from Pathology and Laboratory Medicine, Internal Medicine, Pharmacology, and Preventive Medicine, addresses the basic biology of the normal immune system and the basis for infectious and parasitic diseases. Topics will include normal immune responses to infection, immune deficiencies, bacteriologic, viral, fungal and parasitic infections, and the appropriate therapies for these conditions. Therapies discussed will include immunosuppressives, anti-microbials, and vaccines. The course integrates instruction on disease pathogenesis with clinical skills instruction (including history-taking and physical examination skills), consideration of epidemiological, ethical, social science aspects of medicine, disease prevention and the general approaches to therapy. Students participate in small group discussions, web-based instruction, labs, clinical skills lab sessions, and lectures. Students are evaluated based on their participation in small group discussions and through standardized online summative examinations. Prerequisites: Successful completion of Musculoskeletal & Soft Tissue Systems, Brain and Behavior or permission of Associate Dean for Student Affairs. LEC.

**CORE 850. Infectious Diseases. 0-6 Hours.**

This 6-week multidisciplinary course, taught by faculty members from the Departments of Pharmacology, Microbiology, Pathology, Internal Medicine, and Preventive Medicine, addresses the normal immune system and the basis for infectious and parasitic diseases. Topics will include normal immune responses to infection, immune deficiencies, bacteriologic, viral, fungal and parasitic infections, and the appropriate therapies for these conditions. Therapies discussed will include immunosuppressives, anti-microbials, and vaccines. The course integrates instruction on disease pathogenesis with clinical skills instruction (including history-taking and physical examination skills), consideration of epidemiological, ethical, social science aspects of medicine, disease prevention and the general approaches to therapy. Students participate in small group discussions, web-based instruction, labs, clinical skills lab sessions, and lectures. Students are evaluated based on their participation in small group discussions and through standardized online summative examinations. Prerequisites: Successful completion of Phase I, or permission of Associate Dean of Student Affairs. Successful completion of Musculoskeletal & Soft Tissue Systems, Brain and Behavior, Blood and Lymphoid System or permission of Associate Dean for Student Affairs. LEC.

**CORE 860. Integration and Consolidation. 8 Hours.**

This 8 week multidisciplinary module, taught primarily by faculty members from Pathology and Pharmacology, will consolidate and integrate materials from previous modules using pathophysiology and therapeutics as the focal point to highlight content required to successfully pass USMLE Step 1. The module will serve as a bridge between the basic and clinical sciences, as the students prepare to transition to clinical rotations. Faculty from Internal Medicine, Family Medicine, and School of Pharmacy will co-facilitate small group discussions. Students will be expected to participate in small group discussions, lectures and web-based self-study, and are evaluated by their overall performance in small groups and summative exams. Prerequisite: Successful completion of Musculoskeletal & Soft Tissue, Brain and Behavior, Blood and Lymphoid System, Infectious Diseases, or permission of Associate Dean of Student Affairs. LEC.

Course credit hours are indicated after the course title.

**Kansas City Clinical Required Course Descriptions**

**Third Year Requirements**

**FAPR 955. Family Medicine Clerkship. 8 Hours.**

Students are introduced to the principles and practice of family medicine. They spend the majority of their time participating in the practice of a private family physician where they evaluate patients under direct supervision and recommend management. This practice experience is enhanced by case-based seminars and skills-based workshops with faculty and hospital call with family medicine residents. Evaluation is based on assessment by clinical supervisors, projects, a departmental exam, and the NBME Family Medicine Subject Exam. Prerequisites: Completion of Phase I (Years 1 and 2). CLN.

**GERO 900. Geriatric Medicine Clerkship. 4 Hours.**

This required 4 week Year 3 clerkship is sponsored by the Landon Center on Aging in collaboration with the Departments of Family Medicine, Internal Medicine, and Physical Rehabilitation Medicine. The student will participate in the evaluation and care of older adults, with emphasis on the aging process and geriatric syndromes in both frail and successfully aging older adults. Students participate as a member of the health-care team in the medical practices of primary care physicians and geriatricians providing care to older adult patients. They help provide ambulatory care to older adults, as well as care in a variety of community-based long term care settings such as assisted living and nursing facilities, hospice, and home care. By the conclusion of this clerkship the students will be able to describe how to identify and address geriatric syndromes, expected decline of organ functions with aging, behavioral characteristics of the aged, special problems of drug treatment of older adults, and special strategies for providing medical care to complex older adult patients. Clinical experiences are augmented by web-based modules on geriatric topics, facilitated case discussions, and workshops. Evaluation is based on assessment of clinical performance by faculty members, an objective structured clinical exam, seminar participation, and a departmental written exam. Prerequisites: Medical Basic Science and Completion of Phase I (Years 1 and 2). CLN.

**GYNO 900. OBSTETRICS/GYNECOLOGY CLERKSHIP. 6 Hours.**

During this clerkship the student develops understanding of disease in women through history, physical examination, and laboratory studies. The clerkship includes study of biochemical, anatomical, and physiological changes of normal pregnancy and the effect of disease in altering the course of reproduction. Prerequisite: Medical Basic Sciences. FLD.

**ICM 900. Issues in Clinical Medicine. 0 Hours.**

This course enables students to apply the theoretical framework developed in ICM 801/802 and 850/851 to the patient care activities in which they participate during third-year clerkships. Through lectures and small group discussions students examine the ethical, legal and social aspects of medical practice and application of key principles to clinical practice. Students also explore career opportunities in medicine and factors to be considered in choosing a medical specialty. Students are evaluated through written assignments and participation in course activities. LEC.

**MED 900. Internal Medicine Clerkship. 8 Hours.**

General medicine orientation. Students will be assigned to Kansas University Medical Center, Bethany Medical Center, and Kansas City Veterans Administration Hospitals. FLD.

**NEUR 900. Neurology Clerkship. 4 Hours.**

The required four-week Neurology Clerkship is intended to familiarize students with the diagnosis and treatment of major neurological disorders. Effective interviewing and diagnostic skills, and competent performance of the neurological examination are emphasized. Students have an active closely supervised role in the diagnosis and treatment of both hospitalized and ambulatory patients. Clinical experience is accompanied by a didactic schedule of lectures, seminars, and practical-interactive learning sessions. Prerequisites: Completion of Phase I (Years 1 and 2). CLN.
PED 900. GENERAL PEDIATRICS CLERKSHIP. 6 Hours.
The student's activities will include rotations on the pediatric inpatient wards (taking histories, examining children, and making daily ward rounds with staff physicians) and the outpatient clinics and newborn nursery. Student evaluations are based primarily upon clinical performance, assessment of problem-solving skills and performance on a written multiple-choice examination given at the end of the clerkship. Offered in modules I and II, III and IV, V and VI, VII and VIII, IX and X, XI and XII. Prerequisite: Medical Basic Sciences. FLD.

PYCH 955. Psychiatry Clerkship. 4 Hours.
The required four-week basic Psychiatry Clerkship is intended to familiarize students with the diagnosis and treatment of major psychiatric disorders. Effective interviewing and diagnostic skills, and competent performance of the mental status examination is emphasized. Students have an active closely supervised role in the diagnosis and treatment of both hospitalized and ambulatory patients. Clinical experience is accompanied by a didactic schedule of lectures, seminars, and practical-interactive learning sessions. Prerequisites: Completion of Phase I (Years 1 and 2). CLN.

SURG 900. Junior Surgery Clerkship. 8 Hours.
Surgical problems and diseases are studied utilizing lectures, skills laboratory experiences, study questions, clinical problem discussion and live patients. This course prepares the student to meet the pertinent aspects of the summative competencies of the University of Kansas School of Medicine during the third year of Medical School. A particularly useful goal of this course is to teach the student to identify life-threatening conditions that require urgent intervention. Although the skills of this course are necessary for an ambulatory practice, the skills that are taught in this course are most frequently seen and performed in the hospital setting. The student is expected to have a basic understanding of normal and abnormal body function. The student is expected to have completed successfully the basic course in physical diagnosis (years 1 and 2 of medical school). Prerequisite: first and second year medical years. LEC.

Fourth Year Requirements

PMED 960. Population Health in Practice. 4 Hours.
This required clerkship is designed to instruct fourth-year medical students about population-based approaches to health care and to facilitate the application of epidemiologic principles to clinical decision making. Using some of the basic concepts described under the auspices of community oriented primary care, students will learn how to define specific populations, ascertain their health care needs, formulate interventions to meet those needs and evaluate the impact of those interventions. Learning opportunities will develop and reinforce concepts related to health services organization and delivery, community dimensions of medical practice, occupational and environmental medicine, health care finances, access to medical care, and quality of medical care. This clerkship will include didactic teachings supplemented by course reading material and workshops that involve care studies and site visits. Learning experiences will allow the student to examine what it means for a physician to be part of a community and to explore the role that the community plays in the health of an individual. Practical application of course material will be emphasized. Prerequisite: Completion of third-year medical school curriculum. CLN.

FAPR 900. Rural Preceptorship. 4 Hours.
Since 1951 all medical students have completed, as a requirement of graduation, a rural preceptorship of at least four weeks with a practicing physician in the state of Kansas. The emphasis of the preceptorship is rural primary care (family medicine, general internal medicine and general pediatrics). Rural placements are made by the Course Administrator. The preceptor or site will provide housing while the student is on this rotation. The preceptor will expect the student to participate in all phases of professional life as a rural physician. Most sites have the student work in ambulatory clinic, hospital care, ER, nursing home, house calls, and night call. Students also are expected to participate in the civic, administrative and social activities of their preceptor. The preceptor will evaluate student performance based on school of medicine criteria. At the completion of the course the student will have: a working knowledge of the rural health care system, an understanding of the function of a physician in the context of community and an appreciation for the support systems needed for practice in rural Kansas. Offered in Modules I-XII. Prerequisite: Completion of year 3 clinical clerkships. IND.

Subinternships (4)
The four-week subinternship gives medical students an opportunity to become more proficient in a specific area of medicine. They provide a more comprehensive course than that of the third-year required course. Students select one of the following options to fulfill the requirement.

FAPR 901. Subinternship in Family Medicine. 4 Hours.
This clerkship is designed to prepare students for the responsibilities encountered as a first-year resident. Students will be required to perform the following: 1) actively participate in the management of a panel of inpatients on the Family Medicine Service, 2) participate in the care of outpatients in the Family Medicine Clinic, 3) take one in-house call weekly, and 4) take one OB call weekly. In fulfilling these responsibilities, some weekend participation will be necessary. Students will be expected to complete the same objectives listed in FAPR 950, but do so in an advanced manner incorporating a well-developed and organized approach to multifaceted clinical issues accompanied with a keen perception of non-clinical factors involved in Family Practice. A resident level examination will be administered covering both inpatient and outpatient topics. LEC.

GYNO 901. Subinternship in Obstetrics and Gynecology. 4 Hours.
The objective of this clerkship is to provide students with advanced experience in obstetrics and gynecology. Students will be assigned to the Obstetrics and Gynecology Service at KUMC. Students will participate in the management of common obstetrical and gynecologic conditions in a role similar to that of a resident. Clinical work will be supplemented by conferences and other educational activities. This clerkship fulfills the Subinternship Selective requirement. LEC.

MED 908. Subinternship in Internal Medicine. 4 Hours.
The objective of this clerkship is to provide students with advanced experience in the management of acutely ill medical patients. Students will be assigned to one of five locations: KUMC; the Kansas City VAMC; the Leavenworth VAMC; or St. Catherine's Hospital, Garden City. Students will participate in the diagnosis and treatment of common medical conditions in a role similar to that of a resident. Clinical work will be supplemented by conferences and other educational activities. This clerkship fulfills the Subinternship Selective requirement. LEC.

OTOR 901. Subinternship in Otolaryngology. 4 Hours.
The objective of this clerkship is to provide students with advanced experience in otolaryngology. Students will be assigned to the Otolaryngology Service at KUMC. Students will participate in the management of common ENT conditions in a role similar to that of a resident. Clinical work will be supplemented by conferences and other educational activities. This clerkship fulfills the Subinternship Selective requirement. LEC.
PED 910. Subinternship in Pediatrics. 4 Hours.
This selective is an extension of the basic pediatric clerkship. It is designed to permit senior medical students to take increasing responsibility of patient care under close supervision of the faculty. Students will learn skills in patient management by active participation in the daily activities of the pediatric residency program. This selective is entirely clinical. The student will work on the Pediatric Inpatient Unit at KUMC. Student performance will be evaluated by the faculty based on factual knowledge, practical skills, problem-solving abilities, and personal behavior and values. On the first day of the rotation, students will report to the senior pediatric resident assigned to the pediatric floor. Prerequisite: PED 900 or equivalent. LEC.

PED 914. Philmont Adolescent Medicine. 4-8 Hours.
The Philmont Adolescent Medicine experience is in the high altitude environment at Philmont Scout Ranch in New Mexico. Students learn health screening, care of sports injuries, and diagnosis and management of pediatric, medical, surgical, gynecologic problems, primarily of teenagers, but also of children and adults. Supervision of students consists of faculty members from Medicine Pediatrics, Surgery, Neurology, Family Practice, Gynecology, and Physical Medicine in an effort to give well rounded educational guidance to the students. National Board, Part 1, must be passed in order to receive clinical elective credit. One four week experience only counts toward clinical electives requirements. Permission of Instructor. Prerequisite: Physical Diagnosis, Pathology and Pharmacology. FLD.

PED 918. Pediatric Subinternship Selective - Outpatient. 4 Hours.
This selective is an extension of the basic pediatric clerkship. It is designed to permit senior medical students to take increasing responsibility of patient care under close supervision of the faculty. Students will learn skills in patient care by active participation in the daily activities of the pediatric outpatient clinic. This selective is entirely clinical. The student will work in the Pediatric Outpatient Clinic at KUMC in a variety of clinics. The specific clinics will be assigned by the Chief of the Ambulatory Pediatric Section after consultation with the student. Student performance will be evaluated by the faculty based on factual knowledge, practical skills, problem-solving abilities, and personal behavior and values. This course can still be taken for elective credit even if a student already has met the subinternship selective requirement. Prerequisite: PED 900 or equivalent. FLD.

PYCH 901. Subinternship in Psychiatry. 4 Hours.
The student will function as an intern on the Adult and Child Psychiatric Services at the University of Kansas Medical Center and Kansas City VA Hospital. Each student will work closely with faculty and residents and will have an important role in the team care of hospital patients. The course is designed to provide a transitional experience between the predoctoral and residency stage of medical education allowing the student the opportunity to take more responsibility for patients with support and active teaching provided by faculty and residents. LEC.

SURG 901. Subinternship - Plastic Surgery. 4 Hours.
This course is designed to provide advanced experience to medical students the diagnosis and management of plastic surgery patients. Additionally, concepts taught during surgery 900 are reemphasized in greater detail. Ward rounds, clinical conference seminars and care studies supplement the clinical experience. An optional laboratory experience providing in-depth introduction to microvascular surgery can be arranged. Emphasis is placed on an understanding of the principles and surgical anatomy of areas of plastic surgery including congenital, trauma, tumor and cosmetic. Students are expected to participate with the surgical team in the diagnosis and management of plastic surgery patients. It is expected that the student will participate, when possible, at a resident level of responsibility. The student participates directly in patient care on the wards, in the outpatient clinics and in the operating room. Prerequisite: SURG 900, MED 900. LEC.

SURG 902. Subinternship in Surgery. 4 Hours.
The student will be expected to participate with surgical team in the diagnosis, operation, and management of surgical patients. It is expected that the student will participate, as possible, at a resident level of responsibility. Ward rounds, clinical conference, seminars, and case studies supplement clinical experience. The student participates directly in patient care on the ward, in the out-patient department, and in the operating room. Emphasis is placed on an understanding of alterations in physiology secondary to pathology, management of fluids and electrolytes, basic elements of pre- and post-operative care, and diseases amenable to surgical treatment. In addition, concepts taught during Surgery 900 are reemphasized and considered in more detail. We can accommodate 6 students in Modules I-XII. Prerequisite: SURG 900 and MED 900. LEC.

SURG 909. Surgery Subinternship-Neurosurgery. 4 Hours.
This course is designed to provide advanced experience to the student in the management of neurosurgical problems. The student is assigned to the neurosurgical service at the University hospital for four weeks. Students will participate with the surgical team in daily rounds, diagnosis, out-patient experience, operative experience and post-operative management of neurosurgical patients. Emphasis is placed on an understanding of neurologic disease with special emphasis in physical exam and diagnosis, management of basic neurosurgical emergencies and management of common neurosurgical problems. Accommodates three students in Modules I-XII. Prerequisite: SURG 900 and MED 900. LEC.

SURG 910. Surgery Subinternship-Urology. 4 Hours.
This course is designed to provide advanced experience to the student in the diagnosis and management of genitourinary disease. The student is assigned to the Urology Service at KUMC or the VA Hospital for 4 weeks. Students are expected to participate with the urologic patients. It is expected that the student will participate, as possible, at a resident level of responsibility. Ward rounds, clinical conference, seminars and case studies supplement clinical experience. The student participates directly in patient care on the ward, in the out-patient department, and in the operating room. Emphasis is placed on an understanding of alterations in physiology, secondary to pathology of the genitourinary tract, and diseases amenable to surgical or medical treatment. The student is expected to become familiar with the diagnostic procedures and techniques used in evaluating patients with acute and chronic genitourinary problems (i.e. cystoscopy). The out-patient experience is particularly emphasized. By the end of the clerkship, the student should be able to describe risk factors, epidemiology, etiology, diagnosis, management strategy, prognosis, including sequelae, and preventive measures for common urologic problems. We can accommodate two students at KUMC and two students at VAH. This will be offered in Modules I-XII. Prerequisite: SURG 900 and MED 900. FLD.

SURG 915. Subinternship-Orthopaedic Surgery. 4 Hours.
This subinternship is designed to allow the student to participate in orthopedic clinical care. The student is assigned to the orthopedic surgical service at KUMC for four weeks. The student participates with the orthopedic surgery team in the diagnosis, surgical treatment and postoperative management of orthopedic patients. The student will participate directly in care of patients in the emergency department, operating room, intensive care unit and orthopedic ward. Emphasis is placed on the understanding of pre-op, intra-op and postop care of the
Critical Care (4)

The four-week critical care selective presents the knowledge, skills, and attitudes required to care for very ill hospitalized patients. This allows the student to focus on an interest in a particular specialty and ensures that all students have basic knowledge and skills in critical care. Students select one of the following options to fulfill the requirement.

ANES 911. Critical Care: Post-Anesthesia Unit. 4 Hours.
The objective of this clerkship is to provide students with experience in the management of critically ill patients. Students will participate in the diagnosis and treatment of patients in the KUMC Post-Anesthesia Unit. Clinical work will be supplemented by conferences and other educational activities. This clerkship fulfills the Critical Care Selective requirement. LEC.

MED 905. Critical Care: Coronary Care Unit. 4 Hours.
The objective of this clerkship is to provide students with experience in the management of critically ill patients with cardiovascular disorders. Students will participate in the diagnosis and treatment of patients in the KUMC or Kansas City VAMC Coronary Care Unit. Clinical work will be supplemented by conferences, formal and informal lectures and other educational activities. This clerkship fulfills the Critical Care Selective requirement. LEC.

MED 912. Critical Care: Medical Intensive Care Unit. 4 Hours.
The objective of this clerkship is to provide students with experience in the management of critically ill patients. Students will participate in the diagnosis and treatment of patients in the KUMC or Kansas City VAMC Medical Intensive Care Unit. Clinical work will be supplemented by conferences and other educational activities. This clerkship fulfills the Critical Care Selective requirement. LEC.

PED 926. Critical Care: Neonatology. 4 Hours.
The student will be actively involved in the care and management of the high-risk and acutely ill neonate. Through a clinical participation, tutorial sessions and assigned reading emphasis will be placed on modern neonatal intensive care techniques and developmental physiology and biochemistry. Students may elect additional consecutive four-week periods to pursue aspects of neonatology in more detail, engage in investigative projects or acquire first-hand experience in the operation of a regionalized program for care of high-risk or acutely ill neonates in the state. Students wishing this additional four weeks should contact the Pediatric Department. LEC.

PED 930. Critical Care: Pediatric Intensive Care Unit. 4 Hours.
Principles of ongoing assessment and management of critically ill children with single and multiple organ failure will be presented. The teaching format will be formal and informal rounds at the bedside in the KUMC Pediatric ICU by faculty members of the Pediatric Critical Care Division. Integration of history-taking, physical examination skills, and laboratory and radiological assessment with pathophysiology will be emphasized. LEC.

SURG 927. Critical Care: Burn Center. 4 Hours.
The objective of this clerkship is to provide students with experience in the management of critically ill patients. Students will participate in the diagnosis and treatment of patients in the KUMC Burn Center. Clinical work will be supplemented by conferences and other educational activities. This clerkship fulfills the Critical Care Selective requirement. LEC.

SURG 928. Critical Care: Neurosurgical Intensive Care Unit. 4 Hours.
The objective of this clerkship is to provide students with experience in the management of critically ill patients. Students will participate in the diagnosis and treatment of patients in the KUMC Neurosurgical Intensive Care Unit. Clinical work will be supplemented by conferences and other educational activities. This clerkship fulfills the Critical Care Selective requirement. LEC.

SURG 929. Critical Care: Surgical Intensive Care Unit. 4 Hours.
The objective of this clerkship is to provide students with experience in the management of critically ill patients. Students will participate in the diagnosis and treatment of patients in the KUMC Surgical Intensive Care Unit. Clinical work will be supplemented by conferences and other educational activities. This clerkship fulfills the Critical Care Selective requirement. LEC.

Clinical Electives in Kansas City

Anatomy (p. 1839)
Anesthesiology (p. 1840)
Biochemistry (p. 1840)
Cardiothoracic Surgery (p. 1840)
Diagnostic Radiology (p. 1840)
Emergency Medicine (p. 1840)
Family Practice (p. 1841)
Gynecology and Obstetrics (p. 1842)
History & Philosophy of Medicine (p. 1842)
Interdisciplinary (p. 1843)
Internal Medicine (p. 1845)
Microbiology, Molecular Genetics, and Immunology (p. 1848)
Molecular and Integrative Physiology (p. 1848)
Neurology (p. 1848)
Ophthalmology (p. 1849)
Otorhinolaryngology (p. 1850)
Pathology and Laboratory Medicine (p. 1850)
Pediatrics (p. 1851)
Pharmacology, Toxicology, & Therapeutics (p. 1852)
Preventive Medicine and Public Health (p. 1852)
Psychiatry (p. 1853)
Radiation Oncology (p. 1854)
Rehabilitation Medicine (p. 1854)
Surgery (p. 1854)

Anatomy

Chair: Dale R. Abrahamson, Ph.D.

ATMY 910. Readings in Anatomy. 1-4 Hours.
Enrollees will select an area of major personal interest and narrow their efforts to some accepted idea in that field. They will delve into the support for this idea by all means available to them, be it scientific literature, opinions of practicing physicians and other medical scientists, or chart review, to come up with an evaluation that they consider satisfactory. The selected subject of interest can deal with any area of medicine since this is to be primarily an experience that promotes motivation for self-learning. Offered in Modules I-XII. LEC.

ATMY 915. Advanced Topics. 2-4 Hours.
Special studies which allow students to further their training in one or more areas. Assignments are tailored to fulfill the needs of the individual and usually include readings and laboratory work guided by frequent conferences with an advisor. Offered in modules I-XII. Prerequisite: Permission of department. IND.
ATMY 920. Research. 4 Hours.
Original independent study of a problem approved by the student’s advisor or advisory committee. Offered in modules I-XII. Prerequisite: Permission of department. IND.

Anesthesiology
Chair: Talal W. Khan, M.D., Interim

Students may enroll in an elective module in which an experience in clinical anesthesia is offered, including the administration of anesthetics under supervision. The student becomes proficient in the placement of peripheral intravenous lines and endotracheal tubes. The opportunity to place central venous lines and intra-arterial lines, as well as other critical care procedures, may also be provided. Lectures and case conferences are presented, enabling the student to manage patients with renal failure, chronic pulmonary disease, coronary artery disease, neuromuscular diseases, and central nervous system diseases. The student also becomes familiar with the basic concepts of cardiopulmonary resuscitation and has the opportunity to participate in the treatment of patients with chronic pain.

ANES 910. Anesthesiology. 4 Hours.
Students will work in the operating room suite in the mornings under the direct supervision of an instructor in anesthesia and will be made to feel that they are part of the cooperative, expert team caring for each patient. In addition, the basic fundamentals of anesthesiology will be taught by means of lectures, seminars, and conferences in the afternoons, as well as through clinical situations. Offered in modules I-XII. Prerequisite: Medical Basic Sciences. LEC.

ANES 912. Special Topics in Anesthesiology. 4 Hours.
This elective is designed to provide the clinical and/or research experience in topics of special interest not otherwise represented in the curriculum. The student will design, in consultation with department faculty, specific objectives, reading assignments, and the mechanism for student evaluation. Prerequisite: Medical basic sciences and departmental consent. CLN.

Biochemistry
Chair: Gerald Carlson, Ph.D.

The Department of Biochemistry and Molecular Biology is dedicated to the advancement of knowledge of living systems at the molecular level and expanding the knowledge base of molecular medicine.

BIOC 910. Topics in Biochemistry and Molecular Biology. 1-4 Hours.
Special studies in a selected area of interest. Assignments may involve scholarly activity such as reading, writing, or small group discussions. Prerequisite: Permission of department chairperson. LEC.

BIOC 913. Research in Biochemistry and Molecular Biology for Medical Students. 1-8 Hours.
Selected research problems with emphasis on biochemistry and molecular biology. Offered in Modules I-XII. Prerequisite:Permission of department chairperson. IND.

Cardiothoracic Surgery

CTSU 910. Cardiothoracic Surgery. 4 Hours.
Stressing pre-operative assessment and post-operative management. This elective module will allow the student to develop his/her skills in diagnosis of cardiac disease, interpretation of cardiac catheterization and arteriographic data, and management of patients undergoing cardiothoracic surgery. Participation in consultations, follow-up clinics, and conferences with cardiology will be expected. Offered in modules I-XII. Prerequisite: SURG 900 and MED 900. CLN.

Diagnostic Radiology
Chair: Philip Johnson, M.D.

The diagnostic radiology department actively participates in all four years of the curriculum. The first year correlates radiology with anatomy as part of the presentation of the Department of Anatomy and Cell Biology. Various types of X-rays and imaging studies including vascular studies, MRI, and CT demonstrate the necessity of a firm foundation in anatomy and illustrate how changes in anatomy form the foundation of disease processes. This brings anatomy and the patient to the student in a meaningful manner. During the third and fourth years, the department offers educational programs in four-week modules. Students serve rotations in radiology and nuclear medicine. Students receive basic instruction in principles of radiology and its different modalities and observe the tools and methodology of imaging. Radiology conferences are given daily and weekly as part of other departmental curricula, such as neurosurgery, neurology, cardiology, pediatrics, medicine, orthopedics, and gastroenterological conferences. The student is trained and guided in accumulating knowledge and skill in the imaging diagnosis of disease.

DIAG 910. Diagnostic Radiology. 4 Hours.
The student will work in all phases of diagnostic radiology including gastrointestinal, neuroradiology, pediatric radiology, cardiovascular and special procedure radiology. Offered in Modules I-IV, VII-XI. Prerequisite: Medical Basic Sciences. FLD.

DIAG 911. Nuclear Medicine-University of Kansas Medical Center or Veteran Administration Hospital, Leavenworth. 4 Hours.
The student will participate in examination of patients and use of radioisotopes in diagnosis (scanning techniques) and treatment. Offered in modules I-XII. Prerequisite: Medical Basic Sciences. FLD.

DIAG 913. Radiological Research. 4 Hours.
Students may work with radiology staff in any of the following areas: radiological sciences, health physics, radiation biology, application of computers to radiology, radiological engineering, clinical research. Offered in modules I-XII. Prerequisite: Consent of instructor. IND.

Emergency Medicine
Chair: Dennis Allin, M.D.

ERMD 919. Clinical Clerkship in Emergency Medicine. 4 Hours.
This course will instruct students in the evaluation, management, and disposition of patients presenting to the Emergency Department with undifferentiated complaints. Students will be expected to evaluate patients of all groups and develop treatment plans under the direct supervision of Emergency Medicine faculty. In addition, students will actively participate in the resuscitation and stabilization of critically ill and traumatized patients. Prerequisite: SURG 900, MED 900, GYNO 900, PED 900. CLN.

ERMD 921. Emergency Ultrasound. 4 Hours.
Emergency ultrasound allows for rapid and accurate diagnostic information that can have significant benefits to patient outcomes. It involves performing and interpreting ultrasound at the patient’s bedside and is used to rapidly triage, diagnose, and treat medical conditions in modern emergency departments around the country. This course will instruct students interested in Emergency Medicine in the skills necessary to perform and interpret point-of-care ultrasound examinations. Students
will be expected to learn the basic principles of point of care ultrasound, to recognize the indications of point of care ultrasound, and also to develop proficiency in performance and interpretation of the basic point of care ultrasound examinations performed in the Emergency Department. CLN.

Family Practice

Chair: Joshua Freeman, M.D.

Family practice is comprehensive, continuous medical care regardless of the age, sex, or affected organ system of the patient. It emphasizes the preventive aspects of health care and treatment of the patient in context of his or her family and community. Treatment of the whole person is a hallmark of family practice.

FAPR 905. Rural Family Medicine - Practice and Research. 4 Hours. This elective is offered to students between the first and second years of medical school. It is designed to provide students with the opportunity to observe a rural family physician in the daily practice of medicine and to participate in the data collection involving delivery of medical care to patients seen in rural practices in Kansas. Students will spend two summer months on site with a rural family physician, observing the practice and performing data collection. At the beginning and end of the two month on site experience, students will spend eight days with faculty in the Department of Family Practice at KUMC. Prerequisite: Permission of the instructor. FLD.

FAPR 910. Clerkship in Family Medicine. 4 Hours. The instructional objectives of the elective clerkship in family practice are to build on the skills and knowledge accumulated in the basic science areas and the other clinical specialty areas and reinforce them and apply them to the delivery of health services to the family unit and relate them to the individual, the family and the community. The clerkship, through supervised patient contact within the hospital and in the Family Practice Center and supervised teaching conferences, will amalgamate and reinforce the skills and previously gained clinical knowledge into the philosophy of primary health care delivery in breadth rather than depth. Offered in Modules I-XII. Prerequisite: Completed third year. FLD.

FAPR 915. Medicine and the Family. 2 Hours. This elective course on medicine and the family teaches students about family dynamics as they relate to the practice of medicine. Specifically, the course focuses on the family life cycle, normal and dysfunctional families, marriage, “normal” sexual behavior, and sexual dysfunction. These concepts will be applied to an understanding of such common medical issues as: family planning, disability, health screening, risk factors, death and dying, and child safety. Students will also be encouraged to learn about their own families by completing genograms, “family circles,” etc. Students will be graded via two examinations, one completed written project, and class attendance. Prerequisite: Permission of instructor. FLD.

FAPR 920. Research in Family Practice. 2-8 Hours. Students desiring basic research experience in the context of Family Medicine may seek the sponsorship of a Family Practice faculty member and with that individual develop a written plan for the elective. The elective may vary in length from two weeks to three months and carries with it one credit hour for each sixty hours of time spent on the elective. Elective not available during July. FLD.

FAPR 925. Interdisciplinary Community Partnership. 4 Hours. This course is designed as an interdisciplinary team approach to developing strategies for community health assessment and intervention. Students will work with a team that includes at least three other health professional students and at least one community “lay health advisor” to assess the health needs of a local neighborhood and develop and implement an appropriate intervention. The course will explore community needs and resources, assess and barriers to care, and culturally appropriate interventions. No courses currently exist which involve an equal partnership with medicine, allied health, social work and nursing. This course is designed to give students the opportunity to learn to work as a team member with a variety of health care professionals, and to understand the valuable contribution of each group. Research has shown that students who are involved in the community during medical school continue to be actively involved in their chosen communities. This course is developed in concert with KU’s Schools of Nursing, Allied Health and Social Welfare. This first year, two interdisciplinary teams will be assembled, working with 2 neighborhoods in the vicinity of KUMC. If this pilot is successful, more communities and teams will be assembled in future years. This is a year-long course that will span both fall and spring semesters. LEC.

FAPR 926. AIDS Care in the Community. 4 Hours. This elective is a concentrated experience in AIDS medical care provided in a family practice setting. The focus is on diagnosis, treatment and psycho-social issues for men, women and children with HIV disease (including gynecologic, prenatal and delivery of infected women). Care throughout the spectrum of disease is emphasized. The course is an additional elective to be made available to clinical medical students in the fourth year of training. LEC.

FAPR 927. Palliative Care in a Community Setting. 4 Hours. This elective is an end-of-life medical care experience including identifications and treatment of medical problems associated with cancer, CHF, COPD, AIDS, and other life-shortening diseases. The course focus is on symptom management and psycho-social issues associated with dying. This course is an additional elective to be made available to clinical medicine students in the fourth year of training. LEC.

FAPR 935. PRIMARY CARE SPORTS MEDICINE. 4 Hours. Students on this rotation will have the opportunity to learn the principles of primary care sports medicine. The rotation will be outpatient based and will include learning experiences in the sports medicine clinic, at the training room, and on the sidelines of high school and college sporting teams. Specific learning experiences will vary based on the sporting events that are available during the time of the elective. PREREQUISITE: Students must have completed all required third-year clerkships to participate in this elective. CLN.

FAPR 961. Community Based Geriatrics. 4 Hours. Students on this rotation will have the opportunity to learn the principles of caring for older patients. The rotation will be based at the Landon Center of Aging and will include educational experiences in outpatient clinic, long-term care facilities, assisted living facilities and with hospice. This elective experience will build on the Year 3 Geriatrics clerkship by allowing the student to further develop their understanding and management skills in the care of older adults across the health care continuum. Students are invited to individualize their experience through a focus on a particular care setting or aspect of older adult care by arrangement with the clerkship director. CLN.

FAPR 962. Advanced Clinical Reasoning Skills. 2 Hours. Clinical reasoning is a critical, often-underdeveloped skill in practicing physicians. Diagnostic errors are common among physicians and residents. In this course, you will learn to recognize common clinical reasoning errors, develop practice habits to help you improve your clinical reasoning, and develop reflective habits that help you determine why an error was made. You will learn how specific history, physical examination, and ancillary testing items make certain diagnoses more or less likely. This course will meet 10 times for 2 hours during a semester with course work between meetings. PREREQUISITE: Satisfactory completion of 6
months (4 six-week or 3 eight-week) of clinical clerkships. Concurrent clinical rotations for a minimum of 8 weeks over the semester. CLN.

FAPR 963. Cross-cultural Health Leadership Module I: Didactic. 1 Hour.
Cross-culturally competent care refers to physicians’ “ability to communicate effectively and provide quality health care to patients from diverse sociocultural backgrounds.” This course will train medical students in cross-cultural communication (C3) skills via interactive sessions in a student-based “learning community”. In Module 1, students learn and practice Association of American Medical Colleges (AAMC)-defined core topics for cross-culturally competent knowledge, attitude and skills. These are: 1) the definition of cultural competence, and providers’ self-assessment of own relevant cultural experiences; 2) key aspects of cultural competence, including patients’ healing traditions and systems, institutional cultural issues, and how these patients’ explanatory illness narratives; 3) understanding how stereotyping and bias influence medical care; 4) the epidemiology of social determinants of health care disparities and collaboration with communities to address these; and 5) clinical communication skills to engage patients with different values, culture and beliefs than one’s own, i.e. working with interpreters, and diagnostic, negotiating and problem-solving skills. In Module 1, we will use interactive faculty-facilitated didactic discussions, role play, case-studies, volunteer standardized patient interactions and out-of-class reading. Students will also conduct an in-depth case study with one cross-cultural patient and prepare a detailed patient narrative report describing both the patient’s illness narrative and relevant cultural and social determinants of health impacting their health experience. Prerequisite: KUMC School of Medicine student. LEC.

FAPR 964. Cross-cultural Health Leadership Module 2: Service Learning Projects. 1 Hour.
Cross-culturally competent care refers to physicians’ “ability to communicate effectively and provide quality health care to patients from diverse sociocultural backgrounds.” This advanced course will train and mentor medical students in cross-cultural communication (C3) skills via participant-conducted service learning projects in voluntary clinical settings within a student-based “learning community”. In Module 2, students will practice skills taught in Module 1, namely Association of American Medical Colleges (AAMC)-defined core topics for cross-culturally competent knowledge, attitude and skills (See Module 1 description). Participating students will collaborate to conduct service learning, quality improvement (Q1) projects to improve cross-culturally competent care in cross-cultural clinical settings in which they or their colleagues participate, e.g. (for M1/M2 students) Jaydoc, Bulldoc school-based health center, or clinical settings with permission of clinical faculty in those settings. Module 2 service learning projects will include 2 clinical-based “whole system events” to which participating students invite clinic faculty, staff and other student colleagues from students’ practice settings. At the first event, students will present and discuss their proposed project to improve cross-culturally competent health care with clinic faculty and staff from the proposed setting. At the second event (at the end of the course), students will present the results of their project to their clinic faculty and student colleagues. Projects must address cross-cultural elements of clinical practice or cross-cultural communication skills; and be appropriate to the students’ developmental stage of training (e.g. M1 students might conduct projects to improve M1 student skills using interpreters). Module 2 students will also participate in interactive sessions with faculty and other student participants, during which they will learn and discuss methodological approaches; and discuss challenging issues arising in their projects. Prerequisites: Prior participation in "Cross-cultural Health Leadership Module 1: Didactic" or Permission of Instructor LEC.

Gynecology and Obstetrics
Chair: Carl Weiner, M.D.

The Department of Obstetrics and Gynecology teaches anatomy, physiology, and endocrinology of reproduction in the basic science disciplines. During a clinical clerkship the student develops understanding of disease in women through history, physical examination, and laboratory studies. The clerkship includes study of biochemical, anatomical, and physiological changes of normal pregnancy and the effect of disease in altering the course of reproduction.

GYNO 914. Reproductive Endocrinology and Infertility. 4 Hours.
This clerkship will allow the medical student to develop skills in assessing and managing female patients who have complex reproductive endocrinology disorders. The student will also gain experience with diagnosis and the treatment options for female and male infertility. This clerkship will provide experience in office and operative procedures including laparoscopic procedures utilizing the laser and open procedures, which may include tubal reversal and myomectomy procedures. Prerequisite: GYNO 900, permission of instructor and clerkship director, John Calkins, M.D. FLD.

GYNO 915. Maternal Fetal Medicine. 4 Hours.
This clerkship will provide the medical student with advanced experience in high risk obstetrics. The student will be assigned to the Obstetrical Service at KUMC. The student will participate in the management of complicated obstetrical conditions in a role similar to that of a sub-intern. Prerequisite: GYNO 900; permission of instructor. LEC.

GYNO 916. Special Topics and Research. 2-4 Hours.
Offered in modules I-XII. Prerequisite: Permission of instructor. IND.

GYNO 918. Gynecologic Oncology. 4 Hours.
Subject material consists of the clinical science of oncology as applied to malignancies of the vulva, vagina, cervix, uterus, ovary and trophoblast. The student should be able to describe and define malignancies of the female genital tract in general terms and complete a clinical study in detail in the area of gynecologic oncology. The student will be evaluated by faculty judgment for general information, and a specific assessment of student projects will be performed. Offered in modules I-XII. Prerequisite: GYNO 900 and permission of instructor. LEC.

History & Philosophy of Medicine
Chair: Christopher Crenner, M.D., Ph.D.

A survey of the history and philosophy of medicine and the sciences applied to medicine from antiquity to the 20th century is offered. The changes and developments of medical theory, practice, organization, and education are traced and their relations with contemporary cultures examined. The following electives on aspects of medical history and philosophy are available.

HPMD 905. Narrative Ethics. 4 Hours.
Narrative Ethics provides an essential complement to traditional philosophic ethics. Where an analytic approach to ethics reduces moral decisions to rational puzzles to be solved, a narrative approach examines a moral problem within the context of an individuals lived life, characterized by its own unique cultural and personal relationships, values, and commitments. Physicians need the narrative skills of a good reader in order to recognize and respond effectively to moral issues as they arise, to integrate concerns for values and beliefs into the routines of
patient care, and to interpret patients moral choices within a framework of
an individual life story. LEC.

**HPMD 906. Medicine and the Movies. 0 Hours.**
Utilizing film clips and video from the early 20th century to the present, the
course provides a selected review of important topics in public
health, medical institutions, and the professions of medicine and nursing.
Consequently, students will become familiar with historical and social
factors that have helped shaped medicine in the 20th century. LEC.

**HPMD 908. Case Studies in Medical Ethics. 0 Hours.**
Subject area to be arranged with faculty as independent study, offered
only in August-December each year. IND.

**HPMD 909. Ethical Issues In: _______. 4 Hours.**
“Ethical Issues In ________” is a course offered to senior medical
students who desire to spend a four-week block of time in the systematic
examination of the set of ethical issues they are likely to encounter in their
chosen post-graduate training program, eqs. ethical issues in psychiatry,
ethical issues in OB/GYN, etc. The course consists of a guided literature
search, regular tutorial sessions and preparation of a short research
paper on a particular ethical issue or "case." The course is intended to
offer the interested student a basic introduction to the reference tools and
literature of contemporary medical ethics; assist the student in developing
a critical perspective in ethical controversies within his/her chosen field;
and, provide the student with basic analytical skills and approaches to
particular ethical problems. Evaluation will be based on participation in
tutorial sessions and the research paper. (Interested students should
contact the Department of History and Philosophy of Medicine, (x7040) for
additional information.) ALL STUDENTS ENROLLING IN THE COURSE
MUST CONTACT THE DEPARTMENT AT LEAST ONE MONTH PRIOR TO ENROLLMENT DATE TO ALLOW FOR APPROPRIATE
INDIVIDUALIZED PLANNING AND SCHEDULING. Prerequisite:
Enrollment limited to senior medical students. (Junior medical students by
special permission.) IND.

**HPMD 910. Readings in the History of Medicine. 4 Hours.**
Guided readings in an area chosen by the student after consultation.
Weekly individual tutorials and group seminars. Offered in Modules I-XII.
IND.

**HPMD 911. Current Social and Ethical Problems of Medicine. 4
Hours.**
Guided readings and discussion of one or more social or ethical
problems currently facing medicine. Examples: Homosexuality, abortion,
contraception, medical education, medicine as a social instrument, etc.
Offered in modules I-XII. IND.

**HPMD 914. Advanced Study in the History of Medicine. 4 Hours.**
Sequel to readings in the history of medicine. Offered in Modules I-XII.
Prerequisite: HPMD 910 and approval of chairperson. IND.

**Interdisciplinary**

**IDSP 800. Special Programs. 1-8 Hours.**
Electives taken during the basic science years of institutions other than
KUMC or at KUMC but in departments that do not have an elective course
number. These courses include, but are not limited to, a research training
experience or a clinical training experience, during the summer session
between the first and second years of medical school. The application
form, obtained from the Office of Student Affairs, School of Medicine,
must contain a written description of the educational experience, the
reason for proposing such a program, and written indication of faculty
or supervisory personnel of their willingness to evaluate the student's
performance. Elective credit will be accrued at the rate of four credits for
eight weeks, three credits for six weeks, two credits for four weeks, or one
credit for two weeks. Prerequisite: Approval of student’s special program
mentor, special program advisor and Associate Dean for Student Affairs.
FLD.

**IDSP 801. Remedial Program. 0-12 Hours.**
Medical students will be enrolled in this course when the Academic
Committee of the School of Medicine recommends a remedial program for
a student who has failed a course. Remediation may take place at KUMC
or at another institution. Evaluation of the student’s performance must
be obtained from the remedial program director upon completion of the
remedial program. Prerequisite: Approval of Associate Dean for Student
Affairs. FLD.

**IDSP 802. Diversity and Cultural Competency in Medicine. 3 Hours.**
The primary purpose of this course is to provide medical students at the
University of Kansas School of Medicine with the critical knowledge, skills,
abilities, and attitudes necessary for cultural competency in medicine.
This course will empower student to develop the attitudes, skills, and
knowledge base necessary to effectively serve diverse populations,
especially the underserved, vulnerable and at-risk populations. In addition,
students will learn more about diversity and diverse populations. Students
will learn that diversity is each of us and all of us, and that is necessary
to treat each person as the unique individual he/she is. There are many
complex issues surrounding the provision of health and social services
in this state, the nation, and the world. Differences in language, age,
culture, sexual orientation, life experiences, socioeconomic status,
political and religious beliefs add challenging dimensions to healthcare
delivery and education. The State of Kansas and the nation is becoming
increasingly diverse. It is improbable that current medical students
will become physicians who serve only those with whom they share a
common background. Therefore, it is necessary that medical students
learn to understand and appreciate those who differ from them so that
the physician/patient relationship is one that is mutually beneficial. Those
students who successfully complete this course will have the skills they
need to be the world-class physician the future requires. LEC.

**IDSP 803. Diversity and Cultural Competency in Medicine. 3 Hours.**
The primary purpose of this course is to provide medical students at the
University of Kansas School of Medicine with the critical knowledge, skills,
abilities, and attitudes necessary for cultural competency in medicine.
This course will empower students to develop the attitudes, skills and
knowledge base necessary to effectively serve diverse populations,
especially the underserved, vulnerable, and at-risk populations. In addition,
students will learn more about diversity and diverse populations. Students
will learn that diversity is each of us and all of us, and that it is
necessary to treat each person as the unique individual he/she is. There are many
complex issues surrounding the provision of health and the world. Differences in language, age, culture, sexual orientation, life experiences, socioeconomic status, political, and religious beliefs add challenging dimensions to healthcare delivery and education. The State of Kansas and the nation is becoming increasingly diverse. It is improbable that current medical students
will become physicians who serve only those with whom they share a
common background. Therefore, it is necessary that medical students
learn to understand and appreciate those who differ from them so that
the physician/patient relationship is one that is mutually beneficial. Those
students who successfully complete this course will have the skills they
need to be the world-class physician the future requires. LEC.

**IDSP 804. Special Experience. 0 Hours.**
Medical students will be enrolled in this course when the Associate Dean
for Student Affairs, the Associate Dean for Academic and Student Affairs,
or the Academic Committee approves a program for a student that may
include a prolonged absence from the School of Medicine. The student’s experience may include, but is not limited to, a fellowship, research, or Master’s program. The student will not receive credit, a grade, or evaluation of their performance. LEC.

**IDSP 805. Enrichment Program. 0 Hours.**
Medical students will be enrolled in this course when the Associate Dean for Student Affairs, the Associate Dean for Academic and Student Affairs or the Academic Committee approves a program of study for a student who cannot enroll in the regular curriculum until a passing grade is achieved on Step 1 or Step 2 of the USMLE. The student’s experience may include, but is not limited to, a formal board preparation program. The student will not receive credit. FLD.

**IDSP 806. Personal/Professional Development. 0 Hours.**
Medical students will be enrolled in this course during the clinical years when no other rotations are scheduled for the student. IND.

**IDSP 850. Introduction to Clinical Research. 1 Hour.**
The course will provide a comprehensive overview to clinical research. The student will gain an understanding of how to develop clinical research questions including protocol design and the factors that should be considered in initiating a clinical research study. This will include biostatistical considerations, the recruitment of study participants, regulatory issues, and data management, and defining measures and instruments. Students will gain knowledge of how to define clinical research among the various institutional entities involved with clinical research at The University of Kansas Medical Center such as the Research Institute (RI), General Clinical Research Center (GCRC) and the Human Subjects Committee (HSC). Additionally, one component of the course will focus on how to apply for funding (grantsmanship), critical appraisal of research studies, and how to present research data. LEC.

**IDSP 900. Special Program. 1-12 Hours.**
A special program is any scholastic activity that departs from the required or elective modules of the curriculum at KUMC and for which the student expects to receive credit toward the M.D. degree. Any student enrolled in medical school is eligible to apply. The application form is initiated in the Office of Student Records and Registration. In addition to this form, the application must contain a written description of the type of educational experience sought and the reason for proposing such a program; written indication of faculty or supervisory personnel of their willingness to participate in the program and to evaluate the student’s performance; source of scholarship, fellowship, travel, or research fund when these funds constitute support of an integral part of the program. If the special program involves study in an area identifiable by department (medicine, Surgery, Gynecology-Obstetrics, etc.) approval by the chairperson of the respective department or designate must be obtained. No more than two modules may be substituted by a special program. The application must be submitted at least two months before the expected starting date of the program. Offered in Modules I-XII. Prerequisite: Approval of Dean. FLD.

**IDSP 910. Medical Spanish-Level 1. 2 Hours.**
This is an entry level Medical Spanish course for students with minimal or no Spanish language education. Student completing this course will have acquired the language skills necessary to interact at a basic level in a medical context. Students will learn how to introduce themselves, greet patients, obtain personal information, ask about symptoms, and describe medical conditions. In addition, students will be able to hold basic conversations with patients about pain, diabetes, diet, trauma, cardiac issues, depression, and anxiety. Students will also be able to use and recognize basic cultural practices such as forms of address, family structure, beliefs about medicine as well as how to work with a translator. Prerequisites: Minimal to no knowledge of Spanish language and approval from the Dean of Student Affairs. LEC.

**IDSP 911. Medical Spanish-Level 2. 2 Hours.**
This is an intermediate-low level Medical Spanish class. In Medical Spanish level 2 students build on what they have learned in the previous level. They expand their vocabulary skills to include medical specialties and procedures as well as their ability to describe medical conditions. Students begin to learn to ask about and express past actions and conditions. They also learn to give specific advice and directions to medical personnel and patients. By the end of the course, students will be able to hold conversations on STIs and reproduction, MI symptoms and anatomy, respiratory concerns, pregnancy and prenatal-care, drug and alcohol abuse, strokes, surgery procedures, pharmacy and drugs and elder care. Students will also be able to understand culturally specific approaches such as the meaning of death, modern medicine and “fatalism” among many others. CLN.

**IDSP 912. Spanish for Health Care Workers. 4 Hours.**
OBJECTIVES: The general goals of the instructional program are to provide, within one month, a functional command of the language for basic interaction between health care providers and recipients. The following objectives will be emphasized in order to meet the goals of the program. Students will: 1. Develop and/or improve oral communication skills with emphasis on General American Spanish. 2. Demonstrate the basic phonology and fundamentals of syntax of the language. 3. Practice use of the most commonly used verbs in present and past tenses. 4. Accumulate a specialized vocabulary appropriate to most health care situations. 5. Sustain a limited conversation about appropriate topics with some degree of fluency and comfort. 6. Develop an appreciation and understanding of cultural differences within Hispanic cultures and backgrounds. 7. Demonstrate basic Spanish language skills by taking a history in Spanish from Spanish speaking real or simulated patient. Prerequisite: Permission of the instructor required; one year Spanish language coursework or the equivalent recommended. FLD.

**IDSP 950. Introduction to Clinical Research. 1 Hour.**
The course will provide a comprehensive overview to clinical research. The student will gain an understanding of how to develop clinical research questions including protocol design and the factors that should be considered in initiating a clinical research study. This will include biostatistical considerations, the recruitment of study participants, regulatory issues, and data management, and defining measures and instruments. Students will gain knowledge of how to define clinical research among the various institutional entities involved with clinical research at The University of Kansas Medical Center such as the Research Institute (RI), General Clinical Research Center (GCRC) and the Human Subjects Committee (HSC). Additionally, one component of the course will focus on how to apply for funding (grantsmanship), critical appraisal of research studies, and how to present research data. Must have instructor permission to enroll. LEC.

**IDSP 960. Integrative Medicine. 4 Hours.**
Course objectives are to expose medical students to other healing fields through readings, lectures and seminars, field observations, performing an independent review, and presenting a paper at the conclusion of the course. The students are expected to evaluate the claims of various practices critically and be rigorous in their questioning of all forms of human healing including practices currently considered mainstream. The students are expected to become aware of various practices that patients may be using so that they can be better informed physicians and be more comfortable in discussing these areas with patients whom may be interested in using them or are already doing so. The students should also learn to communicate effectively with practitioners of complementary and alternative medicine therapies. FLD.
IDSP 965. Health Data Theory and Practice. 2 Hours.
Principles of database theory, modeling, design and manipulation will be introduced. Students will have experience using a relational database management system. Database manipulation will be explored using structured query language (SQL) to compose and execute query statements and critically evaluate the results. IND.

IDSP 970. Introduction to Health Informatics. 2 Hours.
This course will provide a broad survey of health informatics focused on five themes: health informatics foundations; clinical decision support; human factors/organization factors; public health informatics and current issues in health informatics including best practices. Students enrolled for the optional 3 credit offering will develop and demonstrate a practical, innovative small-group information technology (IT) project from one of the set of faculty recommended projects or from a student-proposed idea. IND.

IDSP 975. Health Care Policy Development. 4 Hours.
Health care policy is having an increasing impact on the patient-physician relationship. In addition, these policies address critical issues affecting patients, such as access to care and health care financing. Although input from physicians on these issues is crucial, physicians are infrequently aware of the mechanisms through which they can participate in the legislative or regulatory processes. As efforts continue to reform the health care system, it will be increasingly important for physicians to participate in these processes. LEC.

Internal Medicine

Chair: Steven Stites, M.D.

Before being assigned to an inpatient medical service, all students learn techniques of obtaining a medical history and performing a physical examination as part of the required medical science course, Introduction to Clinical Medicine. Each student must then take a 12-week Basic Medicine Clerkship in internal medicine. After successful completion of this phase of education, students interested in obtaining greater mastery of the content and principles of internal medicine may choose from a variety of advanced clerkships and electives in medical subspecialties.

MED 901. General Medicine--Veterans Administration Medical Center. 4 Hours.
The student will be assigned to one of the general medical wards where the student will function in the role of subintern (e.g., the student will be assigned patients to work up and will be expected to assume partial responsibility for their diagnostic and therapeutic program). The number of patients assigned and the amount of responsibility given will vary with the student's ability. At all times the student will work closely with a staff physician or senior resident who will be responsible for the student's education. Offered in modules I-XII. Prerequisite: MED 900. FLD.

MED 902. Advanced Topics in Internal Medicine. 4 Hours.
Offered in modules I-XII. Prerequisite: MED 900 and special arrangement with department. FLD.

MED 903. Research Topics in Internal Medicine. 4 Hours.
Offered in modules I-XII. Prerequisite: Special arrangement with department. IND.

MED 906. Advanced General Medicine - Leavenworth Veterans Administration Medical Center. 4 Hours.
The student will function in the role of a sub-intern on the Medicine I Teaching Service. He/She will assume partial responsibility for the diagnostic and therapeutic program for assigned patients. The number of patients and level of responsibility will be accommodated to the individual's educational goals and ability. Emphasis will be placed on the clinical and practical approach to the patient including differential diagnosis, pathophysiology, and management strategies. At all time the student will work closely with the Chief, Medical Service who is in charge of the Teaching Unit. Evaluation of the student's performance during the clerkship will be based on faculty's assessment of the student’s clinical and conference participation. Prerequisite: MED 900. FLD.

MED 907. Ambulatory Specialties Selective in Dermatology. 2 Hours.
Two week course composed of outpatient clinic experience, tutorial sessions, and audiovisual material available in the educational resource center (ERC) will enable the medical students to diagnose the most prevalent skin diseases and perform an adequate history and physical examination needed to establish these diagnoses. There will be a syllabus available from the secretaries in the dermatology office. There will be an opportunity to attend a monthly Kansas City Dermatological Society meeting on the third Thursday of most months, and attend at least twice weekly conferences given by the dermatology residents to the medical students. Some medical students will have the opportunity to spend two weeks with a dermatologist in private practice in the Kansas City area (or Topeka) instead of spending the time at the University of Kansas Medical Center Dermatology department. Those students are encouraged to attend the lectures given by the dermatology residents. LEC.

MED 909. Clinical Elective in General Medicine Consultation and Hospital Based Medicine Practice. 4 Hours.
The student(s) will be exposed to the arena of general medicine consultation and hospital based medicine practices. The students would be responsible for performing initial evaluation and work up of new general medicine and/or geriatric consultations as well as the ongoing care of the patient's medicine issues. This experience would be unique in that the attending of record is not a general internist but often a surgeon, rehab specialist, etc. The students would learn the art and science of being a consultant-from evaluating medical conditions as they arise in the surgical and rehabilitating patient communicating with referring physicians, providing concurrent care, diagnostically and therapeutically of serious ongoing medical issues. In addition, the student would become well versed in the pre-operative evaluation of patients, as this can be a substantial part of a general internist's practice. Finally, the student will gain insight to what it is like to have a hospital-based practice by working directly with two hospitalists for KUMC. One of the responsibilities of the elective would be to prepare and give a short presentation on an issue of consultative medicine that would be presented in small group format but could also be used in care-based format to present in other arenas if so desired. FLD.

MED 910. Clinical Cardiology. 4 Hours.
The clerkship in cardiology offers an experience in the clinical evaluation and treatment of patients with a variety of cardiovascular problems. The students, as sub-interns, will function on the cardiovascular service as an integral part in the care of the seriously ill patient with a wide range of problems. The students will make cardiovascular rounds with one of the members of the cardiology staff, during which time clinical skills in bedside diagnosis, auscultation and palpitation will be emphasized and developed. They will have an opportunity to develop expertise in interpretation of electrocardiograms on a daily basis. The treatment of arrhythmias and heart failure will be stressed. They will also have an opportunity to evaluate in-hospital consultations as well as outpatient consultations and to see postoperative follow-up patients. They will have an opportunity to follow patients through cardiac catheterization procedures and to participate in the computation and assessment of the catheterization date. Indication for cardiovascular operations will be emphasized to weekly conferences. FLD.
MED 911. Coronary Care Unit and Electrocardiography--Veterans Administration Medical Center. 4 Hours.
The student will function as a subintern in the Coronary Care Unit with the cardiovascular fellow and cardiology subspecialty resident. The patient material consists of all the patients in the VA medical center with acute myocardial infarction, rule out acute myocardial infarction, pre-infarction syndrome and problem arrhythmias. The student will also develop expertise in electrocardiography and read a portion of the daily EKG’s independently and in collaboration with the cardiovascular resident or fellow and the cardiologist. Offered in modules I-XII. Prerequisite: MED 900 or permission of instructor. FLD.

MED 915. Comprehensive Care of the Complex Adult. 4 Hours.
The objective of this four week elective is to enhance the student’s ability to care for complex adult patients in various systems of care. Clinically, the student will rotate through selected clinical centers of care at the University of Kansas. There will be a focus on three facets of the care: the clinical content and context, the patient’s experience and the structure of the specific systems of care. Through experience, didactic presentations on systems of care, focused observation and reflection, the student will be able to better define the organization of clinical systems of care and to recognize how to ‘diagnose’ and to help collaborate in improving systems of care. These skills will likely be of great benefit for understanding elements of the core competency of ‘systems based practice’, and practically applying that knowledge to the new systems of care encountered in residency. CLN.

MED 920. Advanced Gastroenterology Clerkship. 4 Hours.
This clerkship is directed toward specific problems of gastrointestinal disease. The clinical clerk is involved in ward care and ward work, including admission work-up of patients, their daily care, staff rounds, X-ray interpretation, treatment of specific GI disease, long term therapy, and follow-up in the outpatient clinic. The clerk is supervised by the GI resident or fellows and can participate in special GI procedures on patients, such as endoscopy and motility studies. The clerk is instructed in proctoscopy until he/she has mastered this as a routine procedure. Offered in modules I-XII. Prerequisite: MED 900 or permission of instructor. FLD.

MED 921. Gastroenterology Clerkship--Veterans Administration Medical Center. 4 Hours.
The manifestations of gastrointestinal disease will be presented to the student by participation in consultation rounds and endoscopy. The student will be a member of a team composed of a staff gastroenterologist, a fellow, and a medical resident. At the completion of the course, the student will be familiar with the manifestations of gastrointestinal diseases, their diagnostic evaluation, and their treatment. The student will learn the indications and contraindications of gastrointestinal procedures. The student will be evaluated on a daily basis by the staff gastroenterologist as the student interviews and examines patients and makes recommendations for their diagnostic and therapeutic measures on consultation rounds. Prerequisite: MED 900 or permission of instructor. FLD.

MED 923. Gastroenterology--Special Programs. 4 Hours.
Combination of the preceding GI electives as desired by the student upon consultation with the senior GI staff. Offered in modules I-XII. Prerequisite: MED 900 and MED 920 or MED 921. FLD.

MED 925. Interdisciplinary Community Partnership. 4 Hours.
This course offers an interdisciplinary eight-week experience in diverse settings outside of the tertiary care environment, dealing with community health issues and their impact on individual and population health. Students will be engaged in intensive on-site internships with organizations, e.g., social service and public health agencies, community-based indigent-care clinics, which provide services related to disease prevention, health promotion, quality of life, health insurance, poverty prevention, and other healthcare issues. The students will gain insight into the challenges of specific populations within the community, as well as the gencies and programs that serve their needs. Direct mentorship will be provided by professionals trained in multiple disciplines, including but not limited to medicine, nursing, allied health, and social work. Students will complete a comprehensive project related to a particular need of the agency and/or the population that the agency serves. Common examples include: needs assessments, grant development, health interventions, research surveys, and curriculum development. In addition, students will be required to complete an oral or poster presentation describing their project, nd a comprehensive written report of their internship experience. The overall emphasis of the course will be to enhance awareness to expand knowledge, and to gain experience in working with individuals and populations on the health care challenges they confront within their families, their community and our society. FLD.

MED 930. Clinical Hematology. 4 Hours.
This will consist of inpatient and outpatient care, dealing with all types of hemotologic disorders. The student will be given experience and instruction in morphology of peripheral blood and bone marrow. Weekly conferences, didactic and participating study sessions with the hematology staff will be conducted. Offered in modules I-XII. Prerequisite: MED 900 or permission of instructor. FLD.

MED 935. Infectious Diseases--Advanced Clerkship. 4 Hours.
The students will be given the responsibility of participating actively in the care of patients admitted to the division of infectious diseases under close supervision by attending physicians and house officers. Students will also be exposed to experiences in clinical microbiology as well as medical consultations requested by other clinical services to the division of infectious diseases. Offered in modules I-XII. Prerequisite: MED 900 or permission of instructor. FLD.

MED 936. Infectious Disease Elective at Kansas City Veterans Administration Medical Center. 4 Hours.
The Infectious Disease Section at the VA medical center is responsible for an active inpatient consult service. The student will be responsible for seeing the consult patients with the resident and/or Infectious Disease fellow, recommending initial diagnostic and therapeutic management, and presentations to the Infectious Disease staff physician. The clinical experience will be supplemented with didactic discussions and an introduction to medical microbiology in the clinical laboratory. Offered in modules I-XII. Prerequisite: MED 900 or permission of instructor. FLD.

MED 940. Endocrinology and Metabolism, Clinical. 4 Hours.
Introduction to endocrinology and metabolism with special emphasis on diagnosis and management of selected patients with this category of disease. Students will participate directly in patient evaluation. Offered in modules I-XII. Prerequisite: MED 900 or permission of instructor. FLD.

MED 941. Research Problems in Endocrinology and Metabolism. 8 Hours.
Two consecutive four-week modules that will provide the interested student with laboratory and research experience necessary for clinical investigation of specific problems in endocrinology and metabolism. The student may either pursue an independent research problem or participate in a research project currently under investigation by a staff member. The student will be required to submit a written report and deliver a seminar at a Sectional Research Conference. An objective of this course will be to obtain data suitable for publication or presentation at Student Research Day. Offered in modules I-XII. Prerequisite: Special arrangement with staff. IND.
MED 950. Clinical Nephrology--University of Kansas Medical Center or Veterans Administration Medical Center. 4 Hours.
The Division of Nephrology is active in both the University of Kansas Medical Center and the Veterans Administration Medical Center. The activities of this division center on the diagnosis and treatment of patients with medical diseases of the kidney. Clinical clerks are assigned patients on the inpatient service, the outpatient clinic and in the outpatient chronic hemodialysis unit. The clerks are expected to function at a subintern level. Under the guidance of the house staff they provide the primary work up, write the admitting orders and assist in performing procedures such as peritoneal dialysis and hemodialysis. Clerks and house staff meet regularly with the attending staff nephrologist to discuss specific topics in renal physiology and pathogenesis. A formal nephrology conference for all housestaff and students is held weekly. The clerk is encouraged to participate in one of the ongoing research projects. Three positions are available at the University of Kansas Medical Center and two at the Veterans Administration Medical Center. Offered in modules I-XII. Prerequisite: MED 900. FLD.

MED 951. Research Problems in Basic and Clinical Nephrology. 4-8 Hours.
Investigation of specific problems in nephrology. One or two modules consecutively. Offered in modules I-XII. Prerequisite: Arrangement with staff. IND.

MED 960. Pulmonary/Critical Care. 4 Hours.
Students will be assigned to the Respiratory Intensive Care Unit. Under direct supervision of a Senior Medical Resident and a Pulmonary/Critical Care Fellow they will participate in the care of patients hospitalized in the Respiratory Intensive Care Unit. Daily attending rounds emphasize correlation of clinical, radiographic, laboratory, and invasive physiologic data in managing critically ill patients. Extensive experience in ventilator management and invasive monitoring. Students are on pager contact so they may be notified and participate in critical care decision making. Offered in modules I-XII. Prerequisite: MED 900 or permission of instructor. FL.

MED 961. Pulmonary Medicine, Physiology. 4 Hours.
Students will be assigned to the pulmonary function laboratory to learn the technique and interpretation of pulmonary function tests. Under the immediate supervision of a pulmonary technician and a pulmonary disease fellow, students will observe, perform, and interpret the various tests of lung function. Clinical correlation will be obtained via attendance at inpatient, outpatient, and consultation rounds where clinical problems will be related to physiologic finds. Offered in modules I-XII. Prerequisite: MED 900 or permission of instructor. LAB.

MED 962. Chest Disease Medicine--Veterans Administration Medical Center. 4 Hours.
The student electing the Chest Disease Service at the Veterans Administration Medical Center will be assigned as a subintern on Ward 11 West where he or she will be assigned to primary care of a small number of selected chest disease patients. The student will be directly responsible for the patients’ diagnostic and therapeutic management under the specific supervision of the chest disease fellow and chief of chest disease section, VA medical center. There will be seminar and didactic instruction on natural history of the frequently occurring chronic chest diseases. The student will assist in procedures such as fiberoptic bronchoscopy, pneumo-thorax intubation, thoracentesis and pleural biopsy and will observe and perform common procedures of pulmonary function testing with patients. He or she will assist with chest disease consultations from other services with the chest disease resident and will be expected to attend and participate in all conferences of the chest disease section. The student will participate in inhalation therapy procedures including ventilator management. He or she will be expected to complete and discuss a small required reading list from selected texts and journal articles. The objective of the elective is to give a student concentrated but comprehensive actual experience in the management of the chest disease performance section of the VA medical center in writing at the completion of the elective. Offered in modules I-XII. Prerequisite: MED 900 or permission of instructor. FLD.

MED 969. Clinical Oncology--Veterans Administration Medical Center. 4 Hours.
The student will participate in both in- and outpatient cancer management, consult rounds, and twice-weekly teaching conferences. Emphasis will be on clinical investigations of new and established anticancer drugs, and on the application of pharmacokinetic and cytokinetic studies to the treatment of cancer. Evaluation of the student’s general clinical skills and acquisition of knowledge in oncology will include direct observation of clinical performance and conference participation, and a brief objective examination. Offered in modules I-XII. Prerequisite: MED 900. FLD.

MED 970. Clinical Oncology Clerkship. 4 Hours.
The student participates actively in the care of the oncology patient on an in- and outpatient basis. This includes consultation rounds. Clinical investigation with both conventional and experimental drugs will be stressed and an opportunity to treat patients by protocols will be given. Offered in modules I-XII. Prerequisite: MED 900 or permission of instructor. FLD.

MED 971. Advanced Studies in Clinical Oncology. 4 Hours.
This is an advanced course with emphasis on consultations with attending staff and fellows, investigative protocol studies and special projects, including lectures and conferences. There will be outpatient activity, but no inpatient care. Offered in modules I-XII. Prerequisite: MED 900 and MED 970 or MED 969. FLD.

MED 972. Palliative Medicine Across the Continuum of Care. 4 Hours.
This elective rotation will expose the student to palliative care patients at all stages of illness and coping with advanced disease processes, from the ICU to the inpatient and home hospice settings. The student will work with the Palliative Care Team of physicians, advanced practice nurses, Palliative Medicine fellows, and our social workers. Focus of clinical activity is on the interdisciplinary management of patient symptoms, inter-professional and interpersonal communication skills, clinical ethics in end of life decision making, and understanding healthcare system complexities for patients facing advanced, progressive illness. The student will spend a portion of the rotation with either Northcare Hospice or Kansas City Hospice and Palliative Care, working with their interdisciplinary team in the management of acute inpatient hospice patients and home hospice patients. Continuity for the student in care of patients who transition from the hospital to the inpatient or home hospice setting will be fostered. CLN.

MED 980. Clinical Allergy, Immunology, and Rheumatology. 4 Hours.
Students will participate in the weekly KUMC allergy and rheumatology outpatient clinics, as well as assist in subspecialty inpatient consultations. They will perform medical evaluations, select appropriate diagnostic procedures and define specific therapy on assigned patients under the supervision of the staff. They will receive orientation to clinical immunologic tests in current use and be expected to interpret the results of these appropriately. Regular lectures by the staff are given in areas of clinical immunology. With guidance they will choose a topic appropriate for seminar presentation at the end of this clerkship. Offered in modules I-XII. Prerequisite: MED 900 or permission of instructor. FLD.
MED 981. Advanced Allergy, Immunology, and Rheumatology. 4 Hours.
The activities outlined in MED 980 will be continued, but the student will have more responsibility for patient evaluation and management. With guidance, another topic will be chosen for seminar presentation at the end of this clerkship. Offered in modules I-XII. Prerequisite: MED 900 and MED 980. FLD.

MED 982. Research Problems in Allergy, Immunology, and Rheumatology. 4 Hours.
Three consecutive modules are necessary to give the student adequate time to pursue an independent research problem or a project currently under investigation by a staff member. The student will be required to submit a written report and give a seminar at a division research conference during the final module. Offered in modules I-XII. Prerequisite: Special arrangement with division. FLD.

MED 990. Geriatric Medicine - Leavenworth Veterans Administration Medical Center. 4 Hours.
The student will function in the role of a sub-intern, with supervised responsibility for management of patients in a special assessment unit for the elderly, a nursing home, and an outpatient clinic. In addition to daily teaching rounds, students will participate in seminars covering physiology of aging, altered presentation of illness in the elderly. Evaluation of the student's performance during the clerkship will be based on faculty's assessment of the student's clinical skills and conference participation. Prerequisite: MED 900. FLD.

MED 995. Dermatology. 4 Hours.
This course is composed of outpatient clinic experience, tutorial sessions utilizing audiovisual aids extensively, and inpatient teaching rounds, as well as frequent review of pertinent aspects of dermatological allergy, microbiology, and histopathology. There will be opportunities to attend special weekly dermatological basic science lectures and grand rounds. Acquired skills in dermatological diagnosis (disease recognition, as well as analytical reasoning, or "problem solving") and in dermatological therapy will be evaluated by such means as oral quizzes and a written examination, but the final appraisal of each student will always be individualized. Offered in modules I-XII. Prerequisite: Medical Basic Sciences. FLD.

MED 996. Research Problems in Dermatology. 4 Hours.
A four-week research elective in which the student undertakes an original investigation in dermatology or participates in an ongoing project, in either case under the direct supervision of a dermatology faculty member. A written report at the end of the module summarizing the student's findings will be required. Modules I-XII, limited to one student per module. Prerequisite: Medical Basic Sciences and by special arrangement with staff. FLD.

MED 998. Advanced Studies in Geriatric Medicine. 4-12 Hours.
An advanced course of one to three months specially arranged for each student to encompass a clinical research project. There will be participation in clinics and consultations as appropriate. Offered in modules I-XII. Prerequisite: MED 900. RSH.

Microbiology, Molecular Genetics, and Immunology

Presentations in bacteriology, virology, immunology, microbial genetics, microbial physiology, and mycology with emphasis on cell biology and pathophysiology of infectious diseases of humans.

MBO 850. Microbiology. 9 Hours.
The course presents microbial physiology and microbial genetics with emphasis on the molecular biology of microorganisms; Immunology with emphasis on the defense mechanism, immune regulation and immunogenetics and selected coverage of etiologic agents of infection in bacteriology, parasitology, mycology, and virology. Lectures, small group conferences and tutorials. (Same as MICR 850.) Prerequisite: ATMY 820, cell and tissue biology, BIOL 800, and PHYS 800. LEC.

MBO 910. Advanced Topics in Microbiology. 4 Hours.
Students will work with individual instructors in directed study or laboratory work. Offered in modules I-VIII. IND.

MBO 911. Research in Microbiology, Molecular Genetics, and Immunology. 3-16 Hours.
Students will participate in research projects supervised by faculty members of the Department. Participants will be expected to conduct an individual research project, compile and interpret data, and communicate results and conclusions in a written or oral form. Student evaluations will be based on the supervisor's assessment of written and/or oral research reports. Offered in modules I-XII. Prerequisite: MBO 850. IND.

Molecular and Integrative Physiology

Chair: Paul Cheney, Ph.D.
The Department of Molecular and Integrative Physiology approaches physiology on many levels, ranging from analysis of integrated body functions of the intact organism to study of the organ at molecular and cellular levels. The student is expected to become competent in examining such diverse physiological problems as analyzing the multiple adjustments to exercise in laboratory animals or humans or analyzing factors influencing the transport of molecules across cell boundaries. Students are encouraged to think in physiological terms, that is, in terms of cause and effect as determined by basic physical and chemical laws.

PHYS 910. Advanced Topics. 1-10 Hours.
Special studies designed and arranged on an individual basis to allow a student to pursue a particular subject through reading, special laboratory work, and conferences with a senior staff member. Offered in modules I-XII. Prerequisite: Medical Basic Sciences. IND.

PHYS 911. Research. 4 Hours.
Original laboratory investigation conducted under the supervision of a senior staff member. Offered in modules I-XII. Prerequisite: Medical Basic Sciences. LAB.

PHYS 912. Fundamentals of Biomedical Imaging. 2-4 Hours.
This is a multidisciplinary course designed to introduce 2nd, 3rd, and 4th year medical students to the fundamentals of existing imaging modalities for anatomy, structure and functioning biomedical sciences. The course will also be offered to Junior and Senior level undergraduate students as well as graduate students from other interdisciplinary areas including engineering, science, biology and biomedicine. Students must be in good academic standing. LEC.

Neurology

Chair: Richard Barohn, M.D.
The Department of Neurology is introduced to medical students in the first year that clinical correlation is offered in connection with the neuroanatomy courses. During the clinical modules, clinical
neurology electives allow students to participate in the management of inpatients and outpatients on the neurological service and in the educational conferences that are part of the neurology department. Conferences include pediatric neurology, neuropathology, and neuroradiology. Students obtain some familiarity with interpretation of electroencephalograms and electromyograms and supervised experience in the evaluation of patients with neurological problems seen in consultation. Students are accepted into these electives only after at least one previous clinical module.

NEUR 931. Neurology Clinical Clerkship--University of Kansas Medical Center. 4 Hours.
The Neurology Section provides clinical experience and exposure to common neurological problems. The department is staffed by one full-time and three part-time neurologists. Students will be assigned to cases which have teaching value. He/She will be expected to carry out a detailed examination of the patients assigned and present them to the staff. The student is expected to take an active part in complete diagnostic evaluations and the management of patients. The main focus will be to develop skills of neurological examinations, interpretation of findings and clinical and anatomic correlation. The student can also take part in specialty clinics such as Movement Disorder, Memory, Cerebrovascular. FLD.

NEUR 932. Clinical Neurology--Veterans Administration Medical Center. 4 Hours.
The student will be assigned patients selected on the basis of their teaching value. He/she will be expected to carry out complete detailed examinations of each patient and assume responsibility for assisting in all phases of the patient’s diagnostic evaluation. Emphasis will be on developing skills in examination, interpretation on findings and neuroanatomic correlation. During this elective, the student will participate actively in all teaching conferences held both at this hospital and at KUMC. In exceptional cases, by prior arrangement and if an opening is available, a student may split time between neurology services at KUMC and the VAMC. Offered in modules I-XII. Prerequisite: One clinical module or permission of instructor. FLD.

NEUR 933. Neurology--Advanced Topics. 4 Hours.
The Neurology Section provides clinical experience and exposure to common neurological problems. The department is staffed by one full-time and three part-time neurologists. Students will be assigned to cases which have teaching value. He/She will be expected to carry out a detailed examination of the patients assigned and present them to the staff. The student is expected to take an active part in complete diagnostic evaluation and the management of patients. The main focus will be to develop skills of neurological examinations, interpretation of findings and clinical and anatomic correlation. The student can also take part in specialty clinics such as Movement Disorder, Memory, Cerebrovascular. Offered in modules I-XII. Prerequisite: NEUR 931 or NEUR 932. FLD.

NEUR 934. Advanced Clinical Neurology--Veterans Administration Medical Center. 4 Hours.
This course will consist of assumption of more responsibility concerning diagnostic formulation and management of the patient with emphasis on clinical neurology. Offered in modules I-XII. Prerequisite: NEUR 931 or NEUR 932. FLD.

NEUR 935. Advanced Clinical Neurology - Veterans Administration Medical Center, Leavenworth. 4 Hours.
The Neurology Section provides clinical experience and exposure to common neurological problems. The department is staffed by one full-time and three part-time neurologists. Students will be assigned to cases which have teaching value. He/She will be expected to carry out a detailed examination of the patients assigned and present them to the staff. The student is expected to take an active part in complete diagnostic evaluation and the management of patients. The main focus will be to develop skills of neurologic examinations, interpretation of findings and clinical and anatomic correlation. The student can also take part in specialty clinics such as Movement Disorder, Memory and/or Cerebrovascular. Offered in modules I-XII. Prerequisite: NEUR 931 or NEUR 932. FLD.

Ophthalmology

Chair: John E. Sulphin, M.D.
The Department of Ophthalmology teaches undergraduates primarily in conjunction with other departments. The goal is to stress the importance of the ocular examination as a part of the complete physical examination and the role of ocular changes in general disease. In addition, all students learn the diagnosis and management of specific ocular problems that any physician should know. An elective is available to the student at any level of training. This experience is a completely flexible, individual program planned with each student. The experience is designed not only for the student interested in ophthalmology but to provide in-depth experience in any aspect of the specialty for the undergraduate student.

OPTH 910. General Ophthalmology. 4 Hours.
The program will be tailored to the interest of the individual student. Students will be given a program in Ophthalmology Outpatient Department and Surgery according to their interest. The student will be given instruction in the use of audio-visual aids in the department and reference readings. All departmental conferences and seminars are open to students. In the Outpatient Clinic the student will be instructed in the use of all special instruments and patient examination. Offered in modules I-VI and IX-XII. Prerequisite: Medical Basic Sciences. FLD.

OPTH 911. General Ophthalmology. 2 Hours.
The student will spend five mornings a week working in the Ophthalmology Outpatient Department and participating in the individual work-up of patients. The number of openings in this course will depend upon the number of students registered for OPTH 910. If OPTH 910 is full there will be no openings in OPTH 911. Offered in modules I-XII. Prerequisite: Medical Basic Sciences. FLD.

OPTH 915. Research Problems in Ophthalmology. 4 Hours.
A 4 week course research elective in which the student has an opportunity to be exposed to vision research methods and to participate in ongoing research projects. In some circumstances this can be the introduction for continued part-time research. A written report will be due describing the project and the student’s participation in the project. Prerequisite: Approval of chairperson and faculty mentor. LEC.

OPTH 916. Ambulatory Specialty Selective in Ophthalmology. 2 Hours.
Terms and abbreviations used in ophthalmology are not routinely used in other areas of medicine nor are they usually taught in year 1 or 2 of medical school. Knowledge of ophthalmic terms will allow better understanding of ophthalmology consults and notes. The student will be able to write more precise consult requests. Ocular anatomy, although taught in basic anatomy, is only reinforced in other areas of medicine at a superficial level. Better understanding of ocular conditions will allow the primary care physician to feel more comfortable treating certain common ocular conditions and know when to make appropriate referrals. LEC.
Otorhinolaryngology
Chair: Daniel Bruegger, M.D., Interim

Diseases of the ear, nose, throat, head, and neck are presented in inpatient and outpatient otorhinolaryngology. The importance of understanding the anatomical structures for comprehension of examination, diagnosis, and treatment is emphasized.

OTOR 910. Clinical Otolaryngology. 2 Hours.
The objectives of this course are to acquaint the students with the examination of the anatomical areas and cavities of the head and neck. Recognition of clinical signs and symptoms peculiar to these areas would be taught with tutorial advice immediately available. To accomplish this objectively and realistically, the student will work in the outpatient clinic with patients and members of the staff. He or she will also participate in evening rounds and in seminars. This course offers the student a basic understanding of disorders of the head and neck region. Offered in modules I-XII. Prerequisite: Medical Basic Sciences. FLD.

OTOR 911. Advanced Otorhinolaryngology. 3-4 Hours.
Through in-service training experiences the student will be taught to assess otolaryngological disorders using advanced and relatively sophisticated techniques. Instruction will be provided on the screening of hearing and in basic principles of acoustics, the vestibular system and psychoacoustics. Instruction will be provided in those areas where the interaction of the otolaryngologist and the general physician can best be utilized to the advantage of the patient. The objectives of this course are to acquaint the student with basic clinical otolaryngology and, in addition, the surgical aspect of the specialty. Participation in the operating room is emphasized along with outpatient and inpatient experience. Offered in modules I-XII. Prerequisite: Medical Basic Sciences. FLD.

OTOR 915. Research Problems in Otorhinolaryngology. 4 Hours.
One or more modules that provide the interested student with laboratory or clinical research experience necessary for investigation of research problems related to otorhinolaryngology. The student may pursue an independent research problem or participate in a project currently under investigation by a staff member. In either case, a faculty mentor must be identified. All projects must be reviewed and approved by the mentor at least one month in advance of the intended start date. Students will be required to submit a written report at the conclusion of the module. One objective of this course will be to generate data suitable for publication or presentation at the Student Research Forum. Prerequisite: Special arrangement with faculty mentor. LEC.

OTOR 916. Ambulatory Specialties Selective in Otolaryngology. 2 Hours.
The objectives of this two week selective course will be to expose the fourth year medical student to clinical and surgical aspects of otolaryngology head and neck surgery. This will be done in the form of three projects. The first project will consist of a pre test examination. These questions will be open-ended and will consist of 75 to 100 questions in which the student is expected to find the answer over the two week rotation. At the end of the two weeks the student will be given a set of 25 questions from the bank of 100 to be tested over. The second project will consist of a list of skills and procedures to be observed. The student will be asked to have this checked off by either a staff member of Otolaryngology, or an Otolaryngology resident. The third project will consist of time spent learning aspects of otolaryngology head and neck examination using a CD-ROM computer program generated by the Academy of Otolaryngology Head and Neck Surgery directed for primary care training. LEC.

Pathology and Laboratory Medicine
Chair: Lowell Tilzer, M.D., Ph.D.

Pathologists play many roles in medicine, from interpreting surgical biopsies to supervising clinical laboratory testing. It has been estimated that 70% of all medical decisions are based on data generated by pathology departments. The department of Pathology and Laboratory Medicine at KUMC plays an integral role in the core curriculum and also offers elective courses to medical students interested in learning more about laboratory practice. Students in elective rotations participate in daily teaching conferences and specimen “sign-out” at the University of Kansas Hospital. They receive hands-on exposure to pathology technical methodology in the surgical pathology suite, microbiology laboratory, and cyto genetics laboratory.

PAON 920. Introduction to Molecular Medicine. 2 Hours.
Introduction to Molecular Medicine is a two semester course for first year MD-PhD students taught by the Director of the MD-PhD Program, with other faculty from the basic science and clinical departments. Through lectures, small group discussion, evaluation of primary literature, and presentations/discussions with current KUMC faculty, students will be introduced to the process of investigating the molecular and cellular derangements that underlie human disease. Order of topics mirror, to some extent, the subjects of first-year modules. There will be particular emphasis on the diverse research methods and models used to investigate the molecular basis of disease and understanding how such investigations can be translated to answer clinically relevant questions. Students are evaluated by both group activity and individual preparation and participation. Prerequisites: Enrollment in the MD-PhD Program. LEC.

PAON 921. Diagnostic Pathology. 4 Hours.
The elective provides an overview of hospital-based pathology practice. It consists of a two-week rotation in the anatomic pathology core (surgical pathology, cytology and autopsy), a one-week rotation in hematopathology and a one-week rotation in microbiology/cytogenetics. Students in the anatomic pathology core will have the opportunity for supervised prosecution of surgical specimens, participation in the “sign-out” of surgical and cytology samples with the attending staff, and participation in autopsy if available. Students in hematopathology will participate in the daily sign-out of bone marrow biopsy specimens. The focus in this segment of the rotation is on the diagnosis of blood and bone marrow disorders such as leukemia. The focus in microbiology/cytogenetics will afford the student the opportunity to perform his/her own karyotype and learn about the diagnosis of infectious diseases by appropriate culture techniques. Students are active participants in their learning via required pre-test, post-test, assigned readings, and PowerPoint case presentation at the end of the rotation. Final grade is based on exam score (25%), case presentation (25%), and staff assessment of performance during the rotation (50%). Prerequisites: Completion of core clinical clerkships. LEC.

PAON 922. Special Topics in Pathology. 4 Hours.
This rotation affords the student the opportunity to spend four weeks focused on a particular subspecialty of pathology or a pathology-based research elective. The department has subspecialists in dermatopathology, neuropathology, renal pathology, breast and hepatic pathology. The rotation consists of daily interpretation of subspecialty biopsies, participation in subspecialty conferences, slide set study, and assigned readings. Students participate in their own learning by setting their rotation objectives with faculty at the start of their elective and following through with a schedule of clinical, laboratory and core lecture...
conferences. Students will need to obtain the appropriate staff members’ permission for the rotation as follows: dermatopathology (Garth Fraga); neuropathology (Kathy Newell); renal pathiology (Timothy Fields); breast pathology (Fang Fan); hepatic pathology (Maura O’Neil). Prerequisites: Completion of the core clinical clerkships and permission of the faculty. LEC.

Pediatrics

Chair: Chet Johnson, M.D.

The Department of Pediatrics gives the student a comprehensive exposure to primary care and subspecialty pediatrics. The experience ranges from exposure to a sick newborn to care of an adolescent patient. Inpatient and outpatient services are available. Student participation includes history-taking and examination of pediatric patients, making daily ward rounds with the staff physician, and rotation through general and subspecialty outpatient clinics and the full-term nursery. Electives are available in the Children’s Rehabilitation Unit, Behavioral Pediatrics, and all other subspecialties in pediatrics. Research electives are also available with department faculty members.

PED 915. Pediatric Cardiology. 4 Hours.
Inpatient and outpatient clinical experience in children with cardiac disease will be provided. Daily pediatric cardiology ward rounds are conducted by the senior staff. Active participation in the pediatric cardiology clinics each week highlight the outpatient experience. Personal instruction will be given in cardiac physical diagnosis with stress on cardiovascular hemodynamics, evaluation of heart sounds and murmurs, electrocardiograms, and cardiac radiology. Significant responsibility in patient management will be delegated to the student who will function as a member of the pediatric cardiology team. The student will attend the various pediatric cardiology conferences and will follow children through the cardiac catheterization laboratory and the operative procedures. Opportunity will be available for participation in clinical investigative projects if the student so desires. Teaching conferences, seminar, and patient rounds will be made on the scheduled basis by a member of the senior pediatric cardiology staff. Offered in modules I-XII. Prerequisite: PED 900, FLD.

PED 916. Pediatric Subinternship Selective-Inpatient/Outpatient-Distant Site. 4 Hours.
This selective is an extension of the basic pediatric clerkship. It is designed to permit senior medical students to take increasing responsibility of patient care and management by active participation in the daily activities of a private pediatric practice. This selective is entirely clinical. The student will work with clinical faculty at a distant site. Most of the experience will likely be in an outpatient setting with some inpatient experience. Student performance will be evaluated by the faculty based on factual knowledge, practical skills, problem-solving abilities and personal behavior and values. Offered in all modules if sites are available. Prerequisite: PED 900 or equivalent and permission of the Pediatric Clerkship Director. LEC.

PED 917. Pediatric Hematology-Oncology. 4 Hours.
This course will include involvement in the diagnosis and care of children with hematologic and oncologic diseases. The student will be involved directly with these patients under the supervision of the pediatric hematology fellows. During this time, he or she should become conversant with the general area of pediatric hematology and be trained in the diagnostic procedures including bone marrow examination and other routine and special procedures used in this subspecialty area. The special emphasis placed on the psychological aspects of these diseases for the child and the family will be part of the training experience. The complications that commonly occur in patients on chemotherapy make these patients particularly appropriate for a broad experience. Offered in Modules I-XII. Prerequisite: PED 900. FLD.

PED 919. Developmental and Behavioral Pediatrics Elective. 4 Hours.
This course is designed to provide students with an in-depth understanding of children and their families. Students will learn about normal and atypical child development, behavioral and emotional problems commonly seen in Pediatrics (e.g., ADHD, depression, anxiety, oppositional behavior), and helping children cope with acute and chronic illnesses. Students will observe/participate in outpatient clinics in the Developmental Disabilities Center and Behavioral Pediatrics section (e.g., autism assessment, developmental medicine, telemedicine, feeding team, and behavioral pediatrics clinic), as well as in medical inpatient consultations. Within the curriculum there is ample opportunity to pursue individual interests related to children with developmental and behavioral problems. Expected to be offered in most Modules. One student per module. Prerequisite: PED 900 and permission of instructor. FLD.

PED 920. Pediatric Subinternship Selective-Inpatient. 4 Hours.
Students will participate in the evaluation and management of children with infectious diseases. Laboratory aspects of infectious diseases will be emphasized. Students will attend teaching conferences and seminars on various aspects of infectious diseases. Offered in modules I-XII. Prerequisite: PED 900 and permission of instructor. FLD.

PED 921. Pediatric Neurology. 4 Hours.
This module will serve to acquaint the student with the wide spectrum of neurological diseases of infancy, childhood, and adolescence. The student will become familiar with the neurological examination of the newborn, as well as assessment of the infant and child. During the elective rotation the student will become actively involved in the diagnosis and treatment of seizure disorders. The student will be exposed to routine laboratory procedures, such as lumbar puncture, EEG and brain scan, as well as special procedures, such as arteriography and pneumoencephalography. The student will be supervised by pediatric residents rotating through the pediatric neurology service and by staff physicians throughout all aspects of the module. Offered in modules I-XII. Prerequisite: PED 900. FLD.

PED 922. Pediatric Gastroenterology. 4 Hours.
The Pediatric Gastroenterology course will provide exposure to diseases of the gastrointestinal tract, liver and pancreas in infants and children. The student will obtain histories, physicals, and present cases on all Pediatric Gastrointestinal clinic and in-patients brought in for consultations. During endoscopy, motility, and biopsy of the small bowel and liver, the student will learn the indications and technique as applies to patients they have worked up. Each student will be required to present a 30-45 minute paper on a specific Pediatric Gastrointestinal subject at the end of the course. Evaluation for the course will be based on assessment of performance of patient care and oral presentation and knowledge of literature. Prerequisite: Completion of third year. LEC.

PED 923. Developmental or Behavioral Pediatrics Elective. 2 Hours.
This 2-week course is designed to provide students with a streamlined introductions to childhood developmental, emotional, and behavioral problems. Students will also learn about normal and atypical child development. Students participate in outpatient clinics, telemedicine, and medical inpatient consultations with faculty from developmental pediatrics, psychology, speech-language, physical therapy, and occupational therapy. Expected to be offered in most Modules. One student per module. Prerequisite: PED 900 and permission of instructor. CLN.
PED 924. Pulmonology. 4 Hours.
Students will participate in the evaluation and management of infants, children, and adolescents with chronic and acute pulmonary diseases in the out-patient setting as well as performing in-patient consultations. The students will be involved directly with these patients under the supervision of the pediatric pulmonology faculty. CLN.

PED 925. Research in Pediatrics. 4-8 Hours.
Students will work on research programs arranged between them and the instructor. The purpose of the elective is to provide the student an opportunity to become familiar with clinical research involving children and pediatric problems, and to learn about research protocols and methods. Available areas of research include the newborn, cardiology, hematology, allergy, nephrology, neurology, endocrinology, infectious disease. Offered in modules I-XII. Prerequisite: Permission of instructor. IND.

PED 927. Pediatric Endocrinology and Metabolism. 4 Hours.
Students will participate in the diagnosis and management of pediatric-age patients with endocrine-metabolic problems. Emphasis is placed on the clinical problems that are unique to pediatric-age patients such as puberty, abnormalities of growth, and juvenile diabetes mellitus. Students are encouraged to become involved in patient management by participating in rounds, clinic, conferences, consultative evaluation and care of the inpatients, and other functions of the endocrinology-metabolism staff. Offered in modules I-XII. Prerequisite: PED 900. FLD.

PED 929. Allergy, Immunology, and Rheumatology. 4 Hours.
The Pediatric Immunology course will provide exposure to children with allergies, asthma, immunodeficiencies, autoimmune disease and arthritis. The approach to children with these disorders and the management of children with multisystem disease and chronic disease are emphasized. Students will be involved in the clinic and with consultations. The students will have exposure to ongoing research in these areas and will attend teaching conferences. Offered in modules I-XII. Prerequisite: PED 900. FLD.

PED 931. Nephrology. 4 Hours.
Students will participate in the evaluation and management of children with urinary tract diseases and fluid and electrolyte disorders. This elective will give the students the opportunity to develop clinical skills in assessing a child's hydration status and in assessing the effect of the child's kidney disease or metabolic disorder on other organ systems. Students will also have the opportunity to review radiologic imaging studies of the urinary tract, to perform urinalyses, and to participate in the care of patients who require acute hemodialysis, peritoneal dialysis, or continuous arterio-venous hemofiltration. Prerequisite: PED 900. FLD.

PMED 910. Special Topics in Community Health. 4 Hours.
Independent study of community health issues and their implications for or impact on the health of society. Examples include infectious disease control, immunization programs, nutrition, air pollution, over-population, wellness, health promotion and life-style change programs, cancer epidemiology, care of disabled persons, mental health programs, the terminally ill or the elderly, poverty, sports, physical fitness programs, etc. Specific content will be defined primarily by interest, background, and wishes of the student. Emphasis will be placed on the methodology used in gaining information and the means by which a health professional can translate and channel such information effectively into educational processes of the community. Prerequisite: Permission of instructor. IND.

PMED 922. Advanced Selected Topics. 4 Hours.
Special studies tailored to the interests of students wishing to further their training in one or more areas concerning clinical medicine, environmental health or delivery of health care. Epidemiologic evaluation of a disease or health related problem is encouraged. This sequence will include readings, clinical studies, and field work when appropriate, guided by frequent conferences with an advisor. The objectives of the individual student will be dissected and declared at the initiation of the sequence and the attainment measured through a terminal seminar for elective credit or brief paper designed to fulfill the communication requirement. Prerequisite: Permission of instructor. IND.

PMED 925. Public Health Experience--Kansas City, Missouri, Health Department. 4-8 Hours.
Opportunities will be presented for students to work with a state or local health department either in studying public health problems in the community (e.g. teenage pregnancy, VC, lead poisoning) or through participation to health services under the supervision of the staff. Specific
assignments will be developed individually for each student, who will meet with the instructor once per week and present a seminar at the conclusion of this experience. IND.

**P MED 950. International Health Experience. 4-8 Hours.**
Within this elective are presented opportunities for the student to gain clinical and community health experiences in an international setting. The country selected is to be rearranged by the student with the assistance of faculty. Two modules are recommended for this elective. Prerequisite: Permission of instructor. LEC.

**P MED 956. Special Experiences--Environmental/Occupational Health. 4 Hours.**
Placements will be made to provide clinical or field experiences to study the health effects of both air and water pollution and environmental hazards as these relate to occupation. Arrangements will be made with local, state, or federal agencies (e.g., the Environmental Protection Agency or the Occupational Safety and Health Administration), private clinics, hospitals, industries, unions, or other organizations. Specific assignments will be developed individually for each student, who will meet with the instructor once per week and present a seminar at the conclusion of this experience. Offered in modules I-XII. Prerequisite: Permission of instructor. LEC.

**P MED 970. Principles of Epidemiology. 2 Hours.**
Basic concepts of epidemiology and methods for identification of factors influencing health and disease in human populations. Considerations are centered on physical, biological, psychosocial and cultural factors in relation to infectious and non-infectious diseases; interactions between agent, host, and environmental factors as determinants of health and disease; application of the epidemiologic approach to health services; retrospective and prospective analysis of morbidity and mortality data. LEC.

**Psychiatry**

Chair: William F. Gabrielli Jr., M.D., Ph.D.

Through participation of the Department of Psychiatry in the interdisciplinary clinical process course, first-year students are introduced via formal presentations and follow-up small-group discussions to the following relevant topics: the medical interview; the disturbed family; death, dying and loss; childhood growth and development; human sexuality; aging; addiction; anxiety; depression; and psychosis. Clinical training includes supervised experience in the treatment of hospitalized patients and clinic outpatients, using chemotherapy, other somatic treatments, interview techniques demonstrated in regularly held seminars using videotaped case material, and in weekly case conferences. The clerkship offers a thorough didactic review of such topics as psychopharmacology, child development and psychopathology, all major psychiatric syndromes, drug abuse and alcoholism, human sexuality and sexual dysfunction, and consultative psychiatric services.

**PYCH 911. Child Psychiatry. 4 Hours.**
Normal and abnormal growth and development. Clinical assessment of children and early adolescents. Interview and play therapy. Family counseling. Group work with parents. Offered in modules I-XII. Prerequisite: PYCH 955. FLD.

**PYCH 912. Emergency Psychiatry. 4 Hours.**
Exposure to patients with acute psychiatric disturbances. Students will learn how to assess psychiatric emergencies and provide initial treatment. The course involves exposure to community resources, multidisciplinary treatment and interaction with law enforcement and the court system. Clinical experience working with physicians caring for patients in the Emergency Department. Readings in emergency patient care and discussions with the attending physician are part of the course. Patient contact with patients in the Crisis Stabilization Center of the Emergency Department. Prerequisite: PYCH 955. LEC.

**PYCH 913. Ambulatory Psychiatry. 4 Hours.**
This course involves exposure to patients followed in an ambulatory psychiatry setting. Students will have the opportunity to learn to evaluate and manage a cross section of patients with psychiatric complaints. Clinical evaluations and exposure to actual patients. Students will first observe and later lead evaluation of patients and formulate treatment plans with attending physicians. Readings in ambulatory patient care and diagnosis interviewing are a part of the course. Patients will be ambulatory clinic patients at the KUMC outpatient clinic, the Kansas City-VA Hospital Mental Hygiene Clinic, a facility clinic location, or the community mental health centers. Prerequisite: PYCH 955. LEC.

**PYCH 914. Psychiatry in Medicine and Surgery. 4 Hours.**
Experience with psychiatric consultations to the medicine and surgery services. Evaluation of psychiatric problems in medical and surgical inpatients. Students will demonstrate effective interview technique and explain the basis for diagnosis and management. Supervisors will evaluate clinical skills. Offered in modules I-XII. Prerequisite: PYCH 955. FLD.

**PYCH 915. Psychiatry in Pediatrics. 4 Hours.**
Experience with psychiatric consultations to the pediatric services. Evaluation of psychiatric problems in pediatric inpatients and outpatients. Students will demonstrate effective interview technique and explain the basis for diagnosis and management. Faculty supervisors will evaluate clinical skills. Offered in modules I-XII. Prerequisite: PYCH 955. FLD.

**PYCH 916. Introduction to Psychotherapy. 4 Hours.**
The student will observe and participate in individual and group psychotherapy sessions in outpatient as well as inpatient settings. Child and adolescent patients as well as adult patients will be involved. These psychotherapy experiences will include: 1) Inpatient group psychotherapy for adult patients with an affective disorder 2) Inpatient group psychotherapy for adult patients with a substance use disorder 3) Inpatient group psychotherapy with acting-out adolescents 4) Family psychotherapy with parents of psychiatric child inpatients 5) Outpatient adult group psychotherapy with patients suffering from panic disorder 6) Outpatient adult group psychotherapy with patients suffering from a schizoaffective disorder 7) Outpatient adult individual cognitive therapy in a family practice setting 8) Outpatient adult interpersonal psychotherapy with less psychiatrically ill patients 9) Outpatient individual diagnosis specific psychotherapy. In addition, the student will provide brief, problem-focused individual psychotherapy three times weekly to at least one patient hospitalized on the adult inpatient service under the immediate supervision of Dr. Elizabeth C. Penick that will include a review of audiotaped psychotherapy sessions. The student will be provided a list of readings which he will discuss on a weekly basis with Dr. Penick. At the completion of the program, the student will have received a broad comprehensive introduction to the more commonly used approaches to psychotherapy. LEC.

**PYCH 918. Inpatient Psychiatry. 4 Hours.**
Advanced full-time experience in hospital treatment. Includes training in individual and milieu therapy, chemotherapy, etc. The student will function as a first-year resident insofar as the student is able to assume the required responsibilities of that position. Students electing this module will be evaluated by faculty supervisors on the basis of their clinical performance and the growth of their fund of psychiatric knowledge during the module. Offered in modules I-XII. Prerequisite: PYCH 955. FLD.
PYCH 919. Continuation of Inpatient Psychiatry. 4 Hours.
Students electing this module will be evaluated by faculty supervisors on the basis of their clinical performance and the growth of their fund of psychiatric knowledge during the module. Offered in modules I-XII. Prerequisite: PYCH 900 and PYCH 918. FLD.

PYCH 920. Research in Psychiatry. 4 Hours.
An approved psychiatric research project in an area of special interest to the student may be undertaken with the individual supervision of a faculty member within the sphere of whose own professional interests the student’s topic of study lies. This elective experience will include the writing of a paper or presentation of a seminar reporting on the student’s investigation and findings. Offered in modules I-XII. Prerequisite: PYCH 900. IND.

Radiation Oncology
Chair: Parvesh Kumar, M.D.

Students are introduced to the diagnosis, staging, and management of patients with cancer. The rationale and techniques of radiation therapy are emphasized.

RADO 910. Research in Radiation Oncology. 4 Hours.
The student will engage in original research in an aspect of Radiation Oncology: clinical radiation therapy, radiation biology, or radiation physics. The exact area will depend upon the background and interest of the student, and the availability of an appropriate faculty mentor. In consultation with faculty, the student will develop a research project addressing a topic in Radiation Oncology. The student will then perform the indicated research project. At the conclusion of the project, the student will prepare a document describing the research and the findings, and will present a research seminar to the department. Student achievement will be evaluated by three endpoints. There will be a faculty assessment of the conduct of the student during the project period. Secondly, the manuscript produced by the student will be evaluated as an indication of the student’s accomplishments. Finally, the student will be evaluated by his or her performance during the research seminar and/or other scheduled presentations of the results. Prerequisite: Permission of instructor. LEC.

RADO 912. Radiation Oncology. 4 Hours.
Students will see consultations, follow up patients and on-treatment patients along with the staff. They will participate along with the faculty in simulation of patients, surgical procedures, brachytherapy procedures and other procedures that require physician participation. Students will attend conferences in radiotherapy, radiobiology, radiation physics and treatment planning conferences. They will attend site-specific multi-disciplinary and general multi-disciplinary conferences and present cases if required of these conferences. Students will be required at the end of their rotation to present to faculty, residents and staff in the department a topic in depth that involves radiation as a treatment modality. Students will be evaluated by their performance and conduct during their rotation with the faculty and by the quality of their presentation toward the end of the rotation. Offered in Modules I-XII. Prerequisite: Medical Basic Sciences and permission of instructor. FLD.

Rehabilitation Medicine
Chair: Raj Mita, M.D.

Rehabilitation medicine is concerned with the evaluation and treatment of physical impairment and disability. It is an interdisciplinary field where the physiatrist (rehabilitation physician specialist) works with a team of health professionals (rehabilitation psychologists, physical therapists, occupational therapists, speech therapists) to develop and manage individualized treatment plans to maximize the functional recovery of the disabled individual following a catastrophic illness or injury. Rehabilitation embodies the concept of adding quality to longevity, and emphasizes a holistic approach to the patient with respect to psychological, social, vocational, and avocational adaptation to disability. Students interested in experiencing first hand the interdisciplinary approach learn which patients can benefit from rehabilitation and have the opportunity to participate in patient evaluation and team management of appropriate inpatients and outpatients on a regular basis. Students who desire this type of experience find the skills and knowledge thus gained useful in many aspects of medical practice. First-year students may participate in patient evaluation and clinical discussions of patients in this department as part of the clinical process.

REHB 910. Clerkship in Rehabilitation Medicine. 4 Hours.
The student will have the opportunity to participate in the traditional evaluation and management of disease and disability as well as being oriented toward the impaired performance of function as a result of these conditions. The student will obtain histories from and perform physical examinations on inpatients with particular emphasis on evaluation of function, e.g., neurologic, kinesiologic and self-care function. He/she will be involved in the analysis and management of musculoskeletal disorders common to many situations encountered in internal medicine, family practice, neurology, psychiatry, orthopedic surgery, and neurosurgery. In addition, the student will demonstrate an understanding of methods for function restoration. Evaluation in the course will be based upon at least five (5) case work ups in which the student will present his/her evaluation of function and make recommendations regarding restoration of function. The team approach to the management of these cases will be emphasized. Offered in modules I-XII. Prerequisite: Medical Basic Sciences; 1 required clinical clerkship. FLD.

Surgery
Chair: Romano Delcore, M.D., M.B.A., F.A.C.S., Interim

The Department of Surgery offers an introduction to surgical diseases as part of the required medical science course, Junior Surgery Clerkship. After successful completion of this phase of education, electives are offered in the surgical specialties and other surgical disciplines. These courses offer more specific and in-depth exposure than the basic core course.

SURG 911. Clinical Clerkship in General Surgery--Veterans Administration Medical Center. 4 Hours.
This is a clerkship at VA Medical Center (Kansas City or Leavenworth) in which the basic principals of patient evaluation and care are emphasized. Students practice the skills of history taking, physical examination, diagnostic procedures and of direct observation of the pathologic processes in assigned patients in the clinic, wards and operating room. Students participate in appropriate surgical and multidisciplinary conferences in which clinical problems are related to basic sciences and in which the expectations and the limitations of surgical treatment are discussed in clinical situations. Evaluation is based on clinical performance. Offered in Modules I-XII. Prerequisite: SURG 900 FLD.

SURG 913. Clinical Clerkship in Plastic Surgery. 4 Hours.
The medical student participates as an intern, functioning in the clinics, wards and operating room as an integral part of the service. Evaluation is based on clinical performance. Offered in Modules I-XII. Prerequisite: SURG 900. FLD.
SURG 914. Clinical Clerkship in Orthopedic Surgery. 4 Hours.
The principles of orthopedic evaluation and care are emphasized.
Responsibility is to function as an extern in the clinics, wards and the
operating room. Evaluation is based on clinical performance. Offered in
Modules I-XII. Prerequisite: SURG 900. FLD.

SURG 916. Surgical Oncology. 4 Hours.
This rotation for medical students at a clinical level is designed to expose
the student to procedures and techniques of modern surgical oncology.
This experience includes: (1) Seeing all surgical oncology inpatient and
outpatient consultations with the staff, (2) Operating room observation
and participation with major cancer ablative procedures; e.g., radical
lymphadenectomies, pelvic exenteration, major organ resections etc.,
(3) Clinical and laboratory exposure to immunotherapy and basic cancer
immunology, (4) Exposure to special chemotherapeutic procedures; e.g.,
arterial infusion and perfusion, (5) Attendance at the combined medical
surgical conference. The specific duties for each individual student is
defined at the beginning of each module and will be changed to fit the
specific needs and desires of each student. Evaluation is based on clinical
performance. Offered in Modules I-XII. Prerequisite: SURG 900. FLD.

SURG 917. Clinical Clerkship in Urologic Surgery. 4 Hours.
This course is limited to one medical student at a time who has completed
the Basic Surgery Clerkship, Surgery 900. Experience consists of
care and evaluation of outpatients and inpatients requiring urologic
diagnosis. Tutorial instruction and conferences are the prevalent means
of instruction. Evaluation is based on clinical performance. Offered in
modules I-XII. Prerequisite: SURG 900. FLD.

SURG 918. Clinical Clerkship in Neurologic Surgery. 4 Hours.
The principles of patient care and the physiological basis of neurological
diagnosis are stressed. Experience consists of care and evaluation of
outpatients and inpatients requiring neurosurgical diagnosis and
treatment. Evaluation is based on clinical performance. Offered in
modules I-XII. Prerequisite: SURG 900. FLD.

SURG 921. Special Surgical Elective. 4 Hours.
Special clerkships or assignments not included in other elective courses
which may be prearranged with and must be approved by the Course
Director, Surgery 900, the Education Council, and the Department of
Surgery. Evaluation is based on performance as determined by the
sponsoring faculty member. Offered in Modules I-XII. Prerequisite: SURG
900 and by special arrangement with the section chief. FLD.

SURG 923. Care of Critically Ill Surgical Patient. 4 Hours.
The basic purpose of this clerkship is to provide the student with an
opportunity to observe the management of the critically ill surgical patient.
A physiological approach to the management of the surgical patient with
shock, sepsis, renal failure, respiratory and cardiac failure is stressed.
The student participates in the management and care of critically ill patients
by assisting in the interpretation of physical the laboratory findings and
proposing management responses to these findings. The student is
encouraged to participate in ongoing clinical studies. An adjacent fully
equipped laboratory is available for student use. Evaluation will be based
upon clinical performance. Offered in Modules I-XII. FLD.

SURG 925. Ambulatory Specialties Selective in Urological Surgery. 2
Hours.
To optimize the health of men, women, and children, physicians must be
able to diagnose, manage, and provide preventive advise concerning a
wide range of conditions and symptoms pertaining to the genitourinary
tract. The process depends on adequate patient assessment and
appreciation of the epidemiology and pathophysiology of individual
conditions, and the appropriate use of medical, surgical, and other
interventions. Students will be on service in two week blocks. During that
time they will participate in the following activities: Observe procedures
in-patient and out-patient, out-patient experience at KUMC at the KC-VA,
tutorial sessions, conferences, and in-patient rounds. LEC.

SURG 926. Musculoskeletal Medicine. 4 Hours.
Clinical experience in the evaluation of common orthopedic disorders
such as osteoarthritis, osteoporosis, sports injuries, and fractures;
students will be involved in out-patient orthopedic clinics, orthopedic
clinical conferences, and a directed, individualized study program.
Prerequisite: All clinical rotations. CLN.

SURG 930. Orthopedic Advanced Clerkship. 4 Hours.
The principles of orthopedic evaluation and treatment are emphasized,
through participation in the clinics, in-patient wards, and operating
room. In addition, the student will learn relevant anatomy and surgical
approaches by functioning as a prosector in the anatomy laboratory.
Evaluation is based on clinical performance and participation in the
dissections. Prerequisite: Surgery 900 CLN.

SURG 931. Rural Orthopedic Rotation. 4 Hours.
A rural orthopedic rotation in Garden City, Kansas. Students enrolled in
this orthopedic rotation can expect to receive room and board from St.
Catherine Hospital. The student will be expected to conduct themselves
appropriately in a professional office. The student would be expected
to conform to the dress code of the office. The educational experience
involves a clinical and surgical experience of general orthopedic practice
with an emphasis on joint replacement, sports medicine, and hand
surgery. The student could be expected to see patients with the attending
physician in the office. The patient would be expected to participate in
emergency room evaluations of orthopedic patients. The student would
be expected to participate in the operating room with the attending
physician. The scope of instruction would include musculoskeletal
examination, instruction on the pathophysiology of musculoskeletal
disease. A comprehensive written and video library is available for the
student’s use to aid in their education. The student can expect to learn
aspects about radiology interpretation of musculoskeletal pathology. The
student may also get experience with rehabilitation. The student will have
an exposure to issues pertaining to worker’s compensation including the
opportunity to observe at depositions. Prerequisite: This course is
appropriate for third and fourth year medical students with an interest in
learning musculoskeletal diagnosis and treatment. CLN.

Wichita Clinical Required Courses

Third Year Requirements

FCMD 950. Family Medicine Clerkship. 8 Hours.
Students are introduced to the principles and practice of family medicine.
They spend the majority of their time participating in the practice of
a private family physician where they evaluate patients under direct
supervision and recommend management. This practice experience is
enhanced by case-based seminars and skills-based workshops with
faculty and hospital call with family medicine residents. Evaluation is
based on assessment by clinical supervisors, projects, a departmental
exam, and the NBME Family Medicine Subject Exam. Prerequisites: Basic
Sciences. CLN.

GERI 950. Geriatric Medicine Clerkship. 4 Hours.
This clerkship is designed to prepare students for delivery of medical
care in the geriatrics setting. It is jointly sponsored by the Department of
Family Community Medicine and the Department of Internal Medicine.
Students spend the majority of their time in the outpatient office of
a practicing internist of family physician where they participate as a
member of the healthcare team. To introduce students to multi-disciplinary
approaches to care, they visit a variety of agencies including nursing
homes, hospice, wound care clinic, and community support agencies. These clinical experiences are augmented by web-based modules on geriatric topics, seminars on common and important medical topics and workshops. Evaluation is based on assessment of clinical performance, seminar participation, assignments and a departmental written exam. Prerequisites: Medical Basic Science. CLN.

ICM 975. Issues in Clinical Medicine. 0 Hours.
This course is designed to promote the development of professional responsibility and medical ethics. Incorporated into the topics are medical ethical theory, skills of ethical decision making and recognizing personal and professional responsibilities and value identification. The one-hour sessions are held twice a month. All third year medical students are required to attend. Prerequisite: Medical Basic Sciences. LEC.

INMD 975. Internal Medicine Clerkship. 8 Hours.
Students are assigned two four-week blocks on university general medicine services. Students are expected to acquire basic clinical skills in medicine: interview and examine patients, complete databases and clinical problem assessments, write progress notes and give bedside presentations on daily rounds, and demonstrate accountability for ward duties and patient data. Rounds with visiting professors, KUSM-W Grand Rounds, and medicine case conferences supplement regularly scheduled tutorial sessions and daily ward rounds. Students receive instruction in basic skills, i.e., ECG, chest X-ray, blood count, body chemistry interpretation. Grades are based on ward work, critical case summaries, and bedside practical exam (both pass/fail), and National Board subject examination scores. Prerequisite: Medical Basic Sciences. CLN.

NROL 950. Neurology Clerkship. 4 Hours.
The required four-week Neurology clerkship is intended to familiarize students with the diagnosis and treatment of major neurological disorders. Effective interviewing and diagnostic skills, and competent performance of the neurological examination are emphasized. Students have an active closely supervised role in the diagnosis and treatment of both hospitalized and ambulatory patients. Clinical experience is accompanied by a didactic schedule of lectures, seminars, and practical-interactive learning sessions. CLN.

OBGN 975. Obstetrics/Gynecology. 6 Hours.
During the clinical clerkship the student develops understanding of disease in women through history, physical examination, and laboratory studies. The clerkship includes study of biochemical, anatomical, and physiological changes of normal pregnancy, and the effect of disease in altering the course of reproduction. Prerequisite: Medical Basic Sciences. CLN.

PDRC 975. Pediatrics. 6 Hours.
The student will spend approximately 60 percent of the time on pediatric wards taking pediatric medical histories, physical examination of children and infants and making ward rounds with attendings and house staff. Approximately 40 percent of the student’s time will be spent in ambulatory pediatrics in general specialty clinics and in the offices of practicing pediatricians. Time will be spent in the newborn nursery. Prerequisite: Medical Basic Sciences. CLN.

PSGR 950. Psychiatry Clerkship. 4 Hours.
The required four-week basic Psychiatry Clerkship is intended to familiarize students with the diagnosis and treatment of major psychiatric disorders. Effective interviewing and diagnostic skills, and competent performance of the mental status examination is emphasized. Students have an active closely supervised role in the diagnosis and treatment of both hospitalized and ambulatory patients. Clinical experience is accompanied by a didactic schedule of lectures, seminars, and practical-interactive learning sessions. Prerequisites: Basic Sciences. CLN.

SGRY 975. Junior Surgery. 8 Hours.
This course offers the student an introduction to the surgical management of disease. Students are assigned to one of the several surgical services, where they participate fully in diagnosis, operation, and management of patients with a wide range of surgical diseases. Clinical conferences, seminars, ward rounds, and case studies supplement the clinical experience. Students participate directly in patient care on the ward, as well as in the outpatient department and operating room. Emphasis is placed on the understanding of alterations in physiology secondary to trauma, management of fluids and electrolytes, basic elements of pre- and post-operative care, and understanding diseases amenable to surgical treatment. Prerequisite: Medical Basic Sciences. CLN.

Fourth Year Requirements

PVMD 975. Population Health in Practice. 4 Hours.
This required clerkship is designed to instruct fourth-year medical students about population-based approaches to health care and to facilitate the application of epidemiologic principles to clinical decision making. Using some of the basic concepts described under the auspices of community oriented primary care, students will learn how to define specific populations, ascertain their health care needs, formulate interventions to meet those needs and evaluate the impact of those interventions. These concepts will be developed and reinforced as the student moves through a series of modules designed to provide learning opportunities about health services organization and delivery, community dimensions of medical practice, occupational and environmental medicine, health care finance, access to medical care, and quality of medical care. These modules will include didactic teachings supplemented by course reading material and workshops that involve case studies and site visits. This clerkship will allow the student to examine what it means for a physician to be part of a community and to explore the role that the community plays in the health of an individual. Prerequisite: Completion of third-year medical school curriculum. CLN.

Rural Preceptorship (4)
A preceptorship of four weeks with a practicing physician in the state of Kansas is required for graduation. Students select one of the following options to fulfill the requirement.

RLMD 976. Rural Preceptorship: Family Medicine. 4 Hours.
The student participates in the practice of a family physician in the state of Kansas. In addition, the student is asked to participate in the life of the rural community and explore the various roles a physician plays in the community. At the end of the Rural Preceptorship, the student will be able to describe the challenges and rewards of rural practice. Evaluation consists of clinical performance as assessed by the rural preceptor, and completion of a small project during the Rural Preceptorship. CLN.

RLMD 977. Rural Medicine in Internal Medicine. 4 Hours.
Rural Medicine in Internal Medicine is a four week clinical rotation during which each student works with a practicing Internal Medicine physician in the state of Kansas. Student will experience a one-to-one teaching/learning relationship in a private office (i.e., non-institutional) setting and will be exposed to both professional and non-professional aspects of the preceptor’s family and social life in a non-tertiary care community environment. The student will perform a history and physical examination on each patient and will be responsible for writing daily progress notes on each assigned patient. Student will formulate diagnostic treatment and educational plans on each patient. The student will write orders after reviewing plans with attending physician. The student will also see patients in the emergency room and present them to the attending
physician. The student will be involved in all procedures, such as treadmills, lumbar puncture, bone marrow biopsies, liver biopsies, upper GI endoscopy and flexible sigmoidoscopy on all assigned patients and other patients if appropriate. The student will be required to complete a pass/fail reflective assignment questionnaire which must be turned in to the department and reviewed by the course director. Prerequisite: Senior standing and INMD 975. CLN.

RLMD 978. Rural Preceptorship - Pediatrics. 4 Hours.
Rural Medicine in Pediatrics is a four-week clinical rotation during which each student works with a practicing pediatrician in the State of Kansas. Student will experience a one-to-one teaching/learning relationship in a private practice (i.e., non-institutional) setting and will be exposed to both professional and non-professional aspects of the preceptor’s family and social life in a community environment. Initially the student will see patients and take calls with the pediatrician. Later in the month, the student will be given some independence seeing patients. The student may write progress notes and learn to dictate discharge summaries. The student will also participate in a number of procedures such as lumbar punctures, umbilical artery catheter insertion, etc. Students may also assist in ambulance transfers from smaller communities. Prerequisite: Senior standing and PDRC 975. CLN.

Subinternships (4)
The four-week subinternship gives medical students an opportunity to become more proficient in a specific area of medicine. They provide a more comprehensive course than that of the third-year required course. Students select one of the following options to fulfill the requirement.

FCMD 998. Subinternship in Family Medicine. 4 Hours.
The student will function as a subintern at one of the three KUSM-W sponsored family medicine residency programs. - Via Christi or Wesley in Wichita or Smoky Hill in Salina. Experiences include evaluation of outpatients and inpatients and performance of procedures under direct supervision of residents and faculty. Assignments include in-hospital call and case presentations as directed by the individual residency. Evaluation is based on assessment of clinical performance and case presentations. Prerequisite: FCMD 950. CLN.

INMD 998. Subinternship in Internal Medicine. 4 Hours.
This course is designed to give the student practical experience in the hospital care of general medicine patients and patient care at the intern or R1 level. Students will perform and dictate the initial history and physical, write orders, perform indicated procedures under the supervision of a senior resident and faculty attending, and dictate discharge summaries on patients. Students will take hospital call with the senior resident, attend scheduled rounds and conferences, and function as a member of the patient care team. Prerequisite: Medical Basic Sciences and INMD 975. CLN.

OBN 998. Subinternship in Obstetrics and Gynecology. 4 Hours.
The student will become proficient in pre-and post-operative evaluation of various procedures and the management of uncomplicated and complicated obstetric problems. He/she will gain an understanding of the pathophysiology of both obstetrics and gynecologic diseases and present an oral case presentation conference with discussion to OB-GYN staff physicians along with a third or fourth year resident. Subintern will be under direct supervision of 1 to 2 OB-GYN staff physicians along with a third or fourth year resident and will have direct responsibility for orders, pre- and post-operative evaluation, including H & P and discharge summary. The subintern will be exposed adequately to call for both obstetrics and gynecology. The subintern will work up approximately 2 new patients per day. Evaluation will be made by the staff that were directly responsible for supervising the subintern along with the third or fourth year resident that was assigned to him or her. Prerequisite: Medical Basic Sciences and OBGN 975. CLN.

PDRC 998. Pediatric Subinternship. 4 Hours.
The student will participate in pediatric case management in a greater comprehensive manner than that of the general pediatric student curriculum. The student will be assigned to a pediatric resident and will participate in the clinical case load of the assigned resident. He/she will be expected to gather and analyze data as pertaining to the assigned pediatric care load. The student will perform physicals and dictate histories on assigned patients where permitted. Case load will be 1-3 patients per day. The student will formulate plan of management with written orders to be reviewed and countersigned by resident and faculty, perform indicated procedures under supervision, and dictate discharge summary of assigned patients where permitted. He/she will take call and attend scheduled rounds, pediatric clinics, and conferences with supervising resident. Evaluation will conform to the clinical assessment utilized for pediatric resident. Assessment of performance will be done jointly by supervising resident and faculty member. Prerequisite: PDRC 975 and senior standing. CLN.

PSCR 998. Subinternship in Psychiatry. 4 Hours.
This course is designed to expand the student’s experience in general psychiatry by having them assume supervised, clinical responsibility equivalent to that of an intern or PGY-1 resident. Students will perform and dictate initial history and physical examinations, formulate diagnoses and treatment plans, write orders to be reviewed and countersigned, dictate discharge summaries, participate in the evaluation and intervention of psychiatric emergencies, attend scheduled rounds, conferences, and PGY-1 didactics. Prerequisite: PSCR 950, INMD 975, SGRY 975, senior standing. CLN.

SGRY 998. Subinternship in Surgery. 4 Hours.
The student will learn to work up patients with elective surgery, acute surgical abdomen, or GI bleeding, perform fundamental diagnostic and therapeutic procedures, and assist in certain endoscopies. The student will present a patient’s clinical problems in a clear and concise manner. The student will be a part of a surgical team consisting of the attending surgeon and the senior and junior surgical residents. He/she will work up patients with the junior surgical resident and be reviewed by the attending surgeon and senior surgical resident. He/she will make daily rounds with the surgical team, scrub on all surgical procedures on his/her patients, and attend all conferences required of surgical residents (consultant rounds, surgical grand rounds, etc.). He/she will assist in the operation, attend clinics and minor surgery clinics. The student will work up approximately one new patient per day. Evaluation will be based on patient workups, technical skills, rapport with patient, paramedical personnel, and surgical team. Prerequisite: SGRY 975, INMD 975, and senior standing. CLN.

Critical Care (4)
The four-week critical care selective presents the knowledge, skills, and attitudes required to care for very ill hospitalized patients. This allows the student to focus on an interest in a particular specialty and ensures that all students have basic knowledge and skills in critical care. Students select one of the following options to fulfill the requirement.

CCSL 977. Critical Care Selective in Neonatology. 4 Hours.
This course is an overview of neonatal medicine. The student will develop skills and conceptual knowledge of newborns and premature infants. The student will also attend x-ray conferences weekly, literature review, service rounds twice daily, pediatric grand rounds weekly, and neonatal
mortality review, as well as care for infants with special emphasis on NIVU, NSCU and Continuing Care Nurseries. Prerequisite: Senior standing. CLN.

CCSL 978. Critical Care Selective in Pulmonary. 4 Hours.
The student will learn the essentials of a comprehensive history, physical exam and interpretation of chest x-rays for the patient with pulmonary disease. The student will also learn the use and basic interpretation of pulmonary function testing, cardiopulmonary exercise testing, plus other laboratory information important to pulmonary disease (sputum assessment, ABG, scanning, pulmonary artery catheterization data, etc). Emphasis will be focused toward the patient in respiratory failure for diagnosis and ventilator management. Prerequisite: Senior standing. CLN.

CCSL 979. Critical Care Selective in Pediatrics. 4 Hours.
This elective experience has been designed as a one-month rotation in the pediatric intensive care unit at Wesley Medical Center. Care will be provided to critically ill patients from the neonatal period through adolescence. During this rotation the student will receive exposure to many pediatric critical care subjects and will be expected to convey an understanding of those processes during bedside rounds, in lectures, and during actual patient care. The student will participate in the educational endeavors of the critical care service, including lectures to other students and allied critical care staff such as nurses and respiratory therapists. The student will be expected to give brief presentations on topics that are identified during patient care. Prerequisite: Senior standing. CLN.

CCSL 980. Critical Care Selective in Burn. 4 Hours.
Student will be provided hands-on experience in burn management and critical care. Student will make daily rounds, assist in surgery, and participate in pre-operative and post-operative care of patients admitted to the burn unit. Student will be supervised by faculty and residents. Prerequisite: Senior standing. CLN.

CCSL 981. Critical Care Selective in Internal Medicine. 4 Hours.
The critical care rotation will aim to provide educational opportunities to acquire knowledge of and to develop clinical competence in the field of critical care medicine. The student will learn interpretation of CXR's, EKG's, Lab/Hemodynamic data and ventilator management. The student will participate in daily morning and evening rounds, and observe and be involved in ICU procedures. The student will be exposed to the many ethical issues of critical care illness. Emphasis will be on formulation of differential diagnosis and therapeutic plan. Prerequisite: Senior standing. CLN.

CCSL 983. Critical Care Selective in Trauma. 4 Hours.
The student will learn the care of surgical patients who have experienced blunt and penetrating traumas. Student will be assigned to the trauma service and work with a critical care resident. Student will develop trauma evaluation skills by participating in trauma patient work-ups in the emergency room. Student will assist in surgery and participate in hospital rounds for trauma patients in the Surgical Intensive Care Unit. Student will also develop diagnostic skills in the ambulatory care setting and attend surgical conferences. Prerequisite: Senior standing. CLN.

Clinical Electives in Wichita

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Preventive Medicine and Public Health (p. 1864)
Psychiatry and Behavioral Sciences (p. 1864)
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Special Programs (p. 1865)
Surgery (p. 1865)

Anesthesiology

Chair: James L. Walker, Jr., M.D.

ANSL 976. Anesthesiology. 4 Hours.
This course will acquaint students with various aspects of Anesthesiology. Students will learn essentials of the pharmacology of the various potent anesthetic agents, narcotics, barbiturates, tranquillizers, muscle relaxants and local anesthetics. They will acquire knowledge of pharmacology, physiology, anatomy, and biochemistry as they relate to anesthesia and some knowledge in the mechanics and physics of anesthesia machines and gas physiology in general. Student will receive training in Acute Care Medicine and Pulmonary Medicine. Student will be exposed to intensive and respiratory care, learn mechanics of ventilators and indications for use of ventilatory support. Students will be exposed to intensive and respiratory care, learn mechanics of ventilators and indications for use of ventilatory support. Students will learn pulmonary physiology and the use of diuretics and cardiotonic agents as they pertain to respiratory support to the patient in acute respiratory failure. Students will also be exposed to regional and spinal anesthesia, learning drug doses, techniques and indications for use. Prerequisite: Medical Basic Sciences. CLN.

ANSL 995. Special Topics in Anesthesia. 1-4 Hours.
This elective is designed to provide the clinical and/or research experience in topics of special interest not otherwise represented in the curriculum. The student will design, in consultation with department faculty, specific objectives, reading assignments, and the mechanism for course evaluation. Prerequisite: Medical Basic Sciences and departmental consent. CLN.

Emergency Medicine

EMRM 976. Emergency Medicine. 2-4 Hours.
This rotation will introduce the student to the clinical practice of Emergency Medicine. The student will observe and participate as a member of the Emergency Department team, in handling a variety of patient problems and complaints, under the direct supervision of the full time Emergency physician. The student will develop patient evaluation skills, examining unscreened patients under faculty supervision. The information gained from performance of this history and physical exam will aid in the selective use of ancillary services to achieve the most efficient and effective emergency assessment in management of patients seen in the Emergency Department setting. The student will develop and improve skills in suturing, interpretation of radiographs and electrocardiograms, establishing IV lines, and other diagnostic studies and procedures commonly performed in the Emergency Department setting. The student will have clinical exposure to resuscitation techniques and problems. The student will develop an understanding of how Emergency Medicine Services relates to other departments and services. The student will assume appropriate responsibility for management of patient problems under the direct supervision of the Emergency Medicine faculty. The student’s evaluation will consist of performance observed by assigned preceptor and director of Emergency Medicine Education. Prerequisite: Medical Basic Sciences and any two of the following four: SGRY 975, INMD 975, PDRC 975, or OBGN 975. CLN.
Family and Community Medicine

Chair: Rick Kellerman, M.D.

FCMD 976. Advanced Family Medicine-Greater Wichita Region. 4-8 Hours.
This course is tailored to the individual learning objectives of the student. Experiences include evaluation of outpatients and performance of procedures under direct supervision of volunteer faculty in the Wichita metro area. Assignments for call and case presentations are directed by the individual faculty. Evaluation is based on assessment of clinical performance and case presentations. Prerequisite: FCMD 950. CLN.

FCMD 977. Advanced Family Medicine-Rural Kansas. 4-8 Hours.
This course is tailored to the individual learning objectives of the student with interest in exploration of family medicine in a rural setting. Experiences include evaluation of outpatients and inpatients and performance of procedures under direct supervision of volunteer faculty in rural Kansas. Assignments for call and case presentations are directed by individual faculty. Evaluation is based on assessment of clinical performance and case presentations. Prerequisite: FCMD 950 and RLMD 976. CLN.

FCMD 978. Clinical Problems--A Community Perspective. 4 Hours.
This course is designed to provide an opportunity for the student to define and analyze clinical problems in community terms rather than individual terms. The student is assisted in developing a population-based study, including literature review, data collection and analysis, and procedures for submitting the work for scientific publication. Evaluation is based on assessment of community research skills. Prerequisite: Medical Basic Sciences. CLN.

FCMD 979. Ambulatory Care of the Elderly. 4 Hours.
This course is tailored to the individual learning objectives of the student with interest in geriatric care. Experiences include evaluation of patients under direct supervision of volunteer faculty in a variety of settings including inpatient, outpatient, nursing home and home visits. Assignments for call and case presentations are directed by the individual faculty. Evaluation is based on assessment of clinical performance and case presentations. Prerequisite: FCMD 950 and GERI 950.. CLN.

FCMD 980. Advanced Family Medicine - A Residency Perspective. 4 Hours.
This course is tailored to the individual learning objectives of the student. However, it is designed for the student to function as a subintern at one of the three KUSM-W sponsored family practice residences - Via Christi or Wesley in Wichita or Smoky Hill in Salina. Experiences include evaluation of outpatients and inpatients and performance of procedures under direct supervision of residents and faculty. The individual residency directs assignments for in hospital call and case presentations. Evaluation is based on assessment of clinical performance and case presentations. Prerequisite: FCMD 950. CLN.

FCMD 981. Addiction Medicine. 2-4 Hours.
This elective will assist students to learn: 1) Diagnostic skills relevant to the identification of alcohol/drug dependency in patients of all ages whatever the presenting complaints 2) Management techniques including confrontation, inpatient and outpatient models of treatment, prognosis and aftercare including the role of community resources for patient and family 3) Preventive skills including an understanding of the epidemiology of addictive diseases and resources to identify and intervene with individuals and families at risk. The course will emphasize direct patient contact supported by required readings and didactic sessions with faculty members. Evaluation will be based on competence in this specialty at the end of the rotation, performance during the elective and completion of assignments. Prerequisite: FCMD 950. CLN.

FCMD 982. Sports Medicine. 2-4 Hours.
This course exposes medical students to the primary care/non-operative aspects of sports medicine. During this course, students will develop skills in the evaluation and management of athletes of all ages and athletic abilities who participate in a variety of sporting activities. The Sports Medicine course is offered at the KUSM-Wichita Family Medicine Residency at Via Christi Regional Medical Center in the Sports Medicine Center (located on the St. Joseph campus). The clinical component of the program includes examination and treatment of athletes in the clinic, at the training room, and on the field. The student will be exposed to high school, college, and professional athletes. They will become familiar with the injuries and illnesses commonly seen by a team physician. Upon completion of the course, students will have a basic understanding of the skills to: * Conduct a preparticipation sports exam * Prevent sports-specific injuries * Evaluate and treat injuries and illnesses in athletes * Design home rehabilitation programs for sports injuries * Design criteria for safe return to sports * Order appropriate diagnostic laboratory and radiologic tests and interpret the findings * Apply casts and splints * Work effectively with athletic trainers, personal trainers, physical therapists and other health care professionals involved in the care of athletes * Advise athletes on strength training, cardiovascular fitness, exercise prescription, and sports nutrition. Medical students will be expected to participate in small group discussions on aspects of Sports Medicine by doing selected readings assigned by the course director. Students will also participate in patient care along with physicians (including residents), athletic trainers, and physical therapists in the clinic, in training rooms, and at athletic events. Prerequisite: Senior Standing. CLN.

FCMD 983. In-Patient Maternal Care. 2 Hours.
This course is designed for fourth-year students who desire further experience in maternal care in a Family Medicine setting. The student will be assigned shifts three nights per week. During these shifts, the student will attend rounds and lectures and will be involved in the management of labor and delivery patients with Family Medicine residents and attending physicians. The student will also attend Maternal Care lectures and will complete readings assigned by the course director. The course is offered October, November, December and January. Prerequisites: FCMD 950 and senior standing. CLN.

FCMD 984. Care of the Underserved, Sedgwick County. 2-4 Hours.
This course exposes medical students to the primary care of patients in Sedgwick County who are generally regarded as underserved due to low socioeconomic level, minority status, culture and/or homelessness. Clinically, the student will increase awareness, apply knowledge and practice problem-solving skills in the care of patients who are underserved. Most have limited socioeconomic resources and support systems. The student will develop an understanding of health care disparities and the role of the medical home in reducing disparities of care. The rotation is conducted at GraceMed, a federally qualified health center in Wichita. CLN.

FCMD 995. Special Topics in Family and Community Medicine. 2-8 Hours.
This elective provides an opportunity for clinical and/or research experience in topics of special interest not otherwise represented in the curriculum. Examples include Occupational Medicine, and Ambulatory Procedures. The student, in consultation with departmental faculty, will design specific objectives, activities, reading assignments, and the mechanism for course evaluation. Prerequisite: Departmental consent. CLN.
**Internal Medicine**

Chair: Jon P. Schrage, M.D.

**INMD 977. Pulmonary Medicine. 4 Hours.**

Students will work at a subintern level with pulmonary disease patients on the service of the assigned pulmonary specialist, participate in consultations, work in the Intensive Care Unit, and by special arrangement in the Pulmonary Function Laboratory. Prerequisite: INMD 975. CLN.

**INMD 979. Endocrinology. 4 Hours.**

Student will learn to appreciate the normal physiology and pathophysiology of selected diseases of the endocrine glands. In this brief encounter he or she will study in particular thyroid abnormalities as a model of the altered homeostasis occurring in endocrinopathies. Patients with diabetes mellitus will be encountered and the reference to metabolic perturbation of the acute and chronic complications of the same. Less common problems will be assigned when patients are available. The student will be expected to attend and participate in two seminars weekly along with the resident on the endocrinology rotation. There are two to four new work-ups weekly among hospital patients and selected outpatients with individual patient follow-ups as required. Performance will be evaluated by the faculty on written departmental forms. Critical review of clinical ward and outpatient activities will equal 100 percent of the grade. An in-depth topical summary may be submitted for extra credit consideration (not required). Prerequisite: INMD 975. CLN.

**INMD 981. Rheumatology. 4 Hours.**

Medical students completing a four-week elective in Rheumatology should be able to: 1) Perform a complete history and physical, with emphasis on the those items (e.g., skin, joints) related to rheumatic disorders; 2) Aspirate the knee; 3) Identify urate and calcium pyrophosphate dihydrate crystals in synovial fluid; 4) List: a) historical and physical findings; b) X-ray findings; c) modes of therapy for rheumatoid arthritis, degenerative joint disease, gout, lupus and ankylosing spondylitis. Outpatient and inpatient clinical performance = 100% of grade. Students will be evaluated on the basis of meeting objectives 1-4 listed above. Prerequisite: INMD 975. CLN.

**INMD 982. Hematology/Oncology. 4 Hours.**

The student will learn the "team approach" to patient care, involving the patient and family and other caregivers. Students will learn to examine and interpret a peripheral smear. Students will also learn: the fundamentals of bone marrow examination, the approach to evaluation of anemia, the approach to patients with suspected malignancy and the rationale behind chemotherapy, the evaluation of coagulopathies, thrombotic states, bleeding disorders, nutritional deficiencies, and blood therapy. Students will learn the natural history of common malignancies, to perform therapeutic phlebotomy, bone marrow aspiration, and how to interpret biopsy, bleeding time, and bone marrow pathology. Students will perform patient work-ups, attend conferences, and rounds, including interaction with the team (nurses, chaplains, social workers, occupational therapists, volunteers). Prerequisite: INMD 975. CLN.

**INMD 984. Nephrology. 4 Hours.**

Students will be assigned patients at a sub-intern level from the inpatient renal consultation services and the inpatient and outpatient hemodialysis services. Renal physiology and pathophysiology will be emphasized plus complicated fluid and electrolyte problems. Prerequisite: INMD 975. CLN.

**INMD 985. Infectious Disease. 4 Hours.**

The student will: 1) Learn about management of postoperative infection, CNS infection, pulmonary infection, sepsis, fungal infection, etc. 2) Learn data analysis techniques of infectious diseases specialist and how (generally) microbiology laboratories work. 3) Learn principles of antibiotic, antifungal, and antiviral therapy. Students are to attend infectious diseases conferences. Students will see patients primarily admitted to the Infectious Disease Office and work with selected educational consultants. They will attend noon medicine conferences and grand rounds at the assigned hospital. They will be supervised by one physician. Students will have contact with 3 to 5 new patients a week plus follow-up 3 to 4 patients. Clinical ward performance = 100% of grade. Student performance will be evaluated by faculty on written departmental forms to assess: history-taking ability, expertise in performing physical exams, formulation of clinical judgment, diagnostic approach, rapport with nursing staff and fellow physicians. Prerequisite: INMD 975. CLN.

**INMD 986. Physical Medicine and Rehabilitation. 2-4 Hours.**

The student should develop a working knowledge of the physiatric evaluation, including manual muscle testing, examination of joints, neurologic evaluation, evaluation of functional level. The student should achieve a basic familiarity with neuromuscular diseases, CVA, joint problems, amputee management, head injury, and spinal cord injuries, as well as the rehabilitation goals and therapies as applied to the above. The student will be involved in the initial evaluation and diagnostic workup of selected patients, including EMG's, X-rays, scans, lab tests, as well as the physical examination with emphasis on the physiatric evaluation. There will be student involvement in the management of patient progress. The student will participate in inpatient rounds, consultations, and outpatient evaluations. He/she is expected to be a participating member of the rehabilitation team and to work closely with the nurses, therapists, and physicians. The students will be evaluated on the basis of their clinical skills, knowledge of the interest in the field, rapport with patients, and participation as a member of the rehabilitation team. Clinical ward performance = 100% of grade. Prerequisite: INMD 975. CLN.

**INMD 987. Neurology. 4 Hours.**

The clerk will serve at a subintern level under supervision of a resident and attending staff. Clinical examination of patients and management of neurologic disorders will be emphasized. Prerequisite: INMD 975. CLN.

**INMD 988. Gastroenterology. 4 Hours.**

Services are available for concentrated experience in gastrointestinal disease problems with student participation in diagnostic work-up, including various endoscopic procedures and management of clinical problems. Prerequisite: INMD 975. CLN.

**INMD 989. Dermatology. 2-4 Hours.**

This service is centered in the private offices of dermatology groups where the student will observe and participate in treating a wide variety of dermatologic problems. The emphasis is on common problems, those relating to systemic disease, and principles of dermatologic therapy. Prerequisite: INMD 975. CLN.

**INMD 991. Cardiology. 4 Hours.**

Student will learn 1) Evaluation and therapy of clinical cardiology patients, 2) Proficiency in physical diagnostic techniques, 3) Introduction to non-invasive cardiology, including EKG, stress testing both exercise treadmill and nuclear procedures, M-Mode, and two dimensional echocardiography, 4) Direct hands-on invasive procedures on patients that the attending works up, as well as other selected patients, 5) Intensive care experience, including management and proficiency in dealing with acutely ill cardiac patients, and ascertaining the ability to use hemodynamic monitoring and intensive care treatment such as drugs, intra-aortic balloon, etc. Experience with both in-patients and outpatients will be offered. Primary emphasis will be placed on learning basic cardiography and sharpening skills. Student will work with 3 to 5 patients per week. Clinical ward performance = 100% of grade. Student performance will be evaluated by faculty on written departmental forms to assess:
Obstetrics and Gynecology

Chair: David A. Grainger, M.D., M.P.H.

OBGN 976. General Obstetrics and Gynecology. 4-8 Hours.
Supervised experience in labor and delivery, gynecologic surgery, and in-hospital management of the OB-GYN patient will be given. Scheduled conferences include weekly case conference and didactice lectures on Wednesday morning. Daily teaching and working rounds with attending staff will likewise be a very important part of the clerkship. Clinics meet daily. Deliveries/month: 325 (60 clinic); operations/month: 500 (60 clinic). Prerequisite: OBGN 975. CLN.

OBGN 977. Maternal-Fetal Medicine. 4 Hours.
The student will develop skills in assessment of high-risk obstetric and neonatal patients and will be a participating member of the perinatal transport team. Through development of a scientific paper on perinatal medicine (the specific subject to be determined in advance by the course director and student), the student will be able to illustrate his or her expanded knowledge in this subspecialty. The student on this elective will attend a weekly high-risk follow-up clinic, make rounds in the neonatal intensive care and intermediate nurseries with the assigned staff and resident physicians. The student will be on call for the perinatal transports team of obstetric and neonatal transports by ground and air, be on twenty-four hour birth room call every fourth night, devoting this call time to the delivery rooms. The student will attend all obstetric and neonatal conferences, attend a weekly conference with perinatologists and neonatologists, be invited on outreach education programs, and effort will be made to follow high-risk patients through labor-delivery-postpartum and neonatal care. The student will be evaluated by the supervising staff physician on patient care and on the completed paper on perinatal subject. Prerequisite: OBGN 975 and PDRC 975. CLN.

OBGN 979. Gynecologic Oncology. 4 Hours.
The objectives of this course for a senior medical student are as follows: 1) to introduce the student to gynecologic malignancies, their presenting symptoms, their evaluation, and treatment thereof; 2) management of treatment complications including management of chemotherapy problems and radiation problems; 3) management of medical problems associated with progressive malignancies. Prerequisite: OBGN 975. CLN.

OBGN 995. Special Topics in Obstetrics. 2-8 Hours.
This elective is designed to provide clinical and/or research experience in topics of special interest not otherwise represented in the curriculum. The student will design, in consultation with department faculty, specific objectives, reading assignments, and the mechanism for course evaluation. Prerequisite: Departmental consent. CLN.

Ophthalmology

OTHO 976. Ophthalmology. 2 Hours.
The rotation is designed to familiarize the student with the private office and surgical procedures of a practicing ophthalmologist. Students will learn proper use of an ophthalmoscope and how to perform the ocular exam. Students will observe surgical procedures, and participate in hospital rounds and private office visits. The student will be directly involved in all patient care as provided by the assigned ophthalmologist. Prerequisite: Medical basic sciences. CLN.

Otorhinolaryngology

OHIN 976. Otolaryngology–Ears, Nose, Throat. 2 Hours.
Students will observe the activities of a practicing otorhinolaryngologist and participate in the management of patients with ENT disorders. Students will observe and perform the examination of the anatomical areas and cavities of the head and neck. Students will accompany the assigned physician on all hospital rounds during office hours and when possible, observe surgical procedures. Prerequisite: Medical basic sciences. CLN.

Pathology

Chair: Thomas Kruzak, M.D.

Palo 975. Introduction to Clinical Pathology - St. Joseph. 4-6 Hours.
This elective serves to enhance the student's awareness of the role of the clinical laboratory in patient management. At the end of the elective, the student will be able to: 1) Describe the general methodology, interpretation and clinical implication of commonly ordered laboratory tests, 2) Suggest a planned approach to laboratory test, when given a patient's problem. An effort will be made to tailor the elective experience to the needs and interests of the individual student. If no specific interests are identified, a general elective will be arranged consisting of short rotations in the several clinical laboratory sections under the tutelage of supervisors, instructors, and pathologists. In each section, the student will observe testing procedures and may perform selected analyses at the discretion of the supervisor. Details of methodology will not be stressed, rather the emphasis will be on general principles, sampling, and interpretation. The student will attend daily departmental gross anatomic pathology conferences and didactic presentations in both anatomic and clinical pathology. The student will be encouraged, but not required to attend extra departmental conferences, such as the daily family practice noon conference. (Observation and participation in autopsies is also optional, but encouraged. The student may choose to spend time in surgical pathology or cytopathology.) The student will be required to make a formal presentation during the last week of the elective. This may consist of a case presentation with discussion of pertinent laboratory findings or the student may elect to present an analysis of a particular laboratory testing procedure, theory, or problem. Evaluation will be based upon the student's knowledge, acquisition, interest, and participation. Prerequisite: Medical Basic Sciences. CLN.

Palo 977. Laboratory Medicine. 4 Hours.
Several options are offered to the student within the Department of Laboratories as follows: 1) A general survey of Laboratory Medicine, including opportunities to view and assist in autopsies, a study of surgical pathology, some exposure to interpretation of immunonelectrophoretic studies, bone marrows, and other laboratory parameters of interest to
medical students. 2) More selective and deeper evaluations such as the entire time in anatomic pathology including autopsy and surgical pathology. 3) Programmed courses of experience in chemistry, hematology, or microbiology. It is anticipated that the student will make preliminary contact with a member of the department indicating his or her interest and type of program he or she would like to be exposed to. The student will have the opportunity to attend the morning and afternoon conferences offered daily by the department together with the noon conferences offered by the general medical staff. It is hoped that the experience will be a pleasant and informative one and the student, as a possible pathology resident, will have the opportunity to survey the general field of pathology in a large institution primarily devoted to service and developmental pathology. Students are evaluated by the pathologist or medical technologist in the area which they are working and a report of the student’s performance is submitted to the Medical School. Prerequisite: Medical Basic Sciences. CLN.

PALO 978. Introduction to Surgical Pathology. 4-6 Hours. The student will understand and be able to describe orally, the role of the surgical pathologist in the diagnosis and treatment of common disorders, including: 1) breast masses, 2) suspicious mammographic lesions, 3) mass lesions of the lung, 4) enlarged lymph nodes, and 5) thyroid nodules. Differential diagnosis will be discussed. Using microscopic slides, the student will correctly identify major common surgical lesions of the breast, lung, lymph nodes, thyroid and colon. The student will describe how an intraoperative consultation is conducted, including the frozen section evaluation of resected tissue. The student will be assigned to work with a particular surgical pathologist in two-day blocks. On day 1 the student and pathologist will be in the operating room, performing intraoperative consultations, frozen sections and dissecting tissues removed at surgery. On day 2 they will examine the microscopic slides from selected cases received on the previous day. Depending upon the individual student’s areas of major interest, he/she will accompany pathologists who perform fine needle aspiration biopsies and assist in their evaluation. The student will attend departmental conferences. Students will be evaluated according to the objectives above. Prerequisite: SGRY 975 or OBGN 975. CLN.

PALO 979. Introduction to Clinical Pathology - Wesley. 4 Hours. Given a description of history and physical findings, the student will be able to select from a panel of tests those which, in the opinion of the faculty, would be most suitable for diagnosis management. The student will list no less than 5 legitimate reasons for performing laboratory tests and will discuss each of these using specific examples. The student will list no less than 4 conceptual definitions of “normal” and discuss the implications of each using specific examples. The student, using his/her understanding of the statistical nature of laboratory data, will discuss concepts of accuracy, precision, errors and clinical significance in 5 common laboratory tests of the student’s choice. An effort will be made to tailor the elective experiences to the needs and interests of the individual student. In general, students will rotate through most areas of the clinical laboratory, and will gain experience in specimen collections, processing, test methodologies, and clinical interpretation. Students will report to their assigned areas by 7:30 a.m. and carry out assigned tasks then meet a member of the faculty in the late afternoon to go over the day’s work and to discuss the clinical correlation of the tests reviewed that day. Students will attend the Departmental Teaching Conferences. Attendance at other clinical conferences, usually held at noon, is encouraged, but not required. Students will attend Medicine Morning Report with the Staff Pathologist each day at 8:00 a.m. Students will make one presentation at a Clinical Pathology Conference during their last week of rotation which may consist of a short lecture and a particular test or a patient presentation. The quality of the presentation will be evaluated and will form 50% of the grade. The other 50% will be determined from questions asked at the end of the presentation as determined by the objective given above. Prerequisite: INMD 975 or SGRY 975 or PDRC 975 or OBGN 975. CLN.

PALO 980. Introduction to Forensic Pathology. 2-4 Hours. The student will understand and be able to describe orally, the basic principles of the medicolegal autopsy through observation of postmortem dissections and assisting the forensic pathologist. The student will learn the principles of death scene investigation. The student will appreciate the importance of toxicology in the correct determination of cause and manner of death through the interpretation of toxicology reports and consultations with the chief forensic toxicologist. The student will understand the role of physical evidence collected at the scene and autopsy as it pertains to the determination of cause and manner of death. The student will be assigned to the autopsy suite and will be supervised by the on-duty designated forensic pathologist. As time permits the student will accompany the coroner or deputy coroner to court to observe trial testimony. Students will be evaluated according to the objectives listed above. Prerequisite: Medical basic sciences. CLN.

Pediatrics

PDRC 976. General Pediatrics. 4 Hours. This is a four-week continuation of the basic pediatric clerkship for those students interested in additional pediatric experience. The program is flexible and should be arranged individually with the departmental chair. The experience may be either an inpatient or ambulatory experience or a combination of both. This experience carries with it increased responsibilities for patient care in areas selected by the student and arranged with the pediatric staff. Prerequisite: PDRC 975. CLN.

PDRC 977. Neonatology. 2-4 Hours. The student will learn overview of neonatal medicine and develop skills and conceptual knowledge of newborns and premature infants. The student will attend X-ray conferences weekly, daily literature review, service rounds twice daily, pediatric grand rounds weekly and neonatal mortality review, as well as care for infants with special emphasis on NICU. Prerequisite: PDRC 975. CLN.

PDRC 978. Ambulatory Pediatrics. 2-4 Hours. This elective involves increased exposure to community and ambulatory pediatrics utilizing community resources including the pediatrician’s office, the Public Health Department, Wesley Pediatric Clinic, Institute of Logopedics and other community resources. The program is flexible and can be broadly based in several areas or strictly confined to one area such as a continuous experience in the office of a community pediatrician. The program will be individually arranged with the department chairperson and the pediatric staff. The standard Elective Evaluation form will be utilized for the course. Prerequisite: PDRC 975. CLN.

PDRC 979. Medical Genetics. 2-4 Hours. This elective is designed to give the medical student the opportunity to participate in the genetic evaluation of children with developmental delay, mental retardation, dysmorphic features or autism. By the end of the rotation the student will be familiar with common pediatric genetic syndromes and appropriate genetic testing strategy. The student will also get the opportunity to participate in telemedicine genetic clinics. Prerequisite: PDRC 975 or INMD 975. CLN.

PDRC 980. Pediatric Endocrinology. 2-4 Hours. During the elective the student will learn diagnosis and management of endocrine problems in children. The student will participate in inpatient management, hospital and office consultation, and in a weekly endocrine clinic. Emphasis will be on the management of diabetes in children. Additional experience may be arranged through the Pediatric Department
with other endocrinologists in the community. Prerequisite: PDRC 975. CLN.

**PDRC 981. Diabetes. 2-4 Hours.**
The student will learn to recognize and manage simple inpatient and outpatient problems related to controlling blood glucose levels in children and adults, discuss the psychosocial adaptation to their chronic illness, and perform as well as educate others in specific procedures involved in self care. The student will see patients with diabetes mellitus in the hospital clinic, attend team meetings, attend counseling staffing, do assigned readings, and report to the faculty. Evaluation of this clerkship will be based on rounds, conferences, lectures and performance on patient workups in hospital and in the clinic. Prerequisite: INMD 975 and PDRC 975. CLN.

**PDRC 982. Pediatric Hematology/Oncology. 2-4 Hours.**
The student will obtain histories, do physical examinations, write progress notes, conduct in-depth consultations regarding pediatric hematology and oncology problems, and will develop skills in diagnosis and therapy of pediatric oncology patients. The student will demonstrate knowledge of various procedures, such as bone marrow aspiration, administration of chemotherapy, and intrathecal medication. Prerequisite: PDRC 975. CLN.

**PDRC 983. Pediatric Critical Care. 4 Hours.**
This elective experience has been designed as a one-month rotation in the pediatric intensive care unit at Wesley Medical Center. Care will be provided to critically ill patients from the neonatal period through adolescence. Availability of the elective will be limited to one student per month, with possible exceptions based on the student’s own objectives and educational needs. During this rotation the student will receive exposure to pediatric critical care subjects, and will be expected to convey an understanding of these processes during bedside rounds, in lectures, and during actual patient care. The student will participate in the educational endeavors of the critical care service, including lectures to other students and allied critical care staff such as nurses and respiratory therapists. The student will be expected to give brief presentations on topics which are identified during patient care. The student’s final evaluation will be based primarily on the expression of an increased understanding of and confidence in the management of the diseases encountered in the PICU. Prerequisite: PDRC 975 and approval of instructor. CLN.

**PDRC 984. Pediatric Allergy. 2-4 Hours.**
Primarily a private office experience under the supervision of the physician, emphasizing an immunologic approach to allergy problems in pediatric patients. Prerequisite: PDRC 975. CLN.

**PDRC 985. Pediatric Cardiology. 2-4 Hours.**
Extensive clinical experience in children with cardiac disease will be provided. Daily pediatric cardiology ward rounds are conducted by the senior staff. Personal instruction will be given in cardiac physical diagnosis with stress on cardiovascular hemodynamics, evaluation of heart sounds and murmurs, electrocardiograms and cardiac radiology. Significant responsibility in patient management will be delegated to the student who will function as a member of the pediatric cardiology team. Ample opportunity will be available for participation in clinical investigative projects if the student so desires. Prerequisite: PDRC 975. CLN.

**PDRC 986. Pediatric Neurology. 2-4 Hours.**
The purpose of this elective is to acquaint the student with the wide spectrum of neurological diseases of infancy, childhood, and adolescence. The student will become familiar with the neurological examination of the newborn as well as the assessment of the infant and child. During the elective course the student will become actively involved in the diagnosis and treatment of seizure disorders. He or she will be exposed to routine laboratory procedures such as lumbar puncture, EEG and brain scan, as well as special procedures such as arteriography and pneumoencephalography. The student will be supervised by staff physicians and pediatric residents. Prerequisite: PDRC 975. CLN.

**PDRC 987. Developmental Pediatrics. 2-4 Hours.**
Students will become familiar with normal developmental patterns and will demonstrate the ability to perform and interpret developmental screening tests. Students will be able to recognize aberrant patterns of development in an individual child and gain understanding of intervention services that are available for children with developmental delays. Students will be involved in the Development Clinic, Neonatal Follow-up Clinic, Heartspring (residential school for multiple handicapped children), and Rainbows United (early intervention provider for children under 5 years of age). These sites will allow the student exposure to a variety of children, with both normal development and those with behavioral and/or developmental problems. CLN.

**PDRC 988. Pediatric Infectious Disease. 2-4 Hours.**
This course is designed to familiarize students with infectious diseases of pediatric patients. Students will learn the rational selection of antimicrobials and their appropriate uses and recognize the reasons for failure of antimicrobial therapy. Students will learn basic immunology and both active and passive immunization. Students will learn the pathogenesis of fever and to recognize the common pediatric pathogens causing meningitis, bacteremia, respiratory tract infections, enteric infections and urinary tract infections. Students will attend outpatient clinics, daily hospital rounds on in-patients and new consultations, and daily meetings to discuss infectious disease topics. *Recommendation: Candidates for Med/Peds residency should enroll in 2 weeks of this course and 2 weeks INMD 986, (Adult) Infectious Disease. CLN.

**PDRC 989. Pediatric Emergency Care. 2-4 Hours.**
The student will spend time at the Pediatric Emergency Department, working closely with the faculty. Teaching and supervision is provided by board certified emergency medicine physicians and internal medicine/pediatrics physicians with faculty positions in the Department of Pediatrics. Expectations include participation in didactic instruction and patient carte, literature searches of material as assigned or necessary for management of patients, understanding of evidence-based medicine in the care pediatric emergencies and participation in emergency department procedures under the guidance of the attending. The goals are for the student to become familiar with various pediatric emergencies, as well as understanding other situations in which children are brought into the ED. Prerequisite: PDRC 975. CLN.

**PDRC 990. Pediatric Nephrology. 2-4 Hours.**
During this elective, the student will learn to recognize and manage inpatient and outpatient problems related to pediatric nephrology. Participation in clinic, as well as hospital consultations will be involved, as well as reading assignments/discussions with faculty. Teaching and supervision is provided by a full-time, board certified pediatric nephrologist. A basic understanding of pediatric nephrology is essential to the pediatrician in general practice who will need to recognize a child suffering from a renal condition, manage those that generally do not require referral, and initiate management of those that will need the intervention of a nephrologist. Expectations include participation in daily instruction and patient care, literature searches of material as assigned or necessary for management of patients, and understanding of evidence-based medicine in the care of the nephrology patient. Prerequisite: PRDC 980. CLN.

**PDRC 995. Special Topics in Pediatrics. 2-8 Hours.**
This elective is designed to provide clinical and/or research experience in topics of special interest not otherwise represented in the curriculum. The student will design, in consultation with department faculty, specific
objectives, reading assignments, and the mechanism for course evaluation. Prerequisite: Medical Basic Sciences and Departmental consent. CLN.

Preventive Medicine and Public Health

Chair: Tracie Collins, M.D., M.P.H.

PVMD 976. CLARION. 2-4 Hours.
Students who participate in CLARION will develop a deeper understanding of healthcare as a system that requires highly performing interprofessional teams to achieve the six aims outlined by the Institute of Medicine. These aims include care that is safe, timely, equitable, effective, efficient and patient centered. Students will study with other students from other health professions disciplines under the direction of interprofessional course faculty and invited members of the community who will guide discussions each week to prepare students for analyzing and developing solutions to a fictional healthcare sentinel event. CLN.

PVMD 995. Special Topics in Preventive Medicine. 2-8 Hours.
This elective is designed to provide clinical and/or research experience in topics of special interest not otherwise represented in the curriculum. The student will design, in consultation with Departmental faculty, specific objectives, reading assignments and the mechanism for course evaluation. CLN.

Psychiatry and Behavioral Sciences

Chair: Lyle Baade, Ph.D., Interim

PSCR 978. Child Psychiatry/Adolescent Psychiatry. 2-4 Hours.
The course will familiarize students with common psychiatric diagnoses and therapies for children and adolescents. Students will observe and participate in the evaluation and treatment of children and adolescents in inpatient, outpatient, and residential settings. They will attend staffings, family meetings, and relevant conferences. Faculty will provide supervision. Prerequisite: PSCR 950. CLN.

PSCR 979. Advanced Studies in Psychiatry. 2-8 Hours.
This course allows students to expand their knowledge and experience in Psychiatry with rotations of their own choosing. Experience can be modified to fit the individual’s interests and needs. All students will have the core experience (attendance at Grand Rounds, Journal Club and readings assigned by Clinical supervisor). Students may choose one training site for four to eight weeks, subject to availability of supervision. Scheduling should be arranged with the Psychiatry Clerkship Director. Written evaluation by supervisor at the end of the course. Supervisor’s evaluation comprises 100% of the grade. Prerequisite: PSCR 950. CLN.

PSCR 980. Geriatric Psychiatry. 2-4 Hours.
The student will experience caring for elderly and often medically ill patients with psychiatric symptoms and diagnoses on an acute geropsychiatry hospital unit, in outpatient settings, and in the nursing home and assisted living environment. Experience will be gained in assessing and managing complex medical and psychiatric conditions in elders. Objectives include: 1) Increase awareness of the common psychiatric conditions in elders. 2) Improve ability to assess, diagnose and treat common psychiatric conditions in elders who commonly have co-morbid medical conditions. 3) Understand the impact of the elder’s environment on psychiatric symptoms, and the necessity of managing the elder within the context of the psychosocial environment, especially the family unit. 4) Improve ability to manage complex pharmacotherapy. Teaching Methodology includes bedside clinical rounds, geropsychiatry small group discussions, lectures and assigned readings. Patient contact would include elderly patients with common psychiatric conditions - affective disorders, dementias, anxiety disorders, psychotic disorders and comorbid medical conditions, acute care hospital geropsychiatry unit, outpatient clinic, and long term care facilities. Evaluation will be completed by supervisor. Prerequisite: PSCR 950 and INMD 975. CLN.

PSCR 981. Consultation/Liaison Psychiatry. 2-8 Hours.
The objective of this course is to improve the student’s knowledge and skills in evaluating patients with both psychiatric and medical illnesses in inpatient and outpatient settings, making recommendations, and communicating with referring physicians. These objectives will be met by direct patient contact, individual supervision, assigned readings, and attendance at conferences. Prerequisite: PSCR 950 and INMD 975. CLN.

PSCR 985. Clinical Psychopharmacology. 2-8 Hours.
The purpose of this elective is to obtain intensive and in-depth experience with the medical management of a variety of psychiatric disorders. During this rotation, the student will come in contact with patients suffering from a variety of psychiatric disorders and will gain further experience with a medical model approach to the management of these disorders. The student will learn basic pharmacokinetis principles which are broadly applicable to the pharmacologic management of patients with both psychiatric and non-psychiatric disorders. The student will learn pharmacodynamic principles and clinical neuroscience principles which are of special relevance to clinical psychopharmacology. Effort will be made to tailor the elective to maximize the exposure to a particular area or diagnosis, based on student interest. The student may choose to be involved in ongoing clinical psychopharmacology research, including an exposure to drug development and testing. Prerequisite: Pharmacology (2nd year) and PSCR 950. CLN.

PSCR 987. Outpatient Psychiatry. 2-8 Hours.
The objective of this course is to increase the student’s depth of knowledge regarding psychiatric disorders as they present in an outpatient setting. Emphasis will be on clinical skills including the psychiatric interview and diagnostic process and gaining a longitudinal perspective on psychiatric illness. In addition, the student will be introduced to psychotherapy theory and skills. Students will attend departmental academic events, teaching conferences and participate in intake evaluations performed by psychiatry residents. They will also participate in observing a selected number of ongoing cases in conjunction with residents. Students will evaluate patients for intake early in their rotation and follow these cases throughout their rotation. Prerequisite: PSCR 950. CLN.

PSCR 995. Special Topics in Psychiatry. 2-8 Hours.
This elective is designed to provide clinical and/or research experience in topics of special interest not otherwise represented in the curriculum. The student will design, in consultation with department faculty, specific objectives, reading assignments, and the mechanism for course evaluation. Prerequisite: Medical Basic Sciences and departmental consent. CLN.

Radiology

Chair: Charles McGuire, M.D.

RAD 976. Radiology. 4 Hours.
An elective in radiology will consist of four weeks, time to be spent in the hospital of the student’s choice. Most of the time spent by the student during the elective will be in diagnostic radiology but if the
This clerkship is directed toward providing a variety of experiences in the field of plastic surgery. The student will participate in evaluating and treating outpatients and inpatients in a private office and hospital setting. The student will be involved with history taking, physical examination, and evaluation of patients preoperatively. Attendance in the operating room will be emphasized as well as postoperative management of plastic surgery problems. The student will be introduced to the basic concepts of hand surgery ranging from acute surgical problems to that of congenital abnormalities. Complete care of the burn patient will be stressed. Tumors of the skin, head and neck, and congenital anomalies of the hands and face will be covered. Facial trauma and esthetic surgery will also be included in the curriculum. Prerequisite: SGRY 975. CLN.

**SGRY 978. Orthopedic Surgery. 2-4 Hours.**
Emphasis will be placed on the principles of orthopedic evaluation and care through obtaining a history, performing a physical examination, and outlining management on assigned orthopedic patients. The student’s responsibilities will include rounds with attending orthopedic surgeon or the resident, clinic or office rotation and several orthopedic conferences and assigned lectures. Prerequisite: SGRY 975. CLN.

**SGRY 979. Cardiothoracic Surgery. 2-4 Hours.**
This clerkship is designed to give the student familiarity and basic understanding of cardiopulmonary disease entities with emphasis on pathophysiology, diagnosis, and management. Conferences as well as rounds with attending surgeons and resident staff comprise the essential part of this clerkship. Patients will be assigned to students for workup on a regular basis not to exceed three patients a week. Prerequisite: SGRY 975. CLN.

**SGRY 980. Burn and Critical Care. 2-4 Hours.**
This course will provide hands-on experience in burn management and critical care. The student will be assigned to the Burn Unit at Via Christi Regional Medical Center - St. Francis Campus. He/She will make daily rounds, assist in surgery, and participate in preoperative and postoperative care of patients admitted to the Burn Unit. He/She will be supervised by faculty and surgery residents. Patient Contact: 5-10 patients/day (inpatient and outpatient). Evaluation: Use form for clinical assessment and personal skills (Department of Surgery form currently being used). Prerequisite: SGRY 975. CLN.

**SGRY 981. Neurosurgery. 2-4 Hours.**
This elective will provide an in-depth exposure to neurosurgery. Student will have daily rounds, patient workups, surgery and office experience. He/she will be supervised by faculty and surgery residents assigned to neurosurgery. Patient contact is variable. Students will be evaluated on form for clinical assessment and interpersonal skills currently in use by the Department of Surgery. Prerequisite: SGRY 975. CLN.

**SGRY 983. General Surgery Preceptorial. 2-4 Hours.**
The clerkship provides in-depth exposure to hospital and office practice in general surgery. The student will make daily rounds, assist in office, perform patient work-ups, scrub on all surgical procedures on his/her patients, and attend conferences on consultant rounds, surgical grand rounds, and tumor and X-ray. Evaluation will be based on patient work-ups, technical skills, rapport with patients, paramedical personnel, and surgical team. Prerequisite: SGRY 975 and INMD 975. CLN.

**SGRY 985. Pediatric Surgery. 2-4 Hours.**
This course provides an introduction to common problems in pediatric surgery. The student will attend three to four conferences per week, make daily rounds, perform patient work-ups, and assist in surgery and office experience—both preoperatively and postoperatively. The student will have contact with approximately twenty-five patients per week and will be supervised by a faculty member. Evaluation will be based on clinical
assessment and interpersonal skills. Prerequisite: SGRY 975 and PDRC 975. CLN.

SGRY 986. Peripheral Vascular Surgery. 2-4 Hours.
The objective is to learn to care for patients with peripheral vascular disease emphasizing diagnosis, examination, appropriate testing, including ultrasounds, vascular lab, angiography, and CT scans. Students will also be familiar with the natural history of peripheral vascular disease and the role of surgical and non-surgical treatments. In addition the student will gain knowledge of venous disease to include management and treatment of deep vein thrombosis and pulmonary embolism. The student will be expected to see patients on rounds, assist in surgery, and perform preoperative evaluation of patients with vascular disease. The student will see patients both as in-patients and out-patients. Prerequisite: SGRY 975. CLN.

SGRY 987. Senior Elective in Surgery. 4 Hours.
The student will be assigned to a teaching panel and will work closely with the attending surgeons and residents. The student will participate in the preoperative, intraoperative, and postoperative management of surgical patients. Exposure to acutely injured patients and acute surgical conditions in the emergency department will be an important aspect of this elective. As a result of these experiences the student will be able to: recognize acute surgical conditions and institute initial management, develop skills in surgical diagnosis, participate and assist in surgical procedures, elicit and perform an H & P on patients in an ambulatory care setting, and develop diagnostic skills in the ambulatory care setting. Prerequisite: SGRY 975. CLN.

SGRY 995. Special Topics in Surgery. 2-8 Hours.
This elective is designed to provide clinical and/or research experience in topics of special interest not otherwise represented in the curriculum. The student will design, in consultation with department faculty, specific objectives, reading assignments, and the mechanism for course evaluation. Prerequisite: Medical Basic Science and departmental consent. CLN.

SGRY 997. Sports Medicine. 2-4 Hours.
The student will experience Sports Medicine Care in the ambulatory setting. The student will evaluate sports related injuries in the office setting and also have the opportunity to observe surgical treatment in the arthroscopic surgery suite. The student will have the opportunity to participate in the on-site evaluation of athletic injuries through outreach sports medicine programming. Additional exposure to athletic training services will also be utilized. Prerequisite: Senior standing. CLN.

Postgraduate Training Programs

The KU School of Medicine provides two distinct residency and fellowship programs. Both programs are comprehensive in their training. One program is at the KU School of Medicine and Medical Center in Kansas City. The second program is at the KU School of Medicine — Wichita.

Kansas City Postgraduate Training Programs (http://www.kumc.edu/school-of-medicine/gme.html)
Wichita Postgraduate Training Programs (http://wichita.kumc.edu/education/graduate-medical-education.html)
Continuing Medical Education (http://kumcce.ku.edu)
Institute for Community Engagement (http://www.kumc.edu/community-engagement.html)
Music

Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU (see your advisor (http://www.advising.ku.edu) for details). Other years' catalogs (http://catalog.ku.edu/archive)

Bachelor of Arts in Fine Arts in Music (p. 1901)
Bachelor of Fine Arts in Theatre-Voice Program (p. 1903)
Bachelor of Music (p. 1904)
Bachelor of Music in Musicology (p. 1905)
Bachelor of Music in Music Theory and Composition (p. 1906)
Bachelor of Music in Music Therapy (p. 1907)
Bachelor of Music in Music Performance: Piano (p. 1910)
Bachelor of Music in Music Performance: Organ and Church Music (p. 1911)
Bachelor of Music in Music Performance: Strings and Harp (p. 1912)
Bachelor of Music in Music Performance: Voice (p. 1913)
Bachelor of Music in Music Performance: Brass and Percussion (p. 1914)
Bachelor of Music in Music Performance: Woodwinds (p. 1915)
Music Education B.M.E. Program (p. 1916)

Bachelor of Music Education in Music Education (p. 1916)
Minor in Music (p. 1920)
Master of Music (p. 1920)
Master of Music in Conducting (p. 1920)
Master of Music in Musicology (p. 1921)
Master of Music in Music Theory or Composition (p. 1922)
Master of Music in Music Performance: Brass and Percussion (p. 1923)
Master of Music in Music Performance: Organ, Church Music, and Carillon (p. 1924)
Master of Music in Music Performance: Piano (p. 1926)
Master of Music in Music Performance: Strings (p. 1927)
Master of Music in Music Performance: Voice and Opera (p. 1928)
Master of Music in Music Performance: Woodwinds (p. 1929)
Music Education M.M.E. Program (p. 1931)
Music Therapy M.M.E. Program (p. 1932)

Doctor of Musical Arts (p. 1933)
Doctor of Musical Arts in Composition (p. 1933)
Doctor of Musical Arts in Conducting (p. 1935)
Doctor of Musical Arts in Music Performance: Organ and Church Music (p. 1939)
Doctor of Musical Arts in Music Performance: Brass and Percussion (p. 1937)
Doctor of Musical Arts in Music Performance: Piano (p. 1941)
Doctor of Musical Arts in Music Performance: Strings (p. 1943)
Doctor of Musical Arts in Music Performance: Voice (p. 1945)
Doctor of Musical Arts in Music Performance: Woodwinds (p. 1946)

Doctor of Philosophy (p. 1948)
Doctor of Philosophy in Music (p. 1948)
Doctor of Philosophy in Music Education (p. 1949)

The School of Music

The School of Music at the University of Kansas ranks among the finest in America, offering comprehensive programs at the bachelor’s, master’s, and doctoral levels.

The school nurtures and advances the art of music through creation, performance, scholarly inquiry, entrepreneurship, and enhancement of the artistic skills and experiences of the university and regional cultural communities.

The school is a major contributor to the arts community through the student, faculty, and professional performances in Swarthout Recital Hall, Bales Organ Recital Hall, the Robert Baustian Theatre, and the Lied Center of Kansas.

The School of Music is an accredited institutional member of the National Association of Schools of Music (http://nasm.arts-accredit.org). The entrance and graduation requirements in this catalog conform to the published guidelines of that organization.

Degrees

Undergraduate Degree Programs

The degree of Bachelor of Music is granted with majors in bassoon, clarinet, double bass, euphonium, flute, French horn, harp, musicology, music therapy, oboe, organ and church music, percussion, piano, saxophone, theory, composition, trombone, trumpet, tuba, viola, violin, violoncello, and voice.

The degree of Bachelor of Arts in Fine Arts is granted with concentrations in applied music, jazz studies, musicology, and music theory.

The degree of Bachelor of Fine Arts is granted with a major in theatre and voice.

The degree of Bachelor of Music Education is granted with a major in music education.
Requirements for Graduation

Degrees from the School of Music are conferred on candidates who have satisfactorily completed a minimum of 120 credit hours for the B.A., B.M., B.F.A., and B.M.E. degrees, including required subjects. 45 credit hours must be in junior/senior-level courses, numbered 300 and above. A minimum 2.0 grade-point average, both cumulative and in KU courses, is required for graduation. 4 hours of the total in each case except the B.M.E. degree may be in physical education activity courses.

Remedial Courses

Remedial courses listed in the catalog and Schedule of Classes (http://www.registrar.ku.edu) are numbered below 100. Such courses include, but are not limited to, MATH 2 and MTHC 99. Such courses do not count toward graduation in the School of Music and may not be counted as distribution courses or electives.

Graduate Degree Programs

The School of Music offers these degree programs:

Master of Music
- Composition
- Conducting
- Musicology
- Music theory
- Performance

Master of Music Education
- Music Education
- Music therapy

Doctor of Musical Arts
- Composition
- Conducting
- Performance

Doctor of Philosophy
- Music with an emphasis in musicology or music theory
- Music Education with an emphasis in music education or music therapy

The Kansas Board of Regents (http://www.kansasregents.org) has designated KU as the sole institution in the Regents system authorized to grant doctoral degrees in music.

Contact the school (http://music.ku.edu) for specific admission requirements. See also Admission in the Graduate Studies section of the online catalog.

View the list of School of Music academic programs (p. 1867).

Facilities

Murphy Hall

Murphy Hall, named for former KU Chancellor Franklin D. Murphy, houses the School of Music (http://music.ku.edu). It is a 5-level facility with offices for faculty members in applied music, music theory and composition, musicology, opera, music education, music therapy, and ensembles. Designed for music and theatre, it contains 4 performance areas.

- Crafton-Preyer Theatre provides a venue for plays, operas, musical theatre shows, and concerts. It is a fully equipped, 1,188-seat proscenium stage facility.
- William Inge Memorial Theatre is an intimate black-box facility with seating for up to 125, suitable for plays and small opera productions.
- Swarthout Recital Hall, a 340-seat facility with exceptional acoustics, is dedicated to faculty and student solo and chamber music presentations and occasional opera productions.
- The Baustian Theatre, a black-box facility for opera and musical theatre productions, seats 125 and has a dressing room and wardrobe area, set construction and storage area, and office and performance control areas.

Murphy Hall also houses classrooms, practice rooms, rehearsal halls, and storage facilities for instruments and sheet music. The Electronic Music Studio contains a digital workstation for the recording and production of electronic music and video.

The Kansas Center for Music Technology in Murphy Hall promotes the development and application of current technologies in music instruction, research, and creative projects. Its Computer Center contains 32 fully networked multimedia workstations. KCMT has a library of commercially available software for evaluation, experimentation, and integration into existing courses. The lab also contains 3 high-end workstations for professional-quality digital audio, digital video, and DVD authoring. The library includes basic productivity and Internet software; music notation and sequencing, ear-training, CD-ROMs, and drill design software; and digital editing software for audio, video, multimedia, and Web authoring. Through workshops and music technology courses, KCMT helps faculty members and students develop innovative new software.

The Thomas Gorton Music and Dance Library in Murphy Hall houses more than 111,000 scores, books, sound recordings, videos, microforms, and serials, and has the leading music collection in the Great Plains. It features digital workstations; study carrels; comfortable seating; and public display of new acquisitions, current periodicals, and special exhibitions. Students can make full use of music and dance information resources. The Joe and Joyce Hale Media System allows remote listening and viewing from 30 locations in the library, including 328 media carrels, the seminar room, and the group study room. Media carrels have remote controls, MIDI music keyboards, mini-disk recorders, computers, and video monitors.

The Music Education and Music Therapy Complex in Murphy Hall contains a model music education classroom, a general music instruction classroom, large and small therapy clinical spaces, three research spaces, faculty offices, the Psychology and Acoustics of Music Laboratory, and the Music Therapy Clinic, a clinical training and research facility. In addition, the complex houses a Vocolology Laboratory, which affords excellent resources for research-based understanding of singing voice phenomena. The stationary lab facilitates acquisition and analysis of voice data in a controlled environment. It also provides mobile configurations of resources for field-based research and pedagogy in voice studios, choir rehearsal areas, classrooms, and music therapy clinics. A Polycom system enables interactive distance delivery of music education and music therapy graduate courses throughout Kansas and anywhere in the world.

Lied Center

The Lied Center of Kansas (http://www.lied.ku.edu) is a 2,020-seat performing arts hall. On KU's west campus at Irving Hill Road and Constant Avenue, it is the venue for the Lied Center Series. It also
presents School of Music (http://music.ku.edu) productions, Student Union Activities (https://rockchalkcentral.ku.edu/?q=Student_9347) shows, and university and community events. The performing arts hall offers excellent acoustic quality and technical production capabilities. The stage features a 56-foot-wide proscenium opening, resilient wood floor, counterweighted rigging system, and ample wing space. There is a full complement of backstage support areas including seven dressing rooms, dance rehearsal studio, two warm-up rooms, a Greenroom, and a production office.

The Dane and Polly Bales Organ Recital Hall is acoustically designed for the teaching and performance of organ music. It has seating for 200 and is attached to the Lied Center main lobbies at two levels. It houses a 45-stop mechanical key-action (electric stop-action) organ built by Hellmuth Wolff et Associés, one of the finest builders of organs in the world. The hall is available to organ students for practice, lessons, and recitals. Its aesthetics are enhanced by three magnificent stained glass windows designed by Peter Thompson, former dean of Fine Arts.

Undergraduate Programs
The school acquaints undergraduates with music as an important field of a liberal culture, either as members of a discriminating public or as trained practitioners. It prepares students for careers in music and promotes scholarship and research. It offers curricula for teachers of music in public schools and institutions of higher education and special degree curricula for training music therapists.

View the list of School of Music academic programs (p. 1867).

Applied Music Lessons
All majors and nonmajors (as space permits) who wish to take lessons must first pass an audition. All music majors enroll in 121-level applied music courses until they have accumulated 4 credit hours (6 or 8 hours for performance majors) at which time they may enroll in the 221 level. Music majors who are not performance majors must accumulate 8 applied music hours before enrolling in the 321 level and 12 applied music hours before enrolling in the 421 level (or 442 level for the B.M.E.). Performance majors must accumulate 12 or 16 credit hours at the 121 and 221 levels before they enroll in 622 level.

All music majors take applied music in the primary performance area for a minimum of one hour-long lesson a week at 2 to 5 credit hours a semester; others receive a half-hour lesson a week at 1 credit hour. See degrees listed on the Programs page for specific credit-hour and recital requirements. The summer session limit on all music major lessons is 1 to 3 credit hours.

Students may state their preferences as to teachers for private lessons, but final authority rests with the director of the division.

Courses for Nonmajors
Students in other KU schools may enroll in music courses for credit, subject to the availability of instructional time and as space permits. Most musicology courses and all ensembles are open to all KU students.

Students in the College of Liberal Arts and Sciences not majoring in music may elect an appropriate introductory course (MUSC 298, MUSC 305, MUSC 309, MUSC 312, MUSC 313, MUSC 336, or MUSC 560). Minors in music are offered for students in other disciplines. Most degree programs accept up to 6 hours of electives in music ensembles and performance.

Junior/senior credit in applied music involves a prerequisite of 4 hours of university credit in sequence in the field concerned.

University Honors Program
The school encourages qualified students to participate in the University Honors Program (http://www.honors.ku.edu).

Ensembles
The University Symphony Orchestra performs works from the standard symphonic repertoire on campus and occasionally on tours. It combines with choral ensembles to present oratorios or other large works and assists in musical theatre productions and opera. In addition, the orchestra reads new orchestral works submitted by KU composers for the George Lawner Prize, an annual adjudicated competition co-sponsored by Music Theory and Composition and the KU Symphony Orchestra.

The Wind Ensemble presents 4 or more concerts annually and tours nationally and internationally. The Symphonic and University Bands perform 2 concerts each semester. The KU Jazz program includes 3 jazz ensembles, 2 jazz choirs, and several combos.

The Marching Jayhawks are part of the pageantry at football games. The Basketball Bands (Men’s and Women’s) and pep bands also perform for sports events.


The Bales Chorale, Chamber Choir, Concert Choir, Men’s Glee Club, University Singers, and Women’s Chorale perform concerts on campus, tour, and participate in combined choral and orchestral presentations such as the annual Holiday Vespers. All KU students are eligible through audition for placement in a choir.

The Collegium Musicum specializes in early music, both vocal and instrumental, using KU’s collection of replicas of early instruments. Helianthus is the performing arm of KU’s New Music Ensemble. Each semester it performs the finest available contemporary chamber music. Recitals of music by KU student composers are presented each semester by the KU Composers Guild, a student organization. The Kansas Brass Quintet, Kansas Woodwinds, and Kansas String Quartet are faculty groups that present numerous concerts.

Visit the School of Music (http://music.ku.edu) for current information about recitals, concerts, and performances.

Graduate Programs
The School of Music offers Master of Music programs in composition, conducting, musicology, music theory, and areas of performance and Master of Music Education degree programs in music education or music therapy.

The Doctor of Musical Arts degree is offered in composition, conducting, and areas of performance. Programs are offered leading to the Doctor of Philosophy degree in music education with an emphasis in music education or music therapy and to the Doctor of Philosophy degree in music with an emphasis in musicology or music theory.
View the list of School of Music academic programs (p. 1867).

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Graduate Credit for Nonmajors

Performance

Permission to enroll for graduate credit in applied music is determined by audition. This audition should be scheduled with the major division faculty at the beginning of each semester.

Music Education or Music Therapy

Permission to enroll for graduate credit in music education or music therapy is determined by the information in the MEMT Graduate Application Procedure (http://music.ku.edu/programs/memt/prospective/graduate/admissions.shtml) document.

Ensembles

The University Symphony Orchestra performs works from the standard symphonic repertoire on campus and occasionally on tours. It combines with choral ensembles to present oratorios or other large works and assists in musical theatre productions and opera. In addition, the orchestra reads new orchestral works submitted by KU composers for the George Lawner Prize, an annual adjudicated competition co-sponsored by Music Theory and Composition and the KU Symphony Orchestra.

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Undergraduate Advising

Music students are advised by music faculty members from their major area of study as well as from the School of Music Student Services office. Students in Music Education and Music Therapy are each assigned a specific faculty advisor.

Each entering first-year student is encouraged to attend KU’s summer New Student Orientation. At the summer orientation program, students are advised on course selection for the fall semester and given the opportunity to enroll.

Each semester before enrollment, students see their advisors to plan schedules and discuss academic and career interests. Students are encouraged to call on their advisors any time during the school year if they wish to change their schedules or discuss other matters. Consultation with an advisor is recommended before making schedule changes.

Music students should direct questions to the School of Music (http://music.ku.edu) Office of Student Services.

Graduate Advising

Graduate advising is handled by the student’s major professor.

Undergraduate Scholarships

Academic Scholarships, as well as grants, loans, and need-based financial aid, are available through Financial Aid and Scholarships (http://affordability.ku.edu/step/index.shtml).

Merit Scholarships in Music are also available. Audition application and information is available on the school’s website (http://music.ku.edu).

Tuition and Fees

Information about KU tuition and fees is available from the Office of the University Registrar (http://www.registrar.ku.edu). Tuition and fees are set by the Board of Regents and are subject to change.

Graduate Fellowships and Assistantships

For information about graduate assistantships, contact the School of Music (http://music.ku.edu/resources).

Visit the Graduate Studies website for information about funding opportunities (http://www.graduate.ku.edu/funding-opportunities) for graduate students at KU.

Financial Aid and Scholarships (http://financialaid.ku.edu) administers grants, loans, and need-based financial aid.

Tuition and Fees

Information about KU tuition and fees is available from the Office of the University Registrar (http://www.registrar.ku.edu). Tuition and fees are set by the Board of Regents and are subject to change.
Undergraduate University Regulations

For information about all university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://www.policy.ku.edu). A few examples specific to the School of Music are shown below.

Absences

The school defines excessive absence as absence in excess of the number of credit hours in the course. A student with excessive absences may be withdrawn from the course by the dean.

Change of School

To change from one school to another, the student must submit a Change of School form in the dean’s office of the school the student plans to enter. Deadlines are provided on the form.

Admission is competitive. Students must have minimum cumulative grade-point averages of 2.75 on a 4.0 scale from all colleges or universities including KU. Music admission is contingent upon a successful audition. Change-of-school applicants must meet the same requirements as transfer applicants.

Credit/No Credit

A Credit/No Credit option is available to all degree-seeking undergraduates. You may enroll in one course a semester under the option, if the course is not in your major or minor. For more information, visit the KU Policy Library (https://documents.ku.edu/policies/governance/USRR.htm#art2sect2).

Warning: Certain undesirable consequences may result from exercising the option. Some schools, scholarship committees, and honorary societies do not accept this grading system and convert grades of No Credit to F when computing grade-point averages.

Graduation with Distinction and Highest Distinction

Students who rank in the upper 10 percent of their graduating class graduate with distinction. The upper third of those awarded distinction graduate with highest distinction. The list is compiled each spring and includes July, December, and May graduates.

Honor Roll

Students with grade-point averages of 3.6 who have completed at least 12 hours with letter grades are recognized on the honor roll or dean’s list in fall and spring. An Honor Roll notation appears on the transcript.

Incompletes

The letter I should not be used when a definite grade can be assigned for the work done. It is not given for the work of a student in any course except to indicate that some part of the work has, for reasons beyond the student’s control, not been done, while the rest has been satisfactorily completed. At the time an I is reported on the electronic roster, the character and amount of work needed, as well as the date required for completion and lapse grade if further work is not completed by this date, should be indicated.

If the instructor specifies that repetition of a portion of the classroom work is required, the student may attend classes but should not officially enroll in that course again.

A student who has an I posted for a course must make up the work by the date determined by the instructor, in consultation with the student, which may not exceed one calendar year, or the last day of the term of graduation, whichever comes first. An I not removed according to this rule shall automatically convert to a grade of F or U, or the lapse grade assigned by the course instructor, and shall be indicated on the student’s record.

Extensions to the time limit may be granted by the dean’s representative upon submission of a petition from the student containing the endorsement of the course instructor who assigned the I grade, or the department chairperson if the instructor is unavailable. After the I grade is converted to a grade of F or U, the grade may only be changed in accordance with USRR Article II, Section 3 (https://documents.ku.edu/policies/governance/USRR.htm#art2sect3).

Maximum and Minimum Semester Enrollment

The normal maximum enrollment is 20 hours during fall or spring semesters or 9 hours during the summer session. Students may exceed the normal maximum enrollment only with the permission of the dean.

Probation

Students may be dismissed at any time by the dean for excessive absences or for failure to make satisfactory progress in their studies.

A student not on probation who fails to earn a grade-point average of at least 2.0 in any semester is placed on probation for the following semester.

At the end of the semester in which the student has been on probation, he or she is removed from probation if the grade-point average for the semester is at least 2.0, with a minimum course load of 12 hours and a cumulative grade-point average of 2.0. A student whose course load is fewer than 12 hours or whose cumulative grade-point average is below 2.0 continues on probation even if the semester grade-point average is 2.0 or above.

At the end of the semester in which the student has been on probation, he or she is dismissed for poor scholarship if the grade-point average for the semester is below 2.0.

A student who has been dismissed for poor scholarship is not eligible to enroll again at any time, except with the special permission of the dean. A reinstated student is placed on final probation. If the student fails to achieve a minimum grade-point average of 2.0 for the semester, he or she is dismissed, and readmission is not granted.

Students who take courses at other institutions during the suspension may receive credit for such work only if it meets the approval of the dean.

Required Work in Residence

6 of the final 30 hours may be taken for nonresident credit, with advance permission. Nonresident credit may fill only elective requirements not in the major field of study.
Transfer of Credit

CredTran (http://admissions.ku.edu/~admiss/credit/transfer) is a transfer course equivalency system that lists more than 2,200 colleges and universities from which KU has accepted transfer courses in the past. If your school or course is not listed, your evaluation will be completed when you are admitted to KU.

Only grades of C or higher are accepted as transfer credit toward degrees.

Graduate University Regulations

For information about all university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://www.policy.ku.edu). A few examples specific to the School of Music are shown below.

Absences

A leave of absence may be granted on request. View the Graduate Studies policy on leaves of absence (https://documents.ku.edu/policies/Graduate_Studies/leaveofabsence.htm).

Credit/No Credit

The Credit/No Credit option is authorized, as of spring 2012, for graduate students (USRR Article II, 2.2.7). The full explanation can be found in the KU Policy Library under University Senate Rules and Regulations (http://catalog.dept.ku.edu/wrong/schools/gs/regulations).

Incompletes

The letters W and I may be given. The letter I indicates incomplete work that may be completed without re-enrollment in the course. The letter W indicates withdrawal for which no credit or grade point is assigned. For more information, see USRR Article II, Section 3 (https://documents.ku.edu/policies/governance/USRR.htm#art2sect3).

Maximum and Minimum Semester Enrollment

The normal maximum enrollment is 16 hours during fall or spring semesters or 6 hours during the summer session. Students may exceed the normal maximum enrollment only with the permission of the dean. International students must comply with the credit requirements for their visa status.

Probation and Dismissal

Probation and Dismissal processes) .

Required Work in Residence

For information about the doctoral residence requirement, see the Graduate Studies (p. 2059) section of the online catalog.

Transfer of Credit

View the Graduate Studies policy on graduate credit, including transfer credit, in the Graduate Studies section of the online catalog or the KU Policy Library (http://catalog.dept.ku.edu/201314/schools/gs/regulations/#12).

Courses

ACMP 527. Accompanying. 1-4 Hours.
Individual instruction in vocal and/or instrumental accompanying. Open to junior, senior, and graduate pianists with permission of instructor. IND.

ACMP 529. Performance Class in Accompanying. 1 Hour.
A class in the performance of vocal and instrumental accompaniment. Prerequisite: Completion of ACMP 527 or permission of instructor. IND.

ACMP 727. Accompanying. 1-4 Hours.
Individual instruction in vocal and/or instrumental accompanying. Prerequisite: Consent of instructor. IND.

ACMP 811. Advanced Accompanying. 1-6 Hours.
For graduate students majoring in accompanying. May be repeated for credit. Summer session limit one to three hours. IND.

ACMP 822. The Accompanist’s Literature. 3 Hours.
A course in which major vocal and instrumental works are studied with vocal or instrumental participants. LEC.

BAND 202. Wind Ensemble. 0-1 Hours.
Study and performance of literature written for wind ensembles using an instrumentation somewhat smaller than the traditional concert band. Literature ranges from early wind and band music to contemporary avant-garde wind ensemble literature. May be repeated for credit. Prerequisite: Audition and permission of instructor. LAB.

BAND 204. Symphonic Band. 0-1 Hours.
For freshmen and sophomores. Performances include concerts on campus and tours throughout the area. Literature includes wind music, transcriptions, and other standard concert band literature. May be repeated for credit. Prerequisite: Permission of director. ACT.

BAND 206. University Band. 0-1 Hours.
For freshmen and sophomores. This concert organization performs on campus as well as in other area concerts. The band studies and performs music from the standard band repertoire. May be repeated for credit. Prerequisite: Permission of director. ACT.

BAND 210. University Marching Band. 0-1 Hours.
For freshmen and sophomores. Open to all qualified University students, regardless of major. Public performances include presentation of maneuvers and pageantry at all home football games as well as several trips each season. Three two-hour rehearsals per week. Offered fall semester only. Membership by audition. May be repeated for credit. ACT.

BAND 301. Workshop in: ____. 1-3 Hours.
May be repeated for credit. IND.

BAND 404. Symphonic Band. 0-1 Hours.
For junior and seniors. Performances include concerts on campus and tours throughout the area. Literature includes wind music, transcriptions,
and other standard concert band literature. May be repeated for credit. Prerequisite: Permission of director. ACT.

BAND 406. University Band. 0-1 Hours.
For juniors and seniors. This concert organization performs on campus as well as in other area concerts. The band studies and performs music from the standard concert band repertoire. May be repeated for credit. Prerequisite: Permission of director. ACT.

BAND 410. University Marching Band. 0-1 Hours.
For juniors and seniors. Open to all qualified University students regardless of major. Public performances include presentation of marching maneuvers and pageantry at all home football games as well as several trips each season. Membership by audition. May be repeated for credit. ACT.

BAND 459. Scoring for Field Band. 2 Hours.
Primary voicing and textural possibilities for wind and percussion instruments will be stressed as these resources relate to the arranging of music for marching and pep bands at the secondary level. (Same as MTHC 459.) Prerequisite: MTHC 214. LEC.

BAND 466. Directed Study: _____, 1-3 Hours.
May be repeated for credit. Prerequisite: Permission of instructor. IND.

BAND 559. Scoring for Concert Band. 2 Hours.
Curriculum includes idiomatic writing, tonal balance, scoring for large percussion sections, and analysis of wind colors and instrumental combinations found in music of Holst, Vaughan Williams, Grainger, Stravinsky, Hindemith, and C. Williams. (Same as MTHC 559.) Prerequisite: MTHC 214 and MTHC 459. IND.

BAND 602. Wind Ensemble. 0-1 Hours.
Study and performance of literature written for wind ensembles using an instrumentation somewhat smaller than the traditional concert band. Literature ranges from early wind and band music to contemporary avant-garde wind ensemble literature. May be repeated for credit. Prerequisite: Audition and permission of instructor. LAB.

BAND 604. Symphonic Band. 0-1 Hours.
For graduate students. Performances include concerts on campus and tours throughout the area. Literature includes wind music, transcriptions, and other standard concert band literature. May be repeated for credit. Prerequisite: Permission of director. LEC.

BAND 630. Band Repertoire. 2 Hours.
A survey of selected band works from the standard repertoire. The works are to be analyzed in terms of style and form, and in terms of the rehearsal and performance problems inherent in the work. Also a study of the standard band repertoire from an educational viewpoint as well as from a programming viewpoint. LEC.

BAND 701. Workshop in: _____, 1-3 Hours.
May be repeated for credit. LEC.

BAND 803. Interpretation of Band Music. 1 Hour.
A study of the essential factors necessary for the understanding and subsequent interpretation of various compositions of advanced band music. In addition to the regular course work, students must participate in one of the university concerts bands, attend all rehearsals each week and play in concerts. May be repeated for credit. Prerequisite: Permission of instructor. LAB.

BAND 866. Directed Study in: _____, 1-3 Hours.
May be repeated for credit. Prerequisite: Permission of instructor. LEC.

BASN 100. Bassoon. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

BASN 101. Bassoon Reed Making. 0-1 Hours.
The principles of bassoon reed making, including profiling and shaping of bassoon cane and scraping of bassoon reeds. Open only to freshmen and sophomores. May be repeated for credit. LAB.

BASN 121. Bassoon. 1-4 Hours.
Applied music lessons for freshmen majoring in music. May be repeated for credit. IND.

BASN 221. Bassoon. 1-4 Hours.
Applied music lessons for sophomores majoring in music. May be repeated for credit. Prerequisite: 121-level until the music major has accumulated 4 credits (8 for performance majors). IND.

BASN 300. Bassoon. 1-2 Hours.
Applied music lessons for juniors and seniors not majoring in music. May be repeated for credit. IND.

BASN 301. Bassoon Reed Making. 0-1 Hours.
The principles of bassoon reed making, including profiling and shaping of bassoon cane and scraping of bassoon reeds. Open only to juniors and seniors. May be repeated for credit. LAB.

BASN 321. Bassoon. 1-2 Hours.
Applied music lessons for juniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 321-level until the music major has accumulated 12 credits. IND.

BASN 421. Bassoon. 1-2 Hours.
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 221-level until the music major has accumulated 8 credits. IND.

BASN 422. Bassoon. 1-2 Hours.
Applied music lessons. Must be taken in the semester a recital is being performed and as required by the degree program. Not for performance majors. IND.

BASN 522. Bassoon. 1-4 Hours.
Applied music lessons for juniors and seniors majoring in performance. May be repeated for credit. Prerequisite: Performance majors must accumulate 16 credits at the 121/221 levels. IND.

BASN 711. Bassoon. 1-4 Hours.
For graduate students not majoring in bassoon. May be repeated for credit. Summer session limit one to three hours. IND.

BASN 811. Bassoon. 1-6 Hours.
For graduate students majoring in bassoon. May be repeated for credit. Summer session limit one to three hours. IND.

BASN 921. Seminar in Performance. 3 Hours.
A study of repertoire and performance practice relating to the bassoon during the seventeenth and eighteenth centuries. LEC.

BASN 922. Seminar in Performance. 3 Hours.
A study of repertoire and extended performance techniques of the twentieth century. LEC.

BASN 961. Directed Performance. 1-6 Hours.
Individual instruction. Open only to students who have been admitted to the D.M.A. curriculum in bassoon. May be repeated for credit. Summer session limit one to three hours. RSH.

BASN 965. Doctoral Recitals. 1-3 Hours.
Maximum seven hours credit. May be repeated for credit. THE.

BASN 970. D.M.A. Lecture-Recital. 1-6 Hours.
A lecture-recital and scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance. May be repeated for credit. Prerequisite: Consent of instructor. RSH.
BASN 972. D.M.A. Document. 1-6 Hours.
A scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance and conducting. May be repeated for credit. Prerequisite: Consent of instructor. THE.

BRSS 252. Brass Choir. 0-1 Hours.
For freshmen and sophomores. Study and performance of large brass ensemble literature. May be repeated for credit. IND.

BRSS 652. Brass Choir. 0-1 Hours.
For juniors, seniors, and graduate students. Study and performance of large brass ensemble literature. May be repeated for credit. IND.

BRSS 921. Seminar in Performance and Pedagogy: ______. 3 Hours.
Repertoire, performance practice, pedagogical, and stylistic concerns relating to the music for brass instruments throughout their history. Topics will include the physical development of the instruments, their usage as solo, chamber, and large ensemble instruments in both sacred and secular literature, and a survey of historical and modern bibliographic materials. May be repeated for credit when topics vary. IND.

CARI 100. Carillon. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

CARI 300. Carillon. 1-2 Hours.
Applied music lessons for juniors and seniors not majoring in music. May be repeated for credit. IND.

CARI 621. Carillon. 1-4 Hours.
One or two lessons per week. For graduate students not majoring in carillon performance. May be repeated for credit. IND.

CARI 711. Carillon. 1-4 Hours.
May be repeated for credit. IND.

CARI 804. History of Carillon Literature and Design. 3 Hours.
A survey of carillon literature and design. Prerequisite: Permission of instructor. LEC.

CARI 811. Carillon. 1-6 Hours.
For graduate students majoring in carillon. May be repeated for credit. Prerequisite: Permission of instructor. IND.

CARI 820. Studio Class in Carillon. 0 Hours.
Studio performance of repertoire for students enrolled in carillon. May be repeated. Prerequisite: Permission of instructor. IND.

CHAM 215. University Camerata. 0-1 Hours.
For freshmen and sophomores. Rehearsal and performance of string chamber music repertoire. May be repeated for credit. Prerequisite: Permission of instructor. LEC.

CHAM 216. Chamber Music. 0-1 Hours.
For freshmen and sophomores. The study of works for various combinations of instruments. May be repeated for credit. LAB.

CHAM 220. Baroque Ensemble. 0-1 Hours.
For freshmen and sophomores. Study and performance of seventeenth and eighteenth century chamber music using replicas of period instruments. May be repeated for credit. LAB.

CHAM 254. New Music Ensemble. 0-2 Hours.
The performance of music in the most recent styles as well as masterworks of the 20th century. May be repeated for credit. Prerequisite: Permission of the instructor. ACT.

CHAM 320. Baroque Ensemble. 0-1 Hours.
For juniors and seniors. Study and performance of seventeenth and eighteenth century chamber music using replicas of period instruments. May be repeated for credit. LAB.

CHAM 336. Chamber Music. 0-2 Hours.
For juniors and seniors. The study of standard chamber music literature with or without piano. May be repeated for credit. LAB.

CHAM 615. University Camerata. 0-1 Hours.
For juniors, seniors, and graduate students. Rehearsal and performance of string chamber music repertoire. May be repeated for credit. Prerequisite: Permission of instructor. LEC.

CHAM 654. New Music Ensemble. 0-2 Hours.
The performance of music in the most recent styles as well as masterworks of the 20th century. May be repeated for credit. Prerequisite: Permission of the instructor. ACT.

CHAM 820. Baroque Ensemble. 0-2 Hours.
Study and performance of seventeenth and eighteenth century chamber music, using replicas of period instruments. Primarily for woodwinds, strings, and keyboards. May be repeated for credit. IND.

CHAM 829. Advanced Chamber Music. 0-2 Hours.
A special study of chamber music works, with or without piano, with emphasis on problems of style and interpretation. May be repeated for credit. IND.

CHAM 929. Advanced Chamber Music. 0-2 Hours.
May be repeated for credit. IND.

CHOR 214. University Singers. 0-1 Hours.
Open through audition. Study and performance of significant choral music from the major periods of music history. For freshmen and sophomores. May be repeated for credit. LAB.

CHOR 216. Concert Choir. 0-1 Hours.
Open through audition. Study and public performance of significant choral music from the major periods of music history. For freshmen and sophomores. May be repeated for credit. LAB.

CHOR 218. KU Men’s Glee Club. 0-1 Hours.
A choral ensemble for male singers. The group will study, rehearse, and perform traditional and contemporary choral music for men’s chorus. A formal audition is not required. May be repeated for credit. ACT.

CHOR 220. Oread Consort. 0-1 Hours.
A select choral ensemble of 16-20 singers specializing in challenging music of all periods. Open by audition to experienced sight readers and ensemble singers. Concurrent membership in another choir encouraged. For freshmen and sophomores. May be repeated for credit. LAB.

CHOR 226. Women’s Chorale. 0-1 Hours.
A choral ensemble for women singers. The group will study, rehearse, and perform traditional and contemporary choral music for women’s chorus. For freshmen and sophomores. May be repeated for credit. ACT.

CHOR 228. Summer Chorus. 0-1 Hours.
A choral ensemble that meets during the summer term. May be repeated for credit. ACT.

CHOR 242. Chamber Choir. 0-1 Hours.
Intensive study and public performance of significant choral literature. Membership by audition. For freshmen and sophomores. May be repeated for credit. LAB.

CHOR 254. Collegium Musicum, Vocal. 0-1 Hours.
May be repeated for credit. (Same as MUSC 254.) Prerequisite: Permission of instructor. ACT.

CHOR 410. Choral Practicum. 1 Hour.
A choral ensemble directed by student conductors under the supervision of the choral faculty. May be repeated for credit. ACT.
CHOR 414. University Singers. 0-1 Hours.
Open through audition. Study and performance of significant choral music from the major periods of music history. For juniors and seniors. May be repeated for credit. LAB.

CHOR 416. Concert Choir. 0-1 Hours.
Open through audition. Study and public performance of significant choral music from the major periods of music history. For juniors and seniors. May be repeated for credit. LAB.

CHOR 418. KU Men’s Glee Club. 0-1 Hours.
A choral ensemble for male singers. The group will study, rehearse, and perform traditional and contemporary choral music for men’s chorus. A formal audition is not required. May be repeated for credit. ACT.

CHOR 424. Opera Chorus. 1 Hour.
A chorus for opera or musical theatre productions. Open by audition in conjunction with the theatre department. May be repeated for credit. LAB.

CHOR 446. Women’s Chorale. 0-1 Hours.
A choral ensemble for women singers. The group will study, rehearse, and perform traditional and contemporary choral music for women’s chorus. For juniors and seniors. May be repeated for credit. LAB.

CHOR 620. Oread Consort. 0-1 Hours.
A select choral ensemble of 16-20 singers specializing in challenging music of all periods. Open by audition to experienced sight readers and ensemble singers. Concurrent membership in another choir encouraged. For juniors, seniors, and graduate students. May be repeated for credit. LAB.

CHOR 628. Summer Chorus. 0-1 Hours.
A choral ensemble that meets during the summer term. May be repeated for credit. ACT.

CHOR 630. Choral Repertoire. 2 Hours.
A survey of selected choral repertoire available for the high school choral conductor. Both sacred and secular choral literature from the major periods of music history will be studied and analyzed in terms of the problems therein which may be encountered by high school choral conductors. Fall semester and summer only. May be repeated for credit. Prerequisite: MMT 246, MMT 330, MMT 700, and/or consent of instructor. LEC.

CHOR 642. Chamber Choir. 0-1 Hours.
Intensive study and public performance of significant choral literature. Membership by audition. For juniors, seniors, and graduate students. May be repeated for credit. LAB.

CHOR 654. Collegium Musicum, Vocal. 0-1 Hours.
May be repeated for credit. (Same as MUSC 654.) Prerequisite: Permission of instructor. ACT.

CHOR 701. Workshop in: ____. 0.5-3 Hours.
May be repeated for credit. LEC.

CHOR 805. Interpretation of Choral Music. 1 Hour.
A study of the essential factors necessary for the understanding and subsequent interpretation of various compositions of advanced choral music. Offered in the summer session only. LEC.

CHOR 820. Orchestral Bowing Techniques for Choral Conductors. 1 Hour.
Stylistic, expressive, and technical considerations essential for making effective bowing decisions. Prerequisite: A course in conducting. LAB.

CHOR 825. Choral Diction. 3 Hours.
Study of methods to teach and learn diction in choral music contexts. Attention to International Phonetic Alphabet, acoustic implications of particular phonemes, and contributions of emerging technologies.
CHUR 806. Service Playing and Improvisation I. 3 Hours.
Hymn playing, service playing techniques, anthem accompaniment, conducting from the console and improvisation. Prerequisite: Permission of instructor. LEC.

CHUR 807. Service Playing and Improvisation II. 3 Hours.
Continuation of CHUR 806. Prerequisite: Permission of instructor. LEC.

CHUR 808. History of Liturgy. 3 Hours.
The history of liturgy in Jewish and Christian traditions as well as historical criticism and interpretation of liturgy. LEC.

CHUR 809. The Judeo-Christian Tradition and the Arts. 3 Hours.
Readings, discussion and projects concerning architecture, visual art, literature, drama, poetry, dance, and film as they have developed in the Judeo-Christian tradition. LEC.

CHUR 810. Religion and the Arts. 3 Hours.
Issues in the relationship between religion and the arts. LEC.

CHUR 821. Church Music Colloquium I: Anthem Literature. 1 Hour.
A survey of significant anthem literature. Prerequisite: Permission of instructor. LEC.

CHUR 822. Church Music Colloquium II: Handbells. 1 Hour.
Handbell history, literature, performance, and rehearsal techniques. Prerequisite: Permission of instructor. LEC.

CHUR 823. Church Music Colloquium III: Children’s Choirs. 1 Hour.
A study of the history and literature of children’s choirs, vocal characteristics of children, and rehearsal procedures with the children’s choir. Prerequisite: Permission of instructor. LEC.

CHUR 824. Church Music Colloquium IV: Hymnody. 1 Hour.
A study of the historical development of hymnody. Prerequisite: Permission of instructor. LEC.

CHUR 825. Advanced Church Music Colloquium I: Children’s Choirs. 1 Hour.
A continuation of CHUR 823. Prerequisite: CHUR 823. IND.

CHUR 826. Improvisation. 2 Hours.
Applied study in improvisation at the organ. Prerequisite: Permission of instructor. LEC.

CLAR 100. Clarinet. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

CLAR 121. Clarinet. 1-4 Hours.
Applied music lessons for freshmen majoring in music. May be repeated for credit. IND.

CLAR 221. Clarinet. 1-4 Hours.
Applied music lessons for sophomores majoring in music. May be repeated for credit. Prerequisite: 121-level until the music major has accumulated 4 credits (8 for performance majors). IND.

CLAR 300. Clarinet. 1-2 Hours.
Applied music lessons for juniors and seniors not majoring in music. May be repeated for credit. IND.

CLAR 321. Clarinet. 1-2 Hours.
Applied music lessons for juniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 221-level until the music major has accumulated 8 credits. IND.

CLAR 421. Clarinet. 1-2 Hours.
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 321-level until the music major has accumulated 12 credits. IND.

CLAR 422. Clarinet. 1-2 Hours.
Applied music lessons. Must be taken in the semester a recital is being performed and as required by the degree program. Not for performance majors. IND.

CLAR 622. Clarinet. 1-4 Hours.
Applied music lessons for juniors and seniors majoring in performance. May be repeated for credit. Prerequisite: Performance majors must accumulate 16 credits at the 121/221 levels. IND.

CLAR 711. Clarinet. 1-4 Hours.
For graduate students not majoring in clarinet. May be repeated for credit. Summer session limit one to three hours. IND.

CLAR 811. Clarinet. 1-6 Hours.
For graduate students majoring in clarinet. May be repeated for credit. Summer session limit one to three hours. IND.

CLAR 921. Seminar. 3 Hours.
A study of clarinet repertoire and performance techniques in the 18th and 19th centuries. LEC.

CLAR 922. Seminar. 3 Hours.
A study of clarinet repertoire and performance techniques from 1900 to the present. LEC.

CLAR 965. Doctoral Recitals. 1-3 Hours.
Maximum seven hours credit. May be repeated for credit. RSH.

CLAR 970. D.M.A. Lecture-Recital. 1-6 Hours.
A lecture-recital and scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance. May be repeated for credit. Prerequisite: Consent of instructor. RSH.

CLAR 972. D.M.A. Document. 1-6 Hours.
A scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance. May be repeated for credit. Prerequisite: Consent of instructor. RSH.

COND 245. Conducting I. 2 Hours.
An introduction to the principles of conducting through exercises and musical examples designed to develop a specific technical skill. A study of the basic conducting patterns and their application. IND.

COND 345. Conducting II. 2 Hours.
A continuation of COND 245. Prerequisite: COND 245. IND.

COND 711. Choral Conducting I. 1-3 Hours.
Conducting technique, choral musicianship, and choral methods. Prerequisite: MEMT 246, MEMT 330, and/or consent of instructor. RSH.

COND 712. Choral Conducting II. 1-3 Hours.
Continuation of COND 711. RSH.

COND 745. Instrumental Conducting. 2 Hours.
A study of conducting techniques and problems in rehearsal and performance. Score analysis and repertoire development. May be repeated for credit. Prerequisite: Consent of instructor. RSH.

COND 791. Score Reading. 2 Hours.
Development of skills in the reading of all clefs and the most common transpositions. Simultaneous reading of multiple lines and their practical rendition at the piano. May be repeated for credit. RSH.

COND 811. Advanced Choral Conducting. 1-6 Hours.
A study of conducting techniques as they pertain to developing an expressive and precise choral ensemble. Participating in rehearsals under the supervision of instructor. May involve conducting in public performance. May be repeated for credit. Summer session limit one to three hours. Prerequisite: Four hours of conducting and/or consent of instructor. IND.
COND 820. Advanced Choral Conducting and Rehearsal Techniques. 3 Hours.
Refinement of conducting and teaching skills in a choral setting. Focus on relationships between gesture and choral sound, rehearsal structure and optimal learning, and age-appropriate choral literature and development of musicality. (Same as MEMT 820.) LAB.

COND 821. Advanced Score Reading. 2 Hours.
Development of fluency in reading full scores at the piano. May be repeated for credit. Prerequisite: Two semesters of COND 791 or consent of instructor. RSH.

COND 822. Choral Literature - Late Baroque Era to Classical Era. 3 Hours.
LEC.

COND 823. Choral Literature - Romantic Era. 3 Hours.
LEC.

COND 824. Choral Literature - Contemporary Era. 3 Hours.
LEC.

COND 825. Choral Literature-Renaissance. 3 Hours.
The study of literature from the Renaissance to the Early Baroque period. LEC.

COND 845. Advanced Instrumental Conducting. 3 Hours.
A study of techniques needed to project the conductor's concept in rehearsal and performance. Participating in rehearsals under the supervision of the instructor. May involve conducting in public performance. May be repeated for credit. Prerequisite: Consent of instructor. RSH.

COND 921. Seminar. 3 Hours.
Choral literature from 1450 to 1650. LEC.

COND 931. Seminar. 3 Hours.
Symphonic repertoire. LEC.

COND 932. Seminar. 3 Hours.
Operatic repertoire. LEC.

COND 933. Seminar. 3 Hours.
Solo repertoire with orchestra. LEC.

COND 941. Seminar: Band Literature ______. 3 Hours.
A study of literature for wind band including original works and transcriptions. May be repeated for credit when topic varies. LEC.

COND 961. Directed Performance. 1-6 Hours.
Open only to students who have been admitted to the D.M.A. program in conducting. May be repeated for credit. Summer session limit one to three hours. RSH.

COND 965. Doctoral Recitals. 1-2 Hours.
Maximum credit, four hours. May be repeated for credit. THE.

COND 970. D.M.A. Lecture-Recital. 1-6 Hours.
A lecture-recital and scholarly paper on a subject pertinent to the student's major field. Open only to candidates for the D.M.A. in conducting. May be repeated for credit. Prerequisite: Consent of instructor. RSH.

COND 972. D.M.A. Document. 1-6 Hours.
A scholarly paper on a subject pertinent to the student's major field. Open only to candidates for the D.M.A. in performance and conducting. May be repeated for credit. Prerequisite: Consent of instructor. THE.

DBBS 100. Double Bass. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

DBBS 120. Double Bass Performance Class. 0-1 Hours.
Studio performance of solo, ensemble, and orchestral audition repertoire for students concurrently enrolled in double bass, viola, violin, and violoncello study. May be repeated. LEC.

DBBS 121. Double Bass. 1-5 Hours.
Applied music lessons for freshmen majoring in music. May be repeated for credit. IND.

DBBS 221. Double Bass. 1-5 Hours.
Applied music lessons for sophomores majoring in music. May be repeated for credit. Prerequisite: 121-level until the music major has accumulated 4 credits (8 for performance majors). IND.

DBBS 300. Double Bass. 1-2 Hours.
Applied music lessons for juniors and seniors not majoring in music. May be repeated for credit. IND.

DBBS 320. Double Bass Performance Class. 0-1 Hours.
Studio performance of solo, ensemble, and orchestral audition repertoire for students concurrently enrolled in double bass, viola, violin and violoncello study. May be repeated. LEC.

Applied music lessons for juniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 221-level until the music major has accumulated 8 credits. IND.

DBBS 421. Double Bass. 1-2 Hours.
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 321-level until the music major has accumulated 12 credits. IND.

DBBS 422. Double Bass. 1-2 Hours.
Applied music lessons. Must be taken in the semester a recital is being performed and as required by the degree program. Not for performance majors. IND.

DBBS 622. Double Bass. 1-5 Hours.
Applied music lessons for juniors and seniors majoring in performance. May be repeated for credit. Prerequisite: Performance majors must accumulate 16 credits at the 121/221 levels. IND.

DBBS 711. Double Bass. 1-4 Hours.
For graduate students not majoring in double bass. May be repeated for credit. Summer session limit one to three hours. IND.

DBBS 720. Double Bass Performance Class. 0-1 Hours.
Studio performance of solo, ensemble, and orchestral audition repertoire for students concurrently enrolled in double bass, viola, violin and violoncello study. May be repeated. LEC.

DBBS 811. Double Bass. 1-6 Hours.
For graduate students majoring in double bass. May be repeated for credit. IND.

EUPH 100. Euphonium. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

EUPH 121. Euphonium. 1-4 Hours.
Applied music lessons for freshmen majoring in music. May be repeated for credit. IND.

EUPH 221. Euphonium. 1-4 Hours.
Applied music lessons for sophomores majoring in music. May be repeated for credit. Prerequisite: 121-level until the music major has accumulated 4 credits (8 for performance majors). IND.
FLUT 300. Flute. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

FLUT 321. Flute. 1-2 Hours.
Applied music lessons for juniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 221-level until the music major has accumulated 8 credits. IND.

FLUT 331. Baroque Flute. 1-4 Hours.
One or two lessons per week. For juniors and seniors. May be repeated for credit. IND.

FLUT 421. Flute. 1-2 Hours.
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 321-level until the music major has accumulated 12 credits. IND.

FLUT 422. Flute. 1-2 Hours.
Applied music lessons. Must be taken in the semester a recital is being performed and as required by the degree program. Not for performance majors. IND.

FLUT 422. Flute. 1-2 Hours.
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: Performance majors must accumulate 16 credits at the 121/221 levels. IND.

FLUT 711. Flute. 1-4 Hours.
For graduate students not majoring in flute. May be repeated for credit. Summer session limit one to three hours. IND.

FLUT 811. Flute. 1-6 Hours.
For graduate students majoring in flute. May be repeated for credit. Summer session limit one to three hours. IND.

FRHN 121. French Horn. 1-4 Hours.
Applied music lessons for freshmen majoring in music. May be repeated for credit. IND.

FRHN 221. French Horn. 1-4 Hours.
Applied music lessons for sophomores majoring in music. May be repeated for credit. Prerequisite: 221-level until the music major has accumulated 4 credits (8 for performance majors). IND.

FRHN 321. French Horn. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

FRHN 321. French Horn. 1-2 Hours.
Applied music lessons for juniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 221-level until the music major has accumulated 8 credits. IND.

FRHN 421. French Horn. 1-2 Hours.
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 321-level until the music major has accumulated 12 credits. IND.
FRHN 422. French Horn. 1-2 Hours.
Applied music lessons. Must be taken in the semester a recital is being performed and as required by the degree program. Not for performance majors. IND.

FRHN 622. French Horn. 1-4 Hours.
Applied music lessons for juniors and seniors majoring in performance. May be repeated for credit. Prerequisite: Performance majors must accumulate 16 credits at the 121/221 levels. IND.

FRHN 652. Horn Ensemble. 0-1 Hours.
For juniors, seniors, and graduate students. Study and performance of ensemble literature for the horn. May be repeated for credit. IND.

FRHN 711. French Horn. 1-4 Hours.
For graduate students not majoring in French horn. May be repeated for credit. Summer session limit one to three hours. IND.

FRHN 811. French Horn. 1-6 Hours.
For graduate students majoring in French horn. May be repeated for credit. Summer session limit one to three credits. IND.

FRHN 961. Directed Performance. 1-6 Hours.
Individual instruction. Open only to students who have been admitted to the D.M.A. curriculum in French Horn. May be repeated for credit. Summer session limit one to two hours. RSH.

FRHN 965. Doctoral Recitals. 1-3 Hours.
May be repeated for credit. THE.

FRHN 970. D.M.A. Lecture-Recital. 1-6 Hours.
A lecture-recital and scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance. May be repeated for credit. Prerequisite: Consent of instructor. RSH.

FRHN 972. D.M.A. Document. 1-6 Hours.
A scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance and conducting. May be repeated for credit. Prerequisite: Consent of instructor. THE.

GUIT 100. Beginning Group Guitar I. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

GUIT 102. Beginning Group Guitar II. 1 Hour.
A continuation of GUIT 100 or for beginning students with considerable music experience. Emphasis on guitar basics, using easy exercises, etudes, chord structure and scales, sight reading, including lead sheets. IND.

GUIT 120. Intermediate Group Guitar. 2 Hours.
A pedagogical approach to guitar literature of medium difficulty. A survey of standard methods, etudes, and literature through group performance and individual assignments. IND.

GUIT 121. Guitar. 1-4 Hours.
Applied music lessons for freshmen majoring in music. May be repeated for credit. IND.

GUIT 122. Advanced Group Guitar. 2 Hours.
A survey of intermediate and advanced etudes as they apply to the representative and corresponding literature. Advanced technical studies. IND.

GUIT 221. Guitar. 1-4 Hours.
Applied music lessons for sophomores majoring in music. May be repeated for credit. Prerequisite: 121-level until the music major has accumulated 4 credits (8 for performance majors). IND.

GUIT 300. Guitar. 1-2 Hours.
Applied music lessons for juniors and seniors not majoring in music. May be repeated for credit. IND.

GUIT 321. Guitar. 1-2 Hours.
Applied music lessons for juniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 221-level until the music major has accumulated 8 credits. IND.

GUIT 421. Guitar. 1-2 Hours.
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 321-level until the music major has accumulated 12 credits. IND.

GUIT 422. Guitar. 1-2 Hours.
Applied music lessons. Must be taken in the semester a recital is being performed and as required by the degree program. Not for performance majors. IND.
HARP 622. Harp. 1-5 Hours.
Applied music lessons for juniors and seniors majoring in performance. May be repeated for credit. Prerequisite: Performance majors must accumulate 16 credits at the 121/221 levels. IND.

HARP 711. Harp. 1-4 Hours.
For graduate students not majoring in harp. May be repeated for credit. Summer session limit one to three hours. IND.

HARP 720. Harp Performance Class. 1 Hour.
Studio performance of solo, ensemble, and orchestral audition repertoire for students concurrently enrolled in violin (viola, etc.) study. For freshman and sophomores (120); juniors and seniors (320); graduate student (720) (as appropriate). May be repeated for credit. LEC.

HARP 811. Harp. 1-6 Hours.
For graduate students majoring in harp. May be repeated for credit. Summer session limit one to three hours. IND.

HPCD 100. Harpsichord. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

HPCD 300. Harpsichord. 1-2 Hours.
Applied music lessons for juniors and seniors not majoring in music. May be repeated for credit. IND.

HPCD 621. Harpsichord. 1-4 Hours.
One or two lessons per week. For graduate students. May be repeated for credit. IND.

HPCD 711. Harpsichord. 1-4 Hours.
Summer session limit one to two credits. May be repeated for credit. IND.

JAZZ 105. Jazz Theory. 2 Hours.
An introduction to jazz harmony: Scales, modes, chord symbols, chord voicing practices, analysis, reharmonization practices, scale choices for improvisation, creation of bass lines. Prerequisite: MTHC 105 or consent of instructor. ACT.

JAZZ 208. Jazz Ensemble. 0-1 Hours.
For freshmen and sophomores. A performance laboratory specializing in the preparation and presentation of jazz compositions and arrangements. Designed to provide today's student musician with the background and skills necessary to function successfully as a professional studio musician, or as a teacher of popular jazz music. May be repeated for credit. Prerequisite: Consent of director. ACT.

JAZZ 209. Jazz Combo. 0-1 Hours.
Study and performance of music designed for the small jazz combo. Emphasis placed on jazz improvisation, and a survey of a wide variety of styles for this medium. May be repeated for credit. Prerequisite: Consent of director. ACT.

JAZZ 212. Vocal Jazz Ensemble. 0-1 Hours.
Study and performance of vocal jazz compositions and arrangements with emphasis on vocal jazz improvisation. Membership by audition. May be repeated for credit. ACT.

JAZZ 224. Jazz Improvisation I. 2 Hours.
Study of techniques involved in jazz improvisation, including application of chord/scale relationships to basic blues and II-V-I chord progressions; transcriptions of recorded jazz solos; and memorization of jazz standards and patterns. Prerequisite: JAZZ 105 or JAZZ 305 or permission of instructor. ACT.

JAZZ 225. Jazz Improvisation II. 2 Hours.
Study of advanced techniques in jazz improvisation, including third relationships, Coltrane changes, advanced reharmonization and altered pentatonic patterns and scales. Continuation of solo transcriptions, patterns and jazz standard memorization from Jazz Improvisation I. Prerequisite: JAZZ 224 or JAZZ 624 or permission of instructor. ACT.

JAZZ 230. Introduction to Jazz Piano. 2 Hours.
Study of common jazz piano chord voicings, including two hand block chordal voicings and left hand-only voicings. Prerequisite: JAZZ 105 or JAZZ 305 or permission of instructor. ACT.

JAZZ 305. Jazz Theory. 2 Hours.
An introduction to jazz harmony: Scales, modes, chord symbols, chord voicing practices, analysis, reharmonization practices, scale choices for improvisation, creation of bass lines. Prerequisite: MTHC 105 or consent of instructor. ACT.

JAZZ 409. Jazz Combo. 0-1 Hours.
Study and performance of music designed for the small jazz combo. Emphasis placed on jazz improvisation, and a survey of a wide variety of styles for this medium. May be repeated for credit. Prerequisite: Permission of director. ACT.

JAZZ 459. Jazz Arranging. 2 Hours.
Study of techniques and practices involved in arranging for the contemporary jazz ensemble (big band) and jazz combo, including voicings, counterpoint, nomenclature and writing for jazz rhythm sections. Prerequisite: JAZZ 105 or JAZZ 305 and JAZZ 230 or permission of instructor. ACT.

JAZZ 608. Jazz Ensemble. 0-1 Hours.
For juniors, seniors, and graduate students. May be repeated for credit. ACT.

JAZZ 612. Vocal Jazz Ensemble. 0-1 Hours.
Study and performance of vocal jazz compositions and arrangements with emphasis on vocal jazz improvisation. Membership by audition. For juniors, seniors, and graduate students. May be repeated for credit. ACT.

JAZZ 624. Jazz Improvisation I. 2 Hours.
Study of techniques involved in jazz improvisation, including application of chord/scale relationships to basic blues and II-V-I chord progressions; transcriptions of recorded jazz solos; and memorization of jazz standards and patterns. Prerequisite: JAZZ 105 or JAZZ 305 or permission of instructor. LAB.

JAZZ 625. Jazz Improvisation II. 2 Hours.
Study of advanced techniques in jazz improvisation, including third relationships, Coltrane changes, advanced reharmonization and altered pentatonic patterns and scales. Continuation of solo transcriptions, patterns and jazz standard memorization from Jazz Improvisation I. Prerequisite: JAZZ 224 or JAZZ 624 or permission of instructor. ACT.

JAZZ 630. Introduction to Jazz Piano. 2 Hours.
Study of common jazz piano chord voicings, including two hand block chordal voicings and left hand-only voicings. Prerequisite: JAZZ 105 or JAZZ 305 or permission of instructor. ACT.

JAZZ 659. Jazz Arranging. 2 Hours.
Study of techniques and practices involved in arranging for the contemporary jazz ensemble (big band) and jazz combo, including voicings, counterpoint, nomenclature and writing for jazz rhythm sections. Prerequisite: JAZZ 105 or JAZZ 305 and JAZZ 230 or permission of instructor. ACT.

MEMT 111. Class Guitar for Nonmajors. 2 Hours.
Common chords, major and minor triads and major-minor sevenths, and fundamentals of music notation for guitar. Strumming and rudimentary finger picking. Performance of simple melodies on all six strings from standard notation. May be repeated for credit. IND.
MEMT 112. Performance Media: _______. 0.5-1 Hours.
Laboratory class lessons in pedagogy and performance. May be repeated for credit in different specific media. LAB.

MEMT 113. Performance Media: Brass. 1 Hour.
Knowledge and skills needed to teach brass instruments in music education settings. LAB.

MEMT 114. Performance Media: Woodwinds. 1 Hour.
Knowledge and skills needed to teach woodwind instruments in music education settings. LAB.

MEMT 115. Performance Media: Percussion. 1 Hour.
Knowledge and skills needed to teach and use percussion instruments in music education settings. LAB.

MEMT 116. Performance Media: Computers, Synthesizers, and Electronics. 1 Hour.
Knowledge and skills needed to teach and use computers, synthesizers, and electronics. LAB.

MEMT 118. Performance Media: Strings. 1 Hour.
Knowledge and skills needed to teach string instruments in music education settings. LAB.

MEMT 119. Performance Media: Guitar. 1 Hour.
Knowledge and skills needed to teach and use guitar functionally in music education and music therapy settings. LAB.

MEMT 150. Introduction to Music Therapy. 3 Hours.
An overview of the music therapy profession including, but not limited to, history, philosophy, areas of clinical practice, necessary skills and competencies, and career opportunities. LEC.

MEMT 160. Principles of Music Education. 1 Hour.
An overview of the music education field. History, philosophy, curricula, necessary skills and competencies for music educators, and alternative careers in music. LEC.

MEMT 196. Group Leadership Skills in Music Therapy. 2 Hours.
Music therapy group leadership skills; leading group singing, playing accompanying instruments, and developing effective delivery skills. Prerequisite: MEMT 150 Introduction to Music Therapy/MEMT 760 Principles of Music Therapy. LEC.

MEMT 229. Performance Clinic: _______. 1 Hour.
Designed to provide students with opportunities to sing and play instruments other than their principal instrument in ensembles. Materials chosen for suitability for secondary school ensembles. Techniques for care and maintenance of the voice and instruments. May be repeated for credit. Prerequisite: Permission of instructor. LAB.

MEMT 230. Performance Clinic: Band. 1 Hour.
Continued development of the knowledge and skills needed to teach band in music education settings. Prerequisite: MEMT 113 and MEMT 114, or MEMT 113 and MEMT 115, or MEMT 114 and MEMT 115, or permission of the instructor. LAB.

MEMT 231. Performance Clinic: Choral. 1 Hour.
Continued development of the knowledge and skills needed to teach and use the singing voice in music education and music therapy settings. LAB.

MEMT 232. Performance Clinic: Orchestra. 1 Hour.
Continued development of the knowledge and skills needed to teach string instruments in music education settings. Prerequisite: MEMT 118 or permission of the instructor. LAB.

MEMT 246. Fundamentals of Conducting. 1 Hour.
This course deals with the techniques of the baton, with gestures, signs, and cues as generally used in conducting choral and instrumental organizations. It includes the essentials of conducting techniques in both the choral and instrumental types of ensemble performance. LAB.

MEMT 250. Human Musical Learning and Development. 2 Hours.
Music learning and development from infancy through adulthood. Development of musical perception, cognition, performance skills, attitudes, and affective/aesthetic responses. Use of theoretical, knowledge-based rationale for building music instruction systems. LEC.

MEMT 251. Clinical Techniques for Children. 3 Hours.
Music therapy treatment techniques (setting goals, selecting/applying treatment, monitoring/evaluating results) for children in a variety of settings. Clinical observation and application of techniques will be course components. Prerequisite: MEMT 250. Corequisite: SPED 326. LEC.

MEMT 296. Clinical Techniques for Adults. 3 Hours.
Music therapy treatment techniques (setting goals, selecting/applying treatment, monitoring/evaluating results) for adults in a variety of settings. Clinical observation and application of techniques will be course components. FLD.

MEMT 311. Intermediate Class Guitar. 2 Hours.
Instruction in playing barre chords, blues and Latin strums, major and minor scales, position studies, and special effects such as the Travis pick, hammer on, and slurring techniques. Prerequisite: MEMT 116-Guitar; or MEMT 111; or permission of instructor. IND.

MEMT 329. Rehearsal/Conducting Clinic: _______. 1 Hour.
Rehearsing and conducting ensembles appropriate for music education and music therapy. May be repeated for credit. Prerequisite: Permission of instructor. LAB.

MEMT 330. Rehearsal/Conducting Clinic: Band. 1 Hour.
Knowledge and skills needed to rehearse and conduct band ensembles. Prerequisite: MEMT 230 and MEMT 246 and admission into the Music Education Professional Sequence; or with permission of the MEMT division. LAB.

MEMT 331. Rehearsal/Conducting Clinic: Choral. 1 Hour.
Knowledge and skills needed to rehearse and conduct choral ensembles. Prerequisite: MEMT 231 and MEMT 246 for Music Education majors or MEMT 231. Corequisite: MEMT 246 for Music Therapy majors or permission of the instructor. LAB.

MEMT 332. Rehearsal/Conducting Clinic: Orchestra. 1 Hour.
Knowledge and skills needed to rehearse and conduct orchestral ensembles. Prerequisite: MEMT 232 and MEMT 246, and admission into the Music Education Professional Sequence; or with permission of the MEMT division. LAB.

MEMT 341. Instructional Strategies in Music for Elementary Classroom Teachers. 2 Hours.
Child growth and development in music. Materials as they relate to a sequential music education curriculum in the elementary school. Prerequisite: Admission to the School of Education or the education division of the graduate school. LEC.

MEMT 349. Advanced Rehearsal/Conducting Clinic: _______. 1 Hour.
Advanced knowledge and skills needed to rehearse and conduct ensembles, including attention to more difficult literature with ensembles exhibiting increasing sophistication. May be repeated for credit. Prerequisite: Admission into Music Education Professional Sequence and with permission of the MEMT division. LAB.

MEMT 350. Advanced Rehearsal/Conducting Clinic: Band. 1 Hour.
Advanced knowledge and skills needed to rehearse and conduct band ensembles, including attention to more difficult concert band literature with ensembles exhibiting increasing sophistication. Prerequisite: MEMT 330
and admission into the Music Education Professional Sequence; or with permission of the MEMT division. LAB.

MEMT 351. Advanced Rehearsal/Conducting Clinic: Choral. 1 Hour.
Advanced knowledge and skills needed to rehearse and conduct choral ensembles, including attention to more difficult choral literature with ensembles exhibiting increasing sophistication. Prerequisite: MEMT 331 and admission into the Music Education Professional Sequence; or with permission of the MEMT division. LAB.

MEMT 352. Advanced Rehearsal/Conducting Clinic: Orchestra. 1 Hour.
Advanced knowledge and skills needed to rehearse and conduct string orchestra ensembles, including attention to more difficult string orchestra literature with ensembles exhibiting increasing sophistication. Prerequisite: MEMT 332 and admission into Music Education Professional Sequence; or with permission of the MEMT division. LAB.

MEMT 366. Introduction to Research in Music Therapy and Music Education. 2 Hours.
Investigative techniques in music therapy and music education with emphasis on small group and case study design and analysis. Prerequisite: Admission to the professional sequence in music education or music therapy or with permission from the MEMT division. LEC.

Theories and techniques for managing the music classroom and clinic setting for best professional practice. Understanding the self and environment as management factors. Field practice of management techniques. Prerequisite: MEMT 250 and admission into the Music Education Professional Sequence or Music Therapy Professional Sequence; or with permission from the MEMT Division. LEC.

MEMT 396. Clinical Practicum. 1-3 Hours.
Supervised clinical practice in on-campus or other approved setting. May be repeated for credit. Prerequisite: Admission to the professional sequence in music education or music therapy or with permission from the MEMT division. FLD.

MEMT 407. The Exceptional Child in Music Education. 2 Hours.
Skills and knowledge needed to facilitate appropriate and productive integration of exceptional children and youth into music classroom settings. Prerequisite: MEMT 367, SPED 326, and admission into the Music Education Professional Sequence; or with permission of the MEMT division. LEC.

MEMT 408. Vocal Pedagogy. 1 Hour.
Knowledge and skills needed to teach voice, with particular attention to lifespan voice anatomy, physiology, and acoustics, diagnosis and correction of vocal inefficiencies, teaching styles, repertoire choice, professional development, and acquaintance with current research in voice science and vocal pedagogy. Includes a voice teaching practicum. (Same as VOIC 408.) Prerequisite: MEMT 160, MEMT 231, MEMT 331 and admission into the Music Education Professional Sequence or the Music Therapy Professional Sequence; or with permission from the MEMT division. LEC.

MEMT 421. Advanced General Music Teaching. 1 Hour.
Enhanced methodology and pedagogy course for the general music classroom; advanced instruction in teaching children to improvise, sing, play classroom instruments, listen, move, and create music based on specific pedagogies; advanced instruction in assessment strategies. This course is for undergraduate music majors in their senior year. Prerequisite: MEMT 420 and admission to the Music Education Professional Sequence. LEC.

MEMT 431. Choral Diction for Music Educators. 1 Hour.
Knowledge and skills needed to teach choral diction in music education settings. Prerequisite: Admission into the Music Education Professional Sequence; or with permission of the MEMT division. LEC.

MEMT 432. Approaches to String Pedagogy. 1 Hour.
An examination of the concepts and skills associated with the most influential past and current pedagogical approaches to string education. Prerequisite: Admission to the Music Education Professional Sequence. LEC.

MEMT 433. Jazz Techniques. 1 Hour.
Knowledge and skills needed to teach jazz techniques in music education settings. Prerequisite: Admission into the Music Education Professional Sequence. LEC.

MEMT 435. Marching Band Techniques. 1 Hour.
Knowledge and skills needed to teach and administer marching bands in music education settings. Prerequisite: Admission into the Music Education Professional Sequence; or with permission of the MEMT division. LEC.

MEMT 450. Teaching Choral Music. 2 Hours.
Application of research-based skills for curriculum development, content selection, and development of teaching strategies for choral music programs to students in early childhood through adulthood including those with disabilities. Prerequisite: MEMT 331, MEMT 420, and admission into the Music Education Professional Sequence; or with permission of the MEMT division. LEC.

MEMT 451. Teaching Instrumental Music. 2 Hours.
Application of research-based skills for curriculum development, content selection, and development of teaching strategies for instrumental music programs to students in early childhood through adulthood including those with disabilities. Prerequisite: MEMT 330, MEMT 420, and admission into the Music Education Professional Sequence; or with permission of the MEMT division. LEC.

MEMT 454. Psychological Foundations of Musical Behavior I. 2 Hours.
Laboratory and field research in psychology of music. Prerequisite: MEMT 453 or concurrent enrollment. LEC.

MEMT 455. Psychology of Music. 3 Hours.
Psychological bases of music and human musical behavior. Study of musical sound perception, cognition, response, reproduction, and creation. Room Acoustics are studied. Research projects required. Prerequisite: MEMT 367, MEMT 420 (music education majors); and admission into the Music Education Professional Sequence or the Music Therapy Professional Sequence; or with permission of the MEMT division. LEC.

MEMT 463. The Influence of Music on Behavior I. 3 Hours.
A study of the various effects of music. The place of functional music in music education. Investigation of effective media and musical patterns. The relation of music to health. Prerequisite: Admission to the professional sequence in music education or music therapy or with permission of the MEMT division. LEC.
MEMT 464. Music in Therapy. 3 Hours.
Issues examined include music therapy concepts in the development of program applications, professional marketing, and job proposals. These applications are based on theoretical constructs concerning the physiological, psychological, and social responses of persons to music. In addition, this course includes current trends in the field along with regulatory guidelines concerning practice design, implementation, evaluation, ethics, and standards of clinical practice. Prerequisite: Admission to the professional sequence in music education or music therapy or with permission of the MEMT division. LEC.

MEMT 472. Music Education and Music Therapy Research Project. 1-3 Hours.
Clinical, laboratory, field, or historical research in music education or music therapy. May be repeated for credit. Prerequisite: MEMT 366 or equivalent, and permission of instructor. RSH.

MEMT 497. Independent Study in: ____. 1-4 Hours.
Only one enrollment permitted each semester; a maximum of four hours will apply toward the bachelor's degree. May be repeated for credit. Prerequisite: Recommendation of advisor and consent of instructor. IND.

MEMT 498. Student Teaching. 2-4 Hours.
A supervised teaching experience in an approved school setting, with level and subject area to be selected from either elementary general music or a secondary teaching area not covered in MEMT 496. This experience is a minimum of five weeks full time experience. It will begin the spring of the Senior Year right after the new year. Prerequisite: Admission into the Music Education Professional Sequence and MEMT 496. LEC.

MEMT 499. Internship in Teaching Music. 4-8 Hours.
A supervised internship experience leading to initial music teacher certification. The student assumes the total professional role as a teacher of music in an approved school setting with level and subject area to be the remaining area not experienced in MEMT 496 or MEMT 498. This experience is a minimum of twelve weeks full time experience. Prerequisite: Admission into the Music Education Professional Sequence and either completion of or concurrent enrollment with MEMT 498. LEC.

MEMT 500. Student Teaching in: ____. 1-6 Hours.
A supervised teaching experience in an approved school setting, with level and subject area to be selected according to the teaching field. May be repeated for credit. Prerequisite: Admission to the Student Teaching program. FLD.

MEMT 586. Seminar in Music Therapy Professional Development I. 1 Hour.
This seminar style course will focus on Internship Placement, Board Certification, and Professional Advocacy. Undergraduate Corequisite: MEMT 463 and MEMT 464. Graduate Corequisite: MEMT 763 and MEMT 764. LEC.

MEMT 587. Seminar in Music Therapy Professional Development II. 1 Hour.
This seminar style course will focus on supervision, Ethics, and Professional Involvement in AMTA. Prerequisite: MEMT 586. LEC.

MEMT 596. Clinical Internship. 1-15 Hours.
Successful completion of six months of full-time clinical experience (minimum of 1,040 hours) as a music therapy intern in an approved setting. May be repeated for credit. Prerequisite: Completion of senior year in music therapy or its equivalent at the graduate level. FLD.

MEMT 597. Individual Study in: ____. 1-15 Hours.
Successful completion of six months of full time clinical experience (minimum of 1040 hours) as a music therapy intern in an approved setting. May be repeated for credit. Prerequisite: Completion of senior year in music therapy or its equivalent at the graduate level. IND.

MEMT 598. Special Course: ____. 1-5 Hours.
A special course of study to meet current needs of education students -- primarily for undergraduates. May be repeated for credit. LEC.

MEMT 616. Advanced Pedagogy and Materials: ____. 1 Hour.
(FS) Techniques and materials appropriate for instruction in musical media. May be repeated for credit in different specific media. LAB.

MEMT 651. Sociocultural Influences on Musical Behavior. 3 Hours.
Cultural and social determinants of musical behavior. Musical value systems in contemporary cultures. Prerequisite: MTHC 214 or MEMT 341 or permission of instructor. LEC.

MEMT 670. Acoustics of Music. 3 Hours.
Study of physical aspects of sound, stressing the production, reproduction, transmission, and reception of musical sounds. Acoustics of musical instruments and auditoria, systems of tuning, wave phenomena in musical environments, behavior of the ear, and electrical analysis, synthesis, and recording are included. Laboratory. LEC.

MEMT 695. Developing Theoretical Framework for Evidence-Based Practice. 3 Hours.
The purpose of this course is to provide music therapy majors with the tools to read, evaluate, understand, and facilitate research in order to develop a theoretical framework for decision making in evidence based clinical practice. Prerequisite: MEMT 464 Music in Therapy or MEMT 764 Music in Therapy and admission to the Music Therapy Professional Sequence. LEC.

MEMT 707. Mainstreaming/Inclusion in Music Education. 2 Hours.
Skills and knowledge needed to facilitate appropriate and productive integration of children and youth with disabilities into music classroom settings. Prerequisite: MEMT 500 and SPED 431. LEC.

MEMT 710. Professional Development. 1 Hour.
Participation in approved professional development conferences. Requires documentation of attendance, an annotated time log of activities, and a short paper. May be repeated for up to 3 credit hours. FLD.

MEMT 711. Emerging Technologies for Choral Teaching and Learning. 2-3 Hours.
Applications of current digital and electronic technologies to choral ensemble teaching and learning. LEC.

MEMT 750. Measurement in Music Education Professional Practice. 3 Hours.
Skills and knowledge needed by professional music educators to assess and evaluate students, learning, instruction, curriculum, and programs. Measurement and evaluation techniques for cognitive, affective, and psychomotor learning in music. Criterion and norm reference measures in formative and summative evaluation. Use of evaluation data for improving instruction, curriculum, and program. Standardized tests. Reporting and interpreting evaluation results. LEC.

MEMT 753. Psychology and Acoustics of Music. 5 Hours.
Psychological and acoustical bases of music and human musical behavior. Study of musical sound production, transmission, perception, cognition, response, and reproduction. Laboratory component and research project required. LEC.

MEMT 760. Principles of Music Therapy. 3 Hours.
An overview of the music therapy profession including, but not limited to, history, philosophy, areas of clinical practice, necessary skills and competencies, and career opportunities. LEC.
MEMT 761. Clinical Techniques for Children. 3 Hours.
Music therapy treatment techniques (setting goals, selecting/applying treatment, monitoring, evaluating results) for children in a variety of settings. Clinical observation and application of techniques will be course components. FLD.

MEMT 762. Clinical Techniques for Adults. 3 Hours.
Music therapy treatment techniques (setting goals, selecting/applying treatment, monitoring, evaluating results) for adults in a variety of settings. Clinical observation and application of techniques will be course components. FLD.

MEMT 763. The Influence of Music on Behavior I. 3 Hours.
A study of the various effects of music. The place of functional music in music education. Investigation of effective media and musical patterns. The relation of music to health. Prerequisite: Admission to the professional sequence in music education or music therapy or with permission from the MEMT division. LEC.

MEMT 764. Music in Therapy. 3 Hours.
Issues examined include music therapy concepts in the development of program applications, professional marketing, and job proposals. These applications are based on theoretical constructs concerning the physiological, psychological, and social responses of persons to music. In addition, this course includes current trends in the field along with regulatory guidelines concerning practice design, implementation, and evaluation, ethics, and standards of clinical practice. Prerequisite: Admission to the professional sequence in music education or music therapy or with permission from the MEMT division. LEC.

MEMT 772. Music Education and Music Therapy Research Project. 1-3 Hours.
Clinical, laboratory, field, or historical research in music education or music therapy. May be repeated for credit. Prerequisite: MEMT 366 or equivalent, permission of instructor. IND.

MEMT 780. Internship in Teaching Music: ____, 1-15 Hours.
A supervised internship experience leading to initial music teacher certification. The student assumes the total professional role as a teacher of music in an approved school setting. FLD.

MEMT 791. Music Education/Music Therapy Techniques: ____, 1-3 Hours.
Specific methodologies, strategies, approaches, and materials for music education/musical therapy for specific populations, musical media, instructional settings, or clinical environments. May be repeated for credit. LEC.

MEMT 798. Special Course: ____, 1-5 Hours.
A special course of study to meet current needs of education professionals -- primarily for graduate students. May be repeated for credit. LEC.

MEMT 812. Research in Music Education and Music Therapy. 3 Hours.
Study of research in music education and music therapy. Required of all candidates for graduate degrees. Enrollment must precede or be concurrent with enrollment in thesis. LEC.

MEMT 813. History and Philosophy of Music Education. 3 Hours.
A study of music education with reference to its historical development and to educational psychology. Consideration of recent trends and the place of music in the school curriculum. Criteria for the evaluation of activities, courses, materials, and methods in a well-balanced program of music. LEC.

MEMT 814. Sociology of Music. 3 Hours.
A study of societal influence on musical thought and practice, both in historical perspective and in comparative study of contemporary societies. The relations between school and community music. The role of musical organizations, institutions, and agencies in American life. LEC.

MEMT 815. Musical Values and Aesthetics. 3 Hours.
Examination of musical values in the context of music's functions and uses. Diverse viewpoints are considered, with attention to philosophical and psychological aesthetics. Implications and applications of values systems for music education, music therapy, and other fields. LEC.

MEMT 816. Current Trends in Music Education. 3 Hours.
A comprehensive study of the elements that contribute to current practice and successful music programs (many of all of these may be anticipated dependent upon the class participants' needs): curriculum, standards, assessment, classroom management, pedagogy, leadership, organizational structure, budget and finance, scheduling, federal mandates, and administrative practices. LEC.

MEMT 817. Methodologies in Music Education. 3 Hours.
A survey of music methodologies (general, vocal, instrumental) used by teachers at the pre-school, elementary, middle/junior high, and high school levels. LEC.

MEMT 818. Behavior Management in Music. 3 Hours.
A study of behavioral theories and techniques as applied to classroom and clinical settings for music professionals. Emphasis on a conceptual framework for human behavior and the ameliorative aspects of music. LEC.

MEMT 819. Music in Early Childhood. 2 Hours.
Child development as related to musical development, including implications for participation in music from birth through age seven. Current trends in goals, objectives, materials, equipment, facilities, training and evaluation will be discussed. LEC.

MEMT 820. Advanced Choral Conducting and Rehearsal Techniques. 3 Hours.
Refinement of conducting and teaching skills in a choral setting. Focus on relationships between gesture and choral sound, rehearsal structure and optimal learning, and age-appropriate choral literature and development of musicality. (Same as COND 820.) LAB.

MEMT 823. Seminar in: ____, 1-3 Hours.
May be repeated for credit. LEC.

MEMT 825. Choral Diction. 3 Hours.
Study of methods to teach and learn diction in choral music contexts. Attention to International Phonetic Alphabet, acoustic implications of particular phonemes, and contributions of emerging technologies. Application of various languages, including English, Latin, Italian, French, German, and Spanish. (Same as CHOR 825.) LEC.

MEMT 826. Adolescent Changing Voices. 3 Hours.
Scientific approaches to the pedagogy of adolescent male and female voices during voice change. (Same as CHOR 826.) LEC.

MEMT 827. Children's Voices. 3 Hours.
Scientific approaches to understanding and working with unchanged children's voices. (Same as CHOR 827.) LEC.

MEMT 828. Science-based Voice Education. 3-6 Hours.
Comprehensive examination of vocal anatomy, respiration, phonation, resonance, articulation, and voice development, with particular attention to research-based vocal/choral pedagogies for working with child through senior adult voices. (Same as CHOR 828.) Prerequisite: Permission of instructor. LEC.
MEMT 830. Leadership and Program Development in Music Education. 2-3 Hours.
A comprehensive study of the elements of management, leadership, organizational structure, budget and finance, federal mandates, and administrative practices. LEC.

MEMT 835. Practical Applications of Advanced Methodology in the Music Classroom. 2-3 Hours.
A comprehensive study and application of the elements that contribute to current practice in methodology and pedagogy in the music classroom, encompassing elementary general, choral, orchestral, and band music. LEC.

MEMT 838. Orff Applications in Music Education and Music Therapy. 2 Hours.
The use of the Orff-Shulwerk approach in music education and music therapy. Course includes historical background, philosophical approach and practical application of the process. Prerequisite: Admission to professional sequence or permission from MEMT division. LEC.

MEMT 840. Development and Application of Improvisation Skills. 2-3 Hours.
Development of individual and group improvisation skills and their applications in professional practice. LEC.

MEMT 845. Curriculum Development in Music Education. 3 Hours.
Developing a practical and useful music curriculum that aligns theoretical/philosophical position, program goals, course objectives, instructional materials, learning activities, and assessments. LEC.

MEMT 850. Measurement of Musical Behavior. 3 Hours.
Measurement theory applied to the development and administration of measures of musical ability, achievement, attitude, and performance for the use in individual and program evaluation. Classical and innovative methods for establishing reliability and validity. Each student will develop and evaluate a measure of some type of musical behavior appropriate for an educational or therapeutic setting. LEC.

MEMT 854. Music Therapy in Pediatrics. 2 Hours.
The use of music therapy in individual and group pediatric settings. Course includes an overview of childhood illnesses, associated medical terminology, and therapy techniques used as contextual and procedural support. Prerequisite: Admission to professional sequence or permission from MEMT division. LEC.

MEMT 855. Music Therapy in Hospice and Bereavement. 2 Hours.
The use of music therapy for hospice patients and their families, as well as clients who are grieving due to death of a loved one. Course includes historical, theoretical and practical perspectives. Prerequisite: Admission to professional sequence or permission from MEMT division. LEC.

MEMT 856. Neurologic Music Therapy. 2 Hours.
The scientific basis for the neurological influence of music on behaviors in physical functioning and cognitive functioning will be explored in rehabilitation and learning models. Clinical experience will be included. Prerequisite: Admission to the graduate program in music therapy or permission of the instructor. FLD.

MEMT 857. Music Therapy in Gerontology. 2 Hours.
The theories and clinical applications of music therapy across the life span of older adults, including the young old, the middle old, and the old old. Special considerations will be given to persons with debilitating conditions including dementia, and to older persons’ professional and family caregivers. Prerequisite: Admission to the graduate program in music therapy or permission of the instructor. FLD.

MEMT 858. Music Therapy in Medical Care and Wellness of Adult Persons. 2 Hours.
Theories and practice of music therapy as enhancement to health and wellness and to medical interventions for adults will include applications within the medical setting and in the home setting. Interventions will include, among others, approaches for stress management, medical procedural support, pre-operative and post-operative support, follow-up care in catastrophic illness, interventions in post-traumatic stress disorder, and others. Prerequisite: Admission to the graduate program in music therapy or permission of the instructor. FLD.

MEMT 860. Assessment in Music Therapy Professional Practice. 2 Hours.
Skills and knowledge needed to assess and evaluate clients, goals, treatments and their effectiveness, program outcomes, program quality, and quality of care. LEC.

MEMT 861. Current Trends in Music Therapy. 2 Hours.
A comprehensive study of the elements that contribute to current practice in music therapy, but not limited to, professional competencies, code of ethics, assessment and implementation of interventions, leadership, organizational structure, budget and finance, scheduling and management of contracts, grant writing, and other administrative practices. FLD.

MEMT 863. The Influence of Music on Behavior II. 2 Hours.
A laboratory and research course to accompany or follow MEMT 763. LAB.

MEMT 864. Philosophy and Theory of Music Therapy. 3 Hours.
Concentrated, interdisciplinary study of conceptual foundations for music therapy. LEC.

MEMT 890. Practicum in Music Therapy. 1-16 Hours.
Advanced music therapy practice including clinical work with a population of the student’s choice which incorporates music therapy program design, implementation, and evaluation. The student will work in consultation with qualified Music Therapy staff. May be repeated for credit. FLD.

MEMT 891. Advanced Clinical Techniques. 3 Hours.
The student will articulate, test and refine music therapy clinical practice protocol(s) with a clientele(s) of choice. Students will work in consultation with qualified Music Therapy staff. FLD.

MEMT 892. Supervision in Music Therapy I. 3 Hours.
Study and application of theoretical models and supervisory roles applicable to music therapy clinical supervision. Students will review developmental levels for supervisors and practicum students. Supervision of music therapy clinical practicum students will be required. LEC.

MEMT 893. Supervision in Music Therapy II. 3 Hours.
A model of practicum supervision will be applied in music therapy clinical practicum supervision. Video and/or tape recordings of supervision conferences with practicum students will be reviewed in consultation with qualified music therapy staff. LEC.

MEMT 895. Master’s Project. 1-3 Hours.
May be repeated for credit. RSH.

MEMT 897. Independent Study. 1-4 Hours.
May be repeated for credit. Prerequisite: Consent of advisor and instructor. RSH.

MEMT 898. Comprehensive Examination. 1 Hour.
An independent course in preparation for the non-thesis M.M.E. degree final examination. The grade will be S or U as determined by performance on the examination. Prerequisite: Permission of the instructor. IND.
MEMT 899. Master’s Thesis. 1-6 Hours.
May be repeated for credit. THE.

MEMT 910. Learning Theories and Music Education. 3 Hours.
(V) A broad survey of formal learning theories and other approaches to
the teaching-learning situation, accenting implications for, applications to,
and research needs in music education. LEC.

MEMT 912. Administration of Music Education Programs. 3 Hours.
A study of the administration of music education programs at all school
levels; topics will include personnel, finance, curriculum, supervision, and
articulation of the music program with other segments of the school and
community. LEC.

MEMT 915. Teaching Music in Higher Education. 3 Hours.
Knowledge, skills, and dispositions for graduate students in music
who are preparing to teach at the college level. This course is directed
involvement. May be repeated for zero credit. LEC.

MEMT 920. Doctoral Seminar in Music Education and Music Therapy.
0-1 Hours.
This course will emphasize strategies and skills for successful completion
of the doctoral program, as well as strategies and skills to prepare
doctoral students to contribute to the profession as college teachers,
researchers, master teachers, and arts administrators. Course may be
repeated for zero credit. LEC.

MEMT 923. Seminar in ______. 1-3 Hours.
Graded on a satisfactory/unsatisfactory basis. May be repeated for credit.
LEC.

MEMT 953. Advanced Acoustical and Psychological Aspects of
Musical Behavior. 3 Hours.
Study and experimental investigation of acoustical, psychoacoustical,
and psychological phenomena as they influence music. Attention will be
given to physical parameters; estimation of pitch, loudness, and timbre;
magnitude estimation; theories of consonance; experimental aesthetics;
and measurement and prediction of musical ability. Each student will
be expected to complete an experiment or quasi-experiment related to
human musical behavior. (Same as PSYC 853.) Prerequisite: MEMT 453
or equivalent, or permission of instructor. LEC.

MEMT 965. Advanced Methods in Experimental and Descriptive
Research in Music. 3 Hours.
An advanced study of experimental and descriptive research techniques
with careful investigation of research design, experimental control,
analysis and manuscript composition. Consideration of recent trends in
research methods and their place in the scholarly schemata will be
reviewed. Prerequisite: MEMT 812 or permission of instructor. LEC.

MEMT 972. Research in Music Education. 2-5 Hours.
For students who are sufficiently qualified to conduct original
investigations in this field. Consent of instructor necessary. May be
repeated for credit. IND.

MEMT 980. Advanced Topics: ______. 1-3 Hours.
A special course of study to meet current needs of education
professionals -- primarily for post-master’s level students. May be
repeated for credit. IND.

MEMT 995. Field Experience in: ______. 1-5 Hours.
Supervised and directed experiences in selected educational settings.
The advisor will schedule regular observations of the field experience
and conferences with the student. Written summaries and evaluations
of the field experiences will be prepared independently by the student, a
representative of the cooperating agency, and the advisor. Open only to
advanced students. Field experience credit in any one semester may not
exceed five hours, and total credit may not exceed eight hours. May be
repeated for credit. FLD.

MEMT 996. Practicum in College Teaching. 1-3 Hours.
College teaching experience, guided by a major professor in the
department. Open only to doctoral aspirants or candidates. FLD.

MEMT 997. Individual Study: ______. 1-4 Hours.
May be repeated for credit. Prerequisite: Prior graduate course work in the
area of study and consent of Instructor. IND.

MEMT 998. Seminar in: ______. 1-4 Hours.
May be repeated for credit. LEC.

MEMT 999. Doctoral Dissertation. 1-15 Hours.
May be repeated for credit. THE.

MTHC 99. Fundamentals of Music. 2 Hours.
An intensive study of music fundamentals. Open to music majors only.
LEC.

MTHC 105. Theory I. 4 Hours.
The first semester of an integrated two-year theory sequence that
examines the harmonic, melodic, rhythmic, and formal organization of
music while developing critical listening and keyboard skills. Prerequisite:
Music major or consent of instructor. LEC.

MTHC 115. Theory II. 4 Hours. GE11.
The second semester of an integrated two-year theory sequence that
examines the harmonic, rhythmic, and formal organization of music while
developing critical listening and keyboard skills. Prerequisite: MTHC 105.
LEC.

MTHC 150. Introduction to Music Theory: Reading, Listening,
Composing. 3 Hours.
An introductory course for non-music majors, emphasizing western art
and vernacular styles of music. Students will participate in and interact
with various parameters of music through the acquisition of basic musical
skills. For freshmen and sophomores. LEC.

MTHC 205. Theory III. 4 Hours. GE11.
The third semester of an integrated two-year theory sequence that
examines the harmonic, melodic, and formal organization of music while
developing critical listening and keyboard skills. Prerequisite: MTHC 115.
LEC.

MTHC 253. Composition. 2 Hours.
For music theory and composition majors. Creative writing using basic
concepts in harmony, melody, and form. May be repeated for credit.
Prerequisite: MTHC 115. IND.

MTHC 315. Theory IV. 4 Hours.
The fourth semester of an integrated two-year theory sequence that
examines the harmonic, melodic, rhythmic, and formal organization of
music while developing critical listening and keyboard skills. Prerequisite:
MTHC 205. LEC.

MTHC 316. Tonal Form and Post-Tonal Techniques. 4 Hours.
A study of musical forms from the common practice period through the
present day and analytical techniques for post-tonal music. The class is
designed for music education and music therapy majors. Prerequisite:
MTHC 205, music education, or music therapy major. LEC.

MTHC 350. Introduction to Music Theory: Reading, Listening,
Composing. 3 Hours.
An introductory course for non-music majors, emphasizing western art
and vernacular styles of music. Students will participate in and interact
with various parameters of music through the acquisition of basic musical
skills. For juniors and seniors. LEC.
MTHC 355. Readings in Music Theory: _____. 1-4 Hours.
Investigation of a subject by means of directed readings using primary scholarly sources. May be repeated for credit. Prerequisite: Consent of instructor. LEC.

MTHC 400. Graduate Theory Review: Writing Skills. 2 Hours.
A survey of harmonic principles with emphasis on nineteenth and early twentieth century materials. For graduate students deficient in undergraduate harmonic theory. LEC.

MTHC 402. Graduate Theory Review: Aural Skills. 2 Hours.
Development of aural and sight-reading skills using materials related to the nineteenth and twentieth centuries. For graduate students deficient in undergraduate aural theory. LEC.

MTHC 410. Tonal Forms. 3 Hours.
Phrase structure and formal design in common-practice tonal music. Structural analysis of binary, ternary, rondo, sonata, variations, and contrapuntal, and multi-movement forms. Prerequisite: MTHC 205. LEC.

MTHC 432. Introduction to the Analysis Contemporary Music. 3 Hours.
Introductory course in the sequence, presenting the basic tools of post-tonal and 20th century composition, including, serial techniques, set theory, extended tertian harmony, minimalist techniques, contemporary tonality and other trends. Exploration of form and complex rhythmic structures as well as aural skills appropriate to the subject matter. Prerequisite: MTHC 315. LEC.

MTHC 433. Advanced Analysis of Contemporary Music. 3 Hours.
Analysis seminar, emphasizing intense study of larger contemporary works, using techniques learned in the first course (MTHC 732). Further content will vary according to the instructor. Includes aural skills work appropriate to the subject matter. Prerequisite: MTHC 732. LEC.

MTHC 459. Scoring for Field Band. 2 Hours.
Primary voicings and textural possibilities for wind and percussion instruments will be stressed as these resources relate to the arranging of music for marching and pep bands at the secondary level. (Same as BAND 459.) Prerequisite: MTHC 205. LEC.

MTHC 485. Composing and Arranging for Educational Ensembles. 2 Hours.
For music majors interested in learning to write for primary and secondary educational performing groups. Emphasizes conventional tonal practices and idiomatic, accessible writing for young players. Prerequisite: MTHC 205, MTHC 484, and MTHC 459. IND.

MTHC 498. Undergraduate Recital. 1 Hour.
Composition recital for undergraduate music composition majors. Prerequisite: Permission of instructor. IND.

MTHC 499. Senior Research Project. 1-4 Hours.
For seniors majoring in music theory who will normally enroll for two credits in each of the last two semesters. Students will write a scholarly paper on an approved topic. May be repeated for credit. IND.

MTHC 541. Eighteenth-Century Counterpoint. 3 Hours.
A study of eighteenth century style with analysis and original work. Prerequisite: MTHC 205. LEC.

MTHC 542. Sixteenth-Century Counterpoint. 3 Hours.
A study of sixteenth-century style with analysis and original work. Prerequisite: MTHC 205. LEC.

MTHC 559. Scoring for Concert Band. 2 Hours.
Curriculum includes idiomatic writing, tonal balance, scoring for large percussion sections, and analysis of wind colors and instrumental combinations found in music of Holst, Vaughan Williams, Grainger, Stravinsky, Hindemith, and C. Williams. (Same as BAND 559.) Prerequisite: MTHC 205 and MTHC 459. IND.

MTHC 563. Survey in Jazz Composition and Arranging. 3 Hours.
Analysis of jazz composition and orchestration, beginning with early procedures (Louis Armstrong through the "Big Band Era") and culminating with analysis of scores by Gil Evans and Bob Brookmeyer. Prerequisite: Permission of instructor required. LEC.

MTHC 583. Composition. 2 Hours.
Advanced composition including larger forms in a variety of media. Composition majors will present a public recital of original works during the fourth semester of enrollment. May be repeated for credit. Prerequisite: MTHC 253 or consent of instructor. IND.

MTHC 610. Tonal Forms. 3 Hours.
Phrase structure and formal design in common-practice tonal music. Structural analysis of binary, ternary, rondo, sonata, variations and contrapuntal, multi-movement forms. LEC.

MTHC 655. Readings in Music Theory: _____. 1-4 Hours.
Investigation of a subject by means of directed readings of primary scholarly sources. May be repeated for credit. Prerequisite: MTHC 410 and consent of instructor. IND.

MTHC 670. Scoring for Voice. 3 Hours.
Composing and arranging for voice, including solo voice, choral and operatic settings. Prerequisite: Six hours of MTHC 253 and MTHC 541 and consent of instructor. LEC.

MTHC 674. Orchestration I. 3 Hours.
A study of the four families of orchestral instruments (woodwinds, brass, percussion, and strings) concentrating on ranges, transpositions, timbres, and techniques of the various instruments. Scoring projects concentrate on voicing and balance within the individual choirs of the orchestra. Prerequisite: MTHC 205. LEC.

MTHC 676. Orchestration II. 3 Hours.
A continuation of MTHC 674. Emphasis on scoring for full symphony orchestra and the large wind ensemble. Prerequisite: MTHC 674. LEC.

MTHC 678. Electro-Acoustic Composition I. 3 Hours.
Survey of concepts and practices of electronic sound synthesis. Required of music theory and composition majors, and open to other music majors by consent of department. Prerequisite: MTHC 315 or MTHC 316. LEC.

MTHC 680. Electro-Acoustic Composition II. 3 Hours.
Basic concepts and techniques of electronic composition. For majors in music theory and composition. Prerequisite: MTHC 678 and consent of division. LEC.

MTHC 732. Introduction to the Analysis of Contemporary Music. 3 Hours.
Introductory course in the sequence, presenting the basic tools of post-tonal and 20th century composition, including, serial techniques, set theory, extended tertian harmony, minimalist techniques, contemporary tonality and other trends. Exploration of form and complex rhythmic structures as well as aural skills appropriate to the subject matter. Prerequisite: MTHC 315 or MTHC 316. LEC.

MTHC 733. Advanced Analysis of Contemporary Music. 3 Hours.
Analytical seminar, emphasizing intense study of larger contemporary works, using techniques learned in the first course (MTHC 732). Further content will vary according to the instructor. Includes aural skills work appropriate to the subject matter. Prerequisite: MTHC 732. LEC.

MTHC 741. Canon and Fugue. 3 Hours.
A study of strict imitation and fugal writing. Practical work in two, three, and four parts in various media. Prerequisite: MTHC 541. LEC.
MTHC 778. History of Music Theory. 3 Hours.
A historical survey of music theory, both practical and speculative, from
the ancient Greeks to the late twentieth century. (Same as MUSC 778.)
LEC.

MTHC 789. Seminar on Selected Topics: ____. 0.5-3 Hours.
Topics vary by semester. May be repeated for credit. LEC.

MTHC 801. Advanced Analysis I. 3 Hours.
A bibliographic survey intended to explore aspects of both structure
(rhythm, texture and timber) and methodology (semiotics, gesture and
cognition) that variously complement the pitch-based approaches to
musical interpretation associated with Schenkerian tonal analysis and
pitch-class theory. Prerequisite: MTHC 732 Introduction to the Analysis of
Contemporary Music or permission of instructor. LEC.

MTHC 802. Advanced Analysis II. 3 Hours.
A bibliographic survey intended to explore in depth the pitch grammars
developed by composers of Western Art Music since circa 1910, and the
various methodologies assembled to codify them. Prerequisite: MTHC
732 Introduction to the Analysis of Contemporary Music or permission of
instructor. LEC.

MTHC 810. Advanced Tonal Form. 3 Hours.
An investigation of formal types, processes and functions in the
instrumental tonal music of the eighteenth and nineteenth centuries.
Prerequisite: Permission of instructor. LEC.

MTHC 820. Seminar in Schenkerian Analysis. 3 Hours.
A study of the theories and analytical methodologies developed by
the Austrian theorist Heinrich Schenker. Prerequisite: MTHC 410 or
permission of the instructor. LEC.

MTHC 825. Computers in Music and Music Research. 3 Hours.
A seminar designed to develop and explore the use and programming of
microcomputers as an aid in research and the production of music.
Topics will include composition and production tools for music, structured
program design, data representation, and basic computer-assisted
instruction models. Prerequisite: EECS 138 or equivalent or permission of
the instructor. LEC.

MTHC 830. Pedagogy of Music Theory. 1-3 Hours.
Procedures for teaching theoretical concepts and skills. Survey of
available texts and related materials. Three credits when offered during a
full academic term; one-two credits when offered as a short-term institute.
Prerequisite: MTHC 315 or MTHC 316 or permission of instructor. LEC.

MTHC 853. Advanced Composition. 1-6 Hours.
Essentially for theory and composition majors on the master's level. May
be repeated for credit. Summer session limit one to three hours. RSH.

MTHC 887. Advanced Orchestration. 3 Hours.
Prerequisite: MTHC 676, or consent of department. May be repeated for
credit. RSH.

MTHC 889. Seminar on Selected Topics: ____. 0.5-3 Hours.
Topics vary by semester. May be repeated for credit. LEC.

MTHC 898. Recital. 1 Hour.
Recorded grade for MM Composition recital. LEC.

MTHC 899. Thesis. 1-6 Hours.
May be repeated for credit. THE.

MTHC 953. Advanced Composition. 1-6 Hours.
Essentially for theory and composition majors on the doctoral level. May
be repeated for credit. Summer session limit one to three hours. RSH.

MTHC 956. Doctoral Composition Recital. 2 Hours.
May be repeated for credit. RSH.

MTHC 970. D.M.A. Lecture-Recital. 1-6 Hours.
A lecture-recital and scholarly paper on a subject pertinent to the student’s
major field. Open only to candidates for the D.M.A. in performance. May
be repeated for credit. Prerequisite: Consent of instructor. RSH.

A scholarly paper on a subject pertinent to the student’s major field. Open
only to candidates for the D.M.A. in performance and conducting. May
be repeated for credit. Prerequisite: Consent of instructor. THE.

MTHC 999. Dissertation. 1-12 Hours.
May be repeated for credit. THE.

MUS 100. Directed Study: ____. 1-4 Hours.
This is an all-purpose fill in the blank course for freshmen and
sophomores. It can be used when need arises. May be repeated for
credit. IND.

MUS 140. Encounter with Music and Musicians. 3 Hours.
A study of concert and recital music as it relates to the performer and
listener. Students will have interaction with professional musicians through
live performances and discussions with the performers. Music performed
on the concert and chamber music series and on concerts of music
department faculty will be carefully examined. Baroque through modern
music, jazz, and music of other cultures are the basic units in the course.
Written research projects and reviews of performances are required. LEC.

A team-taught, performance-based survey for wind and string students
of musical styles from the Baroque to present. Students will examine
music from their perspective literature from several different perspectives
including: historical, theoretical, technical, and expressive. The integration
of these perspectives into the students' performance is the ultimate
goal of the course. May be repeated for credit. Prerequisite: Approval of
applied instrumental instructor. IND.

MUS 300. Directed Studies: ____. 1-4 Hours.
This is an all-purpose fill in the blank course for juniors and seniors. It can
be used when need arises. May be repeated for credit. IND.

MUS 340. Encounter with Music and Musicians. 3 Hours.
A study of concert and recital music as it relates to the performer and
listener. Students will have interaction with professional musicians through
live performances and discussions with the performers. Music performed
on the concert and chamber music series and on concerts of music
department faculty will be carefully examined. Baroque through modern
music, jazz, and music of other cultures are the basic units in the course.
Written research projects and reviews of performances are required. LEC.

MUS 388. Curriculum and Pedagogy in: ____. 1 Hour.
Independent study. Prerequisite: Permission of Instructor. IND.

A team-taught, performance-based survey for wind and string students
of musical styles from the Baroque to present. Students will examine
music from their perspective literature from several different perspectives
including: historical, theoretical, technical, and expressive. The integration
of these perspectives into the students' performance is the ultimate
goal of the course. May be repeated for credit. Prerequisite: Approval of
applied instrumental instructor. IND.

MUS 586. The Business of Music. 3 Hours.
A course covering commercial aspects of the music business, including
publishing, copyright law, recording, live performance, the motion picture
and radio business, composition, teaching, and music merchandising.
Prerequisite: Consent of the instructor. LEC.
MUS 686. Arts Administration: Presenting the Performing Arts. 3 Hours.
Considerations involved in booking, scheduling, and presenting music, theatre, and dance events. Locating and selecting artists, reading and negotiating contracts, fund raising, grant writing, working with support groups, marketing techniques, publicity, personnel, and finance management. LEC.

MUS 732. Twentieth Century Techniques before 1945. 3 Hours.
A study and analysis of music from the turn of the century to World War II. For non-music majors. Prerequisite: Permission of instructor. LEC.

MUS 733. Twentieth Century Techniques after 1945. 3 Hours.
A study and analysis of music from World War II to the present. For non-music majors. Prerequisite: Permission of instructor. LEC.

MUS 800. Directed Study: _____ 1-4 Hours.
This is an all-purpose fill in the blank course for graduate students. It can be used when need arises. May be repeated for credit. LEC.

MUS 888. Curriculum and Pedagogy in: _____ 1 Hour.
Independent study. Prerequisite: Permission of instructor. LEC.

MUSC 135. Masterworks of Music. 3 Hours.
Honors version of MUSC 136/MUSC 336. Open only to students in the University Honors Program or by permission of instructor. Designed to aid non-music majors in developing skills needed for listening to music. Emphasis on masterworks of Western music. A student may receive credit for only one of the four courses numbers: MUSC 135, MUSC 335, MUSC 136, MUSC 336. LEC.

MUSC 136. Masterworks of Music. 3 Hours. HT / H.
Designed to aid non-music majors in developing the skills needed for listening to music. Emphasis on masterworks of Western music. Open only to freshman and sophomore non-music majors. A student may receive credit in either MUSC 136 or MUSC 336, but not both. LEC.

MUSC 139. Introduction to Music in World Cultures. 3 Hours. NW AE42.
Addresses music as a social and cultural phenomenon shaping broader patterns of human activity. It examines the ideas, behaviors and beliefs people have about their music based on selected case studies of traditional and popular music from North America, Africa, Asia, and Latin America. The main goal of this course is to understand why people from different parts of the world do music the way they do. LEC.

MUSC 254. Collegium Musicum, Vocal. 0-1 Hours.
May be repeated for credit. (Same as CHOR 254.) Prerequisite: Permission of instructor. ACT.

MUSC 256. Collegium Musicum, Instrumental. 0-1 Hours.
May be repeated for credit. Prerequisite: Permission of instructor. ACT.

MUSC 298. Introduction to Jazz. 3 Hours. HT AE41 / H/W.
A survey of the history of jazz from its beginnings in the early twentieth century to the present. Open to music and non-music majors. LEC.

MUSC 299. American Popular Song. 3 Hours. H.
A survey of the American popular song in the twentieth century, with an emphasis on the composer’s lyricists, and performers who made them popular. LEC.

MUSC 300. Jazz Styles, 1920-1980. 3 Hours. H.
A detailed study of the major styles of jazz that developed between 1920 and 1980, with an emphasis on aural recognition of their characteristics. LEC.

MUSC 301. Great Innovators of Jazz. 3 Hours. H.
A detailed study of the most innovative and influential figures in the history of jazz. LEC.

MUSC 302. The Broadway Musical. 3 Hours. AE41/GE3H / H.
A survey of the Broadway Musical from the early twentieth century to the present. LEC.

MUSC 303. The Film Musical. 3 Hours.
A survey of the film musical from the 1920s through the 1980s. LEC.

MUSC 305. Music of Latin America. 3 Hours. AE42 / H.
Designed for non-music majors, the course surveys the geographical and ethnographical sources of the many forms of music in Latin America. The various forms of music will be examined from historical, cultural, and stylistic perspectives. LEC.

MUSC 306. Introduction to Contemporary Music. 3 Hours. H.
A survey of concert music in Europe and the United States in the twentieth century. Not open to music majors. LEC.

MUSC 307. Music of Africa and the Middle East. 3 Hours.
Survey of the many musical traditions of Black Africa and the Middle East, emphasizing their cultural and social context. Open to both majors and non-majors. LEC.

MUSC 308. Music in East Asia. 3 Hours. AE42.
Study of musical cultures in China, Korea, and Mongolia, with a special focus on court music, musical theater, popular music, and the influence of East Asian music on the Western art music and vice-versa. LEC.

MUSC 309. History of Rock and Roll. 3 Hours. H.
Survey of the history of rock and roll, starting with its origins in rhythm and blues and continuing to the present day. Open to both majors and non-majors. LEC.

MUSC 310. History of Film Music. 3 Hours. HT.
A survey course for non-majors on the history of film music from silent films to the present. Students will use written texts, website materials such as streaming video and audio, and regular screening in an auditorium setting for assignments and papers. LEC.

MUSC 311. History of African American Music. 3 Hours.
This course examines the richness and diversity of African American music and its influence on the entire American musical landscape. Beginning with African retentions in African American music, the course will trace the history and development of both written and oral traditions from 1700 to the present day. LEC.

MUSC 312. Music in the Andes. 3 Hours. AE42.
This course examines the history, culture, and musical traditions of the Andean region: Peru, Ecuador, Bolivia, Chile, Columbia, and Venezuela. It focuses on a selection of indigenous rituals and popular music of mestizo and African American origin. By the end of the semester students will be acquainted with particular genres, instruments, and the social contexts with which they are associated. LEC.

MUSC 313. Music in Mexico and the Caribbean. 3 Hours. AE42.
This course examines the history, culture, and musical traditions of Mexico and the Caribbean. It focuses on a selection of rituals and traditional and popular music of the region. By the end of the semester students will be acquainted with various musical genres, instruments, and the social contexts with which they are associated. LEC.

MUSC 315. History of Country Music. 3 Hours.
Study of country music in the U.S. from the early 1920’s to the present, including performers, styles, historical context, and technology. LEC.

MUSC 320. Music History I. 2 Hours. AE42.
Introduction to world music; and Western music to 1400. Prerequisite: One year of music theory. LEC.
MUSC 335. Masterworks of Music. 3 Hours.
Honors version of MUSC 136/MUSC 336. Open only to students in the University Honors Program or by permission of instructor. Designed to aid non-music majors in developing skills needed for listening to music. Emphasis on masterworks of Western music. A student may receive credit for only one of the four course numbers: MUSC 135, MUSC 335, MUSC 136, MUSC 336. LEC.

MUSC 336. Masterworks of Music. 3 Hours. HT / H.
Designed to aid non-music majors in developing the skills needed for listening to music. Emphasis on masterworks of Western music and writing about music. Open only to junior and senior non-music majors. A student may receive credit for either MUSC 136 or MUSC 336, but not both. LEC.

MUSC 37. Selected Topic in Music: _______. 1-3 Hours. HT / H.
A selected topic in music or an interdisciplinary topic in the fine arts. The course may be repeated for credit when topic varies. Open only to non-music majors. LEC.

MUSC 37. Selected Topic in Music: _______. 1-3 Hours.
The course may be repeated for credit when topic varies. Open only to music majors. Prerequisite: MUSC 320 or permission of instructor. LEC.

MUSC 39. Introduction to Music in World Cultures. 3 Hours. NW AE42.
Addresses music as a social and cultural phenomenon shaping broader patterns of human activity. It examines the ideas, behaviors and beliefs people have about their music based on selected case studies of traditional and popular music from North America, Africa, Asia, and Latin America. The main goal of this course is to understand why people from different parts of the world do music the way they do. LEC.

MUSC 340. Music History II. 3 Hours. GE3H.
Western Music from 1400 to 1750. Prerequisite: MUSC 320. LEC.

MUSC 394. Readings in Jazz and American Popular Music. 1-3 Hours.
Investigation of a subject by means of directed study of primary sources. Prerequisite: A grade of "A" or "B" in MUSC 298, or equivalent, and permission of instructor. IND.

MUSC 440. Music History III. 3 Hours. GE3H.
Western Music from 1750 to 1900. Prerequisite: MUSC 340. LEC.

MUSC 480. Music History IV. 2 Hours. AE41.
Western music since 1900, classical and vernacular. Prerequisite: MUSC 440. LEC.

MUSC 481. Music of the Middle Ages. 3 Hours.
A concentrated survey of Western music from about 500 to 1400. Prerequisite: MUSC 320. LEC.

MUSC 482. Music of the Renaissance. 3 Hours.
A concentrated survey of Western music from about 1400 to 1600. Prerequisite: MUSC 340. LEC.

MUSC 483. Music of the Baroque Era. 3 Hours.
A concentrated survey of Western music from about 1600 to 1750. Prerequisite: MUSC 340 and MUSC 440. LEC.

MUSC 484. Music of the Classical Era. 3 Hours.
A concentrated survey of Western music from about 1750 to 1815. Prerequisite: MUSC 440. LEC.

MUSC 485. Music of the Romantic Era. 3 Hours.
A concentrated survey of Western music from about 1815 to 1900. Prerequisite: MUSC 440 and MUSC 480. LEC.

MUSC 486. Music of the Twentieth Century. 3 Hours.
A concentrated survey of Western music during the twentieth century. Prerequisite: MUSC 480. LEC.

MUSC 487. Music in America. 3 Hours.
A concentrated survey of music in the United States. Prerequisite: One course in the field of musicology or permission of the instructor. LEC.

MUSC 488. History of Opera. 3 Hours.
A concentrated survey of the history of opera. Prerequisite: MUSC 340, MUSC 440, and MUSC 480. LEC.

MUSC 489. History of Chamber Music. 3 Hours.
A concentrated survey of the history of chamber music. Prerequisite: MUSC 440 and MUSC 480. LEC.

MUSC 490. History of the Concerto. 3 Hours.
A concentrated survey of the history of the concerto. Prerequisite: MUSC 440 and MUSC 480. LEC.

MUSC 491. History of the Symphony. 3 Hours.
A concentrated survey of the history of the symphony. Prerequisite: MUSC 440 and MUSC 480. LEC.

MUSC 492. History of Wind Band Music. 3 Hours.
A chronological survey of the development of the wind band/ensemble and its music, using standard musical works from each historical period. Prerequisite: MUSC 440 and MUSC 480 or permission of the instructor. LEC.

MUSC 493. History of Music Theory. 3 Hours.
A historical survey of music theory, both practical and speculative, from the ancient Greeks to the late twentieth century. Prerequisite: MUSC 240, MUSC 340, MUSC 440, and MUSC 480. LEC.

MUSC 494. Readings in Musicology: _______. 1-3 Hours.
May be repeated for credit. Prerequisite: Minimum average of B in MUSC 320, MUSC 340, MUSC 440, MUSC 480 or equivalent, and permission of instructor. IND.

MUSC 499. Senior Thesis. 2 Hours.
An original research project that will result in a scholarly paper of moderate size. May be repeated once for credit. IND.

MUSC 560. Music in World Cultures. 3 Hours. NW AE42 / W.
An introduction to music as part of the cultural experience in India, Southeast Asia, the Orient, and Africa, with comparisons to Western traditions and influences on contemporary music. LEC.

MUSC 560. Selected Topics in Music: _______. 0.5-3 Hours.
Prerequisite: MUSC 320, MUSC 340, MUSC 440, and MUSC 480. LEC.

MUSC 654. Collegium Musicum, Vocal. 0-1 Hours.
May be repeated for credit. (Same as CHOR 654.) Prerequisite: Permission of instructor. ACT.

MUSC 655. Readings in Music Theory: _______. 1-4 Hours.
Investigation of a subject by means of directed readings using primary scholarly sources. May be repeated for credit. Prerequisite: MTHC 410 and consent of instructor. LEC.

MUSC 656. Collegium Musicum, Instrumental. 0-1 Hours.
May be repeated for credit. Prerequisite: Permission of instructor. ACT.

MUSC 744. Readings in Jazz and American Popular Music. 1-3 Hours.
Investigation of a subject by means of directed study of primary resources. Prerequisite: Permission of instructor. IND.

MUSC 752. Music of the Middle Ages. 3 Hours.
Prerequisite: MUSC 320. LEC.
MUSC 753. Music of the Renaissance. 3 Hours.  
Prerequisite: MUSC 340. LEC.

MUSC 754. Music of the Baroque Era. 3 Hours.  
Prerequisite: MUSC 340 and MUSC 440. LEC.

MUSC 755. Music of the Classical Era. 3 Hours.  
Prerequisite: MUSC 440. LEC.

MUSC 756. Music of the Romantic Era. 3 Hours.  
Prerequisite: MUSC 440 and MUSC 480. LEC.

MUSC 757. Music of the Twentieth Century. 3 Hours.  
Prerequisite: MUSC 480. LEC.

MUSC 758. History of Musical Instruments. 3 Hours.  
Prerequisite: MUSC 340 or MUSC 440 or permission of instructor. LEC.

MUSC 759. Music in America. 3 Hours.  
A survey of historical developments from the Pilgrims to the present.  
(Same as AMS 737.) Prerequisite: One course in the field of music history or permission of the instructor. LEC.

MUSC 760. History of Opera. 3 Hours.  
Prerequisite: MUSC 340, MUSC 440, and MUSC 480. LEC.

MUSC 761. History of the Mass. 3 Hours.  
Prerequisite: MUSC 340 and MUSC 440, or permission of instructor. LEC.

MUSC 765. History of Chamber Music. 3 Hours.  
Prerequisite: MUSC 440 and MUSC 480, or permission of instructor. LEC.

MUSC 766. History of the Concerto. 3 Hours.  
Prerequisite: MUSC 440 and MUSC 480, or permission of instructor. LEC.

MUSC 767. History of the Symphony. 3 Hours.  
Prerequisite: MUSC 440 and MUSC 480, or permission of instructor. LEC.

MUSC 768. History of Wind Band Music. 3 Hours.  
A chronological survey of the development of the wind band/ensemble and its music, using standard musical works from each historical period.  
Prerequisite: MUSC 440, MUSC 480, or permission of instructor. LEC.

MUSC 775. History of Keyboard Music. 3 Hours.  
Prerequisite: MUSC 340, MUSC 440, and MUSC 480. LEC.

MUSC 777. History of Solo Vocal Music. 3 Hours.  
Prerequisite: MUSC 340, MUSC 440, and MUSC 480. LEC.

MUSC 778. History of Music Theory. 3 Hours.  
A historical survey of music theory, both practical and speculative, from the ancient Greeks to the late twentieth century.  
(Same as MTHC 778.) LEC.

MUSC 794. Readings in Musicology: _____. 1-3 Hours.  
Investigation of a subject by means of directed reading of primary literary sources. May be repeated for credit. Prerequisite: A grade average of "B" in two musicology courses numbered 500 or above and consent of instructor. IND.

MUSC 801. Music Bibliography and Research. 3 Hours.  
Bibliography, research methods, and scholarly writing in music for entering graduate students. Prerequisite: Permission of instructor. LEC.

MUSC 802. Advanced Music Bibliography and Research. 3 Hours.  
Advanced bibliography and writing of research papers. Prerequisite: MUSC 801. LEC.

MUSC 899. Thesis. 1-6 Hours.  
May be repeated for credit. THE.

MUSC 902. Seminar in Musicology. 3 Hours.  
A research course designed primarily for doctoral students in musicology. Prerequisite: MUSC 801, or its equivalent. LEC.

MUSC 903. Seminar in Performance Practices. 3 Hours.  
Primary and secondary sources in performance practices dealing mainly with the seventeenth through nineteenth centuries, with implications applicable to student’s performance medium. LEC.

MUSC 940. Seminar on Selected Topics in Musicology: _____. 3 Hours.  
Each semester a topic (to be inserted in the blank) will be the basis for discussion, reports, and a research paper. May be repeated for credit provided no course duplication takes place. LEC.

MUSC 970. D.M.A. Lecture-Recital. 1-6 Hours.  
A lecture-recital and scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance. May be repeated for credit. Prerequisite: Consent of instructor. RSH.

A scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance and conducting. May be repeated for credit. Prerequisite: Consent of instructor. RSH.

MUSC 999. Dissertation. 1-12 Hours.  
May be repeated for credit. THE.

OBOE 100. Oboe. 1-2 Hours.  
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

OBOE 101. Oboe Reed Making. 0-1 Hours.  
The principles of oboe reed making, including tube cane selection, pre-gouging, gouging, shaping, tying and scraping reeds. Knife sharpening and tool maintenance will also be covered. Open only to freshmen and sophomores. May be repeated for credit. LAB.

OBOE 121. Oboe. 1-4 Hours.  
Applied music lessons for freshmen majoring in music. May be repeated for credit. IND.

OBOE 131. Baroque Oboe. 1-4 Hours.  
One or two lessons per week. For freshmen and sophomores. May be repeated for credit. IND.

OBOE 221. Oboe. 1-4 Hours.  
Applied music lessons for sophomores majoring in music. May be repeated for credit. Prerequisite: 121-level until the music major has accumulated 4 credits (8 for performance majors). IND.

OBOE 300. Oboe. 1-2 Hours.  
Applied music lessons for juniors and seniors not majoring in music. May be repeated for credit. IND.

OBOE 301. Oboe Reed Making. 0-1 Hours.  
The principles of oboe reed making, including tube cane selection, pre-gouging, gouging, shaping, tying and scraping reeds. Knife sharpening and tool maintenance will also be covered. Open only to juniors and seniors. May be repeated for credit. LAB.

OBOE 321. Oboe. 1-2 Hours.  
Applied music lessons for juniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 321-level until the music major has accumulated 12 credits. IND.

OBOE 421. Oboe. 1-2 Hours.  
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: Consent of instructor. RSH.
OBOE 422. Oboe. 1-2 Hours.
Applied music lessons. Must be taken in the semester a recital is being performed and as required by the degree program. Not for performance majors. IND.

OBOE 622. Oboe. 1-4 Hours.
Applied music lessons for juniors and seniors majoring in performance. May be repeated for credit. Prerequisite: Performance majors must accumulate 16 credits at the 121/221 levels. IND.

OBOE 711. Oboe. 1-4 Hours.
For graduate students not majoring in oboe. May be repeated for credit. Summer session limit one to three hours. IND.

OBOE 731. Baroque Oboe. 1-4 Hours.
May be repeated for credit. IND.

OBOE 811. Oboe. 1-6 Hours.
For graduate students majoring in oboe. May be repeated for credit. IND.

OBOE 921. Seminar in Performance. 3 Hours.
A study of repertoire and performance practice relating to the baroque oboe during the seventeenth and eighteenth centuries. LEC.

OBOE 922. Seminar in Performance. 3 Hours.
A study of repertoire and extended performance techniques of the twentieth century. LEC.

OBOE 961. Directed Performance. 1-6 Hours.
Individual instruction. Open only to students who have been admitted to the D.M.A. curriculum in oboe. May be repeated for credit. Summer session limit one to three hours. RSH.

OBOE 965. Doctoral Recitals. 1-3 Hours.
Maximum seven hours credit. May be repeated for credit. THE.

OBOE 970. D.M.A. Lecture-Recital. 1-6 Hours.
A lecture-recital and scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance. May be repeated for credit. Summer session limit one to three credits. Prerequisite: Consent of instructor. RSH.

OBOE 972. D.M.A. Document. 1-6 Hours.
A scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance and conducting. May be repeated for credit. Prerequisite: Consent of instructor. THE.

ORCH 200. University Symphony Orchestra. 0-1 Hours.
For freshmen and sophomores. Four hours full rehearsal and one hour sectional (string only) rehearsal each week throughout the school year. An intensive study of the symphonic repertoire, instrumental and vocal accompaniments, and complete major opera. Two public concerts each semester and numerous out-of-town concerts, radio broadcasts, and local vespers performances. Acceptance for membership and playing positions is determined by tryout. May be repeated for credit. LAB.

ORCH 201. University Chamber Orchestra. 1 Hour.
Two hours of rehearsal per week. May be repeated for credit. Audition required. LAB.

ORCH 210. Repertory Orchestra. 1 Hour.
A reading orchestra, emphasizing standard orchestral works from Baroque through modern periods. Open to string, wind, and percussion instrument players of the community and university. (Does not count toward ensemble requirement for students with stringed instruments emphasis.) May be repeated for credit. LAB.

ORCH 600. University Symphony Orchestra. 0-1 Hours.
For juniors, seniors, and graduate students. May be repeated for credit. LAB.

ORCH 601. University Chamber Orchestra. 1 Hour.
Two hours rehearsal per week. May be repeated for credit. Audition required. LAB.

ORCH 701. Workshop in: _____. 0.5-3 Hours.
May be repeated for credit. LEC.

ORGN 100. Organ. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

ORGN 121. Organ. 1-5 Hours.
Applied music lessons for freshmen majoring in music. May be repeated for credit. IND.

ORGN 221. Organ. 1-5 Hours.
Applied music lessons for sophomores majoring in music. May be repeated for credit. Prerequisite: 121-level until the music major has accumulated 4 credits (8 for performance majors). IND.

ORGN 300. Organ. 1-2 Hours.
Applied music lessons for juniors and seniors not majoring in music. May be repeated for credit. IND.

ORGN 320. Studio Class in Organ - Lab. 0 Hours.
Studio performance of works prepared under individual instruction. May be repeated. LAB.

ORGN 421. Organ. 1-2 Hours.
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 221-level until the music major has accumulated 8 credits. IND.

ORGN 422. Organ. 1-2 Hours.
Applied music lessons. Must be taken in the semester a recital is being performed and as required by the degree program. Not for performance majors. IND.

ORGN 502. Master Class in Organ - Lab. 0 Hours.
A class in the performance of advanced organ repertoire. For organ majors only or by consent of instructor. May be repeated. LAB.

ORGN 603. Institute for Organ and Church Music. 1-2 Hours.
A one-week intensive study program in performance, practice, and literature, advanced pedagogy, and church music. Normally offered during the summer session. May be repeated for credit. Graded S (satisfactory) or U (unsatisfactory). IND.

ORGN 608. Organ Pedagogy. 2 Hours.
For seniors and graduate students majoring in organ or by permission of instructor. May be repeated for credit. Materials and methods of pedagogy. Lectures, discussion, demonstration teaching, planning, and evaluation. One beginning or lower level organ student assigned to each class member with teaching done under supervision of class instructor. LEC.

ORGN 622. Organ. 1-5 Hours.
Applied music lessons for juniors and seniors majoring in performance. May be repeated for credit. Prerequisite: Performance majors must accumulate 16 credits at the 121/221 levels. IND.

ORGN 702. Master Class in Organ - Lab. 0 Hours.
A class in the performance of advanced organ repertoire. For organ majors only or by consent of instructor. May be repeated. LAB.
ORGN 711. Organ. 1-4 Hours.
For graduate students not majoring in organ. May be repeated for credit. Summer session limit one to three hours. IND.

ORGN 720. Studio Class in Organ-Lab. 0 Hours.
Studio performance of works prepared under individual instruction. May be repeated for credit. IND.

ORGN 800. Organ Building and Design. 3 Hours.
Acoustics; design, construction, and maintenance of organs; organ consulting, examination of organs. LEC.

ORGN 801. History of Organ Literature and Organ Design I. 3 Hours.
Organ literature and organ design from the Middle Ages, the Renaissance, and the Spanish, Italian, and English Baroque. LEC.

ORGN 802. History of Organ Literature and Organ Design II. 3 Hours.
Organ literature and organ design in the Dutch and German Baroque with special emphasis on J.S. Bach. Prerequisite: Permission of instructor. LEC.

ORGN 803. History of Organ Literature and Organ Design III. 3 Hours.
French organ literature and organ design from the 17th century to the present. LEC.

ORGN 804. History of Organ Literature and Organ Design IV. 3 Hours.
German, North American, British, Scandinavian and Eastern European organ literature and organ design from the Classic era to the present. Prerequisite: Permission of instructor. LEC.

ORGN 805. Selected Topics in Organ. 1-3 Hours.
An exploration of selected topics in organ design and literature. Topics change by semester. May be repeated for credit. LEC.

ORGN 806. Organ Pedagogy. 3 Hours.
Philosophy, methods, and materials of organ pedagogy. Prerequisite: Permission of instructor. LEC.

ORGN 807. Organ Study Tour. 1-3 Hours.
Study of European or North American organs through reading and site visits to instruments. LEC.

ORGN 811. Organ. 1-6 Hours.
For graduate students majoring in organ. May be repeated for credit. Summer session limit one to three hours. IND.

ORGN 921. Seminar in Performance: _______. 3 Hours.
A detailed study of organ repertoire, performance practice, the history of organ building as it affects the performance of a particular body of literature, liturgical or other extra-musical contexts, and other influences on musical style. May be repeated for credit when topics vary. LEC.

ORGN 961. Directed Performance. 1-6 Hours.
Individual instruction. Open only to students who have been admitted to the D.M.A. program in organ. May be repeated for credit. Summer session limit one to three hours. RSH.

ORGN 965. Doctoral Recitals. 0-3 Hours.
Maximum credit, seven hours. May be repeated for credit. THE.

ORGN 970. D.M.A. Lecture-Recital. 1-6 Hours.
A lecture-recital and scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance. May be repeated for credit. Prerequisite: Consent of instructor. RSH.

ORGN 972. D.M.A. Document. 1-6 Hours.
A scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance and conducting. May be repeated for credit. Prerequisite: Consent of instructor. THE.

PCUS 100. Percussion. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

PCUS 120. Drum Set Technique. 1 Hour.
One lesson per week. Small group instruction. For freshmen and sophomores. A course designed to develop drum set technique, with emphasis placed on understanding the various styles of music to perform on the set: swing, jazz, rock, ethnic, Broadway shows. May be repeated for credit. IND.

PCUS 121. Percussion. 1-4 Hours.
Applied music lessons for freshmen majoring in music. May be repeated for credit. IND.

PCUS 221. Percussion. 1-4 Hours.
Applied music lessons for sophomores majoring in music. May be repeated for credit. Prerequisite: 121-level until the music major has accumulated 4 credits (8 for performance majors). IND.

PCUS 300. Percussion. 1-2 Hours.
Applied music lessons for juniors and seniors not majoring in music. May be repeated for credit. IND.

PCUS 320. Drum Set Technique. 1 Hour.
One lesson per week. Small group instruction. For juniors and seniors. A course designed to develop drum set technique, with emphasis placed on understanding the various styles of music to perform on the set: swing, jazz, rock, ethnic, Broadway shows. May be repeated for credit. IND.

PCUS 321. Percussion. 1-2 Hours.
Applied music lessons for juniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 221-level until the music major has accumulated 8 credits. IND.

PCUS 421. Percussion. 1-2 Hours.
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 321-level until the music major has accumulated 12 credits. IND.

PCUS 422. Percussion. 1-2 Hours.
Applied music lessons. Must be taken in the semester a recital is being performed and as required by the degree program. Not for performance majors. IND.

PCUS 622. Percussion. 1-4 Hours.
Applied music lessons for juniors majoring in performance. May be repeated for credit. Prerequisite: Performance majors must accumulate 16 credits at the 121/221 levels. IND.

PCUS 711. Percussion. 1-4 Hours.
For graduate students not majoring in percussion. May be repeated for credit. Summer session limit one to three hours. IND.

PCUS 811. Percussion. 1-6 Hours.
For graduate students majoring in percussion. May be repeated for credit. Summer session limit one to three credits. IND.

PCUS 921. Seminar in Performance and Pedagogy. 3 Hours.
A study of the interpretive problems encountered in percussion music from the various historical periods, and a study of the performance practices in orchestral, band, chamber ensemble, and solo literature. LEC.
PCUS 970. D.M.A. Lecture-Recital. 1-6 Hours.
A lecture-recital and scholarly paper on a subject pertinent to the student's major field. Open only to candidates for the D.M.A. in performance. May be repeated for credit. Prerequisite: Consent of instructor. RSH.

PCUS 972. D.M.A. Document. 1-6 Hours.
A scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance and conducting. May be repeated for credit. Prerequisite: Consent of instructor. THE.

PENS 252. Percussion Ensemble. 0-1 Hours.
For freshmen and sophomores. Study and performance of works for various percussion instrument combinations. May be repeated for credit. LAB.

PENS 652. Percussion Ensemble. 0-1 Hours.
For juniors, seniors, and graduate students. Study and performance of works for various percussion instrument combinations. May be repeated for credit. LAB.

PIAN 100. Piano. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

PIAN 111. Elementary Keyboard Musicianship. 2 Hours.
The development of keyboard skills in sightreading, transposition, harmonization, improvisation, score reading, and playing by ear. Open to all students not majoring in music who have little or no music training. IND.

PIAN 121. Piano. 1-5 Hours.
Applied music lessons for freshmen majoring in music. May be repeated for credit. IND.

PIAN 125. Piano. 1-4 Hours.
Small group instruction for the development of performance abilities encouraging exploration of creative potentials and self-directed study. For freshmen and sophomores. May be repeated for credit. Prerequisite: Permission of instructor. IND.

PIAN 144. Elementary Keyboard Skills I. 1 Hour.
The development of keyboard skills in sightreading, transposition, harmonization, improvisation, score reading, and playing by ear. Open to all music majors with little or no piano background. IND.

PIAN 148. Elementary Keyboard Skills II. 1 Hour.
A continuation of PIAN 144. IND.

PIAN 216. Chamber Music for Pianists. 1-2 Hours.
For freshmen and sophomores majoring in piano. The study of chamber music literature for piano and various instrumental combinations. Development of rehearsal conducting techniques and leadership skills through collaboration with other musicians. May be repeated for credit. LEC.

PIAN 221. Piano. 1-5 Hours.
Applied music lessons for sophomores majoring in music. May be repeated for credit. Prerequisite: 121-level until the music major has accumulated 4 credits (8 for performance majors). IND.

PIAN 227. Two-Piano and Four-Hand Literature. 2 Hours.
Instruction in two-piano and duet repertoire for performance and sight-reading by advanced keyboard performers. IND.

PIAN 229. Performance Class in Accompanying. 1 Hour.
A class in the performance of vocal and instrumental accompaniment. Prerequisite: Completion of PIAN 227 or permission of instructor. IND.

PIAN 230. Creative Jazz Piano I. 1 Hour.
Group instruction in techniques of playing jazz. Prerequisite: Permission of instructor. IND.

PIAN 237. Accompanying for Dance. 1-3 Hours.
Instruction in dance accompanying. Open to freshman and sophomore pianists with permission of instructor. IND.

PIAN 284. Intermediate Keyboard Skills I. 2 Hours.
Continuation of PIAN 148. Prerequisite: Permission of instructor. IND.

PIAN 288. Intermediate Keyboard Skills II. 2 Hours.
Continuation of PIAN 284. Prerequisite: Permission of instructor. IND.

PIAN 300. Piano. 1-2 Hours.
Applied music lessons for juniors and seniors not majoring in music. May be repeated for credit. IND.

PIAN 320. Piano Performance Class. 1 Hour.
Performances, lectures, and discussions of all aspects of performance. May be repeated for credit. Prerequisite: Consent of instructor. LAB.

PIAN 321. Piano. 1-2 Hours.
Applied music lessons for juniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 221-level until the music major has accumulated 8 credits. IND.

PIAN 325. Piano. 1-4 Hours.
For juniors and seniors. Small group instruction for the development of performance abilities, encouraging exploration of creative potentials, and self-directed study. May be repeated for credit. Prerequisite: Permission of instructor. IND.

PIAN 336. Chamber Music for Pianists. 1-2 Hours.
For juniors and seniors majoring in piano. The study of chamber music literature for piano and various instrumental combinations. Development of rehearsal conducting techniques and leadership skills through collaboration with other musicians. May be repeated for credit. LEC.

PIAN 402. Master Class. 1 Hour.
A class in the performance of advanced piano repertoire. Enrollment by permission of the department. IND.

PIAN 421. Piano. 1-2 Hours.
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 321-level until the music major has accumulated 12 credits. IND.

PIAN 422. Piano. 1-2 Hours.
Applied music lessons. Must be taken in the semester a recital is being performed and as required by the degree program. Not for performance majors. IND.

PIAN 430. Creative Jazz Piano II. 1 Hour.
Group instruction in advanced techniques of jazz improvisation with emphasis on various styles and interpretation of leading jazz performers. Prerequisite: Permission of instructor. IND.

PIAN 437. Accompanying for Dance. 1-3 Hours.
Instruction in dance accompanying. Open to junior and senior pianists with permission of instructor. IND.

PIAN 522. Piano Technology I. 1 Hour.
An introduction to the principles of design, theory of operation, maintenance, and tuning of the piano. Lecture and laboratory. Open to junior, senior, and graduate students. LEC.
PIAN 523. Piano Technology II. 1 Hour.
A continuation of PIAN 522, Piano Technology I. Application of principles of design, theory of operation, maintenance, and tuning of the piano. Prerequisite: PIAN 522. LEC.

PIAN 540. Piano Pedagogy I. 2-3 Hours.
Observation and research of the techniques and materials relevant to piano instruction at the elementary to intermediate levels. Additional topics pertinent to music education to include child development, learning, communication, and group dynamics. Prerequisite: Permission of instructor. LEC.

PIAN 546. Piano Pedagogy II. 2-3 Hours.
Observation and research of the techniques and materials relevant to piano instruction at the elementary to intermediate levels. Additional topics pertinent to music education to include child development, learning, communication, and group dynamics. Prerequisite: PIAN 540 or permission of instructor. LEC.

PIAN 622. Piano. 1-5 Hours.
Applied music lessons for juniors and seniors majoring in performance. May be repeated for credit. Prerequisite: Performance majors must accumulate 16 credits at the 121/221 levels. IND.

PIAN 624. Piano Workshop. 1-3 Hours.
A short term course covering a piano-related topic. May be repeated for credit. LEC.

PIAN 640. Piano Pedagogy III. 2 Hours.
Practicum in piano instruction at the elementary to intermediate levels. Students enrolled for this course are expected to participate in the Children’s Piano Laboratory Program or the Campus Community Program. Prerequisite: PIAN 546 or permission of instructor. FLD.

PIAN 643. Piano Repertoire I. 3 Hours.
Study and analysis of keyboard repertoire from its beginning through the Classical period. LEC.

PIAN 644. Piano Repertoire 2. 3 Hours.
Study and analysis of keyboard repertoire of the Romantic and Modern periods. LEC.

PIAN 646. Piano Pedagogy IV. 1-2 Hours.
Practicum in piano instruction at the elementary to intermediate levels. Prerequisite: PIAN 640 or permission of instructor. FLD.

PIAN 711. Piano. 1-4 Hours.
For graduate students not majoring in piano. May be repeated for credit. Summer session limit one to three hours. IND.

PIAN 720. Piano Performance Class. 1 Hour.
Performances, lectures, and discussion of all aspects of performance. May be repeated for credit. Prerequisite: Consent of instructor. IND.

PIAN 802. Master Class. 1 Hour.
A class in the performance of advanced piano repertoire. Enrollment by permission of the department. IND.

PIAN 811. Piano. 1-6 Hours.
For graduate students majoring in piano. May be repeated for credit. Summer session limit one to three hours. IND.

PIAN 840. Advanced Piano Pedagogy I: Group and Class Instruction. 3 Hours.
The techniques and materials for the development of keyboard literacy at the elementary and intermediate levels. LEC.

PIAN 846. Advanced Piano Pedagogy II: Group and Class Instruction. 3 Hours.
The techniques and materials for the development of keyboard literacy at the elementary and intermediate levels. Prerequisite: PIAN 840. LEC.

PIAN 921. Seminar in Performance and Pedagogy: _____. 3 Hours.
A detailed study of repertoire, performance practice, pedagogical, and stylistic problems relating to keyboard music. May be repeated for credit when topics vary. LEC.

PIAN 961. Directed Performance. 1-6 Hours.
Individual instruction. Open only to students who have been admitted to the D.M.A. curriculum in piano. May be repeated for credit. Summer session limit one to three hours. RSH.

PIAN 965. Doctoral Recitals. 1-3 Hours.
Maximum credit, seven hours. May be repeated for credit. THE.

PIAN 970. D.M.A. Lecture-Recital. 1-6 Hours.
A lecture-recital and scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance. May be repeated for credit. Prerequisite: Consent of instructor. RSH.

A scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance and conducting. May be repeated for credit. Prerequisite: Consent of instructor. THE.

REC 100. Laboratory in Music Performance. 0 Hours.
This course deals with the performance of music. The goal is to increase the understanding of music and music performance through exposure to a wide variety of repertoire and performance styles, mediums, techniques, and related issues. May be repeated. LAB.

RECO 119. Recorder. 1-4 Hours.
For freshmen and sophomores. Group instruction at the beginning level, two hours per week. Thirty minutes per day practice expected. May not be repeated for credit. Prerequisite: Student must read music and own an alto recorder. IND.

RECO 319. Recorder. 1-4 Hours.
For juniors and seniors. Group instruction at the beginning level, two hours per week. Thirty minutes per day practice expected. May not be repeated for credit. Prerequisite: Student must read music and own an alto recorder. IND.

SAXO 100. Saxophone. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

SAXO 121. Saxophone. 1-4 Hours.
Applied music lessons for freshmen majoring in music. May be repeated for credit. IND.

SAXO 221. Saxophone. 1-4 Hours.
Applied music lessons for sophomores majoring in music. May be repeated for credit. Prerequisite: 121-level until the music major has accumulated 4 credits (8 for performance majors). IND.

SAXO 300. Saxophone. 1-2 Hours.
Applied music lessons for juniors and seniors not majoring in music. May be repeated for credit. IND.

SAXO 321. Saxophone. 1-2 Hours.
Applied music lessons for juniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 221-level until the music major has accumulated 8 credits. IND.

SAXO 421. Saxophone. 1-2 Hours.
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 321-level until the music major has accumulated 12 credits. IND.
SAXO 422. Saxophone. 1-2 Hours.
Applied music lessons. Must be taken in the semester a recital is being performed and as required by the degree program. Not for performance majors. IND.

SAXO 622. Saxophone. 1-4 Hours.
Applied music lessons for juniors and seniors majoring in performance. May be repeated for credit. Prerequisite: Performance majors must accumulate 16 credits at the 121/221 levels. IND.

SAXO 711. Saxophone. 1-4 Hours.
For graduate students not majoring in saxophone. May be repeated for credit. Summer session limit one to three hours. IND.

SAXO 811. Saxophone. 1-6 Hours.
For graduate students majoring in saxophone. May be repeated for credit. Summer session limit one to three hours. IND.

SAXO 921. Seminar in Performance. 3 Hours.
A study of repertoire and performance techniques from the saxophone’s inception to 1950. LEC.

SAXO 922. Seminar in Performance. 3 Hours.
A study of repertoire and extended performance techniques from 1950 to the present. LEC.

SAXO 961. Directed Performance. 1-6 Hours.
Individual instruction. Open only to students who have been admitted to the D.M.A. curriculum in saxophone. May be repeated for credit. Summer session limit one to three hours. RSH.

SAXO 965. Doctoral Recitals. 1-3 Hours.
Maximum seven hours credit. May be repeated for credit. THE.

SAXO 970. D.M.A. Lecture-Recital. 1-6 Hours.
A lecture-recital and scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance. May be repeated for credit. Prerequisite: Consent of instructor. RSH.

STRG 424. String Pedagogy: _____, 1 Hour.
Lectures, demonstrations, and discussions of such topics as physiological factors, style and interpretation, music editing, teaching materials and repertoire, planning, and evaluation. May be repeated for credit as instrument varies. IND.

STRG 701. String Pedagogy Workshop. 0.5-3 Hours.
A short-term intensive course in string pedagogy intended for school orchestra directors, private teachers, and advanced students. Normally offered during the summer session. May be repeated for credit. Graded on a satisfactory/unsatisfactory basis. IND.

STRG 921. Seminar in Performance and Pedagogy, 3 Hours.
Repertoire, performance practice, and pedagogical and stylistic problems relating to stringed instrument music before 1800. LEC.

STRG 922. Seminar in Performance and Pedagogy. 3 Hours.
Stringed instrument repertoire from 1800 to 1875. LEC.

STRG 923. Seminar in Performance and Pedagogy. 3 Hours.
Stringed instrument repertoire from 1875 to present. LEC.

STRG 970. D.M.A. Lecture-Recital. 1-6 Hours.
A lecture-recital and scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance. May be repeated for credit. Prerequisite: Consent of instructor. RSH.

STRG 972. D.M.A. Document. 1-6 Hours.
A scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance and conducting. May be repeated for credit. Prerequisite: Consent of instructor. THE.

TROM 100. Trombone. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

TROM 121. Trombone. 1-4 Hours.
Applied music lessons for freshmen majoring in music. May be repeated for credit. IND.

TROM 221. Trombone. 1-4 Hours.
Applied music lessons for sophomores majoring in music. May be repeated for credit. Prerequisite: 121-level until the music major has accumulated 4 credits (8 for performance majors). IND.

TROM 252. Trombone Choir. 0-1 Hours.
For freshmen and sophomores. Study and performance of ensemble literature for the trombone. May be repeated for credit. IND.

TROM 300. Trombone. 1-2 Hours.
Applied music lessons for juniors and seniors not majoring in music. May be repeated for credit. IND.

TROM 321. Trombone. 1-2 Hours.
Applied music lessons for juniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 221-level until the music major has accumulated 8 credits. IND.

TROM 421. Trombone. 1-2 Hours.
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 321-level until the music major has accumulated 12 credits. IND.

TROM 422. Trombone. 1-2 Hours.
Applied music lessons. Must be taken in the semester a recital is being performed and as required by the degree program. Not for performance majors. IND.

TROM 652. Trombone Choir. 0-1 Hours.
For juniors, seniors, and graduate students. Study and performance of ensemble literature for the trombone. May be repeated for credit. IND.

TROM 711. Trombone. 1-4 Hours.
For graduate students not majoring in trombone. May be repeated for credit. Summer session limit one to three hours. IND.

TROM 811. Trombone. 1-6 Hours.
For graduate students majoring in trombone. May be repeated for credit. Summer session limit one to three hours. IND.

TROM 961. Directed Performance. 1-6 Hours.
Individual instruction. Open only to students who have been admitted to the D.M.A. curriculum in trombone. May be repeated for credit. Summer session limit one to three hours. RSH.

TROM 965. Doctoral Recitals. 1-3 Hours.
May be repeated for credit. THE.

TROM 970. D.M.A. Lecture-Recital. 1-6 Hours.
A lecture-recital and scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance. May be repeated for credit. Prerequisite: Consent of instructor. RSH.
A scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance and conducting. May be repeated for credit. Prerequisite: Consent of instructor. THE.

TRUM 100. Trumpet. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

TRUM 121. Trumpet. 1-4 Hours.
Applied music lessons for freshmen majoring in music. May be repeated for credit. IND.

TRUM 221. Trumpet. 1-4 Hours.
Applied music lessons for sophomores majoring in music. May be repeated for credit. Prerequisite: 121-level until the music major has accumulated 4 credits (8 for performance majors). IND.

TRUM 252. Trumpet Ensemble. 0-1 Hours.
For freshmen and sophomores. Study and performance of ensemble literature for the trumpet. May be repeated for credit. IND.

TRUM 300. Trumpet. 1-2 Hours.
Applied music lessons for juniors and seniors not majoring in music. May be repeated for credit. IND.

TRUM 321. Trumpet. 1-2 Hours.
Applied music lessons for juniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 221-level until the music major has accumulated 8 credits. IND.

TRUM 421. Trumpet. 1-2 Hours.
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 321-level until the music major has accumulated 12 credits. IND.

TRUM 422. Trumpet. 1-2 Hours.
Applied music lessons. Must be taken in the semester a recital is being performed and as required by the degree program. Not for performance majors. IND.

TRUM 622. Trumpet. 1-4 Hours.
Applied music lessons for juniors and seniors majoring in performance. May be repeated for credit. Prerequisite: Performance majors must accumulate 16 credits at the 121/221 levels. IND.

TRUM 652. Trumpet Ensemble. 0-1 Hours.
For juniors, seniors, and graduate students. Study and performance of ensemble literature for the trumpet. May be repeated for credit. IND.

TRUM 711. Trumpet. 1-4 Hours.
For graduate students not majoring in trumpet. May be repeated for credit. Summer session limit one to three hours. IND.

TRUM 811. Trumpet. 1-6 Hours.
For graduate students majoring in trumpet. May be repeated for credit. Summer session limit one to three hours. IND.

TRUM 961. Directed Performance. 1-6 Hours.
Individual instruction. Open only to students who have been admitted to the D.M.A. curriculum in trumpet. May be repeated for credit. Summer session limit one to three hours. RSH.

TRUM 965. Doctoral Recitals. 1-3 Hours.
Maximum credit, seven hours. May be repeated for credit. THE.

TRUM 970. D.M.A. Lecture-Recital. 1-6 Hours.
A lecture-recital and scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance. May be repeated for credit. Prerequisite: Consent of instructor. RSH.

A scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance and conducting. May be repeated for credit. Prerequisite: Consent of instructor. THE.

TUBA 100. Tuba. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

TUBA 121. Tuba. 1-4 Hours.
Applied music lessons for freshmen majoring in music. May be repeated for credit. IND.

TUBA 221. Tuba. 1-4 Hours.
Applied music lessons for sophomores majoring in music. May be repeated for credit. Prerequisite: 121-level until the music major has accumulated 4 credits (8 for performance majors). IND.

TUBA 300. Tuba. 1-2 Hours.
Applied music lessons for juniors and seniors not majoring in music. May be repeated for credit. IND.

TUBA 321. Tuba. 1-2 Hours.
Applied music lessons for juniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 221-level until the music major has accumulated 8 credits. IND.

TUBA 421. Tuba. 1-2 Hours.
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 321-level until the music major has accumulated 12 credits. IND.

TUBA 422. Tuba. 1-2 Hours.
Applied music lessons. Must be taken in the semester a recital is being performed and as required by the degree program. Not for performance majors. IND.

TUBA 622. Tuba. 1-4 Hours.
Applied music lessons for juniors and seniors majoring in performance. May be repeated for credit. Prerequisite: Performance majors must accumulate 16 credits at the 121/221 levels. IND.

TUBA 711. Tuba. 1-4 Hours.
For graduate students not majoring in tuba. May be repeated for credit. Summer session limit one to three hours. IND.

TUBA 811. Tuba. 1-6 Hours.
For graduate students majoring in tuba. May be repeated for credit. Summer session limit one to three hours. IND.

TUBA 961. Directed Performance. 1-6 Hours.
Individual instruction. Open only to students who have been admitted to the D.M.A. curriculum in tuba. May be repeated for credit. Summer session limit one to three hours. RSH.

TUBA 965. Doctoral Recitals. 1-3 Hours.
May be repeated for credit. THE.

TUBA 970. D.M.A. Lecture-Recital. 1-6 Hours.
A lecture-recital and scholarly paper on a subject pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance. May be repeated for credit. Prerequisite: Consent of instructor. RSH.

TUBA 972. D.M.A. Document. 1-6 Hours.
A scholarly paper on a topic pertinent to the student’s major field. Open only to candidates for the D.M.A. in performance and conducting. May be repeated for credit. Prerequisite: Consent of instructor. THE.

TUEU 252. Tuba-Euphonium Consort. 0-1 Hours.
For freshmen and sophomores. Study and performance of ensemble literature for the tuba and euphonium. May be repeated for credit. IND.
TUEU 652. Tuba-Euphonium Consort. 0-1 Hours.
For juniors, seniors, and graduate students. Study and performance of ensemble literature for the tuba and euphonium. May be repeated for credit. IND.

VIOA 100. Viola. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

VIOA 120. Viola Performance Class. 0-1 Hours.
Studio performance of solo, ensemble, and orchestral audition repertoire for students concurrently enrolled in double bass, viola, violin and violoncello study. May be repeated. LEC.

VIOA 121. Viola. 1-5 Hours.
Applied music lessons for freshmen majoring in music. May be repeated for credit. IND.

VIOA 221. Viola. 1-5 Hours.
Applied music lessons for sophomores majoring in music. May be repeated for credit. Prerequisite: 121-level until the music major has accumulated 4 credits (8 for performance majors). IND.

VIOA 300. Viola. 1-2 Hours.
Applied music lessons for juniors and seniors not majoring in music. May be repeated for credit. IND.

VIOA 320. Viola Performance Class. 0-1 Hours.
Studio performance of solo, ensemble, and orchestral audition repertoire for students concurrently enrolled in double bass, viola, violin and violoncello study. May be repeated. LEC.

VIOA 321. Viola. 1-2 Hours.
Applied music lessons for juniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 221-level until the music major has accumulated 8 credits. IND.

VIOA 421. Viola. 1-2 Hours.
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 321-level until the music major has accumulated 12 credits. IND.

VIOA 422. Viola. 1-2 Hours.
Applied music lessons. Must be taken in the semester a recital is being performed and as required by the degree program. Not for performance majors. IND.

VIOA 622. Viola. 1-5 Hours.
Applied music lessons for juniors and seniors majoring in performance. May be repeated for credit. Prerequisite: Performance majors must accumulate 16 credits at the 121/221 levels. IND.

VIOA 711. Viola. 1-4 Hours.
For graduate students not majoring in viola. May be repeated for credit. Summer session limit one to three hours. IND.

VIOA 720. Viola Performance Class. 1 Hour.
Studio performance of solo, ensemble, and orchestral audition repertoire for students concurrently enrolled in violin (viola, etc.) study. For freshman and sophomores (120); juniors and seniors (320); graduate student (720) (as appropriate). May be repeated for credit. LEC.

VIOA 811. Viola. 1-6 Hours.
For graduate students majoring in viola. May be repeated for credit. Summer session limit one to three hours. IND.

VIOA 961. Directed Performance. 1-6 Hours.
Individual instruction. Open only to students who have been admitted to the D.M.A. curriculum in viola. May be repeated for credit. Summer session limit one to three hours. RSH.

VIOA 965. Doctoral Recitals. 1-3 Hours.
May be repeated for credit to a maximum of seven hours. THE.

VION 100. Violin. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

VION 120. Violin Performance Class. 0-1 Hours.
Studio performance of solo, ensemble, and orchestral audition repertoire for students concurrently enrolled in double bass, viola, violin and violoncello study. May be repeated, LEC.

VION 121. Violin. 1-5 Hours.
Applied music lessons for freshmen majoring in music. May be repeated for credit. IND.

VION 131. Baroque Violin. 1-4 Hours.
One or two lessons per week. For freshmen and sophomores. May be repeated for credit. IND.

VION 221. Violin. 1-5 Hours.
Applied music lessons for sophomores majoring in music. May be repeated for credit. Prerequisite: 121-level until the music major has accumulated 4 credits (8 for performance majors). IND.

VION 300. Violin. 1-2 Hours.
Applied music lessons for juniors and seniors not majoring in music. May be repeated for credit. IND.

VION 320. Violin Performance Class. 0-1 Hours.
Studio performance of solo, ensemble, and orchestral audition repertoire for students concurrently enrolled in double bass, viola, violin and violoncello study. May be repeated. LEC.

VION 321. Violin. 1-2 Hours.
Applied music lessons for juniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 221-level until the music major has accumulated 8 credits. IND.

VION 331. Baroque Violin. 1-4 Hours.
One or two lessons per week. For juniors and seniors. May be repeated for credit. IND.

VION 421. Violin. 1-2 Hours.
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 321-level until the music major has accumulated 12 credits. IND.

VION 422. Violin. 1-2 Hours.
Applied music lessons. Must be taken in the semester a recital is being performed and as required by the degree program. Not for performance majors. IND.

VION 511. Workshop in Stringed Instrument Care and Repair. 2 Hours.
Students will perform repairs such as gluing cracks, applying tailpiece gut, setting and adjusting sound posts, and rehairing bows. Proper care and maintenance of the instrument will be stressed. Prerequisite: Junior standing with a background of stringed instrument study meritling departmental approval. LAB.

VION 622. Violin. 1-5 Hours.
Applied music lessons for juniors and seniors majoring in performance. May be repeated for credit. Prerequisite: Performance majors must accumulate 16 credits at the 121/221 levels. IND.

VION 711. Violin. 1-4 Hours.
For graduate students not majoring in violin. May be repeated for credit. Summer session limit one to three hours. IND.
VION 720. Violin Performance Class. 0-1 Hours.
Studio performance of solo, ensemble, and orchestral audition repertoire for students concurrently enrolled in double bass, viola, violin and violoncello study. May be repeated. LEC.

VION 731. Baroque Violin. 1-4 Hours.
May be repeated for credit. IND.

VION 811. Violin. 1-6 Hours.
For graduate students majoring in violin. May be repeated for credit. Summer session limit one to three hours. IND.

VION 961. Directed Performance. 1-6 Hours.
Individual instruction. Open only to students who have been admitted to the D.M.A. curriculum in violin. May be repeated for credit. Summer session limit one to three hours. RSH.

VION 965. Doctoral Recitals. 1-3 Hours.
Maximum of seven hours credit. May be repeated for credit. THE.

VNCL 100. Violoncello. 1-2 Hours.
Applied music lessons for freshmen and sophomores not majoring in music. May be repeated for credit. IND.

VNCL 120. Cello Performance Class. 0-1 Hours.
Studio performance of solo, ensemble, and orchestral audition repertoire for students concurrently enrolled in double bass, viola, violin and violoncello study. May be repeated. LEC.

VNCL 121. Violoncello. 1-5 Hours.
Applied music lessons for freshmen majoring in music. May be repeated for credit. IND.

VNCL 221. Violoncello. 1-5 Hours.
Applied music lessons for sophomores majoring in music. May be repeated for credit. Prerequisite: 121-level until the music major has accumulated 4 credits (8 for performance majors). IND.

VNCL 300. Violoncello. 1-2 Hours.
Applied music lessons for juniors and seniors not majoring in music. May be repeated for credit. IND.

VNCL 320. Cello Performance Class. 0-1 Hours.
Studio performance of solo, ensemble, and orchestral audition repertoire for students concurrently enrolled in double bass, viola, violin and violoncello study. May be repeated. LEC.

VNCL 321. Violoncello. 1-2 Hours.
Applied music lessons for juniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 221-level until the music major has accumulated 8 credits. IND.

VNCL 421. Violoncello. 1-2 Hours.
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 321-level until the music major has accumulated 12 credits. IND.

VNCL 422. Violoncello. 1-2 Hours.
Applied music lessons. Must be taken in the semester a recital is being performed and as required by the degree program. Not for performance majors. IND.

VNCL 622. Violoncello. 1-5 Hours.
Applied music lessons for juniors and seniors majoring in performance. May be repeated for credit. Prerequisite: Performance majors must accumulate 16 credits at the 121/221 levels. IND.

VNCL 711. Violoncello. 1-4 Hours.
For graduate students not majoring in violoncello. May be repeated for credit. Summer session limit one to three hours. IND.

VNCL 720. Cello Performance Class. 0-1 Hours.
Studio performance of solo, ensemble, and orchestral audition repertoire for students concurrently enrolled in double bass, viola, violin and violoncello study. May be repeated. LEC.

VNCL 811. Violoncello. 1-6 Hours.
For graduate students majoring in violoncello. May be repeated for credit. Summer session limit one to three hours. IND.

VNCL 961. Directed Performance. 1-6 Hours.
Individual instruction. Open only to students who have been admitted to the D.M.A. curriculum in violoncello. May be repeated for credit. Summer session limit one to three hours. RSH.

VNCL 965. Doctoral Recitals. 1-3 Hours.
May be repeated for credit to a maximum of seven hours. THE.
VOIC 406. Vocal Literature II. 2 Hours.
A survey of German song. LEC.

VOIC 408. Vocal Pedagogy. 1 Hour.
Knowledge and skills needed to teach voice, with particular attention to lifespan voice anatomy, physiology, and acoustics, diagnosis and correction of vocal inefficiencies, teaching styles, repertoire choice, professional development, and acquaintance with current research in voice science and vocal pedagogy. Includes a voice teaching practicum. (Same as MEMT 408.) LEC.

VOIC 412. Vocal Pedagogy and Advanced Repertoire II. 1 Hour.
Continuation of VOIC 408. LEC.

VOIC 421. Voice. 1-2 Hours.
Applied music lessons for seniors majoring in music. Not for performance majors. May be repeated for credit. Prerequisite: 321-level until the music major has accumulated 12 credits. IND.

VOIC 422. Voice. 1-2 Hours.
Applied music lessons. Must be taken in the semester a recital is being performed and as required by the degree program. Not for performance majors. IND.

VOIC 440. Vocal Performance. 1 Hour.
A class in the performance of vocal repertoire. IND.

VOIC 470. Lyric Diction for Singers: ______. 1 Hour.
Pronunciation in a specific language to be chosen from Italian, French, English, German, or other languages pertinent to the singer. Open to voice and theatre/voice majors, and to others with approval of instructor. May be repeated for credit as language varies. LEC.

VOIC 490. Opera Workshop. 0-4 Hours.
The study of various aspects of opera, such as character development, aria, chorus, and opera scene study, staging, body movement, and audition techniques. May be repeated for credit. ACT.

VOIC 492. Opera Production. 1-4 Hours.
The preparation and performance of an opera role. May be repeated for credit. ACT.

VOIC 500. Directed Study in: ______. 1-3 Hours.
Investigation of a special topic or project. May be repeated for credit. Prerequisite: Consent of instructor. IND.

VOIC 520. Vocal Coaching. 1 Hour.
In-depth investigation of elements of vocal performance such as language, musical style, tradition, and dramatic content and the communication thereof in preparation for the senior recital. Open to undergraduates majoring in voice and theatre/voice majors, and to others with approval of instructor. May be repeated for credit. IND.

VOIC 622. Voice. 1-4 Hours.
Applied music lessons for juniors and seniors majoring in performance. May be repeated for credit. Prerequisite: Performance majors must accumulate 12 credits at the 121/221 levels. IND.

VOIC 670. Advanced Lyric Diction for Singers: ______. 1 Hour.
Pronunciation in a specific language to be chosen from Italian, French, English, German, or other languages pertinent to the singer. Open to graduate students in voice and opera performance, and to others with approval of instructor. May be repeated for credit as language varies. LEC.

VOIC 704. Vocal Repertoire: ______. 2 Hours.
A survey of selected topics in vocal repertoire to be chosen from categories such as: Italian, German, French, and English songs, oratorio literature, and art songs by women composers. The course may be repeated for credit when topic varies. LEC.

VOIC 705. Advanced Vocal Literature I. 3 Hours.
An investigation of the development of French melodie. The course will include directed readings, writing, and performance. LEC.

VOIC 706. Advanced Vocal Literature II. 3 Hours.
An investigation of the development of German lieder. The course will include directed readings, writing, and performance. LEC.

VOIC 707. Advanced Vocal Literature III. 3 Hours.
An investigation of the development of songs in English. The course will include directed readings, writing, and performance. LEC.

VOIC 711. Voice. 1-4 Hours.
For graduate students not majoring in voice. May be repeated for credit. Summer session limit one to three hours. IND.

VOIC 720. Vocal Performance Class II. 1 Hour.
Solo vocal performance in a class situation with emphasis including the preparation, planning of repertoire, and interpretive skills appropriate to a recital. Advanced repertoire and appropriate level of vocal and musical comprehension shall be expected from the graduate student. Prerequisite: Consent of instructor. IND.

VOIC 740. Vocal Performance. 1 Hour.
A class in the performance of vocal repertoire. IND.

VOIC 770. Special Studies in Voice: English Lyric Diction for the Choral Singer and Soloist. 1 Hour.
A graduate level course designed for the choral director, public school music teacher and voice teacher. Techniques for achieving a distinct, unlabored English pronunciation will be studied. The International Phonetic Alphabet will be employed. IND.

VOIC 808. Vocal Pedagogy. 1 Hour.
A course offering performers and beginning teachers of classical singing a basic overview of vocal production. The class will explore the empirical and scientific principles of breathing, resonance, timbre, and other vocal features. Discussions of repertoire choices, vocal health, teaching styles, career development and other topics pertaining to the training of singers will be included. Added emphasis will be placed on historical and contemporary pedagogues through original research. LEC.

VOIC 811. Voice. 1-6 Hours.
For graduate students majoring in voice. May be repeated for credit. Summer session limit one to three hours. IND.

VOIC 820. Vocal Coaching. 1-4 Hours.
In-depth investigation of elements of vocal performance such as language, musical style, tradition, dramatic content and the communication thereof. Open to graduate voice majors with consent of instructor. May be repeated for credit. IND.

VOIC 890. Opera Workshop. 0-4 Hours.
The study of various aspects of opera, such as character development, aria, chorus, and opera scene study, staging, body movement, and audition techniques. May be repeated for credit. ACT.

VOIC 892. Opera Production. 1-4 Hours.
The preparation and performance of an opera role. May be repeated for credit. ACT.

VOIC 900. Directed Study in: ______. 1-3 Hours.
Investigation of a special topic or project. May be repeated for credit. Prerequisite: Consent of instructor. LEC.
The University of Kansas 1901

Verdi, Wagner, Mozart, Debussy, Poulenc, Wolf, Strauss), or twentieth century song. May be repeated for credit. LEC.

VOIC 960. Vocal Pedagogy. 2 Hours.
A study of the problems encountered in the teaching of vocal technique, such as breathing, resonance, tone color, dynamic control, and diction, and including sessions of supervised teaching. LEC.

VOIC 961. Directed Performance. 1-6 Hours.
Individual instruction. Open only to students who have been admitted to the D.M.A. curriculum in voice. May be repeated for credit. Summer session limit one to three hours. RSH.

VOIC 965. Doctoral Recitals. 1-3 Hours.
Maximum seven hours credit. May be repeated for credit. THE.

VOIC 970. D.M.A. Lecture-Recital. 1-6 Hours.
A lecture-recital and scholarly paper on a subject pertinent to the student's major field. Open only to candidates for the D.M.A. in performance. May be repeated for credit. Prerequisite: Consent of instructor. RSH.

VOIC 972. D.M.A. Document. 1-6 Hours.
A scholarly paper on a subject pertinent to the student's major field. Open only to candidates for the D.M.A. in performance and conducting. May be repeated for credit. Prerequisite: Consent of instructor. THE.

W&P 125. Wind and Percussion Pedagogy. 1 Hour.
For freshmen and sophomores. Materials and concepts for teaching beginning and intermediate instrumental students: instrument repair, adjustments and modification; reed making and adjustment where appropriate; solo and ensemble repertoire. May not be repeated for credit. Prerequisite: MGMT 113, Brass; MGMT 114, Woodwinds; MGMT 115, Percussion; or concurrent applied instruction for the appropriate instrument (e.g. FRHN 121, PCUS 221). IND.

W&P 130. Orchestral Repertoire. 1 Hour.
For freshmen and sophomores. Weekly reading sessions for wind, percussion and harp students with the objective of acquainting the student with important orchestral passages for his or her particular instrument. May be repeated for credit. Enrollment controlled by the instructor in charge. IND.

W&P 325. Wind and Percussion Pedagogy. 1 Hour.
For juniors and seniors. Continuation of WP 125. May not be repeated for credit. Prerequisite: MGMT 113, Brass; MGMT 114, Woodwinds; MGMT 115, Percussion; or concurrent applied instruction for the appropriate instrument (e.g. FRHN 321, PCUS 622). IND.

W&P 630. Orchestral Repertoire. 1 Hour.
The study of orchestral literature for wind and percussion instruments. May be repeated for credit. Permission of instructor. IND.

W&P 655. Independent Study in: ______. 1-4 Hours.
May be repeated for credit. Prerequisite: Consent of advisor and instructor. IND.

W&P 702. Special Studies in Woodwind Instrument Pedagogy. 1-3 Hours.
Physiological factors of woodwind playing, teaching materials and techniques, practice methods, solo and chamber music repertoire, mouthpieces and reeds, discography, techniques of tone production, articulation, embouchure, and intonation. May be repeated for credit to a maximum of five hours. LEC.

W&P 704. Special Studies in Brass Instrumental Pedagogy. 1 Hour.
Physiological factors of brass playing, teaching materials and techniques, practice methods, solo and chamber music repertoire, mouthpieces, discography, techniques of tone production, articulation, embouchure, and intonation. May be repeated for credit to a maximum of five hours. LEC.

W&P 706. Advanced Pedagogy Workshops in Orchestral Instruments. 0.5 Hours.
Methods and materials of teaching fundamentals of the instruments. Lecture, class performance, class discussion, teaching demonstration, and library research. Summer session only. Prerequisite: Teaching experience or undergraduate instruction in the instrument, or permission of the instructor. LEC.

The study of percussion pedagogy of Membrane Percussion; Keyboard Percussion; and Jazz/Rock/Commercial Drum Set, Marching and World Percussion. Study will include but not limited to such areas as teaching materials and techniques, repertoire, performance practice, and discography. Course may concentrate on one of the three areas listed above, or be taught as a survey course covering all three topics. May be repeated for credit to maximum of five hours. LEC.

WENS 252. Wind Ensemble. 0-1 Hours.
For freshmen and sophomores. Study and performance of original works for various wind instrument combinations. May be repeated for credit. LAB.

WENS 652. Wind Ensemble. 0-1 Hours.
For juniors, seniors, and graduate students. Study and performance of original works for various wind instrument combinations. May be repeated for credit. LAB.

Bachelor of Arts in Fine Arts in Music

B.A. in Fine Arts in Music Degree Requirements

The B.A. in Fine Arts in Music is offered with a concentration in:

- Jazz studies,
- Musicology,
- Music theory,
- Piano/organ/orchestral instruments, or
- Voice.

A total of 120 credit hours is required. To graduate, a student must earn a minimum grade-point average of 3.0 in all major courses and a minimum average of 2.0 in all course work.

Students will gain knowledge in a variety of areas while pursuing the B.A. and may include any approved KU minor without adding extra credit hours to their degree program. Students will be studying with faculty members who are nationally and internationally recognized. Courses in music theory and musicology are part of the exploration of music as are private instruction, ensemble and chamber music opportunities, as well as a senior performance recital.

With this degree, students will be well-rounded prospects for nearly any employer upon graduation. Students can also go on to pursue graduate studies in music, establish private studios, audition for music ensembles, or create their own paths in music or music-related endeavors.
The School of Music

The School of Music at the University of Kansas ranks among the finest in America, offering comprehensive programs at the bachelor’s, master’s, and doctoral levels.

The school nurtures and advances the art of music through creation, performance, scholarly inquiry, entrepreneurship, and enhancement of the artistic skills and experiences of the university and regional cultural communities.

The school is a major contributor to the arts community through the student, faculty, and professional performances in Swarthout Recital Hall, Bales Organ Recital Hall, the Robert Baustian Theatre, and the Lied Center of Kansas.

The School of Music is an accredited institutional member of the National Association of Schools of Music (http://nasm.arts-accredit.org). The entrance and graduation requirements in this catalog conform to the published guidelines of that organization.

Undergraduate Admission to the School of Music

First-year students should enter the school directly. Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale) and are eligible to return to the college or university last attended in addition to completing a successful audition. Other students can be admitted only with the permission of the dean. Send applications to the Office of Admissions (http://admissions.ku.edu). Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students who wish to major in music must audition. All music students academically approved for admission to the School of Music are admitted contingent upon demonstration by audition of satisfactory level proficiency in their areas of applied music. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

Transfer Students

Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale), are eligible to return to the college or university last attended, and complete a successful audition. Only grades of C or higher are accepted in transfer credit toward degrees offered by the School of Music. Students who wish to transfer performance credit from another institution toward any music degree at KU must validate this credit by audition. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

Music Theory Placement

The music theory placement examination is required of all undergraduate transfer students who have not completed a 4-semester theory sequence with an accredited NASM school. It is administered as announced on the School of Music website (http://music.ku.edu) each semester.

B.A. in Fine Arts in Music Degree Requirements

The B.A. in Fine Arts in music is offered with a concentration in:

- Jazz studies,
- Musicology,
- Music theory,
- Piano/organ/orchestral instruments, or
- Voice.

A total of 120 credit hours is required. To graduate, a student must earn a minimum grade-point average of 3.0 in all major courses and a minimum average of 2.0 in all course work.

Ensemble Policy

In order to remain enrolled in studio instruction (lessons), all undergraduate (B.A. & B.M.) and M.M. students who enroll in any level of studio instruction (including nonmajor levels) in band and orchestral instruments must audition for and perform as assigned in a major instrumental ensemble 1 each semester in which they are enrolled. For music majors, 1 ensemble taken for credit each semester is required for graduation. Exceptions to this policy are allowed on a case-by-case basis and only by the ensemble conductor in consultation with the faculty member in the studio area or the faculty advisor in music therapy as appropriate.

1 KU Symphony Orchestra, Wind Ensemble, Symphonic Band, Marching Band, or Jazz Ensemble I.

Basic Courses (21-41)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>MATH 101</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>COMS 130</td>
<td>Speaker-Audience Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

Foreign language (0-20 hours):

<table>
<thead>
<tr>
<th>Language</th>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italian</td>
<td>MUSC 420</td>
<td>4</td>
</tr>
<tr>
<td>French</td>
<td>MUSC 410</td>
<td>4</td>
</tr>
</tbody>
</table>

Jazz studies concentration: no foreign language

Voice concentration: 10 hours of Italian and 10 hours of French or German

Natural science course-goal #3 3

Social Science course-goal #3 3

Social/Ethical course-goal #5 3

Minor or non-music electives (18) 18

Any KU approved minor. Must be declared in the department that houses your minor and completed with your music major.

Music Core (27)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTHC 105</td>
<td>Theory I</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 115</td>
<td>Theory II</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 205</td>
<td>Theory III</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 315</td>
<td>Theory IV</td>
<td>4</td>
</tr>
<tr>
<td>MUSC 320</td>
<td>Music History I</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 340</td>
<td>Music History II</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 440</td>
<td>Music History III</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 480</td>
<td>Music History IV</td>
<td>2</td>
</tr>
</tbody>
</table>
MEMT 116  Performance Media: Computers, Synthesizers, and Electronics  1
REC 100  Laboratory in Music Performance (2 to 4 semesters depending on your concentration)  0

Concentrations
Choose 1 of the following concentrations:

Jazz Studies Concentration (54)
JAZZ 105/305  Jazz Theory  2
JAZZ 224/624  Jazz Improvisation I  2
JAZZ 225/625  Jazz Improvisation II  2
JAZZ 230/630  Introduction to Jazz Piano  2
JAZZ 459/659  Jazz Arranging  2
Applied music lessons (8 semesters each for credit)  8
Jazz ensembles (4 semesters for credit)  4
Jazz combo (4 semesters for credit)  4
REC 100  Laboratory in Music Performance (2 semesters)  0
Additional non-music electives required. Remember 45 total credits must be in courses numbered at the 300 level or above.

Musicology Concentration (38)
9 hours selected from courses numbered 602-778  9
Applied music lessons (4 semesters for credit)  4
MUSIC 499  Senior Thesis  2
Ensembles (2 hours of Collegium Musicum required)  4
REC 100  Laboratory in Music Performance (4 semesters)  0
Electives in music  6
Additional non-music electives. Remember 45 total credits must be in courses numbered at the 300 level or above.

Music Theory Concentration (38)
Upper-division music theory courses (MTHC courses numbered 300 and above)  9
Applied music lessons (8 semesters for credit)  8
MTHC 499  Senior Research Project  2
Ensembles (8 semesters for credit)  8
REC 100  Laboratory in Music Performance (4 semesters)  0
Additional non-music electives. Remember 45 total credits must be in courses numbered at the 300 level or above.

Note: See MTHC professional sequence and portfolio requirements under Music Theory and Composition.

Piano/Organ/Orchestral Instruments Concentration (34-42)
Applied music lessons (8 semesters for 2 credits each semester)  16
Senior recital  0
MUS 586  The Business of Music  3
REC 100  Laboratory in Music Performance (4 semesters)  0
Ensembles - Major ensemble required each semester:  4-8
Orchestral Instruments (8 semesters for credit each semester)  0-4
Piano or Organ (4 semesters for credit each semester)  0-4
Additional non-music electives. Remember 45 total credits must be in courses numbered at the 300 level or above.

Voice Concentration (34)
Applied music lessons (8 semesters for 2 credits each semester)  16
Senior recital  0
VOIC 120  Vocal Performance in English  1
Vocal diction (2 semesters)  2
Vocal repertoire  2
Ensembles (4 semesters)  4
REC 100  Laboratory in Music Performance (4 semesters)  0
Piano (Proficiency level of PIAN 284)  2
Additional non-music electives. Remember 45 total credits must be in courses numbered at the 300 level or above.

Bachelor of Fine Arts in Theatre-Voice Program

Theatre and Voice
The Division of Voice offers 2 programs (Bachelor of Fine Arts and Bachelor of Music (p. 1913)) for singers interested in art song, opera, oratorio, concert, other classical pieces or vocal teaching. Students receive training in vocal technique, languages and diction, vocal repertoire, acting and the theatrical arts. Performance opportunities range from workshops to fully staged productions, allowing students to develop their talents at the most beneficial pace.

The Bachelor of Fine Arts (B.F.A.) in Theatre and Voice degree requires 124 credits. Students will be studying with faculty members who are nationally and internationally recognized. Courses in music theory and musicology are part of the in-depth exploration of music as well as performing a junior recital and a senior recital.

With this degree, students can go on to pursue graduate studies in music, establish private studios, audition for theatre/musical productions, or create their own path in music or music-related endeavors.

The School of Music
The School of Music at the University of Kansas ranks among the finest in America, offering comprehensive programs at the bachelor’s, master’s, and doctoral levels.

The school nurtures and advances the art of music through creation, performance, scholarly inquiry, entrepreneurship, and enhancement of the artistic skills and experiences of the university and regional cultural communities.

The school is a major contributor to the arts community through the student, faculty, and professional performances in Swarthout Recital Hall, Bales Organ Recital Hall, the Robert Baustian Theatre, and the Lied Center of Kansas.

The School of Music is an accredited institutional member of the National Association of Schools of Music (http://nasm.arts-accredit.org). The entrance and graduation requirements in this catalog conform to the published guidelines of that organization.
Undergraduate Admission to the School of Music

First-year students should enter the school directly. Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale) and are eligible to return to the college or university last attended in addition to completing a successful audition. Other students can be admitted only with the permission of the dean. Send applications to the Office of Admissions (http://admissions.ku.edu). Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students who wish to major in music must audition. All music students academically approved for admission to the School of Music are admitted contingent upon demonstration by audition of satisfactory level proficiency in their areas of applied music. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

Transfer Students

Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale), are eligible to return to the college or university last attended, and complete a successful audition. Only grades of C or higher are accepted in transfer credit toward degrees offered by the School of Music. Students who wish to transfer performance credit from another institution toward any music degree at KU must validate this credit by audition. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

Music Theory Placement

The music theory placement examination is required of all undergraduate transfer students who have not completed a 4-semester theory sequence with an accredited NASM school. It is administered as announced on the School of Music website (http://music.ku.edu) each semester.

B.F.A. Degree Requirements for the Theatre and Voice Major

A total of 124 hours is required, distributed as follows:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Music Theory (16)</strong></td>
<td></td>
</tr>
<tr>
<td>MTHC 105 Theory I</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 115 Theory II</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 205 Theory III</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 315 Theory IV</td>
<td>4</td>
</tr>
<tr>
<td><strong>Musicology (10)</strong></td>
<td></td>
</tr>
<tr>
<td>MUSC 320 Music History I</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 340 Music History II</td>
<td>3</td>
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<tr>
<td>MUSC 440 Music History III</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 480 Music History IV</td>
<td>2</td>
</tr>
<tr>
<td><strong>Theatre and Voice Major Courses (64)</strong></td>
<td></td>
</tr>
<tr>
<td>VOIC 120 Vocal Performance in English</td>
<td>1</td>
</tr>
<tr>
<td>Applied music lessons</td>
<td>24</td>
</tr>
<tr>
<td>VOIC 270 Lyric Diction for Singers: _____</td>
<td>1</td>
</tr>
<tr>
<td>VOIC 470 Lyric Diction for Singers: _____</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>124</strong></td>
</tr>
</tbody>
</table>

View the requirements for the Bachelor of Music (p. 1913) program in voice.

Bachelor of Music

Each student who is a candidate for the Bachelor of Music degree must carry a major in:

- Musicology,
- Music theory,
- Music composition,
- Music therapy, or
- Music performance.

A total of 120 to 129 credit hours is required and is designed to further the student’s knowledge, practice, and experience in their chosen major. To graduate, a student must earn a minimum grade-point average of 3.0 in all major courses and a minimum average of 2.0 in all course work.

Students will be studying with faculty members who are nationally and internationally recognized. Courses in music theory and musicology are part of the exploration of music as are private instruction, ensemble
and chamber music opportunities. All students pursuing the B.M. degree will perform a senior recital on their primary instrument/voice. In addition, performance majors will also complete a junior recital and music composition majors will also give a music composition recital.

With this degree, students can go on to pursue graduate studies in music, establish private studios, audition for music ensembles, or create their own paths in music or music-related endeavors. Individuals who complete the music therapy program are eligible to take the national music therapy board certification examination. The music therapy major does not lead to licensure to teach music in public schools.

The School of Music

The School of Music at the University of Kansas ranks among the finest in America, offering comprehensive programs at the bachelor’s, master’s, and doctoral levels.

The school nurtures and advances the art of music through creation, performance, scholarly inquiry, entrepreneurship, and enhancement of the artistic skills and experiences of the university and regional cultural communities.

The school is a major contributor to the arts community through the student, faculty, and professional performances in Swarthout Recital Hall, Bales Organ Recital Hall, the Robert Baustian Theatre, and the Lied Center of Kansas.

The School of Music is an accredited institutional member of the National Association of Schools of Music (http://nasm.arts-accredit.org). The entrance and graduation requirements in this catalog conform to the published guidelines of that organization.

Bachelor of Music in Musicology

A total of 120 credit hours is required and is designed to further the student’s knowledge, practice, and experience in musicology. To graduate, a student must earn a minimum grade-point average of 3.0 in all major courses and a minimum average of 2.0 in all course work.

Students will be studying with faculty members who are nationally and internationally recognized. Courses in music theory and musicology are part of the exploration of music as are private instruction, ensemble and chamber music opportunities. All students pursuing the B.M. degree will perform a senior recital on their primary instrument/voice.

With this degree, students can go on to pursue graduate studies in music, or create their own paths in music or music-related endeavors.

Undergraduate Admission to the School of Music

First-year students should enter the school directly. Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale) and are eligible to return to the college or university last attended in addition to completing a successful audition. Other students can be admitted only with the permission of the dean. Send applications to the Office of Admissions (http://admissions.ku.edu). Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students who wish to major in music must audition. All music students academically approved for admission to the School of Music are admitted contingent upon demonstration by audition of satisfactory level proficiency in their areas of applied music. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

Transfer Students

Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale), are eligible to return to the college or university last attended, and complete a successful audition. Only grades of C or higher are accepted in transfer credit toward degrees offered by the School of Music. Students who wish to transfer performance credit from another institution toward any music degree at KU must validate this credit by audition. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

Music Theory Placement

The music theory placement examination is required of all undergraduate transfer students who have not completed a 4-semester theory sequence with an accredited NASM school. It is administered as announced on the School of Music website (http://music.ku.edu) each semester.

B.M. Degree Requirements for Musicology Majors

To graduate, the student must attain a minimum grade-point average of 3.0 in 12 credit hours chosen from MUSC 320, MUSC 340, MUSC 440, MUSC 480 and MUSC courses numbered 602-778. A total of 120 hours is required, distributed as follows:

**Musicology (28-30)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 320</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 340</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 440</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 480</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 499</td>
<td>2-4</td>
</tr>
<tr>
<td>Plus 12 hours selected from courses numbered 602-778</td>
<td>12</td>
</tr>
<tr>
<td>MUSC 654 Collegium Musicum, Vocal and/or MUSC 656 Collegium Musicum, Instrumental</td>
<td>4</td>
</tr>
</tbody>
</table>

**Music Theory and Composition (25)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTHC 105</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 115</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 205</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 315</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 410</td>
<td>3</td>
</tr>
<tr>
<td>MTHC 541</td>
<td>3</td>
</tr>
<tr>
<td>MTHC 542</td>
<td>3</td>
</tr>
</tbody>
</table>

**Music Courses (27)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensembles (8 semesters for credit each semester)</td>
<td>8</td>
</tr>
<tr>
<td>Applied music lessons (8 semesters for 2 credits each semester)</td>
<td>16</td>
</tr>
<tr>
<td>MEMT 116</td>
<td>Performance Media: Computers, Synthesizers, and Electronics</td>
</tr>
<tr>
<td>COND 245</td>
<td>Conducting I</td>
</tr>
<tr>
<td>REC 100</td>
<td>Laboratory in Music Performance (4 semester)</td>
</tr>
</tbody>
</table>
Transfer Students

Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale), are eligible to return to the college or university last attended, and complete a successful audition. Only grades of C or higher are accepted in transfer credit toward degrees offered by the School of Music. Students who wish to transfer performance credit from another institution toward any music degree at KU must validate this credit by audition. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

Music Theory Placement

The music theory placement examination is required of all undergraduate transfer students who have not completed a 4-semester theory sequence with an accredited NASM school. It is administered as announced on the School of Music website (http://music.ku.edu) each semester.

Music Theory and Composition

To graduate, the student must maintain a minimum grade-point average of 3.0 in music theory and composition courses on both the first- and second-year and the junior/senior levels.

Students majoring in music theory (B.A. or B.M.) or music composition (B.M.) must complete MTHC 105, MTHC 115, and MTHC 205 before preparing a portfolio of their work for application to the professional sequence. The earliest a student may submit a portfolio is the fourth semester. Transfer students must be in residence for at least 1 semester before they can submit a portfolio.

This portfolio must include recent work (scholarly papers for music theory and musical compositions for composers), 2 letters of recommendation (1 from the student’s major instrument instructor and 1 from a MTHC professor who has had the student in a class), and a minimum grade-point average of 3.0 in MTHC courses. The student may be asked to provide a demonstration of musicality on his or her major instrument.

Portfolios are accepted once each semester for admission to the professional sequence the following semester. The portfolio is assessed by the MTHC faculty with one of 3 recommendations: admit, revise and resubmit next semester, or denied. Students in music theory are not allowed to enroll in MTHC 499 Senior Research Project. Students in composition are not allowed to enroll in MTHC 583 Composition and MTHC 498 Undergraduate Recital without a favorable recommendation from the faculty.

B.M. Degree Requirements for the Music Theory Major

A total of 120 hours is required for the degree in Music Theory, distributed as follows:

**Music Theory (40)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTHC 105</td>
<td>Theory I</td>
</tr>
<tr>
<td>MTHC 115</td>
<td>Theory II</td>
</tr>
<tr>
<td>MTHC 205</td>
<td>Theory III</td>
</tr>
<tr>
<td>MTHC 410</td>
<td>Tonal Forms</td>
</tr>
<tr>
<td>MTHC 541</td>
<td>Eighteenth-Century Counterpoint</td>
</tr>
<tr>
<td>MTHC 542</td>
<td>Sixteenth-Century Counterpoint</td>
</tr>
<tr>
<td>MTHC 432</td>
<td>Introduction to the Analysis Contemporary Music</td>
</tr>
</tbody>
</table>
B.M. Degree Requirements for the Composition Major

A total of 120 hours is required for the degree. Courses should be distributed as described for the major in music theory with the following exceptions:

- Students with a major in composition must offer in partial fulfillment of the degree requirements a recital of approximately 45 minutes duration consisting of original works in various media. This is MTHC 498, listed below.
- Pianists and organists take 16 credits of lessons and do not take the additional 8 credits of piano, organ and/or harpsichord lessons while all other instrumentalists or vocalists take only 8 credits of lessons and the additional 8 credits of piano, organ and/or harpsichord lessons.
- MTHC 499 is not required.

Music Composition (12)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTHC 583</td>
<td>Composition (3 semesters for 2 credits each)</td>
<td>6</td>
</tr>
<tr>
<td>MTHC 498</td>
<td>Undergraduate Recital</td>
<td>1</td>
</tr>
<tr>
<td>MTHC 680</td>
<td>Electro-Acoustic Composition II</td>
<td>3</td>
</tr>
<tr>
<td>MTHC or MUSC elective</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

Music Composition (4)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTHC 253</td>
<td>Composition (2 hours, 2 semesters)</td>
<td>4</td>
</tr>
</tbody>
</table>

Musicology (10)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 320</td>
<td>Music History I</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 340</td>
<td>Music History II</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 440</td>
<td>Music History III</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 480</td>
<td>Music History IV</td>
<td>2</td>
</tr>
</tbody>
</table>

Basic Courses (31)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>COMS 130</td>
<td>Speaker-Audience Communication</td>
<td>3</td>
</tr>
<tr>
<td>MATH 101</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Foreign language FREN, GERM or ITAL (first 2 semesters of 1 language)</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Natural Science-goal #3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Social Science-goal #3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Social/Ethical-goal #5</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>120</td>
</tr>
</tbody>
</table>

Bachelor of Music in Music Therapy

Music Therapy

The program helps students develop competence for entry into the music therapy profession. The interdisciplinary curriculum emphasizes understanding of human behavior, musical and otherwise. It includes extensive work in music, behavioral science, biological science, and liberal arts, in addition to specific academic, clinical, and research studies in music therapy.

Music Therapy Program

The undergraduate music therapy program provides full preparation for entry into the profession. It culminates in the degree of Bachelor of Music with a major in music therapy. Graduates are prepared for general music therapy practice in a variety of settings, which may include, but are not limited to hospitals, schools, community health programs, wellness centers, and private and group settings across the age span. The KU music therapy program is approved by the American Music Therapy Association. Individuals who complete the program are eligible to take the national music therapy board certification examination. The music therapy major does not lead to licensure to teach music in public schools.

Advising

Students admitted to music therapy will be assigned an appropriate faculty advisor to work with the student throughout his or her academic career. The undergraduate handbook is available on the MMT website and from the MMT office, 448 Murphy Hall, provides detailed procedures, suggestions, and specifications.

Regardless of applied performance medium, each entering student should be able to sing independently, in tune, and with acceptable tone quality. Functional keyboard skills (accompanying, playing by ear, improvising, and transposing) are helpful. Experience working with others is helpful. Well-developed interpersonal skills are an asset.

Admission

Students must meet or exceed the School of Music academic admission requirements and successfully complete a major performance medium audition to be admitted. Students should declare the B.M. in music therapy as the major on the KU application for admission. Music therapy majors are in plan MTPPS-BM in the School of Music.

Students pursuing the B.M. in music therapy degree should apply for admission to the professional sequence upon completion of the second semester of the sophomore year with 50 or more KU hours. Transfer students with more than 45 hours of transfer credit must complete this application the first semester of classes at KU. Students may not enroll in courses in the professional sequence before formal approval by the director of music therapy. Music therapy majors who have been admitted to the professional sequence are in plan MTPPS-BM in the School of Music.

Students must be admitted to the music therapy professional sequence to enroll in upper-division music therapy courses. See the Music Therapy Undergraduate Program Handbook on the MMT website for details.

Candidates are reviewed for admission periodically. No student may be admitted to the professional sequence for a semester during which he or she is not a music therapy major.
she will be on academic probation. Application forms for music therapy professional sequence admission are available on the MEMT website (http://music.ku.edu/programs/memt).

**Ensemble Policy**

In order to remain enrolled in studio instruction (lessons), all undergraduate (B.A. & B.M.) and M.M. students who enroll in any level of studio instruction (including nonmajor levels) in band and orchestral instruments must audition for and perform as assigned in a major instrumental ensemble\(^1\) each semester in which they are enrolled. For music majors, 1 ensemble taken for credit each semester is required for graduation. Exceptions to this policy are allowed on a case-by-case basis and only by the ensemble conductor in consultation with the faculty member in the studio area or the faculty advisor in music therapy as appropriate.

\(^1\) KU Symphony Orchestra, Wind Ensemble, Symphonic Band, Marching Band, or Jazz Ensemble I.

**Undergraduate Admission to the School of Music**

First-year students should enter the school directly. Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale) and are eligible to return to the college or university last attended in addition to completing a successful audition. Other students can be admitted only with the permission of the dean. Send applications to the Office of Admissions (http://admissions.ku.edu). Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students who wish to major in music must audition. All music students academically approved for admission to the School of Music are admitted contingent upon demonstration by audition of satisfactory level proficiency in their areas of applied music. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

**Transfer Students**

Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale), are eligible to return to the college or university last attended, and complete a successful audition. Only students with a high school diploma or its equivalent may transfer credit toward degrees offered by the School of Music. Students who wish to transfer performance credit from another institution toward any music degree at KU must validate this credit by audition. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

**Music Theory Placement**

The music theory placement examination is required of all undergraduate transfer students who have not completed a 4-semester theory sequence with an accredited NASM school. It is administered as announced on the School of Music website (http://music.ku.edu) each semester.

**Requirements for the B.M. with a Major in Music Therapy**

The degree requires a minimum of 129 semester hours of credit appropriately distributed among general studies, the major, and supporting music areas and behavioral sciences. With careful planning, the program can be completed in about 4½ years. Four academic years of study and clinical work on campus are followed by a full-time, 6-month internship in an approved clinical institution.

The degree requires at least a 2.75 cumulative grade-point average in all course work and a minimum of 2.75 in all MEMT courses. All music therapy majors must demonstrate proficiency in the major applied performance medium and in other performance areas.

All students must demonstrate functional vocal skills and ability to perform accompaniments on a portable chordal instrument, such as accordion, autoharp, guitar, or electric piano. These skills are assessed periodically throughout the program.

**General Education Requirements (34 hours)**

<table>
<thead>
<tr>
<th>Language Arts and Communication (9)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101 Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102 Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>COMS 130 Speaker-Audience Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Behavioral Sciences (15)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 104 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 350 Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SPED 326 Teaching Exceptional Children and Youth in General Education</td>
<td>3</td>
</tr>
</tbody>
</table>

Behavioral science electives (6 semester credit hours chosen with consent of advisor from fields such as psychology, sociology, anthropology, special education, human development, speech and audiology, motor/psychomotor development and behavior, educational psychology)

<table>
<thead>
<tr>
<th>Biological Sciences and Mathematics (10)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 101 College Algebra (or higher)</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 100 Principles of Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 102 Principles of Biology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 240 Fundamentals of Human Anatomy</td>
<td>3</td>
</tr>
</tbody>
</table>

**Performance Requirements (34-37 hours)**

<table>
<thead>
<tr>
<th>Major Instrument (16)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>121 Applied music lessons (2 semesters)</td>
<td>4</td>
</tr>
<tr>
<td>221 Applied music lessons (2 semesters)</td>
<td>4</td>
</tr>
<tr>
<td>321 Applied music lessons (2 semesters)</td>
<td>4</td>
</tr>
<tr>
<td>421 Applied music lessons (1 semester)</td>
<td>2</td>
</tr>
<tr>
<td>422 Senior project lessons (1 semester)</td>
<td>2</td>
</tr>
</tbody>
</table>

**Ensemble: Band, Orchestra, Chorus, etc. (8)**

8 semesters of participation for 8 credits total, including experience in small ensembles. Five should be large ensembles.

**Piano Skills (7-10)**

An audition is required. If skills are insufficient, remedial course work is necessary. Students with a major performance medium of piano or organ take only PIAN 310.

| PIAN 148 Elementary Keyboard Skills II | 1 |
| PIAN 284 Intermediate Keyboard Skills I | 2 |
The University of Kansas

PIAN 288  Intermediate Keyboard Skills II  2
or PIAN 310  Advanced Keyboard Skills

Performance Techniques (4)
MEMT 115  Performance Media: Percussion  1
MEMT 116  Performance Media: Computers, Synthesizers, and Electronics  1
MEMT 119  Performance Media: Guitar  1
MEMT 408  Vocal Pedagogy  1

Conducting/Rehearsing Skills (4)
MEMT 231  Performance Clinic: Choral  1
MEMT 246  Fundamentals of Conducting  1
MEMT 329  Rehearsal/Conducting Clinic: _____ (Nontraditional Ensemble)  1
MEMT 331  Rehearsal/Conducting Clinic: Choral  1

Musicianship and Music Therapy Requirements (61-71 hours)

MEMT Professional Core (26)
MEMT 150  Introduction to Music Therapy  3
MEMT 196  Group Leadership Skills in Music Therapy  2
MEMT 250  Human Musical Learning and Development  2
MEMT 251  Clinical Techniques for Children  3
MEMT 296  Clinical Techniques for Adults  3
MEMT 367  Managing Behavior in the Musical Environment  2
MEMT 455  Psychology of Music  3
MEMT 463  The Influence of Music on Behavior I  3
MEMT 464  Music in Therapy  3
MEMT 586  Seminar in Music Therapy Professional Development I  1
MEMT 587  Seminar in Music Therapy Professional Development II  1
MEMT Clinical Experience (8 hours minimum) (8-18)
MEMT 396  Clinical Practicum (1 hour/2 semesters and 2 hours/2 semesters)  6
MEMT 596  Clinical Internship  2-12

Music Theory and Composition (16)
MTHC 105  Theory I  4
MTHC 115  Theory II  4
MTHC 205  Theory III  4
MTHC 316  Tonal Form and Post-Tonal Techniques  4

Recital Attendance (0)
REC 100  Laboratory in Music Performance (4 semesters)  0

Musicology and Music Literature (7)
MUSC 320  Music History I  2
MUSC 440  Music History III  3
MUSC 480  Music History IV  2

Music Electives (4)
Music electives  4

Music Therapy Suggested Sequence
Students with no prior piano experience should take the keyboard skills sequence (PIAN 144 - PIAN 288). Students whose major performance medium is piano or organ and those with appreciable prior piano experience should take PIAN 310 after completing 2 semesters of music theory.

• F = Fall only
• S = Spring only
• B = Both semesters

Freshman

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMT 150 (F)</td>
<td>3</td>
<td>MEMT 196 (S)</td>
<td>2</td>
</tr>
<tr>
<td>MEMT 116 (B)</td>
<td>1</td>
<td>MEMT 250 (S)</td>
<td>2</td>
</tr>
<tr>
<td>MEMT 119 (B)</td>
<td>1</td>
<td>MEMT 115 (B)</td>
<td>1</td>
</tr>
<tr>
<td>MTHC 105 (F)</td>
<td>4</td>
<td>MTHC 115 (S)</td>
<td>4</td>
</tr>
<tr>
<td>PIAN 284 or 310 (310 only for piano or organ applied students) (F)</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>REC 100</td>
<td>0</td>
<td>REC 100</td>
<td>0</td>
</tr>
<tr>
<td>ENGL 101 (B)</td>
<td>3</td>
<td>ENGL 102 (B)</td>
<td>3</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours: 32

• Students must successfully complete Group Leadership Quiz Out #1 before entering the Clinical Techniques Courses.

Sophomore

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMT 251 (F)</td>
<td>3</td>
<td>MEMT 296 (S)</td>
<td>3</td>
</tr>
<tr>
<td>MEMT 231 (B)</td>
<td>1</td>
<td>MEMT 246 (B)</td>
<td>1</td>
</tr>
<tr>
<td>MTHC 205 (F)</td>
<td>4</td>
<td>MTHC 331 (B)</td>
<td>1</td>
</tr>
<tr>
<td>REC 100</td>
<td>0</td>
<td>MTHC 316 (S)</td>
<td>4</td>
</tr>
<tr>
<td>PIAN 284 or 310 (310 only for piano or organ applied students) (F)</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>221 Studio lessons</td>
<td>2</td>
<td>PIAN 288 (S)</td>
<td>2</td>
</tr>
<tr>
<td>Ensemble</td>
<td>1</td>
<td>221 Studio lessons</td>
<td>2</td>
</tr>
<tr>
<td>SPED 326 (B)</td>
<td>3</td>
<td>Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>MATH 101 (B)</td>
<td>3</td>
<td>MATH 101 (B)</td>
<td>3</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours: 33

Professional Sequence

Professional Sequence Admission Requirements
Students should apply for admission to the Professional Sequence as early as possible and must be admitted before beginning the first semester of the junior year. Admission requirements:

1. Cumulative grade-point average of 2.75 or higher.
2. Grade-point average of 2.75 or higher in MEMT courses.
3. A grade of C or higher in each of the following courses:
   MEMT 150  Introduction to Music Therapy  3
   MEMT 196  Group Leadership Skills in Music Therapy  2
   MEMT 250  Human Musical Learning and Development  2
1. At least 50 hours of college credit.
2. A signed applied music recommendation form verifying successful completion of the first semester of sophomore-level lessons.
3. Successful completion of the typed application form.

- Students must successfully complete Pre-Practicum Quiz Out #2 before entering their first MEMT 396 Clinical Practicum.
- Students must successfully complete Practicum Quiz Out #3 before entering their second MEMT 396 Clinical Practicum.

### Junior

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMT 396 (4 semesters total)</td>
<td>1 MEMT 329 (Nontraditional Ensemble) (S)</td>
<td>1</td>
</tr>
<tr>
<td>MEMT 463 (F)¹</td>
<td>3 MEMT 396 (4 semesters total)</td>
<td>1</td>
</tr>
<tr>
<td>Ensemble</td>
<td>1 MEMT 464 (S)¹</td>
<td>3</td>
</tr>
<tr>
<td>321 Studio lessons</td>
<td>2 Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 320 (F)²</td>
<td>2 321 Studio lessons</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 102</td>
<td>1 COMS 130</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 100</td>
<td>3 PSYC 350 (B)</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 104 (B)</td>
<td>3 Behavioral science elective (6 credits total as directed by advisor)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>16</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

Total Hours: 33

¹ Students must achieve admission to the music therapy professional sequence prior to enrolling in these courses.

² Music Theory I and II should be taken before Music History I or higher.

- Students should complete the application for internship eligibility 1 year before the estimated internship date and before completion of academic work. Once eligibility is approved, students apply for the internship. See the Music Therapy undergraduate handbook for information on this procedure.
- Students must successfully complete Internship Comprehensive Quiz Out #4 before entering their fourth and last MEMT 396 Clinical Practicum.

### Senior

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMT 367 (F)¹</td>
<td>2 MEMT 396 (4 semesters total)</td>
<td>2</td>
</tr>
<tr>
<td>MEMT 396 (4 semesters total)¹</td>
<td>2 MEMT 587 (S)¹</td>
<td>1</td>
</tr>
<tr>
<td>MEMT 408 (F)¹</td>
<td>1 MUSC 480 (S)</td>
<td>2</td>
</tr>
<tr>
<td>MEMT 455 (F)¹</td>
<td>3 422 Senior project lessons</td>
<td>2</td>
</tr>
<tr>
<td>MEMT 586 (F)¹</td>
<td>1 Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 440 (F)</td>
<td>3 BIOL 240 (B)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>16</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

Total Hours: 2-12

¹ Students must achieve admission to the music therapy professional sequence prior to enrolling in these courses.

### Bachelor of Music in Music Performance: Piano

A total of 120 credit hours is required and is designed to further the student's knowledge, practice, and experience of piano. To graduate, a student must earn a minimum grade-point average of 3.0 in all major courses and a minimum average of 2.0 in all course work.

Students will be studying with faculty members who are nationally and internationally recognized. Courses in music theory and musicology are part of the exploration of music as are private instruction, ensemble and chamber music opportunities. All students pursuing the B.M. degree will perform a senior recital on their primary instrument/voice. In
addition, performance majors will also complete a junior recital and music composition majors will also give a music composition recital.

With this degree, students can go on to pursue graduate studies in music, establish private studios, audition for music ensembles, or create their own paths in music or music-related endeavors.

**Undergraduate Admission to the School of Music**

First-year students should enter the school directly. Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale) and are eligible to return to the college or university last attended in addition to completing a successful audition. Other students can be admitted only with the permission of the dean. Send applications to the Office of Admissions (http://admissions.ku.edu). Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students who wish to major in music must audition. All music students academically approved for admission to the School of Music are admitted contingent upon demonstration by audition of satisfactory level proficiency in their areas of applied music. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

**Transfer Students**

Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale), and are eligible to return to the college or university last attended in addition to completing a successful audition. Only grades of C or higher are accepted in transfer credit toward degrees offered by the School of Music. Students who wish to transfer performance credit from another institution toward any music degree at KU must validate this credit by audition. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

**Music Theory Placement**

The music theory placement examination is required of all undergraduate transfer students who have not completed a 4-semester theory sequence with an accredited NASM school. It is administered as announced on the School of Music website (http://music.ku.edu) each semester.

**B.M. Degree Requirements for the Piano Major**

A total of 120 hours is required, distributed as follows:

**Music Theory (22)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTHC 105</td>
<td>Theory I</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 115</td>
<td>Theory II</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 205</td>
<td>Theory III</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 315</td>
<td>Theory IV</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 410</td>
<td>Tonal Forms</td>
<td>3</td>
</tr>
<tr>
<td>MTHC 541</td>
<td>Eighteenth-Century Counterpoint</td>
<td>3</td>
</tr>
</tbody>
</table>

**Musicology (10)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 320</td>
<td>Music History I</td>
<td>2</td>
</tr>
</tbody>
</table>

**Music Courses (57)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 340</td>
<td>Music History II</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 440</td>
<td>Music History III</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 480</td>
<td>Music History IV</td>
<td>2</td>
</tr>
</tbody>
</table>

**Basic Courses (31)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>COMS 130</td>
<td>Speaker-Audience Communication</td>
<td>3</td>
</tr>
<tr>
<td>MATH 101</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Foreign language (first 2 semesters of 1 language)</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Natural Science-goal #3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social Science-goal #3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social/Ethical-goal #5</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Total Hours**

| Hours | 120 |

**Bachelor of Music in Music Performance: Organ and Church Music**

A total of 124 credit hours is required and is designed to further the student’s knowledge, practice, and experience of organ and church music. To graduate, a student must earn a minimum grade-point average of 3.0 in all major courses and a minimum average of 2.0 in all course work.

Students will be studying with faculty members who are nationally and internationally recognized. Courses in music theory and musicology are part of the exploration of music as are private instruction, ensemble and chamber music opportunities. All students pursuing the B.M. degree will perform a senior recital on their primary instrument/voice. In addition, performance majors will also complete a junior recital and music composition majors will also give a music composition recital.

With this degree, students can go on to pursue graduate studies in music, establish private studios, audition for music ensembles, or create their own paths in music or music-related endeavors.

**Undergraduate Admission to the School of Music**

First-year students should enter the school directly. Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale) and are eligible to return to the college or university last attended in addition to completing a successful audition. Other students can be admitted only with the permission of the dean. Send applications to the Office of Admissions (http://admissions.ku.edu). Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.
Audition. Other students can be admitted only with the permission of the dean. Send applications to the Office of Admissions (http://admissions.ku.edu). Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students who wish to major in music must audition. All music students academically approved for admission to the School of Music are admitted contingent upon demonstration by audition of satisfactory level proficiency in their areas of applied music. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

**Transfer Students**

Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale), are eligible to return to the college or university last attended, and complete a successful audition. Only grades of C or higher are accepted in transfer credit toward degrees offered by the School of Music. Students who wish to transfer performance credit from another institution toward any music degree at KU must validate this credit by audition. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

**Music Theory Placement**

The music theory placement examination is required of all undergraduate transfer students who have not completed a 4-semester theory sequence with an accredited NASM school. It is administered as announced on the School of Music website (http://music.ku.edu) each semester.

**B.M. Degree Requirements for the Organ and Church Music Major**

A total of 124 hours is required for the degree in Organ and Church Music, distributed as follows:

**Music Theory (22)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTHC 105</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 115</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 205</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 315</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 410</td>
<td>3</td>
</tr>
<tr>
<td>MTHC 541</td>
<td>3</td>
</tr>
</tbody>
</table>

**Musicology (10)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 320</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 340</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 440</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 480</td>
<td>2</td>
</tr>
</tbody>
</table>

**Music Courses (49)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied music lessons</td>
<td>24</td>
</tr>
<tr>
<td>COND 245</td>
<td>2</td>
</tr>
<tr>
<td>COND 345</td>
<td>2</td>
</tr>
<tr>
<td>Piano lessons PIAN100/300</td>
<td>4</td>
</tr>
<tr>
<td>Voice lessons VOIC100/300</td>
<td>2</td>
</tr>
<tr>
<td>MEMT 116</td>
<td>1</td>
</tr>
<tr>
<td>REC 100</td>
<td>0</td>
</tr>
<tr>
<td>Piano (proficiency level of PIAN 284)</td>
<td>8</td>
</tr>
<tr>
<td>Ensembles (8 semesters each for 1 credit)</td>
<td>8</td>
</tr>
<tr>
<td>Music electives</td>
<td>6</td>
</tr>
</tbody>
</table>

**Basic Courses (43)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>3</td>
</tr>
<tr>
<td>COMS 130</td>
<td>3</td>
</tr>
<tr>
<td>MATH 101</td>
<td>3</td>
</tr>
<tr>
<td>HWC 204</td>
<td>3</td>
</tr>
<tr>
<td>HWC 205</td>
<td>3</td>
</tr>
<tr>
<td>Foreign language (first 2 semesters of French or German)</td>
<td>10</td>
</tr>
<tr>
<td>Natural Science-goal #3</td>
<td>3</td>
</tr>
<tr>
<td>Social Science-goal #3</td>
<td>3</td>
</tr>
<tr>
<td>Social/Ethical-goal #5</td>
<td>3</td>
</tr>
<tr>
<td>Non-music electives</td>
<td>6</td>
</tr>
<tr>
<td>Total Hours</td>
<td>124</td>
</tr>
</tbody>
</table>

**Note:** All B.M. organ and church music majors must enroll in ORGN 320 Studio Class in Organ — Lab and ORGN 502 Master Class in Organ — Lab and CHUR 320 Church Music Practicum— Lab each semester of residence.

**Bachelor of Music in Music Performance: Strings and Harp**

A total of 120 credit hours is required and is designed to further the student’s knowledge, practice, and experience on their major instrument in strings. To graduate, a student must earn a minimum grade-point average of 3.0 in all major courses and a minimum average of 2.0 in all course work.

Students will be studying with faculty members who are nationally and internationally recognized. Courses in music theory and musicology are part of the exploration of music as are private instruction, ensemble and chamber music opportunities. All students pursuing the B.M. degree will perform a senior recital on their primary instrument/voice. In addition, performance majors will also complete a junior recital and music composition majors will also give a music composition recital.

With this degree, students can go on to pursue graduate studies in music, establish private studios, audition for music ensembles, or create their own paths in music or music-related endeavors.

**Undergraduate Admission to the School of Music**

First-year students should enter the school directly. Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale) and are eligible to return to the college or university last attended in addition to completing a successful audition. Other students can be admitted only with the permission of the dean. Send applications to the Office of Admissions (http://admissions.ku.edu). Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students who wish to major in music must audition. All music students academically approved for admission to the School of Music are
admitted contingent upon demonstration by audition of satisfactory level proficiency in their areas of applied music. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

**Transfer Students**

Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale), are eligible to return to the college or university last attended, and complete a successful audition. Only grades of C or higher are accepted in transfer credit toward degrees offered by the School of Music. Students who wish to transfer performance credit from another institution toward any music degree at KU must validate this credit by audition. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

**Music Theory Placement**

The music theory placement examination is required of all undergraduate transfer students who have not completed a 4-semester theory sequence with an accredited NASM school. It is administered as announced on the School of Music website (http://music.ku.edu) each semester.

**B.M. Degree Requirements for the Strings Major**

A total of 120 hours is required for the degree in strings, distributed as follows:

**Music Theory (22)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTHC 105</td>
<td>Theory I</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 115</td>
<td>Theory II</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 205</td>
<td>Theory III</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 315</td>
<td>Theory IV</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 410</td>
<td>Tonal Forms</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Upper division theory course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(MTHC numbered 300 or above)</td>
<td></td>
</tr>
</tbody>
</table>

**Musicology (10)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 320</td>
<td>Music History I</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 340</td>
<td>Music History II</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 440</td>
<td>Music History III</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 480</td>
<td>Music History IV</td>
<td>2</td>
</tr>
</tbody>
</table>

**Music Courses (50)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COND 245</td>
<td>Conducting I</td>
<td>2</td>
</tr>
<tr>
<td>Piano</td>
<td>(proficiency level of PIAN 284)</td>
<td>2</td>
</tr>
<tr>
<td>Orchestra</td>
<td>(8 semesters each for credit)</td>
<td>8</td>
</tr>
<tr>
<td>Chamber music</td>
<td>(4 semesters each for credit)</td>
<td>4</td>
</tr>
<tr>
<td>Performance class</td>
<td>120/320 (8 semesters for 0 credit)</td>
<td>0</td>
</tr>
<tr>
<td>MMTM 116</td>
<td>Performance Media: Computers, Synthesizers, and Electronics</td>
<td>1</td>
</tr>
<tr>
<td>REC 100</td>
<td>Laboratory in Music Performance (4 semesters)</td>
<td>0</td>
</tr>
<tr>
<td>STRG 424</td>
<td>String Pedagogy: _____</td>
<td>1</td>
</tr>
</tbody>
</table>

**Basic Courses (21)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>COMS 130</td>
<td>Speaker-Audience Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

**Bachelor of Music in Music Performance: Voice**

The Division of Voice offers 2 programs (Bachelor of Music and Bachelor of Fine Arts) for singers interested in art song, opera, oratorio, concert, other classical pieces or vocal teaching. Students receive training in vocal technique, languages and diction, vocal repertoire, acting and the theatrical arts. Performance opportunities range from workshops to fully staged productions, allowing students to develop their talents at the most beneficial pace.

A total of 125 credit hours is required and is designed to further the student’s knowledge, practice, and experience in voice. To graduate, a student must earn a minimum grade-point average of 3.0 in all major courses and a minimum average of 2.0 in all course work.

Students will be studying with faculty members who are nationally and internationally recognized. Courses in music theory and musicology are part of the exploration of music as are private instruction, ensemble and chamber music opportunities. All students pursuing the B.M. degree will perform a senior recital on their primary instrument/voice. In addition, performance majors will also complete a junior recital and music composition majors will also give a music composition recital.

With this degree, students can go on to pursue graduate studies in music, establish private studios, audition for music ensembles, or create their own paths in music or music-related endeavors.

**Undergraduate Admission to the School of Music**

First-year students should enter the school directly. Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale) and are eligible to return to the college or university last attended in addition to completing a successful audition. Other students can be admitted only with the permission of the dean. Send applications to the Office of Admissions (http://admissions.ku.edu). Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students who wish to major in music must audition. All music students academically approved for admission to the School of Music are admitted contingent upon demonstration by audition of satisfactory level proficiency in their areas of applied music. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).
Transfer Students

Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale), are eligible to return to the college or university last attended, and complete a successful audition. Only grades of C or higher are accepted in transfer credit toward degrees offered by the School of Music. Students who wish to transfer performance credit from another institution toward any music degree at KU must validate this credit by audition. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

Music Theory Placement

The music theory placement examination is required of all undergraduate transfer students who have not completed a 4-semester theory sequence with an accredited NASM school. It is administered as announced on the School of Music website (http://music.ku.edu) each semester.

B.M. Degree Requirements for the Voice Major

A total of 125 hours is required, distributed as follows:

Music Theory (19)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTHC 105</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 115</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 205</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 315</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 410</td>
<td>3</td>
</tr>
</tbody>
</table>

Musicology (10)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 320</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 340</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 440</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 480</td>
<td>2</td>
</tr>
</tbody>
</table>

Music Courses (52)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOIC 120</td>
<td>2</td>
</tr>
<tr>
<td>&amp; VOIC 320</td>
<td>2</td>
</tr>
<tr>
<td>VOIC 405</td>
<td>2</td>
</tr>
<tr>
<td>VOIC 406</td>
<td>2</td>
</tr>
<tr>
<td>VOIC 408</td>
<td>1</td>
</tr>
<tr>
<td>Ensembles</td>
<td>8</td>
</tr>
<tr>
<td>Piano</td>
<td>4</td>
</tr>
<tr>
<td>MEMP 105</td>
<td>1</td>
</tr>
<tr>
<td>COND 245</td>
<td>2</td>
</tr>
<tr>
<td>REC 100</td>
<td>0</td>
</tr>
<tr>
<td>VOIC 270</td>
<td>3</td>
</tr>
<tr>
<td>&amp; VOIC 470</td>
<td>3</td>
</tr>
</tbody>
</table>

Music elective(s) 3

Basic Courses (44)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 106</td>
<td>3</td>
</tr>
<tr>
<td>English, German and Italian (2 semesters each)</td>
<td>20</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>3</td>
</tr>
<tr>
<td>COMS 130</td>
<td>3</td>
</tr>
</tbody>
</table>

Bachelor of Music in Music Performance: Brass and Percussion

A total of 120 credit hours is required and is designed to further the student’s knowledge, practice, and experience on their major instrument. To graduate, a student must earn a minimum grade-point average of 3.0 in all major courses and a minimum average of 2.0 in all course work.

Students will be studying with faculty members who are nationally and internationally recognized. Courses in music theory and musicology are part of the exploration of music as are private instruction, ensemble and chamber music opportunities. All students pursuing the B.M. degree will perform a senior recital on their primary instrument/voice. In addition, performance majors will also complete a junior recital and music composition majors will also give a music composition recital.

With this degree, students can go on to pursue graduate studies in music, establish private studios, audition for music ensembles, or create their own paths in music or music-related endeavors.

Undergraduate Admission to the School of Music

First-year students should enter the school directly. Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale) and are eligible to return to the college or university last attended in addition to completing a successful audition. Other students can be admitted only with the permission of the dean. Send applications to the Office of Admissions (http://admissions.ku.edu). Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students who wish to major in music must audition. All music students academically approved for admission to the School of Music are admitted contingent upon demonstration by audition of satisfactory level proficiency in their areas of applied music. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

Transfer Students

Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale), are eligible to return to the college or university last attended, and complete a successful audition. Only grades of C or higher are accepted in transfer credit toward degrees offered by the School of Music. Students who wish to transfer performance credit from another institution toward any music degree at KU must validate this credit by audition. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).
Music Theory Placement

The music theory placement examination is required of all undergraduate transfer students who have not completed a 4-semester theory sequence with an accredited NASM school. It is administered as announced on the School of Music website (http://music.ku.edu) each semester.

B.M. Degree Requirements for the Brass and Percussion Major

A total of 120 hours is required for the degree in brass and percussion, distributed as follows:

**Music Theory (25)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTHC 105</td>
<td>Theory I</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 115</td>
<td>Theory II</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 205</td>
<td>Theory III</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 315</td>
<td>Theory IV</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 410</td>
<td>Tonal Forms</td>
<td>3</td>
</tr>
</tbody>
</table>

Two upper-division theory courses (MTHC numbered 300 or above) 6

**Musicology (10)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 320</td>
<td>Music History I</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 340</td>
<td>Music History II</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 440</td>
<td>Music History III</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 480</td>
<td>Music History IV</td>
<td>2</td>
</tr>
</tbody>
</table>

**Music Courses (50)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied music lessons</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Piano (proficiency level of PIAN 284)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Ensembles (8 semesters)</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Chamber music (4 semesters)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MEMT 116</td>
<td>Performance Media: Computers, Synthesizers, and Electronics</td>
<td>1</td>
</tr>
<tr>
<td>REC 100</td>
<td>Laboratory in Music Performance (4 semesters)</td>
<td>0</td>
</tr>
<tr>
<td>W&amp;P 325</td>
<td>Wind and Percussion Pedagogy</td>
<td>1</td>
</tr>
<tr>
<td>COND 245</td>
<td>Conducting I</td>
<td>2</td>
</tr>
</tbody>
</table>

**Electives (14)** 14

9 minimum of the 14 credits must be non-music

**Basic Courses (21)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>COMS 130</td>
<td>Speaker-Audience Communication</td>
<td>3</td>
</tr>
<tr>
<td>MATH 101</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Natural Science-goal #3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social Science-goal #3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social/Ethical-goal #5</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Total Hours** 120

Bachelor of Music in Music Performance: Woodwinds

A total of 120 credit hours is required and is designed to further the student’s knowledge, practice, and experience on their major instrument. To graduate, a student must earn a minimum grade-point average of 3.0 in all major courses and a minimum average of 2.0 in all course work.

Students will be studying with faculty members who are nationally and internationally recognized. Courses in music theory and musicology are part of the exploration of music as are private instruction, ensemble and chamber music opportunities. All students pursuing the B.M. degree will perform a senior recital on their primary instrument/voice. In addition, performance majors will also complete a junior recital and music composition majors will also give a music composition recital.

With this degree, students can go on to pursue graduate studies in music, establish private studios, audition for music ensembles, or create their own paths in music or music-related endeavors.

Undergraduate Admission to the School of Music

First-year students should enter the school directly. Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale) and are eligible to return to the college or university last attended in addition to completing a successful audition. Other students can be admitted only with the permission of the dean. Send applications to the Office of Admissions (http://admissions.ku.edu), Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Students who wish to major in music must audition. All music students academically approved for admission to the School of Music are admitted contingent upon demonstration by audition of satisfactory level proficiency in their areas of applied music. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

Transfer Students

Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale), are eligible to return to the college or university last attended, and complete a successful audition. Only grades of C or higher are accepted in transfer credit toward degrees offered by the School of Music. Students who wish to transfer performance credit from another institution toward any music degree at KU must validate this credit by audition. Music audition information and application forms are available online (http://music.ku.edu/prospective/auditions.shtml).

Music Theory Placement

The music theory placement examination is required of all undergraduate transfer students who have not completed a 4-semester theory sequence with an accredited NASM school. It is administered as announced on the School of Music website (http://music.ku.edu) each semester.

B.M. Degree Requirements for the Woodwind Major

A total of 120 hours is required for the degree in woodwinds, distributed as follows:

**Music Theory (25)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTHC 105</td>
<td>Theory I</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 115</td>
<td>Theory II</td>
<td>4</td>
</tr>
<tr>
<td>MTHC 205</td>
<td>Theory III</td>
<td>4</td>
</tr>
</tbody>
</table>
Music Education

The program helps students develop specific skills in planning and delivering instruction in all types of music education classrooms. The curriculum emphasizes both the theoretical and practical elements of human behavior, musical and otherwise, and integrates with this core a variety of learning experiences that prepare the pre-service teacher for the classroom medium. Among these is a broad spectrum of learning experiences both at KU and in area classrooms. These include planning and delivering instruction, classroom management, conducting, assessment, and curriculum design. Within the curriculum, individual emphases are reflected in the choice of major performance medium and performance ensembles. The goal of the music education curriculum is to prepare the student for success in the profession.

Advising

Students admitted to music education will be assigned an appropriate academic faculty advisor to work with the student throughout his or her academic career. The undergraduate handbook is available on the MEMT website (http://music.ku.edu/programs/memt) and from the MEMT office, 448 Murphy Hall and provides detailed procedures, suggestions, and specifications.

Regardless of applied performance medium, each entering student should be able to sing independently, in tune, and with acceptable tone quality. Functional keyboard skills (accompanying, playing by ear, improvising, and transposing) are helpful. Experience working with others is also beneficial as well. Well-developed interpersonal skills are an asset.

Music Education Program

This program provides full preparation for entry into the profession. It leads to the Bachelor of Music Education and eligibility for licensure to teach vocal, instrumental, and general music in grades pre-K through 12 in the state of Kansas. The program typically requires eight semesters of full-time work, which includes a semester of student teaching and internship in the public schools.

Music Teacher Licensure Program

Teacher licensure in Kansas is a function of the Kansas State Board of Education. Individuals who complete an approved music teacher licensure program are recommended to the state for licensure in music for grades pre-K through 12. Students must meet additional state requirements, such as passing specified standardized tests, before licenses are granted. Contact the licensure officer, 211 J.R. Pearson Hall, 785-864-9602, for information.

Admission

Students must meet or exceed the School of Music academic admission requirements and successfully complete a major performance medium audition to be admitted. Students should declare the B.M.E. in music education as the major on the KU application for admission. Music education majors are in plan MEPS-BME in the School of Music.

Students pursuing the music education B.M.E. must apply for admission to the professional sequence by February 1 of the sophomore year. Transfer students with more than 45 hours of transfer credit must complete this application the first semester of classes at KU. Students may not enroll in courses in the professional sequence before formal approval by the director of music education. Music education majors who have been admitted to the professional sequence are in plan MEPS-BME in the School of Music.

Students must be admitted to the music education professional sequence to enroll in upper-division music education courses. See the Music

Bachelor of Music Education in Music Education

Music Education

The program helps students develop specific skills in planning and delivering instruction in all types of music education classrooms. The curriculum emphasizes both the theoretical and practical elements of human behavior, musical and otherwise, and integrates with this core a variety of learning experiences that prepare the pre-service teacher for the classroom medium. Among these is a broad spectrum of learning experiences both at KU and in area classrooms. These include planning and delivering instruction, classroom management, conducting, assessment, and curriculum design. Within the curriculum, individual emphases are reflected in the choice of major performance medium and performance ensembles. The goal of the music education curriculum is to prepare the student for success in the profession.

Music Education B.M.E. Program

Music Education

The program helps students develop specific skills in planning and delivering instruction in all types of music education classrooms. The
Education Undergraduate Program Handbook on the MEMT website (http://music.ku.edu/programs/mfmt) for details.

No student may be admitted to the music education professional sequence for a semester during which he or she is on academic probation. The application form for music education professional sequence admission is available on the MEMT website (http://music.ku.edu/programs/mfmt).

Undergraduate Admission to the School of Music

First-year students should enter the school directly. Students may transfer to the school from other institutions or from other KU schools if they have at least a 2.75 GPA (on a 4.0 scale) and are eligible to return to the college or university last attended in addition to completing a successful audition. Other students can be admitted only with the permission of the dean. Send applications to the Office of Admissions (http://admissions.ku.edu). Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

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Music Theory Placement

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The Music Education Teacher Licensure Curriculum

The B.M.E. degree requires a minimum of 120 semester credit hours distributed among general studies, the major, professional education class work, and student teaching and internship. The degree requires at least a 2.75 cumulative grade-point average in all course work. Each student must participate in appropriate performing ensembles and demonstrate proficiency in a major applied performance medium and in other performance areas.

General Education Requirements (28 hours)

<table>
<thead>
<tr>
<th>Language Arts and Communication (9)</th>
<th>Behavioral and Social Sciences (9)</th>
<th>Natural Sciences and Mathematics (10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101  Composition</td>
<td>PSYC 104  General Psychology</td>
<td>BIOL 100  Principles of Biology</td>
</tr>
<tr>
<td>ENGL 102  Critical Reading and Writing</td>
<td>PHIL 160  Introduction to Ethics <em>(or approved equivalent)</em></td>
<td>BIOL 102  Principles of Biology Laboratory</td>
</tr>
<tr>
<td>COMS 130  Speaker-Audience Communication</td>
<td>CLAS elective <em>(SOC/ANTH elective recommended)</em></td>
<td>MATH 101  College Algebra</td>
</tr>
</tbody>
</table>

Mathematics elective *(MATH 101 prerequisite; approved options are MATH 105, MATH 115, MATH 365)*

Professional Education/Music Education (23 hours)

<table>
<thead>
<tr>
<th>MEMT 160  Principles of Music Education</th>
<th>MEMT 250  Human Musical Learning and Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMT 359  Basic Processes of Reading</td>
<td>SPED 326  Teaching Exceptional Children and Youth in General Education</td>
</tr>
<tr>
<td>MENT 367  Managing Behavior in the Musical Environment</td>
<td>MENT 407  The Exceptional Child in Music Education</td>
</tr>
<tr>
<td>MENT 420  Teaching Elementary and Secondary General Music</td>
<td></td>
</tr>
</tbody>
</table>

| Select one of the following as appropriate: | |
|---------------------------------------------| |
| MENT 421  Advanced General Music Teaching | MENT 431  Choral Diction for Music Educators |
| MENT 432  Approaches to String Pedagogy    | MENT 435  Marching Band Techniques          |
| MENT 433  Jazz Techniques                  | MENT 450  Teaching Choral Music             |
| MENT 451  Teaching Instrumental Music       | MENT 455  Psychology of Music               |

1. KU Symphony Orchestra, Wind Ensemble, Symphonic Band, Marching Band, or Jazz Ensemble I.
Student Teaching and Internship (6-12 hours)
MEMT 498 Student Teaching 2-4
MEMT 499 Internship in Teaching Music 4-8

Performance Requirements (38-41 hours)

Major Instrument (14)
121 Applied music lessons (2 semesters) 4
221 Applied music lessons (2 semesters) 4
321 Applied music lessons (2 semesters) 4
422 Senior project lessons (1 semester) 2

Ensemble (7 semesters, 7 hours) (7)
7 hours of credit representing 7 semesters of participation, including 7 experience in small ensembles wind and percussion; 1 semester/1 credit marching band required. Vocal: 6 semesters/6 credits major ensemble and 1 semester/1 credit small ensemble required.

Piano Skills (2-5)
An audition is required. If skills are insufficient, remedial course work (PIAN 144) is necessary. Students with a major performance medium of piano or organ take only PIAN 310.
PIAN 148 Elementary Keyboard Skills II
PIAN 284 Intermediate Keyboard Skills I
PIAN 288 Intermediate Keyboard Skills II
or PIAN 310 Advanced Keyboard Skills

Performance Techniques (6)
MEMT 113 Performance Media: Brass
MEMT 114 Performance Media: Woodwinds
MEMT 115 Performance Media: Percussion
MEMT 118 Performance Media: Strings
MEMT 408 Vocal Pedagogy
Select one of the following:
MEMT 116 Performance Media: Computers, Synthesizers, and Electronics
MEMT 119 Performance Media: Guitar

Conducting/Rehearsal Skills (8)
MEMT 230 Performance Clinic: Band
MEMT 231 Performance Clinic: Choral
MEMT 232 Performance Clinic: Orchestra
MEMT 246 Fundamentals of Conducting
MEMT 330 Rehearsal/Conducting Clinic: Band
MEMT 331 Rehearsal/Conducting Clinic: Choral
MEMT 332 Rehearsal/Conducting Clinic: Orchestra
Select one of the following:
MEMT 350 Advanced Rehearsal/Conducting Clinic: Band
MEMT 351 Advanced Rehearsal/Conducting Clinic: Choral
MEMT 352 Advanced Rehearsal/Conducting Clinic: Orchestra

Basic Musicianship Requirements (26 hours)

Music Theory and Composition (16)
MTHC 105 Theory I 4
MTHC 115 Theory II 4
MTHC 205 Theory III 4
MTHC 316 Tonal Form and Post-Tonal Techniques 4

Musicology (10)
MUSC 320 Music History I 2
MUSC 340 Music History II 3
MUSC 440 Music History III 3
MUSC 480 Music History IV 2

Recital Attendance (0)
REC 100 Laboratory in Music Performance (4 semesters) 0

Music Education Sequence

Music Education majors are strongly encouraged to adhere to this sequence of courses.

Students with no prior piano experience should take the keyboard skills sequence (PIAN 144-PIAN 288). Demonstration of skills is needed to pass or test out of PIAN 144-PIAN 288. Students whose major performance medium is piano or organ should take PIAN 310 after completing 2 semesters of music theory (this course is only taken once in the fall term of the sophomore year).

- F = Fall only
- S = Spring only
- B = Both semesters

Freshman
Fall Hours Spring Hours
MTHC 105 (F) 4 MTHC 115 (S) 1 4
MEMT 160 (F) 1 121 Studio lessons 1 2 1
MEMT 113 (B) 1 Ensemble 1 1
MEMT 118 (B) 1 REC 100 (B) 1 0 1
121 Studio lessons 1 PIAN 148 (S) 1
Ensemble 1 ENGL 102 (B) 1 3
REC 100 0 COMS 130 (B) 1 3
PIAN 144 (remedial, F) 1 MATH elective (prerequisite MATH 101; approved options: MATH 105, MATH 115, MATH 365) (B) 3
ENGL 101 (B) 1 3
MATH 101 (or higher) (B) 1 3

Sophomore
Fall Hours Spring Hours
MTHC 205 (F) 4 MTHC 316 (S) 1 4
MEMT 114 (B) 1 MEMT 115 (B) 1 1
Select one of the following: Select one of the following: 1 1
MEMT 230 (B) 1 MEMT 230 (B) 1
MEMT 231 (B) 1 MEMT 231 (B) 1
MEMT 232 (F) 1 MEMT 246 (B) 1 1
MUSC 320 (F) 1 MEMT 250 (S) 1 2
REC 100 0 REC 100 0
Select one of the following: 2 PIAN 288 (S) 2
The University of Kansas

PIAN 284 (or 310 which is only for piano or organ applied students, both F)\(^1\)

<table>
<thead>
<tr>
<th>221 Studio lessons</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>221 Studio lessons(^1)</td>
<td>2</td>
</tr>
<tr>
<td>Ensemble (^1)</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 340 (S) (^2)</td>
<td>3</td>
</tr>
</tbody>
</table>

PSYC 104 (B)

<table>
<thead>
<tr>
<th>3</th>
</tr>
</thead>
</table>

Total Hours: 68

1 Courses must be completed before admission to the music education professional sequence.

2 Music Theory I and II should be taken before Music History I or higher.

- Students must apply for admission to the music education professional sequence upon completion of the first semester of their sophomore year.

### Professional Sequence

#### Professional Sequence Admission Requirements

1. Cumulative grade-point average of 2.75 or higher.
2. Grades of C or higher in MATH 101 and 9 hours of Communications/English as listed on the application.
3. Satisfactory completion of "Criteria for Admission" courses as shown in the Application for Music Education Professional Sequence Admission.
4. The student must write and attach a one-page essay (12-point font, double-spaced) to the application form that answers the following question: How will you advocate for school music programs in the community at large when you enter the classroom?
5. A fully completed application form and associated documents must be submitted to the MEMT office in 448 Murphy Hall.

- Transfer students with more than 45 hours of transfer credit must complete the professional sequence application during the first semester of classes at KU.

#### Junior

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours Spring</th>
<th>Hours</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMT 330 (F) (^1)</td>
<td>1 Select of the following:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MEMT 332 (F) (^1)</td>
<td>1</td>
<td>MEMT 116 (B)</td>
<td></td>
</tr>
<tr>
<td>MEMT 367 (F) (^1)</td>
<td>2</td>
<td>MEMT 119 (B)</td>
<td></td>
</tr>
<tr>
<td>Ensemble (^1)</td>
<td>1 MEMT 331 (B) (^1)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>321 Studio lessons</td>
<td>2 MEMT 433 (S) (^1)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MUSC 440 (F)</td>
<td>3 Select either MEMT 350 or MEMT 431 or both MEMT 352 and MEMT 432</td>
<td>1-2</td>
<td></td>
</tr>
<tr>
<td>BIOL 100 (B)</td>
<td>3</td>
<td>MEMT 350 (Wind and Percussion) (S) (^1)</td>
<td></td>
</tr>
<tr>
<td>BIOL 102 (B)</td>
<td>1</td>
<td>MEMT 431 (Choral) (S) (^1)</td>
<td></td>
</tr>
<tr>
<td>SPED 326 (B) (^1)</td>
<td>3</td>
<td>MEMT 352 (Strings) (S) (^1)</td>
<td></td>
</tr>
<tr>
<td>MEMT 420 (S) (^1)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Hours: 23-29

1 Students must achieve admission to the Music Education Professional Sequence prior to enrolling in these courses.

- Students must do the following during the final semester:
  - register to take the PLT (Principles of Learning and Teaching) test
  - register to take the Praxis II Music Content test during the final semester
  - check their degree requirement check sheet to see that they have met all of the graduation requirements

- Students must do the following before graduation:
  - submit an application for graduation online through Enroll and Pay at the beginning of their last semester

#### Senior

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMT 407 (F) (^1)</td>
<td>2 MEMT 498 (B) (^1)</td>
<td>2-4</td>
</tr>
<tr>
<td>MEMT 408 (F) (^1)</td>
<td>1 MEMT 499 (B) (^1)</td>
<td>4-8</td>
</tr>
<tr>
<td>MEMT 450 (F) (^1)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MEMT 451 (F) (^1)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MEMT 455 (F) (^1)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Select one of the following as appropriate:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MEMT 351 (Vocal) (F) (^1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMT 421 (General) (F) (^1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMT 435 (Wind and Percussion) (F) (^1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ensemble</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>422 Senior Project lessons</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>CLAS elective SOC/ANTH (S) recommended (B)</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours: 33-34

- Choose, only 1 of 4 required (MEMT 421, 431, 432, 435).
- Choose, only 1 of 3 required (MEMT 350, 351, 352).
- If taking MEMT 350 must also take MEMT 435; if taking MEMT 351 must either take MEMT 421 or MEMT 431; if taking MEMT 352 must also take MEMT 432.

Students must achieve admission to the music education professional sequence prior to enrolling in these courses.

- Students should request a graduation check from the School of Music Student Services Office approximately 1 year before their expected graduation date. Graduation checks before that time should occur with the student’s MEMT advisor.

- Students must achieve admission to the music education professional sequence prior to enrolling in these courses.

- Students must do the following during the final semester:
  - register to take the PLT (Principles of Learning and Teaching) test
  - register to take the Praxis II Music Content test during the final semester
  - check their degree requirement check sheet to see that they have met all of the graduation requirements

- Students must do the following before graduation:
  - submit an application for graduation online through Enroll and Pay at the beginning of their last semester
– successfully complete their major applied instrument (422) including the senior 1/2 recital

Minor in Music

The School of Music

The School of Music at the University of Kansas ranks among the finest in America, offering comprehensive programs at the bachelor’s, master’s, and doctoral levels.

The school nurtures and advances the art of music through creation, performance, scholarly inquiry, entrepreneurship, and enhancement of the artistic skills and experiences of the university and regional cultural communities.

The school is a major contributor to the arts community through the student, faculty, and professional performances in Swarthout Recital Hall, Bales Organ Recital Hall, the Robert Baustian Theatre, and the Lied Center of Kansas.

The School of Music is an accredited institutional member of the National Association of Schools of Music (http://nasm.arts-accredit.org). The entrance and graduation requirements in this catalog conform to the published guidelines of that organization.

Requirements for the Minor in Music

Open to All KU Students

Students must first audition to be accepted as music minors, then may earn a minor in music by taking 24 hours in the courses listed below. At least 12 hours must be junior/senior-level courses, numbered 300 and above. A minimum grade-point average of 2.0 in the minor is required.

MTHC 105  Theory I  4
MTHC 115  Theory II  4
Applied lessons (4 semesters at the 100 level, 1 credit hour a semester)  4
MUSC 336  Masterworks of Music  3
9 credit hours to be chosen from lessons (300-level lessons are junior/senior classes — students can earn 1 credit hour a semester), ensembles, and/or music classes at the 300 level or above  9

Master of Music

View requirements for:

• Master of Music in Conducting (p. 1920)
• Master of Music in Musicology (p. 1921)
• Master of Music in Music Theory or Composition (p. 1922)
• Master of Music in Music Performance: Brass and Percussion (p. 1923)
• Master of Music in Music Performance: Organ, Church Music, and Carillon (p. 1924)
• Master of Music in Music Performance: Piano (p. 1926)
• Master of Music in Music Performance: Strings (p. 1927)
• Master of Music in Music Performance: Voice and Opera (p. 1928)
• Master of Music in Music Performance: Woodwinds (p. 1929)

Master of Music in Conducting

Master of Music in Conducting Degree Programs

M.M. degree programs in conducting:

• Band conducting
• Choral conducting
• Orchestral conducting

M.M. in Conducting Admission

Applicants are expected to have educational backgrounds equivalent to the B.M. or B.M.E. degree (including a course in form and analysis) from KU. They should have one or two years of experience in conducting. Such experience may include work in public school, college, or with other amateur or professional ensembles. Applicants normally are expected to have a high level of performing ability on an instrument or in voice. Applicants must complete audition-interviews successfully before the divisional faculty and should provide a résumé of their conducting experience, including programs of public appearances.

Graduate Admission to the School of Music

Application procedures and program requirements can change. Please visit the school’s website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements.

Programs of study leading to the Master of Music (M.M.), Master of Music Education (M.M.E.), Doctor of Musical Arts (D.M.A.), and Doctor of Philosophy (Ph.D.) are offered through the School of Music. Specific admission procedures and degree requirements for the M.M. and M.M.E. programs are described under division headings. Specific admission procedures and degree requirements for the D.M.A., Ph.D. (musicology/music theory), and Ph.D. (music education/music therapy) are listed in the appropriate sections.

Program Areas

Graduate study in the School of Music is organized into program areas within 2 units:

• Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.
• Music Education and Music Therapy includes programs in music education/music therapy.

At least a 3.0 grade-point average, overall and in the major area, is required for all course work counted toward any graduate degree in the School of Music. If the overall grade-point average falls below 3.0, the student is placed on probation for one semester; if the cumulative average is not 3.0 or higher after the next semester, the student is dismissed from the program. Students must also achieve at least a grade of B in
Diagnostic Examinations

All entering graduate students (except music education, music therapy, and opera performance majors) must take written diagnostic examinations in musicology and music theory. These are given in the week before the start of classes to determine whether any need exists for remedial work, so that an appropriate academic program can be designed for each student. Students who show the need for remedial work must complete certain course work or must show mastery of the material by examination. Graduate students entering programs in piano must take additional tests in piano literature given before the start of classes. A student is exempt if he or she received a bachelor’s or master’s degree in music from the University of Kansas within the previous 4 years.

M.M. in Conducting Degree Requirements

The degree candidate must present a final project consisting of a public choral or instrumental program. A recital preview is left to the discretion of the faculty members of each division. In divisions with no preview requirement, the option is still available to students and faculty members. Divisions must approve the recital content well in advance but no less than three weeks before the recital date. The candidate must file a professional-quality CD recording of the final recital with the School of Music before the final examination is scheduled.

A program of study in band and orchestral conducting (minimum of 30 hours) is as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced conducting and score-reading</td>
<td>10-12</td>
</tr>
<tr>
<td>MUSC 801 Music Bibliography and Research</td>
<td>3</td>
</tr>
<tr>
<td>Advanced courses in musicology and music theory</td>
<td>11-12</td>
</tr>
<tr>
<td>Electives</td>
<td>3-6</td>
</tr>
<tr>
<td>Recital</td>
<td>0</td>
</tr>
<tr>
<td>Oral examination</td>
<td>0</td>
</tr>
</tbody>
</table>

- Band and orchestral conducting majors must enroll in an ensemble for a minimum of 2 semesters.

A program of study in choral conducting (minimum of 30 hours) is as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choral conducting/score reading (must include COND 811)</td>
<td>6-8</td>
</tr>
<tr>
<td>MUSC 801 Music Bibliography and Research</td>
<td>3</td>
</tr>
<tr>
<td>Advanced courses in musicology and music theory</td>
<td>11-12</td>
</tr>
<tr>
<td>Choral literature</td>
<td>6</td>
</tr>
<tr>
<td>Seminar conducting/rehearsal</td>
<td>3-6</td>
</tr>
<tr>
<td>Electives</td>
<td>1-3</td>
</tr>
<tr>
<td>Recital</td>
<td>0</td>
</tr>
<tr>
<td>Oral examination</td>
<td>0</td>
</tr>
</tbody>
</table>

- Choral conducting majors must enroll in an ensemble for a minimum of 2 semesters.

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for this degree program.

M.M. in Musicology Admission

Applicants are expected to have educational backgrounds equivalent to the B.A. or B.M. in musicology from KU. Applicants are expected to have a reading knowledge of German, French, Italian, or Spanish. A language deficiency may be satisfied after entrance into the program. Proficiency at the piano is encouraged. Applicants must submit samples of original scholarly writing. In addition to the required course work, students are encouraged to continue study of performance or composition.

Graduate Admission to the School of Music

Application procedures and program requirements can change. Please visit the school’s website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements.

Program Areas

Graduate study in the School of Music is organized into program areas within 2 units:

- Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.
- Music Education and Music Therapy includes programs in music education or music therapy.

At least a 3.0 grade-point average, overall and in the major area, is required for all course work counted toward any graduate degree in the School of Music. If the overall grade-point average falls below 3.0, the student is placed on probation for one semester; if the cumulative average is not 3.0 or higher after the next semester, the student is dismissed from the program. Students must also achieve at least a grade of B in thesis, lecture-recital, document or dissertation, and on each recital for satisfactory completion of degree requirements.

Diagnostic Examinations

All entering graduate students (except music education, music therapy, and opera performance majors) must take written diagnostic examinations.
in musicology and music theory. These are given in the week before
the start of classes to determine whether any need exists for remedial
work, so that an appropriate academic program can be designed for each
student. Students who show the need for remedial work must complete
certain course work or must show mastery of the material by examination.
Graduate students entering programs in piano must take additional tests
in piano literature given before the start of classes. A student is exempt
if he or she received a bachelor’s or master’s degree in music from the
University of Kansas within the previous 4 years.

M.M. in Musicology Degree Requirements

The course work for the M.M. degree is as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Musicology courses in the MUSC 650 - MUSC 794 sequence</td>
<td>9</td>
</tr>
<tr>
<td>MUSC 654 Collegium Musicum, Vocal</td>
<td>2</td>
</tr>
<tr>
<td>or MUSC 656 Collegium Musicum, Instrumental</td>
<td></td>
</tr>
<tr>
<td>Advanced music theory courses</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 801 Music Bibliography and Research</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 940 Seminar on Selected Topics in Musicology: _____</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 899 Thesis</td>
<td>6</td>
</tr>
<tr>
<td>Electives in music performance</td>
<td>4</td>
</tr>
<tr>
<td>Oral examination</td>
<td>0</td>
</tr>
</tbody>
</table>

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for
this degree program.

Graduate Admission to the School of
Music

Application procedures and program requirements can change. Please
visit the school’s website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with
acceptable baccalaureate degrees, as specified by the admitting areas,
whose academic records indicate that they can do successful work at
the graduate level. Regular admission requires a bachelor’s degree and
a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or
from another regionally accredited institution or foreign university with
substantially equivalent bachelor’s degree requirements.

Programs of study leading to the Master of Music (M.M.), Master of
Music Education (M.M.E.), Doctor of Musical Arts (D.M.A.), and Doctor
of Philosophy (Ph.D.) are offered through the School of Music. Specific
admission procedures and degree requirements for the M.M. and M.M.E.
programs are described under division headings. Specific admission
procedures and degree requirements for the D.M.A., Ph.D. (musicology/
music theory), and Ph.D. (music education/music therapy) are listed in the
appropriate sections.

Program Areas

Graduate study in the School of Music is organized into program areas
within 2 units:

- Music includes programs in composition, conducting, musicology,
music theory, and most areas of performance.
- Music Education and Music Therapy includes programs in music
education or music therapy.

At least a 3.0 grade-point average, overall and in the major area, is
required for all course work counted toward any graduate degree in the
School of Music. If the overall grade-point average falls below 3.0, the
student is placed on probation for one semester; if the cumulative average
is not 3.0 or higher after the next semester, the student is dismissed
from the program. Students must also achieve at least a grade of B in
thesis, lecture-recital, document or dissertation, and on each recital for
satisfactory completion of degree requirements.

Diagnostic Examinations

All entering graduate students (except music education, music therapy,
and opera performance majors) must take written diagnostic examinations
in musicology and music theory. These are given in the week before
the start of classes to determine whether any need exists for remedial
work, so that an appropriate academic program can be designed for each
student. Students who show the need for remedial work must complete
certain course work or must show mastery of the material by examination.
Graduate students entering programs in piano must take additional tests
in piano literature given before the start of classes. A student is exempt
if he or she received a bachelor’s or master’s degree in music from the
University of Kansas within the previous 4 years.

M.M. in Music Theory or Composition

Programs of study are as follows:

Master of Music in Music Theory
or Composition

Master of Music in MTHC Degree
Programs

M.M. degree programs:

- Music theory
- Music composition

In addition to the required course work, students are encouraged to
continue study of performance or composition.

M.M. in Music Theory or Composition

Admission

Applicants are expected to have educational backgrounds equivalent to
the B.A., the B.M. in music theory, or the B.M. in composition from KU.
Applicants should submit copies of compositions and/or research papers
in music theory as well as recordings, if available. Applicants are expected
to have a reading knowledge of German, French, Italian, or Spanish. A
language deficiency may be satisfied after entrance into the program.
In addition to the required course work, students are encouraged to
continue study of performance and participate in ensembles on their major
instruments.
### Music Theory

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced music theory</td>
<td>9</td>
</tr>
<tr>
<td>Advanced musicology and/or advanced composition</td>
<td>9</td>
</tr>
<tr>
<td>MUSC 801 Music Bibliography and Research</td>
<td>3</td>
</tr>
<tr>
<td>MTHC 778 History of Music Theory</td>
<td>3</td>
</tr>
<tr>
<td>Oral examination</td>
<td>0</td>
</tr>
<tr>
<td>Electives</td>
<td>0</td>
</tr>
<tr>
<td>Thesis</td>
<td>6</td>
</tr>
</tbody>
</table>

### Composition

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced composition</td>
<td>9</td>
</tr>
<tr>
<td>Advanced musicology and music theory</td>
<td>12</td>
</tr>
<tr>
<td>MUSC 801 Music Bibliography and Research</td>
<td>3</td>
</tr>
<tr>
<td>Oral examination</td>
<td>0</td>
</tr>
<tr>
<td>Electives</td>
<td>0</td>
</tr>
<tr>
<td>Recital</td>
<td>1</td>
</tr>
<tr>
<td>Thesis</td>
<td>5</td>
</tr>
</tbody>
</table>

### Composition/Jazz Emphasis

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced composition</td>
<td>9</td>
</tr>
<tr>
<td>Elective</td>
<td>4</td>
</tr>
<tr>
<td>JAZZ 659 Jazz Arranging</td>
<td>2</td>
</tr>
<tr>
<td>MTHC 563 Survey in Jazz Composition and Arranging</td>
<td>3</td>
</tr>
<tr>
<td>American Studies Course</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 801 Music Bibliography and Research</td>
<td>3</td>
</tr>
<tr>
<td>Oral examination</td>
<td>0</td>
</tr>
<tr>
<td>Electives</td>
<td>0</td>
</tr>
<tr>
<td>Recital</td>
<td>1</td>
</tr>
<tr>
<td>Thesis</td>
<td>5</td>
</tr>
</tbody>
</table>

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for this degree program.

---

1. The master’s thesis in theory or composition shall consist of either a 20-minute work for large ensemble or a 30-minute chamber work, either of which may include electronic media. All thesis proposals must be approved by the MTHC faculty before the student begins work on the thesis.

### Master of Music in Music Performance: Brass and Percussion

### Master of Music in Performance Degree Programs

M.M. degree programs in music performance:

- Accompanying
- Bassoon
- Carillon
- Cello
- Church music

- Clarinet
- Double bass
- Euphonium
- Flute
- French horn
- Harp
- Oboe
- Opera performance
- Organ
- Percussion
- Piano
- Saxophone
- Trumpet
- Trombone
- Tuba
- Viola
- Violin
- Voice

### M.M. in Performance Admission

The applicant must perform an audition before the faculty of the major performance division. In some cases, an audio recording may be submitted in lieu of a live performance. A complete list of repertoire studied, including past recital programs, should be furnished to major division faculty members at the time of audition or submission of the tape recording. A prescreening CD/DVD is required for voice and piano applicants. View School of Music audition requirements and procedures (http://music.ku.edu/prospective/auditions.shtml).

### Graduate Admission to the School of Music

Application procedures and program requirements can change. Please visit the school’s website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements.

Programs of study leading to the Master of Music (M.M.), Master of Music Education (M.M.E.), Doctor of Musical Arts (D.M.A.), and Doctor of Philosophy (Ph.D.) are offered through the School of Music. Specific admission procedures and degree requirements for the M.M. and M.M.E. programs are described under division headings. Specific admission procedures and degree requirements for the D.M.A., Ph.D. (musicology/music theory), and Ph.D. (music education/music therapy) are listed in the appropriate sections.

### Program Areas

Graduate study in the School of Music is organized into program areas within 2 units:
Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.

Music Education and Music Therapy includes programs in music education or music therapy.

At least a 3.0 grade-point average, overall and in the major area, is required for all course work counted toward any graduate degree in the School of Music. If the overall grade-point average falls below 3.0, the student is placed on probation for one semester; if the cumulative average is not 3.0 or higher after the next semester, the student is dismissed from the program. Students must also achieve at least a grade of B in thesis, lecture-recital, document or dissertation, and on each recital for satisfactory completion of degree requirements.

Diagnostic Examinations

All entering graduate students (except music education, music therapy, and opera performance majors) must take written diagnostic examinations in musicology and music theory. These are given in the week before the start of classes to determine whether any need exists for remedial work, so that an appropriate academic program can be designed for each student. Students who show the need for remedial work must complete certain course work or must show mastery of the material by examination. Graduate students entering programs in piano must take additional tests in piano literature given before the start of classes. A student is exempt if he or she received a bachelor’s or master’s degree in music from the University of Kansas within the previous 4 years.

M.M. in Performance Degree Requirements

A final solo recital is required for all master’s degrees in performance. A recital preview is left to the discretion of the faculty members of each division. In divisions with no preview requirement, the option to have a preview is still available to students and faculty members. Divisions must approve recital content well in advance but no less than 3 weeks before the recital date. The candidate must file a professional-quality CD recording of the final recital with the School of Music before the final oral examination is scheduled.

Students in the Master of Music program who play band or orchestral instruments must enroll in a major ensemble for a minimum of 2 semesters.

A program of study in brass and percussion is as follows:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>W&amp;P 704</td>
<td>Special Studies in Brass Instrumental Pedagogy</td>
<td>1</td>
</tr>
<tr>
<td>W&amp;P 708</td>
<td>Special Studies in Percussion Instrument Pedagogy</td>
<td>1</td>
</tr>
</tbody>
</table>

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for this degree program.

Master of Music in Music Performance: Organ, Church Music, and Carillon

Master of Music in Performance Degree Programs

M.M. degree programs in music performance:

- Accompanying
- Bassoon
- Carillon
- Cello
- Church music
- Clarinet
- Double bass
- Euphonium
- Flute
- French horn
- Harp
- Oboe
- Opera performance
- Organ
- Percussion
- Piano
- Saxophone
- Trumpet
- Trombone
- Tuba
- Viola
- Violin
- Voice

M.M. in Performance Admission

The applicant must perform an audition before the faculty of the major performance division. In some cases, an audio recording may be submitted in lieu of a live performance. A complete list of repertoire studied, including past recital programs, should be furnished to major division faculty members at the time of audition or submission of the tape recording. A prescreening CD/DVD is required for voice and piano applicants. View School of Music audition requirements and procedures (http://music.ku.edu/prospective/auditions.shtml).

Graduate Admission to the School of Music

Application procedures and program requirements can change. Please visit the school’s website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at
the graduate level. Regular admission requires a bachelor's degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor's degree requirements.

Programs of study leading to the Master of Music (M.M.), Master of Music Education (M.M.E.), Doctor of Musical Arts (D.M.A.), and Doctor of Philosophy (Ph.D.) are offered through the School of Music. Specific admission procedures and degree requirements for the M.M. and M.M.E. programs are described under division headings. Specific admission procedures and degree requirements for the D.M.A., Ph.D. (musicology/music theory), and Ph.D. (music education/music therapy) are listed in the appropriate sections.

**Program Areas**

Graduate study in the School of Music is organized into program areas within 2 units:

- Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.
- Music Education and Music Therapy includes programs in music education or music therapy.

At least a 3.0 grade-point average, overall and in the major area, is required for all course work counted toward any graduate degree in the School of Music. If the overall grade-point average falls below 3.0, the student is placed on probation for one semester; if the cumulative average is not 3.0 or higher after the next semester, the student is dismissed from the program. Students must also achieve at least a grade of B in thesis, lecture-recital, document or dissertation, and on each recital for satisfactory completion of degree requirements.

**Diagnostic Examinations**

All entering graduate students (except music education, music therapy, and opera performance majors) must take written diagnostic examinations in musicology and music theory. These are given in the week before the start of classes to determine whether any need exists for remedial work, so that an appropriate academic program can be designed for each student. Students who show the need for remedial work must complete certain course work or must show mastery of the material by examination. Graduate students entering programs in piano must take additional tests in piano literature given before the start of classes. A student is exempt if he or she received a bachelor's or master's degree in music from the University of Kansas within the previous 4 years.

**M.M. in Performance Degree Requirements**

A final solo recital is required for all master's degrees in performance. A recital preview is left to the discretion of the faculty members of each division. In divisions with no preview requirement, the option to have a preview is still available to students and faculty members. Divisions must approve recital content well in advance but no less than 3 weeks before the recital date. The candidate must file a professional-quality CD recording of the final recital with the School of Music before the final oral examination is scheduled.

### A program of study in church music (choral conducting) is as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced conducting and score reading</td>
<td>10</td>
</tr>
<tr>
<td>MUSC 801 Music Bibliography and Research</td>
<td>3</td>
</tr>
<tr>
<td>Advanced courses in musicology and music theory</td>
<td>6</td>
</tr>
<tr>
<td>Advanced courses in church music</td>
<td>9</td>
</tr>
<tr>
<td>Voice</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td>0</td>
</tr>
<tr>
<td>Recital</td>
<td>0</td>
</tr>
<tr>
<td>Oral examination</td>
<td>0</td>
</tr>
</tbody>
</table>

- Students must enroll in a minimum of 4 semesters of choral ensemble.

### A program of study in church music (organ emphasis) is as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced applied music (organ)</td>
<td>12</td>
</tr>
<tr>
<td>MUSC 801 Music Bibliography and Research</td>
<td>3</td>
</tr>
<tr>
<td>Advanced courses in musicology and music theory</td>
<td>6</td>
</tr>
<tr>
<td>CHUR Music courses (CHUR 801-CHUR 810, CHUR 821-CHUR 824, CHUR 921, CHUR 962)</td>
<td>6</td>
</tr>
<tr>
<td>ORGN 702 Master Class in Organ - Lab (4 semesters)</td>
<td>0</td>
</tr>
<tr>
<td>ORGN 720 Studio Class in Organ-Lab (4 semesters)</td>
<td>0</td>
</tr>
<tr>
<td>CHUR 806 Service Playing and Improvisation I</td>
<td>3</td>
</tr>
<tr>
<td>CHUR 807 Service Playing and Improvisation II</td>
<td>3</td>
</tr>
<tr>
<td>Advanced conducting</td>
<td>6</td>
</tr>
<tr>
<td>Electives</td>
<td>0</td>
</tr>
<tr>
<td>Recital</td>
<td>0</td>
</tr>
<tr>
<td>Oral examination</td>
<td>0</td>
</tr>
</tbody>
</table>

- Church music majors must be enrolled in a Bales Chorale for 4 semesters.
- Church music majors must take 2 semesters of voice, if not previously taken.

### A program of study in organ is as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced applied music (organ)</td>
<td>12</td>
</tr>
<tr>
<td>MUSC 801 Music Bibliography and Research</td>
<td>3</td>
</tr>
<tr>
<td>Advanced courses in musicology and music theory</td>
<td>9</td>
</tr>
<tr>
<td>Advanced academic courses in organ (ORGN 800-ORGN 807, ORGN 921)</td>
<td>12</td>
</tr>
<tr>
<td>Electives</td>
<td>0</td>
</tr>
<tr>
<td>Recital</td>
<td>0</td>
</tr>
<tr>
<td>Oral examination</td>
<td>0</td>
</tr>
</tbody>
</table>

- M.M. organ majors must be enrolled in ORGN 702 Master Class in Organ — Lab (0) and ORGN 720 Studio Class in Organ — Lab (0) for 4 semesters each.
- M.M. organ majors must be enrolled in a Bales Chorale 2 semesters (0).

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for this degree program.

### A program of study in carillon is as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced applied music</td>
<td>12</td>
</tr>
<tr>
<td>MUSC 801 Music Bibliography and Research</td>
<td>3</td>
</tr>
</tbody>
</table>
Advanced courses in musicology and music theory 9-12
CARI 804  History of Carillon Literature and Design 3
CARI 820  Studio Class in Carillon 0
Electives 0-3
Recital 0
Oral examination 0

Master of Music in Music Performance: Piano

Master of Music in Performance Degree Programs

M.M. degree programs in music performance:

• Accompanying
• Bassoon
• Carillon
• Cello
• Church music
• Clarinet
• Double bass
• Euphonium
• Flute
• French horn
• Harp
• Oboe
• Opera performance
• Organ
• Percussion
• Piano
• Saxophone
• Trumpet
• Trombone
• Tuba
• Viola
• Violin
• Voice

Program Areas
Graduate study in the School of Music is organized into program areas within 2 units:

• Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.
• Music Education and Music Therapy includes programs in music education or music therapy.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements.

Programs of study leading to the Master of Music (M.M.), Master of Music Education (M.M.E.), Doctor of Musical Arts (D.M.A.), and Doctor of Philosophy (Ph.D.) are offered through the School of Music. Specific admission procedures and degree requirements for the M.M. and M.M.E. programs are described under division headings. Specific admission procedures and degree requirements for the D.M.A., Ph.D. (musicology/music theory), and Ph.D. (music education/music therapy) are listed in the appropriate sections.

M.M. in Performance Degree Requirements

A final solo recital is required for all master’s degrees in performance. Students majoring in piano also are expected to perform a chamber music recital or a full concerto. A recital preview is left to the discretion of the faculty members of each division. In divisions with no preview requirement, the option to have a preview is still available to students and faculty members. Divisions must approve recital content well in advance but no less than 3 weeks before the recital date. The candidate must file a professional-quality CD recording of the final recital with the School of Music before the final oral examination is scheduled.
A program of study in accompanying is as follows:

- Advanced accompanying: 12
- MUSC 801 Music Bibliography and Research: 3
- Advanced courses in musicology, music theory, and conducting: 9-12
- ACMP 822 The Accompanist’s Literature: 3
- Electives: 0-3
- Recital: 0
- Oral examination: 0

A student may emphasize vocal or instrumental accompanying. The vocal accompanying emphasis requires entering graduate students to take diction examinations in Italian, French, and German. Students found deficient in an area of diction must enroll in the specific course in which they are deficient and pass it with at least a grade of C.

A program of study in piano performance, literature, and pedagogy is as follows:

- Advanced applied music (piano): 12
- MUSC 801 Music Bibliography and Research: 3
- Advanced courses in musicology and music theory: 9
- Advanced piano pedagogy/piano literature: 2-3
- Electives: 3-4
- Chamber Music/Concerto recital: 0
- Recital: 0
- Oral examination: 0

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for this degree program.

Master of Music in Music Performance: Strings

M.M. in Performance Admission

The applicant must perform an audition before the faculty of the major performance division. In some cases, an audio recording may be submitted in lieu of a live performance. A complete list of repertoire studied, including past recital programs, should be furnished to major division faculty members at the time of audition or submission of the tape recording. A prescreening CD/DVD is required for voice and piano applicants. View School of Music audition requirements and procedures (http://music.ku.edu/prospective/auditions.shtml).

Graduate Admission to the School of Music

Application procedures and program requirements can change. Please visit the school’s website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements.

Programs of study leading to the Master of Music (M.M.), Master of Music Education (M.M.E.), Doctor of Musical Arts (D.M.A.), and Doctor of Philosophy (Ph.D.) are offered through the School of Music. Specific admission procedures and degree requirements for the M.M. and M.M.E. programs are described under division headings. Specific admission procedures and degree requirements for the D.M.A., Ph.D. (musicology/music theory), and Ph.D. (music education/music therapy) are listed in the appropriate sections.

Program Areas

Graduate study in the School of Music is organized into program areas within 2 units:

- Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.
- Music Education and Music Therapy includes programs in music education or music therapy.

At least a 3.0 grade-point average, overall and in the major area, is required for all course work counted toward any graduate degree in the School of Music. If the overall grade-point average falls below 3.0, the student is placed on probation for one semester; if the cumulative average is not 3.0 or higher after the next semester, the student is dismissed from the program. Students must also achieve at least a grade of B in thesis, lecture-recital, document or dissertation, and on each recital for satisfactory completion of degree requirements.
Diagnostic Examinations

All entering graduate students (except music education, music therapy, and opera performance majors) must take written diagnostic examinations in musicology and music theory. These are given in the week before the start of classes to determine whether any need exists for remedial work, so that an appropriate academic program can be designed for each student. Students who show the need for remedial work must complete certain course work or must show mastery of the material by examination. Graduate students entering programs in piano must take additional tests in piano literature given before the start of classes. A student is exempt if he or she received a bachelor's or master's degree in music from the University of Kansas within the previous 4 years.

M.M. in Performance Degree Requirements

A final solo recital is required for all master's degrees in performance. A recital preview is left to the discretion of the faculty members of each division. In divisions with no preview requirement, the option to have a preview is still available to students and faculty members. Divisions must approve recital content well in advance but no less than 3 weeks before the recital date. The candidate must file a professional-quality CD recording of the final recital with the School of Music before the final oral examination is scheduled.

Students in the Master of Music program who play band or orchestral instruments must enroll in a major ensemble for a minimum of 2 semesters.

A program of study for students in cello, double bass, harp, viola, and violin is as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced applied music</td>
<td>12</td>
</tr>
<tr>
<td>MUSC 801 Music Bibliography and Research</td>
<td>3</td>
</tr>
<tr>
<td>Advanced courses in musicology and music theory</td>
<td>9-12</td>
</tr>
<tr>
<td>Electives</td>
<td>1-4</td>
</tr>
<tr>
<td>Ensemble (2 semesters)</td>
<td>2</td>
</tr>
<tr>
<td>Recital</td>
<td>0</td>
</tr>
<tr>
<td>Oral examination</td>
<td>0</td>
</tr>
</tbody>
</table>

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for this degree program.

Master of Music in Music Performance: Voice and Opera

Master of Music in Performance Degree Programs

M.M. degree programs in music performance:

- Accompanying
- Bassoon
- Carillon
- Cello
- Church music
- Clarinet
- Double bass
- Euphonium
- Flute
- French horn
- Harp
- Oboe
- Opera performance
- Organ
- Percussion
- Piano
- Saxophone
- Trumpet
- Trombone
- Tuba
- Viola
- Violin
- Voice

M.M. in Performance Admission

The applicant must perform an audition before the faculty of the major performance division. In some cases, an audio recording may be submitted in lieu of a live performance. A complete list of repertoire studied, including past recital programs, should be furnished to major division faculty members at the time of audition or submission of the tape recording. A prescreening CD/DVD is required for voice and piano applicants. View School of Music audition requirements and procedures (http://music.ku.edu/prospective/auditions.shtml).

Students in opera performance must take a minimum of 1 year each in French, German, and Italian before entering graduate studies or before completing the M.M. degree. For the master's degree program in voice, the language requirement is 1 year of 2 of the following: French, German, or Italian. Both programs have prerequisites in French, German, and Italian diction. Students found deficient in a particular area of diction must enroll in the specific course in which they are deficient and pass it with a minimum grade of C or demonstrate proficiency by passing a diction diagnostic examination. A student whose transcript shows she or he has passed a particular language diction course normally is considered proficient in the diction of that language.

Graduate Admission to the School of Music

Application procedures and program requirements can change. Please visit the school's website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor's degree requirements.

Programs of study leading to the Master of Music (M.M.), Master of Music Education (M.M.E.), Doctor of Musical Arts (D.M.A.), and Doctor of Philosophy (Ph.D.) are offered through the School of Music. Specific admission procedures and degree requirements for the M.M. and M.M.E.
programs are described under division headings. Specific admission procedures and degree requirements for the D.M.A., Ph.D. (musicology/music theory), and Ph.D. (music education/music therapy) are listed in the appropriate sections.

Program Areas

Graduate study in the School of Music is organized into program areas within 2 units:

- Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.
- Music Education and Music Therapy includes programs in music education or music therapy.

At least a 3.0 grade-point average, overall and in the major area, is required for all course work counted toward any graduate degree in the School of Music. If the overall grade-point average falls below 3.0, the student is placed on probation for one semester; if the cumulative average is not 3.0 or higher after the next semester, the student is dismissed from the program. Students must also achieve at least a grade of B in thesis, lecture-recital, document or dissertation, and on each recital for satisfactory completion of degree requirements.

Diagnostic Examinations

All entering graduate students (except music education, music therapy, and opera performance majors) must take written diagnostic examinations in musicology and music theory. These are given in the week before the start of classes to determine whether any need exists for remedial work, so that an appropriate academic program can be designed for each student. Students who show the need for remedial work must complete certain course work or must show mastery of the material by examination. Graduate students entering programs in piano must take additional tests in piano literature given before the start of classes. A student is exempt if he or she received a bachelor’s or master’s degree in music from the University of Kansas within the previous 4 years.

M.M. in Performance Degree Requirements

Students in opera performance must take or have taken a minimum of 1 year each of French, German, and Italian before completing the M.M. degree. For the master’s degree program in voice, the language requirement is 1 year each of 2 of the following: French, German, or Italian. Both programs have prerequisites in English, French, Italian, and German diction. If deficient in a particular area of diction, all determined either through the transcript evaluations or during the audition when selections from each language have been performed, the student must enroll in the specific course in which there is a deficiency and pass it with a C or better. A student whose transcripts show diction courses taken and passed is considered proficient in the diction of that language.

A final solo recital is required for all master’s degrees in performance. Students majoring in opera performance also must perform a significant role in at least one fully staged production. A recital preview is left to the discretion of the faculty members of each division. In divisions with no preview requirement, the option to have a preview is still available to students and faculty members. Divisions must approve recital content well in advance but no less than 3 weeks before the recital date. The candidate must file a professional-quality CD recording of the final recital with the School of Music before the final oral examination is scheduled.

### A program of study in opera performance is as follows:

- **Advanced applied music (voice)**: 9
- **Vocal coaching**: 3
- **MUSC 801 Music Bibliography and Research**: 3
- **Advanced course in music theory or musicology**: 3
- **Opera workshop and opera production**: 9
- **Electives**: 3
- **Significant role in a fully staged opera production with orchestra**: 0
- **Recital**: 0
- **Oral examination**: 0

The written diagnostic examinations in musicology and music theory are not required in the opera performance program.

### A program of study in voice is as follows:

- **Advanced applied music (voice)**: 12
- **MUSC 801 Music Bibliography and Research**: 3
- **Advanced courses in musicology and music theory**: 9-12
- **Advanced vocal repertoire**: 2-4
- **Electives**: 2-3
- **Recital**: 0
- **Oral examination**: 0

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for this degree program.

Master of Music in Music Performance: Woodwinds

Master of Music in Performance Degree Programs

M.M. degree programs in music performance:

- Accompanying
- Bassoon
- Carillon
- Cello
- Church music
- Clarinet
- Double bass
- Euphonium
- Flute
- French horn
- Harp
- Oboe
- Opera performance
- Organ
- Percussion
- Piano
- Saxophone
- Trumpet
- Trombone
Graduate Admission to the School of Music

Application procedures and program requirements can change. Please visit the school's website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements.

Programs of study leading to the Master of Music (M.M.), Master of Music Education (M.M.E.), Doctor of Musical Arts (D.M.A.), and Doctor of Philosophy (Ph.D.) are offered through the School of Music. Specific admission procedures and degree requirements for the M.M. and M.M.E. programs are described under division headings. Specific admission procedures and degree requirements for the D.M.A., Ph.D. (musicology/music theory), and Ph.D. (music education/music therapy) are listed in the appropriate sections.

Program Areas

Graduate study in the School of Music is organized into program areas within 2 units:

- Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.
- Music Education and Music Therapy includes programs in music education or music therapy.

At least a 3.0 grade-point average, overall and in the major area, is required for all course work counted toward any graduate degree in the School of Music. If the overall grade-point average falls below 3.0, the student is placed on probation for one semester; if the cumulative average is not 3.0 or higher after the next semester, the student is dismissed from the program. Students must also achieve at least a grade of B in thesis, lecture-recital, document or dissertation, and on each recital for satisfactory completion of degree requirements.

Diagnostic Examinations

All entering graduate students (except music education, music therapy, and opera performance majors) must take written diagnostic examinations in musicology and music theory. These are given in the week before the start of classes to determine whether any need exists for remedial work, so that an appropriate academic program can be designed for each student. Students who show the need for remedial work must complete certain course work or must show mastery of the material by examination. Graduate students entering programs in piano must take additional tests in piano literature given before the start of classes. A student is exempt if he or she received a bachelor’s or master’s degree in music from the University of Kansas within the previous 4 years.

M.M. in Performance Admission

The applicant must perform an audition before the faculty of the major performance division. In some cases, an audio recording may be submitted in lieu of a live performance. A complete list of repertoire studied, including past recital programs, should be furnished to major division faculty members at the time of audition or submission of the tape recording. A prescreening CD/DVD is required for voice and piano applicants. View School of Music audition requirements and procedures (http://music.ku.edu/prospective/auditions.shtml).

M.M. in Performance Degree Requirements

A final solo recital is required for all master’s degrees in performance. A recital preview is left to the discretion of the faculty members of each division. In divisions with no preview requirement, the option to have a preview is still available to students and faculty members. Divisions must approve recital content well in advance but no less than 3 weeks before the recital date. The candidate must file a professional-quality CD recording of the final recital with the School of Music before the final oral examination is scheduled.

Students in the Master of Music program who play band or orchestral instruments must enroll in a major ensemble for a minimum of 2 semesters.

A program of study for students in bassoon, clarinet, flute, oboe, and saxophone is as follows:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced applied music</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>MUSC 801</td>
<td>Music Bibliography and Research</td>
<td>3</td>
</tr>
<tr>
<td>Advanced courses in musicology and music theory</td>
<td>9-12</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>1-4</td>
</tr>
<tr>
<td>Ensemble (2 semesters)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Recital</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Oral examination</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for this degree program.

Master of Music Education in Music Education or Music Therapy

Master of Music Education

With a Major in Music Education or Music Therapy

The division’s graduate programs include advanced professional and scholarly study for music educators and music therapists, licensure/certification programs for those with baccalaureate degrees in other fields who plan to enter the music education or music therapy professions (these initial licensure/certification programs typically also require collateral undergraduate study), and advanced study for individuals in related disciplines. Areas of emphasis, curricula, examinations, and regulations and procedures are described in the MMT Master’s Graduate Handbook in Music Education and Music Therapy, available at the division office and online (http://music.ku.edu/programs/memt).
Music Education M.M.E. Program

Master of Music Education

With a Major in Music Education

The division’s graduate programs include advanced professional and scholarly study for music educators and music therapists, licensure/certification programs for those with baccalaureate degrees in other fields who plan to enter the music education or music therapy professions (these initial licensure/certification programs typically also require collateral undergraduate study), and advanced study for individuals in related disciplines. Areas of emphasis, curricula, examinations, and regulations and procedures are described in the MEMT Master’s Graduate Handbook in Music Education and Music Therapy, available at the division office and online (http://music.ku.edu/programs/memt).

M.M.E. in Music Education or M.M.E. in Music Therapy Admission

Admission requirements are as follows:

1. Undergraduate grade-point average of 3.0 or higher on a 4.0 scale.
2. An appropriate baccalaureate degree to support the individual’s goals for master’s study. Students seeking entrance into the graduate initial certification program in music education or the graduate equivalency program in music therapy should have substantial backgrounds in music regardless of undergraduate major.
3. Scores on the Graduate Record Examination (verbal, quantitative, analytical writing).
4. 3 letters of recommendation regarding applicant’s qualifications for graduate study in their selected program.
5. Submission of a DVD video recording appropriate to degree of application.
6. International applicants must provide additional official documentation per the MEMT Graduate Application Procedure document.
7. Other supporting materials are required.

For detailed admission information see the MEMT Graduate Application Procedure (http://music.ku.edu/programs/memt/prospective/graduate/admissions.shtml) document.

Graduate Admission to the School of Music

Application procedures and program requirements can change. Please visit the school’s website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements.

Program Areas

Graduate study in the School of Music is organized into program areas within 2 units:

- Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.
- Music Education and Music Therapy includes programs in music education or music therapy.

At least a 3.0 grade-point average, overall and in the major area, is required for all course work counted toward any graduate degree in the School of Music. If the overall grade-point average falls below 3.0, the student is placed on probation for one semester; if the cumulative average is not 3.0 or higher after the next semester, the student is dismissed from the program. Students must also achieve at least a grade of B in thesis, lecture-recital, document or dissertation, and on each recital for satisfactory completion of degree requirements.

Diagnostic Examinations

All entering graduate students (except music education, music therapy, and opera performance majors) must take written diagnostic examinations in musicology and music theory. These are given in the week before the start of classes to determine whether any need exists for remedial work, so that an appropriate academic program can be designed for each student. Students who show the need for remedial work must complete certain course work or must show mastery of the material by examination. Graduate students entering programs in piano must take additional tests in piano literature given before the start of classes. A student is exempt if he or she received a bachelor’s or master’s degree in music from the University of Kansas within the previous 4 years.

M.M.E. with a Major in Music Education

Course and Proficiency Requirements

The degree requires a minimum of 30 hours of graduate credit. At least one-half of the required credit hours must be in courses open only to graduate students. At least 20 of the hours must be in regularly scheduled classes excluding directed study, research, and thesis.

Course Distribution

- At least 17 hours in MEMT including MEMT 812 Research in Music Education and Music Therapy (3 hours), MEMT 899 Master’s Thesis (3-5 hours if thesis option) or MEMT 898 Comprehensive Examination (1 hour if nonthesis option), and additional hours to reach the minimum elected from 700- and 800-level MEMT courses, subject to the advisor’s approval. At least 2 courses must be at the 800 level.
- At least 10 graduate hours outside of MEMT, including:
  - at least 2 hours of applied music or conducting;
  - at least 3 hours in musicology, theory, or composition;
  - at least 3 hours in a supportive elective area; and
  - additional non-MEMT hours necessary to reach the minimum.
Admission requirements are as follows:

Final Examination
The final oral examination is administered by the student’s advisor and at least 2 other members of the Graduate Faculty. The examination must pertain to the student’s thesis but is not confined to that topic.

Nonthesis Option
Students may elect to earn the M.M.E. with a major in music education using the nonthesis option, which functions as a terminal degree. The nonthesis option requires a total of 30 hours of credit. This option culminates with a 1-credit-hour comprehensive final examination (MEMT 898 Comprehensive Examination).

More information about the thesis or nonthesis option is available in the MEMT Graduate Handbook.

Plan of Study
The Master of Music Education with a major in music education program plan is available on the MEMT website (http://music.ku.edu/programs/memt).

Music Therapy M.M.E. Program

Master of Music Education
With a Major in Music Therapy
The division’s graduate programs include advanced professional and scholarly study for music educators and music therapists, licensure/certification programs for those with baccalaureate degrees in other fields who plan to enter the music education or music therapy professions (these initial licensure/certification programs typically also require collateral undergraduate study), and advanced study for individuals in related disciplines. Areas of emphasis, curricula, examinations, and regulations and procedures are described in the MEMT Master’s Graduate Handbook in Music Education and Music Therapy, available at the division office and online (http://music.ku.edu/programs/memt).

M.M.E. in Music Education or M.M.E. in Music Therapy Admission
Admission requirements are as follows:

1. Undergraduate grade-point average of 3.0 or higher on a 4.0 scale.
2. An appropriate baccalaureate degree to support the individual’s goals for master’s study. Students seeking entrance into the graduate initial certification program in music education or the graduate equivalency program in music therapy should have substantial backgrounds in music regardless of undergraduate major.
3. Scores on the Graduate Record Examination (verbal, quantitative, analytical writing).
4. 3 letters of recommendation regarding applicant’s qualifications for graduate study in their selected program.
5. Submission of a DVD video recording appropriate to degree of application.
6. International applicants must provide additional official documentation per the MEMT Graduate Application Procedure document.
7. Other supporting materials are required.

For detailed admission information see the MEMT Graduate Application Procedure (http://music.ku.edu/programs/memt/prospective/graduate/admissions.shtml) document.

Graduate Admission to the School of Music
Application procedures and program requirements can change. Please visit the school’s website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements.

Programs of study leading to the Master of Music (M.M.), Master of Music Education (M.M.E.), Doctor of Musical Arts (D.M.A.), and Doctor of Philosophy (Ph.D.) are offered through the School of Music. Specific admission procedures and degree requirements for the M.M. and M.M.E. programs are described under division headings. Specific admission procedures and degree requirements for the D.M.A., Ph.D. (musicology/music theory), and Ph.D. (music education/music therapy) are listed in the appropriate sections.

Program Areas
Graduate study in the School of Music is organized into program areas within 2 units:

- Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.
- Music Education and Music Therapy includes programs in music education or music therapy.

At least a 3.0 grade-point average, overall and in the major area, is required for all course work counted toward any graduate degree in the School of Music. If the overall grade-point average falls below 3.0, the student is placed on probation for one semester; if the cumulative average is not 3.0 or higher after the next semester, the student is dismissed from the program. Students must also achieve at least a grade of B in thesis, lecture-recital, document or dissertation, and on each recital for satisfactory completion of degree requirements.

Diagnostic Examinations
All entering graduate students (except music education, music therapy, and opera performance majors) must take written diagnostic examinations in musicology and music theory. These are given in the week before the start of classes to determine whether any need exists for remedial work, so that an appropriate academic program can be designed for each student. Students who show the need for remedial work must complete certain course work or must show mastery of the material by examination. Graduate students entering programs in piano must take additional tests in piano literature given before the start of classes. A student is exempt
if he or she received a bachelor’s or master’s degree in music from the University of Kansas within the previous 4 years.

M.M.E. with a Major in Music Therapy
Course and Proficiency Requirements
The degree requires a minimum of 30 hours of graduate credit. At least one half of the required credit hours must be in courses open only to graduate students. At least 20 of the hours must be in regularly scheduled classes excluding directed study, research, and thesis.

Course Distribution
• The program must include at least 14 hours of graduate work in the division, including MMT 812 Research in Music Education and Music Therapy (3 hours), MMT 864 Philosophy and Theory of Music Therapy (3 hours), MMT 890 Practicum in Music Therapy (2 hours), MMT 899 Master’s Thesis (3 hours if thesis option) or MMT 898 Comprehensive Examination (1 hour if nonthesis option), and additional hours to reach the minimum elected from 700- and 800-level MMT courses, subject to the advisor’s approval. At least 2 courses must be at the 800 level. At least 9 of these hours must be in regularly scheduled courses.
• At least 10 hours in supportive studies outside MMT.
• Proficiency as a performing musician must be demonstrated before the degree may be awarded.

The work is distributed as indicated in the categories on the appropriate program plan outline found on the MMT website (http://music.ku.edu/programs/mmt). All of these selections are subject to the advisor’s approval.

The M.M.E. with a major in music therapy may be earned only by individuals eligible to sit for the national examination offered by the Certification Board for Music Therapists (CBMT).

Final Examination
The final oral examination is administered by the student’s advisor and at least 2 other members of the Graduate Faculty. The examination must pertain to the student’s thesis but is not confined to that topic.

Nonthesis Option
Students may elect to earn the M.M.E. with a major in music therapy using the nonthesis option, which functions as a terminal degree. The nonthesis option requires a total of 30 hours of credit. This option culminates with a 1-credit-hour comprehensive final examination (MMT 898 Comprehensive Examination).

Plan of Study
The Master of Music Education with a major in music therapy program plan outline is available on the MMT website (http://music.ku.edu/programs/mmt).

Doctor of Musical Arts
Programs
View requirements for:

Doctor of Musical Arts in Composition

Doctor of Musical Arts
The degree of Doctor of Musical Arts is a recognition of high professional attainment. Since only exceptionally well-qualified candidates are admitted to the program, doctoral studies are devoted primarily to developing professional qualifications for teaching at the college level. The degree of Doctor of Musical Arts is offered in
• Church music (organ or choral conducting emphasis),
• Composition,
• Conducting (band, choral, or orchestral), and
• Areas of performance.

D.M.A. Admission
The applicant is expected to have a master’s degree, or its demonstrated equivalent, in the proposed field. In addition to official transcripts and letters of recommendation, all applicants should submit résumés of their training and experience in teaching and performing.

For general information on academic requirements, residence, tenure, and enrollment, see the Graduate Studies (p. 2059) section of the online catalog. Further admission requirements are listed below.

Composition
Applicants should submit scores of original works (including master’s thesis), recordings, and lists of past performances.

Graduate Admission to the School of Music
Application procedures and program requirements can change. Please visit the school’s website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements.

Programs of study leading to the Master of Music (M.M.), Master of Music Education (M.M.E.), Doctor of Musical Arts (D.M.A.), and Doctor of Philosophy (Ph.D.) are offered through the School of Music. Specific
admission procedures and degree requirements for the M.M. and M.M.E. programs are described under division headings. Specific admission procedures and degree requirements for the D.M.A., Ph.D. (musicology/music theory), and Ph.D. (music education/music therapy) are listed in the appropriate sections.

**Program Areas**
Graduate study in the School of Music is organized into program areas within 2 units:

- Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.
- Music Education and Music Therapy includes programs in music education or music therapy.

At least a 3.0 grade-point average, overall and in the major area, is required for all coursework counted toward any graduate degree in the School of Music. If the overall grade-point average falls below 3.0, the student is placed on probation for one semester; if the cumulative average is not 3.0 or higher after the next semester, the student is dismissed from the program. Students must also achieve at least a grade of B in thesis, lecture-recital, document or dissertation, and on each recital for satisfactory completion of degree requirements.

**Diagnostic Examinations**
All entering graduate students (except music education, music therapy, and opera performance majors) must take written diagnostic examinations in musicology and music theory. These are given in the week before the start of classes to determine whether any need exists for remedial work, so that an appropriate academic program can be designed for each student. Students who show the need for remedial work must complete certain course work or must show mastery of the material by examination. Graduate students entering programs in piano must take additional tests in piano literature given before the start of classes. A student is exempt if he or she received a bachelor’s or master’s degree in music from the University of Kansas within the previous 4 years.

**D.M.A. Degree Requirements**

**Research Skills**
Every doctoral student is required to have training in responsible scholarship pertinent to the field of research. Every doctoral student is required to obtain research skills pertinent to the doctoral level of research in their field(s).

To meet both components, D.M.A. students in performance or composition and Ph.D. students in Musicology or Music Theory must complete MUSC 801 Music Bibliography and Research (or its equivalent) and, if available, participate in advanced performance seminars.

**Advisory Committee**
Each graduate student selects a faculty advisory committee, in consultation with the major advisor, subject to the consent of the faculty members involved, and approved by the associate dean. This usually occurs during the second semester of full-time enrollment. The committee consists of 5 faculty members: at least 2 faculty members from the major division, 1 from musicology or music theory (at least 1 from musicology for D.M.A. composition), and 1 from outside the School of Music. This committee participates with the major music division faculty in evaluating required recitals and administers the comprehensive and final oral examinations.

**Recitals**
Composition students must present a public program of original compositions approximately 45 minutes in length and participate in at least one work as either a performer or conductor.

All recitals and public appearances required for the D.M.A. are graded by the student’s advisory committee and the faculty of the major division. The student must achieve at least a grade of B on each recital for satisfactory completion of degree requirements.

**Music Theory, Musicology, and Oral Comprehensive Examinations**
Students must take written examinations in music theory and musicology when most of the course work has been completed and the research skills/responsible scholarship requirements have been fulfilled. All diagnostic deficiencies must be satisfied before taking the written comprehensive exams. Some major divisions also may require a written examination in the major area. Students entering before the spring semester of 2008 may elect to complete 2 theory papers in lieu of taking the written examination in music theory. After successful completion of the written examinations, the student is eligible to schedule the oral comprehensive examination administered by the student’s graduate advisory committee.

**Large-Scale Composition**
No later than the end of the semester after successful completion of the comprehensive examination, candidates in performance, conducting, and composition must submit to the graduate advisory committee a prospectus for a D.M.A. document or D.M.A. lecture-recital. A candidate in composition must submit a prospectus for a large-scale composition. The composition prospectus should outline a large-scale work for orchestra, with or without soloists, a work for chorus and orchestra, or an opera, and should include a preliminary analysis.

Upon satisfactory completion of all other degree requirements, candidates must schedule a final oral examination. For students in composition, the examination is primarily a defense of the large-scale composition.

The student must receive at least a grade of B on the composition for satisfactory completion of degree requirements.

**Examinations**
At least 3 months must elapse between the successful completion of the comprehensive oral examination and the date of the final oral examination for candidates for the D.M.A. degree.

**Composition Program**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master’s degree in composition</td>
<td>30</td>
</tr>
<tr>
<td>Composition</td>
<td>16</td>
</tr>
<tr>
<td>Advanced theory and score reading</td>
<td>9</td>
</tr>
<tr>
<td>MUSC 801 Music Bibliography and Research</td>
<td>3</td>
</tr>
<tr>
<td>Advanced courses in musicology</td>
<td>9</td>
</tr>
<tr>
<td>MTHC 965 Doctoral Composition Recital</td>
<td>2</td>
</tr>
<tr>
<td>MTHC 999 Dissertation</td>
<td>16</td>
</tr>
</tbody>
</table>
(A work for large ensemble, a major concerto, a work for chorus and orchestra or an opera, or a major work involving live performers and electronic media. A written analysis of the work must be included after the title page in the full score.)

Electives

Composition majors must present a public program of original compositions approximately 45 minutes in duration before being admitted to the comprehensive examination.

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for this degree program.

Doctor of Musical Arts in Conducting

Doctor of Musical Arts

The degree of Doctor of Musical Arts is a recognition of high professional attainment. Since only exceptionally well-qualified candidates are admitted to the program, doctoral studies are devoted primarily to developing professional qualifications for teaching at the college level. The degree of Doctor of Musical Arts is offered in:

- Church music (organ or choral conducting emphasis),
- Composition,
- Conducting (band, choral, or orchestral), and
- Areas of performance.

D.M.A. Admission

The applicant is expected to have a master’s degree, or its demonstrated equivalent, in the proposed field. In addition to official transcripts and letters of recommendation, all applicants should submit résumés of their training and experience in teaching and performing.

For general information on academic requirements, residence, tenure, and enrollment, see the Graduate Studies (p. 2059) section of the online catalog. Further admission requirements are listed below.

Conducting

Applicants are expected to have had experience in conducting that spans a period of not less than 2 years. This may include work in public school, college, or with other amateur or professional ensembles. Applicants normally are expected to have a high level of performing ability on an instrument or in voice. Applicants are expected to submit preliminary audition materials that include a DVD recording of the applicant conducting in performance and in rehearsal, a CD recording of an ensemble trained and conducted by the applicant, and a prescribed formal analysis project. Details can be found at the band, choral, and orchestral links on the School of Music’s website (http://music.ku.edu). An entrance interview-audition is required for admission. The audition is heard by a committee composed of the Graduate Faculty of the conducting divisions. Approval by a majority of the committee is required for acceptance into the program. The audition may include:

1. Harmonic and melodic dictation and/or sight-singing;
2. Score identification;
3. Score reading at the keyboard; and
4. Conducting from a band, choral, or orchestral score to be selected by the examiners.

International students may submit a DVD. The Graduate Faculty in the ensemble divisions will review this recording.

Students applying to the D.M.A. program in choral conducting must display a working knowledge of 2 of the following 4 languages: French, German, Spanish, and Italian. A working knowledge normally implies at least 2 semesters of undergraduate study.

Graduate Admission to the School of Music

Application procedures and program requirements can change. Please visit the school’s website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements.

Programs of study leading to the Master of Music (M.M.), Master of Music Education (M.M.E.), Doctor of Musical Arts (D.M.A.), and Doctor of Philosophy (Ph.D.) are offered through the School of Music. Specific admission procedures and degree requirements for the M.M. and M.M.E. programs are described under division headings. Specific admission procedures and degree requirements for the D.M.A., Ph.D. (musicology/music theory), and Ph.D. (music education/music therapy) are listed in the appropriate sections.

Program Areas

Graduate study in the School of Music is organized into program areas within 2 units:

- Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.
- Music Education and Music Therapy includes programs in music education or music therapy.

At least a 3.0 grade-point average, overall and in the major area, is required for all course work counted toward any graduate degree in the School of Music. If the overall grade-point average falls below 3.0, the student is placed on probation for one semester; if the cumulative average is not 3.0 or higher after the next semester, the student is dismissed from the program. Students must also achieve at least a grade of B in thesis, lecture-recital, document or dissertation, and on each recital for satisfactory completion of degree requirements.

Diagnostic Examinations

All entering graduate students (except music education, music therapy, and opera performance majors) must take written diagnostic examinations in musicology and music theory. These are given in the week before the start of classes to determine whether any need exists for remedial work, so that an appropriate academic program can be designed for each student. Students who show the need for remedial work must complete certain course work or must show mastery of the material by examination. Graduate students entering programs in piano must take additional tests in piano literature given before the start of classes. A student is exempt
D.M.A. Degree Requirements

Research Skills

Every doctoral student is required to have training in responsible scholarship pertinent to the field of research. Every doctoral student is required to obtain research skills pertinent to the doctoral level of research in their field(s).

Advisory Committee

Each graduate student selects a faculty advisory committee, in consultation with the major advisor, subject to the consent of the faculty members involved, and approved by the associate dean. This usually occurs during the second semester of full-time enrollment. The committee consists of 5 faculty members: at least 2 faculty members from the major division, 1 from musicology or music theory (at least 1 from musicology for D.M.A. composition), and 1 from outside the School of Music. This committee participates with the major music division faculty in evaluating required recitals and administers the comprehensive and final oral examinations.

Recitals

All students in performance and in choral, orchestral, and instrumental conducting must perform a total of 3 recitals. This number does not include the D.M.A. lecture-recital if the student selects a lecture-recital as a final project. Each recital program should be approved by the faculty in the major area before the recital is performed.

Doctoral conducting students are expected to perform 3 recitals, each consisting of 50 to 60 minutes of programmed music. Up to 2 recitals may consist of the combination of works conducted with various official university ensembles over the course of several semesters. The third recital must be a single program with a major ensemble assigned as part of course work or teaching duties and presented as a regular program in that ensemble’s performance schedule. The third recital may include a complete performance of an opera, ballet/dance, or musical. A student who wishes to use an ensemble other than an official university ensemble must obtain permission to do so from the directors of ensembles.

Note: In addition to this requirement, the student is required to present a lecture-recital.

For the first 2 required recitals in the D.M.A. program in performance and conducting, a recital preview is left to the discretion of the faculty members of each division. In divisions with no preview requirement, the option to have a preview is still available to students and faculty members. Divisions must approve the recital content well in advance but no less than 3 weeks before the recital date. Normally, there is no recital preview for the final recital.

All recitals and public appearances required for the D.M.A. are graded by the student’s advisory committee and the faculty of the major division. The student must achieve at least a grade of B on each recital for satisfactory completion of degree requirements.

Musicology and Oral Comprehensive Examinations

Students must take written examinations in musicology when most of the course work has been completed and the research skills/responsible scholarship requirements have been fulfilled. All diagnostic deficiencies must be satisfied before taking the written comprehensive exams. Some major divisions also may require a written examination in the major area. After successful completion of the written examinations, the student is eligible to schedule the oral comprehensive examination administered by the student’s graduate advisory committee.

Document or Lecture-Recital

No later than the end of the semester after successful completion of the comprehensive examination, candidates in performance, conducting, and composition must submit to the graduate advisory committee a prospectus for a D.M.A. document or D.M.A. lecture-recital. The prospectus for a document or lecture-recital should include a preliminary bibliography and an outline of the content. The D.M.A. document is a scholarly paper roughly equivalent in scope to a master’s thesis. The lecture-recital is a public presentation based on a paper written in scholarly form.

Upon satisfactory completion of all other degree requirements, candidates must schedule a final oral examination. For students in performance and conducting, the examination covers the lecture-recital and the research reported in the lecture-recital document. The student must receive at least a grade of B on the document, lecture-recital, or composition for satisfactory completion of degree requirements. A CD or DVD of the final lecture-recital must be submitted the Graduate Division of the School of Music.

Examinations

At least 3 months must elapse between the successful completion of the comprehensive oral examination and the date of the final oral examination for candidates for the D.M.A. degree.

Band Conducting Program

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master’s degree in conducting or equivalent</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Advanced conducting</td>
<td>12-14</td>
<td></td>
</tr>
<tr>
<td>Score reading</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Seminars in repertoire</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>MUSC 801 Music Bibliography and Research</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Advanced courses in musicology and music theory</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Recitals</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>D.M.A. document or lecture-recital</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td>11-13</td>
<td></td>
</tr>
</tbody>
</table>

- Conducting majors must be enrolled in an ensemble for a minimum of 2 semesters.

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for this degree program.
**Choral Conducting Program**

Master's degree in conducting or equivalent 30
Advanced choral conducting/score reading (must include COND 961) 8-12
Advanced courses in musicology and music theory 12
MUSC 801 Music Bibliography and Research 3
CHOR 820 Orchestral Bowing Techniques for Choral Conductors 1
Choral literature 12
Seminar conducting/rehearsal 6-9
COND 965 Doctoral Recitals 3
D.M.A. document or lecture-recital 3
Electives 3-9
Ensembles 0

• Conducting majors must be enrolled in an ensemble for a minimum of 2 semesters.

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for this degree program.

**Orchestral Conducting Program**

Master's degree in conducting or equivalent 30
Advanced conducting 12-14
Score reading 4
Seminars in repertoire 9
MUSC 801 Music Bibliography and Research 3
Advanced courses in musicology and music theory 12
Recitals 3
D.M.A. document or lecture-recital 3
Electives 11-13

• Conducting majors must be enrolled in an ensemble for a minimum of 2 semesters.

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for this degree program.

**Doctor of Musical Arts in Music Performance: Brass and Percussion**

**Doctor of Musical Arts**

The degree of Doctor of Musical Arts is a recognition of high professional attainment. Since only exceptionally well-qualified candidates are admitted to the program, doctoral studies are devoted primarily to developing professional qualifications for teaching at the college level. The degree of Doctor of Musical Arts is offered in

• Church music (organ or choral conducting emphasis),
• Composition,
• Conducting (band, choral, or orchestral), and
• Areas of performance.

**D.M.A. Admission**

The applicant is expected to have a master's degree, or its demonstrated equivalent, in the proposed field. In addition to official transcripts and letters of recommendation, all applicants should submit résumés of their training and experience in teaching and performing.

For general information on academic requirements, residence, tenure, and enrollment, see the Graduate Studies (p. 2059) section of the online catalog. Further admission requirements are listed below.

**Performance**

The applicant must be prepared to perform the equivalent of a full master’s recital as deemed appropriate by the major performance division. The audition is heard by a committee of the Graduate Faculty of the major division. A member of the committee on graduate studies in music also may be invited to attend as a voting member of the committee. Approval by a majority of the committee is required for acceptance into the program. The applicant should consult the major performance division for specific memory and repertoire requirements. The applicant also should submit a comprehensive repertoire list indicating work studied, memorized, performed in public, or ready for immediate performance. In the case of international students, acceptance may be achieved by submitting an audiotape to be reviewed by the Graduate Faculty in the major division. A prescreening CD/DVD is required for voice and piano applicants. View School of Music audition requirements and procedures (http://music.ku.edu/prospective/auditions.shtml).

**Graduate Admission to the School of Music**

Application procedures and program requirements can change. Please visit the school’s website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor's degree requirements.

Programs of study leading to the Master of Music (M.M.), Master of Music Education (M.M.E.), Doctor of Musical Arts (D.M.A.), and Doctor of Philosophy (Ph.D.) are offered through the School of Music. Specific admission procedures and degree requirements for the M.M. and M.M.E. programs are described under division headings. Specific admission procedures and degree requirements for the D.M.A., Ph.D. (musicology/music theory), and Ph.D. (music education/music therapy) are listed in the appropriate sections.

**Program Areas**

Graduate study in the School of Music is organized into program areas within 2 units:

• Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.
• Music Education and Music Therapy includes programs in music education or music therapy.

At least a 3.0 grade-point average, overall and in the major area, is required for all course work counted toward any graduate degree in the
School of Music. If the overall grade-point average falls below 3.0, the student is placed on probation for one semester; if the cumulative average is not 3.0 or higher after the next semester, the student is dismissed from the program. Students must also achieve at least a grade of B in thesis, lecture-recital, document or dissertation, and on each recital for satisfactory completion of degree requirements.

Diagnostic Examinations
All entering graduate students (except music education, music therapy, and opera performance majors) must take written diagnostic examinations in musicology and music theory. These are given in the week before the start of classes to determine whether any need exists for remedial work, so that an appropriate academic program can be designed for each student. Students who show the need for remedial work must complete certain course work or must show mastery of the material by examination. Graduate students entering programs in piano must take additional tests in piano literature given before the start of classes. A student is exempt if he or she received a bachelor’s or master’s degree in music from the University of Kansas within the previous 4 years.

D.M.A. Degree Requirements

Research Skills
Every doctoral student is required to have training in responsible scholarship pertinent to the field of research. Every doctoral student is required to obtain research skills pertinent to the doctoral level of research in their field(s).

To meet both components, D.M.A. students in performance or composition and Ph.D. students in Musicology or Music Theory must complete MUSC 801 Music Bibliography and Research (or its equivalent) and, if available, participate in advanced performance seminars.

Advisory Committee
Each graduate student selects a faculty advisory committee, in consultation with the major advisor, subject to the consent of the faculty members involved, and approved by the associate dean. This usually occurs during the second semester of full-time enrollment. The committee consists of 5 faculty members: at least 2 faculty members from the major division, 1 from musicology or music theory (at least 1 from musicology for D.M.A. composition), and 1 from outside the School of Music. This committee participates with the major music division faculty in evaluating required recitals and administers the comprehensive and final oral examinations.

Recitals
All students in performance and in choral, orchestral, and instrumental conducting must perform a total of 3 recitals. This number does not include the D.M.A. lecture-recital if the student selects a lecture-recital as a final product. Each recital program should be approved by the faculty in the major area before the recital is performed. One of the three required recitals must be a full solo recital. The other two may be a full solo recital, concerto performance, chamber music program, or a second lecture-recital.

Note: In addition to this requirement, the student is required to present a lecture-recital.

For the first 2 required recitals in the D.M.A. program in performance and conducting, a recital preview is left to the discretion of the faculty members of each division. In divisions with no preview requirement, the option to have a preview is still available to students and faculty members. Divisions must approve the recital content well in advance but no less than 3 weeks before the recital date. Normally, there is no recital preview for the final recital.

All recitals and public appearances required for the D.M.A. are graded by the student’s advisory committee and the faculty of the major division. The student must achieve at least a grade of B on each recital for satisfactory completion of degree requirements.

Musicology and Oral Comprehensive Examinations
Students must take written examinations in musicology when most of the course work has been completed and the research skills/responsible scholarship requirements have been fulfilled. All diagnostic deficiencies must be satisfied before taking the written comprehensive exams. Some major divisions also may require a written examination in the major area. After successful completion of the written examinations, the student is eligible to schedule the oral comprehensive examination administered by the student’s graduate advisory committee.

Document or Lecture-Recital
No later than the end of the semester after successful completion of the comprehensive examination, candidates in performance, conducting, and composition must submit to the graduate advisory committee a prospectus for a D.M.A. document or D.M.A. lecture-recital. The prospectus for a document or lecture-recital should include a preliminary bibliography and an outline of the content. The D.M.A. document is a scholarly paper roughly equivalent in scope to a master’s thesis. The lecture-recital is a public presentation based on a paper written in scholarly form.

Upon satisfactory completion of all other degree requirements, candidates must schedule a final oral examination. For students in performance and conducting, the examination covers the lecture-recital and the research reported in the lecture-recital document.

The student must receive at least a grade of B on the document or lecture-recital for satisfactory completion of degree requirements. A CD or DVD of the final lecture-recital must be submitted the Graduate Division of the School of Music.

Examinations
At least 3 months must elapse between the successful completion of the comprehensive oral examination and the date of the final oral examination for candidates for the D.M.A. degree.

Percussion Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Master’s degree in performance</td>
<td>30</td>
</tr>
<tr>
<td>Applied music</td>
<td>20</td>
</tr>
<tr>
<td>Seminar in percussion</td>
<td>3</td>
</tr>
<tr>
<td>Recitals</td>
<td>7</td>
</tr>
<tr>
<td>MUSC 801 Music Bibliography and Research</td>
<td>3</td>
</tr>
<tr>
<td>Advanced courses in musicology and music theory</td>
<td>12</td>
</tr>
<tr>
<td>W&amp;P 708 Special Studies in Percussion Instrument Pedagogy (Seminar 1 and Seminar 2)</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>9</td>
</tr>
<tr>
<td>D.M.A. document or lecture-recital</td>
<td>3</td>
</tr>
</tbody>
</table>
also may be invited to attend as a voting member of the committee.

A member of the committee on graduate studies in music will hear the audition. The audition is heard by a committee of the Graduate Faculty of the major division. A prescreening CD/DVD is required for voice and piano applicants. View School of Music audition requirements and procedures (http://music.ku.edu/prospective/auditions.shtml).

Graduate Admission to the School of Music

Application procedures and program requirements can change. Please visit the school’s website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements.

Programs of study leading to the Master of Music (M.M.), Master of Music Education (M.M.E.), Doctor of Musical Arts (D.M.A.), and Doctor of Philosophy (Ph.D.) are offered through the School of Music. Specific admission procedures and degree requirements for the M.M. and M.M.E. programs are described under division headings. Specific admission procedures and degree requirements for the D.M.A., Ph.D. (musicology/music theory), and Ph.D. (music education/music therapy) are listed in the appropriate sections.

Program Areas

Graduate study in the School of Music is organized into program areas within 2 units:

- Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.
- Music Education and Music Therapy includes programs in music education or music therapy.

At least a 3.0 grade-point average, overall and in the major area, is required for all course work counted toward any graduate degree in the School of Music. If the overall grade-point average falls below 3.0, the student is placed on probation for one semester; if the cumulative average is not 3.0 or higher after the next semester, the student is dismissed from the program. Students must also achieve at least a grade of B in thesis, lecture-recital, document or dissertation, and on each recital for satisfactory completion of degree requirements.

Diagnostic Examinations

All entering graduate students (except music education, music therapy, and opera performance majors) must take written diagnostic examinations in musicology and music theory. These are given in the week before the start of classes to determine whether any need exists for remedial work, so that an appropriate academic program can be designed for each student. Students who show the need for remedial work must complete certain course work or must show mastery of the material by examination. Graduate students entering programs in piano must take additional tests in piano literature given before the start of classes. A student is exempt...
if he or she received a bachelor’s or master’s degree in music from the University of Kansas within the previous 4 years.

**D.M.A. Degree Requirements**

**Research Skills**

Every doctoral student is required to have training in responsible scholarship pertinent to the field of research. Every doctoral student is required to obtain research skills pertinent to the doctoral level of research in their field(s).

To meet both components, D.M.A. students in performance or composition and Ph.D. students in Musicology or Music Theory must complete MUSC 801 Music Bibliography and Research (or its equivalent) and, if available, participate in advanced performance seminars.

**Advisory Committee**

Each graduate student selects a faculty advisory committee, in consultation with the major advisor, subject to the consent of the faculty members involved, and approved by the associate dean. This usually occurs during the second semester of full-time enrollment. The committee consists of 5 faculty members: at least 2 faculty members from the major division, 1 from musicology or music theory (at least 1 from musicology for D.M.A. composition), and 1 from outside the School of Music. This committee participates with the major music division faculty in evaluating required recitals and administers the comprehensive and final oral examinations.

**Recitals**

All students in performance and in choral, orchestral, and instrumental conducting must perform a total of 3 recitals. This number does not include the D.M.A. lecture-recital if the student selects a lecture-recital as a final project. Each recital program should be approved by the faculty in the major area before the recital is performed. Church Music with Choral Conducting Emphasis must present 2 choral recitals and 1 organ or voice recital. Church Music with Organ emphasis must present 2 organ recitals and 1 choral recital.

**Note:** In addition to this requirement, the student is required to present a lecture-recital.

For the first 2 required recitals in the D.M.A. program in performance and conducting, a recital preview is left to the discretion of the faculty members of each division. In divisions with no preview requirement, the option to have a preview is still available to students and faculty members. Divisions must approve the recital content well in advance but no less than 3 weeks before the recital date. Normally, there is no recital preview for the final recital.

All recitals and public appearances required for the D.M.A. are graded by the student’s advisory committee and the faculty of the major division. The student must achieve at least a grade of B on each recital for satisfactory completion of degree requirements.

**Musicology and Oral Comprehensive Examinations**

Students must take written examinations in musicology when most of the course work has been completed and the research skills/responsible scholarship requirements have been fulfilled. All diagnostic deficiencies must be satisfied before taking the written comprehensive exams. Some major divisions also may require a written examination in the major area. After successful completion of the written examinations, the student is eligible to schedule the oral comprehensive examination administered by the student’s graduate advisory committee. Majors in performance and conducting must have presented 1 or 2 of the 3 required recitals before taking the examinations.

**Document or Lecture-Recital**

No later than the end of the semester after successful completion of the comprehensive examination, candidates in performance, conducting, and composition must submit to the graduate advisory committee a prospectus for a D.M.A. document or D.M.A. lecture-recital. The prospectus for a document or lecture-recital should include a preliminary bibliography and an outline of the content. The D.M.A. document is a scholarly paper roughly equivalent in scope to a master’s thesis. The lecture-recital is a public presentation based on a paper written in scholarly form.

Upon satisfactory completion of all other degree requirements, candidates must schedule a final oral examination. For students in performance and conducting, the examination covers the third recital and the research reported in the document or lecture-recital. The student must receive a final grade of B on the document or lecture-recital for satisfactory completion of degree requirements. A CD or DVD of the final lecture-recital must be submitted to the Graduate Division of the School of Music.

**Examinations**

At least 3 months must elapse between the successful completion of the comprehensive oral examination and the date of the final oral examination for candidates for the D.M.A. degree.

**Church Music (Choral Conducting Emphasis) Program**

<table>
<thead>
<tr>
<th>Master’s degree in performance</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced choral conducting</td>
<td>12</td>
</tr>
<tr>
<td>Instrumental conducting</td>
<td>4</td>
</tr>
<tr>
<td>Advanced courses in church music</td>
<td>12</td>
</tr>
<tr>
<td>Recitals (2 choral recitals, 1 organ or voice recital)</td>
<td>0</td>
</tr>
<tr>
<td>Musicology and music theory</td>
<td>9</td>
</tr>
<tr>
<td>MUSC 801 Music Bibliography and Research</td>
<td>3</td>
</tr>
<tr>
<td>Secondary applied area (organ or voice)</td>
<td>6</td>
</tr>
<tr>
<td>Advanced courses in secondary applied area (organ or voice)</td>
<td>6</td>
</tr>
<tr>
<td>D.M.A. document or lecture-recital</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>5</td>
</tr>
<tr>
<td>Oral comprehensive examination</td>
<td>0</td>
</tr>
<tr>
<td>Final examination</td>
<td>0</td>
</tr>
</tbody>
</table>

- D.M.A. church music majors (choral conducting emphasis) who have not studied voice for a minimum of 2 semesters before entering this program must enroll in voice for 2 semesters.
- Students also must be enrolled in a choral ensemble for a minimum of 2 semesters.

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for this degree program.
Church Music (Organ Emphasis) Program

Master’s degree in performance 30
ORGN 961 Directed Performance 21
Advanced courses in organ 6
Advanced courses in church music 12
Musicology and music theory 9
MUSC 801 Music Bibliography and Research 3
Recitals (2 organ recitals, 1 choral recital) 0
Secondary applied area (choral conducting) 6
Bales Chorale (4 semesters) 0
Foreign language - 2 foreign languages required. (Students whose native language is not English may count English as a foreign language.)
D.M.A. document or lecture-recital 3
Oral comprehensive examination 0
Final examination 0

- Students must take 2 semesters of Service Playing and Improv (6), if not previously taken.
- Organ academic course work includes any of the following: ORGN 800-ORGN 807, ORGN 921.

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for this degree program.

Doctor of Musical Arts in Music Performance: Piano

Doctor of Musical Arts

The degree of Doctor of Musical Arts is a recognition of high professional attainment. Since only exceptionally well-qualified candidates are admitted to the program, doctoral studies are devoted primarily to developing professional qualifications for teaching at the college level. The degree of Doctor of Musical Arts is offered in

- Church music (organ or choral conducting emphasis),
- Composition,
- Conducting (band, choral, or orchestral), and
- Areas of performance.

D.M.A. Admission

The applicant is expected to have a master’s degree, or its demonstrated equivalent, in the proposed field. In addition to official transcripts and letters of recommendation, all applicants should submit résumés of their training and experience in teaching and performing.

For general information on academic requirements, residence, tenure, and enrollment, see the Graduate Studies (p. 2059) section of the online catalog. Further admission requirements are listed below.

Performance

The applicant must be prepared to perform the equivalent of a full master’s recital as deemed appropriate by the major performance division. The audition is heard by a committee of the Graduate Faculty of the major division. A member of the committee on graduate studies in music also may be invited to attend as a voting member of the committee.

Approval by a majority of the committee is required for acceptance into the program. The applicant should consult the major performance division for specific memory and repertoire requirements. The applicant also should submit a comprehensive repertoire list indicating work studied, memorized, performed in public, or ready for immediate performance. In the case of international students, acceptance may be achieved by submitting an audiotape to be reviewed by the Graduate Faculty in the major division. A prescreening CD/DVD is required for voice and piano applicants. View School of Music audition requirements and procedures (http://music.ku.edu/prospective/auditions.shtml).

Graduate Admission to the School of Music

Application procedures and program requirements can change. Please visit the school’s website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or
from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements.

Programs of study leading to the Master of Music (M.M.), Master of Music Education (M.M.E.), Doctor of Musical Arts (D.M.A.), and Doctor of Philosophy (Ph.D.) are offered through the School of Music. Specific admission procedures and degree requirements for the M.M. and M.M.E. programs are described under division headings. Specific admission procedures and degree requirements for the D.M.A., Ph.D. (musicology/music theory), and Ph.D. (music education/music therapy) are listed in the appropriate sections.

**Program Areas**

Graduate study in the School of Music is organized into program areas within 2 units:

- Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.
- Music Education and Music Therapy includes programs in music education or music therapy.

At least a 3.0 grade-point average, overall and in the major area, is required for all course work counted toward any graduate degree in the School of Music. If the overall grade-point average falls below 3.0, the student is placed on probation for one semester; if the cumulative average is not 3.0 or higher after the next semester, the student is dismissed from the program. Students must also achieve at least a grade of B in thesis, lecture-recital, document or dissertation, and on each recital for satisfactory completion of degree requirements.

**Diagnostic Examinations**

All entering graduate students (except music education, music therapy, and opera performance majors) must take written diagnostic examinations in musicology and music theory. These are given in the week before the start of classes to determine whether any need exists for remedial work, so that an appropriate academic program can be designed for each student. Students who show the need for remedial work must complete certain course work or must show mastery of the material by examination. Graduate students entering programs in piano must take additional tests in piano literature given before the start of classes. A student is exempt if he or she received a bachelor’s or master’s degree in music from the University of Kansas within the previous 4 years.

**D.M.A. Degree Requirements**

**Research Skills**

Every doctoral student is required to have training in responsible scholarship pertinent to the field of research. Every doctoral student is required to obtain research skills pertinent to the doctoral level of research in their field(s).

To meet both components, D.M.A. students in performance or composition and Ph.D. students in Musicology or Music Theory must complete MUSC 801 Music Bibliography and Research (or its equivalent) and, if available, participate in advanced performance seminars.

**Advisory Committee**

Each graduate student selects a faculty advisory committee, in consultation with the major advisor, subject to the consent of the faculty members involved, and approved by the associate dean. This usually occurs during the second semester of full-time enrollment. The committee consists of 5 faculty members: at least 2 faculty members from the major division, 1 from musicology or music theory (at least 1 from musicology for D.M.A. composition), and 1 from outside the School of Music. This committee participates with the major music division faculty in evaluating required recitals and administers the comprehensive and final oral examinations.

**Recitals**

All students in performance and in choral, orchestral, and instrumental conducting must perform a total of 3 recitals. This number does not include the D.M.A. lecture-recital if the student selects a lecture-recital as a final project. Each recital program should be approved by the faculty in the major area before the recital is performed.

**Note:** In addition to this requirement, the student is required to present a lecture-recital.

For the first 2 required recitals in the D.M.A. program in performance and conducting, a recital preview is left to the discretion of the faculty members of each division. In divisions with no preview requirement, the option to have a preview is still available to students and faculty members. Divisions must approve the recital content well in advance but no less than 3 weeks before the recital date. The first two of the required piano recitals may be a full solo recital, concerto performance, chamber music program, or a second lecture-recital. The third and final of the three required recitals must be a full solo recital.

All recitals and public appearances required for the D.M.A. are graded by the student’s advisory committee and the faculty of the major division. The student must achieve at least a grade of B on each recital for satisfactory completion of degree requirements.

**Musicology and Oral Comprehensive Examinations**

Students must take written examinations in musicology when most of the course work has been completed and the research skills/responsible scholarship requirements have been fulfilled. All diagnostic deficiencies must be satisfied before taking the written comprehensive exams. Some major divisions also may require a written examination in the major area. After successful completion of the written examinations, the student is eligible to schedule the oral comprehensive examination administered by the student’s graduate advisory committee.

**Document or Lecture-Recital**

No later than the end of the semester after successful completion of the comprehensive examination, candidates in performance, conducting, and composition must submit to the graduate advisory committee a prospectus for a D.M.A. document or D.M.A. lecture-recital. The prospectus for a document or lecture-recital should include a preliminary bibliography and an outline of the content. The D.M.A. document is a scholarly paper roughly equivalent in scope to a master’s thesis. The lecture-recital is a public presentation based on a paper written in scholarly form.

Upon satisfactory completion of all other degree requirements, candidates must schedule a final oral examination. For students in performance and conducting, the examination covers the third recital and the research reported in the document or lecture-recital. The student must receive at least a grade of B on the document, lecture-recital, or composition for satisfactory completion of degree requirements. A CD or DVD of the final
Examinations
At least 3 months must elapse between the successful completion of the comprehensive oral examination and the date of the final oral examination for candidates for the D.M.A. degree.

Piano Performance, Literature, and Pedagogy Program

Master’s degree in performance 30
Applied music 20
Seminars in piano 9
Recitals 7
PIAN 840 Advanced Piano Pedagogy I: Group and Class Instruction (graduate teaching assistants only) 3
MUSC 801 Music Bibliography and Research 3
Advanced courses in musicology and music theory 9-12
D.M.A. document or lecture-recital 3
Minor concentration (pedagogy or accompanying) 1 6
Electives 0-3

1 All teaching assistants must enroll in 1 semester of PIAN 840 for 3 credit hours.

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for this degree program.

Doctor of Musical Arts in Music Performance: Strings

Doctor of Musical Arts
The degree of Doctor of Musical Arts is a recognition of high professional attainment. Since only exceptionally well-qualified candidates are admitted to the program, doctoral studies are devoted primarily to developing professional qualifications for teaching at the college level. The degree of Doctor of Musical Arts is offered in:

- Church music (organ or choral conducting emphasis),
- Composition,
- Conducting (band, choral, or orchestral), and
- Areas of performance.

D.M.A. Admission
The applicant is expected to have a master’s degree, or its demonstrated equivalent, in the proposed field. In addition to official transcripts and letters of recommendation, all applicants should submit résumés of their training and experience in teaching and performing.

For general information on academic requirements, residence, tenure, and enrollment, see the Graduate Studies (p. 2059) section of the online catalog. Further admission requirements are listed below.

Performance
The applicant must be prepared to perform the equivalent of a full master’s recital as deemed appropriate by the major performance division. The audition is heard by a committee of the Graduate Faculty of the major division. A member of the committee on graduate studies in music also may be invited to attend as a voting member of the committee. Approval by a majority of the committee is required for acceptance into the program. The applicant should consult the major performance division for specific memory and repertoire requirements. The applicant should submit a comprehensive repertoire list indicating work studied, memorized, performed in public, or ready for immediate performance. In the case of international students, acceptance may be achieved by submitting an audiotape to be reviewed by the Graduate Faculty in the major division. A prescreening CD/DVD is required for voice and piano applicants. View School of Music audition requirements and procedures (http://music.ku.edu/prospective/auditions.shtml).

Graduate Admission to the School of Music
Application procedures and program requirements can change. Please visit the school’s website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements.

Programs of study leading to the Master of Music (M.M.), Master of Music Education (M.M.E.), Doctor of Musical Arts (D.M.A.), and Doctor of Philosophy (Ph.D.) are offered through the School of Music. Specific admission procedures and degree requirements for the M.M. and M.M.E. programs are described under division headings. Specific admission procedures and degree requirements for the D.M.A., Ph.D. (musicology/music theory), and Ph.D. (music education/music therapy) are listed in the appropriate sections.

Program Areas
Graduate study in the School of Music is organized into program areas within 2 units:

- Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.
- Music Education and Music Therapy includes programs in music education or music therapy.

At least a 3.0 grade-point average, overall and in the major area, is required for all course work counted toward any graduate degree in the School of Music. If the overall grade-point average falls below 3.0, the student is placed on probation for one semester; if the cumulative average is not 3.0 or higher after the next semester, the student is dismissed from the program. Students must also achieve at least a grade of B in thesis, lecture-recital, document or dissertation, and on each recital for satisfactory completion of degree requirements.

Diagnostic Examinations
All entering graduate students (except music education, music therapy, and opera performance majors) must take written diagnostic examinations.
in musicology and music theory. These are given in the week before the start of classes to determine whether any need exists for remedial work, so that an appropriate academic program can be designed for each student. Students who show the need for remedial work must complete certain course work or must show mastery of the material by examination. Graduate students entering programs in piano must take additional tests in piano literature given before the start of classes. A student is exempt if he or she received a bachelor’s or master’s degree in music from the University of Kansas within the previous 4 years.

D.M.A. Degree Requirements

Research Skills

Every doctoral student is required to have training in responsible scholarship pertinent to the field of research. Every doctoral student is required to obtain research skills pertinent to the doctoral level of research in their field(s).

To meet both components, D.M.A. students in performance or composition and Ph.D. students in Musicology or Music Theory must complete MUSC 801 Music Bibliography and Research (or its equivalent) and, if available, participate in advanced performance seminars.

Advisory Committee

Each graduate student selects a faculty advisory committee, in consultation with the major advisor, subject to the consent of the faculty members involved, and approved by the associate dean. This usually occurs during the second semester of full-time enrollment. The committee consists of 5 faculty members: at least 2 faculty members from the major division, 1 from musicology or music theory (at least 1 from musicology for D.M.A. composition), and 1 from outside the School of Music. This committee participates with the major music division faculty in evaluating required recitals and administers the comprehensive and final oral examinations.

Recitals

All students in performance and in choral, orchestral, and instrumental conducting must perform a total of 3 recitals. This number does not include the D.M.A. lecture-recital if the student selects a lecture-recital as a final project. Each recital program should be approved by the faculty in the major area before the recital is performed.

Note: In addition to this requirement, the student is required to present a lecture-recital.

For the first 2 required recitals in the D.M.A. program in performance and conducting, a recital preview is left to the discretion of the faculty members of each division. In divisions with no preview requirement, the option to have a preview is still available to students and faculty members. Divisions must approve the recital content well in advance but no less than 3 weeks before the recital date. Normally, there is no recital preview for the final recital.

One of the three recitals must be a full solo recital. The other two may be a full solo recital, concerto performance, chamber music program, or a second lecture-recital.

All recitals and public appearances required for the D.M.A. are graded by the student’s advisory committee and the faculty of the major division. The student must achieve at least a grade of B on each recital for satisfactory completion of degree requirements.

Musicology and Oral Comprehensive Examinations

Students must take written examinations in musicology when most of the course work has been completed and the research skills/ responsible scholarship requirements have been fulfilled. All diagnostic deficiencies must be satisfied before taking the written comprehensive exams. Some major divisions also may require a written examination in the major area. After successful completion of the written examinations, the student is eligible to schedule the oral comprehensive examination administered by the student’s graduate advisory committee.

Document or Lecture-Recital

No later than the end of the semester after successful completion of the comprehensive examination, candidates in performance, conducting, and composition must submit to the graduate advisory committee a prospectus for a D.M.A. document or D.M.A. lecture-recital. A candidate in composition must submit a prospectus for a large-scale composition. The prospectus for a document or lecture-recital should include a preliminary bibliography and an outline of the content. The D.M.A. document is a scholarly paper roughly equivalent in scope to a master’s thesis. The lecture-recital is a public presentation based on a paper written in scholarly form.

Upon satisfactory completion of all other degree requirements, candidates must schedule a final oral examination. For students in performance and conducting, the examination covers the third recital and the research reported in the document or lecture-recital. The student must receive at least a grade of B on the document, lecture-recital, or composition for satisfactory completion of degree requirements. A CD or DVD of the final lecture-recital must be submitted to the Graduate Division of the School of Music.

Examinations

At least 3 months must elapse between the successful completion of the comprehensive oral examination and the date of the final oral examination for candidates for the D.M.A. degree.

Strings Program

| Master’s degree in performance | 30 |
| Applied music | 20 |
| Seminars in strings | 9 |
| Recitals | 7 |
| MUSC 801 Music Bibliography and Research | 3 |
| Advanced courses in musicology and music theory | 12 |
| D.M.A. document or lecture-recital | 3 |
| Electives | 6 |
| Oral comprehensive examination | 0 |
| Final examination | 0 |

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for this degree program.
Doctor of Musical Arts is a recognition of high professional attainment. Since only exceptionally well-qualified candidates are admitted to the program, doctoral studies are devoted primarily to developing professional qualifications for teaching at the college level. The degree of Doctor of Musical Arts is offered in
- Church music (organ or choral conducting emphasis),
- Composition,
- Conducting (band, choral, or orchestral), and
- Areas of performance.

D.M.A. Admission

The applicant is expected to have a master’s degree, or its demonstrated equivalent, in the proposed field. In addition to official transcripts and letters of recommendation, all applicants should submit résumés of their training and experience in teaching and performing.

For general information on academic requirements, residence, tenure, and enrollment, see the Graduate Studies (p. 2059) section of the online catalog. Further admission requirements are listed below.

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The applicant must be prepared to perform the equivalent of a full master’s recital as deemed appropriate by the major performance division. The audition is heard by a committee of the Graduate Faculty of the major division. A member of the committee on graduate studies in music also may be invited to attend as a voting member of the committee. Approval by a majority of the committee is required for acceptance into the program. The applicant should consult the major performance division for specific memory and repertoire requirements. The applicant also should submit a comprehensive repertoire list indicating work studied, memorized, performed in public, or ready for immediate performance. In the case of international students, acceptance may be achieved by passing an examination. Approval by a majority of the committee is required for acceptance into the program. The applicant should consult the major performance division.

At least a 3.0 grade-point average, overall and in the major area, is required for all course work counted toward any graduate degree in the School of Music. If the overall grade-point average falls below 3.0, the student is placed on probation for one semester; if the cumulative average is not 3.0 or higher after the next semester, the student is dismissed from the program. Students must also achieve at least a grade of B in their major division. A prescreening CD/DVD is required for voice and piano applicants. View School of Music audition requirements and procedures (http://music.ku.edu/prospective/auditions.shtml).

Students applying to the D.M.A. program in voice must have taken a minimum of 1 year each of French, German, and Italian, and courses in French, German, Italian, and English diction before entering the graduate program or before taking the comprehensive oral examination. Entering students who are deficient in a language or a particular area of diction must enroll in the specific course in which they are deficient and pass it with a grade of C or demonstrate proficiency by passing an examination.

Graduate Admission to the School of Music

Application procedures and program requirements can change. Please visit the school’s website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements.

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Program Areas

Graduate study in the School of Music is organized into program areas within 2 units:
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Diagnostic Examinations

All entering graduate students (except music education, music therapy, and opera performance majors) must take written diagnostic examinations in musicology and music theory. These are given in the week before the start of classes to determine whether any need exists for remedial work, so that an appropriate academic program can be designed for each student. Students who show the need for remedial work must complete certain course work or must show mastery of the material by examination. Graduate students entering programs in piano must take additional tests in piano literature given before the start of classes. A student is exempt if he or she received a bachelor’s or master’s degree in music from the University of Kansas within the previous 4 years.

D.M.A. Degree Requirements

Research Skills

Every doctoral student is required to have training in responsible scholarship pertinent to the field of research. Every doctoral student is required to obtain research skills pertinent to the doctoral level of research in their field(s).

To meet both components, D.M.A. students in performance or composition and Ph.D. students in Musicology or Music Theory must complete MUSC 801 Music Bibliography and Research (or its equivalent) and, if available, participate in advanced performance seminars.
Advisory Committee

Each graduate student selects a faculty advisory committee, in consultation with the major advisor, subject to the consent of the faculty members involved, and approved by the associate dean. This usually occurs during the second semester of full-time enrollment. The committee consists of 5 faculty members: at least 2 faculty members from the major division, 1 from musicology or music theory (at least 1 from musicology for D.M.A. composition), and 1 from outside the School of Music. This committee participates with the major music division faculty in evaluating required recitals and administers the comprehensive and final oral examinations.

Recitals

All students in performance and in choral, orchestral, and instrumental conducting must perform a total of 3 recitals. This number does not include the D.M.A. lecture-recital if the student selects a lecture-recital as a final project. Each recital program should be approved by the faculty in the major area before the recital is performed.

Note: In addition to this requirement, the student is required to present a lecture-recital.

For the first 2 required recitals in the D.M.A. program in performance and conducting, a recital preview is left to the discretion of the faculty members of each division. In divisions with no preview requirement, the option to have a preview is still available to students and faculty members. Divisions must approve the recital content well in advance but no less than 3 weeks before the recital date. Normally, there is no recital preview for the final recital.

One of the three required recitals must be a full solo recital. The other two may be an additional solo recital, major role in an opera, major role in an oratorio, full chamber music program, or second lecture-recital. The voice faculty may allow two significant supporting operatic roles to be considered the equivalent of a major role.

All recitals and public appearances required for the D.M.A. are graded by the student’s advisory committee and the faculty of the major division. The student must achieve at least a grade of B on each recital for satisfactory completion of degree requirements.

Musicology and Oral Comprehensive Examinations

Students must take written examinations in musicology when most of the course work has been completed and the research skills/responsible scholarship requirements have been fulfilled. All diagnostic deficiencies must be satisfied before taking the written comprehensive exams. Some major divisions also may require a written examination in the major area. After successful completion of the written examinations, the student is eligible to schedule the oral comprehensive examination administered by the student’s graduate advisory committee.

Document or Lecture-Recital

No later than the end of the semester after successful completion of the comprehensive examination, candidates in performance, conducting, and composition must submit to the graduate advisory committee a prospectus for a D.M.A. document or D.M.A. lecture-recital. The prospectus for a document or lecture-recital should include a preliminary bibliography and an outline of the content. The D.M.A. document is a scholarly paper roughly equivalent in scope to a master’s thesis.

The lecture-recital is a public presentation based on a paper written in scholarly form.

Upon satisfactory completion of all other degree requirements, candidates must schedule a final oral examination. For students in performance and conducting, the examination covers the third recital and the research reported in the document or lecture-recital.

The student must receive at least a grade of B on the document, lecture-recital, or composition for satisfactory completion of degree requirements. 2 unbound copies of the work must be submitted to the Graduate Division of the School of Music. A CD or DVD of the final lecture-recital must be submitted to the Graduate Division of the School of Music.

Language and Diction

Students in the D.M.A. program in voice must take or have taken a minimum of 1 year each of French, German, and Italian, and courses in English, French, Italian, and German diction before completing the D.M.A. program. If deficient in any language or diction coursework, as determined either through transcript evaluations or during the audition when selections from each language have been performed, the student must enroll in the specific course for that deficiency and pass with a grade of C or better. All deficiencies must be satisfied before the oral comprehensive exam can be scheduled.

Voice Program

<table>
<thead>
<tr>
<th>Category</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master’s degree in performance</td>
<td>30</td>
</tr>
<tr>
<td>Applied music</td>
<td>20</td>
</tr>
<tr>
<td>Seminars in voice</td>
<td>9</td>
</tr>
<tr>
<td>Recitals</td>
<td>7</td>
</tr>
<tr>
<td>MUSC 801 Music Bibliography and Research</td>
<td>3</td>
</tr>
<tr>
<td>Advanced courses in musicology and music theory</td>
<td>9-12</td>
</tr>
<tr>
<td>D.M.A. document or lecture-recital</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>7-10</td>
</tr>
<tr>
<td>Oral comprehensive examination</td>
<td>0</td>
</tr>
<tr>
<td>Final examination</td>
<td>0</td>
</tr>
</tbody>
</table>

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for this degree program.

Doctor of Musical Arts in Music Performance: Woodwinds

Doctor of Musical Arts

The degree of Doctor of Musical Arts is a recognition of high professional attainment. Since only exceptionally well-qualified candidates are admitted to the program, doctoral studies are devoted primarily to developing professional qualifications for teaching at the college level.

The degree of Doctor of Musical Arts is offered in

- Church music (organ or choral conducting emphasis),
- Composition,
- Conducting (band, choral, or orchestral), and
- Areas of performance.
D.M.A. Admission

The applicant is expected to have a master's degree, or its demonstrated equivalent, in the proposed field. In addition to official transcripts and letters of recommendation, all applicants should submit résumés of their training and experience in teaching and performing.

For general information on academic requirements, residence, tenure, and enrollment, see the Graduate Studies (p. 2059) section of the online catalog. Further admission requirements are listed below.

Performance

The applicant must be prepared to perform the equivalent of a full master's recital as deemed appropriate by the major performance division. The audition is heard by a committee of the Graduate Faculty of the major division. A member of the committee on graduate studies in music also may be invited to attend as a voting member of the committee.

Approval by a majority of the committee is required for acceptance into the program. The applicant should consult the major performance division for specific memory and repertoire requirements. The applicant also should submit a comprehensive repertoire list indicating work studied, memorized, performed in public, or ready for immediate performance.

In the case of international students, acceptance may be achieved by submitting an audiotaape to be reviewed by the Graduate Faculty in the major division. A prescreening CD/DVD is required for voice and piano applicants. View School of Music audition requirements and procedures (http://music.ku.edu/prospective/auditions.shtml).

Graduate Admission to the School of Music

Application procedures and program requirements can change. Please visit the school's website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor's degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor's degree requirements.

Programs of study leading to the Master of Music (M.M.), Master of Music Education (M.M.E.), Doctor of Musical Arts (D.M.A.), and Doctor of Philosophy (Ph.D.) are offered through the School of Music. Specific admission procedures and degree requirements for the M.M. and M.M.E. programs are described under division headings. Specific admission procedures and degree requirements for the D.M.A., Ph.D. (musicology/music theory), and Ph.D. (music education/music therapy) are listed in the appropriate sections.

Program Areas

Graduate study in the School of Music is organized into program areas within 2 units:

- Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.
- Music Education and Music Therapy includes programs in music education or music therapy.

At least a 3.0 grade-point average, overall and in the major area, is required for all course work counted toward any graduate degree in the School of Music. If the overall grade-point average falls below 3.0, the student is placed on probation for one semester; if the cumulative average is not 3.0 or higher after the next semester, the student is dismissed from the program. Students must also achieve at least a grade of B in thesis, lecture-recital, document or dissertation, and on each recital for satisfactory completion of degree requirements.

Diagnostic Examinations

All entering graduate students (except music education, music therapy, and opera performance majors) must take written diagnostic examinations in musicology and music theory. These are given in the week before the start of classes to determine whether any need exists for remedial work, so that an appropriate academic program can be designed for each student. Students who show the need for remedial work must complete certain course work or must show mastery of the material by examination. Graduate students entering programs in piano must take additional tests in piano literature given before the start of classes. A student is exempt if he or she received a bachelor's or master's degree in music from the University of Kansas within the previous 4 years.

D.M.A. Degree Requirements

Research Skills

Every doctoral student is required to have training in responsible scholarship pertinent to the field of research. Every doctoral student is required to obtain research skills pertinent to the doctoral level of research in their field(s).

To meet both components, D.M.A. students in performance or composition and Ph.D. students in Musicology or Music Theory must complete MUSC 801 Music Bibliography and Research (or its equivalent) and, if available, participate in advanced performance seminars.

Advisory Committee

Each graduate student selects a faculty advisory committee, in consultation with the major advisor, subject to the consent of the faculty members involved, and approved by the associate dean. This usually occurs during the second semester of full-time enrollment. The committee consists of 5 faculty members: at least 2 faculty members from the major division, 1 from musicology or music theory (at least 1 from musicology for D.M.A. composition), and 1 from outside the School of Music. This committee participates with the major music division faculty in evaluating required recitals and administers the comprehensive and final oral examinations.

Recitals

All students in performance and in choral, orchestral, and instrumental conducting must perform a total of 3 recitals. This number does not include the D.M.A. lecture-recital if the student selects a lecture-recital as a final project. Each recital program should be approved by the faculty in the major area before the recital is performed. 1 or 2 recitals may be presented before taking the comprehensive oral examination.

Note: In addition to this requirement, the student is required to present a lecture-recital.

One of the three required recitals must be a full solo recital. The other two may be a full solo recital, concerto performance, chamber music program, or a second lecture-recital.
All recitals and public appearances required for the D.M.A. are graded by the student’s advisory committee and the faculty of the major division. The student must achieve at least a grade of B on each recital for satisfactory completion of degree requirements.

**Musicology and Oral Comprehensive Examinations**

Students must take written examinations in musicology when most of the course work has been completed and the research skills/responsible scholarship requirements have been fulfilled. All diagnostic deficiencies must be satisfied before taking the written comprehensive exams. Some major divisions also may require a written examination in the major area. After successful completion of the written examinations, the student is eligible to schedule the oral comprehensive examination administered by the student’s graduate advisory committee.

**Document or Lecture-Recital**

No later than the end of the semester after successful completion of the comprehensive examination, candidates in performance, conducting, and composition must submit to the graduate advisory committee a prospectus for a D.M.A. document or D.M.A. lecture-recital. The prospectus for a document or lecture-recital should include a preliminary bibliography and an outline of the content. The D.M.A. document is a scholarly paper roughly equivalent in scope to a master’s thesis. The lecture-recital is a public presentation based on a paper written in scholarly form.

Upon satisfactory completion of all other degree requirements, candidates must schedule a final oral examination. For students in performance and conducting, the examination covers the third recital and the research reported in the document or lecture-recital.

The student must receive at least a grade of B on the document, lecture-recital, or composition for satisfactory completion of degree requirements. A CD or DVD of the final lecture-recital must be submitted to the Graduate Division of the School of Music.

**Examinations**

At least 3 months must elapse between the successful completion of the comprehensive oral examination and the date of the final oral examination for candidates for the D.M.A. degree.

**Bassoon, Clarinet, Flute, Oboe, and Saxophone Program**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master’s degree in performance</td>
<td>30</td>
</tr>
<tr>
<td>Applied music</td>
<td>20</td>
</tr>
<tr>
<td>Seminars in bassoon, clarinet, flute, oboe, or saxophone</td>
<td>6</td>
</tr>
<tr>
<td>Recitals</td>
<td>7</td>
</tr>
<tr>
<td>W&amp;P 702 Special Studies in Woodwind Instrument Pedagogy</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 801 Music Bibliography and Research</td>
<td>3</td>
</tr>
<tr>
<td>Advanced courses in musicology and music theory</td>
<td>12</td>
</tr>
<tr>
<td>D.M.A. document or lecture-recital</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>6</td>
</tr>
<tr>
<td>Oral comprehensive examination</td>
<td>0</td>
</tr>
<tr>
<td>Final examination</td>
<td>0</td>
</tr>
</tbody>
</table>

View a check sheet (http://music.ku.edu/resources/checksheets.shtml) for this degree program.

**Doctor of Philosophy**

View requirements for:
- Doctor of Philosophy in Music (p. 1948)
- Doctor of Philosophy in Music Education (p. 1949)

**Doctor of Philosophy in Music**

**Ph.D. in Music**

The Ph.D. in Music is offered with an emphasis in musicology or music theory.

**Ph.D. in Music Admission**

The Doctor of Philosophy degree in music is offered in musicology and music theory. The applicant is expected to hold a Master of Music degree with emphasis in musicology or music theory from KU or an equivalent master’s degree from another accredited institution. In addition to the required transcripts, Graduate Record Examination scores, and letters of recommendation, the applicant for admission to the Ph.D. program should submit a summary of professional training and experience and samples of original scholarly writing.

**Graduate Admission to the School of Music**

Application procedures and program requirements can change. Please visit the school’s website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements.

Programs of study leading to the Master of Music (M.M.), Master of Music Education (M.M.E.), Doctor of Musical Arts (D.M.A.), and Doctor of Philosophy (Ph.D.) are offered through the School of Music. Specific admission procedures and degree requirements for the M.M. and M.M.E. programs are described under division headings. Specific admission procedures and degree requirements for the D.M.A., Ph.D. (musicology/music theory), and Ph.D. (music education/music therapy) are listed in the appropriate sections.

**Program Areas**

Graduate study in the School of Music is organized into program areas within 2 units:
- Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.
- Music Education and Music Therapy includes programs in music education or music therapy.

At least a 3.0 grade-point average, overall and in the major area, is required for all course work counted toward any graduate degree in the
School of Music. If the overall grade-point average falls below 3.0, the
tudent is placed on probation for one semester; if the cumulative average
is not 3.0 or higher after the next semester, the student is dismissed
from the program. Students must also achieve at least a grade of B in
thesis, lecture-recital, document or dissertation, and on each recital for
satisfactory completion of degree requirements.

Diagnostic Examinations

All entering graduate students (except music education, music therapy,
and opera performance majors) must take written diagnostic examinations
in musicology and music theory. These are given in the week before
the start of classes to determine whether any need exists for remedial
work, so that an appropriate academic program can be designed for each
student. Students who show the need for remedial work must complete
certain course work or must show mastery of the material by examination.
Graduate students entering programs in piano must take additional tests
in piano literature given before the start of classes. A student is exempt
if he or she received a bachelor’s or master’s degree in music from the
University of Kansas within the previous 4 years.

Doctor of Philosophy in Music Degree
Requirements

Foreign Language Requirements

Aspirants to the Ph.D. degree in music theory and musicology are
expected to demonstrate reading knowledge of German and a Romance
language chosen from French, Italian, Portuguese, or Spanish.
Reading proficiency must be demonstrated before scheduling the oral
comprehensive examination. The student also may be advised to develop
reading proficiency in another language or languages in order to pursue
research for the dissertation.

Course of Study

Specific course work for each student is arranged individually in
consultation with the student’s advisor. The Ph.D. program normally
requires 4 years of full-time study beyond the master’s degree, with
the first 2 years devoted to course work. A minimum of 18 credit hours is
devoted to the dissertation, an original contribution to knowledge in the
student’s research area.

Students in musicology must complete at least 2 semesters of MUSC 654
or MUSC 656 Collegium Musicum, and 2 semesters of MUSC 940
Seminar on Selected Topics in Musicology. In addition, students must
complete at least 3 more 3-credit-hour courses in advanced musicology
and at least 3 more 3-credit-hour courses in advanced music theory.

Although the Ph.D. program does not include a minor area, students are
encouraged to continue their study of performance and/or composition,
and may be advised to take nonmusic courses that are directly applicable
to their fields of research for the dissertation.

For general information on academic requirements, residence, tenure,
and enrollment, see the Graduate Studies (p. 2059) section of the online
catalog.

Research Skills and Responsible Scholarship

All doctoral students entering after fall 2011 must meet the Research
Skills and Responsible Scholarship requirement before proceeding to
comprehensive exams. This requirement includes at least 2 components

• Every doctoral student is required to have training in responsible
  scholarship pertinent to the field of research.
• Every doctoral student is required to obtain research skills pertinent to
  the doctoral level of research in their field(s).

To meet both components, D.M.A. students in performance or
composition and Ph.D. students in Musicology or Music Theory must
complete MUSC 801 Music Bibliography and Research (or its equivalent)
and, if available, participate in advanced performance seminars.

Scholarly Presentation

Each candidate for the Ph.D. degree in musicology and music theory
must make a public presentation of no less than 20 minutes on a scholarly
topic. This requirement may be fulfilled by reading a paper at a national or
regional meeting of a society in the student’s discipline or in a colloquium
at KU.

Music Theory, Musicology, and Oral
Comprehensive Examinations

Students must take written examinations in music theory and musicology
when most of the course work has been completed and research skills/
responsible scholarship requirements have been fulfilled. Some major
divisions also may require a written examination in the major area. Upon
successful completion of all written examinations, the student is eligible
to schedule the oral comprehensive examination administered by the
graduate advisory committee. With the satisfactory completion of both
written and oral comprehensive examinations the aspirant is admitted
to candidacy for the degree of Doctor of Philosophy in music. Students
who entered the program before spring 2008 may elect to complete 2
comprehensive papers in music theory in lieu of taking the doctoral written
examination in music theory.

Dissertation Proposal

No later than the end of the semester after successful completion of the
comprehensive examinations, the candidate, in consultation with the
faculty dissertation committee, must submit a dissertation proposal of
several pages with a preliminary bibliography, outline, and description of
the project and research plan.

Final Oral Examination

Following completion of the dissertation, a final oral examination is
scheduled in which the candidate presents and defends the results
of dissertation research and is expected to respond to questions from the
faculty committee. A grade of at least B must be achieved on the
dissertation for satisfactory completion of the degree requirements.

Doctor of Philosophy in Music
Education

Ph.D. in Music Education

The Doctor of Philosophy with an emphasis in either music education or
music therapy focuses on research and scholarship. It is often sought by
those who aspire to careers in research and graduate-level teaching. The
requirements help the student develop broad and profound understanding
of musical behavior, sophisticated skill and extensive experience in
pursuing new knowledge of such behavior, and a rational system for
evaluating the relationships between the specialty and other areas of
human understanding. The program culminates with completion of a substantial piece of original research.

Detailed information about admission processes in Music Education and Music Therapy can be found online (http://music.ku.edu/programs/memt).

**Ph.D. in Music Education Admission**

**Requirements for Regular Admission**

1. Master's grade point average of at least 3.5 on a 4.0 scale.
2. Appropriate baccalaureate and master's degrees to support the individual’s goals for doctoral study.
3. Scores on the three basic aptitude subtests (verbal, quantitative, and analytical writing) of the Graduate Record Examination.
4. 3 letters of recommendation estimating the applicant's potential for success in doctoral study.
5. Documentation of at least 18 months successful full time experience, or its equivalent, as a professional music educator if seeking an emphasis in music education, or at least 5 years successful full-time experience as a professional music therapist, or its equivalent, if seeking an emphasis in music therapy.
6. Submission of a DVD recording appropriate to the degree emphasis.
7. A reasoned statement of professional goals and research interests.
8. An interview with the appropriate faculty for area of emphasis.
9. Other supporting materials may be required.
10. Passing score on the music education and music therapy division diagnostic examination to be taken at the end of the first semester.

For detailed admission information see the MEMT Graduate Application Procedure (http://music.ku.edu/programs/memt/prospective/graduate/admissions.shtml) document.

**Graduate Admission to the School of Music**

Application procedures and program requirements can change. Please visit the school’s website (http://music.ku.edu) for current information.

Graduate programs in the School of Music are open to students with acceptable baccalaureate degrees, as specified by the admitting areas, whose academic records indicate that they can do successful work at the graduate level. Regular admission requires a bachelor’s degree and a grade-point average of at least a B (3.0 on a 4.0 scale), from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements.

Programs of study leading to the Master of Music (M.M.), Master of Music Education (M.M.E.), Doctor of Musical Arts (D.M.A.), and Doctor of Philosophy (Ph.D.) are offered through the School of Music. Specific admission procedures and degree requirements for the M.M. and M.M.E. programs are described under division headings. Specific admission procedures and degree requirements for the D.M.A., Ph.D. (musicology/music theory), and Ph.D. (music education/music therapy) are listed in the appropriate sections.

**Program Areas**

Graduate study in the School of Music is organized into program areas within 2 units:

- Music includes programs in composition, conducting, musicology, music theory, and most areas of performance.
- Music Education and Music Therapy includes programs in music education or music therapy.

At least a 3.0 grade-point average, overall and in the major area, is required for all course work counted toward any graduate degree in the School of Music. If the overall grade-point average falls below 3.0, the student is placed on probation for one semester; if the cumulative average is not 3.0 or higher after the next semester, the student is dismissed from the program. Students must also achieve at least a grade of B in thesis, lecture-recital, document or dissertation, and on each recital for satisfactory completion of degree requirements.

**Diagnostic Examinations**

All entering graduate students (except music education, music therapy, and opera performance majors) must take written diagnostic examinations in musicology and music theory. These are given in the week before the start of classes to determine whether any need exists for remedial work, so that an appropriate academic program can be designed for each student. Students who show the need for remedial work must complete certain course work or must show mastery of the material by examination. Graduate students entering programs in piano must take additional tests in piano literature given before the start of classes. A student is exempt if he or she received a bachelor’s or master’s degree in music from the University of Kansas within the previous 4 years.

**Ph.D. in Music Education Degree Requirements**

**Research Skills**

Doctoral students in music education and music therapy at KU must demonstrate research skills by completing 3 research projects suitable for publication. These may be developed and completed independently or in consultation with appropriate doctoral faculty members. There must be a project of each of the following types: descriptive, experimental, and historical (including the history and logic of ideas). The descriptive and experimental research articles should be presented in APA style. The historical research article may be presented in Turabian, MLA, or APA style.

Each completed project is reviewed by the student’s doctoral committee, which rules in the majority whether the project is of sufficient quality for publication in a national, refereed research journal in music education or music therapy. Single-author studies that have been published or accepted for publication in such journals may be used to demonstrate these skills.

Completion of each of the 3 research projects must be certified by the student's mentor/advisor in music education or music therapy on the MEMT Doctoral Check list in the student’s file in the MEMT office. The mentor/advisor must submit an appropriate MEMT Do-All form after the completion of each project.

Responsible scholarship requirements are met by satisfactory completion of courses MEMT 812 Research in Music Education and Music Therapy and MEMT 920 Doctoral Seminar in Music Education and Music Therapy.
Preliminary and Comprehensive Examinations

The student must pass a series of examinations, culminating with the comprehensive oral examination.

The music education/music therapy Ph.D. handbook (http://music.ku.edu/programs/memt), available in the MEMT office, includes information about patterns of course work, the Ph.D. minor, examinations, and the dissertation.

Plan of Study

Course requirements for the doctoral degree are flexible. The Ph.D. program requires a minor. Each student’s program is planned specifically in light of his or her background and to meet the needs of the anticipated academic and professional career. However, each student is expected to achieve a broad understanding of human musical behavior and to become skilled in research. Professional competence, not hours of credit per se, is the underlying requisite for conferring the degree.

The student works with her or his faculty advisor to complete a Program Plan. The advisor submits the completed program plan with the MEMT Do-All form.
Nursing

Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU (see your advisor (http://www.advising.ku.edu) for details). Other years’ catalogs (http://catalog.ku.edu/archive)

Bachelor of Science in Nursing (p. 1976)
Master of Science in Nursing (p. 1980)
Master of Science in Health Informatics (p. 1981)
Doctor of Philosophy in Nursing (p. 1983)
Doctor of Nursing Practice (p. 1984)
Post-Master's Certificate Programs in Nursing (p. 1986)

The School of Nursing

The School of Nursing is one of 3 schools at the University of Kansas Medical Center (http://www.kumc.edu) in Kansas City, Kansas. Academic programs at KU Medical Center are offered through the Schools of Health Professions, Medicine, and Nursing. The Office of Graduate Studies at KUMC handles matters related to graduate programs in Health Professions, Medicine, and Nursing.

The KU School of Nursing’s baccalaureate, master’s, and doctor of nursing practice (D.N.P.) programs are accredited by the Commission on Collegiate Nursing Education (http://www.aacn.nche.edu), One Dupont Circle, NW, Suite 530, Washington, DC 20036, (202) 887-6791. This organization is a nationally recognized professional accrediting body for collegiate nursing programs. The baccalaureate, master’s, and D.N.P. programs also are approved by the Kansas State Board of Nursing (http://www.ksbin.org). The Nurse Midwifery Program is accredited by the Accreditation Division of the American College of Nurse-Midwives (http://www.mmh.org), 818 Connecticut Ave., NW, Suite 900, Washington, DC 20006, (202) 728-9860. The Nurse Anesthesia program is accredited by the Council on Accreditation of Nurse Anesthesia Programs, 222 S. Capitol Circle, NW, Suite 530, Washington, DC 20006, (202) 728-9860. The Nurse Midwifery Program is accredited by the Accreditation Division of the American College of Nurse-Midwives (http://www.mmh.org), 818 Connecticut Ave., NW, Suite 900, Washington, DC 20006, (202) 728-9860. The Nurse Anesthesia program is accredited by the Council on Accreditation of Nurse Anesthesia Programs, 222 S. Prospect Avenue, Park Ridge, IL 60068-4001, 847-655-1160.

Undergraduate Programs

The Bachelor of Science in Nursing (BSN) program prepares baccalaureate generalist nurses for professional nursing practice. The American Association of Colleges of Nursing’s Essentials of Baccalaureate Education for Professional Nursing Practice provide the framework for this first step in professional nursing education (AACN. 2008). The roles of the baccalaureate generalist include: provider of care, designer/manager/coordinator of care, and member of a profession. Baccalaureate generalist education provides the foundation for all graduate nursing education.

High School Preparation

High school students planning to enter the baccalaureate program in nursing are encouraged to follow a general college preparatory course of study. Such a course usually emphasizes basic preparation in English, a foreign language, mathematics, natural science, and social sciences.

Graduate Programs

Basic admission requirements are listed in the Graduate Studies (p. 2059) section of the online catalog. Individual graduate programs may have additional specific requirements including prerequisite undergraduate courses. These are listed or referenced in program descriptions. Combined degree options are available.

The School of Nursing offers the following graduate degrees:

- Master of Science in Nursing (p. 1980)
- Doctor of Nursing Practice (p. 1984)
- Doctor of Philosophy (p. 1983)
- Post-Master’s Certificate Programs (p. 1986)

For online information about graduate programs, visit the school’s website (http://nursing.kumc.edu).

Undergraduate University Regulations

For information about university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://www.policy.ku.edu).

Academic Forgiveness

Academic forgiveness does not apply in the School of Nursing.

Change of School

To change from one school to another, you must submit a Change of School form in the dean’s office of the school you plan to enter. Follow the deadlines on the form.

Admission is competitive and occurs once each year for the traditional BSN program, in the fall semester. Applications are due by October 15 of the year before beginning classes.

Credit/No Credit

A Credit/No Credit option is available to all degree-seeking undergraduates. You may enroll in one course a semester under the option, if the course is not in your major or minor. For more information, visit the KU Policy Library (https://documents.ku.edu/policies/governance/USRR.htm#art2sect2).

Warning: Certain undesirable consequences may result from exercising the option. Some schools, scholarship committees, and honorary societies do not accept this grading system and convert grades of No Credit to F when computing grade-point averages.

Grading

Courses in which grades of D and F are earned do not count toward graduation.

Graduation with Distinction and Highest Distinction

Students who rank in the upper 10 percent of their graduating class may graduate with distinction. The upper third of those awarded distinction may graduate with highest distinction. The list is compiled each spring and includes July, December, and May graduates.

Honor Roll

Students with grade-point averages of 3.5 who have completed at least 12 hours are recognized on the honor roll or dean’s list in fall and spring. An Honor Roll notation appears on the transcript.
Honors Graduates

For students who complete the school's honors program, designation of honors appears on the transcript.

Independent Study Through KU Continuing Education

Students may complete up to 31 hours of Independent Study through KU Continuing Education, credit-by-examination, and/or extension courses.

Probation

Probation

Students whose grade-point averages fall below 2.0 for the semester are placed on probation. The associate dean of student affairs notifies the student by letter. It is the student's responsibility to seek a conference with the student affairs advisor. The student and the student affairs advisor assess the situation jointly and make appropriate recommendations.

Return to Good Standing

A student remains on probation until completion of the next term in which the student is enrolled full time. (Full-time enrollment is 12 hours or more; full-time summer session enrollment is 6 hours or more.) To be removed from probation, a part-time student must maintain a 2.0 grade-point average in the next 12 semester hours of enrollment. Only courses required for the nursing major (junior/senior course work) apply toward the required grade-point average for removal from probation. If the student attains a grade-point average higher than 2.0 in the probationary semester, the student is removed from probation. No student may graduate with a nursing grade-point average lower than 2.0 or an overall grade-point average lower than 2.0.

Dismissal

If the student does not attain a grade-point average higher than 2.0 in the probationary semester, the student is dismissed for academic reasons. One nursing course may be repeated one time only if necessary to earn the minimum grade of C or S. Failure to achieve a minimum grade of C or S in two nursing courses or one repeated nursing course results in the student's dismissal.

Repetition of Courses

For admission to the school, grades in all courses taken and retaken are included in the grade-point average. All grades are considered for calculation of honors and awards.

Transfer of Credit

CredTran (http://admissions.ku.edu/~admiss/credit/transfer) is a transfer course equivalency system that lists more than 2,200 colleges and universities from which KU has accepted transfer courses in the past. If your school or course is not listed, your evaluation will be completed when you are admitted to KU.

Only transfer grades of C or higher apply toward graduation at KU.

Graduate University Regulations

For information about university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://www政策.ku.edu).

Academic Forgiveness

Academic forgiveness does not apply in the School of Nursing.

Credit/No Credit

Graduate students may select the Credit/No Credit option for courses that do not fulfill a degree requirement, but this option may be limited in certain programs. Students should follow the policy outlined in the University Senate Rules and Regulations, Section 2, article 2.27, and contact the department or program for more information.

Center for Health Informatics Courses

IPHI 850. Introduction to Health Informatics. 2-3 Hours.

This course will provide an overview of health informatics focused on five themes: health informatics foundations; clinical decision support; human factors/organization factors; public health informatics and current issues in health informatics including best practices. Students enrolled for 3 credits will develop and demonstrate a practical, innovative small-group information technology (IT) project from one of a set of faculty recommended projects or from a student-proposed idea. Prerequisite: Consent of Instructor LEC.

IPHI 851. Transforming Health Care through Use of Information Systems and Technology. 3 Hours.

Includes 2 credit hour lecture and 1 credit hour practicum. The application of the information system development life cycle in the design, selection, and implementation of health information technology applications will be examined. Human computer interactions and emerging technologies will be explored for their impact on patient care and safety. The role of legal, regulatory, ethical and security issues will be discussed as they apply to clinical and consumer information technologies. PREREQUISITE(S): Consent of Instructor LEC.

IPHI 852. Health Data: Theory and Practice. 3-4 Hours.

Includes 2 credit hour lecture and 1-2 credit hour practicum. Principles of database theory, modeling, design and manipulation will be introduced. Students will have experience using a relational database management system. Database manipulation will be explored using structured query language (SQL) to compose and execute query statements and critically evaluate the results. Prerequisites: None. LEC.

IPHI 853. Abstraction and Modeling of Healthcare Information. 3 Hours.

Includes 2 credit hour lecture and 1 credit hour practicum. The information system development life cycle process is presented with emphasis on determination and analysis of information system requirements and system design that meet the identified health care information requirements. Object-oriented techniques will be introduced, including Unified Modeling Language and Unified Modeling Methodology, to facilitate process analysis and design proposal development. Prerequisites: NRSG 820 and consent of instructor. LEC.

IPHI 854. Knowledge Management in Healthcare. 3 Hours.

Includes 2 credit hour lecture and 1 credit hour practicum. Knowledge management is the creation, communication, and leveraging of a healthcare organization's knowledge assets. Defining knowledge, describing the knowledge creation cycle, and the identification of the knowledge worker and his/her impact on the organization are discussed. Information technology and communities of practice are presented in a balanced approach supporting a systematic viewpoint of the knowledge management process. Knowledge management theory is enhanced with the performance of a knowledge audit and the development of knowledge
management tools. Prerequisite: NRSG 820 and consent of instructor. LEC.

IPHI 856. Health Informatics Practicum. 1-3 Hours.
In collaboration with healthcare information faculty, preceptors, students design an experience to facilitate application of theories and research related to health care informatics. Emphasis is on the application of the information system development life cycle. Students analyze the leadership and technical behaviors of various informatics roles and negotiate an informatics project to be completed within the practicum.
Prerequisite: All Specialty Core, Leadership Core, IPHI 853, Abstraction and Modeling of Health Care Information, IPHI 852, Health Data: Theory Practice. Prerequisite or Co-requisite: IPHI 854, Knowledge Management in Healthcare, IPHI 851, Topics in Health Care Informatics, IPHI 860, Research Project in Nursing, or consent of instructor. LEC LEC.

IPHI 860. Research Project. 2 Hours.
Students will conduct a health informatics research project. A research report, designed artifact, or other appropriate deliverable will be developed. Prerequisite(s): A research course and two informatics core courses, or consent of instructor. The research project must meet research guidelines for the MS Informatics program. LEC.

Nursing (Graduate) Courses

NRSG 505. Caregiving: Creating Partnerships with Families. 2-3 Hours.
Health theory, research and nursing practice specific to the family as a system of health care delivery are discussed. Issues of patient and family autonomy, advocacy and alliances with health care professionals are explored in relation to professional values. Health and functioning of clients and family caregivers are assessed in their environment considering economic, social, and cultural factors. Students may elect a 1 credit clinical practicum to implement nursing care with caregiving families. LEC.

NRSG 506. Nursing Case Management of the Older Adult. 2-3 Hours.
Develops a systematic approach to the comprehensive functional assessment and care coordination of the frail elderly. A variety of standardized assessment instruments are used to determine clients’ ability to function within their environment. These assessment data are then used to formulate and evaluate a service care plan utilizing appropriate intervention strategies. Ethical, legal and political issues are integrated. Knowledge and skills necessary for nursing case management are emphasized. Senior Year, Level II courses or graduate level. LEC.

NRSG 507. Pain Management. 2 Hours.
Nursing process provides the framework to assess the clients system’s response to pain and to plan effective pain management strategies. Pain as a subjective experience comprised of physiologic, cognitive, affective, cultural, and behavioral components and the impact of this experience on the clients’ family system is discussed. Differences between acute, chronic acute, and chronic non-malignant pain across the health-illness continuum and the range of therapeutic interventions available for effective management are addressed. The importance of evaluating pain control and communicating the selected plan to all members of the collaborative team is stressed. Prerequisite: Senior status or graduate student. LEC.

NRSG 508. Violence: The Forensic Perspective. 2 Hours.
This course is designed as an in-depth exploration of the seriousness and pervasiveness of interpersonal violence (IPV) in our society and the impact violence has on health care. Assessment techniques to identify victims of interpersonal violence and intervention strategies are described. The forensic principles and standards of clinical practice and the role of health care providers in the new field are integrated throughout the course via case studies and lectures. Prerequisite: Senior status, RN licensure, or consent of instructor. LEC.

NRSG 509. Therapeutic Touch: The Krieger-Kunz Method. 2 Hours.
The Krieger-Kunz Therapeutic Touch (TT) method is examined as a consciously directed process of energy exchange during which the practitioner uses the hands as a focus for facilitating healing in the client system. Students are given the opportunity to learn beginning levels of centering, assessment of the human energy field, rebalancing for symmetrical and rhythmical energy flow, and process evaluation. Supervised practice sessions are included to ensure that student performance is within professional practice guidelines established for health professionals. Prerequisite: Senior status, RN licensure. Graduate Level, or consent of instructor. LEC.

NRSG 510. Health Care at the End of Life. 2 Hours.
Complex issues that influence care for clients and their family systems at the time of and surrounding death provide the focus for this course. Contemporary attitudes surrounding death and dying as well as ethical, legal, cultural, social, and financial issues are examined. The needs of individuals and families surrounding death such as pain and symptom management, psycho-spiritual care, and bereavement are discussed in relation to contemporary causes of death. Collaborative role development with other members of the health care team surrounding care of the dying are explored. Prerequisite: Level III courses. Corequisite: NURS 490 Professional Practicum. LEC.

NRSG 514. Nursing, Health Care and Human Sexuality. 2 Hours.
A systematic approach to the study of sexuality in relation to assessment and nursing care throughout the life span is discussed. Students examine their own values and beliefs regarding varied lifestyles and diversities in sexuality of individuals, families, groups and society. The concept of sexuality as it relates to the wellness-illness continuum will be examined. The effect of current trends in society on professionals and client systems will also be explored. Prerequisite: Senior status, RN licensure, Graduate level, or consent of instructor. LEC.

NRSG 520. Medical Spanish I. 2 Hours.
This is an entry level Medical Spanish course for students with minimal or no Spanish language education. Students completing this course will have acquired the language skills necessary to interact at a basic level in a medical context. Prerequisites: None. LEC.

NRSG 521. Medical Spanish II. 2 Hours.
This is an intermediate-low level Medical Spanish class. In Medical Spanish level 2 students build on what they have learned in the prerequisite level. Students expand their vocabulary skills to include medical specialties and procedures as well as their ability to describe medical conditions. Prerequisite: Medical Spanish I or equivalent. LEC.

NRSG 550. Research Coordinator: Pre-Study Activities. 3 Hours.
This course is designed as an introduction to the Research Coordinator role and provides in-depth knowledge of Pre-Clinical Trials Study activities. Regulatory, administrative, and ethical issues will be presented as well as the daily operational requirements (study design, financial aspects, protocols, hiring of personnel, subject recruitment, etc.) to begin a study. Prerequisites: Senior status, RN licensure, Graduate level, or consent of instructor. LEC.

NRSG 551. Research Clinical Trial Coordinator: During Study Activities. 3 Hours.
This course is designed as an introduction to the research clinical trial coordinator role and provides in-depth knowledge of during-Clinical Trial Study activities. The process of conducting the ‘day-to-day’ operations of a research study; subject recruitment, data collecting forms and documenting subjects’ responses to the interventions, audits, inspections,
NRSG 552. Research Clinical Trial Coordinator: Post-Study Activities & Practicum Experience. 3 Hours.
This course is designed as an introduction to the research coordinator role and provides in-depth knowledge of Post-Clinical Trial Study activities. The process of conducting the ‘day-to-day’ operations of a research study; preparing for final sponsor and FDA visits; preparing final reports to the sponsor and IRB; evaluating sponsor, site, and team members’ performance; management of data and preparing summary reports; etc will be addressed. The course is also designed to provide the student with a Research Coordinator practicum experience in selected research settings. Opportunities are provided to utilize learned details related to the role of a Research Coordinator during key phases of a Clinical Trial Study: pre-study, during-study, and at the end-study activities. PREREQUISITE: NRSG 551 or consent of instructor. LEC.

NRSG 556. Interdisciplinary Wellness Promotion for People with Psychiatric Disabilities. 2 Hours.
The course emphasizes development of wellness programs built on recovery philosophy and health promotion models. Factors relevant to the adoption of healthy behaviors in individuals with psychiatric disabilities are explored. Students have the opportunity to partner with interdisciplinary groups including students with psychiatric disabilities in designing a health promotion session that meet the needs of the population. Course is cross listed with COTH 756. Prerequisites: Level II, Level III, Graduate Level or consent of instructor. LEC.

NRSG 564. Health Care of Persons with Patterns of Addiction. 1-2 Hours.
Health care implications for client systems with problems related to alcohol and other commonly abused chemicals are examined. Both acute and chronic responses will be presented as effects upon the psychosocial, biological, cognitive/perceptual and spiritual/belief dimensions of the client systems. Ethical and legal considerations will be explored in conjunction with current research findings. Prerequisite: Senior status, RN licensure, Graduate level, or consent of instructor. LEC.

NRSG 565. Nursing Care of Persons with Patterns of Chemical Dependency: Practicum. 2 Hours.
Clinical application of the nursing process for complex client systems with problems related to alcohol and other drug abuse is the primary purpose of the course. Assessing clients and planning interventions to restore system balance will be emphasized. Resources appropriate for these clients within the community will be investigated. This course is designed to complement the didactic course NRSG 564 Health Care of Persons with Patterns of Addiction by affording students opportunities for building experiential skills. Prerequisite or Corequisite: NRSG 564, Senior status, RN licensure, Graduate level, or consent of instructor. LEC.

NRSG 572. Topics for Health Professional Educators. 2-3 Hours.
This topics course is designed to develop the health professional’s role as educator and to promote a skill set to enhance teaching and learning for diverse populations. Experiences are gained assessing the learning needs of a target population and developing educational topics. Participants apply current learning theories and effective teaching strategies to design, implement and evaluate educational experiences. Technological advances, as well as current and future issues in teaching and learning are considered. Content, specific to the topic, includes role development issues, assessment and planning strategies, teaching/learning concepts, technology implications, and evaluation concepts. Prerequisite/Co-requisite: Senior Level Nursing/Allied Health, Admission to Graduate program or consent of instructor. LEC.

NRSG 576. Promoting Wellness: Community Experience with People with Psychiatric Disabilities. 1 Hour.
Course provides the opportunity for students to integrate information from the on-line health promotion course in a practice experience. Students will implement and evaluate an interdisciplinary health promotion module for persons with psychiatric disabilities in a community mental health setting. Course includes training in developing a collaborative approach with consumers and professionals from other disciplines. Prerequisite: NRSG 556 or consent of Instructor. Course is cross listed with 774 LEC.

NRSG 701. CNL Residency I. 6 Hours.
This course is designed to develop the clinical nurse leader’s role as a clinician. The extensive clinical practicum helps the student become a designer, coordinator and evaluator of nursing care to a diverse set of clients. The student examines health promotion and risk reduction services utilized to provide better health for the assigned client population. The student applies clinical decision making to provide safe, efficient and effective client care. Prerequisites/Corequisites: Completion of BSN portion of CNL track. LEC.

NRSG 702. CNL Residency II. 6 Hours.
This course is designed to develop the clinical nurse leader’s role as a nurse leader in the provision of nursing care to groups of patients. The clinical practicum helps students develop leadership skills in order to delegate, educate and guide staff nurses and other assisting nursing personnel on the clinical/care team. Students continue to develop knowledge and clinical expertise using an increased tool set for designing, coordinating and evaluating efficient and effective health care for a group of patients. Prerequisite/Corequisite: CNL Residency I. LEC.

NRSG 703. CNL Residency III. 6 Hours.
This course is designed to develop the clinical nurse leader’s role in devising solutions to system and/or aggregate client problems. Accent of this practicum enhances the student’s ability to manage information and integrate it with clinical practice (collection and review of data). Using this data, the student creates an environment that results in improved individual and group clinical outcomes on an identified unit. Prerequisite/ Corequisite: CNL II. LEC.

NRSG 720. Introduction to Nursing Informatics. 2 Hours.
This course will provide an overview of hospital information systems, nursing information systems, artificial intelligence, and micro and mainframe computers. Interactive laboratory experiences will examine microcomputer uses for problem solving in nursing education, nursing research, nursing practice, or nursing administration. Prerequisites: Admission to the graduate nursing program, or consent of instructor. LEC.

NRSG 721. Understanding and Changing Health Behavior. 3 Hours.
The student is introduced to theories, research, and issues related to health behavior. Health behavior includes actions or activities undertaken for the purpose of promoting, preserving, or restoring wellness, and actions or activities that endanger wellness or cause illness. Internal and external influences are considered. The problems encountered by persons who are attempting to alter their own health behavior are addressed. The role of nurses in changing health behaviors in individuals, families, communities, and the larger society are examined. Prerequisite: Consent of instructor. LEC.

NRSG 722. Scholarly Writing for the Health Professional. 3 Hours.
Development of scholarly writing skills is emphasized to promote professional communication and to enhance professional image. Students enrolled in this interdisciplinary course analyze their own and others’ writing to improve their written communications. Writing skills are practiced and developed by critiquing published articles, and by preparing written memorandums, letters, abstracts, and a manuscript. Legal and ethical issues related to the publication process are explored.
NRSG 723. Advanced Practice Geriatric Nursing of the Frail Older Adult. 2-3 Hours.
The knowledge and skills necessary to provide holistic care for the frail elderly client are emphasized in the advanced practice nursing course. Physical and multidimensional functional assessments are discussed as a basis for establishing functional approaches to care and planning effective therapeutic interventions in various long-term care settings. Strategies for coordination of services and collaboration with an interdisciplinary team for comprehensive health care are integrated throughout the course. Prerequisites: Admission to the graduate program or consent of instructor (excludes students in the Adult/Geriatric Nursing track). LEC.

NRSG 731. Pharmacokinetics and Pharmacodynamics for Advanced Practice Nursing. 1 Hour.
General principles of pharmacology, including pharmacokinetics and pharmacodynamics, are discussed in preparation to prescribe. The principles for decision making about drug selection, use and monitoring are examined. Prerequisites/Corequisites: Admission to the graduate program, or consent of instructor. LEC.

NRSG 742. Pediatric Hematology/Oncology Essentials for Advanced Nursing Practice. 3 Hours.
An understanding of pathophysiological and psychosocial changes that occur within the internal environment of the child in the presence of malignant disease, and effects on the family unit, are provided as a rationale for therapeutic interventions. The course covers the most common pediatric cancer diagnoses, related treatments, side effects of treatment, supportive care, psychosocial issues, patient and family education, late effects, and care during end of life. The principles of advanced pediatric hematology/oncology nursing, standards of evidence-based practice, and research are discussed. Prerequisite(s): Advanced Pathophysiology, Graduate Research Course, or consent of instructor. LEC.

NRSG 748. Theories for Practice and Research. 3 Hours.
Theory development and analysis techniques provide the framework for the study of concepts and theories from nursing and related disciplines. Particular emphasis will be placed on the relationship of theory and research in the development of nursing knowledge to support evidence-based practice. This course will enhance the decision-making skills for choosing and using concepts and theories that guide practice. Prerequisites: Admission to the graduate nursing program, or consent of instructor. LEC.

NRSG 754. Health Care Research. 3 Hours.
This course will enable the student to synthesize nursing knowledge and make recommendations to translate research findings into practice within diverse health care settings. Research methods, processes and findings for use in practice will be critically evaluated. Emphasis will be placed on formulating relevant research questions from theory and practice. Prerequisites: Admission to the graduate nursing program, or consent of instructor. LEC.

NRSG 755. Professionalism in Advanced Nursing Practice. 3 Hours.
An analysis of economic, political, legal, ethical, professional, societal and cultural issues is conducted within the context of advanced nursing practice. Application of concepts essential to understanding, influencing and leading change in health care delivery specific to advanced nursing practice is emphasized. Prerequisites: Admission to the graduate nursing program, or consent of instructor. LEC.

NRSG 801. Advanced Health Assessment and Clinical Reasoning. 5 Hours.
The purpose of this course is to develop knowledge and skills for advanced clinical practice. Included will be comprehensive history and physical, psychological assessment of signs and symptoms, pathophysiologic changes and psychosocial variation of the patient (individual, family or community). Content on special populations, communication with patients and care teams, cultural considerations, health promotion and prevention, use of electronic medical/health records will be discussed with opportunity for application. The advanced clinical content will be applied in directed laboratory and selected application experiences. Prerequisite/Corequisite: NRSG 812, or consent of instructor. LEC.

NRSG 802. Methods for Qualitative Research. 3 Hours.
The naturalistic paradigm and various qualitative research approaches such as ethnography, phenomenology/hermeneutics, historiography, grounded theory and/or others are explored. Emphasis is placed on the appropriateness of each approach for description and explanation of phenomena encountered in clinical, organizational, and educational settings. Experience is provided in problem formulation and development of qualitative research proposal. Prerequisites: NRSG 754, or admission to the Doctoral Program. LEC.

NRSG 803. Introduction to Clinical Research. 1 Hour.
This course will provide a comprehensive overview to clinical research. The student will gain an understanding of how to develop clinical research questions including protocol design and the factors that should be considered in initiating a clinical research study. This will include biostatistical considerations, the recruitment of study participants, regulatory issues, and data management, and defining measures and instruments. Students will gain knowledge of how to define clinical research among the various institutional entities involved with clinical research at the University of Kansas Medical Center such as the Research Institute (RI), General Clinical Research Center (GCRC) and the Human Subjects Committee (HSC). Additionally, one component of the course will focus on how to apply for funding (grantsmanship), critical appraisal of research studies, and how to present research data. Prerequisite: Consent of instructor. LEC.

NRSG 804. Interpreting Research for Applied Science. 3 Hours.
Research relevant to therapeutic intervention comes from a variety of disciplines involving varied research designs and analysis strategies. Students in this course will examine selected research studies and gain skill in analyzing methods and results as well as in applying research findings to practical problems. Students also will design their own research project reflecting their area of interest. Prerequisite/Corequisite: Consent of instructor. Same as OTMS 835. RSC.

NRSG 805. Caring for People with a Disability. 2 Hours.
This course will provide an opportunity for students to learn how to effectively care for a person with a disability in a health care or public health setting. This will include learning to effectively communicate and partner with people with disabilities. This course will address disability civil rights and provide a basic understanding of a variety of disability conditions and options/resources available for independent living. Through effective partnerships, providers and health professionals can support people with disabilities to achieve independent, healthy lives. Prerequisite: Consent of instructor. LEC.

NRSG 806. Advanced Physiology. 4 Hours.
This course is designed to lead to an advanced comprehension of the physiology of organ systems in the human in both cellular and organ processes. Physiology subject matter relevant to clinical health sciences include membrane transport, muscle, cardiovascular, respiratory,
renal, water and electrolyte balance, gastrointestinal, and endocrine physiology as well as neurophysiology. Cellular mechanisms include the structure and function of ion channels and pumps, mechanisms of calcium regulation, excitation-coupling processes and mechanisms of oxidative cell damage and apoptosis. Prerequisites: Admission to the ARNP tracks, or consent of instructor. LEC.

NRSG 807. Genetics in Primary Care. 2 Hours.
This course is designed to give the primary care nurse practitioner and other graduate nursing students a foundation in medical genetics. The basics of genetics, common genetic disorders and genetic testing are discussed. The application of this knowledge to counsel individuals at risk for genetic disorders is emphasized through the use of case studies. Ethical, legal and clinical practice issues and perspectives of primary care counseling in genetics are addressed. Prerequisites/Corequisites: Must be enrolled in Graduate Nursing Program, or consent of instructor. LEC.

NRSG 808. The Social Context for Health Care Policy. 2 Hours.
Using a local/single clinical issue students examine ways to abstract this issue into a social policy context. Local exemplars are used throughout the course to demonstrate the leadership and structural systems required to effect change in policy. Strategies to identify constituencies and build coalitions are studied. Prerequisite/Corequisites: NRSG 755, NRSG 880, or consent of instructor. LEC.

NRSG 809. Health Promotion and Complementary Therapeutics. 3 Hours.
Current trends in health promotion and clinical preventive care across the lifespan are examined. Specific guidelines for assisting clients to maintain/improve health and/or prevent illness are reviewed. Attention is given to the roles of the health care provider and care recipient in screening, communication, and counseling. The use of complementary (non-pharmacological) therapies in assisting clients to achieve goals of health promotion is examined. The recommendation and use of non-pharmacological interventions will be evaluated based on research findings related to selection of therapies and measurement of expected outcomes following use of a particular intervention. Prerequisites: Admission to the graduate nursing program, or consent of instructor. LEC.

NRSG 810. Advanced Health Assessment and Physical Diagnosis. 5 Hours.
Building upon basic health assessment, knowledge and skills for advanced clinical practice are discussed, described and demonstrated. The advanced clinical practice content is then applied in multiple clinical settings (120 hours of clinical practice is required). Content on special populations that cover the lifespan is presented (i.e. geriatrics, pediatrics, women’s health) followed by directed laboratory and simulated experiences. The concept of clinical decision making for differential diagnosis is introduced and applied to patient-focused data. Prerequisite/ Corequisite: Consent of Instructor. LEC.

NRSG 812. Advanced Pathophysiology. 3 Hours.
An in-depth scientific knowledge base relevant to selected pathophysiological states confronted in primary care is explored. This information provides a basis for the formulation of clinical decisions related to diagnostic tests and the initiation of therapeutic regimens. Age specific and developmental alterations are correlated with clinical diagnosis and management. Application is made through age appropriate examples. Prerequisites: NURA 806/NRSG 806, or consent of instructor. LEC.

NRSG 813. Applied Drug Therapy. 3 Hours.
The clinical application of specific categories of drugs, commonly encountered in primary care settings is discussed. The use of protocols, prescription writing, and the ethical/legal, and economic issues surrounding the advanced nurses’ role in prescribing and monitoring pharmacologic therapies in the ambulatory setting are explained. Factors such as age-appropriate content related to pharmacoekinetik, dosages, expected outcomes, and side effects of the drugs are discussed. First line versus second line drugs, alternate drugs, drug interactions, adjusting drug dosages, patient education, and compliance issues related to drug therapy are addressed. The nurse’s role and responsibility related to data collection, problem identification, and consultation with the physician is explored. Application is made through age-appropriate case studies. Prerequisites: NRSG 731, NRSG 812, or consent of instructor. LEC.

NRSG 814. Primary Care I: Management of Common Health Problems Throughout the Life Span. 3 Hours.
Management of common health problems seen in individuals and families throughout the life span are discussed in this first of two sequential courses. Applications of current research and theory-based interventions appropriate for protocol based management by advanced registered nurse practitioners are analyzed. Strategies to manage common health problems in urban and rural patients are explored. Interventions to restore individual and family level of pre-illness health, and positive lifestyle behaviors are emphasized. Prerequisites: NRSG 809, NRSG 810. Prerequisite/Corequisite: NRSG 812. Corequisite: NRSG 815. LEC.

NRSG 815. Primary Care I Practicum: Management of Common Health Problems Throughout the Life Span. 2 Hours.
Opportunities to develop beginning skills as advanced practice nurses in a primary care setting are provided. Emphasis is on assessment, clinical decision making, and management of clients/client systems of all ages/stages who are experiencing common health problems. Internal and external environmental factors as well as legal, ethical and economic concerns related to the presenting common health problems are explored. Current research outcomes and theory-based interventions appropriate for management by advanced practice nurses are stressed. Collaboration and consultation (including referrals) with appropriate health providers is emphasized. Corequisite: NRSG 814. LEC.

NRSG 816. Primary Care II: Management of Complex Health Problems Throughout the Life Span. 3 Hours.
Complex health problems seen in individuals and families throughout the life span are discussed in this second sequential course. Applications of current research and theory-based interventions appropriate for management by advanced registered nurse practitioners are analyzed. Strategies and protocols to manage complex patient problems, in urban and rural patients, are explored. Interventions to restore individual and family levels of pre-illness health, including secondary and tertiary prevention, are emphasized. Prerequisites: NRSG 814, NRSG 815. Prerequisites or Co-requisites: NRSG 748, NRSG 813. Corequisites: NRSG 817 or consent of instructor. LEC.

NRSG 817. Primary Care II Practicum: Management of Complex Health Problems Throughout the Life Span. 4 Hours.
Opportunities to develop intermediate skills as advanced practice nurses in a primary care setting are provided. Emphasis is on assessment, clinical decision making, and management of clients/client systems of all ages/stages who are experiencing complex health problems. Internal and external environmental factors as well as legal, ethical and economic concerns related to the presenting complex health problems are explored. Current research outcomes and theory based interventions appropriate for management by advanced practice nurse are stressed. Collaboration and consultation (including referrals) with appropriate health providers is emphasized. Corequisites: NRSG 816 or consent of instructor. LEC.

NRSG 818. Primary Care III: Preceptorship. 3-5 Hours.
The theoretical, clinical, and role components of care as delivered by the nurse practitioner are implemented through an intensive supervised clinical practicum with seminar sessions. An opportunity is provided
to apply advanced clinical decision making skills and research to the assessment, management, and evaluation of complex health care problems in the primary care setting. The client system for this experience include individuals and families throughout the life span within the context of community. Emphasis is on increased independence and decision making in a multi-disciplinary environment. Internal and external environmental factors, ethical, legal, and health policy issues related to the nurse practitioner role in the practice setting are analyzed. Prerequisites: NRSG 816, NRSG 817, or consent of instructor. LEC.

NRSG 819. Advanced Pathophysiologic Assessment. 3 Hours.
A systems approach to advanced physical assessment, pathophysiology, principles of hemodynamic monitoring, electrocardiography, pulmonary airway monitoring, and neuromuscular monitoring in the evaluation of the acute care and/or surgical patients is used. Emphasis will be on the cardiovascular, pulmonary, and neurological systems and their relation to the assessment and monitoring practices of the health care provider. Prerequisite: Consent of instructor. Same as NURA 834. LEC.

NRSG 820. Program, Project, and Communication Planning. 2 Hours.
Strategies to promote program, project, and communication planning are presented and applied by the student. Communication strategies for informing, guiding, and persuading clients, health care providers, payers, and other stakeholders to advance program and project development are discussed. The use of evolving information technologies to improve program, project and communication planning is emphasized. Prerequisites/Corequisites: NRSG 880, or consent of instructor. LEC.

NRSG 821. Clinical Dynamics and Interventions in Diabetology. 3 Hours.
A complexity science framework is used to discuss current and innovative concepts and trends in the care of person with diabetes. The disease process of diabetes, preventive measures, complications, pharmacologic, technologic, lifestyle interventions and self-management techniques based on current evidence are presented and analyzed in relations to care of persons with diabetes across age groups and in different settings. Consideration is given the complexity of the co-morbidities that accompany diabetes as well as the special approaches to age appropriate treatment and cultural diversity factors that influence care. External barriers that contribute to decrease in quality outcomes are analyzed and innovative solutions are proposed. Prerequisites: NRSG 810, NRSG 813, or consent of instructor. SEM.

NRSG 822. Topics in Community Health Nursing: Health Promotion in the Community. 1-5 Hours.
Investigation of special health issues or problems relevant to appropriate client systems in community health nursing. Prerequisites: One graduate clinical course in community health nursing, or consent of instructor. LEC.

NRSG 823. Research Clinical Trial Management: Pre-Study Activities. 3 Hours.
This course is designed as an introduction to the research clinical trial manager role and provides in-depth knowledge of Pre-Clinical Trials Study activities. Regulatory, administrative, and ethical issues will be presented as well as the daily operational requirements (study design, financial aspects, protocols, hiring of personnel, subject recruitment, etc.) to begin a study. Included is the development of training skills for the Clinical Trial manager for critiquing sample protocols and for assessing adequate resources for implementation of protocol. Prerequisites: RN Licensure, graduate level, or consent of instructor. LEC.

NRSG 824. Research Clinical Trial Management: During Study Activities. 3 Hours.
This course is designed as an introduction to the research clinical trial manager role and provides in-depth knowledge of During-Clinical Trial Study activities. The process of conducting the ‘day-to-day’ operations of a research study; subject recruitment, data collection forms and documenting subjects’ responses to the interventions, audits, inspections, budget monitoring, ethical/liability situations that may occur during the study, etc. will be addressed. Included is the development of training skills for the Clinical Trial Manager that is involved in conducting the ‘day-to-day’ operations of the research study. Prerequisites: NRSG 823, or consent of instructor. LEC.

NRSG 825. Research Clinical Trial Management: Post-Study Activities and Practicum Experience. 3 Hours.
This course provides an introduction to the research manager role and provides in-depth knowledge of Post-Clinical Trial Study activities. The process of conducting the ‘day-to-day’ operations of a research study; preparing for final sponsor and FDA visits; preparing final reports to the sponsor and IRB; evaluating sponsor, site and team members’ performance; management of data and preparing summary reports, etc. will be addressed. The course provides the student with a Research Manager practicum experience in selected research setting. Opportunities are provided to utilize learned details related to the role of a Research Manager during key phases of a Clinical Trial Study; pre-study, during-study, and at the end-study activities. Prerequisites: NRSG 824, or consent of instructor. PRA.

NRSG 826. Global Perspective and Diversity in Healthcare. 2 Hours.
Cultural receptivity is integrated into the collaboration, development, and implementation of health programs at the local, national, and international level. Frameworks that emphasize the meanings of health and healthcare; prevention and management; and related ethical, economic, and social justice concerns are introduced. Students partner with a community of interest to understand their health and illness beliefs, identify barriers to healthcare access, integrate the historical, social, political and economic forces that impact healthcare. Together they plan and implement appropriate strategies to influence positive community outcomes. Prerequisites: NRSG 880, or consent of instructor. LEC.

NRSG 827. Advanced Concepts Public Health Nursing. 2 Hours.
Public health is addressed in terms of common values and interests as well as particular client populations (vulnerable and at risk groups) across the lifespan. Health promotion and disease prevention for whole communities and selected vulnerable and at risk aggregates are emphasized. Ethical and social justice concerns as well as public policy and legislative issues in population-focused health care are discussed. Selected models, concepts, theories, and research in public health provide the framework for identifying, exploring, prioritizing and planning interventions for public health concerns. Ultimately, a grant proposal is developed to support the action plan. Prerequisites: NRSG 754, NRSG 808, PRVM 800, or consent of instructor. Corequisite: NRSG 828. LEC.

NRSG 828. Public Health Practicum: Practicum I. 3 Hours.
Students will complete an intensive practicum in a community/public health setting. Prerequisites: NRSG 827, or consent of instructor. Same as PRVM 891. LEC.

NRSG 830. Care of Women in the Antepartal Period. 2 Hours.
Care during the antepartal period in healthy pregnant women is presented and analyzed. Strategies focusing on risk reduction and early identification of deviation from normal in this client system are examined. Complementary practice models demonstrating various management theories are described. Bio-psychosocial and cultural
aspects of pregnancy within the family structure environment are applied. Concepts of research, ethics, legal and political issues, nutrition, pharmacotherapeutics, health promotion, and selected high-risk deviation from normal are included. Prerequisites: NRSG 809, NRSG 810, NRSG 812, NRSG 813, or consent of instructor. Corequisite: NRSG 831. LEC.

NRSG 831. Care of Women in The Antepartal Period Practicum. 2 Hours.
This clinical practicum centers on competencies for management of pregnant women and family client systems in various environments. Health promotion and risk reductions in pregnant women are emphasized. Management experiences in the advanced practice role include antepartal risk-assessment, collaboration, co-management, and referral when medically necessary. Corequisite: NRSG 830. LEC.

NRSG 832. Nurse Midwifery in the Neonatal Period & Practicum. 1 Hour.
Synthesis of the nurse-midwifery philosophy for well neonates is conceptualized. Health maintenance models of care for infant client systems up to the first 28 days of life are included. Research, ethics, legal and political issues, nutrition, pharmacotherapeutics, health promotion, and selected high-risk deviation from normal are included. Clinical competencies for nurse-midwifery management of well neonates up to first 28 days of life are developed. Management experiences include the nurse-midwifery role in collaboration, co-management, and referral, as needed, during the early newborn period. Prerequisites/Corequisites: NRSG 830, or consent of instructor. LEC.

NRSG 833. Managing Clinical Research Projects. 3 Hours.
This course is designed to help nurses develop in-depth knowledge of good clinical practices and federal regulations, as well as to develop a strong foundation for the management of clinical research program. Regulatory, administrative, and ethical issues will be presented as well as the daily operational requirements of managing a clinical research office. Completion of this course prepares one for clinical research professional national certification. Prerequisites: RN licensure, graduate level, or consent of instructor. LEC.

NRSG 834. Nurse-Midwifery in Women's Health Care Practicum. 2 Hours.
The nurse midwifery management process is applied. Development of beginning competencies for promotion and clinical nurse-midwifery management of well women client systems seeking gynecologic, contraceptive, health promotion, and maintenance services are included. Nurse-midwifery students experience delivery of care in independent practice environments as well as collaboration, co-management, and referral when medically necessary. Prerequisites: NRSG 830, or consent of instructor. Corequisites: NRSG 835, or consent of instructor. LEC.

NRSG 835. Primary Women’s Health Care Across the Lifespan. 3 Hours.
Psychological, sociological, and physiological issues of health and human functioning of the female client systems across the lifespan are explored. Theory and research-based therapeutic management of acute, episodic, and chronic conditions that occur in community based women and their families will be planned. Professional values including standards of practice, certification, cultural, legal and ethical issues, and professional roles will be addressed. The health care delivery system will be analyzed for cost effectiveness and sensitivity to women. Corequisites: NRSG 815, NRSG 817, NRSG 834, or consent of instructor. LEC.

NRSG 836. Nurse Midwifery in the Intrapartal and Post Partum Period. 3 Hours.
Nurse-midwifery care of uncomplicated mother/infant client systems through the intrapartal, postpartal, and neonatal period is presented and analyzed. Intrapartal and Postpartal complications and emergency events are addressed. Complementary practice models demonstrating various management modalities are described. Concepts of research, ethics, legal and political issues, nutrition, pharmacotherapeutics, health promotion, and selected high-risk deviation from normal are included. Prerequisites: NRSG 830, or consent of instructor. Prerequisite/Corequisite: NRSG 832. LEC.

NRSG 837. Nurse Midwifery in the Intrapartal and Postpartal Period Practicum. 2 Hours.
Competencies for nurse-midwifery management according to national standards of practice for low risk healthy women during labor, birth and, postpartum are demonstrated. The development of a skill base for intrapartal emergencies is addressed. Nurse midwifery management practice provides experience in the role of care provider during normal labor and delivery postpartum and in collaboration, co-management, and referral when medically necessary. Corequisites: NRSG 836, or consent of instructor. LEC.

NRSG 838. Primary Care of Women Through the Lifespan Practicum. 1-2 Hours.
This practicum centers on clinical competencies for the advanced practice nurse providing primary care and gynecologic management of women throughout the lifespan. Health promotion, complimentary therapies, and evidence-based models of health care delivery are incorporated in the care of women. Clinical management experiences in the advanced practice role include but are not limited to: family planning, gynecologic health, and primary care for women from adolescence through menopause. Clinical experiences will include collaboration, co-management, and/or referral when medically necessary. Prerequisites/ Corequisites: NRSG 835, or consent of instructor. PRA.

NRSG 839. Global Perspectives and Diversity in Healthcare: Practicum. 2 Hours.
Students will have the opportunity to integrate concepts and theories of global health and diversity by direct program planning, delivery, and evaluation of care activities with a vulnerable population. Students will partner with a community of interest to provide directed advanced nursing care and or leadership activities via individual/population/organizational assessment, intervention, and evaluation. Emphasis will be placed on building cultural competence with an understanding of the historical, social, political, and economic forces of health within a specific community setting or geographic area. The worldview of the individual/population/organization will be respected and integrated into all aspects of health care delivery. PREREQUISITE(S): NRSG 826 or consent of instructor. PRA.

NRSG 840. Care of Women Integration Practicum. 4 Hours.
The theoretical, clinical and role components of care as delivered by the advanced practice student are implemented through an intensive supervised clinical practicum. Advanced professional clinical skills and evidence-based practice in the assessment, management and care of women and newborns are applied. The client system for this experience includes well women, childbearing women and may include neonates in a variety of environments. Emphasis is on increased independence and decision making embracing the function and scope of advanced practice of nurse-midwifery. Prerequisite: Consent of instructor. LEC.

NRSG 841. Reproductive Endocrinology. 2 Hours.
In-depth examination of the anatomy and physiologic processes of reproduction are studied, and will include normal growth and development, as well as clinical genetics. Essential information will be focused on understanding of the reproductive hormones and regulation of the menstrual cycle. With a complete understanding of menstrual hormone regulation, students will be better prepared to apply concepts to alterations that are encountered with maturation/development,
puberty, pregnancy, lactation, menopause, and management of common gynecological needs (such as contraception). Prerequisites: NRSG 812 or consent of instructor. Corequisites: NRSG 835 for nurse-midwifery students. LEC.

NRSG 842. Topics in Mental Health Nursing. 1-5 Hours.
Investigation of issues and psychiatric mental health problems relevant to a selected population in mental health nursing. Prerequisites: Consent of instructor. LEC.

NRSG 844. Advanced Psychiatric Assessment. 3 Hours.
Advanced psychiatric assessment of children, adults and the elderly will be covered, including conducting patient-centered, culturally competent interviews in simulated situations. Epidemiology of psychiatric disorder is addressed. Assessment for psychiatric diagnoses of substance abuse, mood and anxiety disturbances, psychosis, dementia and disorders arising in childhood and adolescence are emphasized. Assessment of dangerous behaviors and crisis intervention is covered. Prerequisites/ Corequisites: NRSG 801, or consent of instructor. LEC.

NRSG 845. Psychotherapeutics I: Psychiatric Mental Health Nurse Practitioner. 3 Hours.
Focus is placed on assessing vulnerabilities, social determinants and resilience as they relate to health promotion, disease prevention, symptom management, and behavior change. Mental health and common psychiatric disorders such as depression and anxiety throughout the lifespan are discussed. Evidence-based brief psychotherapeutic intervention frameworks including psychotherapy are applied to individuals, groups, and families across the lifespan. Professional issues that commonly occur in implementing the advanced practice role in psychiatric mental health care are emphasized. Prerequisites: NRSG 748, NRSG 801, NRSG 809, NRSG 812, NRSG 844, NRSG 850, or consent of instructor. Corequisite: NRSG 846. LEC.

NRSG 846. Psychotherapeutics II: Psychiatric Mental Health Nurse Practitioner Practicum. 2 Hours.
The focus of this clinical course is to apply theories and evidence-based findings in a clinical setting serving culturally diverse individuals, groups, and families. Students will have opportunities to conduct comprehensive psychiatric assessments, formulate diagnoses, and conduct therapy in conjunction with an interdisciplinary team. Corequisite: NRSG 845. LEC.

NRSG 847. Psychotherapeutic Interventions II: Psychiatric Mental Health Nurse Practitioner. 3 Hours.
This theory course focuses on recovery-oriented, person-centered approaches for individuals, families, and populations with complex and persistent alterations in mental health functioning. Factors that affect mental health functioning will be explored with a focus on interventions that facilitate recovery including psychopharmacology. In addition, policies and socioeconomic factors that influence the delivery of mental health services will be analyzed. Emphasis is placed on identifying the unique role of the psychiatric mental health nurse practitioner (PMHNP) within an integrated, client-centered delivery system. Prerequisites: NRSG 845, NRSG 846, NRSG 851, or consent of instructor. Corequisite: NRSG 813. LEC.

NRSG 848. Psychotherapeutics II: Psychiatric Mental Health Nurse Practitioner Practicum. 4 Hours.
In this practicum students will apply recovery oriented, evidence-based frameworks such as biobehavioral, pharmacologic and psychoeducational to individuals and groups across the lifespan with complex alterations in functioning. The psychiatric mental health nurse practitioner in collaboration with interdisciplinary team members and families coordinates person-centered culturally sensitive care. Ethical principles and legal issues are identified and integrated into care. Corequisites: NRSG 847, or consent of instructor. LEC.

NRSG 849. Psychotherapeutics III: Practicum. 3-4 Hours.
In this clinical practicum students will demonstrate integration of knowledge from previous courses in implementing the psychiatric mental health nurse practitioner role. This includes using diagnostic reasoning, evidence-based therapy, biobehavioral, and psychoeducational interventions with culturally diverse clients from different age groups. Students will implement care within interdisciplinary teams using consultation and referral as needed to deliver person-centered culturally sensitive care. Students will work with age groups needed to meet the role of psychiatric nurse practitioner across the lifespan. Prerequisites: NRSG 847, or consent of instructor. LEC.

NRSG 850. Mental Health Assessment of Infants, Children and Adolescents. 3 Hours.
This is an advanced course in infant, child and adolescent mental health assessment development for those individuals who desire to gain greater knowledge and understanding of complex mental health issues in children, adolescents and their families. The course focus is to identify deviations between normal and abnormal development. Identification of environmental and social determinates will be examined. Recognition of pre-birth risk factors affecting children and protective measure that promote positive growth and development will be discussed. Assessment tools and strategies for effective assessment will be reviewed. Emphasis on the legal and ethical issues regarding safety and well-being of children and families will be addressed. Prerequisites: NRSG 748, or consent of instructor. LEC.

NRSG 851. Psychopharmacology for Advanced Nursing Practice. 3 Hours.
Understanding of the neuron, neurotransmitter and receptor functioning as the basis for psychopharmacotherapy is emphasized in developing the knowledge for prescribing and monitoring psychotropic medications for clients diagnosed with psychiatric disorders. The major classes of psychopharmaceutical drugs, their mechanism of action, metabolism, interaction, adverse and side effects are discussed. Drug development is reviewed and ethical and legal issues involved in prescribing across the lifespan are covered. Knowledge is applied to case studies that include differentiating drugs, dosages and response to clients’ internal environment, racial/ethnic background, and age. Prerequisite: NRSG 844 or equivalent; or consent of instructor. LEC.

NRSG 852. Topics in Pediatric Nursing. 1-5 Hours.
Investigation of special problems of a selected client system (infants, toddlers, preschoolers, school-age children, or adolescents) in pediatric nursing. Prerequisites: One graduate clinical course in pediatric nursing, or consent of instructor. LEC.

NRSG 853. Abstraction and Modeling of Healthcare Information. 3 Hours.
Includes 2 credit hour lecture and 1 credit hour practicum. The information system development life cycle process is presented with emphasis on determination and analysis of information system requirements and system design that meet the identified health care information requirements. Object-oriented techniques will be introduced, including Unified Modeling Language and Unified Modeling Methodology, to facilitate process analysis and design proposal development. Prerequisites: consent of instructor. LEC.

NRSG 854. Knowledge Management in Healthcare. 3 Hours.
Includes 2 credit hour lecture and 1 credit hour practicum. Knowledge management is the creation, communication, and leveraging of a healthcare organization’s knowledge assets. Defining knowledge, describing the knowledge creation cycle, and the identification of the knowledge worker and his/her impact on the organization are discussed. Information technology and communities of practice are presented in a
balanced approach supporting a systematic viewpoint of the knowledge management process. Knowledge management theory is enhanced with the performance of a knowledge audit and the development of knowledge management tools. Prerequisite: consent of instructor. LEC.

NRSG 855. Topics in Health Informatics. 3 Hours.
Investigation of current futuristic issues and trends relevant to healthcare informatics. Prerequisites: One graduate course in information, or consent of instructor. LEC.

NRSG 856. Health Informatics Practicum. 1-3 Hours.
In collaboration with healthcare information faculty and preceptors, students design an experience to facilitate application of theories and research related to health care informatics. Emphasis is on the application of the information systems development life cycle. Students analyze the leadership and technical behaviors of various informatics roles and negotiate an informatics project to be completed within the practicum. Prerequisites: All Common Core, Leadership Core, NRSG 853, NRSG 858. Prerequisites/Corequisites: NRSG 854, NRSG 855, NRSG 898, or consent of instructor. LEC.

NRSG 857. Transforming Health Care through Use of Information Systems and Technology. 3 Hours.
Includes 2 credit hour lecture and 1 credit hour practicum. The application of the information system development life cycle in the design, selection, and implementation of health information technology applications will be examined. Human computer interactions and emerging technologies will be explored for their impact on patient care and safety. The role of legal, regulatory, ethical and security issues will be discussed as they apply to clinical and consumer information technologies. PREREQUISITE(S): Consent of Instructor. LEC.

NRSG 858. Health Data: Theory and Practice. 3-4 Hours.
Includes 2 credit hour lecture and 1-2 credit hour practicum. Principles of database theory, modeling, design and manipulation will be introduced. Students will have experience using a relational database management system. Database manipulation will be explored using structured query language (SQL) to compose and execute query statements and critically evaluate the results. Prerequisites: None. LEC.

NRSG 859. Introduction to Health Informatics. 2-3 Hours.
This course will provide an overview of health informatics focused on five themes: health informatics foundations; clinical decision support; human factors/organization factors; public health informatics and current issues in health informatics including best practices. Students enrolled for 3 credits will develop and demonstrate a practical, innovative small group information technology (IT) project from one of a set of faculty recommended projects or from a student-proposed idea. Prerequisites: none (previous or simultaneous enrollment in Health Data Theory and Practice is recommended). LEC.

NRSG 860. Health Care at The End of Life. 3 Hours.
Complex issues that influence care for clients and their family systems at the time of and surrounding death provide the focus for this course. Contemporary attitudes surrounding death and dying as well as ethical, legal, cultural, social, and financial issues are examined. The needs of individuals and families surrounding death such as pain and symptom management, psycho-spiritual care, and bereavement are discussed in relation to contemporary causes of death. Collaborative role development with other members of the health care team surrounding care of the dying are explored. Prerequisite: Admission to graduate nursing program. LEC.

NRSG 861. Topics in Adult Nursing. 1-5 Hours.
Investigation of special issues or problems relevant to a selected client system in Adult Nursing. Prerequisites: One graduate clinical course in Adult Nursing, or consent of the instructor. LEC.

NRSG 862. Adult/Gerontological Health Care I. 3 Hours.
Knowledge and skills necessary to provide holistic care for the culturally-diverse adult in multiple care settings are emphasized in the first of two sequential didactic courses for the Adult/Gerontological advanced practice registered nurse. The course covers acute and common health problems experienced across the life span from adolescence to advanced age. Physical and multidimensional functional assessments are emphasized as a basis for establishing differential diagnosis and planning effective therapeutic, patient-centered interventions. Evidence-based management strategies are emphasized. Coordination of services and collaboration with interprofessional and intraprofessional teams for comprehensive health care are integrated throughout the course. Prerequisites: NRSG 801, Prerequisites/Corequisites: NRSG 748, NRSG 809, NRSG 812, NRSG 813, or consent of instructor. Corequisites: NRSG 863 or NRSG 864. LEC.

NRSG 863. Adult/Gerontological Health Care I: Practicum - CNS. 2 Hours.
Management of the primary, acute, and chronic health care needs of a culturally-diverse population of adults across the lifespan with specific system dysfunction are explored. Clinical practice will include multidisciplinary coordination of comprehensive, managed care. Consultative, patient education, quality improvement, and project development activities will be the major focuses. Corequisite: NRSG 862. LEC.

NRSG 864. Adult/Gerontological Health Care I: Practicum - NP. 2 Hours.
Assessment of adults across the lifespan and the management of common acute and chronic health problems are executed in consultation with the appropriate provider. Opportunities to manage pharmacological and medical therapeutics will be provided. Nursing therapeutics and case management based on theory and research are applied in a variety of community and institutional practice settings. Emphasis is on health promotion and health maintenance for culturally diverse adult individuals and groups. Corequisite: NRSG 862. LEC.

NRSG 865. Adult/Gerontological Health Care II. 3 Hours.
Knowledge and skills necessary to provide holistic care for adults from diverse cultures in multiple care settings are emphasized in the second of two sequential didactic courses for the Adult/Gerontological advanced practice registered nurse. The course covers chronic and complex health problems experienced by adults across the life span from adolescence to advanced age. Physical and multidimensional functional assessments are emphasized as a basis for establishing differential diagnosis and planning effective therapeutic, patient centered interventions. Evidence-based strategies to manage care are emphasized. Coordination of services and collaboration with interprofessional and intraprofessional teams for comprehensive health care are integrated throughout the course. Corequisites: NRSG 866 or NRSG 867. LEC.

NRSG 866. Adult/Gerontological Health Care II: Practicum - CNS. 4 Hours.
Management of the primary, acute and chronic health care needs of a culturally-diverse population of adults across the lifespan with specific system dysfunction are explored. Clinical practice will include interdisciplinary coordination for comprehensive, managed care. Consultative, patient education, quality improvement, and project development activities will be major focuses. Corequisites: NRSG 865, or consent of instructor. LEC.

NRSG 867. Adult/Gerontological Health Care II: Practicum - NP. 4 Hours.
Assessment of adults across the life span and the management of common acute and chronic health problems are executed in consultation...
with the appropriate provider. Opportunities to manage pharmacological and medical therapeutics will be provided. Nursing therapeutics and care management based on theory and research are applied in a variety of community and institutional practice settings. Emphasis is on health promotion and health maintenance for culturally-diverse adult individuals and groups. Corequisites: NRSG 865, or consent of instructor. LEC.

NRSG 868. Adult/Gerontological Health Care III: Preceptorship - CNS. 3-5 Hours.
The theoretical, clinical, and research role components of care as delivered by the adult/gerontological CNS are implemented. Opportunities are provided to utilize diagnostic reasoning, nursing therapeutics, pharmacological therapeutics, interdisciplinary treatment plans, project development, consultation, referral, and research findings in the management and evaluation of culturally diverse clients experiencing specific system dysfunction. The client system for this preceptorship includes adults (and their families) experiencing a selected system dysfunction. Emphasis is on stabilization of the client, minimization of complications, and promotion of optimal level of health through an interdisciplinary approach. Prerequisites: NRSG 862, NRSG 865, or consent of instructor. Prerequisites/Corequisites: NRSG 755. LEC.

NRSG 869. Adult/Gerontological Health Care III: Preceptorship - NP. 3-5 Hours.
The theoretical, clinical, and research role components of care as delivered by the Adult/Geriatric nurse practitioner are implemented. Opportunities are provided to individualize the student’s clinical acumen in utilizing diagnostic reasoning, nursing therapeutics, pharmacological therapeutics, interdisciplinary treatment plans, consultation, referral, and research findings in the management and evaluation of culturally-diverse adult/geriatric clients with common ambulatory care problems. The client system for this preceptorship includes adults (and their families) across the life span. Emphasis is on preventing illness, promoting health and an optimal functional level. Stabilizing the ill client, and minimizing complications through an interdisciplinary approach. Prerequisites: NRSG 862, NRSG 865. Prerequisites/Corequisite: NRSG 755, or consent of instructor. LEC.

NRSG 870. Designing a Student Learning Environment. 3 Hours.
The roles of both the educator and student in designing a learning environment provide the framework for analyzing pedagogical philosophies, theories, ethical/legal issues, and research related to teaching strategies and education. The focus is on best practices and research-based strategies to promote various learning styles and create an active learning environment that increases student retention and learning success for diverse, multicultural student populations. Attention will be given to the relationship between the setting, methodologies of clinical teaching, and the assessment of competencies. Prerequisites: NRSG 748, NRSG 754, or consent of instructor. LEC.

NRSG 871. Curriculum/Program Planning and Evaluation. 3 Hours.
Philosophies, methods, and processes of curriculum and instruction in nursing education provide the framework for discussing curricular and program planning theories/models, resources for decision making, research, and evaluation methods that create a learner-centered environment. Attention is given to frameworks for program evaluation, methods of data collection, and the ethics and standards of evaluation practice. The influence of societal trends, and current health professions issues relevant to curriculum planning are addressed. Emphasis is on strategies for anticipating future societal needs and developing educational curriculum to meet those needs. Matters of diversity, workforce development, ethics/legal issues in curriculum planning and education also are included. Prerequisites: NRSG 748, NRSG 754, or consent of instructor. LEC.

NRSG 872. Topics in Nursing Education. 1-5 Hours.
Investigation of special issues or problems relevant to appropriate client systems (client, family, and student or health care professional) in Nursing Education. Prerequisite: Consent of instructor. LEC.

NRSG 873. Teaching with Technologies. 3 Hours.
Theories and trends that support the use of merging and emerging technologies for the enhancement of teaching and learning are explored. The focus is on assisting educators to gain skills in choosing appropriate instructional technologies to enhance learning. Learning variables, the environment context, financial-political issues, and the influence of those variables on technologies are examined. The evaluation and impact of current technology on the delivery of education are examined along with strategies for considering/anticipating future technologies to meet educational needs. LEC.

NRSG 874. Nurse Educator Preceptorship. 3 Hours.
The role components of the nurse educator are implemented with a preceptor in selected educational settings. Opportunities are provided to utilize teaching and learning strategies, research findings, and evaluation methods with diverse students. Professional issues, educational trends, changing role of the educator, and self-assessment are incorporated in accompanying modules. Prerequisites: NRSG 870, NRSG 871, NRSG 873. LEC.

NRSG 875. Women’s Health: Adolescence and Young Adult. 5 Hours.
The role of the advanced practice nurse is examined in relation to environmental and age-related factors that result in complex health problems in the young adult female and the childbearing family. Theoretical concepts and research are explored as a basis for advanced family assessment and nursing practice decisions. Factors that maintain system balance or result in system imbalance for pregnant and non-pregnant young adults and for childbearing families including the neonate are examined and interventions are designed, implemented, and evaluated. Methods for influencing health policy regarding resources for the management of complex health problems in the young adult female and the childbearing family are examined. Prerequisites/Corequisites: NRSG 754, or consent of instructor. LEC.

NRSG 876. Women’s Health: Middle and Aging Adult. 4 Hours.
The role of the advanced practice nurse in the provision of health care to women and their families during the middle and aging years is implemented. The difference between the management of acute and chronic conditions such as infertility, common gynecological conditions, and osteoporosis are compared as a basis for nursing decisions. Interventions designed to maintain or restore system balance are implemented and evaluated in relation to research. Methods for influencing health policy regarding resources for the management of the health needs of the woman in the middle and aging years and her family are examined. Prerequisites/Corequisites: NRSG 754, or consent of instructor. LEC.

NRSG 877. Foundations in Education and Learning. 3 Hours.
Foundations and applications of education and evaluation strategies for teaching and learning in academic, clinical, research, and organizational settings are explored. Scholarly evidence from a variety of sources is used to develop educational processes, products, and evaluation strategies. Students acquire knowledge to support professional development and employ research skills as educators in diverse teaching environments with diverse learners. Prerequisites: NRSG 870, admission to the Doctoral Program, or consent of instructor. LEC.

NRSG 878. Clinical Radiology for the Advanced Practice Nurse. 2 Hours.
A complexity science framework is used to present the basic and advanced technical aspects of radiological tests used in the care of adult...
and pediatric patients in the diagnostic work up of the etiology of the health problem. The science that forms the basis for all plain (cathode) films as well as computerized scanning and magnetic resonance imaging tests is covered in the course. The emphasis is on the appropriate choice of radiological tests in the work-up of the patient’s health problem. Also, advanced practice nurses will learn a framework for evaluating the findings of the radiological test, and the clinical implications of the findings. Prerequisites/Corequisites: NRSG 818, or NRSG 868, or NRSG 869, or NRSG 849, or NRSG 840, or consent of instructor. SEM.

**NRSG 880. Organizational Foundations for Leading Change. 3 Hours.**

Self-discovery as a foundation for professional development while exploring the concepts of leader, manager and follower is emphasized. Analysis and prediction of an organization’s stages of development and its capacity for linear and social change are introduced through the lens of complexity science. Political, legal, ethical and other issues that constrain and destabilize organizations and strategies to restore equilibrium are explored. Same as HPM 840. Prerequisites: NRSG 748, or consent of instructor. Prerequisite/Corequisite: NRSG 755. LEC.

**NRSG 881. Applied Budgeting and Finance. 3 Hours.**

Leaders apply basic principles associated with program, project and service-line fiscal management, price setting, budget preparation, cost-benefit/break-even analysis, managed-care contracting, and interpreting financial ratios while concurrently acquiring a financial vocabulary to communicate with various stakeholders. Financial reports such as balance sheets, budget forms and expense reports are studied and formulated related to government agencies, small clinical operations, grant-funded projects, and start-up programs. Staffing models and the staffing-quality equation are analyzed for the purpose of projecting human resource requirements. Prerequisites: NRSG 880, HPM 814, or consent of instructor. LEC.

**NRSG 882. Introduction to Operations. 3 Hours.**

Examines performance of health care organizations, sources of variation, methods of measurement, and strategies for improving performance. Considers several approaches to performance improvement and examines tools widely used in operations management. Incorporates lecture, discussion, and fieldwork. (Same as HPM 850.) Prerequisite(s): NRSG 754 or NRSG 880 or equivalent course; or consent of instructor. LEC.

**NRSG 883. Complexity Science Approaches to Improve Organizational Effectiveness. 3 Hours.**

This course introduces complexity science principles with the aim of improving the quality and effectiveness of healthcare organizations. Traditional approaches to quality improvement will be contrasted with tools and metrics that can be applied in complex organizations. Principles that relate to embeddedness, diversity, distributed control, co-existence of order and disorder, nonlinearity, inability to predict, emergence, and functioning at the edge of chaos will be introduced. Prerequisites: NRSG 880, or consent of instructor. LEC.

**NRSG 884. Topics in Organizational Leadership. 3 Hours.**

Investigation of current and futuristic issues and trends relevant to organizational leadership. Prerequisites: One graduate course in organizational leadership track, or consent of instructor. LEC.

**NRSG 885. Evaluation and Analysis for Healthcare Effectiveness. 2 Hours.**

Systematic approaches for analyzing and evaluation processes of care delivery and their impact on client populations, organizational processes, and communities are considered. Research concepts and methods are used in a systems context. Program evaluation, performance improvement, and other methods of measuring outcomes are examined for their utility within the health care setting. Linkages between program evaluation and regulatory policy are studied. Prerequisite: NRSG 754. Corequisites: NRSG 880, or consent of instructor. LEC.

**NRSG 886. Practicum in Organizational Leadership. 1-3 Hours.**

The knowledge, skills, and abilities learned throughout the course of study are integrated in this practicum experience designed to develop further specialized knowledge. The faculty and preceptor provide support and guidance to help interpret experiences, and gain a broader world view within organizational leadership. Students design an experience to facilitate application of theories and research related to organizational leadership. Emphasis is on expanding the capacity of the emerging leader in leading change, facilitating advanced communication skills, and demonstrating one or more areas of leadership expertise. Students negotiate a leadership project to be completed within the practicum. Prerequisites: Common Core, Leadership Core, HPM 814, NRSG 882. Corequisites: NRSG 891, NRSG 898, or consent of instructor. CLN.

**NRSG 887. Measurement in the Evaluation of Health Services. 3 Hours.**

The nature and problems of measuring health status and health-related factors in human populations are examined. Specific types of measures and various strategies are discussed and compared at the nominal, ordinal, and interval-ratio levels of measurement. Students are exposed to a range of measures including single response items and frequency measures such as rates and ratios, as well as multiple-item indexes and scales. Students apply techniques for establishing comparability, such as the adjustment and weighting of measures. Special attention is placed on understanding the sources of measurement error and the assessment and improvement of reliability and validity of measures. In addition, students are exposed to the process of translating clinical practice guidelines, quality indicators, or other health service outcome objectives into data collection instruments such as questionnaires or abstraction schedules for use with medical records. Finally, students learn how issues of measurement interface with other methodological issues such as selection of study populations and choice of statistical analytic techniques. Prerequisites: PRVM 800 or HPM 821 or equivalent; and NRSG 886 or HPM 836 or HPM 857, or equivalent; or consent of instructor. Enrollment in this course is limited to Master students. Same as HPM 870. LEC.

**NRSG 888. Seminar in Outcomes Management and Research. 1 Hour.**

Students admitted to the Certificate in Outcomes Management and Research program interact to build on the integration of content from the other outcomes certificate courses. During seminars the students discuss and analyze presentations and publications reporting studies and projects undertaken to describe, evaluate, and improve clinical, financial, and quality-of-life outcomes of medical health care interventions. Prerequisites: Admission to the Certificate in Outcomes Management and Research program, or permission of instructor. Same as HPM 876 and PRVM 868. LEC.

**NRSG 889. Grant Writing. 3 Hours.**

All aspects of preparing grant applications are covered. This includes writing an actual grant application containing all the usual elements of grants—budgets, biosketches, resources, and scientific text. In addition, different funding agencies, building research teams, the review process, responding to reviewers, and resubmitting grants will be covered. Prerequisites: Appropriate research methods and statistics courses in student’s current graduate program (at least 2 statistics courses, one including content of multiple regression), and permission of instructor. For students in the Outcomes Management and Research Concentration: prerequisites: HPM 821 or PRVM 800. Same as ANAT 869 and HPM 788. LEC.
NRSG 890. Independent Study in Nursing. 1-5 Hours.
Intensive study in an area of interest with experiences selected according to the student’s written purposes, conceptual framework, objectives and evaluation (1-5 credit hours). Appropriate prerequisite courses, as determined by the Independent Study faculty advisor, must be completed. LEC.

NRSG 891. Human Resources and Workforce Development. 3 Hours.
The focus of this course is to understand the leadership functions of human resource management in organizations to create a competitive edge through employee empowerment. Core human resource concepts are introduced and applied to optimize human capital within a variety of healthcare settings, including compensation and benefits, employee recognition, and employee/labor relations. National, regional and local strategies and workforce trends are discussed related to best practices for the selection, retention, and management as a healthcare employer of choice. Prerequisites: All Leadership Core Courses, or consent of instructor. Same as HPM 854. LEC.

NRSG 892. Independent Study in Nursing Practicum. 1-5 Hours.
Intensive practicum in a specified area of interest with experiences selected according to aims that are mutually agreed upon by faculty and student. Prerequisite: None IND.

NRSG 898. Research Project in Nursing. 2 Hours.
Portions of the research process in an area of nursing are implemented. Emphasis is placed on experiential knowledge of the actual conduct of research. The student selects one of several research activities and reports on the project. Prerequisites: NRSG 754 plus either one advanced practice or one administration track course, or consent of instructor. LEC.

NRSG 899. Thesis. 1-6 Hours.
Prerequisites: NRSG 754, and one core track course. THE.

NRSG 909. NEXus Topics. 1-9 Hours.
This course is used for enrollment in the Nursing Education Xchange program (NEXus). NEXus is a collaboration of doctoral programs in nursing that offer distance-accessible graduate courses. KU School of Nursing is an academic collaborator in NEXus. Students in NEXus schools may enroll in online doctoral courses offered by other NEXus academic collaborators. The student’s transcript will reflect the course title, under the home school course number. Students select appropriate NEXus courses to fit with their plans of study. Courses are selected by the student in consultation with his/her academic advisor. Prerequisite(s): Admission to a doctoral program in nursing and completion of course-specific prerequisites. LEC.

NRSG 911. Tools for Practice Doctorate Scholarship. 3 Hours.
Foundations and applications of tools and methods to develop advanced practice project proposals across diverse settings are explored. Scholarly evidence from a variety of sources is used to develop project proposals that enhance patient care, staff development, and organizational leadership. Relevant practice theories such as quality improvement and evaluation models serve as project proposal guides. Students acquire knowledge and skills to support professional development, to write advanced practice project proposals, and to advance doctoral scholarship. Prerequisites: NRSG 804, or consent of instructor. LEC.

NRSG 919. Theoretical Foundations for Leading & Communicating in Organizations. 3 Hours.
Theoretical foundations in organizational decision making and communication will enhance students’ development of expertise in assessing organizations, identifying system issues, and facilitating organization- and system-wide improvements in healthcare. Traditional approaches to organizing and communicating are contrasted with emerging approaches that promote sensitivity to diverse organizational cultures and populations. Through examination of theoretical perspectives, the student will develop an ability to integrate the contributions of different points of view and ways of thinking crucial to accurately assess, design and lead high performing healthcare organizations in a dynamic world. PREREQUISITE(S): Admissions to a doctoral program in Nursing, HPM, or related field, or consent of instructor. LEC.

NRSG 920. Microsystems in Healthcare Operations. 3 Hours.
Competencies necessary for studying clinical Microsystems and examining their influence on patient safety, satisfaction, and other clinical outcomes are developed in this course. Microsystems will be determined, deconstructed, analyzed for best practice, and re-constituted for the purpose of improved organizational performance. The roots of quality improvement are traced and quality improvement application within a microsystem environment is explored. Key topics include: assessment tools and models, continuous quality improvement theory, evidence-based practice, performance improvement methods (measurement, statistics, problem identification and analysis, control charts) and the development of team-based problem solving and resolution. Students examine productivity and cost indicators, strategic and operational planning, healthcare finance, relationship-building, collaboration techniques, and leadership principles. Prerequisites/Corequisites: Completion of graduate program in organizational leadership or nursing administration, or consent of instructor. LEC.

NRSG 935. Professionalism and Scholarship Workshop. 1 Hour.
Building a foundation for advanced study is explored in the context of professionalism and scholarship. Strategies for promoting professional development while preparing for future roles as nurse scholars and nurse scientists are examined. Students are introduced to a model of scholarship that includes discovery, integration, application, and teaching. Issues associated with scientific integrity in academics, research and services are identified and examined. Prerequisite: Admission to the Doctoral Program. LEC.

NRSG 938. Informatics and Technology Applications. 2 Hours.
The field of nursing informatics and the role of the nurse to support research and evidence-based practice inquiry in a variety of organizational settings is introduced. The current state of the science in naming nursing phenomena and how these phenomena are represented in information systems is explored. The use of technology as an adjunct to doctoral-level inquiry and how it supports clinical and professional decision-making is explained and demonstrated. Corequisites: NRSG 935, or consent of instructor. LEC.

NRSG 940. Knowledge and Theory Development in Nursing Science. 3 Hours.
The philosophical, ethical, socio-cultural, economic, and political forces that shaped the historical course of nursing science are examined. Philosophical and scientific foundations of knowledge development in nursing science are explored. Conceptual and grand theoretical development and analysis strategies are practiced. Integration of theory, research, and practice knowledge development in nursing science is emphasized. Prerequisites: NRSG 938, or consent of instructor. LEC.

NRSG 941. Preparing for Doctoral Leadership. 3 Hours.
Skills in leading, managing, and following as the doctoral graduate assumes critical roles within academia, the healthcare system, or other business entities are developed and strengthened. Through developmental exercises, theoretical and practical explorations of organizational structures and settings and career trajectory planning, the student is poised to optimize the doctoral experience to influence social change. Prerequisites: NRSG 938, or consent of instructor. LEC.
NRSG 942. Theory Application in Nursing Science. 3 Hours.
The development of middle-range theoretical structures and processes in nursing science is examined. Historical foundations of middle-range theory are traced to current trends and future possibilities in theory development, application, testing, and evaluation. Examples from nursing science and related health and social sciences are used to illustrate middle-range theory development, application, testing, and evaluation. Strategies for using existing theoretical knowledge to guide practice in diverse settings and to foster ongoing development of new knowledge are explored. Prerequisites: NRSG 940, or consent of instructor. LEC.

NRSG 943. Methods for Quantitative Research. 3 Hours.
Quantitative research methods are studied as they relate to investigation of phenomena in nursing and health care. Focus is on understanding the issues involved in generating research questions and hypotheses, designing and implementing studies to answer specific questions or test hypotheses, the logic and application of statistical inference, and the strengths and weaknesses of different approaches to quantitative methods. Prerequisites/Corequisites: NRSG 946, PRE 905, or consent of instructor. LEC.

NRSG 944. Quantitative Research Application. 2 Hours.
This practicum provides a research application experience in quantitative methods and seminar discussions of quantitative research issues such as scientific integrity, research implementation and management, and interpretations of statistical analyses. Students identify a research problem/question/hypothesis that may be analyzed using existing data, plan and execute appropriate analyses to answer the question or test the hypothesis, and write a formal report including a description of what was done, why it was done, and an interpretation of the findings. Prerequisites: NRSG 943 or consent of instructor. SEM.

NRSG 945. Synthesis Workshop I. 1 Hour.
Leadership development and technologic applications are integrated with theoretical, statistical, and research methods. Doctoral leadership skills are refined and tested through case study simulations of theory and research applications in diverse practice settings. A qualifying examination concludes the Workshop consisting of a written and oral case study simulation. Prerequisites: NRSG 941, NRSG 942, NRSG 946, PRE 905, or consent of instructor. Prerequisite/Corequisite: NRSG 877. LEC.

NRSG 946. Measurement Principles and Practice. 3 Hours.
Classical measurement theory and related measurement concepts are the focus of this course. Various approaches to instrumentation are examined. Students use existing data to evaluate selected measures, with emphasis on reliability and validity. They also critically analyze published reports of instrumentation for research. Basic knowledge of concept analysis is expected prior to enrollment. Prerequisites: NRSG 940, or consent of instructor. LEC.

NRSG 947. Qualitative Research Application. 3 Hours.
Students conduct fieldwork to implement a qualitative research proposal. Emphasis is placed on advanced application of various qualitative methods. Extended experience in qualitative data collection and analysis is provided. Prerequisites: NRSG 802, NRSG 940, or consent of instructor. LEC.

NRSG 948. Advancing Organizational and Clinical Quality. 2 Hours.
The roles of nursing leaders in the design, measurement, and evaluation of the discipline within a variety of organizational settings are analyzed. The nuances of measurement and statistics are compared and related to the quality science paradigm, applying incremental measurement techniques to foster continuous improvement. Process design, standards development and adaptation, regulatory requirements, and consumer expectations for quality are integrated into a quality plan that aligns with the student's career trajectory. Prerequisites: NRSG 944, NRSG 947, or consent of instructor. LEC.

NRSG 949. Synthesis Workshop II. 1 Hour.
Content from the full range of doctoral courses including theory, research, statistics and professional development is integrated and synthesized. Strategies for using these content areas to meet program objectives and students' professional objectives are explored. A qualifying examination, consisting of a written and oral case study simulation, concludes the Workshop. Prerequisites: Completion of all doctoral coursework. Corequisites: NRSG 948, or consent of instructor. LEC.

NRSG 957. Health Informatics, Human Factors, and Ergonomics as Applied to Patient Safety. 3 Hours.
Includes 2 credit hour lecture and 1 credit hour practicum. The use of information systems including medical devices is paramount in achieving patient safety. Students will attain an inclusive understanding of how human factors and ergonomic principles can be used to improve patient safety in the design, implementation, and evaluation of information systems and medical devices. Additionally, health care professionals will acquire skills to appropriately apply error reduction strategies developed in high reliability organizations. Prerequisites(s): Admission to a doctoral program in nursing, NRSG 857 or consent of instructor. LEC.

NRSG 958. Knowledge Representation and Interoperability. 3 Hours.
Includes 2 credit hour lecture and 1 credit hour practicum. The need to exchange clinical information consistently between health care providers, care settings, researchers and others requires syntactic and semantic interoperability. Requirements and approaches to meet interoperability will be explored. Standards for messaging, terminology, and knowledge representation will be investigated. Prerequisites: Admission to a doctoral program in nursing, NRSG 853 or consent of instructor. LEC.

NRSG 959. Research Experience. 2 Hours.
This practicum is an intensive research experience with a specific faculty mentor. It involves working on part of the faculty mentor's current research or on a subject closely related to the mentor's work. The student submits a proposal for this research experience to the faculty mentor. Once the project is complete, the student presents the research orally in a structured forum and, if appropriate, develops a publishable manuscript. Prerequisite: Consent of instructor. FLD.

NRSG 963. Advanced Leadership Residency. 1-9 Hours.
The advanced leadership residency is designed to expand the DNP student's breadth and depth of leadership knowledge and skills in an area of practice at the aggregate/systems/organization level. Students will have the opportunity to enhance their existing advanced leadership skills in one or more of the following areas: organizational and systems leadership for enhancing healthcare outcomes; quality improvement strategies to support decision-making; prediction and evaluation of practice outcomes; patient safety initiatives; health care policy; creating and sustaining change at organizational and policy levels; or ethics related to healthcare systems; information technology; knowledge management; or population health. Prerequisite(s): BS-DNP students or MS-DNP students with MS in different area of Leadership specialization: NRSG 919, NRSG 941, Completion of at least one specialty course, or consent of instructor. MS-DNP students with MS in same area of Leadership specialization: NRSG 919 and NRSG 941, or consent of instructor. PRA.

NRSG 964. Advanced Clinical Residency. 1-9 Hours.
The advanced clinical residency is designed to expand the DNP student’s breadth and/or depth of clinical knowledge and skills in an area of practice. The focus can be either on the delivery of sub-specialty care services or full spectrum primary care services. Students will have the opportunity to enhance their existing advanced practice skills in one or more of the following areas: the diagnosis and management of ambulatory
patients with complex diagnoses and comorbid conditions in the context of family, community and culture; the diagnosis and management of patients with complex diagnoses and/or comorbid conditions who present with acute changes in health status requiring interventions available only in an acute care setting; and the diagnosis and management of patients who are unable to function independently due to age-related alteration in mental and physical status, developmental, perceptual and physical disability and chronic, degenerative illness. Students will synthesize clinical knowledge and use evidence-based decision making to construct symptom-based assessments, advanced differential diagnoses, independent therapeutic interventions, and outcome evaluation of the care of clients. Prerequisites/Corequisites: Post-BSN students: NRSG 818, or NRSG 868, or NRSG 869, or NRSG 849, or NRSG 840, or consent of instructor. Post-Master’s students: A minimum of 1000 clinical hours in your current or previous work following graduation from an accredited Master’s in Nursing program; National certification in your area of expertise (e.g. family, adult, psych, pediatric, CNM, etc.) CLN.

NRSG 965. Special Topics: _____. 2 Hours.
Students participate in advanced study that provides theoretical, methodological, and clinical perspectives to facilitate their pursuit of research interests in an identified specialty area. Methods include directed readings, discussions, and the interpretation of data-based literature. Examples of topics are theory and research issues related to health systems, symptom management, or health behavior; topic for any given semester to be announced. Prerequisite: Consent of instructor. IND.

NRSG 970. Synthesis of Minor Area of Study. 1 Hour.
This course provides an opportunity for the PhD student to synthesize work in their selected minor. After completion of minor coursework, students will focus on synthesizing content across these minor courses. The synthesis experience culminates in a written synthesis paper in the minor area to assure the student’s competency in the minor area of study. Typically, the minor coursework and the minor synthesis paper contribute directly to the student’s dissertation. Prerequisites: Completion of Minor Coursework (at least 10 credit hours) and NRSG 945, or consent of instructor. LEC.

NRSG 980. Doctorate of Nursing Practice Capstone Project. 1-6 Hours.
The capstone project is an amalgamation of the student’s field of inquiry in his/her doctoral course of study. As such, the capstone requires that a practice-focused problem be identified and examined in depth. For most students the capstone project will include application of an evidence-based intervention suitable to their area of focus (e.g. organizational leadership, clinical practice, education, etc.) that involves the appropriate metric (or sets of metrics) evaluation, and dissemination of the project findings to a targeted audience. The capstone project must meet capstone guidelines for the DNP program. Prerequisites: NRSG 754, graduate level statistics course, or consent of instructor. Corequisite: NRSG 804. FLD.

NRSG 990. Doctoral Research. 1-12 Hours.
Original and independent investigation approved by and conducted under the supervision of the student’s adviser or advisory committee and in partial fulfillment of the requirements for the Ph.D. degree. Prerequisites: NRSG 959, and consent of adviser. RSH.

NRSG 997. Independent Study. 1-4 Hours.
Having chosen an appropriate mentor, the student selects an area of advanced study. Specific objectives and credit hours are jointly determined by the student and selected faculty member. Prerequisites: Prior graduate course work in the area of study and consent of instructor. IND.

NRSG 999. Dissertation. 1-12 Hours.
Preparation of the dissertation based upon original research and in partial fulfillment of the requirements for the Ph.D. degree. Credit is given only after the dissertation proposal has been accepted by the student’s dissertation committee. Prerequisites/Corequisites: NRSG 990, and consent of adviser. THE.

Nursing Courses
NURS 50. Research Clinical Trial Coordinator Certificate Program. 0 Hours.
The Research Clinical Trial Coordinator Certificate Program targets the interdisciplinary Health Professions and is designed to meet the training needs for individuals to become Clinical Trial Coordinators. The series of three courses over eighteen months provides as an introduction to the research coordinator role and provides in-depth knowledge of pre-, during-, and post- clinical trial study activities. Regulatory, administrative, and ethical issues will be presented as well as the daily operational requirements (e.g. study design, financial and monitoring, protocols and documentation, subject recruitment and retention, audits, etc.). A practicum experience in selected research settings provides opportunities to utilize learned competencies related to the role of a Research Coordinator during key phases of a clinical trial study: pre-study, during-study, and post-study activities. Minimum educational requirements are a high school diploma. LEC.

NURS 301. Techniques for Therapeutic Interventions I. 1 Hour.
Skills necessary to perform fundamental techniques relating to therapeutic interventions are discussed and demonstrated. The emphasis is on drug calculation and psychomotor skills. Concepts of time management, prioritization of nursing care, team building, cost effectiveness and resource utilization are introduced through scenarios and demonstrations in a laboratory setting. Prerequisite: Admission to the School of Nursing. LEC.

NURS 302. Techniques for Therapeutic Interventions II. 1 Hour.
Therapeutic interventions pertaining to care of the client experiencing acute, chronic, and complex health deficiencies are discussed and demonstrated. Case scenarios and demonstrations are used to apply the concepts of time management, prioritization of nursing care, team building, cost effectiveness, and resource utilization in a laboratory setting. Prerequisite: NURS 301. Prerequisites or Corequisites: NURS 322, NURS 325, or consent of instructor. Corequisites: NURS 366 and NURS 376. LEC.

NURS 306. Nursing Care of the Adult Experiencing Surgery. 2 Hours.
This course is designed to assist undergraduate students to acquire a scientific knowledge base necessary for delivering quality nursing care to adult surgical patients. The course will include an in-depth study of content relevant to the pre-operative, intra-operative, and post-operative phases, using Maslow’s hierarchy of needs as a basis for the content. Opportunities will be provided for students to increase their skills in the use of the nursing process. Prerequisites: NURS 340 and NURS 341. LEC.

NURS 310. Information Technology For Healthcare Professionals. 1 Hour.
Beginning theory and practical applications of various uses and results of computer technologies are explored in order to provide the basic skills and current infrastructure for information management in health care delivery. These concepts and skills are essential for curriculum related activities, as well as for providing therapeutic nursing interventions and communications with faculty, client systems, and other health care participants. Learners are encouraged to be cognizant of emerging legal and ethical issues related to electronic communications. Knowledge and
skills presented in this course will be developed and expanded in future nursing courses. Prerequisites: Admission to the School of Nursing or consent of instructor. LEC.

NURS 312. Adult Trauma Management. 2 Hours.
Basic concepts related to the care of the traumatically injured adult are discussed. Emphasis is placed on the initial management and stabilization of the adult trauma client. The nursing process is utilized to assist the individual client to restore system balance and prevent further system imbalance. Basic trauma stabilization skills are demonstrated. Ethical, legal, and societal issues, as well as current research on trauma management will be explored. Prerequisites: NURS 340, NURS 341, NURS 350, or consent of instructor. LEC.

NURS 313. Integrating Nutrition in Nursing. 2 Hours.
Knowledge from the basic sciences is applied to explore the relationship between nutrition and body function. Nutrition requirements for the different phases of the life cycle are described. The application of nutritional concepts necessary for the maintenance of health, prevention of illness, and minimization of the complications of acute and chronic illness will be discussed. A framework to counsel clients regarding healthful dietary habits, costs and governmental programs will be explored. Prerequisite: Completion of two Level II courses. LEC.

NURS 316. Psychosocial Aspects of Nursing Seminar. 2 Hours.
Psychosocial issues that relate to nursing care across the wellness-illness continuum for client systems across the lifespan will be explored in this course. Relevant topics such as death and dying, disfiguring conditions, infertility, and coping with chronic illnesses will be investigated. Ethical and legal considerations as well as current research will be discussed. Prerequisite: Completion of two Level II courses. LEC.

NURS 317. Stress Management for Nurses. 2 Hours.
This course is designed to acquaint students with the concept of stress as it occurs in our society and to introduce them to effective ways of dealing with stress in themselves and in their clients. The course will examine socio-cultural, physiological, and psychological components of stress. Students will be exposed to effective stress management techniques through the utilization of small group experiential exercises as a teaching methodology. LEC.

NURS 318. Advanced Concepts in Intravenous Therapy. 2 Hours.
Advanced concepts in intravenous therapy that are relevant to practice in acute, ambulatory, long term and home settings will be presented. All venous access devices and types of intravenous therapies will be studied. Emphasis will be placed on client assessment, client teaching, early recognition of complications and research-based implications as they relate to intravenous therapy and care of clients across the life span. Hands-on opportunities to work with the various intravenous access devices and therapies will be provided in non-clinical and clinical laboratory settings. Prerequisite: Completion of two Level II courses. LEC.

NURS 320. Pathophysiology for the Practicing Nurse. 3 Hours.
This course is designed to provide students with a basic understanding of pathophysiological changes that occur within the internal environment of the individual. Understanding these alterations is basic to providing quality nursing care. System variations across the lifespan are addressed. Prerequisites: Admission to the School of Nursing and RN to BSN program or consent of instructor. Exams will be scheduled as in class proctored experiences. LEC.

NURS 321. Alterations in Physiological Functioning I. 3 Hours.
Basic mechanisms underlying illness and disease are stressed as a basis for the understanding of health promotion and disease prevention in this first of two sequential courses. Pathophysiological changes that occur within the internal environment of individuals in the presence of dysfunction of disease of selected systems are presented as a rationale for nursing diagnoses and therapeutic interventions. System variations across the life span are addressed. Prerequisite: Admission to the School of Nursing. LEC.

NURS 322. Alterations in Physiological Functioning II. 2 Hours.
In this second sequential course, an understanding of pathophysiological changes that occur within the internal environment of the individual in the presence of dysfunction or disease of selected systems are provided as a rationale for nursing diagnoses and therapeutic interventions. The most common alterations in selected body systems are presented, with relevant risk factors and epidemiology, pathophysiologic mechanisms, and clinical manifestations. System variations across the life span are discussed. Prerequisite: NURS 321. Prerequisites or corequisites: NURS 325 or consent of instructor. LEC.

NURS 325. Pharmacology. 3 Hours.
Pharmacodynamics and pharmacokinetics of drug therapy are discussed in order to provide a basic understanding of the client’s reaction to a drug both therapeutically and adversely, and to predict potential drug interactions. Internal and external environmental factors affecting drug therapy are assessed in order to provide a comprehensive data base for therapeutic nursing interventions. Specific prototypes of selected drug classifications provide the framework for understanding the action, use, side effects and nursing implications of drugs. The nurse’s role in drug administration, assessment of drug effects, and client system education are emphasized. Legal and ethical responsibilities for administering drugs are considered. Prerequisites: Admission to the School of Nursing or consent of instructor. Prerequisites or Corequisites: NURS 322 or consent of instructor. LEC.

NURS 326. Pharmacology for the Practicing Nurse. 3 Hours.
Pharmacodynamics and pharmacokinetics of drug therapy are discussed in order to provide a basic understanding of the client’s reaction to a drug, both therapeutically and adversely, and to predict potential drug interactions. Internal and external environmental factors affecting drug therapy are assessed in order to provide a comprehensive database for therapeutic nursing interventions. Specific prototypes of selected drug classifications provide the framework for understanding the action, use, side effects and nursing implications of drugs. The nurse’s role in drug administration, assessment of drug effects, and client system education are emphasized. Legal and ethical responsibilities for administering drugs are considered. Prerequisites: Admission to the School of Nursing or consent of instructor. Prerequisites/Corequisites: NURS 322 or consent of instructor. LEC.

NURS 327. Communicating and Managing Healthcare Information. 3 Hours.
Basic theories of interpersonal communication and information technologies are explored. Use of these skills and technologies to develop therapeutic relationships with patients and the interdisciplinary healthcare team is emphasized. Legal and ethical issues related to health information technology and health information exchanges will be examined. PREREQUISITES: Admission to the School of Nursing or consent of instructor. COREQUISITES: NURS 331, NURS 328, NURS 329, NURS 330, NURS 332, NURS 333 or consent of instructor. LEC.

NURS 328. Professional Development I: Introduction to the Profession. 2 Hours.
Students are introduced to the evolution of the profession of nursing. Focus is on professional and personal accountability. Students will have opportunities to establish personal and professional boundaries, examine their own beliefs and values, and develop their personal philosophy of nursing. Students will explore how their lived experience will impact their professional practice. PREREQUISITES: Admission to the School of
NURS 329. Alterations in Physiological Functioning I. 2 Hours.
Basic mechanisms underlying illness and disease are stressed as a basis for the understanding of health promotion and disease prevention in this first of two sequential courses. Pathophysiological changes that occur within the environments of individuals in the presence of dysfunction or disease of selected systems are presented as a rationale for nursing diagnoses and therapeutic interventions. System variations across the life span (fetuses, children, pregnant women, adults, and older adults) are addressed. PREREQUISITES: Admission to the School of Nursing or consent of instructor. COREQUISITES: NURS 327, NURS 331, NURS 328, NURS 330, NURS 332, NURS 333 or consent of instructor. LEC.

NURS 330. Pharmacology I. 2 Hours.
Pharmacodynamics and pharmacokinetics of drug therapy across the lifespan are discussed in order to provide a basic understanding of the patient’s reaction to a drug both therapeutically and adversely, and to predict potential drug interactions. Personal, genetic, and environmental factors affecting drug therapy are assessed in order to provide a comprehensive data base for therapeutic nursing interventions. Specific prototypes of selected drug classifications provide the framework for understanding the action, use, adverse effects and nursing implications of drugs. The nurse’s role in drug administration, assessment of drug effects, and patient education are emphasized. Legal and ethical responsibilities for administering drugs are considered. PREREQUISITES: Admission to the School of Nursing or consent of instructor. COREQUISITES: NURS 327, NURS 331, NURS 328, NURS 329, NURS 330, NURS 332, NURS 333 or consent of instructor. LEC.

NURS 331. Basic Assessment and Therapeutic Interventions. 3 Hours.
Skills necessary to perform basic patient assessment and therapeutic interventions are discussed and demonstrated. Opportunities are provided in a laboratory setting for students to demonstrate cognitive and psychomotor competencies of therapeutic interventions and assessment of the individual patient across the life span. The emphasis is on interviewing techniques, physical examination, and psychomotor skills. Developmental factors and risk factors, including genetic and environmental, that affect the patient’s health will be explored. Case studies and simulation are used to apply the concepts of safe quality care. PREREQUISITES: Admission to the School of Nursing or consent of instructor. COREQUISITES: NURS 327, NURS 328, NURS 329, NURS 330 or consent of instructor. LEC.

NURS 332. Health and Illness: Foundations of Nursing. 3 Hours.
Concepts basic to the art and science of nursing are introduced as a foundation for safe, quality patient care. Emphasis is placed on the patient and/or designee as the source of control and full partner in providing compassionate and coordinated care. Evidence-based principles of nursing and health promotion are integrated to prepare the student to meet the health-related needs of a patient. The nurse’s role as a member of the interdisciplinary team will be examined. Principles of information management and communication are integrated into the care of the patient with health care needs. PREREQUISITES: NURS 331, or consent of instructor. COREQUISITES: NURS 327, NURS 328, NURS 330, NURS 333, or consent of instructor. LEC.

NURS 333. Health and Illness: Foundations of Nursing Practicum. 1 Hour.
Evidence-based clinical reasoning is applied in the care of individual patients with acute and chronic illness to ensure safe and quality outcomes. Emphasis is placed on the patient and/or designee as the source of control and full partner in providing compassionate and coordinated care. Tools of communication and technology are utilized in the delivery and documentation of care. The role of the nurse within the interdisciplinary team is demonstrated. PREREQUISITES: NURS 331, or consent of instructor. COREQUISITES: NURS 327, NURS 328, NURS 329, NURS 330, NURS 332, or consent of instructor. LEC.

NURS 334. Professional Development II: Image, Roles, and Ethics. 3 Hours.
Ethical principles of patient care are applied. Team building and group process skills are explored to facilitate students working within healthcare teams. The role of the nurse as a member of the interprofessional health care team is examined using concepts and theories of organizational design, quality, group process, and team building. The professional responsibilities and roles of advocacy will be explored. Regulatory agency influence on the microsystem will be investigated. PREREQUISITES: NURS 327, NURS 328, NURS 329, NURS 330, NURS 331, NURS 332, NURS 333, or consent of instructor. COREQUISITES: NURS 335, NURS 336, NURS 337, NURS 338, NURS 339, or consent of instructor. LEC.

NURS 335. Quality Improvement. 2 Hours.
Continuous quality improvement is introduced as a foundation for quality care and patient safety. Data to monitor the processes and outcomes of care are discussed. Methods to design and test changes to continuously improve the quality and safety of healthcare systems are explored. PREREQUISITES: NURS 327, NURS 328, NURS 329, NURS 330, NURS 331, NURS 332, NURS 333, or consent of instructor. COREQUISITES: NURS 334, NURS 336, NURS 337, NURS 338, NURS 339, or consent of instructor. LEC.

NURS 336. Alterations in Physiological Functioning II. 3 Hours.
Building on NURS 321, this course expands knowledge of pathophysiological changes that occur within the environments of the individual in the presence of dysfunction or disease. The most common alterations in selected physiological systems are presented as a framework for clinical reasoning. Relevant risk factors, epidemiology, pathophysiologic mechanisms, and clinical manifestations across the life span (fetuses, children, pregnant women, adults, and older adults) are discussed. PREREQUISITES: NURS 327, NURS 328, NURS 329, NURS 330, NURS 331, NURS 332, NURS 333, or consent of instructor. COREQUISITES: NURS 334, NURS 336, NURS 337, NURS 338, or consent of instructor. LEC.

NURS 337. Pharmacology II. 2 Hours.
In this second sequential course, students continue their study of pharmacology across the lifespan. Specific prototypes of selected drug classifications provide the framework for understanding the action, use, adverse effects and nursing implications of drugs. The nurse’s role in drug administration, assessment of drugs’ effects, and patient education are emphasized. Legal and ethical responsibilities for administering drugs are considered. PREREQUISITES: NURS 327, NURS 328, NURS 329, NURS 330, NURS 331, NURS 332, NURS 333, or consent of instructor. COREQUISITES: NURS 334, NURS 335, NURS 337, NURS 338, or consent of instructor. LEC.

NURS 338. Health and Illness: Nursing Across the Lifespan. 3 Hours.
A greater sophistication of clinical reasoning is developed to achieve safe and quality outcomes using multiple ways of knowing including nursing knowledge. Emphasis is placed on managing the care of patients experiencing acute and chronic illnesses and promoting health across the lifespan. Strategies to empower and engage patients/designees in all aspects of the health care process are examined. Evidence-based therapeutic nursing interventions that meet a patient’s holistic health needs will be expanded. Perspectives of other health care members will be recognized in order to collaborate and work effectively as a
team to provide interdisciplinary care. Technology and communication skills are integrated as methods to support safe processes of care. PREREQUISITES: NURS 331, NURS 332, NURS 333, NURS 327, NURS 328, NURS 329, NURS 330, or consent of instructor. COREQUISITES: NURS 334, NURS 335, NURS 336, NURS 337, NURS 339, or consent of instructor. LEC.

NURS 339. Health and Illness: Nursing Across the Lifespan Practicum. 3 Hours.
Students engage patients in active partnerships to manage acute and chronic illness and promote health across the lifespan. Multiple sources of evidence are incorporated into the planning, implementation and evaluation of nursing care including nurse sensitive quality indicators. Coordination, integration and continuity of care for multiple patients will be applied in the healthcare microenvironment. Emphasis is placed on interdisciplinary collaboration to ensure safe and quality outcomes. Technology and information management tools are utilized to support safe processes of care. PREREQUISITES: NURS 331, NURS 332, NURS 333, NURS 327, NURS 328, NURS 329, NURS 330, or consent of instructor. COREQUISITES: NURS 334, NURS 335, NURS 336, NURS 337, NURS 338, or consent of instructor. LEC.

NURS 340. Foundations of Nursing and Health Promotion. 3 Hours.
Four concepts basic to the art and science of nursing (client systems, environment, health, and nursing) are introduced as a foundation for professional practice. The influence of nursing values and standards (ANA), client characteristics, and the evolving health care system on nursing practice are explored. Principles of nursing are integrated with concepts of health promotion to prepare the student to meet the fundamental health-related needs of individual and family client systems across the life span. Prerequisites/Corequisites: Admission to the School of Nursing. NURS 301, NURS 341, NURS 350. LEC.

NURS 341. Foundations of Nursing Health Promotion: Clinical Laboratory. 2 Hours.
The four concepts basic to the art and science of nursing (client systems, environment, health and nursing) in providing care to healthy clients across the life span are demonstrated in a clinical laboratory setting. Students develop beginning skill in applying the nursing process and planning care for healthy individuals and families. Prerequisites/Corequisites: Admission to the School of Nursing or consent of the instructor, NURS 301, NURS 340, NURS 350. LAB.

NURS 344. The Pediatric Surgical Client. 2 Hours.
Introduces students to concepts and theories of pediatric operating room nursing. Factors in the client’s internal and external environment that contribute to alterations in system balance resulting in the need for surgical intervention are explored. Components of the role of the OR Nurse during preoperative, intraoperative, and postoperative phases are emphasized. Physiological and psychological alterations are identified. Nursing interventions used to maintain or restore system balance and prevent further system imbalance are investigated. Ethical and legal issues, as well as current research involving the practice of pediatric operating room nursing, are discussed. Prerequisites: NURS 375 and NURS 376. LEC.

NURS 345. Nursing of Children: Practicum. 2 Hours.
Evidenced based clinical reasoning is applied in the care of children with acute and chronic illness to ensure safe and quality outcomes. Emphasis is placed on the patient and/or designee as the source of control and full partner in providing compassionate and coordinated care. Tools of communication and technology are utilized in the delivery and documentation of care. The role of the nurse within the interdisciplinary team is demonstrated. Prerequisite: NURS 333, NURS 339, or consent of instructor. CLN.

NURS 346. Nursing of Adults: Practicum. 2 Hours.
Evidenced based clinical reasoning is applied in the care of adults with acute and chronic illness to ensure safe and quality outcomes. Emphasis is placed on the patient and/or designee as the source of control and full partner in providing compassionate and coordinated care. Tools of communication and technology are utilized in the delivery and documentation of care. The role of the nurse within the interdisciplinary team is demonstrated. Prerequisite: NURS 333, NURS 339, or consent of instructor. CLN.

NURS 350. Client Assessment. 3 Hours.
Opportunities are provided in a laboratory setting to demonstrate cognitive and psychomotor competencies related to assessment of the individual client system across the life span. The emphasis is on physical examination and historical data collection. Developmental factors and environmental stressors that influence health status are explored. The four basic methods of physical examination (inspection, palpation, percussion, and auscultation) are presented. Prerequisites: Admission to the School of Nursing or consent of instructor. LEC.

NURS 352. Client Assessment for the Practicing Nurse. 3 Hours.
Opportunities are provided, in a laboratory setting and with simulations, to demonstrate competencies in assessment of the individual client system across the life span. Historical data collection and psychological and physical assessment are reviewed. Interviewing techniques and the four basic methods of physical examination (inspection, percussion, palpation, and auscultation) are presented. Critical thinking is emphasized to cluster data to select and support nursing diagnoses. Prerequisites: Admission to the School of Nursing and RN licensure, or consent of instructor. LEC.

NURS 353. Pathophysiology for the Baccalaureate Nurse. 3 Hours.
This course is designed to provide students with a basic understanding of pathophysiological changes that occur within the internal environment of the individual. Understanding these alterations is basic to providing quality nursing care. System variations across the life span are addressed. Prerequisite: Admission to the School of Nursing. LEC.

NURS 354. Nursing Pharmacology. 3 Hours.
Pharmacodynamics and pharmacokinetics of drug therapy are discussed in order to provide a basic understanding of the client’s reaction to a drug, both therapeutically and adversely, and to predict potential drug interactions. Internal and external environmental factors affecting drug therapy are assessed in order to provide a comprehensive database for therapeutic nursing interventions. Specific prototypes of selected drug classifications provide the framework for understanding the action, use, side effects and nursing implications of drugs. The nurse’s role in drug administration, assessment of drug effects, and client system education are emphasized. Legal and ethical responsibilities for administering drugs are considered. Prerequisite: Admission to the School of Nursing. LEC.

NURS 355. Assessment for the Prelicensure Nurse. 3 Hours.
Opportunities are provided for students to demonstrate competencies in assessment of the individual patient across the life span. Historical data collection and psychological and physical assessment are reviewed. Interviewing techniques and the four basic methods of physical examination are presented. Identification of risk factors, including genetic and environmental, that affect the patient’s health will be explored. Prerequisite: Admission to the School of Nursing. LEC.

NURS 356. Using Technology and Informatics to Improve Patient Safety. 3 Hours.
Beginning theory and practical applications of various uses and results of computer technologies, including electronic health records, are explored in order to provide the basic skills and current infrastructure for information management in healthcare delivery. These concepts and skills are essential for curriculum related activities, as well as for providing
therapeutic nursing interventions and communications with faculty, client systems, and other healthcare participants. Built-in safeguards, and legal and ethical issues related to electronic communications and health records are emphasized using 21st century tools of communication and collaboration. Knowledge and skills presented in this course will be expanded in future nursing courses related to the baccalaureate completion program. Prerequisite: Admission to the School of Nursing or consent of instructor. Satisfactory completion of a statistics course. LEC.

NURS 357. Introduction to the Baccalaureate Nurse Role. 3 Hours. Contemporary issues confronting the nursing profession are discussed. Personal accountability, professional boundaries, and group process skills are explored to facilitate students working within interprofessional health care teams. Students will examine their own beliefs and values, establish personal and professional boundaries, and develop their personal philosophy of nursing. Students will explore how their lived experience will impact their professional practice. Prerequisite: Admission to the School of Nursing or consent of instructor. LEC.

NURS 360. Mental Health Nursing. 3 Hours. Principles of communication as an intervention in developing therapeutic relationships with clients from varying age groups in psychiatric settings are discussed. Mental health concepts and selected theoretical frameworks are used to understand adaptive and maladaptive coping behaviors in response to alterations in psychological functioning. These theoretical frameworks, as well as designated diagnostic classification systems, are discussed in relation to the implementation of the nursing process. Students engage in critical thinking to examine the role of the nurse in psychiatric-mental health nursing, exploring it in relation to health promotion, disease prevention, community resources, historical perspectives, and economic, legal and ethical issues. Prerequisite: Level I courses. Prerequisites or Corequisites: NURS 302, NURS 322 and NURS 325, or consent of instructor. Corequisite: NURS 361. LEC.

NURS 361. Mental Health Nursing: Clinical Laboratory. 2 Hours. Theoretical concepts from NURS 360 and nursing therapeutics are applied in the care of clients who have alterations in psychological functioning. Acute care and community-based clinical experiences provide opportunities for students to participate in interdisciplinary team planning, interventions, and therapeutic group meetings. Corequisite: NURS 360. LAB.

NURS 362. Depression in Children and Adolescents: Assessment & Treatment. 2-3 Hours. This course will offer a detailed overview of the assessment and treatment of depression in children and adolescents and will present national depression management guidelines. Emphasis will be placed on the role of the nurse in depression management, including collaboration across healthcare professionals/teams. Acute and chronic depression presentations across diverse children and adolescents will be examined. The course will explore current pharmacological and psychosocial treatments, with an emphasis on the outpatient setting. The course will address commonly occurring co-morbid health concerns and psychosocial issues. The course will include analysis of the impact of environmental factors that relate to health promotion, disease prevention, symptom management, and behavior change related to depression in children and adolescents. Admission into the School of Nursing or consent of the instructor for RN-to-BSN students; N360 LEC.

NURS 365. Nursing of Adults. 3 Hours. Use of the nursing process in the care of adult clients in a variety of settings with acute and chronic illness is discussed. The role of the nurse in the use of clinical pathways to guide the interdisciplinary care of the client in the evolving health care environment is explored. Emphasis is placed on therapeutic nursing interventions that will successfully manipulate environmental factors to promote, maintain, and restore system balance and to prevent further system imbalance. Legal, ethical, economic and cultural considerations associated with the management of adults with acute and chronic illness are investigated. Prerequisite: Level I courses. Prerequisites or Corequisites: NURS 302, NURS 322, NURS 325, or consent of instructor. Corequisite: NURS 366. LEC.

NURS 366. Nursing of Adults: Clinical Laboratory. 2 Hours. Theoretical concepts from NURS 365 and the nursing process are applied in the care of adult clients with acute and chronic illness in a variety of acute care and community settings. The student demonstrates the role of the nurse in interdisciplinary care including clinical pathways. Selected cultural, legal ethical and economic principles pertinent to the clinical practicum are applied. Corequisite: NURS 365. LAB.

NURS 375. Nursing of Children. 3 Hours. Acute and chronic alterations in physiological and psychological functioning of the child and family are introduced. Emphasis is placed on changes within the internal and external environments which relate to the child’s acute and chronic illness experience. Therapeutic nursing interventions are explored in the context of research findings, holistic perspectives and outcome measures as related to the dynamics of system balance, growth and development, health promotion and client system values. The role of the nurse in an evolving health care system of managed care is examined. Holistic and caring approaches to human functioning are explored. Legal, ethical, cultural, economic and social principles which affect decision-making, interdisciplinary collaboration and outcomes of care are identified. Prerequisite: Level I courses. Prerequisites or corequisites: NURS 302, NURS 322, NURS 325, or consent of instructor. Corequisite: NURS 376. LEC.

NURS 376. Nursing of Children: Clinical Laboratory. 2 Hours. Theoretical concepts from NURS 375 are applied in the care of children with acute and chronic health problems and their families. Research-based nursing therapeutics, managed care, interdisciplinary collaboration and outcome measures are emphasized in the care of children with acute and chronic health problems. Hospital, clinic, community and home based settings provide opportunities for holistic and caring approaches to children and families from culturally and economically diverse backgrounds. Corequisite: NURS 375. LAB.

NURS 377. Care of the Childbearing Family. 2 Hours. Emphasis is placed upon meeting the needs of mother, infant, and family as the pregnancy progresses form conception through postpartum period. Students will explore the concepts of health promotion and disease prevention related to women and the newborn infant. Common problems of pregnancy, labor, postpartum and specific needs of the newborn infant are included. Management and planning of the Nursing Process will include concepts from the art and science (client systems, environment, health, and nursing). Prerequisites/Corequisites: Admission to the School of Nursing, NURS 301, NURS 340, NURS 350 or consent of instructor. LEC.

NURS 378. Care of the Childbearing Family: Clinical Lab. 1 Hour. Meeting the needs of mother, infant, and family as the pregnancy progresses from conception through the postpartum period is demonstrated in a clinical laboratory setting. Care of families during the normal childbearing experience is an integral part of this course. Students develop beginning skills in applying the nursing process and planning care for women and newborn infants. Prerequisites/Corequisites: Admission to the school of Nursing or consent of instructor, NURS 340, NURS 350, LBN.

NURS 382. Honors Seminar. 1 Hour. This seminar provides the Honors nursing student the opportunity to explore topics of interest and begin reviewing the current research...
literature on a given topic. Emphasis is placed on interaction with active nurse researchers to enable the student to identify available research opportunities in ongoing studies. Students are introduced to the application of various methods used to address nursing questions. Prerequisite: Admission to the Nursing Honors Program. LEC.

NURS 383. At Risk Childbearing Family. 2 Hours.
Alterations in physiological and psychological functioning of the client system as it relates to at risk clients during antepartum, intrapartum, and postpartum periods will be explored. Theoretical concepts related to the dynamics of individual and family systems balance and the application of nursing process during pregnancy, birth, and early parenting will be examined. Care of women and childbearing families will include interaction with clients and their families in hospital and community settings. Prerequisites: Completion of two Level II core courses (NURS 360/NURS 361, NURS 365/NURS 366, or NURS 375/NURS 376) or senior status. LEC.

NURS 384. Mentor/Doula. 2 Hours.
The mentor/doula role and its benefit to the pregnant/postpartum client will be explored. The learner will enhance positive health behaviors in an assigned pregnant teenaged client during the antepartum, intrapartum, postpartum, as well as the early parenting period as the mentor/doula. The student functioning as a mentor/doula will educate and coach the pregnant teenager during the birthing/postpartum process. Prerequisite: Application to the St. Luke’s Hospital Mentor/Doula Program. LEC.

NURS 401. Basic Spanish for Nurses. 2 Hours.
This is an entry level Medical Spanish course for students with minimal or no Spanish language education. Students will develop working language skills, learning techniques for optimal communication, phonetics, morphology, grammar, understanding sentence structure, conjugation and cultural aspects applicable to the current health care environment. The goal is to achieve proficiency and confidence when using the Spanish language with Hispanic patients. Prerequisite / Corequisite: Minimal to no knowledge of Spanish language and approval from the Dean of Student Affairs. LEC.

NURS 402. Health Care of the Older Adult. 2-3 Hours.
Students will explore concepts and theories to increase their knowledge base of the complex challenges that face older adults and their families. Emphasis will be on promotion, maintenance and restoration of health and wellness, and the prevention of disease. Internal and external environmental factors will be assessed including biophysical, psychological, behavioral, sociocultural, economic and political. Students will utilize case examples and discussion to practice integrating communication and clinical skills into the role of the nurse as a client advocate and professional health team member. A clinical experience option for one-credit hour is offered for students to provide direct care to older adults in a variety of settings. Prerequisites: NURS 360, NURS 420, NURS 434 or consent of instructor. LEC.

NURS 404. Concepts of Professional Nursing and Health Promotion. 3 Hours.
Concepts and skills required for the transition to the professional nurse’s role and application of the nursing process with client systems through the life span are explored. The four concepts basic to the art and science of nursing (client systems, environment, health, and nursing) are demonstrated. Internal and external environmental factors are examined that promote, maintain, or restore client system balance with emphasis on different ages and developmental stages. The concepts of health promotion and illness prevention are emphasized, including the use of health teaching, screening, and community referrals for culturally diverse clients across the life span. Prerequisite: RN licensure, and admission to the School of Nursing. LEC.

NURS 407. The Camper Experience For Healthy and Chronically Ill Youth. 2 Hours.
Nursing concepts and their application in a camp setting that are relevant to the day to day activities of youths in camp is the focus of the course. Emphasis is placed on individual and small group teaching, promotion of self care, and role of the nurse in a camp environment. Nursing care functions will be practiced in a residential, outdoor environment in a relaxed atmosphere. The nursing process is the organizing framework for content to enable the student nurse to assist in orientation to the initial camper experience and to promote self care in the camper, whether for general health or a chronic illness. Overnight experiences may be required. Prerequisite or Corequisite: NURS 375 or consent of instructor. LEC.

NURS 410. Primary Women’s Health Care Across the Lifespan. 3 Hours.
Psychological, sociological, and physiological issues of health and human functioning of the female client systems across the life span are explored. Theory and research-based therapeutic management of acute, episodic, and chronic conditions that occur in community based women and their families will be planned. Professional values including standards of practice, certification, cultural, legal and ethical issues, and professional roles will be addressed. The health care delivery system will be analyzed for cost effectiveness and sensitivity to women. Corequisite: RN-BSN student or consent of instructor. LEC.

NURS 411. Population-Based Nursing. 3 Hours.
Concepts and theories related to providing health care to complex systems and aggregates in the community, state, nation and world are explored. Emphasis is placed on the promotion, maintenance and restoration of health and wellness, and the prevention of disease. Environmental components including historical, political, social, cultural, and economic factors are presented. The role of the health care provider in identifying, prioritizing and meeting the health and life participation needs of populations is discussed. Prerequisite: Admission to the School of Nursing. LEC.

NURS 412. Nursing in Healthcare Microsystems. 3 Hours.
Nursing practice in an evolving health care system is addressed with emphasis on the unique challenges in micro-systems of health care delivery. The microsystem is the structural unit responsible for delivering care to specific patient populations or the frontline places where patients, families, and care teams meet. This environment is where the nurse participates in a broad mixture of direct and indirect patient care delivery. Findings of current research related to nursing leadership are discussed. Professional, organizational, historical, and social factors that affect health care delivery within a clinical micro system are considered. Prerequisite: Admission to the School of Nursing or consent of instructor. LEC.

NURS 413. Teamwork and Collaboration in Healthcare. 3 Hours.
Ethical principles of patient care are applied. Team building and group process skills are explored to facilitate working within the interprofessional healthcare team. The role of the nurse as a member of the healthcare team is examined using concepts and theories of communication, group process, team building, and advocacy. Skills to continue professional growth and support excellence in nursing practice are investigated. Prerequisite: Admission to the School of Nursing or consent of instructor. LEC.

NURS 414. Organizational Influences on Nursing Practice. 3 Hours.
The impact that nursing departments and organizational decision making has on the achievement of quality patient outcomes will be explored. Nursing practice in an evolving health care system is addressed with emphasis on the unique challenges in the meso-environment
of health care delivery. The role of the nurse as leader in achieving organizational goals addressing socio-cultural, economic, legal, and political environmental factors is examined. Prerequisite: Admission to the School of Nursing or consent of instructor. LEC.

NURS 415. Improving Healthcare Quality. 3 Hours.
Skills of inquiry and information literacy are developed to locate and evaluate information to improve healthcare quality. Continuous quality improvement is introduced as a foundation for quality care and patient safety. Data to monitor the processes and outcomes of care are discussed. Methods to design and test changes to continuously improve the quality and safety of healthcare systems are explored. Prerequisite: Admission to the School of Nursing or consent of instructor. Satisfactory completion of a statistics course. LEC.

NURS 416. Evidence-Based Nursing Practice. 3 Hours.
Searching, critiquing and synthesizing sources of evidence as it applies to the nurse’s clinical practice will be emphasized. Fundamental principles of the research process and models for applying evidence to clinical practice will be explored. Strategies for implementation of evidence into clinical practice will be discussed. Prerequisite: Admission to the School of Nursing or consent of instructor. Satisfactory completion of a Statistics course. LEC.

NURS 417. Influences of the Healthcare Macro-System on Nursing Practice. 3 Hours.
Nursing practice in an evolving health care system is addressed with emphasis on the unique challenges in the macro-environment of health care delivery. The role of the nurse as a provider of direct and indirect care is expanded to include local, state, national and international regulatory, legal, and professional associations, interactions that impact the ability of the nurse to deliver patient care. Prerequisite: Admission to the School of Nursing. LEC.

NURS 418. Senior Nursing Project. 3 Hours.
Synthesis of knowledge for professional practice will guide development of a small test of change project to meet an identified need in an area of interest. The student will select an area associated with a patient safety initiative, patient education need or agency educational need for project implementation. Prerequisite: NURS 353, NURS 354, NURS 355, NURS 356, NURS 357, NURS 411, NURS 412, NURS 413, NURS 414, NURS 415, NURS 416, NURS 417, or consent of instructor. LEC.

NURS 421. Nursing of The Client With Complex Acute Needs: Clinical Laboratory. 1.5 Hour.
Theoretical concepts from NURS 420 are applied in a clinical laboratory setting. Critical thinking and the nursing process are used to provide therapeutic nursing interventions with client systems experiencing complex acute alterations in physiological and psychological functioning. Emphasis is on mastery of advanced assessment techniques and interdisciplinary communication. Opportunities are provided for application of the concepts for using technically advanced therapeutics which support physiological functioning and maintain hemodynamic stability. Corequisite: NURS 420 LAB.

NURS 430. Population Based Health Care. 2 Hours.
Concepts and theories related to providing health care to complex systems and aggregates in the community, state, nation and world are explored. Emphasis is placed on the promotion, maintenance and restoration of health and wellness and the prevention of disease. Internal and external environmental components which include historical, political, social, cultural and economic factors are presented. The role of the health care provider in identifying, prioritizing and meeting the health needs of aggregates is discussed. Prerequisite: Level II courses. Corequisite: NURS 431. LEC.

NURS 431. Population Based Health Care: Clinical Laboratory. 1.5 Hour.
Concepts and theories from NURS 430 are applied to the health care of aggregates in the community. Students are given opportunities for interdisciplinary collaboration in the provision of health care for culturally diverse populations. Prerequisite: Level II courses. Corequisite: NURS 430. LAB.

NURS 432. Perioperative Nursing. 2 Hours.
The perioperative nursing course focus is on the role and practice of the professional perioperative nurse and the basic skills and knowledge involved in operating room nursing. A technological orientation will be used to apply the nursing process in assisting the patient in adapting to the surgical experience; to demonstrate skill in applying knowledge in motor and manipulative activities; and to facilitate therapeutic relationships between the nurse and the patient. It is anticipated that upon completion of the course, the registered nurse will be able to assume responsibilities at the beginning staff nurse level in the operating room. Prerequisite: Current R.N. licensure in Kansas and graduate of an N.L.N. accredited School of Nursing. LEC.

NURS 433. Introduction to the Professional Nurse Role. 4 Hours.
Concepts and skills required for the transition to the professional nurse’s role and the application of the nursing process with client systems through the life span are explored. Metaparadigms foundational to the art and science of nursing (client systems, environment, health, and nursing) are explored. Environmental factors are examined that promote, maintain, or restore client system balance with emphasis on the adult client. Communication, clinical leadership and evidence-based practice skills that enhance the student’s ability to perform in a complex organizational system are emphasized. Prerequisite / Corequisite: Admission to the School of Nursing.

NURS 434. Technology to Enhance Client Safety. 2 Hours.
Beginning theory and practical applications of various uses and results of computer technologies, including electronic health records, are explored in order to provide the basic skills and current infrastructure for information management in healthcare delivery. These concepts and skills are essential for curriculum related activities, as well as for providing therapeutic nursing interventions and communications with faculty, client systems, and other healthcare participants. Built-in safeguards, and legal and ethical issues related to electronic communications and health records are emphasized using 21st century tools of communication and collaboration. Knowledge and skills presented in this course will be expanded in future nursing courses related to the baccalaureate completion program. Prerequisite / Corequisite: Admission to the School of Nursing. LEC.

NURS 435. Leading and Managing in Healthcare Micro-Environments. 6 Hours.
Nursing practice in an evolving health care system in addressed with emphasis on the unique challenges in micro-environments of health care delivery (sub-units, units, departments, divisions). The role of the nurse as leader and manager of a health care team is examined using concepts and theories of organization, management, leadership, quality, decision-making and group process. Findings of current research related to nursing management and leadership are discussed. Professional, organizational, historical, and social factors that affect health care delivery within an organization are considered. Prerequisite: NURS 433 LEC.

NURS 437. Population Based Health Care for the Professional Nurse. 3 Hours.
Concepts and theories related to providing health care to complex systems and aggregates in the community, state, nation and world are explored. Emphasis is placed on the promotion, maintenance
and restoration of health and wellness and the prevention of disease. Environmental components including historical, political, social, cultural, and economic factors are presented. The role of the health care provider in identifying, prioritizing and meeting the health and life participation needs of populations is discussed. Prerequisite: Admission to the RN to BSN program. LEC.

NURS 438. Population Based Healthcare for the Professional Nurse: Clinical Laboratory. 1 Hour.
Concepts and theories from NURS 437 are applied to the health care of aggregates in the community. Students are given opportunities for multidisciplinary collaboration in the provision of health care for culturally diverse populations. Prerequisite / Corequisite: NURS 434 LEC.

NURS 439. Leading and Managing in the Macro-Environment of Health Care. 6 Hours.
Nursing practice in an evolving health care system is addressed with emphasis on the unique challenges in the macro-environment of health care delivery (organization as part of Health Care Delivery System). The role of the nurse as leader and manager of an organization that exists in a unique sociopolitical, cultural, economic, technological, and psychographic environment is examined. Findings of current research related to nursing management and leadership are discussed. The student uses 21st century tools of collaboration and communication to address professional, organizational, historical, and social factors that affect a healthcare organization’s role and function in society. Prerequisite: NURS 435 LEC.

NURS 440. Leadership and Management in Nursing. 3 Hours.
Nursing practice in an evolving health care system is addressed as well as the implications of a managed care environment on health care delivery. The role of the nurse as leader and manager of a health care team is examined using concepts and theories of organization, management, leadership, change, decision making, and group process. Findings of current research related to nursing management and leadership are discussed. Historical, political, economic, social, and cultural factors that affect health care delivery within an organization are considered. Prerequisite: Level II courses. LEC.

NURS 441. Nursing Research in an Evidence-Based Practice Setting. 3 Hours.
Searching, critiquing and synthesizing sources of evidence as it applies to the nurse's clinical practice will be emphasized. Fundamental principles of the research process and models for applying evidence to clinical practice will be explored. Strategies for implementation of evidence into clinical practice will be discussed. Prerequisite: Admission to the RN to BSN program, course in statistics. LEC.

NURS 442. Critical Inquiry for Nursing Practice. 2-3 Hours.
This course is designed to develop the health professional’s role as a critical thinker and to promote a skill set to enhance decision making for a diverse multicultural patient population. Students apply problem solving skills to a variety of clinical case scenarios in order to develop logical solutions to the clinical problems demonstrated. Students provide rationale for their decisions in order to critique their own clinical decision making process. Prerequisites / Corequisites: NURS 420, NURS 421 or consent of instructor. LEC.

NURS 443. Developing the Baccalaureate Nurse Role. 3 Hours.
Contemporary issues confronting the nursing profession are discussed and methods to advocate for patients and the profession are investigated. Communication, clinical leadership, and evidence-based practice skills that enhance the student’s ability to perform in a complex organizational system are emphasized. Personal accountability, professional boundaries, team building, and group process skills are explored to facilitate students working within interprofessional health care teams. Students will examine their own beliefs and values and develop their personal philosophy of nursing. Prerequisite: Admission to the RN to BSN program. LEC.

NURS 444. Using Technology to Enhance Client Safety. 3 Hours.
Beginning theory and practical applications of various uses and results of computer technologies, including electronic health records, are explored in order to provide the basic skills and current infrastructure for information management in healthcare delivery. These concepts and skills are essential for curriculum related activities, as well as for providing therapeutic nursing interventions and communications with faculty, client systems, and other healthcare participants. Built-in safeguards, and legal and ethical issues related to electronic communications and health records are emphasized using 21st century tools of communication and collaboration. Knowledge and skills presented in this course will be expanded in future nursing courses related to the baccalaureate completion program. Prerequisite: Admission to the RN to BSN program. LEC.

This course is designed to enlighten students to new cultures, provide the opportunity to see how these cultures deal with health care, and assess the clients’ internal and external environment that impact health care. Various roles and responsibilities of nurses practicing in international health are examined. A short term immersion experience provides an opportunity to incorporate the nursing process in clinic and community settings and to function as members of a health care team. Prerequisite: NURS 333, NURS 339, or consent of instructor. LEC.

NURS 446. Population Based Health Care for the Practicing Nurse. 3 Hours.
Concepts and theories important to providing health care to aggregates, communities, and populations are explored. Health promotion and prevention of disease and injury as essential elements of baccalaureate nursing practice are emphasized. Determinants of health are identified to allow students to construct methodologies that address health care disparities. The role of individuals within the interprofessional healthcare team is examined to determine the contributions of each to the achievement of healthy populations. Prerequisite: Admission to the RN to BSN program. LEC.

NURS 447. Nursing Practice within the Clinical Health Care Micro System. 3 Hours.
Nursing practice in an evolving health care system is addressed with emphasis on the unique challenges in micro-environments of health care delivery. The microsystem is the structural unit responsible for delivering care to specific patient populations or the frontline places where patients, families, and care teams meet (2008 AACN Essentials, p. 38). This environment is where the nurse participates in a broad mixture of direct and indirect care patient care delivery. Findings of current research related to nursing leadership are discussed. Professional, organizational, historical, and social factors that affect health care delivery within a clinical micro system are considered. Prerequisite: Admission to the RN to BSN program. LEC.

NURS 448. Scholarly Inquiry for Quality Improvement. 3 Hours.
Skills of inquiry and information literacy are developed to locate and evaluate information to improve healthcare quality. Continuous quality improvement is introduced as a foundation for quality care and patient safety. Data to monitor the processes and outcomes of care are discussed. Methods to design and test changes to continuously improve the quality and safety of healthcare systems are explored. Prerequisite: Admission to the RN to BSN program LEC.
NURS 449. Nursing Practice within the Healthcare Organization. 3 Hours.
The impact that nursing departments and organizational decision making has on the achievement of quality patient outcomes will be explored. Nursing practice in an evolving health care system is addressed with emphasis on the unique challenges in the meso-environment of health care delivery. The role of the nurse as leader in achieving organizational goals addressing socio-cultural, economic, legal, and political environmental factors is examined. Prerequisite: Admission to the RN to BSN program LEC.

NURS 451. Navigating the Influences of the Health Care Macro-Environment. 3 Hours.
Nursing practice in an evolving health care system is addressed with emphasis on the unique challenges in the macro-environment of health care delivery. The role of the nurse as a provider of direct and indirect care is expanded to include local, state, national and international regulatory, legal, and professional association interactions that impact the ability of the nurse to deliver patient care. Prerequisite: Admission to the RN to BSN program LEC.

NURS 453. Nursing and Children with Developmental Disabilities. 2 Hours.
This course provides the student with an introduction to children with developmental disabilities. The impact of environmental factors on children and their families is examined. The ability of children and their families to maintain a state of well-being and the nurse’s role in promoting a maximum state of well-being is explored. Information about children with developmental disabilities and their families is based on understanding of nurse-client interactions that can assist in identifying and meeting the needs of children and their families. Prerequisites: NURS 375, NURS 376 concurrently; or permission of instructor. FLD.

NURS 455. Legal/Ethical Foundation for Professional Nursing Practice. 3 Hours.
Legal and ethical issues related to nursing practice are discussed. Laws and ethical principles that guide professional nursing practice in the current health care delivery system are emphasized. Information on the law, legal system, malpractice, negligence, and standards of care is provided. Distinctions between legal and ethical bases for nursing actions are identified in order to provide guidance in the decision making process. Critical thinking is used to analyze the impact of personal, professional, societal, and client system values on ethical decision making. Prerequisite: NURS 340. LEC.

NURS 460. Nursing Research. 2 Hours.
The history of nursing research, terminology, and steps in the research process are explored. Research as a basis for assessment of outcomes of health promotion and health care interventions including therapeutic nursing interventions is emphasized. Research questions relevant to clinical practice are identified. Interpretation of research for use in nursing practice is emphasized. The role of theory and ethical issues involved in the conduct of research is addressed. Prerequisite: Level II courses or consent of instructor. LEC.

NURS 465. Psychiatric Mental Health Nursing of Children & Adolescents. 2-3 Hours.
This course focuses on mental health issues and psychiatric disorders common to children and adolescents and their family such as acute, short term mental health problems and ongoing psychiatric disorders whose onset are in childhood or adolescence. Developmental, biobehavioral, crisis theories, and psychoeducational frameworks and supporting outcome research are analyzed as they apply to children/adolescents/families who meet the criteria for specific psychiatric disorders or who are exhibiting high risk behaviors. Analysis of the impact of environmental factors that relate to health promotion, disease prevention, symptom management, and behavior change in this population will be examined. The nursing process is applied to this population by means of case studies directed projects, and active on-line class participation. Professional issues that commonly occur in implementing the psychiatric mental health generalist nurse role while working with this patient population are emphasized. Prerequisites / Corequisites: Admission into the School of Nursing or consent of instructor for RN-BSN student. Successful completion of NURS 360, NURS 361 for the BSN student.

NURS 466. Serum Laboratory Data: From Theory to Clinical Application. 2 Hours.
The usefulness of common serum laboratory tests in identifying potential or actual needs of individuals is the primary purpose of this course. Alterations in serum laboratory data associated with imbalances in the internal environment due to common pathological states of individuals across the life span will be discussed. The focus will be on utilizing this knowledge in the identification of nursing diagnoses and interventions. Prerequisites: Completion of two of the four Level II courses or permission of instructor. LEC.

NURS 469. Independent Study in Nursing. 0.5-5 Hours.
Intensive study in an area of interest with experiences selected according to the student’s written purposes, conceptual framework, objectives and evaluation (1-5 credit hours). Appropriate prerequisite courses, as determined by the Independent Study faculty advisor, must be completed. IND.

NURS 471. Development of a Microsystem Leader. 4 Hours.
The microsystem is the structural unit responsible for delivering care to specific patient populations or the frontline places where patients, families, and care teams meet (2008 AACN Essentials, p. 38). This environment is where the nurse participates in a broad mixture of direct and indirect care patient care delivery. Students will be given the opportunity to apply principles of leadership and management to recognize how changing delivery patterns, organizational, regulatory, care, and association processes impact the care provided to specific patient populations. PREREQUISITES: NURS 327, NURS 329, NURS 331, NURS 332, NURS 333, NURS 334, NURS 335, NURS 336, NURS 337, NURS 338, NURS 339 or consent of instructor. COREQUISITES: NURS 472, NURS 473, NURS 474, NURS 475, or consent of instructor. LEC.

NURS 472. Evidence-Based Practice: Translating Research to Practice. 2 Hours.
Concepts of evidence-based practice (EBP) and healthcare research are explored. Methods to critically appraise healthcare research will be applied. Critical appraisal of evidence will be employed to inform the delivery of safe and quality nursing care. Prerequisites: NURS 327, NURS 328, NURS 329, NURS 330, NURS 331, NURS 332, NURS 333, NURS 335, NURS 336, NURS 337, NURS 338, NURS 339, or consent of instructor. Corequisites: NURS 471, NURS 473, NURS 474, NURS 475, or consent of instructor. LEC.

NURS 473. Professional Development III: Navigating the Profession. 2 Hours.
Contemporary issues confronting the nursing profession are discussed and methods to advocate for patients and the profession are investigated. The dynamic and ever present evolution of healthcare will be explored. Professional skills, such as job interviewing, portfolio development, and examination of advanced roles in nursing, will be emphasized. PREREQUISITES: NURS 327, NURS 328, NURS 329, NURS 330, NURS 331, NURS 332, NURS 333, NURS 335, NURS 336, NURS 337, NURS 338, NURS 339, or consent of instructor. COREQUISITES: NURS 471, NURS 472, NURS 474, NURS 475, or consent of instructor. LEC.
NURS 474. Health and Illness: Nursing with Diverse Populations. 4 Hours.
Comprehensive and focused evidence-based care of patients in diverse populations with complex health conditions will be examined. The nurse’s role in assuring coordination, integration, and continuity of care is investigated. Integration of the physical, behavioral, psychological, spiritual, socioeconomic and environmental factors that influence patient centered care is explored. Collaboration with other health care team members to provide safe and quality care for diverse patients in a variety of complex settings is analyzed. Information management tools to monitor outcomes of care are evaluated. PREREQUISITES: NURS 327, NURS 328, NURS 329, NURS 330, NURS 331, NURS 332, NURS 333, NURS 334, NURS 336, NURS 337, NURS 338, NURS 339, or consent of instructor. COREQUISITES: NURS 471, NURS 472, NURS 473, NURS 475, or consent of instructor. LEC.

NURS 475. Health and Illness: Nursing with Diverse Populations Practicum. 3 Hours.
Coordination, integration, and continuity of care for diverse patients with multiple/complex problems will be applied in the dynamic microenvironments such as: maternity, pediatrics, mental health, and critical care. Patients/designees are engaged in active partnerships that promote health, safety, well-being, and self-care management. Synthesis of evidence and collaboration with other members of the health care team are used to plan, implement, and evaluate safe and quality care for patients. Technologies that support clinical decision-making, error prevention, and care coordination are emphasized. PREREQUISITES: NURS 327, NURS 328, NURS 329, NURS 330, NURS 331, NURS 332, NURS 333, NURS 334, NURS 335, NURS 336, NURS 337, NURS 338, NURS 339, or consent of instructor. COREQUISITES: NURS 471, NURS 472, NURS 473, NURS 474, or consent of instructor. LEC.

NURS 476. Nursing in an Evolving Healthcare System. 4 Hours.
Nursing practice in an evolving health care system is addressed with emphasis on the unique challenges presented to the nurse. The role of the nurse as provider of direct and indirect patient care is expanded to include the external influences of the health care organization, the regulatory environment, and the professional association. The development of the nurse as a member of a profession is expected. Inherent is a developing knowledge and appreciation for the diversity of opinions and organizations that exist to provide assistance in the delivery of direct patient care. PREREQUISITES: NURS 327, NURS 328, NURS 329, NURS 330, NURS 331, NURS 332, NURS 333, NURS 334, NURS 335, NURS 336, NURS 337, NURS 338, NURS 339, or consent of instructor. COREQUISITES: NURS 471, NURS 472, NURS 473, NURS 474, or consent of instructor. LEC.

NURS 477. Capstone. 3 Hours.
A preceptor model of learning professional nursing practice provides opportunities to synthesize and integrate previous learning experiences. Emphasis is placed on the roles of the nurse as provider of indirect and direct care; designer, manager and coordinator of care; and member of the profession. The focus is on individual transition to the professional nursing role, recognizing the organizational, social, political, economic, ethical, and legal context in which interdisciplinary health care is delivered in a selected clinical setting. PREREQUISITES: NURS 327, NURS 328, NURS 329, NURS 330, NURS 332, NURS 333, NURS 334, NURS 335, NURS 336, NURS 337, NURS 338, NURS 339, NURS 472, NURS 474, NURS 475, or consent of instructor. COREQUISITES: NURS 477, NURS 478, NURS 479, NURS 480, or consent of instructor. LEC.

NURS 478. Integration Seminar. 1 Hour.
The seminar provides students with an opportunity to apply concepts discussed in the classroom with observations from the clinical setting to enhance knowledge of how nurses meet multiple responsibilities. Through the use of small group guided discussion, students begin building a skill set that shows knowledge of and appreciation for the roles of direct care provider, designer, manager and coordinator of care; and member of profession. PREREQUISITES: NURS 327, NURS 328, NURS 329, NURS 330, NURS 332, NURS 333, NURS 334, NURS 336, NURS 337, NURS 338, NURS 339, NURS 471, NURS 472, NURS 474, NURS 475, or consent of instructor. COREQUISITES: NURS 476, NURS 477, NURS 479, NURS 480, or consent of instructor. LEC.

NURS 479. Population Based Healthcare. 3 Hours.
Concepts and theories related to improving health of entire populations are explored. Focus is placed on risk reduction, protective and predictive factors within the environments which influence the health of individuals, families, aggregates, and entire populations, including global communities. Considering the determinants of health, students will learn methods to facilitate collaboration to provide quality and safe health interventions for populations. PREREQUISITES: NURS 327, NURS 328, NURS 329, NURS 330, NURS 331, NURS 332, NURS 333, NURS 334, NURS 335, NURS 336, NURS 337, NURS 338, NURS 339, NURS 471, NURS 472, NURS 473, NURS 474, NURS 475, or consent of instructor. COREQUISITES: NURS 476, NURS 477, NURS 478, NURS 480, or consent of instructor. LEC.

NURS 480. Population Based Healthcare Practicum. 2 Hours.
Concepts and theories from Population Based Healthcare are applied to the health care of multiple patients; individuals, groups, communities and populations in the community. There is a concentrated focus on health promotion and disease prevention that provides safe, effective, and efficient care. Students are provided opportunities for inter-professional collaboration in the planning of health care and promotion of quality outcomes for culturally diverse populations. PREREQUISITES: NURS 327, NURS 328, NURS 329, NURS 330, NURS 331, NURS 332, NURS 333, NURS 334, NURS 335, NURS 336, NURS 337, NURS 338, NURS 339, NURS 471, NURS 472, NURS 473, NURS 474, NURS 475, or consent of instructor. COREQUISITES: NURS 476, NURS 477, NURS 478, NURS 479, or consent of instructor. LEC.

NURS 481. Honors Evidence-Based Practice: Translating Research to Practice. 2 Hours.
Concepts of evidence-based practice (EBP) and health care research are explored to inform the delivery of safe and quality nursing care. Prerequisites: NURS 327, NURS 328, NURS 329, NURS 330, NURS 331, NURS 332, NURS 333, NURS 334, NURS 335, NURS 336, NURS 337, NURS 338, NURS 339, NURS 471, NURS 472, NURS 473, NURS 474, NURS 475, or consent of instructor. Corequisites: NURS 471, NURS 473, NURS 474, NURS 475, or consent of instructor. This course is for Honors students only. LEC.

NURS 482. Honors Practicum I. 2 Hours.
Under the mentorship of an active nurse researcher the student designs and conducts a research project and participates as a member of a research project team. Students apply principles of research learned in NURS 460 to design and critique their own research project while providing feedback to peers. Through seminar activities they critically analyze the issues, rewards, and challenges of conduction research. LEC.

NURS 483. Honors Practicum II. 2 Hours.
Under the mentorship of an active nurse researcher the student designs and conducts a research project and participates as a member of a research project team. Students apply principles of research learned in NURS 460 to design and critique their own research project while providing feedback to peers. Through seminar activities they critically analyze the issues, rewards, and challenges of conduction research. LEC.
NURS 490. Professional Practicum. 2-5 Hours.
A preceptor model of learning professional nursing practice provides opportunities to synthesize and integrate previous learning experiences. Concepts of leadership and management, change, and therapeutic nursing interventions are integrated into practice. The focus is on individualized transition to the professional nursing role as an employee, recognizing the organizational, social, political, economic, ethical, and legal context in which interdisciplinary health care is delivered in a selected clinical setting. Prerequisites: NURS 420, NURS 421, NURS 430, NURS 431, NURS 455 and NURS 460. Prerequisites or Corequisites: NURS 440, NURS 450. LEC.

NURS 491. Practicum for the Professional Nurse. 1 Hour.
A preceptor model of learning professional nursing leadership and/or management provides the RN student opportunities to synthesize and integrate previous learning experiences. Concepts of leadership and management, change, and evidence-based practice are integrated into professional practice. The focus is on individualized transition to the professional nursing role as a leader, recognizing the organizational, social, political, economic, ethical, and legal context in which interdisciplinary health care is delivered in a selected clinical setting. Prerequisites: NURS 433, NURS 434, NURS 320, NURS 325, NURS 437, NURS 438, NURS 435, Prerequisites / Corequisites: NURS 326, NURS 441, NURS 439. PRA.

NURS 492. Senior Project. 2-3 Hours.
Synthesis of knowledge for professional practice will guide development of a project to meet an identified need in an area of interest. The student will select one of three areas (management, clinical practice, education for patients and families, staff, or agency personnel) for project implementation. Prerequisites: NURS 320, NURS 352, NURS 433, NURS 434, NURS 435, and NURS 437. Corequisites: NURS 326, NURS 439, and NURS 441. LEC.

NURS 520. Medical Spanish I. 2 Hours.
This is an entry level Medical Spanish course for students with minimal or no Spanish language education. Students completing this course will have acquired the language skills necessary to interact at a basic level in a medical context. LEC.

NURS 521. Medical Spanish II. 2 Hours.
This is an intermediate-low level Medical Spanish class. In Medical Spanish level 2 students build on what they have learned in the prerequisite level. Students expand their vocabulary skills to include medical specialties and procedures as well as their ability to describe medical conditions. LEC.

Bachelor of Science in Nursing

With a Bachelor of Science in Nursing from the University of Kansas School of Nursing, students are prepared for success in any professional nursing practice, wherever health care is needed. Graduates are ready to work in hospitals, community health agencies, industrial or long-term care facilities, as geriatric nurses, traveling nurses or flight nurses, as well as in other critical care settings.

Graduates of the KU School of Nursing baccalaureate program, begun in 1929, go on to become charge nurses and move into other leadership positions in Kansas and across the country. They are well-prepared for continuing their education through master’s and doctoral programs in nursing. The key word for describing our purpose is professional.

School of Nursing alumni are hired by renowned hospitals all over the country, including Johns Hopkins and Mayo Clinic and find excellence starting positions closer to home at The University of Kansas Hospital and Children’s Mercy Hospitals and Clinics.

The School of Nursing is one of 3 schools at the University of Kansas Medical Center (http://www.kumc.edu) in Kansas City, Kansas. Academic programs at KU Medical Center are offered through the Schools of Health Professions, Medicine, and Nursing. The Office of the Dean of Graduate Studies at KUMC handles matters related to graduate programs in Health Professions, Medicine, and Nursing.

The KU School of Nursing’s baccalaureate, master’s, and doctor of nursing practice (D.N.P.) programs are accredited by the Commission on Collegiate Nursing Education (http://www.aacn.nche.edu), One Dupont Circle, NW, Suite 530, Washington, DC 20036, (202) 887-6791. This organization is a nationally recognized professional accrediting body for collegiate nursing programs. The baccalaureate, master’s, and D.N.P. programs also are approved by the Kansas State Board of Nursing (http://www.ksbn.org). The Nurse Midwifery Program is accredited by the Accreditation Division of the American College of Nurse-Midwives (http://www.midwife.org), 818 Connecticut Ave., NW, Suite 900, Washington, DC 20006, (202) 728-9860. The Nurse Anesthesia program is accredited by the Council on Accreditation of Nurse Anesthesia Programs, 222 S. Prospect Avenue, Park Ridge, IL 60068-4001, 847-655-1160.

Undergraduate Admission to the School of Nursing

Pre-licensure B.S.N. Program

Students enter the Pre-Licensure B.S.N. program after taking 62 semester credit hours of prerequisite work in an accredited college or university. Admission to the school is competitive. A minimum grade-point average of 2.5 is required to apply.

Prenursing Advising

A pre-nursing advisor is available by appointment during the fall and spring semesters in the University Advising Center, 126 Strong Hall, on the Lawrence campus and year-round on the Kansas University Medical Center campus in Kansas City. The advisor provides students with information about the nursing profession, help with course selection in preparation for nursing application, and guidance in the admission process. For an appointment, current Lawrence campus students can call 785-864-2834. All other students can call 913-588-1619 for an appointment in Kansas City.

Admission Procedure

The application for the pre-licensure B.S.N. program is available from July 1st to October 15th of the year before beginning work in the School of Nursing. Applications are available through the Nursing Centralized Application Service (NursingCAS) link on the School of Nursing website.

Criteria for Admission

The University of Kansas School of Nursing offers an educational program of study leading to the Bachelor of Science in Nursing degree. The school endeavors to meet the changing needs of society by selecting applicants who, in the judgment of the Student Admission and Progression Committee, demonstrate the academic achievement, maturity, integrity, and motivation necessary for the successful study and practice of nursing, and who will best meet the needs of the citizenry. Students are selected on the basis of college scholastic achievement,
interest in and commitment to nursing, letters of reference, extracurricular activities, personal characteristics, and health-related work and volunteer experience. Applicants will not be discriminated against based on creed, color, age, disability, sex, national origin, or sexual orientation.

Pre-licensure B.S.N. Prerequisite Course Requirements

Within the 62 hours required for admission to the basic B.S.N. program, the following must be included:

Humanities and Social Sciences
Courses in English composition and literature, public speech or interpersonal communication, general sociology, general psychology, theories of child or human development, global perspectives, and humanities are required. Students who complete these general education requirements through the KU College of Liberal Arts and Sciences meet these requirements by taking the following courses:

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<tr>
<th>English (3)</th>
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<tbody>
<tr>
<td>ENGL 101 Composition</td>
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<td>ENGL 102 Critical Reading and Writing</td>
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<tr>
<th>Social Sciences (9)</th>
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<tr>
<td>PSYC 104 General Psychology</td>
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<tr>
<td>SOC 104 Elements of Sociology</td>
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<tr>
<td>or SOC 160 Social Problems and American Values</td>
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<tr>
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<tr>
<th>Oral Communication (9)</th>
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<tr>
<td>COMS 130 Speaker-Audience Communication</td>
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<tr>
<td>JOUR 150 Stand and Deliver</td>
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<td>ANTH 108 Introduction to Cultural Anthropology</td>
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<td>1 course designated NW in this catalog</td>
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1 View principal course list
2 View non-Western culture course list

Natural Sciences and Mathematics
Courses in general chemistry, microbiology, biology or zoology, and human anatomy are required. These courses must include laboratory experience. Courses in college algebra, statistics, physiology, and nutrition are also required but do not require a laboratory experience.

Natural Sciences (25-27)
Select one of the following:

| BIOL 100 Principles of Biology | 4 |
| & BIOL 102 and Principles of Biology Laboratory | 4 |

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<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology</td>
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<td>BIOL 200</td>
<td>Basic Microbiology</td>
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<td>BIOL 203</td>
<td>Introductory Microbiology Laboratory</td>
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<tr>
<td>BIOL 240</td>
<td>Fundamentals of Human Anatomy</td>
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<td>BIOL 241</td>
<td>Human Anatomy Observation Laboratory</td>
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<td>or BIOL 242</td>
<td>Human Anatomy Dissection Laboratory</td>
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<tr>
<td>BIOL 246</td>
<td>Principles of Human Physiology</td>
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<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
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<tr>
<td>HSES 330</td>
<td>Principles of Nutrition and Health</td>
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<tr>
<td>or ANTH 542</td>
<td>Biology of Human Nutrition</td>
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<th>Mathematics and Statistics (6)</th>
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<tr>
<td>MATH 101</td>
<td>College Algebra (or exemption)</td>
</tr>
<tr>
<td>PSYC 210</td>
<td>Statistics in Psychological Research</td>
</tr>
<tr>
<td>or MATH 365</td>
<td>Elementary Statistics</td>
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Electives
Electives can be chosen according to the student’s particular interests or needs. Examples of such elective areas of study are foreign language, philosophy, literature, creative writing, history, oral communication, physics, mathematics, political science, Western civilization, biological sciences, and economics.

A maximum of 8 non-liberal-arts credit hours can be accepted in the 62 credit hours required for admission. These 8 credit hours may be in physical education courses, activity courses, first-aid courses, health education courses, applied courses, and technique courses in art, music, and professional fields other than nursing.

RN to B.S.N. Program
Students enter the RN to B.S.N. program after taking 60 semester credit hours of prerequisite work in an accredited college or university for the pre-licensure B.S.N. program or 60 semester credit hours of prerequisite work for the RN to B.S.N. program. Admission to the school is competitive. A minimum grade-point average of 2.5 is required to apply.

Admission Procedure
The application for the RN to B.S.N. program is open at all times, with the following deadline dates: March 1st for summer semester, June 1st for fall semester, and October 1st for spring semester.

Applications are available through the Nursing Centralized Application Service (NursingCAS) link on the School of Nursing website.

Criteria for Admission
The University of Kansas School of Nursing offers an educational program of study leading to the Bachelor of Science in Nursing. The school endeavors to meet the changing needs of society by selecting applicants who, in the judgment of the student admission and progression committee, demonstrate the academic achievement, maturity, integrity, and motivation necessary for the successful study and practice of nursing, and who will best meet the needs of the citizenry. Students are selected on the basis of college scholastic achievement, interest in and commitment to nursing, letters of reference, extracurricular activities, personal characteristics, and health-related work and volunteer experience. Applicants will not be discriminated against based on creed, color, age, disability, sex, national origin, or sexual orientation.
RN to B.S.N. Prerequisite Course Requirements

Within the 60 hours required for admission to the RN to B.S.N. program, the following must be included:

**Humanities and Social Sciences**

Courses in English composition and literature, speech or interpersonal communication, general sociology, general psychology, theories of child or human development, global perspectives, and humanities are required. Students who complete these general education requirements through the KU College of Liberal Arts and Sciences meet these requirements by taking the following courses:

**English (3)**

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**Exemption**

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**Humanities (3)**

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<tr>
<td>COMS 130</td>
<td>Speaker-Audience Communication</td>
<td></td>
</tr>
<tr>
<td>JOUR 150</td>
<td>Stand and Deliver</td>
<td>3</td>
</tr>
</tbody>
</table>

**Natural Sciences and Mathematics**

Courses in general chemistry, microbiology, biology or zoology, and human anatomy are required. These courses must include laboratory experience. Courses in college algebra, statistics, physiology, and nutrition are also required but do not require a laboratory experience.

**Natural Sciences (21-23)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 200</td>
<td>Basic Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 203</td>
<td>Introductory Microbiology Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 240</td>
<td>Fundamentals of Human Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 241</td>
<td>Human Anatomy Observation Laboratory</td>
<td>2-3</td>
</tr>
<tr>
<td>or BIOL 242</td>
<td>Human Anatomy Dissection Laboratory</td>
<td></td>
</tr>
<tr>
<td>BIOL 246</td>
<td>Principles of Human Physiology</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>HSES 330</td>
<td>Principles of Nutrition and Health</td>
<td>3-4</td>
</tr>
<tr>
<td>or ANTH 542</td>
<td>Biology of Human Nutrition</td>
<td></td>
</tr>
</tbody>
</table>

**Mathematics and Statistics (6)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 101</td>
<td>College Algebra (or exemption)</td>
<td>3</td>
</tr>
</tbody>
</table>

**PSYC 210** Statistics in Psychological Research

**Electives**

Electives can be chosen according to the student’s particular interests or needs. Examples of such elective areas of study are foreign language, philosophy, literature, creative writing, history, oral communication, physics, mathematics, political science, Western civilization, biological sciences, and economics.

A maximum of 8 non-liberal-arts credit hours can be accepted in the 62 credit hours required for admission. These 8 credit hours may be in physical education courses, activity courses, first-aid courses, health education courses, applied courses, and technique courses in art, music, and professional fields other than nursing.

**Bachelor of Science in Nursing Degree**

The B.S.N. degree is granted to candidates recommended by the School of Nursing as having successfully fulfilled all prescribed requirements, including the courses listed below. A total of 124 credit hours is required for the pre-licensure B.S.N. degree, and a total of 120 credit hours is required for the RN to B.S.N. degree, with a cumulative grade-point average of at least 2.0. Only courses in which a grade of C or higher is earned count toward graduation. The last 30 hours completed for the degree must have been taken in residence at KU. A portion of total hours applied toward graduation may be earned through credit by examination.

**Nursing Major: B.S.N. Option**

The professional portion of the B.S.N. program can be completed in 2 academic years of full-time study.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 327</td>
<td>Communicating and Managing Healthcare Information</td>
<td>3</td>
</tr>
<tr>
<td>NURS 328</td>
<td>Professional Development I: Introduction to the Profession</td>
<td>2</td>
</tr>
<tr>
<td>NURS 329</td>
<td>Alterations in Physiological Functioning I</td>
<td>2</td>
</tr>
<tr>
<td>NURS 330</td>
<td>Pharmacology I</td>
<td>2</td>
</tr>
<tr>
<td>NURS 331</td>
<td>Basic Assessment and Therapeutic Interventions</td>
<td>3</td>
</tr>
<tr>
<td>NURS 332</td>
<td>Health and Illness: Foundations of Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURS 333</td>
<td>Health and Illness: Foundations of Nursing Practicum</td>
<td>1</td>
</tr>
<tr>
<td>NURS 334</td>
<td>Professional Development II: Image, Roles, and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>NURS 335</td>
<td>Quality Improvement</td>
<td>2</td>
</tr>
<tr>
<td>NURS 336</td>
<td>Alterations in Physiological Functioning II</td>
<td>3</td>
</tr>
<tr>
<td>NURS 337</td>
<td>Pharmacology II</td>
<td>2</td>
</tr>
<tr>
<td>NURS 338</td>
<td>Health and Illness: Nursing Across the Lifespan</td>
<td>3</td>
</tr>
<tr>
<td>NURS 339</td>
<td>Health and Illness: Nursing Across the Lifespan Practicum</td>
<td>3</td>
</tr>
<tr>
<td>NURS 471</td>
<td>Development of a Microsystem Leader</td>
<td>4</td>
</tr>
<tr>
<td>NURS 472</td>
<td>Evidence-Based Practice: Translating Research to Practice</td>
<td>4</td>
</tr>
<tr>
<td>NURS 473</td>
<td>Professional Development III: Navigating the Profession</td>
<td>2</td>
</tr>
<tr>
<td>NURS 474</td>
<td>Health and Illness: Nursing with Diverse Populations</td>
<td>4</td>
</tr>
</tbody>
</table>
NURS 475 Health and Illness: Nursing with Diverse Populations Practicum 3
NURS 476 Nursing in an Evolving Healthcare System 4
NURS 477 Capstone 3
NURS 478 Integration Seminar 1
NURS 480 Population Based Healthcare Practicum 2
NURS 382 Honors Seminar 1
NURS 485 Population Based Healthcare I 1
NURS 486 Population Based Healthcare II 2
NURS 481 Honors Evidence-Based Practice: Translating Research to Practice 2
NURS 482 Honors Practicum I 2
NURS 483 Honors Practicum II 2

These courses are eligible for credit by portfolio from approved associate degree programs.

Total Hours 25

Sample Schedule for Prenursing Students

**Freshman**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 100</td>
<td>3</td>
<td>CHEM 110</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 102</td>
<td>1</td>
<td>ENGL 102</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>3</td>
<td>SOC 104 or 160</td>
<td>3</td>
</tr>
<tr>
<td>MATH 101</td>
<td>3</td>
<td>COMS 130 or 150</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 104</td>
<td>3</td>
<td>Non-Western culture course</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>1-3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Hours: 14-16

**Sophomore**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 240</td>
<td>3</td>
<td>ABSC 160 or PSYC 333</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 241 or 242</td>
<td>2-3</td>
<td>BIOL 200 (offered in spring semester only)</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 246</td>
<td>3</td>
<td>BIOL 203 (offered in spring semester only)</td>
<td>2</td>
</tr>
<tr>
<td>MATH 365 or PSYC 210</td>
<td>3</td>
<td>HSES 330</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td>Humanities course</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Hours: 14-15

University Honors Program

The School of Nursing encourages all qualified undergraduates to participate in the University Honors Program (http://www.honors.ku.edu).

Departmental Honors Program

The School of Nursing’s Departmental Honors Program offers enhanced educational opportunities for the most academically talented, promising, and motivated baccalaureate students while providing a foundation for leadership development and articulation into graduate education.

Students in the School of Nursing Honors Program develop and complete a research project under the guidance of a faculty research mentor. Students must make formal application and be admitted to the Honors Program to take honors courses. Once admitted to the program, students may use departmental honors courses to help meet the requirements of the University Honors Program.

Selection criteria for the Nursing Honors Program are as follows:

- Enrollment in the pre-licensure B.S.N. program
- Full-time status
- Overall grade-point average of 3.25 or higher contingent on earning a nursing grade-point average of 3.5 or higher at the end of the fall semester (exceptions are considered on an individual basis)
- Completion of Nursing Honors Program application

Portofolio/Transfer Credits

- Introduction to Professional Nursing 2
- Assessment/Therapeutic Interventions 3
- Foundations of Nursing 4
- Image, Roles & Ethics 3
- Nursing Across the Lifespan 6
- Nursing Diverse Populations 7

Nursing Major: RN–B.S.N. Option

The RN to B.S.N. program provides registered nurses a way to complete their bachelor’s degrees in a flexible online format. The program can be completed in as little as one calendar year of full-time study or up to five years of part-time study. A total of 120 semester credit hours are required for the degree, comprised of 60 credit hours of liberal arts prerequisite courses and 60 credit hours of nursing courses. Nursing course content may be transferred via portfolio from the associate degree nursing program. The last 30 hours completed for the degree must be taken at KU.

KU B.S.N. Courses

- NURS 320 Pathophysiology for the Practicing Nurse 3
- NURS 326 Pharmacology for the Practicing Nurse 3
- NURS 352 Client Assessment for the Practicing Nurse 3
- NURS 441 Nursing Research in an Evidence-Based Practice Setting 3
- NURS 443 Developing the Baccalaureate Nurse Role 3
- NURS 444 Using Technology to Enhance Client Safety 3
- NURS 446 Population Based Health Care for the Practicing Nurse 3
- NURS 447 Nursing Practice within the Clinical Health Care Micro System 3
- NURS 448 Scholarly Inquiry for Quality Improvement 3
- NURS 449 Nursing Practice within the Healthcare Organization 3
- NURS 451 Navigating the Influences of the Health Care Macro-Environment 3
- NURS 492 Senior Project 2-3

Total Hours: 35-36
Academic progression through the honors curriculum is evaluated on an individual basis. However, to graduate with departmental honors from the School of Nursing, the student must attain an overall grade-point average of 3.25 with a nursing grade-point average of 3.5 and satisfactory grades in all clinical practicum courses, complete all required courses in the Nursing Honors Program, and have their oral and written reports of research findings certified.

The honors curriculum comprises the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 382</td>
<td>Honors Seminar (spring of junior year)</td>
<td>1</td>
</tr>
<tr>
<td>NURS 481</td>
<td>Honors Evidence-Based Practice: Translating</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Research to Practice (summer between junior and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>senior year)</td>
<td></td>
</tr>
<tr>
<td>NURS 482</td>
<td>Honors Practicum I (fall of senior year)</td>
<td>2</td>
</tr>
<tr>
<td>NURS 483</td>
<td>Honors Practicum II (spring of senior year)</td>
<td>2</td>
</tr>
</tbody>
</table>

Students who successfully complete the Nursing Honors Program are recognized in the following ways:

- The notation of Departmental Honors on the official university transcript
- An official certificate indicating graduation with B.S.N. Honors
- Listing in the School of Nursing Recognition Ceremony program
- Formal recognition at the School of Nursing Recognition Ceremony
- Listing in the University of Kansas Commencement Program
- Formal recognition at the Cording Ceremony on the Lawrence campus for students also completing the University Honors Program

For more information, contact the undergraduate recruiter.

**Master of Science in Nursing**

The Master of Science degree in nursing enlarges the focus of nursing, using as its foundation the basic baccalaureate nursing program. The program’s goals are directed toward educating the nurse leader. Leadership specializations include organizational leadership, public health nursing, clinical research management, and nursing informatics.

The School of Nursing is one of 3 schools at the University of Kansas Medical Center (http://www.kumc.edu) in Kansas City, Kansas. Academic programs at KU Medical Center are offered through the Schools of Health Professions, Medicine, and Nursing. The Office of Graduate Studies at KUMC handles matters related to graduate programs in Health Professions, Medicine, and Nursing.

The KU School of Nursing’s baccalaureate, master’s, and doctor of nursing practice (D.N.P.) programs are accredited by the Commission on Collegiate Nursing Education (http://www.aacn.nche.edu), One Dupont Circle, NW, Suite 530, Washington, DC 20036, (202) 887-6791. This organization is a nationally recognized professional accrediting body for collegiate nursing programs. The baccalaureate, master’s, and D.N.P. programs also are approved by the Kansas State Board of Nursing (http://www.kbsn.org). The Nurse Midwifery Program is accredited by the Accreditation Division of the American College of Nurse-Midwives (http://www.midwife.org), 818 Connecticut Ave., NW, Suite 900, Washington, DC 20006, (202) 728-9860. The Nurse Anesthesia program is accredited by the Council on Accreditation of Nurse Anesthesia Programs, 222 S. Prospect Avenue, Park Ridge, IL 60068-4001, 847-655-1160.

**M.S. Admission**

Applications to the Master of Science in Nursing program are accepted twice a year. **April 1** is the deadline for the fall semester and **September 1** is the deadline for the spring semester. Prospective students can apply using the KU Medical Center online application: https://www.applyweb.com/apply/kumc/

Application eligibility requirements include the following:

- Bachelor of Science in Nursing (BSN) degree from a nationally accredited program (NLNAC or CCNE)
- Current registered nurse licensure in at least one state in the United States.
- Minimum of one year of clinical work experience as a registered nurse
- Minimum cumulative undergraduate GPA of 3.0 on a 4.0 scale.
- Completion of a graduate-level statistics course either prior to admission or during first semester of graduate study.
- Satisfactory criminal background check
- For international applicants whose native language is not English, a satisfactory score on the Test of English as a Foreign Language or the International English Language Testing System taken within the last 2 years is required. Visit KUMC Graduate Studies for information.

**M.S. Degree Requirements**

The Master of Science degree in nursing requires completion of an approved curriculum with a grade-point average of B or above, a written thesis or project, and a comprehensive oral examination. The program enlarges the focus of nursing, using as its foundation the basic baccalaureate nursing program. The program’s goals are directed toward educating the nurse leader. Leadership specializations include organizational leadership, public health nursing, clinical research management, and nursing informatics.

**Nursing Major**

**Leadership**

- The **organizational leadership (OL) specialization** prepares nurses to assume leadership positions in hospitals and other health agencies.
- The **public health (PH) specialization** prepares nurses to develop advanced community-based interventions and determine outcomes with emphasis on health promotion and disease prevention strategies for a targeted population.
- The **clinical research management (CRM) specialization** prepares the nurse to plan and implement clinical research trials.
- The **nursing informatics (NI) specialization** prepares the nurse with skills in analysis, design, implementation, and evaluation of information systems that support a full range of clinical and patient care functions.

**Joint Degree**

Students may combine the Master of Science in Nursing (specialization in organizational leadership) with the Master of Health Services Administration. By combining some course work, the 2 degrees may be completed in fewer hours than if pursued independently.
Program Components

The leadership major presents a theoretical base specific to each specialization. Specialization courses are accompanied by practical experience that allows students to apply theory in a health care setting.

The M.S. in Nursing curriculum includes four core components: common, leadership, research and specialty. Organizational Leadership and Nursing Informatics require 37 credit hours. Public Health requires 39 credit hours. Clinical Research Management (CRM) requires 41 credit hours.

Common Core

Common core nursing courses provide the core knowledge and skills essential to the nurse practicing in any advanced area of nursing. Courses in this area are NRSG 748, NRSG 754, and NRSG 755.

Leadership Core

Courses in the leadership core provide the theoretical basis for the specializations in organizational leadership, public health, and nursing informatics. Courses in this category are NRSG 808, NRSG 820, NRSG 826, NRSG 880, and NRSG 885. CRM requires NRSG 820, NRSG 826, and NRSG 880 from the leadership core and NRSG 731, NRSG 813, NRSG 806, and NRSG 812 from the advanced practice (see D.N.P. section).

Nursing Research

Nursing research courses focus on the ability of the nurse to use research and participate in the development of new knowledge in nursing and health care. Courses in this category are NRSG 754 and NRSG 898(project) or NRSG 899(thesis).

Specialty Core

Courses in this category provide the information necessary for practice at the graduate level.

Leadership Specializations

- Courses for organizational leadership are:
  - NRSG 881 Applied Budgeting and Finance 3
  - NRSG 882 Introduction to Operations 3
  - or NRSG 883 Complexity Science Approaches to Improve Organizational Effectiveness 3
  - NRSG 886 Practicum in Organizational Leadership 1-3
  - NRSG 891 Human Resources and Workforce Development 3
  - HP&M 822 Health Care Economics 3

- Courses for public health nursing are:
  - NRSG 809 Health Promotion and Complementary Therapeutics 3
  - NRSG 827 Advanced Concepts Public Health Nursing 2
  - NRSG 828 Public Health Nursing: Practicum I 3
  - NRSG 829 Public Health Practicum 3
  - PRVM 800 Principles of Epidemiology 3
  - PRVM 830 Environmental Health 3

- Courses for clinical research management are:
  - NRSG 824 Research Clinical Trial Management: Pre-Study Activities 3
  - NRSG 825 Research Clinical Trial Management: Post-Study Activities and Practicum Experience 3
  - NRSG 833 Managing Clinical Research Projects 3
  - Advanced practice core:
    - NRSG 731 Pharmacokinetics and Pharmacodynamics for Advanced Practice Nursing 1
    - NRSG 806 Advanced Physiology 4
    - NRSG 812 Advanced Pathophysiology 3
    - NRSG 813 Applied Drug Therapy 3

- Courses for nursing informatics are:
  - NRSG 853 Abstraction and Modeling of Healthcare Information 3
  - NRSG 856 Knowledge Management in Healthcare Practicum 1-3
  - NRSG 857 Transforming Health Care through Use of Information Systems and Technology 3
  - NRSG 858 Health Data: Theory and Practice 3-4

Thesis/Project Option

The student may choose to complete a thesis for six credit hours (NRSG 899) or to complete a project for two credit hours (NRSG 898). The project involves applying aspects of the research process to the student’s area of nursing practice. A number of options are available for the project. Both thesis and project involve a formal paper and a comprehensive oral examination covering the area of study.

Flexible Scheduling

The majority of students in the M.S. program are part-time students and many students are employed. To accommodate student need and preference, many courses are offered online. Online classes typically include both asynchronous and synchronous learning activities.

Master of Science in Health Informatics

Master of Science in Health Informatics Program

Center for Health Informatics

This is an interprofessional degree offered through the Office of Graduate Studies (http://www.kumc.edu/academic-affairs/graduate-studies.html), with oversight by the University of Kansas Center for Health Informatics (http://www.kumc.edu/health-informatics.html) through its advisory council. The program is designed for health professionals or information technology specialists who want a specialty focus in health informatics. The advisory council of this program reflects this commitment to interprofessional collaboration. Faculty with foundations in nursing, health policy and management, preventive medicine and public health, and health information management partner to create this master's degree in health informatics.
M.S. Admission

Regular admission to the Master of Science in Health Informatics program requires completion of a baccalaureate degree from an accredited college or university in a technical or health-science field, a basic graduate-level statistics course, and an undergraduate grade-point average of B or above. A background check (http://www.kumc.edu/student-services/vice-chancellor-of-student-services/criminal-background-checks-for-students.html) is required during the admission process; it may affect the student’s eligibility to enter the program. For international applicants, a satisfactory score on the Test of English as a Foreign Language or the International English Language Testing System taken within the last 2 years is required. See English Proficiency Requirements for Admission to Graduate Study (http://www.kumc.edu/international-programs/academic-english-requirements.html) for detailed information. Applicants who do not meet the admission criteria for regular admission status may be considered on an individual basis for provisional admission status as either degree-seeking or nondegree-seeking students.

See also Admission in the Graduate Studies (p. 2059) section of the online catalog or visit the Center for Health Informatics’ Admission Criteria and Processes Page (http://www.kumc.edu/health-informatics/mshi/prospective-students.html).

M.S. Degree Requirements

The M.S. in Health Informatics requires completion of the curriculum with a grade-point average of B or above, a research project, and a general oral examination. The program’s goal is to educate professionals in health informatics who have skills in analysis, design, implementation, and evaluation of information systems that support a full range of clinical and patient care functions. Working as a translation specialist, the graduate is prepared for entry and mid-level positions with IT departments, medical practice departments, advanced nursing departments, public health organizations, and as consultants and/or staff in organizations that specialize in computer operations and knowledge management. Graduates also have the skills to enter the growing field of health information exchange, which includes regional health information organizations and the emerging personal health records field. In addition to a foundation in information technology, students acquire special skills in organizational change, project management, and impact evaluation.

Program Components

Students in health informatics complete 40 credit hours. The curriculum is divided into 3 cores: informatics, leadership, and discipline focus (matching that of the faculty partners). Many of the courses are online. A strength of the program is the close relationship between the student and faculty advisor. The student and advisor develop a plan of study that meets the student’s career goals. The program concludes with a research project and a practicum, which combines research with hands-on experience and provides an opportunity for students to take advantage of the resources at numerous clinical and business partners.

Health Informatics Core (17 credits)

The health informatics core courses provide the core knowledge and skills essential to the practice of health informatics. Courses in this area are:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPHI 850</td>
<td>Introduction to Health Informatics</td>
<td>2-3</td>
</tr>
<tr>
<td>IPHI 851</td>
<td>Transforming Health Care through Use of Information Systems and Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

Leadership Core (8-10 credits)

The following courses qualify for credit toward the leadership selective requirement. The student must take 1 course in health policy; there is a choice of 2 courses to meet this requirement. Courses that may be taken in this category are:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRS 808</td>
<td>The Social Context for Health Care Policy</td>
<td>2</td>
</tr>
<tr>
<td>NRS 820</td>
<td>Program, Project, and Communication Planning</td>
<td>2</td>
</tr>
<tr>
<td>NRS 825</td>
<td>Organizational Foundations for Leading Change</td>
<td>3</td>
</tr>
<tr>
<td>NRS 882/HPM 850</td>
<td>Introduction to Operations</td>
<td>3</td>
</tr>
<tr>
<td>NRS 885</td>
<td>Evaluation and Analysis for Healthcare Effectiveness</td>
<td>2</td>
</tr>
<tr>
<td>NRS 850</td>
<td>Human Resources and Workforce Development</td>
<td>3</td>
</tr>
</tbody>
</table>

Discipline-Specific Core - (9 credits)

Courses in the categories below are determined by the advisor and the student based on the student’s background and career goals.

Clinical

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRS 748</td>
<td>Theories for Practice and Research</td>
<td>3</td>
</tr>
<tr>
<td>NRS 755</td>
<td>Professionalism in Advanced Nursing Practice</td>
<td>3</td>
</tr>
<tr>
<td>NRS 826</td>
<td>Global Perspective and Diversity in Healthcare</td>
<td>2</td>
</tr>
<tr>
<td>NRS 883</td>
<td>Complexity Science Approaches to Improve</td>
<td>3</td>
</tr>
<tr>
<td>NRS 891</td>
<td>Organizational Effectiveness</td>
<td>3</td>
</tr>
</tbody>
</table>

Health Policy & Management

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRS 810</td>
<td>The Health Care System</td>
<td>3</td>
</tr>
<tr>
<td>NRS 822</td>
<td>Health Care Economics</td>
<td>3</td>
</tr>
<tr>
<td>NRS 825</td>
<td>Financial Concepts in Healthcare Management</td>
<td>3</td>
</tr>
<tr>
<td>NRS 846</td>
<td>Managing Information Systems and Technology</td>
<td>3</td>
</tr>
<tr>
<td>NRS 850</td>
<td>Introduction to Operations</td>
<td>3</td>
</tr>
<tr>
<td>NRS 854</td>
<td>Human Resources and Workforce Development</td>
<td>3</td>
</tr>
</tbody>
</table>

Preventive Medicine

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PRV 800</td>
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<td>PRV 803</td>
<td>Introduction to Clinical Research</td>
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<td>PRV 805</td>
<td>Public Health Seminar</td>
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<td>PRV 815</td>
<td>Surveillance and Control of Infectious Disease</td>
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<tr>
<td>PRV 819</td>
<td>An Introduction to Geographic Information Systems (GIS) for Health</td>
<td>2</td>
</tr>
<tr>
<td>PRV 875</td>
<td>Management of Public Health Data</td>
<td>3</td>
</tr>
</tbody>
</table>
Research (3 credits)

Research courses focus on the ability of the nurse to understand and use research to participate in the development of new knowledge in nursing and health care. The student must take 1 of the courses listed.

NRSG 754 Health Care Research 3
HP&M 819 Research for Health Care Leaders 3

Research Project (2 credits)

The student must complete a research project. The project involves applying aspects of the research process to the student's area of health informatics practice. A number of options are available for the project.

IPHI 860 Research Project 2

Sample Plan of Study

This is a sample full-time plan of study for a person from a health information management or nonclinical background. Students with clinical backgrounds would have different plans of study. Students must complete a minimum of 40 credit hours.

Year 1

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours Spring</th>
<th>Hours Summer</th>
<th>Hours</th>
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<tr>
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<td>3 IPHI 850</td>
<td>2-3 IPHI 854 or NRSG 854</td>
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<td>IPHI 853 or NRSG 853</td>
<td>3 IPHI 852 or NRSG 858</td>
<td>3-4 NRSG 754</td>
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<td>HP&amp;M 819</td>
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<tr>
<td>IPHI 853 or NRSG 853</td>
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<tr>
<td>HP&amp;M 819</td>
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<td>IPHI 851 or NRSG 857</td>
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<td></td>
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<tr>
<td>IPHI 853 or NRSG 853</td>
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<td>HP&amp;M 819</td>
<td>3 HP&amp;M 840</td>
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<tr>
<td>HP&amp;M 825</td>
<td>3 HP&amp;M 833</td>
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</tbody>
</table>

Total Hours: 40-44

Doctor of Philosophy in Nursing

The Ph.D. program prepares graduates to function in faculty positions in college and university settings; to conduct independent research and scholarly endeavors in nursing; to generate and expand theoretical, empirical, and philosophical bases for nursing practice; and to provide leadership to the profession and interpret nursing to society.

The nurse engaged in doctoral study in nursing is an adult learner with unique perspectives gained from personal, professional, and educational experiences. This individual tends to be self directed, goal oriented, highly motivated and capable of abstract, original thinking. Individual interests are explored through study in a related discipline. Learning is achieved through independent study and research, as well as through completion of courses of instruction.

The School of Nursing is one of 3 schools at the University of Kansas Medical Center (http://www.kumc.edu) in Kansas City, Kansas. Academic programs at KU Medical Center are offered through the Schools of Health Professions, Medicine, and Nursing. The Office of Graduate Studies at KUMC handles matters related to graduate programs in Health Professions, Medicine, and Nursing.

The KU School of Nursing’s baccalaureate, master’s, and doctor of nursing practice (D.N.P.) programs are accredited by the Commission on Collegiate Nursing Education (http://www.aacn.nche.edu), One Dupont Circle, NW, Suite 530, Washington, DC 20036, (202) 887-6791. This organization is a nationally recognized professional accrediting body for collegiate nursing programs. The baccalaureate, master’s, and D.N.P. programs also are approved by the Kansas State Board of Nursing (http://www.kbn.org). The Nurse Midwifery Program is accredited by the Accreditation Division of the American College of Nurse-Midwives (http://www.midwife.org), 818 Connecticut Ave., NW, Suite 900, Washington, DC 20006, (202) 728-9860. The Nurse Anesthesia program is accredited by the Council on Accreditation of Nurse Anesthesia Programs, 222 S. Prospect Avenue, Park Ridge, IL 60068-4001, 847-655-1160.

Ph.D. Admission

Admission Criteria

New students are accepted to the PhD degree program once a year, in the summer semester. The application deadline is December 1 for the following summer (June). Prospective students can apply using the KU Medical Center online application at https://www.applyweb.com/apply/kumc/.

1. Completion of a Bachelor of Science in Nursing (BSN) or Master of Science in Nursing degree from a nationally accredited program is required. Prerequisite preparation must include the following courses:
   • Basic Statistics—3 credit hours
   • Analysis of Variance—3 credit hours
2. Preference is given to students with 3.25 grade-point averages for the master’s degree in nursing.
3. Required Graduate Record Examination scores are 1,000 on the verbal and quantitative sections and at least 5 on the analytical writing section (or a score of 1,500 on the 3-part GRE, if taken before October 2002).
4. Potential for leadership and scholarship in nursing should be demonstrated.
5. A background check is required during the admission process; it may affect the student’s eligibility to enter the program.
6. For international applicants, a satisfactory score on the Test of English as a Foreign Language or the International English
Language Testing System taken within the last 2 years is required. See KUMC Graduate Studies for information.

Applicants who do not meet the admission criteria for regular admission status may be considered on an individual basis for provisional admission status as either degree-seeking or nondegree-seeking students.

See also Admission in the Graduate Studies (p. 2059) section of the online catalog.

**Doctor of Philosophy in Nursing**

The Ph.D. program prepares graduates to function in faculty positions in college and university settings; to conduct independent research and scholarly endeavors in nursing; to generate and expand the theoretical, empirical, and philosophical bases for nursing practice; and to provide leadership to the profession and interpret nursing to society. Students have opportunities to expand their theoretical knowledge and research skills in a minor area; to develop expertise in nursing theory development; to expand research skills; and to gain a historical and philosophical perspective that broadens their professional orientation and provides a basis for understanding changing social expectations, cultural perspectives, and economic and political trends.

**Program Options**

Students may apply to the doctoral program after completing the master’s degree in nursing or after completing the baccalaureate degree with a major in nursing. The post-baccalaureate entry option is for exceptionally well-qualified B.S.N. graduates whose career goals are research-oriented and who wish to progress as rapidly as possible toward the research doctorate in nursing.

**Course Requirements**

The PhD program is offered in a combination of ways, including: three on-campus, one-week summer intensives, online coursework throughout the year, and e-mentoring by faculty for research and career advisement.

The nursing portion of the doctoral program has 3 major components:

- Theory
- Empirics
- Leadership

A total of 50 hours of course work is required, with 15 credit hours of dissertation, for a total of 65 credit hours required for the PhD degree.

<table>
<thead>
<tr>
<th>Theory (6)</th>
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<tbody>
<tr>
<td>NRSG 940</td>
<td>Knowledge and Theory Development in Nursing Science</td>
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<td>NRSG 942</td>
<td>Theory Application in Nursing Science</td>
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<td>Empirics (14)</td>
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<td>NRSG 943</td>
<td>Methods for Quantitative Research</td>
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<td>Quantitative Research Application</td>
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<td>NRSG 946</td>
<td>Measurement Principles and Practice</td>
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<td>NRSG 802</td>
<td>Methods for Qualitative Research</td>
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<td>NRSG 947</td>
<td>Qualitative Research Application</td>
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<td>NRSG 935</td>
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<td>Informatics and Technology Applications</td>
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<td>NRSG 941</td>
<td>Preparing for Doctoral Leadership</td>
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<td>NRSG 945</td>
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<tr>
<td>NRSG 877</td>
<td>Foundations in Education and Learning</td>
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<td>NRSG 948</td>
<td>Advancing Organizational and Clinical Quality</td>
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<td>NRSG 949</td>
<td>Synthesis Workshop II</td>
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</table>

**Minor**

This includes 11 hours of courses in the student’s area of choice. These courses also must support the student’s research. Examples are American studies, anatomy, anthropology, biochemistry, business, child development, communication, economics, education, history, pathology, pharmacology, philosophy, physiology, political science, psychology, sociology, or any other graduate area offered by KU. A minor synthesis paper is written after completion of the minor coursework.

**Support Courses**

This area requires these courses:

- **Statistics (6)**
  - Regression Analysis 3
  - Multivariate Analysis 3

**Dissertation**

Each student must complete a study that shows the planning, conduct, and results of original research. See Doctoral Degree Requirements, Dissertation, in the Graduate Studies (p. 2059) section of the online catalog. The minimum number of post-comprehensive dissertation credit hours is 15.

The program also requires satisfactory completion of the university’s research skills and responsible scholarship requirement (https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm), satisfactory completion of 2 qualifying examinations, satisfactory completion of a comprehensive oral examination, and dissertation defense.

**Doctor of Nursing Practice**

The Doctor of Nursing Practice (DNP) degree prepares graduates for advanced nursing practice at the highest level. The DNP offers sophisticated, cutting-edge experiences that help nurses actively engage in a complex, dynamic and demanding health care field. Skills in collaboration, innovation, and evaluation — complemented by advanced nursing practice skills — prepare nurses to shape the future of health care. Graduates of the DNP program provide patient-centered care that is evidence-based, contribute to the development of evidence-based practice, and pursue leadership roles in a variety of health care and educational settings. All DNP graduates must have completed at least 1,000 hours of supervised, post-baccalaureate, practice experiences.

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**D.N.P. Admission**

New students are accepted to the DNP degree program once a year, in the summer semester. The application deadline is December 1 for the following summer (June). Prospective students can apply using the KU Medical Center online application at [https://www.applyweb.com/apply/kumc](https://www.applyweb.com/apply/kumc).

**D.N.P. Program Admission Criteria**

1. Completion of a bachelor of science in nursing (BSN) degree (for BSN to DNP), or completion of a master’s degree in nursing (for post-master’s DNP) from a nationally accredited program.
2. Minimum cumulative undergraduate GPA of 3.0 for BSN-DNP application. For post-MS DNP, preference is given to applicants with a 3.25 graduate GPA in the master’s program.
3. Potential for leadership and application of scholarship in nursing.
4. Potential to provide expert advanced clinical care or expert service in functional area.
5. National certification in specialty area (post-master’s DNP)
6. A graduate-level statistics course
7. A background check (http://www.kumc.edu/student-services/vice-chancellor-of-student-services/criminal-background-checks-for-students.html) and drug screen are required during the admission process and may affect the student’s eligibility to enter the program.
8. For international applicants, a satisfactory score on the Test of English as a Foreign Language or the International English Language Testing System taken within the last 2 years is required. Visit KUMC Graduate Studies (http://www.kumc.edu/academic-affairs/graduate-studies.html) for information.

**Admission Process**

Application deadlines are:

- **Post-master’s entry:**
  - March 1 for fall semester
- **Post-baccalaureate entry:**
  - April 1 for fall semester
  - September 1 for spring semester

All applicants must submit the following:

- Completed application for graduate study;
- Official transcripts of all academic work toward the bachelor’s and master’s degrees in nursing (KUMC provides the University of Kansas record);
- 3 references from advanced-practice nurses, nursing faculty, or physicians who are able to attest to the applicant’s potential ability to practice at the highest level of advanced nursing practice and to engage in scholarly activity and leadership roles;
- A statement of career goals and practice interests;
- A résumé;
- Evidence of current licensure as a professional nurse in 1 state;
- Nonrefundable application fee. See the School of Nursing website (http://nursing.kumc.edu) for the fee.

The admissions committee of the School of Nursing reviews application materials. Specially area faculty may request an interview with a student.

See also Admission in the Graduate Studies (p. 2059) section of the online catalog.

**BSN-DNP**

The post-baccalaureate DNP curriculum is designed for registered nurses with a BSN degree. DNP graduates will have knowledge, skills and expertise to become clinical scholars and transformational leaders. The BSN to DNP program offers nurses a variety of specializations in two majors: Advanced Practice and Leadership.

**Advanced-Practice Major**

The advanced-practice nursing major prepares nurses for clinical nurse specialist, nurse practitioner, nurse-midwife, or nurse anesthesia role specializations.

- The clinical nurse specialist specialization includes adult/gerontological nursing. It prepares nurses to perform in the expanded role of caring for a particular kind of patient/client or to function in a particular kind of setting. (75 credit hours)

- The nurse practitioner specialization prepares nurses to provide primary health care to clients and families across the life span. Family nurse practitioner, adult/gerontological nurse practitioner, and psychiatric/mental health nurse practitioner options are available. The nurse practitioner is prepared to provide primary health care in a variety of settings. (75 - 79 credit hours)

- The nurse-midwife specialization focuses on the support and management of well-women’s primary and reproductive health care needs throughout the life span. (76 credit hours)

- The nurse anesthesia specialization prepares nurses to perform as nurse anesthetists. Admission to this specialization is through the Department of Nurse Anesthesia, KU School of Health Professions. (81 credit hours)

**Leadership Major**

- Clinical Research Management (74 total credit hours)
- Nursing Informatics (71 total credit hours)
- Organizational Leadership (74 total credit hours)
- Public Health Nursing (74 total credit hours)

**Curriculum**

The post-baccalaureate D.N.P. program requires the following:

- 22-24 credit hours of post-baccalaureate common core courses
- A minimum of 6 credit hours of capstone project
- 12-23 credit hours of Advanced-Practice or Leadership core
- 12-23 credit hours of specialization courses
• 11 credit hours of specialty area support courses and practica courses
• Satisfactory completion of the university’s research skills and responsible scholarship requirement ([https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm](https://documents.ku.edu/policies/Graduate_Studies/Research_Skills_and_Responsible_Scholarship.htm))

Total required program credit hours vary from 71 to 81, depending on the specialization. Although curricular changes may occur, some examples of core courses include:

- Common Core (NRSG 748, 754, 755)
- Advanced Practice Core (NRSG 731, 801, 806, 809, 812, 813)
- Leadership Core (NRSG 808, 820, 826, 880, 885)
- DNP Core (PRVM 800, NRSG, 804, 911, 941)
- DNP Specialty Area (NRSG 857, 919, 920)
- Adult/Gerontological Nurse Practitioner Specialty Core (NRSG 862, 864, 865, 867, 869)
- Adult/Gerontological Clinical Nurse Specialist Specialty Core (NRSG 862, 863, 865, 866, 868)
- Family Nurse Practitioner Specialty Core (814, 815, 816, 817, 818)
- Nurse Midwifery Specialty Core (NRSG 830, 831, 832, 833, 835, 836, 837, 838, 840, 841)
- Psychiatric Mental Health Nurse Practitioner Specialty Core (NRSG 842, 844, 845, 846, 847, 848, 849, 850, 851)
- Organizational Leadership Specialty Core (HP&M 822, NRSG 881, 882, 883, 886, 891)
- Public Health Nursing Specialty Core (NRSG 809, 827, 828, 829, PRVM 830)
- Nursing Informatics Specialty Core (NRSG 853, 854, 856, 857, 858)
- Clinical Research Management Specialty Core (NRSG 823, 824, 825, 833)

The post-master’s D.N.P. program requires the following:

- 15 credit hours of post-master’s common core courses
- A minimum of 6 credit hours of capstone project
- 11 credit hours of specialty courses
- Satisfactory completion of the university’s Research Skills and Responsible Scholarship requirement

The post-master’s DNP curriculum is designed for nurses who have already earned a Master of Science in Nursing degree. The DNP degree allows nurses to serve at a higher level as an advanced practice nurse or leader in their specialty. Two majors are offered in the post-master’s DNP program: 1) Advanced Practice and 2) Leadership. A total of 32 credit hours is required for the post-master’s DNP.

For further information, visit the Doctor of Nursing Practice ([http://nursing.kumc.edu/academics.html](http://nursing.kumc.edu/academics.html)) section of the school’s website ([http://nursing.kumc.edu](http://nursing.kumc.edu)).

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### Post-Master's Certificate Programs in Nursing

#### Graduate Certificate Programs in Nursing

The School of Nursing offers Post-Master’s Certificate programs in several specialties. They are categorized into 3 areas: General, Leadership, and Advanced Practice. In the Leadership and Advanced Practice categories, some prerequisite courses and other requirements are required beyond simply holding the M.S. degree in nursing.

Information about the costs of certificates may be found at [http://nursing.kumc.edu/academic-programs/certificate/index.html](http://nursing.kumc.edu/academic-programs/certificate/index.html)

#### Educator

**Health Professions Educator Certificate**

This interdisciplinary certificate affords graduate-prepared nurses broader opportunities and the necessary skill to find positions in nursing education at the various levels and become leaders in their field. Paired with faculty mentors throughout the program, students complete applied teaching projects in each educator course, including a final student teaching capstone. Students may complete the health professions educator certificate within their master’s program or as post-master’s study. All courses are web-based.

- **NRSG 870** Designing a Student Learning Environment 3
- **NRSG 871** Curriculum/Program Planning and Evaluation 3
- **NRSG 873** Teaching with Technologies 3
- **NRSG 874** Nurse Educator Preceptorship 3

#### Leadership

**Leadership Certificates**

Organizational Leadership, Health Informatics and Public Health Nursing certificate students choose 1 course from the Leadership core, as part of the course requirements for each program.

**Prerequisite Leadership Core (11)**

Select one of the following:

- **NRSG 808** The Social Context for Health Care Policy 2
- **NRSG 820** Program, Project, and Communication Planning 2
- **NRSG 826** Global Perspective and Diversity in Healthcare 2
- **NRSG 880** Organizational Foundations for Leading Change 3
- **NRSG 885** Evaluation and Analysis for Healthcare Effectiveness 2

**Organizational Leadership**

**Organizational Leadership Certificate** (17 to 18 credit hours). This certificate prepares clinicians with skills in organizational behavior, clinical operations and system design, quality measurement and risk management, fiscal operations and systemic change and project management. It prepares the organizational leader for entry- to mid-level clinical leadership and management positions, with the possibility of future promotions to a higher executive level. All NRSG courses are web-based.
The University of Kansas School of Nursing’s Clinical Research Management track within the Master of Science in Nursing program is a certificate program that prepares clinical research professionals with competencies and skills related to Good Clinical Practice (GCP) standards and research related to conducting clinical trials, institutional review boards and regulations, and ethical issues. The Clinical Research Management Certificate program is available to post-master’s students.

**Clinical Research Management Certificate** (12 credit hours). No Leadership Core prerequisite is required.

Graduates are prepared for entry- to mid-level positions in research settings, such as research managers and executive leaders with potential for promotion to executive-level leadership roles in business, government, and industry settings. The program is suited for novice or advanced beginner managers and advanced practice clinicians who have potential for clinical research leadership at the advanced level.

Healthcare Informatics

**Healthcare Informatics Certificate** (17 to 18 credit hours). This program prepares clinicians and health care managers with skills in analysis, design, implementation, and evaluation of information systems that support a full range of clinical and patient care functions. The graduate is prepared for entry- and mid-level positions in IT departments, advanced clinical departments, and as consultants and/or staff in organizations that specialize in computer operations and knowledge management. All NRSG courses are web-based.

**Prerequisites**: Leadership Core elective course (2 or 3 credit hours) 2-3

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>NRSG 880</td>
<td>Organizational Foundations for Leading Change</td>
<td>3</td>
</tr>
<tr>
<td>HP&amp;M 822</td>
<td>Health Care Economics</td>
<td>3</td>
</tr>
<tr>
<td>NRSG 881</td>
<td>Applied Budgeting and Finance</td>
<td>3</td>
</tr>
<tr>
<td>NRSG 883</td>
<td>Complexity Science Approaches to Improve</td>
<td>3</td>
</tr>
<tr>
<td>NRSG 891</td>
<td>Human Resources and Workforce Development</td>
<td>3</td>
</tr>
<tr>
<td>NRSG 886</td>
<td>Practicum in Organizational Leadership</td>
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</tr>
</tbody>
</table>

**Public Health Nursing Certificate** (16 to 19 credit hours). Nurses in this program acquire skills in advanced community-based interventions and outcomes measurement, with emphasis on health promotion and disease prevention strategies for a targeted population. Public health nurses find employment in state and county health departments, national and regional agencies that focus on specialized client populations, or as leaders in community-based clinical and advocacy agencies. All courses are web-based.

**Prerequisites**: Leadership Core elective course (2 or 3 credit hours) 2-3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
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<td>PRVM 800</td>
<td>Principles of Epidemiology</td>
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<td>PRVM 830</td>
<td>Environmental Health</td>
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<td>NRSG 828</td>
<td>Public Health Nursing: Practicum I</td>
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<td>NRSG 827</td>
<td>Advanced Concepts Public Health Nursing</td>
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<td>NRSG 829</td>
<td>Public Health Practicum</td>
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</tr>
<tr>
<td>NRSG 892</td>
<td>Independent Study in Nursing Practicum</td>
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</table>

1 Students who do not have enough clinical hours to meet national certification eligibility may need to take additional credit hours of practicum work.

**Psychiatric/Mental Health Nurse Practitioner Certificate** (20 credit hours). This program prepares advanced practice nurses to diagnose and treat common mental health conditions in general medical settings and to deliver more effective psychiatric care in mental health settings. Students are prepared to apply knowledge and skills in interpersonal, psychotherapeutic, and psychopharmacologic interventions for individuals, groups, and families with psychiatric disorders. All courses are web-based and offered in sequence every other year. Spring 2014 begins the next available course sequence.

**Prerequisites** include the following courses or their equivalents from another institution:

<table>
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<th>Course Code</th>
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<tr>
<td>NRSG 809</td>
<td>Health Promotion and Complementary Therapeutics</td>
<td>3</td>
</tr>
<tr>
<td>NRSG 810</td>
<td>Advanced Health Assessment and Physical Diagnosis</td>
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</tr>
<tr>
<td>or NRSG 801</td>
<td>Advanced Health Assessment and Clinical Reasoning</td>
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<tr>
<td>NRSG 812</td>
<td>Advanced Pathophysiology</td>
<td>3</td>
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<tr>
<td>NRSG 813</td>
<td>Applied Drug Therapy</td>
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</table>

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRSG 844</td>
<td>Advanced Psychiatric Assessment</td>
<td>3</td>
</tr>
<tr>
<td>NRSG 845</td>
<td>Psychotherapeutics I: Psychiatric Mental Health Nurse Practitioner (Fall 2014)</td>
<td>3</td>
</tr>
<tr>
<td>NRSG 846</td>
<td>Psychotherapeutics I: Psychiatric Mental Health Nurse Practitioner Practicum (Fall 2014)</td>
<td>2</td>
</tr>
<tr>
<td>NRSG 847</td>
<td>Psychotherapeutic Interventions II: Psychiatric Mental Health Nurse Practitioner (Spring 2015)</td>
<td>3</td>
</tr>
<tr>
<td>NRSG 848</td>
<td>Psychotherapeutics II: Psychiatric Mental Health Nurse Practitioner Practicum (Spring 2015)</td>
<td>4</td>
</tr>
</tbody>
</table>
The program prepares advanced practice nurses to transition to the role of adult/gerontological nurse practitioner in collaboration with other professionals to coordinate and improve health care. Students acquire knowledge, skills, and competencies to manage primary health care needs of adult clients. The courses include adult/gerontological theory courses, practice-focused clinical courses, and an intensive preceptorship experience. Courses are offered online and on the KU Medical Center campus.

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hrs</th>
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</thead>
<tbody>
<tr>
<td>NRSG 849</td>
<td>Psychopharmacology for Advanced Nursing Practice</td>
<td>3</td>
</tr>
<tr>
<td>NRSG 851</td>
<td>Psychotherapeutics III: Practicum (Summer 2015)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Nurse Midwifery**

**Nurse Midwifery Certificate** (19 credit hours). This program prepares advanced practice nurses to focus on the care and management of well women’s primary and reproductive health care needs throughout the life span. The program content is family-centered, respectful of individual and cultural variations, and promotes health through individual choice and participation. Courses are offered online and on the KU Medical Center campus.

<table>
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<tr>
<th>Course Code</th>
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<th>Credit Hrs</th>
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<tbody>
<tr>
<td>NRSG 830</td>
<td>Care of Women in the Antepartal Period</td>
<td>2</td>
</tr>
<tr>
<td>NRSG 831</td>
<td>Care of Women in The Antepartal Period Practicum</td>
<td>2</td>
</tr>
<tr>
<td>NRSG 832</td>
<td>Nurse Midwifery in the Neonatal Period &amp; Practicum</td>
<td>1</td>
</tr>
<tr>
<td>NRSG 835</td>
<td>Primary Women’s Health Care Across the Lifespan</td>
<td>3</td>
</tr>
<tr>
<td>NRSG 838</td>
<td>Primary Care of Women Through the Lifespan</td>
<td>2</td>
</tr>
<tr>
<td>NRSG 836</td>
<td>Nurse Midwifery in the Intrapartal and Post Partum</td>
<td>3</td>
</tr>
<tr>
<td>NRSG 837</td>
<td>Nurse Midwifery in the Intrapartal and Postpartal</td>
<td>2</td>
</tr>
<tr>
<td>NRSG 840</td>
<td>Care of Women Integration Practicum</td>
<td>4</td>
</tr>
</tbody>
</table>

**Family Nurse Practitioner**

**Family Nurse Practitioner Certificate** (15 credit hours).

Currently, the School of Nursing is not accepting applications for the FNP Post-Master’s Certificate program.

The program prepares advanced practice nurses to transition to the role of family nurse practitioner in collaboration with other professionals to coordinate and improve health care. Students acquire knowledge, skills, and competencies to manage primary health care needs of clients and families throughout the life span. The courses include primary care theory courses, practice-focused clinical courses, and an intensive preceptorship experience. Courses are offered online and on the KU Medical Center campus.

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<thead>
<tr>
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<th>Course Title</th>
<th>Credit Hrs</th>
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</thead>
<tbody>
<tr>
<td>NRSG 814</td>
<td>Primary Care I: Management of Common Health Problems Throughout the Life Span</td>
<td>3</td>
</tr>
<tr>
<td>NRSG 815</td>
<td>Primary Care I Practicum: Management of Common Health Problems Throughout the Life Span</td>
<td>2</td>
</tr>
<tr>
<td>NRSG 816</td>
<td>Primary Care II: Management of Complex Health Problems Throughout the Life Span</td>
<td>3</td>
</tr>
<tr>
<td>NRSG 817</td>
<td>Primary Care II Practicum: Management of Complex Health Problems Throughout the Life Span</td>
<td>4</td>
</tr>
<tr>
<td>NRSG 818</td>
<td>Primary Care III: Preceptorship</td>
<td>3</td>
</tr>
</tbody>
</table>

**Adult/Gerontological Nurse Practitioner**

**Adult/Gerontological Nurse Practitioner Certificate** (20 credit hours).

The program prepares advanced practice nurses to transition to the role of adult/gerontological nurse practitioner in collaboration with other professionals to coordinate and improve health care. Students acquire knowledge, skills, and competencies to manage primary health care needs of adult clients. The courses include adult/gerontological theory courses, practice-focused clinical courses, and an intensive preceptorship experience. Courses are offered online and on the KU Medical Center campus.

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<tr>
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<th>Credit Hrs</th>
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<tbody>
<tr>
<td>NRSG 862</td>
<td>Adult/Gerontological Health Care I</td>
<td>3</td>
</tr>
<tr>
<td>NRSG 864</td>
<td>Adult/Gerontological Health Care I: Practicum - NP</td>
<td>2</td>
</tr>
<tr>
<td>NRSG 865</td>
<td>Adult/Gerontological Health Care II</td>
<td>3</td>
</tr>
<tr>
<td>NRSG 867</td>
<td>Adult/Gerontological Health Care II: Practicum - NP</td>
<td>4</td>
</tr>
<tr>
<td>NRSG 869</td>
<td>Adult/Gerontological Health Care III: Preceptorship</td>
<td>3</td>
</tr>
</tbody>
</table>

**Adult/Gerontological Clinical Nurse Specialist**

**Adult/Gerontological Clinical Nurse Specialist Certificate** (15 credit hours).

The program prepares advanced practice nurses to transition to the role of adult/gerontological clinical nurse specialist in collaboration with other professionals to coordinate and improve health care. Students acquire knowledge, skills, and competencies to manage primary health care needs of adult clients. The courses include adult/gerontological theory courses, practice-focused clinical courses, and an intensive preceptorship experience. Courses are offered online and on the KU Medical Center campus.

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</tr>
<tr>
<td>NRSG 864</td>
<td>Adult/Gerontological Health Care I: Practicum - NP</td>
<td>2</td>
</tr>
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<td>Adult/Gerontological Health Care II</td>
<td>3</td>
</tr>
<tr>
<td>NRSG 867</td>
<td>Adult/Gerontological Health Care II: Practicum - NP</td>
<td>4</td>
</tr>
<tr>
<td>NRSG 869</td>
<td>Adult/Gerontological Health Care III: Preceptorship</td>
<td>3</td>
</tr>
</tbody>
</table>

**Admission Criteria**

The Advanced Practice Clinical Certificate Programs require that students have completed an advanced practice registered nurse (APRN) educational program from a nationally accredited school of nursing. Applicants must also have completed the following advanced practice prerequisite courses, either as part of their previous graduate degree or as post-graduate study through an accredited university: advanced health assessment, advanced pathophysiology, advanced pharmacology, and health promotion.

- Adult/Gerontological Clinical Nurse Specialist Certificate
- Adult/Gerontological Nurse Practitioner Certificate
- Nurse-Midwifery Certificate
- Psychiatric/Mental Health Nurse Practitioner Certificate

The Leadership Certificate Programs require applicants to have earned a master’s in nursing or DNP degree, or a graduate degree in a health-related discipline.

- Clinical Research Management
- Healthcare Informatics Certificate
- Organizational Leadership Certificate
- Public Health Nursing Certificate
The Health Professions Educator Certificate can be completed within a student's master's program or as post-master's study.

All post-MS certificate programs require a minimum 3.0 grade-point average in both undergraduate and graduate programs.

Contact the School of Nursing at soninfo@kumc.edu for additional application information.
Pharmacy

Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU (see your advisor (http://affordability.ku.edu/steps/index.shtml) for details). Other years’ catalogs (http://catalog.ku.edu/archive) »

Medicinal Chemistry (p. 2007) Master of Science in Medicinal Chemistry (p. 2010)
Doctor of Philosophy in Medicinal Chemistry (p. 2010)
Neurosciences (p. 2011) Master of Science in Neurosciences (p. 2012)
Doctor of Philosophy in Neurosciences (p. 2012)
Pharmaceutical Chemistry (p. 2014) Master of Science in Pharmaceutical Chemistry (p. 2017)
Doctor of Philosophy in Pharmaceutical Chemistry (p. 2019)
Pharmacology and Toxicology (p. 2020) Master of Science in Pharmacology and Toxicology (p. 2023)
Doctor of Philosophy in Pharmacology and Toxicology (p. 2024)
Pharmacy Practice (p. 2025) Master of Science in Pharmacy Practice (p. 2028)

The School of Pharmacy

Since its founding in 1885, the University of Kansas School of Pharmacy (http://pharmacy.ku.edu) has been a leader in pharmacy education. Since 1996, the school has only offered the Doctor of Pharmacy degree as the entry-level practice degree. The curriculum gives the student the knowledge, skills, and ability required of the pharmacy practitioner; it is comprehensive and produces a highly competent general practitioner.

Approximately 60 full-time faculty members teach in the undergraduate professional Doctor of Pharmacy and graduate programs. Three departments (Pharmacology and Toxicology, Medicinal Chemistry, and Pharmaceutical Chemistry) offer Master of Science and Doctor of Philosophy degrees. The Department of Pharmacy Practice offers the master’s degree.

Both the undergraduate and graduate divisions have outstanding national and international reputations based on the excellence and productivity of the faculty. KU is second in the rankings of schools of pharmacy that receive National Institutes of Health research funding. KU’s School of Pharmacy was awarded more than $22 million in research grants and contracts from the NIH in fiscal year 2011.

The School of Pharmacy is fully accredited by the Accreditation Council for Pharmacy Education (https://www.acpe-accredit.org), 135 S. LaSalle St, Suite 4100, Chicago, IL 60603-4810, (312) 664-3575, info@acpe-accredit.org, the official accrediting body for American schools of pharmacy.

Professional Program

The School of Pharmacy offers a 6-year Doctor of Pharmacy (p. 2005) program. The 2-year pre-pharmacy portion of the program may be taken at any accredited 2- or 4-year college.

After acceptance into the School of Pharmacy students completing the first 2 years of the Doctor of Pharmacy professional degree program (3rd and 4th year of college) are awarded a Bachelor of Science in Pharmaceutical Studies. Students completing the remaining 5th and 6th professional years are awarded the Doctor of Pharmacy (Pharm.D.) degree. These degree programs are available to students on both the Lawrence and Wichita campuses.

University Honors Program

The school encourages qualified students to participate in the University Honors Program (http://www.honors.ku.edu).

Graduate Programs

The School of Pharmacy offers graduate programs through the departments of
- Medicinal Chemistry (p. 2007),
- Pharmaceutical Chemistry (p. 2014),
- Pharmacology and Toxicology (p. 2020), and
- Pharmacy Practice (p. 2025).

The Department of Pharmacy Practice offers the Master of Science degree. The other 3 departments offer both the M.S. and the Ph.D. with majors in their respective disciplines. Programs in Neurosciences (p. 2011) are offered in cooperation with KU Medical Center.

Requirements for admission and baccalaureate preparation vary with each department and are discussed separately. Address inquiries and correspondence about graduate studies to the program or department of interest.

Undergraduate Scholarships and Financial Aid

Financial Aid and Scholarships (http://affordability.ku.edu/steps/index.shtml), located at the KU Visitor Center at 1502 Iowa St, Lawrence, KS 66045-7518, 785-864-4700, financialaid@ku.edu, administers grants, loans, and other need-based financial aid. In recent years, about $29 million has been processed annually through the office, including about $2 million annually in short-term loans. Prospective students should contact Financial Aid and Scholarships. Some financial aid programs have application deadlines as early as January 15. The earlier an application is received and the student’s file is completed, the better the chance of obtaining financial aid.

For information about scholarships from KU and various outside agencies based on academic merit, diversity, major, and residence, visit Scholarship Information for KU Students (http://affordability.ku.edu/cs/index.shtml).

School of Pharmacy Financial Aid

The School of Pharmacy, in cooperation with Financial Aid and Scholarships (http://affordability.ku.edu/steps/index.shtml), offers financial
assistance to pharmacy students. Applications are received in the dean’s office according to an announced schedule each year. Awards are based on merit and need. Assistance is available for both entering and continuing students.

Graduate Fellowships and Assistantships

For information about graduate assistantships, contact the School of Pharmacy (http://pharmacy.ku.edu). Visit the Graduate Studies website for information about funding opportunities (http://www.graduat.ku.edu/funding-opportunities) for graduate students at KU. Financial Aid and Scholarships (http://affordability.ku.edu/steps/index.shtml) administers grants, loans, and need-based financial aid.

Undergraduate University Regulations

For information about university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://www.policy.ku.edu).

Academic Misconduct

Instructors detecting academic misconduct must act in accordance with the School of Pharmacy (http://www.policy.ku.edu/Pharmacy/ academic_and_professional_conduct_policy) and Faculty Senate Rules and Regulations (http://www.policy.ku.edu).

Students experiencing difficulties or problems with a particular course or having complaints or grievances about a particular instructor are urged to discuss the problem in a timely fashion with the instructor. If the student feels awkward or uncomfortable doing this, he or she should see the chair of the instructor’s department, or if necessary, an associate dean. The chair or dean brings the matter to the instructor’s attention, preserving the student’s anonymity, if so requested.

Credit/No Credit

A Credit/No Credit option is available to all degree-seeking undergraduates. You may enroll in one course a semester under the option, if the course is not in your major or minor. For more information, visit the KU Policy Library (https://documents.ku.edu/policies/governance/ USRR.htm#art2sect2).

Warning: Certain undesirable consequences may result from exercising the option. Some schools, scholarship committees, and honorary societies do not accept this grading system and convert grades of No Credit to F when computing grade-point averages.

Exemptions and Petitions

A student may gain an exemption from introductory pre-pharmacy courses by successfully completing the Advanced Placement or College Level Examination Program examinations or by other recognized means. Only the exemption is allowed. A total of 208 credit hours of college-level course work is still required for the PharmD degree. Students who have completed high school physics with a grade of B or higher need not take college-level physics. In meritorious cases, the department offering a specific course may waive course prerequisites. Students whose educational goals would be better served by courses other than those prescribed in the normal curriculum may petition the academic standing committee for permission to make appropriate course substitutions.

Graduation with Distinction and Highest Distinction

Students who rank in the upper 10 percent of their graduating class graduate with distinction. The upper third of those awarded distinction graduate with highest distinction. Grade-point averages are determined on the basis of credit hours taken while enrolled in the School of Pharmacy. The list is compiled each spring and includes July, December, and May graduates.

Health Insurance and Immunizations

The School of Pharmacy requires students to provide proof of health insurance and professional insurance coverage and immunizations for MMR, hepatitis B, varicella, and tetanus, and a current TB skin test.

Honor Roll

Students with grade-point averages of 3.5 who have completed at least 14 hours (12 hours during Advanced Pharmacy Practice Experiences) are recognized on the honor roll or dean’s list in fall and spring. An Honor Roll notation appears on the transcript.

Maximum Community College Credit Allowed

The School of Pharmacy allows a maximum of 68 credit hours from any accredited college or university toward completion of the PharmD degree.

Prerequisites and Corequisites

In meritorious cases, course prerequisites may be waived by the department offering the course. Waiver is not granted if the prerequisite course was taken and failed.

Probation

Probation

A student will be placed on academic probation if they:

1. fail to attain a 2.5 grade point average (2.25 for graduating classes of 2014, 2015 and 2016) in their professional coursework in any semester, or whose overall professional course grade-point average falls below the minimum threshold. These students will be required to develop and submit an individualized remediation plan to their academic faculty advisor and the Senior Associate Dean, who serves as chair of the academic standings committee.

2. fails an introductory (IPPE) or advanced pharmacy practice experience (APPE). These students will be required to develop an individualized remediation plan with the Assistant Dean for Experiential Education and the Associate Deans for Administration and Academic Affairs.

3. fails to comply with programmatic requirements in a timely manner.

Suspension

A student who fails or does not make timely progress in a course or courses while a student in the School of Pharmacy may be placed on suspension. Additionally, a student who fails to comply with the School conduct policy, or academic and/or programmatic requirements may be placed on suspension.
Dismissal
Students will be dismissed from school if they:

1. fail to attain a 2.5 grade-point-average (2.25 for graduating classes of 2014, 2015 and 2016) in all courses or in professional courses for any semester while on probation.
2. receive a grade of “F” in 40 percent or more of the courses taken during any semester in which they are enrolled in 12 or more credit hours.
3. fail an individual course twice.
4. fail two advanced pharmacy practice experiences (APPEs).
5. are placed on probation for a second academic semester.

Petitions
Students dismissed for poor scholarship may file a written petition with the academic standing committee for reinstatement. The committee’s decision is final. The committee normally takes one of the following actions:

1. The student is allowed to enroll, often with specific recommendations regarding strategies for restoring good academic standing.
2. The committee may deny the petition.

Courses Taken Outside the School
Students on probation or in nondegree-student status may take courses outside the School of Pharmacy, or at other institutions, to improve the grade-point average. Prior approval is required, and in general, only courses that count toward graduation are honored.

Return to Good Standing
Students are returned to good standing when the overall pharmacy grade-point average reaches 2.5 (2.25 for graduating classes of 2014, 2015 and 2016).

Required Work in Residence
Of the last 30 hours preceding graduation, 24 hours must be in residence at the KU School of Pharmacy.

Terminal-Year Courses
A student cannot enroll in the principal terminal-year pharmacy practice experiential rotations unless he or she has a grade-point average in professional courses of at least 2.5 (2.25 for graduating classes of 2015 and 2016) and has completed all didactic course work required for the degree.

Graduate University Regulations
For information about university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://www.policy.ku.edu).

Academic Forgiveness
The school does not participate in academic forgiveness.

Academic Misconduct
Students experiencing difficulties or problems with a particular course or having complaints or grievances about a particular instructor are urged to discuss the problem in a timely fashion with the instructor. If the student feels awkward or uncomfortable doing this, he or she should see the chair of the instructor’s department, or if necessary, the dean. The chair or dean brings the matter to the instructor’s attention, preserving the student’s anonymity, if so requested.

Instructors detecting academic misconduct must act in accordance with the School of Pharmacy and Faculty Senate Rules and Regulations (http://www.policy.ku.edu).

Credit/No Credit
The Credit/No Credit option is not authorized for graduate students’ enrollments, including, but not limited to, courses taken to fulfill the research skills requirements, undergraduate deficiencies, etc.

Graduation with Distinction and Highest Distinction
Students who rank in the upper 10 percent of their graduating class graduate with distinction. The upper third of those awarded distinction graduate with highest distinction. Grade-point averages are determined on the basis of credit hours taken while enrolled in the School of Pharmacy. The list is compiled each spring and includes July, December, and May graduates.

Health Insurance and Immunizations
The School of Pharmacy requires students to provide proof of health insurance and professional insurance coverage and immunizations for MMR, hepatitis B, varicella, and tetanus, and a current TB skin test.

Requirements to Practice Pharmacy in Kansas
A license is required to practice pharmacy. State boards of pharmacy grant licenses to students who successfully pass board examinations. In all states, eligibility to take board examinations requires graduation from an accredited school of pharmacy and completion of required experiential training. The Kansas State Board of Pharmacy (http://www.kansas.gov/pharmacy) requires graduates of schools of pharmacy to indicate any current, pending, or previous convictions, fines, violations, or disciplinary action that may affect their eligibility to take the licensing examination. Pharmacists generally may transfer their licenses from a state in which they completed the entire examination to another state, provided the 2 states had similar practical experience requirements at the time the pharmacist was licensed by examination. Most pharmacists find it useful to maintain a license in the state where they were licensed by examination. By doing so, they can preserve their eligibility to transfer to another state.

Pharmacists in Kansas must renew their licenses biennially by paying the required fee and providing proof that they have completed the required 30 clock hours of continuing education.

The Kansas Board of Pharmacy requires completion of an appropriate degree from an accredited school of pharmacy plus 1,500 hours of practical experience in pharmacy. At the conclusion of the program, students are certified to the Kansas State Board of Pharmacy as having completed the entire externship requirement (1,500 hours) and are therefore eligible to take the Kansas licensure examination. Students must register as interns with the board as soon as they are accepted by the School of Pharmacy. Students desiring to compile an official record of pharmacy experience obtained on their own initiative may do so by submitting this information to the Kansas State Board of Pharmacy. Practical experience above and beyond the 1,500 required hours may be
Medicinal Chemistry Courses

MDCM 599. Clinical Application of Basic Science. 1 Hour.
This course is an inter-departmental, team-based, technology-centric elective course. Concomitantly, instructors from the basic and clinical science departments within the school of pharmacy will promote deeper student understanding of the path a drug takes from discovery, development and ultimately clinical use. Instructors will collaborate in course content development to integrate basic and clinical science concepts. The course will utilize a blended learning method, incorporating out of class podcasts, online group collaborative projects, cloud-based file sharing, and readiness quizzes and exams. (Same as PTX 599 and PHCH 599.) Prerequisite: 4th or 5th professional year standing (4P/5P) in the School of Pharmacy and concomitant enrollment in PHPR 599 is required. LEC.

MDCM 601. Medicinal Biochemistry I. 4 Hours.
A study of the biochemical principles of macromolecular structure and function, molecular communication, and the metabolism of nutrients and xenobiotics as applied to problems of medicinal and pharmacological significance. Prerequisite: Concurrent enrollment in MDCM 602 Lab. LEC.

MDCM 602. Medicinal Biochemistry Laboratory. 1 Hour.
Laboratory exercises illustrating the application of chemical principles to biochemical processes of medicinal, pharmacological, and clinical significance. Prerequisite: Concurrent enrollment in MDCM 601. LAB.

MDCM 603. Medicinal Biochemistry II. 3 Hours.
A study of the biochemical principles of macromolecular structure and function, biosynthesis, molecular communication, and the metabolism of nutrients and xenobiotics as applied to problems of medicinal and pharmacological significance. Prerequisite: MDCM 601. LEC.

MDCM 606. Phytomedicinal Agents. 1 Hour.
This course will acquaint the pharmacy students with the current status of botanical use in the United States. A basic foundation will be provided so that the pharmacist can properly assess the appropriateness and usefulness of various phytotherapies and combinations in managing certain ailments with regard to efficacy, safety, potential toxicity, and potential herb-drug interactions. Prerequisite: MDCM 626 or instructor permission. LEC.

MDCM 607. Clinical Pharmacognosy. 1 Hour.
The course will provide a technical background for understanding the scientific basis underlying the use of herbal medicines. This will be followed by practical information about the pharmacological and chemical properties as well as clinical uses of herbal medicines. Active student participation in discussing the properties of these non-prescription medicinals is expected. Prerequisite: MDCM 601. LEC.

MDCM 625. Medicinal Chemistry I: Neuroeffector Agents. 3 Hours.
A study, from the molecular viewpoint, of the organic substances used as medicinal agents, including consideration of their origins, chemical properties, structure-activity relationships, metabolism and mechanisms of action; this course emphasizes drugs affecting the central nervous system. Prerequisite: CHEM 626 and MDCM 601. LEC.

MDCM 626. Medicinal Chemistry II: Homeostatic Agents. 3 Hours.
A continuation of MDCM 625 with emphasis on autonomic and cardiovascular agents and peripherally-acting hormones. Prerequisite: MDCM 625. LEC.

MDCM 627. Medicinal Chemistry III: Chemotherapeutic Agents. 3 Hours.
A continuation of MDCM 625 and MDCM 626 with special emphasis on anticancer, antiviral, antibacterial, antifungal and non-steroidal anti-inflammatory drugs. Prerequisite: MDCM 625. LEC.

MDCM 690. Undergraduate Research. 1-5 Hours.
Research in medicinal chemistry. Students will be assigned to a laboratory research problem. Prerequisite: Consent of instructor. IND.

MDCM 692. Problems in Medicinal Chemistry. 1-5 Hours.
This course encompasses original work on a laboratory problem of limited scope, honors reading assignments from medicinal chemistry literature, or in-depth discussions of assigned topics. Prerequisite: Consent of instructor. IND.

MDCM 701. Biomedical Chemistry. 3 Hours.
A study of the principles of macromolecular structure and function, biosignaling, bioenergetics and metabolism, with an emphasis on the relationship between biochemistry and medicine. Prerequisite: Graduate standing or permission of instructor. LEC.

MDCM 703. Advanced Biomedical Chemistry. 3 Hours.
A study of the principles of basic enzymology, including chemical reactions, biosynthesis, and metabolism. In addition, the course will cover lipids, hormones, vitamins, and minerals. Prerequisite: Graduate standing or permission of instructor. LEC.

MDCM 710. Physiological Aspects of Medicinal Chemistry. 1 Hour.
The goal of this one-credit-hour course is to provide an overview of physiological mechanisms and disease processes as a background for intermediate level courses in medicinal chemistry, drug discovery and drug development. Prerequisite: One college-level course in biology. LEC.

MDCM 725. Medicinal Chemistry I. 2 Hours.
A study, from the molecular viewpoint, of the organic substances used as medicinal agents, including consideration of their origins, chemical properties, structure-activity relationships, metabolism and mechanisms of action; this course emphasizes drugs affecting the central nervous system. Prerequisite: CHEM 626 and MDCM 621. LEC.

MDCM 726. Medicinal Chemistry II. 2 Hours.
A continuation of MDCM 725 with emphasis on autonomic and cardiovascular agents and peripherally-acting hormones. Prerequisite: MDCM 725. LEC.

MDCM 727. Medicinal Chemistry III. 2 Hours.
A continuation of MDCM 725 and MDCM 726 with special emphasis on anticancer, antiviral, antibacterial, antifungal and non-steroidal anti-inflammatory drugs. Prerequisite: MDCM 725. LEC.

MDCM 742. Experimental Pharmacology. 4 Hours.
Experimental approaches to understanding mechanism of drug action. Use of drugs as tools to understand functioning of biological systems will also be stressed. Historically important experiments will be discussed along with experiments which are currently used to define drug mechanisms. Topics will include: dose-response, drug receptors, drug metabolism, chemotherapy as well as autonomic CNS, cardiovascular and renal pharmacology. (Same as PTX 742.) Prerequisite: Graduate standing in Medicinal Chemistry. LEC.

MDCM 766. Organic Chemistry of Biological Pathways. 2 Hours.
An introductory graduate level course in bioorganic and medicinal chemistry, in which the principles of organic reaction mechanisms in biological systems are discussed. This course discusses the organic chemistry of metabolic transformations of biomolecules and their associated cofactors, both organic coenzymes and metal ions. LEC.
MDCM 775. Chemistry of the Nervous System. 3 Hours.
A detailed study of the molecular aspects of nerve transmission will be covered with special emphasis on the uptake, storage, release, biosynthesis, and metabolism of specific neurotransmitters. Drugs affecting these processes and current research on receptor isolation and receptor mechanisms will be discussed from a chemical viewpoint. (Same as BIOL 775, CHEM 775, NURO 775, PTX 775, and PHCH 775.) Prerequisite: Consent of instructor. LEC.

MDCM 785. Natural Products of Medicinal Significance. 2 Hours.
A discussion of bioassay-directed screening, the isolation, structure determination, biosynthesis, partial synthesis and total chemical synthesis of organic natural products of medicinal significance. Examples of the classes of compounds to be considered include steroid hormones, cardiac glycosides, alkaloids, antibiotics, terpenes, and the like. Prerequisite: Graduate standing or consent of instructor. LEC.

MDCM 790. Principles of Drug Design. 3 Hours.
A discussion of the principles of contemporary drug design with specific examples chosen from the original literature. Prodrugs; biosoesters; Kcat inhibitors; active site directed reversible and irreversible inhibitors; quantitative SAR; modulation of drug absorption, distribution, metabolism and excretion; molecular dissection; rigid analogs; pharmacophores; etc., will be treated. Prerequisite: Graduate standing or completion of MDCM 624 and MDCM 627. LEC.

MDCM 791. Principles of Drug Disposition. 1 Hour.
An introduction to the chemical and biochemical principles which govern the interaction of drugs and chemicals with cells and organisms. Topics include absorption, distribution, metabolism, and excretion; passive vs. active processes; pharmacokinetics; bioactivation vs. detoxication; and applications in drug design and improvement. Prerequisite: One year of organic chemistry and one course in biochemistry. LEC.

A discussion of the principles of contemporary drug design with specific examples chosen from the original literature. Drug-like properties; conformational constraint; structure-based drug design; library generation; HTS hit optimization, will be treated. Prerequisite: LEC.

MDCM 799. Seminar in Medicinal Chemistry. 1 Hour.
Reports by research students and discussions of developments in the field not covered in formal courses. LEC.

MDCM 801. Issues in Scientific Integrity. 1 Hour.
Lectures and discussion on ethical issues in the conduct of a scientific career, with emphasis in the conduct of a scientific career, with emphasis on practical topics of special importance in molecular-level research in the chemical, biological, and pharmaceutical sciences. Topics will include the nature of ethics, the scientists in the laboratory, the scientist as author, grantee, reviewer, employer/employee, teacher, student, and citizen. Discussions will focus on case histories. Graded on a satisfactory/unsatisfactory basis. (Same as MDCM 801, NURO 801, PTX 801, PHCH 801 and PHCH 802.) LEC.

MDCM 804. Interdisciplinary Seminar on Ethics in Science and Engineering. 1-3 Hours.
The course will cover basic techniques of moral reasoning, especially as applied to ethical issues in the physical sciences and engineering. Topics will include the ethical conduct of research, the federal and professional guidelines for different kinds of research, and the ethical dimensions of publication and professional life. Emphasis will be on practical applications, cases and student involvement. (Same as GS 804, NURO 804, PTX 804, and PHCH 804.) Prerequisite: Must be admitted to the program or division of Pharmacy to enroll in this class. LEC.

MDCM 860. Drug Metabolism. 2 Hours.
An in-depth examination of the pathways, enzymes, and mechanisms of xenobiotic biotransformation in a combined lecture-readings-discussion format. Emphasis will be on recent as well as classic methods of findings. Prerequisite: MDCM 790 or MDCM 791 or consent of instructor. LEC.

MDCM 861. Drug Metabolism Laboratory. 1-3 Hours.
A laboratory course exemplifying various techniques used in studying the metabolism of foreign organic compounds in mammalian systems. In addition, enzymatic reactions in other plant and microbial systems are studied. Prerequisite: Consent of instructor. LAB.

MDCM 895. Research in Medicinal Chemistry. 1-12 Hours.
Hours and credit to be arranged. RSH.

MDCM 899. Master’s Thesis. 1-12 Hours.
Hours and credit to be arranged. Independent investigation of a research problem of limited scope. Prerequisite: Consent of instructor. THE.

MDCM 950. Advanced Topics: ______. 1-3 Hours.
An in-depth discussion of topics of current interest to medicinal chemists. Prerequisite: Consent of instructor. LEC.

MDCM 952. Introduction to Molecular Modeling. 3 Hours.
Theory and practice of contemporary molecular modeling: real-time computer graphics, model-building routines, use of structural databases, molecular mechanics and molecular dynamics calculations. The laboratory section places emphasis on drug design; work on own problems is welcome. (Same as BIOL 952.) Prerequisite: Graduate standing or consent of instructor. LAB.

MDCM 980. Original Research Proposal. 2 Hours.
Preparation of an original research proposal concerning contemporary problems in medicinal chemistry. Prerequisite: Consent of instructor. LAB.

MDCM 990. Postdoctoral Research in Medicinal Chemistry. 1-12 Hours.
Advanced level research in collaboration with a faculty member, which may involve projects in one or more of the following areas: organic synthesis, isolation and structure elucidation, metabolism, biochemical mechanisms of drug action. Prerequisite: Doctoral degree or equivalent in an appropriate related area, and consent of instructor. RSH.

MDCM 999. Doctoral Dissertation. 1-12 Hours.
Hours and credit to be arranged. Original chemical research in the synthesis and development of medicinal agents, elucidation of the chemical mechanisms of drug action, drug metabolism, and drug toxicities. THE.

Neuroscience Courses

NURO 710. Advanced Neurobiology. 3 Hours.
The course will build an in depth knowledge about basic mechanisms of synaptic communication among nerve cells and their targets, and the structure and function of nervous systems. Topics will include nervous system development and synapse formation, structure and function of neurons, physiological and molecular basis of synaptic communication between neurons, mechanisms of synaptic plasticity involved in learning and memory, sensory systems (vision, auditory, vestibular, motor reflexes and pain), processing of neural information at cellular and system levels, synapse regeneration and diseases of the nervous system. Prerequisite: BIOL 435 (Introduction to Neurobiology), or consent of instructor. LEC.

NURO 775. Chemistry of the Nervous System. 3 Hours.
A detailed study of the molecular aspects of nerve transmission will be covered with special emphasis on the uptake, storage, release, biosynthesis, and metabolism of specific neurotransmitters. Drugs affecting these processes and current research on receptor isolation
and receptor mechanisms will be discussed from a chemical viewpoint. (Same as BIOL 775, CHEM 775, MDCM 775, PTX 775, and PHCH 775.) Prerequisite: BIOL 600 or equivalent. LEC.

NURO 799. Neuroscience Seminar Series. 2 Hours.
Presentations of research papers by faculty, post-doctoral research associates, and graduate students. All graduate students in the Neuroscience program participate in this seminar series throughout their period of training. Each student has to present a seminar once every semester. Presentations by students are evaluated by other graduate students and faculty at the end of each seminar. Prerequisite: Graduate standing in the Neuroscience program. LEC.

NURO 800. Neuroscience Teaching Principles. 2 Hours.
This course is to be used by graduate students fulfilling the teaching requirements for the Ph.D. in Neuroscience. The student will function as a discussion leader and lecturer in a limited number of class sessions. Each student will meet with faculty whom he or she is assisting in preparation of presentation materials and tests. Each student will be evaluated by the faculty mentor and by the students in the class taught. Prerequisite: Graduate standing in Neuroscience. LEC.

NURO 801. Issues in Scientific Integrity. 1 Hour.
Lectures and discussion on ethical issues in the conduct of a scientific career, with emphasis on practical topics of special importance in molecular-level research in the chemical, biological, and pharmaceutical sciences. Topics will include the nature of ethics, the scientist in the laboratory, the scientist as author, grantee, reviewer, employer/employee, teacher, student, and citizen. Discussions will focus on the focus on current career ethics. Graded on a satisfactory/unsatisfactory basis. (Same as MDCM 801, PTX 801, PHCH 801 and PHCH 802.) Prerequisite: Graduate standing in the Neuroscience program. LEC.

NURO 804. Interdisciplinary Seminar on Ethics in Science and Engineering. 1-3 Hours.
The course will cover basic techniques of moral reasoning, especially as applied to ethical issues in the physical sciences and engineering. Topics will include the nature of ethics, the scientist in the laboratory, the scientist as author, grantee, reviewer, employer/employee, teacher, student, and citizen. Discussions will focus on current career ethics. Graded on a satisfactory/unsatisfactory basis. (Same as MDCM 801, PTX 804, and PHCH 804.) Prerequisite: Must be admitted to the program or division of Pharmacy to enroll in this class. LEC.

NURO 825. Research in Neuroscience. 1-10 Hours.
Original investigations at an advanced level in the areas of neuroscience. The research by each student will be performed in the laboratory of one of the faculty mentors of the graduate program in Neuroscience. Prerequisite: Graduate standing in the Neuroscience program. LEC.

NURO 844. Neurophysiology. 3 Hours.
Somatosensory, motor and cognitive functions of the brain will be discussed using a combination of lecture and student presentation formats. Current issues and evidence underlying accepted concepts and mechanisms will be emphasized. (Same as PHSL 844.) Prerequisite: PHSL 846 or equivalent and consent of instructor. LEC.

NURO 846. Advanced Neuroscience. 5 Hours.
Team-taught, in-depth neuroscience course focusing on normal and diseased brain function at the molecular, cellular and systems levels. Lectures and discussions will emphasize current issues in neuroscience research. (Same as ANAT 846, PHCL 846, and PHSL 846.) Prerequisite: Permission of the course instructor. LEC.

NURO 847. Developmental Neurobiology. 2 Hours.
Development of the nervous system from early induction to the development of learning and memory. Topics include: Induction; Cellular Differentiation; Axon Growth and Guidance; Target Selection; Cell Survival and Growth; Synapse Formation; Synapse Elimination; and Development of Behavior. (Same as ANAT 847 and PHSL 847.) Prerequisite: Advanced Neuroscience (ANAT 846; NURO 846; PHSL 846) or consent of instructor. LEC.

NURO 848. Molecular Mechanisms of Neurological Disorders. 3 Hours.
An in-depth coverage of pathogenic mechanisms in neurological diseases; cellular and molecular responses to brain injury and disease, neuroinflammatory diseases (e.g., multiple sclerosis), neurodegenerative diseases (e.g., Alzheimer’s, Parkinson’s, Huntington’s, amyotrophic lateral sclerosis, and prion diseases), neurogenetic diseases (e.g., lysosomal and peroxisomal disorders, Down’s syndrome and fragile X), trauma, stroke, and viral diseases (e.g., HIV encephalitis). (Same as ANAT 848, PHCL 848, and PHSL 848.) Prerequisite: Advanced Neuroscience (ANAT 846, PHCL 846 or PHSL 846) or an equivalent course and consent of instructor. LEC.

NURO 899. Neuroscience Master’s Thesis. 1-11 Hours.
Independent investigation of a research problem in neuroscience, but of limited scope. Prerequisite: Graduate standing in the Neuroscience program and consent of mentor/instructor. THE.

Hours and credit for this course to be arranged with the mentor. Conduct of original investigation in neurosciences. Prerequisite: Graduate standing in the Neuroscience program post-oral comprehensive examination and consent of mentor/instructor. THE.

Pharmacology and Toxicology Courses

P&TX 599. Clinical Application of Basic Science. 1 Hour.
This course is an inter-departmental, team-based, technology-centric elective course. Concomitantly, instructors from the basic and clinical science departments within the school of pharmacy will promote deeper student understanding of the path a drug takes from discovery, development and ultimately clinical use. Instructors will collaborate in course content development to integrate basic and clinical science concepts. The course will utilize a blended learning method, incorporating out of class podcasts, online group collaborative projects, and readiness quizzes and exams. (Same as MDCM 599 and PHCH 599.) Prerequisite: 4th or 5th professional year standing (4P/5P) in the school of pharmacy and concomitant enrollment in PHPR 599 is required. LEC.

P&TX 630. Pharmacology I. 4 Hours.
The pharmacology series covers the mechanisms by which drugs interact with living organisms. An integrative emphasis will be placed on understanding the molecular basis of drug action with respect to modifying the pathophysiology of specific disease states. Topics in PTX 630 include, general principles of cell biology, molecular biology, pharmacogenomics, immunology and principles of drug metabolism and disposition. Prerequisite: BIOL 646 or equivalent. LEC.

P&TX 631. Pharmacology II. 4 Hours.
The pharmacology series covers the mechanisms by which drugs interact with living organisms. An integrative emphasis will be placed on understanding the molecular basis of drug action with respect to modifying the pathophysiology of specific disease states. Topics in PTX 631 include, hematology, cancer biology and therapeutics, immunopharmacology, infectious diseases and respiratory disease. Prerequisite: PTX 630 and BIOL 400 or equivalent. LEC.
P&TX 632. Pharmacology III. 4 Hours.
The pharmacology series covers the mechanisms by which drugs interact with living organisms. An integrative emphasis will be placed on understanding the molecular basis of drug action with respect to modifying the pathophysiology of specific disease states. Topics in PTX 632 include cardiovascular diseases, diuretics, autonomic pharmacology and drugs regulating central nervous system function. Prerequisite: PTX 630 and PTX 631. LEC.

P&TX 633. Pharmacology IV. 3 Hours.
The pharmacology series covers the mechanisms by which drugs interact with living organisms. An integrative emphasis will be placed on understanding the molecular basis of drug action with respect to modifying the pathophysiology of specific disease states. Topics in PTX 633 include endocrine disorders, diabetes and obesity, and gastrointestinal pharmacology. Prerequisite: PTX 630, PTX 631 and PTX 632. LEC.

P&TX 640. Toxicology. 2 Hours.
General principles of toxicology, treatment, and management of accidental poisoning, and current topics of interest. Prerequisite: PTX 630, PTX 631, and PTX 632. LEC.

P&TX 641. Antibiotics: Benefits and Risks. 1 Hour.
Students will read about and discuss the latest research on new antibiotic targets, therapeutic potential, disease prevention, and the emergence of antibiotic resistance. LEC.

P&TX 642. Obesity, Diabetes, and Metabolic Syndrome: Current Concepts. 1 Hour.
The objective of this course is to provide students with an opportunity to read, examine, and report on a broad array of topics relevant to diabetes and obesity. Students will be given broad latitude to propose topics of interest to them within the area of diabetes and obesity. The format of the course will be group presentations. Groups of 3 students will identify a topic of interest to them in the field of diabetes and obesity, prepare a 30 min presentation and deliver it to the class for discussion. Prerequisite: PTX 630. LEC.

P&TX 643. Current Concepts of Neurodegenerative Disease. 1 Hour.
Neurodegenerative diseases, such as Alzheimer’s and Parkinson’s diseases, are associated with older age and/or enhanced oxidative stress. The possible causes for the development and progression of these diseases with relation to current research in the field will be discussed. Additionally, a summary of available and suggested future treatments will be given. Prerequisite: PTX 630. LEC.

P&TX 644. Adverse Drug Events. 1 Hour.
The objective of this course is to alert students to common and preventable adverse drug events. This course will provide students with an opportunity to read, examine, and report on a broad array of topics relevant to adverse drug events. Students will be given broad latitude to propose topics of interest to them within the area of adverse drug events. In addition students can report on common and preventable food-drug, herb-drug, and disease-drug interactions. The format of the course will be group presentations. Groups of 3 students will identify a topic of interest to them among a list of provided topics, prepare a 30 minute presentation and deliver it to the class for discussion. Prerequisite: 3rd, 4th, or 5th professional year standing in the School of Pharmacy. LEC.

P&TX 645. Neurobiological Basis of Addiction: Physiological, Biochemical, Pharmacological & Treatment Concepts. 1 Hour.
Several addictions will be discussed including addictions to alcohol, cocaine, methamphetamine, gambling, and others as time permits. The physiology, biochemistry, pharmacology and available treatments for these addictions will be reviewed. The role of pharmacotherapies will be discussed, particularly as they relate to the molecular basis of addiction. Behavioral and psychological approaches also will be examined. Prerequisite: Completion of PTX 632 or special permission from faculty. LEC.

P&TX 694. Undergraduate Laboratory: Research in Pharmacology and Toxicology. 1-5 Hours.
Original research on a laboratory problem of limited scope. This course cannot count toward pharmacology and toxicology requirements in the School of Pharmacy. Prerequisite: Consent of instructor. IND.

P&TX 698. Library Problems in Pharmacology and Toxicology. 1-5 Hours.
Original library review of a limited special topic in pharmacology and toxicology. The student will write a review in his or her report. This course may count toward pharmacology and toxicology requirements in the School of Pharmacy. Prerequisite: PTX 635 and consent of instructor. IND.

P&TX 700. Professional Issues in the Biomedical Sciences. 2 Hours.
A course designed to assist doctoral students in the biomedical sciences in their professional development by providing presentations, discussions, and practical experiences related to career planning. Topics include diverse career opportunities and expectations of each, preparation of vitae/resumes and other elements of a successful job search, writing scientific papers and dealing with editors, developing programmatic research programs, balancing professional obligations, advancing through promotions, and related topics. Prerequisite: Graduate standing in pharmacology and toxicology. LEC.

P&TX 730. Advanced Pharmacology I - CNS and ANS. 2 Hours.
A detailed study of the fundamentals of autonomic nervous system, central nervous system, and their pharmacology. The student will attend PTX 632 lectures and meet separately with the faculty for additional discussions of advanced material on the topics. The students will be examined on the advanced material. Prerequisite: Graduate standing in Pharmacology and Toxicology Program. LEC.

P&TX 731. Advanced Pharmacology II - Cardiovascular and Renal System. 2 Hours.
A detailed study of the fundamentals of cardiovascular system, renal system and their pharmacology. The student will attend PTX 632 lectures and meet separately with the faculty for additional discussions of advanced material on the topics. The students will be examined on the advanced material. Prerequisite: Graduate standing in Pharmacology and Toxicology Program. LEC.

P&TX 732. Advanced Pharmacology III - Cancer Biology and Inflammatory Diseases. 2 Hours.
A detailed study of the fundamentals of inflammation, cancer biology and their pharmacology. The student will attend PTX 631 lectures and meet separately with the faculty for additional discussions of advanced material on the topics. The students will be examined on the advanced material. Prerequisite: Graduate standing in Pharmacology and Toxicology Program. LEC.

P&TX 733. Advanced Pharmacology IV - Endocrinology. 2 Hours.
A detailed study of the fundamentals of endocrinology and associated pharmacology. The student will attend PTX 633 lectures and meet separately with the faculty for additional discussions of advanced material on the topics. The students will be examined on the advanced material. Prerequisite: Graduate standing in Pharmacology and Toxicology Program. LEC.

P&TX 740. Advanced Biotechnology. 3 Hours.
An examination of basic principles of molecular biology, immunology, and protein chemistry as they apply to the identification, production, stability, delivery, and monitoring of new therapeutic agents provided by
the expanding biotechnology industry. Students will attend lectures in PTX 633 and meet separately with faculty for additional discussions of more advanced material on these topics. The students will be examined on the advanced material. Prerequisite: Graduate standing in Pharmacology and Toxicology. LAB.

P&TX 741. Biomedical Statistics. 3 Hours.
This course is primarily intended for students concerned with the analysis of experimental and observational data, with an emphasis on biomedical and pharmacological applications. The topics covered by the course include the design of experimental studies, data collection, probability theory, descriptive statistics, probability distribution, hypothesis testing, T-test, analyses of variance for factorial designs, linear and multiple regression, analysis of covariance and non-parametric methods. Prerequisite: PTX graduate student status in good academic standing. LEC.

P&TX 742. Experimental Pharmacology. 4 Hours.
Experimental approaches to understanding mechanism of drug action. Use of drugs as tools to understand functioning of biological systems will also be stressed. Historically important experiments will be discussed along with experiments which are currently used to define drug mechanisms. Topics will include: dose-response, drug receptors, drug metabolism, chemotherapy as well as autonomic CNS, cardiovascular and renal pharmacology. Prerequisite: Graduate standing in Pharmacology and Toxicology Program. LEC.

P&TX 747. Molecular Toxicology. 4 Hours.
A detailed study of the fundamentals of the experimental methods used in a modern toxicology laboratory. The student will attend PTX 640 lectures and meet separately with the faculty for additional discussions of advanced material on the topics. The students will be examined on the advanced material. Prerequisite: Graduate standing in Pharmacology and Toxicology Program. LEC.

P&TX 775. Chemistry of the Nervous System. 3 Hours.
A detailed study of the molecular aspects of nerve transmission will be covered with special emphasis on the uptake, storage, release, biosynthesis, and metabolism of specific neurotransmitters. Drugs affecting these processes and current research on receptor isolation and receptor mechanisms will be discussed from a chemical viewpoint. (Same as BIOL 775, CHEM 775, MDCM 775, NURO 775, and PHCH 775.) Prerequisite: BIOL 600 or equivalent. LEC.

P&TX 799. Pharmacology and Toxicology Seminar. 1-2 Hours.
A review of current literature and research in pharmacology and toxicology. Required of all graduate students in the department every fall and spring semester. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Graduate standing in PTX. LEC.

P&TX 800. Pharmacology and Toxicology Teaching Principles. 2 Hours.
This course is to be used by graduate students fulfilling the teaching requirements for the Ph.D. in pharmacology and toxicology. The student will function as a discussion leader and lecturer in a limited number of class sessions. Each student will meet with the faculty whom he or she is assisting. Prerequisite: Graduate standing in pharmacology and toxicology program. RSH.

P&TX 801. Issues in Scientific Integrity. 1-3 Hours.
Lectures and discussion on ethical issues in the conduct of a scientific career, with emphasis on practical topics of special importance in molecular-level research in the chemical, biological, and pharmaceutical sciences. Topics will include the nature of ethics, the scientist in the laboratory, the scientist as author, grantee, reviewer, employer/employee, teacher, student, and citizen. Discussions will focus on case histories. Graded on a satisfactory/unsatisfactory basis. (Same as MDCM 801, NURO 801, PHCH 801 and PHCH 802.) LEC.

P&TX 803. Pharmacology Literature Review I. 1 Hour.
This course is designed for graduate students and will fulfill the first written exam requirement for the Ph.D. in pharmacology and Toxicology. The student will research and write a six page literature review by choosing a topic provided by the faculty. Prerequisite: Graduate standing in Pharmacology and Toxicology Program. LEC.

P&TX 804. Interdisciplinary Seminar on Ethics in Science and Engineering. 1-3 Hours.
The course will cover basic techniques of moral reasoning, especially as applied to ethical issues in the physical sciences and engineering. Topics covered will include the ethical conduct of research, the federal and professional guidelines for different kinds of research, and the ethical dimensions of publication and professional life. Emphasis will be on practical applications, cases and student involvement. (Same as GS 804, MDCM 804, NURO 804, and PHCH 804.) Prerequisite: Must be admitted to the program or division of Pharmacy to enroll in this class. LEC.

P&TX 805. Pharmacology Literature Review II. 1 Hour.
This course is designed for graduate students and will fulfill the second written exam requirement for the Ph.D. in pharmacology and Toxicology. The student will research and write a twelve page literature review by choosing a topic provided by the faculty. Prerequisite: Graduate standing in Pharmacology and Toxicology Program. LEC.

P&TX 825. Research in Pharmacology and Toxicology. 1-10 Hours.
Original investigations at an advanced level in the areas of pharmacology or toxicology or related fields. This research will be performed by graduate students in collaboration with a faculty member. Prerequisite: Graduate standing and consent of instructor. RSH.

Hours and credit to be arranged. Independent investigation of a research problem of limited scope. Prerequisite: Graduate standing in PTX and consent of instructor. THE.

P&TX 990. Postdoctoral Research. 1-11 Hours.
Advanced level research in collaboration with a faculty member in the department. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Doctoral degree or equivalent in an appropriate related area, and consent of instructor. RSH.

P&TX 999. Doctoral Dissertation. 1-11 Hours.
Hours and credit to be arranged. Original investigation in pharmacology and toxicology. Prerequisite: Consent of instructor. THE.

Pharmacy Courses

PHAR 500. Introduction to Pharmacy. 2 Hours.
This course is designed to introduce pharmacy students to the profession of pharmacy, potential career pathways, and available academic and post-doctoral educational opportunities. Additionally, topics such as professionalism, leadership, professional advocacy, empathy, cultural competency, self-directed learning, interprofessional education, and professional communication will be discussed. Students will receive instruction and fulfill the prerequisites for their Introductory Pharmacy Practice Experiences (IPPE) occurring in the summer semesters of the PharmD program. FLD.

PHAR 503. Pharmacy Practice III Health-System Pharmacy Practice Fundamentals. 3 Hours.
Introduction to the prescription dispensing process within health-system pharmacies (hospital, nursing home, home health, HMO) with an emphasis on distribution systems, parenteral, and sterile products.
Incorporates lectures, case studies, pharmacy visits and laboratory experience. Prerequisite: PHPR 502. LEC.

PHAR 505. Immunization Theory and Practice. 1 Hour.
This course will provide students with the training and resources necessary to: a) identify at-risk patient populations needing immunizations, b) work with other health-care professionals to establish and promote a successful pharmacy-based immunization service, c) act as either vaccine advocate or immunizer when appropriate, and d) promote public health by helping the patients they serve avoid vaccine-preventable communicable diseases. LEC.

PHAR 509. History of Pharmacy Elective. 1 Hour.
This course is comprised of a survey of historical highlights of the development of Pharmacy as a discipline. The course will cover early antecedents of pharmacy, development of the discipline in Europe and the United States, the development of professional organizations, standards, education, and literature, economic development, and the pharmacists’ contributions to community service, science, and the industry. There will be a mix of some lectures, discussion, assigned readings, and short papers. Prerequisite: Must be accepted to the Pharmacy Program. LEC.

PHAR 510. Pharmacy Skills Laboratory I. 1 Hour.
Exercises that reinforce the concepts taught in pharmacy practice, pharmaceutical chemistry, medicinal chemistry, and pharmacology courses. Includes exercises in compounding, dispensing and patient counseling. LAB.

PHAR 515. Pharmacy Skills Laboratory II. 1 Hour.
Exercises that reinforce the concepts taught in pharmacy practice, pharmaceutical chemistry, medicinal chemistry, and pharmacology courses. Includes exercises in compounding, dispensing, and patient counseling. LAB.

PHAR 520. Pharmacy Skills Laboratory III. 1 Hour.
Exercises that reinforce the concepts taught in pharmacy practice, pharmaceutical chemistry, medicinal chemistry, and pharmacology courses. Includes exercises in compounding, dispensing, and patient counseling. LAB.

PHAR 525. Pharmacy Skills Laboratory IV. 1 Hour.
Exercises that reinforce the concepts taught in pharmacy practice, pharmaceutical chemistry, medicinal chemistry, and pharmacology courses. Includes exercises in compounding, dispensing, and patient counseling. LAB.

PHAR 530. Pharmacy Skills Laboratory V. 1 Hour.
Exercises that reinforce the concepts taught in pharmacy practice, pharmaceutical chemistry, medicinal chemistry, and pharmacology courses. Includes exercises in compounding, dispensing, and patient counseling. LAB.

PHAR 550. Introductory Pharmacy Practice Experience - Community. 4 Hours. AE52.
A required four credit hour experiential course involving 160 hours of on-site experiential education. The course is designed to provide the student pharmacist with exposure to the practice of pharmacy in an institutional health-system (hospital) environment in either a rural or urban setting within the state of Kansas. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Completion of PHAR 500 or instructor consent. FLD.

PHAR 560. Introductory Pharmacy Practice Experience - Institutional. 4 Hours.
A required four credit hour experiential course years involving 160 hours of on-site experiential education. The course is designed to provide the student pharmacist with exposure to the practice of pharmacy in an institutional health-system (hospital) environment in either a rural or urban setting within the state of Kansas. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Completion of PHAR 500 or instructor consent. FLD.

PHAR 693. Clinical Pharmacokinetics. 2 Hours.
This course presents discussions on physiological and disease state variables in pharmacokinetics for selected drugs and drug classes, and instructs students in the use of physiological and disease state pharmacokinetic information to develop individualized therapeutic regimens. Prerequisite: PHCH 625 and PHCH 626. LEC.

Pharmaceutical Chemistry Courses

This elective class will explore emerging areas of research currently impacting the pharmaceutical industry. Potential topics include: biologicals as therapeutics, drug targeting, prodrugs, nanotechnology, biological barriers, gene therapy, transporters, vaccines, intracellular drug trafficking, controlled release drug delivery, cancer therapy, analytical biotechnology and many others. The class will be team taught by PHCH faculty and guest speakers. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Must be accepted to the Pharmacy Program. LEC.

PHCH 511. Emerging Trends in Pharmaceutical Chemistry II. 1 Hour.
This elective class will explore emerging areas of research currently impacting the pharmaceutical industry. Potential topics include: biologicals as therapeutics, drug targeting, prodrugs, nanotechnology, biological barriers, gene therapy, transporters, vaccines, intracellular drug trafficking, controlled release drug delivery, cancer therapy, analytical biotechnology and many others. The class will be team taught by PHCH faculty and guest speakers. Prerequisite: Must be accepted to the Pharmacy Program. LEC.

PHCH 512. Roadmap to Drug Development. 1 Hour.
This class will explore both the costs and time lines required for the approval of both new as well as generic drug products from identification of drug targets to FDA approval, and Phase 4 studies. Included will be a short history of the establishment of the FDA and its evolving role. The contributions of Frances Kelsey, the FDA scientist who fought the approval of thalidomide in the USA and thus saved many from the trauma of birth defects caused by the drug will be discussed. The class will be team taught by pharmaceutical chemistry faculty and guest speakers. Graded on a satisfactory/fail basis. Prerequisite: Completion of PHCH 626 or instructor permission. LEC.

PHCH 514. Scientific Writing for the Health Professional. 1 Hour.
Communicating research plans and experimental findings is a critical skill for health care professionals working in a research environment, and successful communication depends on clarity of thought and careful use of language. This course is intended for 5th professional (5P) year students who are seeking residency and will need to write research proposals and abstracts, as well as prepare effective posters and presentations. It is an intensive course with multiple writing assignments. Students are expected to participate fully, and individual feedback and guidance on writing will be provided by the instructor. In particular, for this first class, input from all of the students will be very valuable for future improvements, and the instructor will be flexible with respect to several of the due dates. Graded on a satisfactory/fail. Prerequisite: 5th professional (5P) year students who plan to complete post-doctoral residency training. LEC.

PHCH 517. Pharmacy Calculations. 2 Hours.
An introduction to the mathematics involved in filling prescriptions and in manufacturing pharmaceuticals. Includes an introduction to standard prescription notation and familiarization with pharmaceutical weights and measures. LEC.
PHCH 518. Physical-Chemical Principles of Solution Dosage Forms. 3 Hours.
Physical properties of pharmaceutical solutions and their physiological compatibility will be discussed (intermolecular interactions, energetics, colligative properties, isotonicity, pH, buffers and drug solubility). Kinetics and mechanisms of drug degradation in solution will also be introduced. Prerequisite: PHCH 517. LEC.

PHCH 599. Clinical Application of Basic Science. 1 Hour.
This course is an inter-departmental, team-based, technology-centric elective course. Concomitantly, instructors from the basic and clinical science departments within the school of pharmacy will promote deeper student understanding of the path a drug takes from discovery, development and ultimately clinical use. Instructors will collaborate in course content development to integrate basic and clinical science concepts. The course will utilize a blended learning method, incorporating out of class podcasts, online group collaborative projects, and readiness quizzes and exams. (Same as MDCM 599 and PTX 599.) Prerequisite: 4th or 5th professional year standing (4P/5P) in the school of pharmacy and concomitant enrollment in PHPR 599 is required. LEC.

PHCH 605. Vaccines. 1 Hour.
Vaccines are currently the most powerful therapeutic approach available for infectious disease and promise to become of increasing importance for a wide variety of other pathologies including cancer. This course discusses the immunological basis of vaccinology, types of vaccines currently available and in development and the process by which vaccines are made from the basic research stage through their pharmaceutical development and marketing. Ethical aspects of vaccine use will also be considered. Course graded on a satisfactory/fail basis. LEC.

PHCH 625. Pharmacokinetics. 3 Hours.
A discussion of the basic concepts, and some clinical applications, of pharmacokinetics, clearance concepts, extravascular dosing, and the use of pharmacokinetics in dosage regimen design and adjustment. Prerequisite: PHCH 517 and PHCH 518. LEC.

PHCH 626. Biopharmaceutics and Drug Delivery. 3 Hours.
A study of biological barriers to drug delivery, conventional dosage forms, and new and future drug delivery strategies. Prerequisite: PHCH 517, PHCH 518, and PHCH 625. LEC.

PHCH 667. Introduction to Clinical Chemistry. 2 Hours.
A lecture-discussion course concerned with identification of the contents of physiological fluids, changes in physiological fluid content induced by disease and drugs, and therapeutic drug monitoring: case study discussions and presentations are coordinated with the integrated laboratory. Prerequisite: Fifth-year standing and concomitant enrollment in integrated laboratory. LEC.

PHCH 690. Undergraduate Research in Pharmaceutical Chemistry. 1-5 Hours.
Student will be assigned a suitable research project in the area of pharmaceutical analysis or pharmaceutics. Prerequisite: Consent of instructor. IND.

PHCH 694. Problems in Pharmaceutical Chemistry. 1-5 Hours.
A student will be assigned a suitable research project in an area of pharmaceutical analysis or pharmaceutics. This course is offered regularly by the Department of Pharmaceutical Chemistry to meet the special needs of selected students, usually for one of the following two situations: (1) This course may be taken when a student has a special interest in a problem or area of limited scope and desires to pursue that study in depth under supervision of a member of the faculty. (2) This course is sometimes used as a remedial class to provide a mechanism of intensive review and study in an area of weakness. Prerequisite: Consent of instructor. IND.

PHCH 700. Experimental Methods in Pharmaceutical Chemistry. 1-5 Hours.
Discussions, lectures, and laboratory work designed to acquaint and provide hands on experiences to advanced undergraduate and graduate students with experimental design, methods, and approaches relevant to modern research in pharmaceutical chemistry. Prerequisite: Consent of instructor. LEC.

PHCH 701. Bioinformatics I. 5 Hours.
First semester of a two-semester course. The course is designed to introduce the most important and basic concepts, methods, and tools used in Bioinformatics. Topics include (but not limited to) bioinformatics databases, sequence and structure alignment, protein structure prediction, protein folding, protein-protein interaction, Monte Carlo simulation, and molecular dynamics. Emphasis will be put on the understanding and utilization of these concepts and algorithms. The objective is to help the students to reach rapidly the frontier of bioinformatics and be able to use the bioinformatics tools to solve the problems on their own research. (Same as BINF 701.) LEC.

PHCH 702. Bioinformatics II. 5 Hours.
Second semester of a two-semester course in bioinformatics and computational biology. The course is designed to introduce the most important and basic concepts, methods, and tools used in Bioinformatics. Topics include (but not limited to) bioinformatics databases, sequence and structure alignment, protein structure prediction, protein folding, protein-protein interaction, Monte Carlo simulation, and molecular dynamics. Emphasis will be put on the understanding and utilization of these concepts and algorithms. The objective is to help the students to reach rapidly the frontier of bioinformatics and be able to use the bioinformatics tools to solve the problems on their own research. (Same as BINF 702.) LEC.

PHCH 705. Writing and Communicating Science for Graduate Students. 3 Hours.
Communicating research proposals and experimental findings is a critical skill for scientists. Successful communication depends on clarity of thought and careful use of language. This course will use class discussions with examples and homework assignments to help prepare the graduate student to successfully communicate in both academia or industry settings. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Must be accepted to the Pharmacy Program. LEC.

PHCH 715. Drug Delivery. 3 Hours.
The course will survey the latest technology for delivering pharmaceuticals and biologicals to reduce side effects and enhance drug efficacy. The course will survey the latest research in this area and examine more classical delivery methods. A qualitative and quantitative understanding of drug delivery practice and theory is the goal. Prerequisite: Master’s or PhD candidate in Engineering, Chemistry, Medicinal Chemistry, or Pharmaceutical Chemistry (by appointment for seniors or graduate students in departments not listed). LEC.

PHCH 716. Drug Delivery. 3 Hours.
The course will survey the latest technology for delivering pharmaceuticals and biologicals to reduce side effects and enhance drug efficacy. The course will survey the latest research in this area and examine more classical delivery methods. A qualitative and quantitative understanding of drug delivery practice and theory is the goal. This course is only open to distance education students. Prerequisite: Master’s candidate in Pharmaceutical Chemistry. LEC.
PHCH 718. Physical-Chemical Principles of Solution Dosage Forms. 3 Hours.
Physical properties of pharmaceutical solutions and their physiological compatibility will be discussed (intermolecular interactions, energetics, colligative properties, isotonicity, pH, buffers and drug solubility). Kinetics and mechanisms of drug degradation in solution will also be introduced. Prerequisite: Graduate standing. LEC.

PHCH 719. Physical-Chemical Principles of Solution Dosage Forms. 3 Hours.
Physical properties of pharmaceutical solutions and their physiological compatibility will be discussed (intermolecular interactions, energetics, colligative properties, isotonicity, pH, buffers and drug solubility). Kinetics and mechanisms of drug degradation in solution will also be introduced. This course is only open to distance education students. Prerequisite: Graduate standing. LEC.

PHCH 720. Bibliography of Pharmaceutical Chemistry. 1 Hour.
A course on the use of the library as a research tool and the study of bibliographic techniques of literature searching. Emphasis on the literature of pharmaceutical chemistry and physical pharmacy. LEC.

PHCH 725. Molecular Cell Biology. 3 Hours.
Fundamental and advanced concepts in cell biology and the molecular interactions responsible for cell function, homeostasis and disease will be presented. Current analytical methods for examining cells and their molecular components will be discussed. Emphasis will be placed on the chemical and physical properties of individual proteins, nucleic acids and lipids and their assembly into cellular and subcellular structures. (Same as CPE 725) LEC.

PHCH 726. Molecular Cell Biology. 3 Hours.
Fundamental and advanced concepts in cell biology and the molecular interactions responsible for cell function, homeostasis and disease will be presented. Current analytical methods for examining cells and their molecular components will be discussed. Emphasis will be placed on the chemical and physical properties of individual proteins, nucleic acids and lipids and their assembly into cellular and subcellular structures. This course is only open to distance education students. LEC.

PHCH 744. Organic Chemistry for Pharmaceutical Scientists. 3 Hours.
A consideration of the structural features and driving forces that control the course of chemical reactions. Topics will include functional group chemistry: electronic structure, acid/base properties: molecular structure and properties (dipole, strain, and steric effects, inductive and resonance effects); dynamics of reactions (the major organic reaction mechanism, kinetics, energy profiles, isotope effects, linear free energy relationships), solvent effects, stereochemistry and conformation, an introduction to orbital symmetry control; basic thermodynamic and kinetic concepts; and an overview of important classes of mechanisms. This course is only open to distance education students. Prerequisite: CHEM 624 and CHEM 626. LEC.

PHCH 775. Chemistry of the Nervous System. 3 Hours.
A detailed study of the molecular aspects of nerve transmission will be covered with special emphasis on the uptake, storage, release, biosynthesis, and metabolism of specific neurotransmitters. Drugs affecting these processes and current research on receptor isolation and receptor mechanisms will be discussed from a chemical viewpoint. (Same as PTX 775, BIOL 775, CHEM 775, MDCM 775 and NURO 775.) Prerequisite: BIOL 600 or equivalent. LEC.

PHCH 801. Issues in Scientific Integrity. 1 Hour.
Lectures and discussion on ethical issues in the conduct of a scientific career, with emphasis on practical topics of special importance in molecular-level research in the chemical, biological, and pharmaceutical sciences. Topics will include the nature of ethics, the scientists in the laboratory, the scientist as author, grantee, reviewer, employer/employee, teacher/student, and citizen. Discussions will focus on case histories. Graded on a satisfactory/unsatisfactory basis. (Same as MDCM 801, NURO 801, PTX 801 and PHCH 802.) LEC.

PHCH 802. Issues of Scientific Integrity. 3 Hours.
Lectures and discussion on ethical issues in the conduct of a scientific career, with emphasis on practical topics of special importance in molecular-level research in the chemical, biological, and pharmaceutical sciences. Topics will include the nature of ethics, the scientists in the laboratory, as author, grantee, reviewer, employer/employee, teacher/student, and citizen. Discussions will focus on case histories. Graded on a satisfactory/unsatisfactory basis. This course is only open to distance education students. (Same as PHCH 801, MDCM 801, NURO 801, and PTX 801.) LEC.

PHCH 804. Interdisciplinary Seminar on Ethics in Science and Engineering. 1-3 Hours.
The course will cover basic techniques of moral reasoning, especially as applied to ethical issues in the physical sciences and engineering. Topics covered will include the ethical conduct of research, the federal and professional guidelines for different kinds of research, and the ethical dimensions of publication and professional life. Emphasis will be on practical applications, cases and student involvement. (Same as GS 804, MDCM 804, NURO 804, and PTX 804.) Prerequisite: Must be admitted to the program or division of Pharmacy to enroll in this class. LEC.

PHCH 850. Solid State Stability and Formulation. 1-3 Hours.
This course is designed to provide an understanding of the formulation and stability of small and large drug candidates in the solid state. The first two-thirds of the course will focus on small molecules, with the last third being devoted to proteins. Prerequisite: Graduate standing in PHCH or consent of the instructor. LEC.

PHCH 851. Solid State Stability and Formulation. 3 Hours.
This course is designed to provide an understanding of the formulation and stability of small and large drug candidates in the solid state. The first two-thirds of the course will focus on small molecules, with the last third being devoted to proteins. This course is only open to distance education students. Prerequisite: Graduate standing in PHCH or consent of the instructor. Must be accepted to the Pharmacy Program. LEC.

PHCH 862. Pharmaceutical Equilibria. 3-4 Hours.
A course on equilibria in aqueous and non-aqueous systems with emphasis on solutions of interest to pharmaceutical technology. Included are association-dissociation equilibria, complexation, protein binding, calculation of species concentrations, estimation of solubility and ionization constants. Methods for the determination of chemical potential in solution are presented. LEC.

PHCH 863. Pharmaceutical Equilibria. 3 Hours.
A course on equilibria in aqueous and non-aqueous systems with emphasis on solutions of interest to pharmaceutical technology. Included are association-dissociation equilibria, complexation, protein binding, calculation of species concentrations, estimation of solubility and ionization constants. Methods for the determination of chemical potential in solution are presented. This course open only to distance education students. LEC.

PHCH 864. Pharmaceutical Analysis. 4 Hours.
Advanced course on pharmaceutical analysis. LEC.

PHCH 865. Pharmaceutical Analysis II. 2 Hours.
This course is intended to be a comprehensive treatment of contemporary techniques used to validate analytical methods for the determination of
drugs in the bulk form, pharmaceutical formulations, biological samples and other relevant media. The emphasis will be on chromatographic techniques reflecting the preeminent position that these techniques occupy in the field of pharmaceutical and biomedical analysis. Prerequisite: Previous or concurrent enrollment in PHCH 684. LEC.

PHCH 866. Pharmaceutical Mass Transport. 2 Hours.
A course on mass transport problems of pharmaceutical interest. Topics include physiological pharmacokinetic models, diffusive transport, and drug delivery systems. Prerequisite: MATH 320 or equivalent. LEC.

PHCH 867. Pharmaceutical Mass Transport. 3 Hours.
A course on mass transport problems of pharmaceutical interest. Topics include physiological pharmacokinetic models, diffusive transport, and drug delivery systems. This course is only open to distance education students. Prerequisite: MATH 320 or equivalent. LEC.

PHCH 868. Pharmaceutical Analysis. 4 Hours.
Advanced course on pharmaceutical analysis. This course is only open to distance education students. LEC.

PHCH 870. Advanced Pharmaceutical Biotechnology. 3 Hours.
A course designed to emphasize the important facets of recombinant proteins as pharmaceutical agents. Basics of protein structure and analysis will be introduced, and methods for production, isolation, and purification of recombinant proteins will be described. Potential chemical and physical degradation processes and strategies for circumventing these difficulties will be discussed. Prerequisite: BIOL 600 or consent of instructor. LEC.

PHCH 871. Advanced Pharmaceutical Biotechnology. 3 Hours.
A course designed to emphasize the important facets of recombinant proteins as pharmaceutical agents. Basics of protein structure and analysis will be introduced, and methods for production, isolation, and purification of recombinant proteins will be described. Potential chemical and physical degradation processes and strategies for circumventing these difficulties will be discussed. This course is only open to distance education students. Prerequisite: BIOL 600 or consent of instructor. LEC.

PHCH 895. Research in Pharmaceutical Chemistry. 1-11 Hours.
Advanced level research in collaboration with a faculty member in pharmaceutical chemistry or related areas. This course is limited to students who are doing research, but not necessarily working toward either a master’s or a doctoral degree. RSH.

PHCH 898. Master’s Thesis. 1-10 Hours.
Master’s Thesis. This course is only open to distance education students. THE.

PHCH 899. Master’s Thesis. 1-11 Hours.
Graded on a Satisfactory/Fail basis. THE.

PHCH 920. Chemical Kinetics. 2 Hours.
This course provides the principles of kinetic data analysis as applied to problems in pharmaceutical chemistry. Topics include the setup and solution of rate equations related to chemical reactions; simplifications and approximations in complex equation systems; isotope, solvent and salt rate effects; and diffusion and activation controlled reactions. LEC.

PHCH 921. Chemical Kinetics. 2 Hours.
This course provides the principles of kinetic data analysis as applied to problems in pharmaceutical chemistry. Topics include the setup and solution of rate equations related to chemical reactions; simplifications and approximations in complex equation systems; isotope, solvent and salt rate effects; and diffusion and activation controlled reactions. This course is only open to distance education students. LEC.

PHCH 972. Mechanisms of Drug Deterioration and Stabilization. 2-4 Hours.
A course dealing with mechanisms and chemical kinetics of drug deterioration and stabilization. LEC.

PHCH 973. Mechanisms of Drug Deterioration and Stabilization. 3 Hours.
A course dealing with mechanisms and chemical kinetics of drug deterioration and stabilization. This course is only open to distance education students. LEC.

PHCH 974. Advanced Special Topics in Pharmaceutical Chemistry. 1-3 Hours.
Various topics pertinent to the area of pharmaceutical chemistry will be explored. Graded on a satisfactory/unsatisfactory basis. LEC.

PHCH 975. Advanced Topics in Biopharmaceutics and Pharmacokinetics I. 3 Hours.
A quantitative treatment of the processes involved with drug absorption, distribution, metabolism, and excretion in living systems. This course open only to distance education students. LEC.

PHCH 976. Advanced Topics in Biopharmaceutics and Pharmacokinetics II. 2 Hours.
A course addressing special topics in biopharmaceutics and pharmacokinetics including complex modeling, treatment of data using computers, cell culture systems, and research topics. LEC.

PHCH 978. Pharmaceutical Chemistry Seminar. 1 Hour.
A seminar on the chemistry of pharmaceutical systems. LEC.

PHCH 979. Advanced Topics in Biopharmaceutics and Pharmacokinetics II. 3 Hours.
A course addressing special topics in biopharmaceutics and pharmacokinetics including complex modeling, treatment of data using computers, cell culture systems, and research topics. This course is only open to distance education students. LEC.

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Pharmacy Practice Courses

PHPR 502. Pharmacy Practice II Pharmaceutical Care Fundamentals. 4 Hours.
Drug interactions will be presented with an emphasis on evaluating the risk of the interaction in a particular patient. Patient counseling and communication techniques will be covered. Approximately half the class time will be spent covering non-prescription drugs and herbas. Prerequisite: PHAR 500. LEC.

PHPR 508. Oncology Elective. 1 Hour.
This course is designed to extend the students’ understanding of Oncology diseases and treatments beyond what is covered in the Pharmacotherapy series in the School of Pharmacy. Prerequisite: PHPR 646. LEC.

PHPR 510. Medical Terminology Elective. 1 Hour.
This course provides the fundamentals for developing a medical vocabulary. The student will develop the ability to understand, define and utilize medical terminology and abbreviations used in patient care. LEC.
PHPR 511. Service-Learning Elective. 1 Hour.
Students will work at a health-related community center and participate in structured learning exercises. The objectives are to: 1) enable students to learn appropriate strategies to communicate and provide services to people with varying languages, cultures, social, and economic backgrounds, disabilities, illnesses, or impairments, 2) increase social interaction and citizenship, 3) heighten social awareness and understanding of ethical issues, and 4) acknowledge social responsibility and realize personal values. FLD.

PHPR 512. Nuclear Pharmacy. 1 Hour.
This course is designed for students interested in learning about nuclear pharmacy practice as a specialty practice in pharmacy. Students will learn about the application of radiopharmaceuticals used in the diagnosis of various diseases or identifying patient therapeutic issues. The course will cover principles of radiation, radiation safety, preparation of and handling of radiopharmaceuticals, their appropriate use, and the training requirements for a nuclear pharmacist. At the conclusion of the course the student will have an insight into this specialty practice in nuclear pharmacy as a potential career. Prerequisite: Students must be admitted to the School of Pharmacy. LEC.

PHPR 513. Chemical Dependency Elective. 1 Hour.
This elective course will enhance the pharmacy student’s knowledge and understanding of the current theories behind the addiction process, frequently abused drugs and/or chemicals and the treatment and recovery process. Prerequisite: Must be accepted to the Pharmacy Program. LEC.

PHPR 514. Communication and Counseling. 1 Hour.
An elective course designed to help students improve professional communication skills. Prerequisite: PHAR 500. LEC.

PHPR 516. Pharmacy in Public Health. 1 Hour.
Public health is more than providing treatment for an illness; it is a concern for the health of an entire population. The ideal is to ensure the health of all. This course will focus on providing students with a solid foundational understanding of what public health is and how pharmacists play a role as a public health provider. The course will cover the concepts and tools used in public health including issues such as: determining health, cultural competence, health promotion, disease prevention, epidemiology and disease, describing populations and community health. Lastly, the course will provide students with specific pharmacist models of public health. Successful models include tobacco cessation programs, community vaccination programs, obesity prevention, tuberculosis monitoring, emergency preparedness and domestic violence. Prerequisite: Must be accepted to the Pharmacy Program. LEC.

PHPR 517. Medication Safety and Error Prevention. 1 Hour.
This course introduces the student to medication safety and the technology as well as the tools used in error prevention. The student will also learn about adverse drug events including both medication errors and adverse drug reactions in hospital and retail pharmacy settings. Prerequisite: 4th or 5th professional year standing in the School of Pharmacy. LEC.

PHPR 518. Cultural Competency in Pharmacy Practice. 1 Hour.
The United States becomes more culturally diverse every year. This course is designed to help student pharmacists excel in today’s multicultural environment by improving their cultural competency skills. Students will explore their own culture and those belonging to other diverse cultures. Students are expected to learn of the beliefs, needs and tendencies of those with cultures much different than themselves. Prerequisite: Must be admitted to the School of Pharmacy. LEC.

PHPR 519. Business Planning for Pharmacy. 1 Hour.
This course is designed for students interested in developing a business plan. Most pharmacists will have an opportunity to develop a new service, product line or even start a new business venture in their careers. Students need to know how to create a formal business plan and how to present the plan to decision makers. The course will cover the basic components and rationale of creating a formal a business plan. When finished students will be expected to have created a written business plan and will present their creation to the class. In this manner, students will gain experience in developing an idea into a plan. Prerequisite: Students must be admitted to the school of Pharmacy. LEC.

PHPR 599. Clinical Application of Basic Science. 1 Hour.
This course is an inter-departmental, team-based, technology-centric elective course. Concomitantly, instructors from the basic and clinical science departments within the school of pharmacy will promote deeper student understanding of the path a drug takes from discovery, development and ultimately clinical use. Instructors will collaborate in course content development to integrate basic and clinical science concepts. The course will utilize a blended learning method, incorporating out of class podcasts, online group collaborative projects, and readiness quizzes and exams. Prerequisite: 4th or 5th professional year standing (4P/5P) in the school of pharmacy and concomitant enrollment in either PTX 599, MDCM 599, or PHCH 599 is required. LEC.

PHPR 601. Advanced Pharmacy Practice Experience 1. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

PHPR 602. Advanced Pharmacy Practice Experience 2. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

PHPR 603. Advanced Pharmacy Practice Experience 3. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model
is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

PHPR 604. Advanced Pharmacy Practice Experience 4. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

PHPR 605. Advanced Pharmacy Practice Experience 5. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

PHPR 606. Advanced Pharmacy Practice Experience 6. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

PHPR 607. Advanced Pharmacy Practice Experience 7. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

PHPR 608. Advanced Pharmacy Practice Experience 8. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

PHPR 609. Advanced Pharmacy Practice Experience 9. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

PHPR 610. Advanced Pharmacy Practice Experience 10. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in nine pharmacy practice experience rotations (PHPR 601-609). PHPR 610 is reserved for students requiring a remedial experiential rotation. FLD.

PHPR 613. Pharmacoeconomics and Health Outcomes. 2 Hours.
A course to foster an understanding of economic, financial and outcome principles that drive the demand and supply of medical care in the US. Economic logic behind decisions made by patients, physicians, hospitals, managed care organizations, and governments will be covered. Students completing this course should be able to identify the drivers of the health economy, identify different types of pharmacoeconomic evaluations, critically analyze pharmacoeconomic and outcome literature, and apply economic principles to pharmaceutical care. Prerequisite: Students must be admitted to the School of Pharmacy to enroll in this class. LEC.

PHPR 614. Pharmacy Management. 3 Hours.
A course designed to provide knowledge and skills to effect efficient and effective pharmacy management. This will include foundations in financial management, inventory control, purchasing, cost-effective drug utilization, quality management, pharmacoeconomics, and human resource management. LEC.

PHPR 615. Nuclear Pharmacy Practice. 2 Hours.
This introductory course in nuclear pharmacy practice provides a basic understanding of radiation, radiation dosimetry, radiopharmaceuticals, and clinical application of radiopharmaceuticals in diagnosis and treatment. The course includes both didactic material as well as laboratory experience. LEC.

PHPR 619. Health Care Systems. 3 Hours.
This course is an introduction to the organization, financing, and delivery of health care services with a focus on the U.S. health care system.
Course content addresses the following questions: how do we evaluate the health care sector, where is health care provided, how is health care financed, what are the characteristics of health care providers (individuals and institutions), what influences the performance of the health care sector, and what lies in the future for health care delivery. The purpose of the course is to prepare pharmacy students for non-clinical aspects of their practice sites. Enrollment limited to pharmacy majors. LEC.

PHPR 620. Ethics and Introduction to Law. 1 Hour.
This course provides an introduction to the fundamentals of law and ethics as they apply to the practice of pharmacy. Course sessions will focus on ethical expectations of the profession, principles and issues in medical and pharmacy ethics, and laws that govern medication dispensing. LEC.

PHPR 621. Pharmacy Law. 2 Hours.
A course developed to increase students' knowledge and understanding of laws that regulate the pharmacy profession. Prerequisite: Fifth year standing. LEC.

PHPR 630. Drug Information/Biostatistics and Med Lit Evaluation. 4 Hours.
An introduction to the principles of drug information analysis, storage, and retrieval as well as biostatistics as applied to understanding and interpreting biomedical literature. Advantages and disadvantages of several commercial and manual drug information systems will be considered. The course includes practical experiences in drug information services. The biostatistical emphasis of the course will be on the application of statistical tests commonly used and the interpretation of their results. Prerequisite: Fifth year standing. LEC.

PHPR 635. Problems in Pharmacy Practice. 1-5 Hours.
A course designed for the study of special topics in pharmacy practice. A research paper will be required. Prerequisite: Consent of instructor. IND.

PHPR 646. Pharmacotherapy I. 4 Hours.
A course dealing with the clinical applications of drug knowledge to patient care. Disease and drug knowledge will be applied to the design and monitoring of therapeutic treatment plans for patients. Incorporates three credit hours of lecture and one credit hour of case studies and off-campus professional experience. Prerequisite: Successful completion of Pharmacy Practice II (PHAR 502). LEC.

PHPR 647. Pharmacotherapy II. 4 Hours.
A course dealing with the clinical applications of drug knowledge to patient care. Disease and drug knowledge will be applied to the design and monitoring of therapeutic treatment plans for patients. Incorporates three credit hours of lecture and one credit hour of case studies and off-campus professional experience. This course is graded A,B,C,F. Prerequisite: Fifth year standing and successful completion of Pharmacotherapy I, PHPR 646. LEC.

PHPR 648. Pharmacotherapy III. 4 Hours.
A course dealing with the clinical applications of drug knowledge to patient care. Disease and drug knowledge will be applied to the design and monitoring of therapeutic treatment plans for patients. Incorporates three credit hours of lecture and one credit hour of case studies and off-campus professional experience. This course is graded A,B,C,F. Prerequisite: Fifth year standing and successful completion of Pharmacotherapy II, PHPR 647 with a C or above. LEC.

PHPR 670. Clinical Assessment. 1 Hour.
This laboratory course will allow students to develop clinical assessment skills necessary in the provision of pharmaceutical care to patients with a variety of disease states. Students will combine physical assessment skills, patient counseling skills, and pharmacotherapy knowledge and apply this information to patient care related activities in various clinical settings. Students will apply their skills using various practice models that include medication therapy management, collaborative drug therapy management, and interprofessional healthcare teams. The lab component will require students to meet for one hour between 1:00 to 5:00 PM on either Monday, Tuesday, or Wednesdays. Perquisite: Students must be admitted to the School of Pharmacy to enroll in this class. A detailed schedule of lab meeting dates and times will be provided in the syllabus. LAB.

PHPR 845. Professional Communications. 2 Hours.
A course designed to give the graduate student a practical experience in areas of professional communications such as administrative proposals, grants, letters, memos, poster presentations, and written papers. The course focuses on the different kinds of communications required to relate to other health care professionals. Prerequisite: Consent of instructor. LEC.

PHPR 850. Introduction to Pharmacoepidemiology. 3 Hours.
Pharmacoepidemiology is the application of the principles of epidemiology to the study of medications and their effects on health. Evaluating a drug's effects commences when a chemical entity becomes a drug candidate, intensifies through clinical trials, and continues after products reach the market. These studies are critical for supporting the proper use of medications in terms of efficacy, effectiveness, and cost-effectiveness. This course provides a broad introduction to the principles of pharmacoepidemiology with a focus on applications in the medical literature. LEC.

PHPR 855. Economic Evaluation of Health Care Programs and Services. 3 Hours.
The course will provide students with an overview and appraisal of the "state-of-the-art" in the evaluation of health care programs and services (with a special emphasis on pharmaceutical programs, services, and products). The purpose of the course is to provide the student with the tools to conduct economic rather than general evaluation of health care programs and services. There will be some discussion of theoretical concepts, but the major emphasis will be on practical methodological issues in economic evaluation of pharmaceutical programs. The course integrates the perspectives of pharmaceutical and health care technology assessment, managed care, outcomes research, and public health. The main topics covered in the course include: cost, cost-minimization, cost-effectiveness, cost-utility, and cost-benefit analyses. LEC.

PHPR 860. Seminar in Pharmacy Practice. 1 Hour.
Research reports, reviews, and/or presentations on the current status of various aspects of pharmacy practice. Prerequisite: Consent of instructor. LEC.

PHPR 865. Advanced Institutional Pharmacy Services. 3 Hours.
A course dealing with the planning, justification, implementation, management, and coordination of a progressive, comprehensive institutional pharmacy service. Seminar presentations and case studies are used to analyze recent advances and to apply data from the research literature. Prerequisite: Consent of instructor. LEC.

PHPR 875. Health Care Delivery Systems. 3 Hours.
A continuation of PHPR 865 dealing with the current status of health care delivery systems and the impact of changes in this area on pharmacy practice. Prerequisite: PHPR 865 and consent of instructor. LEC.

PHPR 885. Human Resource Management in Institutional Pharmacy Practice. 3 Hours.
A course dealing with recruitment, training, motivation, monitoring of performance, and disciplining of personnel. Seminars, case studies, and role playing are used to apply the information to specific human resource management situations in institutional pharmacy practice. Prerequisite: PHPR 865 and consent of instructor. LEC.
Doctor of Pharmacy

The School of Pharmacy

Since its founding in 1885, the University of Kansas School of Pharmacy (http://pharmacy.ku.edu) has been a leader in pharmacy education. Since 1996, the school has offered only the Doctor of Pharmacy degree as the entry-level practice degree. The curriculum gives the student the knowledge, skills, and ability required of the pharmacy practitioner; it is comprehensive and produces a highly competent general practitioner.

About 60 full-time faculty members teach in the undergraduate professional Doctor of Pharmacy program and in the graduate programs. 3 departments (Pharmacology and Toxicology, Medicinal Chemistry, and Pharmaceutical Chemistry) offer Master of Science and Doctor of Philosophy degrees. Pharmacy Practice offers the master’s degree.

Both the undergraduate and graduate divisions have outstanding national and international reputations based on the excellence and productivity of the faculty. KU is second in the rankings of schools of pharmacy that receive National Institutes of Health research funding. KU’s School of Pharmacy was awarded more than $22 million in research grants and contracts from the NIH in fiscal year 2011.

The School of Pharmacy is fully accredited by the Accreditation Council for Pharmacy Education (https://www.acpe-accredit.org), 135 S. LaSalle St., Suite 4100, Chicago, IL 60603-4810, (312) 664-3575, info@acpe-accredit.org, the official accrediting body for American schools of pharmacy.

Undergraduate Advising

On admission to the school, undergraduates are assigned faculty members as their advisors. The advisor serves continuously during the student’s tenure in the school. Students are expected to meet with their advisors at least once each semester and are encouraged to meet more often to discuss academic issues and career and professional development.

Undergraduate Admission to KU

To qualify for undergraduate admission to KU, Kansas resident first-year applicants must meet 1 of the following requirements:

• Complete the Kansas Board of Regents' Qualified Admission curriculum (http://admissions.ku.edu/~admiss/apply/regents_curriculum.shtml) with at least a 2.5 grade-point average on a 4.0 scale or
• Achieve an ACT score of 24 or above or an SAT score of 1090 or above with a cumulative 2.0 or higher grade-point average on a 4.0 scale or
• Rank in the top 1/3 of your high school graduating class.

Prospective students should request applications from the University of Kansas Office of Admissions (http://admissions.ku.edu), KU Visitor Center, 1502 Iowa St., Lawrence, KS 66044-7576, 785-864-3911, adm@ku.edu. Return completed applications to that office with necessary transcripts and records. Prospective pharmacy students should declare prepharmacy as the major field of study. Visit the Office of Admissions (http://admissions.ku.edu) for further information. Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Pre-pharmacy students are advised by faculty members from the College of Liberal Arts and Sciences while they complete their pre-pharmacy course work. All pre-pharmacy students are strongly encouraged to make appointments in the office of the dean of the School of Pharmacy, 2010 Becker Drive, Room 2050, for co-advising services and when they have questions concerning specific course requirements or appropriate electives or any other concerns about their preparation for pharmacy admission. Pre-pharmacy students are also encouraged to participate in the pre-pharmacy club. Email pharmacy@ku.edu to request to be added to the club’s e-mail distribution list.

Undergraduate Admission to the School of Pharmacy

Students should apply to the School of Pharmacy during the application period (October 1 through February 1) for admission the following fall semester. When they apply, they should have completed, or be about to complete, the 68 credit hours of required pre-pharmacy courses. The required pre-pharmacy curriculum may be completed at accredited schools other than KU. KU students should submit a change of school form. Students transferring from other schools should submit an application for undergraduate admission.

Requirements

Applying students should meet the following requirements:

• Complete the required pre-pharmacy courses and provide the required transcripts as documentation of the course work. 1 official copy of your transcript should be sent to the Office of Admissions.
• Take the Pharmacy College Admissions Test (http://www.pearsonassessments.com/haiweb/Cultures/en-US/site/Community/PostSecondary/Products/pcat/pcathome.htm), preferably in October. January test results also are accepted and considered. Have the results of the PCAT sent to KU.
• Complete and return the Applicant Profile Form (http://pharmacy.ku.edu/supplemental-application-forms) to the School of Pharmacy with a $75 nonrefundable application fee.
• Maintain a grade-point average of 2.5 or higher overall and in the sciences. This is the minimum grade-point average acceptable for admission; the average is generally much higher.
• Arrange for 3 letters of recommendation, including the school’s standard reference forms (http://pharmacy.ku.edu/sites/pharmacy.ku.edu/files/docs/supp_app_forms/AppReferenceForm.pdf),
to be sent to the School of Pharmacy by the persons serving as your references.
• An interview is held with selected applicants.

Procedures
The School of Pharmacy admissions committee, consisting of at least 2 faculty members from each department and representation from the office of the dean, determines admissions. A file consisting of the required documentation is created for each applicant when the application is received. Consideration is given to a student’s grade-point average overall and in all science courses in the pre-pharmacy curriculum. The average grade point of previous entering classes has been 3.5 or higher. Good scholarship is considered a predictor of success in the pharmacy curriculum. However, good communication skills, emotional maturity, leadership ability, professional attitude, an understanding of the pharmacy profession, and interest in service to the community are also important. These additional skills may outweigh very high grades or choice of pre-pharmacy courses. Applicant PCAT scores also are considered in the admission process. Admission is highly competitive and depends on the number of applications received and the qualifications of the applicants.

The admissions committee begins to consider applications in January each year. The application deadline is February 1, and most decisions are made by April. As a condition of matriculation into the KU School of Pharmacy, all admitted students must successfully clear an investigative criminal background check and successfully obtain pharmacy intern status (http://www.pharmacy.ks.gov/licensing-registration/pharmacy-interns) with the Kansas Board of Pharmacy. Successful clearance of the background check and attainment of pharmacy intern status with the Board of Pharmacy is required to enroll in the School of Pharmacy and to participate in curricular and extracurricular curricular activities including interacting with patients. Instructions for completing the background check are provided with the letter of acceptance.

Doctor of Pharmacy Degree Requirements

Prepharmacy Requirements
The Doctor of Pharmacy degree requires completion of all of the required pre-pharmacy and professional courses and a total of 208 credit hours with an overall and professional grade-point average of at least 2.5.

The pre-pharmacy requirements of 68 credit hours include a year each of English, general chemistry, and organic chemistry. Other required courses include calculus, interpersonal communication, molecular and cellular biology, microbiology, human anatomy, physiology, statistics; and 15 credit hours of general studies that satisfy the following KU Core Curriculum requirements: goal 1 outcome 1; goal 3 humanities; goal 3 social science; goal 4 outcome 1; and goal 4 outcome 2. The KU Core Curriculum goals 1 through 4 must be satisfied during the completion of the pre-pharmacy curriculum requirements. KU Core goals 5 and 6 are satisfied during the professional curriculum. A course in college physics is required if the student did not complete physics in high school with a grade of B or higher. The college physics credit hours, if required, do not count toward the 208 credit hours required for the degree.

Students are expected to have or to develop basic competence with personal computers, including word processing and spreadsheet software. All students are required to own an Apple iPad capable of running the most current operating system (iOS). These skills and equipment are necessary for some class assignments as well as for professional work assignments.

Courses in other professional schools (e.g., engineering, education) may not be counted toward the degree unless the student can show that such courses are directly relevant to pharmacy. For example, a course in business law taken in the business school may count (consult with the office of the dean in the school of pharmacy).

Prepharmacy Curriculum

Year 1

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
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</thead>
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<tr>
<td>ENGL 101</td>
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<td>ENGL 102</td>
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</tr>
<tr>
<td>CHEM 130 (formerly CHEM 184)</td>
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<td>CHEM 135 (formerly CHEM 188)</td>
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<tr>
<td>BIOL 150</td>
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<td>BIOL 240</td>
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<td>MATH 365</td>
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Year 2

<table>
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<th>Year 2</th>
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<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 330 (formerly CHEM 624)</td>
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<td>CHEM 335 (formerly CHEM 626)</td>
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</tr>
<tr>
<td>CHEM 331 (formerly CHEM 625)</td>
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<td>CHEM 336 (formerly CHEM 627)</td>
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<tr>
<td>BIOL 400</td>
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<td>BIOL 646</td>
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<td>BIOL 402</td>
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<td>BIOL 647</td>
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<td></td>
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</tbody>
</table>

Total Hours: 68

1 Select a course that satisfies KU Core Curriculum requirements: goal 1 outcome 1; goal 3 humanities; goal 3 social science; goal 4 outcome 1; or goal 4 outcome 2. All of the above need completed.

Professional Requirements

The Doctor of Pharmacy degree requires completion of all of the required pre-pharmacy and professional courses and a total of 208 credit hours with an overall grade-point average of 2.5 and a 2.5 grade-point average in professional courses.

The curriculum includes instruction in the 3 basic sciences: medicinal chemistry, pharmaceutical chemistry, and pharmacology and toxicology. It also includes courses in the various aspects of pharmacy practice, including the health care system, law, and emerging roles for pharmacy practitioners. The curriculum integrates course material among departments. Assignments within the curriculum foster development of independent learning, communication skills, problem solving, and professional motivation. The professional curriculum includes a requirement that each student must complete a minimum of 4 elective credit hours within School of Pharmacy elective courses. One credit hour must be completed from the pharmacy practice department, 1 credit hour must be completed from a basic science department (either medicinal chemistry, pharmaceutical chemistry, and pharmacology and toxicology) and the remaining two credit hours are left to the students discretion.
Students enroll in introductory pharmacy practice experiences during the summer following the first and second years. These experiences are located throughout the state of Kansas and vary in the type of professional setting.

The final year of the curriculum consists of nine 4-week advanced experiential practice rotations with faculty preceptors at pharmacy practice sites throughout Kansas. Students must have their own transportation to reach their assigned sites. Housing at these sites is also the student’s responsibility.

**Professional Program**

**Year 1**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours Spring</th>
<th>Hours Summer</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>P&amp;TX 630</td>
<td>4 MDCM 603</td>
<td>3 PHAR 550</td>
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<tr>
<td>MDCM 601</td>
<td>4 PHCH 518</td>
<td>3 PHAR 550</td>
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<tr>
<td>MDCM 602</td>
<td>1 P&amp;TX 631</td>
<td>4 PHPR 620</td>
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</tr>
<tr>
<td>PHAR 500</td>
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</tr>
<tr>
<td>PHCH 517</td>
<td>2 PHAR 510</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHPR 620</td>
<td>1 PHAR 505</td>
<td></td>
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<tr>
<td>PHCH 667</td>
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</tbody>
</table>

(Applicable to Class of 2018 and later)

(1 of 4 required credits)

<table>
<thead>
<tr>
<th>Year 2</th>
<th>Hours Spring</th>
<th>Hours Summer</th>
<th>Hours</th>
</tr>
</thead>
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<td>3 MDCM 626</td>
<td>3 PHAR 560</td>
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</tr>
<tr>
<td>P&amp;TX 632</td>
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</tr>
<tr>
<td>PHCH 625</td>
<td>3 PHPR 646</td>
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</tr>
<tr>
<td>PHAR 503</td>
<td>3 PHCH 626</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>PHAR 515</td>
<td>1 PHPR 619</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Elective option (1 of 4 required credits)</td>
<td>1 PHAR 520</td>
<td>1</td>
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</tr>
</tbody>
</table>

Total Hours: 106

**Fourth Year**

The fourth year is composed of 36 credit hours of advanced experiential pharmacy practice rotations (nine 4-week assignments). The required experiential rotations include advanced hospital, advanced community, ambulatory care, and acute care/inpatient general medicine. The remaining 5 clerkships/externships are assigned as elective clerkship courses. Assignments are made on the basis of the student’s preference, and site availability. The five 4-week rotations of the fall semester begin in July and conclude at the end of November. The four 4-week spring semester rotations begin in January and conclude in April. See the Pharmacy Practice (PHPR) courses with Clerkship titles for a complete listing.

**Department of Medicinal Chemistry**

**Medicinal Chemistry Graduate Programs**

Medicinal chemistry is an interdisciplinary field at the interface of chemistry and biology. It approaches important biological and health-related problems through application of fundamental principles of organic chemistry, biochemistry, natural product chemistry, and molecular pharmacology. Graduates are expected to be thoroughly familiar with the chemistry of organic compounds, including their synthesis and biosynthesis, their reactivity, and their interactions with and alteration by living systems. Research is at the heart of the program, and the department’s research activities encompass many areas of modern medicinal chemistry. Graduate students may choose the organic chemistry track or the biochemistry track.

Currently, the department has 12 full-time faculty members, about 45 graduate students, more than 30 postdoctoral associates, numerous undergraduate researchers, and an outstanding technical staff. The department is recognized nationally and internationally, and most graduates have gone on to successful careers in the pharmaceutical industry and in academia. Medicinal chemistry faculty members are directors of 2 Centers for Biomedical Research Excellence (COBRE) — Cancer Experimental Therapeutics (http://ccet.cobre.ku.edu) and Protein Structure and Function (http://psf.cobre.ku.edu) — as well as the Center for Chemical Methodologies and Library Development (http://www.cmld.ku.edu) (CMLD) and the Specialized Chemistry Center (http://www.scc.ku.edu) (SCC), all funded by the National Institutes of Health.

**Facilities**

The department is well equipped for both chemical and biochemical research and has research facilities for about 70 graduate students, postdoctoral associates, and research technicians. Malott Hall, where most of the medicinal chemistry laboratories are located, also houses the departments of Chemistry (http://www.chem.ku.edu) and Pharmacology and Toxicology (http://www.pharmtox.pharm.ku.edu). Anschutz Library is adjacent to the building. Much of the laboratory space in the department has recently undergone renovation and provides exceptional research laboratories for chemical synthesis and biochemical research. The department has an excellent complement of modern spectroscopic,
biochemical, and chromatographic instrumentation, and other specialized research instrumentation is available through cooperative arrangements with other departments.

Advanced instrumentation and facilities are available through KU’s Molecular Structures Group (http://msg.dept.ku.edu/webs/msg). MSG laboratories include the Biochemical Research Service Laboratory, the Mass Spectrometry Laboratory, the Nuclear Magnetic Resonance Laboratory, the Molecular Graphics and Modeling Laboratory, the X-ray Crystallography Laboratory, and the Protein Structure Laboratory (dedicated to macromolecular X-ray crystallography) with more than $10 million in instrumentation.

The Shankel Structural Biology Center, on KU’s west campus, offers new research opportunities for medicinal chemists interested in protein and nucleic acid structure and combinatorial synthesis; it also houses the new 800-MHz NMR. The Analytical Proteomics Laboratory, which combines activities of the Mass Spectrometry Lab and BRSL to create a collaborative environment for protein handling, protein mass spectrometry, and bioinformatics, is in the Shankel Structural Biology Center. In the same building, the High Throughput Screening Laboratory (http://www.hts.ku.edu) has integrated and automated robotics equipment for carrying out biochemical and cell-based assays and a chemical library of more than 100,000 compounds with diverse structures and drug-like properties for biological screening. The service laboratories have professional staff that provides training in specialized research techniques in addition to their service functions.

### Department of Medicinal Chemistry

Malott Hall  
1251 Wescoe Hall Drive, Room 4070  
Lawrence, KS 66045-7572  
785-864-4495  
medchem@ku.edu  
http://www.medchem.ku.edu/  

Thomas Prisinzano, Chair  
785-864-4495

Apurba Dutta, Graduate Advisor  
785-864-4495  
mdcmdgs@ku.edu

### Courses

**MDCM 599. Clinical Application of Basic Science. 1 Hour.**  
This course is an inter-departmental, team-based, technology-centric elective course. Concomitantly, instructors from the basic and clinical science departments within the school of pharmacy will promote deeper student understanding of the path a drug takes from discovery, development and ultimately clinical use. Instructors will collaborate in course content development to integrate basic and clinical science concepts. The course will utilize a blended learning method, incorporating out of class podcasts, online group collaborative projects, cloud-based file sharing, and readiness quizzes and exams. (Same as PTX 599 and PHCH 599.) Prerequisite: 4th or 5th professional year standing (4P/5P) in the School of Pharmacy and concomitant enrollment in PHPR 599 is required. LEC.

**MDCM 601. Medicinal Biochemistry I. 4 Hours.**  
A study of the biochemical principles of macromolecular structure and function, molecular communication, and the metabolism of nutrients and xenobiotics as applied to problems of medicinal and pharmacological significance. Prerequisite: Concurrent enrollment in MDCM 602 Lab. LEC.

**MDCM 602. Medicinal Biochemistry Laboratory. 1 Hour.**  
Laboratory exercises illustrating the application of chemical principles to biochemical processes of medicinal, pharmacological, and clinical significance. Prerequisite: Concurrent enrollment in MDCM 601. LAB.

**MDCM 603. Medicinal Biochemistry II. 3 Hours.**  
A study of the biochemical principles of macromolecular structure and function, biosynthesis, molecular communication, and the metabolism of nutrients and xenobiotics as applied to problems of medicinal and pharmacological significance. Prerequisite: MDCM 601. LEC.

**MDCM 606. Phytomedicinal Agents. 1 Hour.**  
This course will acquaint the pharmacy students with the current status of botanical use in the United States. A basic foundation will be provided so that the pharmacist can properly assess the appropriateness and usefulness of various phytomedicines and combinations in managing certain ailments with regard to efficacy, safety, potential toxicity, and potential herb-drug interactions. Prerequisite: MDCM 626 or instructor permission. LEC.

**MDCM 607. Clinical Pharmacognosy. 1 Hour.**  
The course will provide a technical background for understanding the scientific basis underlying the use of herbal medicines. This will be followed by practical information about the pharmacological and chemical properties as well as clinical uses of herbal medicines. Active student participation in discussing the properties of these non-prescription medicinals is expected. Prerequisite: MDCM 601. LEC.

**MDCM 625. Medicinal Chemistry I: Neuroeffecter Agents. 3 Hours.**  
A study, from the molecular viewpoint, of the organic substances used as medicinal agents, including consideration of their origins, chemical properties, structure-activity relationships, metabolism and mechanisms of action; this course emphasizes drugs affecting the central nervous system. Prerequisite: CHEM 626 and MDCM 601. LEC.

**MDCM 626. Medicinal Chemistry II: Homeostatic Agents. 3 Hours.**  
A continuation of MDCM 625 with emphasis on autonomic and cardiovascular agents and peripherally-acting hormones. Prerequisite: MDCM 625. LEC.

**MDCM 627. Medicinal Chemistry III: Chemotherapeutic Agents. 3 Hours.**  
A continuation of MDCM 625 and MDCM 626 with special emphasis on anticancer, antiviral, antibacterial, antifungal and non-steroidal anti-inflammatory drugs. Prerequisite: MDCM 625. LEC.

**MDCM 690. Undergraduate Research. 1-5 Hours.**  
Research in medicinal chemistry. Students will be assigned to a laboratory research problem. Prerequisite: Consent of instructor. IND.

**MDCM 692. Problems in Medicinal Chemistry. 1-5 Hours.**  
This course encompasses original work on a laboratory problem of limited scope, honors reading assignments from medicinal chemistry literature, or in-depth discussions of assigned topics. Prerequisite: Consent of instructor. IND.

**MDCM 701. Biomedical Chemistry. 3 Hours.**  
A study of the principles of macromolecular structure and function, biosignaling, bioenergetics and metabolism, with an emphasis on the relationship between biochemistry and medicine. Prerequisite: Graduate standing or permission of instructor. LEC.

**MDCM 703. Advanced Biomedical Chemistry. 3 Hours.**  
A study of the principles of basic enzymology, including chemical reactions, biosynthesis, and metabolism. In addition, the course will cover...
lipids, hormones, vitamins, and minerals. Prerequisite: Graduate standing or permission of instructor. LEC.

MDCM 710. Physiological Aspects of Medicinal Chemistry. 1 Hour. The goal of this one-credit-hour course is to provide an overview of physiological mechanisms and disease processes as a background for intermediate level courses in medicinal chemistry, drug discovery and drug development. Prerequisite: One college-level course in biology. LEC.

MDCM 725. Medicinal Chemistry I. 2 Hours. A study, from the molecular viewpoint, of the organic substances used as medicinal agents, including consideration of their origins, chemical properties, structure-activity relationships, metabolism and mechanisms of action; this course emphasizes drugs affecting the central nervous system. Prerequisite: CHEM 626 and MDCM 621. LEC.

MDCM 726. Medicinal Chemistry II. 2 Hours. A continuation of MDCM 725 with emphasis on autonomic and cardiovascular agents and peripherally-acting hormones. Prerequisite: MDCM 725. LEC.

MDCM 727. Medicinal Chemistry III. 2 Hours. A continuation of MDCM 725 and MDCM 726 with special emphasis on antineoplastics, antiviral, antibacterial, antifungal and non-steroidal anti-inflammatory drugs. Prerequisite: MDCM 725. LEC.

MDCM 742. Experimental Pharmacology. 4 Hours. Experimental approaches to understanding mechanism of drug action. Use of drugs as tools to understand functioning of biological systems will also be stressed. Historically important experiments will be discussed along with experiments which are currently used to define drug mechanisms. Topics will include: dose-response, drug receptors, drug metabolism, chemotherapy as well as autonomic CNS, cardiovascular and renal pharmacology. (Same as PTX 742.) Prerequisite: Graduate standing in Medicinal Chemistry. LEC.

MDCM 766. Organic Chemistry of Biological Pathways. 2 Hours. An introductory graduate level course in bioorganic and medicinal chemistry, in which the principles of organic reaction mechanisms in biological systems are discussed. This course discusses the organic chemistry of metabolic transformations of biomolecules and their associated cofactors, both organic coenzymes and metal ions. LEC.

MDCM 775. Chemistry of the Nervous System. 3 Hours. A detailed study of the molecular aspects of nerve transmission will be covered with special emphasis on the uptake, storage, release, biosynthesis, and metabolism of specific neurotransmitters. Drugs affecting these processes and current research on receptor isolation and receptor mechanisms will be discussed from a chemical viewpoint. (Same as BIOL 775, CHEM 775, NURO 775, PTX 775, and PHCH 775.) Prerequisite: Consent of instructor. LEC.

MDCM 785. Natural Products of Medicinal Significance. 2 Hours. A discussion of bioassy-directed screening, the isolation, structure determination, biosynthesis, partial synthesis and total chemical synthesis of organic natural products of medicinal significance. Examples of the classes of compounds to be considered include steroid hormones, cardiac glycosides, alkaloids, antibiotics, terpenes, and the like. Prerequisite: Graduate standing or consent of instructor. LEC.

MDCM 790. Principles of Drug Design. 3 Hours. A discussion of the principles of contemporary drug design with specific examples chosen from the original literature. Prodrugs; biososteres; Kcat inhibitors; active site directed reversible and irreversible inhibitors; quantitative SAR; modulation of drug absorption, distribution, metabolism and excretion; molecular dissection; rigid analogs; pharmacophores; etc., will be treated. Prerequisite: Graduate standing or completion of MDCM 624 and MDCM 627. LEC.

MDCM 791. Principles of Drug Disposition. 1 Hour. An introduction to the chemical and biochemical principles which govern the interaction of drugs and chemicals with cells and organisms. Topics include absorption, distribution, metabolism, and excretion; passive vs. active processes; pharmacokinetics; bioactivation vs. detoxication; and applications in drug design and improvement. Prerequisite: One year of organic chemistry and one course in biochemistry. LEC.

MDCM 795. Principles of Drug Design II. 2 Hours. A discussion of the principles of contemporary drug design with specific examples chosen from the original literature. Drug-like properties; conformational constraint; structure-based drug design; library generation; HTS hit optimization, will be treated. LEC.

MDCM 799. Seminar in Medicinal Chemistry. 1 Hour. Reports by research students and discussions of developments in the field not covered in formal courses. LEC.

MDCM 801. Issues in Scientific Integrity. 1 Hour. Lectures and discussion on ethical issues in the conduct of a scientific career, with emphasis in the conduct of a scientific career, with emphasis on practical topics of special importance in molecular-level research in the chemical, biological, and pharmaceutical sciences. Topics will include the nature of ethics, the scientist in the laboratory, the scientist as author, grantee, reviewer, employer/employee, teacher, student, and citizen. Discussions will focus on case histories. Graded on a satisfactory/unsatisfactory basis. (Same as MDCM 801, NURO 801, PTX 801, PHCH 801 and PHCH 802.) LEC.

MDCM 804. Interdisciplinary Seminar on Ethics in Science and Engineering. 1-3 Hours. The course will cover basic techniques of moral reasoning, especially as applied to ethical issues in the physical sciences and engineering. Topics covered will include the ethical conduct of research, the federal and professional guidelines for different kinds of research, and the ethical dimensions of publication and professional life. Emphasis will be on practical applications, cases and student involvement. (Same as GS 804, NURO 804, PTX 804, and PHCH 804.) Prerequisite: Must be admitted to the program or division of Pharmacy to enroll in this class. LEC.

MDCM 860. Drug Metabolism. 2 Hours. An in-depth examination of the pathways, enzymes, and mechanisms of xenobiotic biotransformation in a combined lecture-readings-discussion format. Emphasis will be on recent as well as classic methods of findings. Prerequisite: MDCM 790 or MDCM 791 or consent of instructor. LEC.

MDCM 861. Drug Metabolism Laboratory. 1-3 Hours. A laboratory course exemplifying various techniques used in studying the metabolism of foreign organic compounds in mammalian systems. In addition, enzymatic reactions in other plant and microbial systems are studied. Prerequisite: Consent of instructor. LAB.

MDCM 895. Research in Medicinal Chemistry. 1-12 Hours. Hours and credit to be arranged. RSH.

MDCM 899. Master’s Thesis. 1-12 Hours. Hours and credit to be arranged. Independent investigation of a research problem of limited scope. Prerequisite: Consent of instructor. THE.

MDCM 950. Advanced Topics: ______. 1-3 Hours. An in-depth discussion of topics of current interest to medicinal chemists. Prerequisite: Consent of instructor. LEC.

MDCM 952. Introduction to Molecular Modeling. 3 Hours. Theory and practice of contemporary molecular modeling: real-time computer graphics, model-building routines, use of structural databases,
molecular mechanisms and molecular dynamics calculations. The laboratory section places emphasis on drug design; work on own problems is welcome. (Same as BIOL 952.) Prerequisite: Graduate standing or consent of instructor. LAB.

**MDCM 980. Original Research Proposal. 2 Hours.**
Preparation of an original research proposal concerning contemporary problems in medicinal chemistry. Prerequisite: Consent of instructor. LAB.

**MDCM 990. Postdoctoral Research in Medicinal Chemistry. 1-12 Hours.**
Advanced level research in collaboration with a faculty member, which may involve projects in one or more of the following areas: organic synthesis, isolation and structure elucidation, metabolism, biochemical mechanisms of drug action. Prerequisite: Doctoral degree or equivalent in an appropriate related area, and consent of instructor. RSH.

**MDCM 999. Doctoral Dissertation. 1-12 Hours.**
Hours and credit to be arranged. Original chemical research in the synthesis and development of medicinal agents, elucidation of the chemical mechanisms of drug action, drug metabolism, and drug toxicities. THE.

## Master of Science in Medicinal Chemistry

**Medicinal Chemistry Graduate Programs**

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Currently, the department has 12 full-time faculty members, about 45 graduate students, more than 30 postdoctoral associates, numerous undergraduate researchers, and an outstanding technical staff. The department is recognized nationally and internationally, and most graduates have gone on to successful careers in the pharmaceutical industry and in academia. Medicinal chemistry faculty members are directors of 2 Centers for Biomedical Research Excellence (COBRE) — Cancer Experimental Therapeutics (http://ccet.cobre.ku.edu) and Protein Structure and Function (http://psf.cobre.ku.edu) — as well as the Center for Chemical Methodologies and Library Development (http://www.cmld.ku.edu) (CMLD) and the Specialized Chemistry Center (http://www.scc.ku.edu) (SCC), all funded by the National Institutes of Health.

## Graduate Admission

Graduate students are primarily admitted to the department to pursue the Ph.D. degree. The M.S. degree and postdoctoral training are also available. An applicant wishing to enter the graduate program must have earned a bachelor’s or master’s degree in pharmacy, medicinal chemistry, chemistry, biochemistry, or a closely related field, and must have completed 1 year of organic chemistry with laboratory (equivalent to CHEM 330, CHEM 331, CHEM 335, and CHEM 336). In all cases, general admission requirements must be met.

Applications are evaluated by the graduate selection committee. Applications must be supported by 1 copy of official transcripts of all previous college and university work, both undergraduate and graduate. In addition, a resume, a statement of purpose, and 3 letters of recommendation from current or former teachers, advisors, or employers must be submitted. Students from non-English-speaking countries also must furnish proof of proficiency in English. Graduate Record Examination (GRE) general test scores are required, and applicants are strongly encouraged to take the subject test in chemistry as well.

The graduate selection committee makes admission decisions based on grade-point averages for previous college work (particularly in the relevant science areas), letters of recommendation, previous research or employment experience relevant to the graduate training being sought, GRE scores, etc. The number of applicants who can be admitted at any time varies, depending on the availability of laboratory space, research facilities, and financial support for research activities, but it is usually about 10 a year.

Graduate applications (http://www.graduate.ku.edu) and all other requested application materials (transcripts, résumé, statement of purpose, recommendation letters, etc.) must be submitted online:

**The University of Kansas**

Department of Medicinal Chemistry

Malott Hall

1251 Wescoe Hall Drive, Room 4070

Lawrence, KS 66045-7572

## M.S. Degree Requirements

Candidates for this degree must satisfy general requirements as well as those of 1 of the following options:

- Students who are proceeding toward the Ph.D. degree at KU receive the master’s degree after satisfactorily completing the course work requirement for the Ph.D. and passing a comprehensive oral examination.
- Students who wish to earn only the M.S. degree must complete a prescribed subset of the course work requirements for the Ph.D. degree and a thesis representing at least 10 credit hours of research and pass a thesis defense.

## Doctor of Philosophy in Medicinal Chemistry

**Medicinal Chemistry Graduate Programs**

Medicinal chemistry is an interdisciplinary field at the interface of chemistry and biology. It approaches important biological and health-related problems through application of fundamental principles of organic chemistry, biochemistry, natural product chemistry, and molecular pharmacology. Graduates are expected to be thoroughly familiar with the chemistry of organic compounds, including their synthesis and biosynthesis, their reactivity, and their interactions with and alteration by living systems. Research is at the heart of the program, and the department’s research activities encompass many areas of modern
medicinal chemistry. Graduate students may choose the organic chemistry track or the biochemistry track.

Currently, the department has 12 full-time faculty members, about 45 graduate students, more than 30 postdoctoral associates, numerous undergraduate researchers, and an outstanding technical staff. The department is recognized nationally and internationally, and most graduates have gone on to successful careers in the pharmaceutical industry and in academia. Medicinal chemistry faculty members are directors of 2 Centers for Biomedical Research Excellence (COBRE) — Cancer Experimental Therapeutics (http://ccet.cobre.ku.edu) and Protein Structure and Function (http://psf.cobre.ku.edu) — as well as the Center for Chemical Methodologies and Library Development (http://www.cmld.ku.edu) (CMLD) and the Specialized Chemistry Center (http://www.scc.ku.edu) (SCC), all funded by the National Institutes of Health.

Graduate Admission

Graduate students are primarily admitted to the department to pursue the Ph.D. degree. The M.S. degree and postdoctoral training are also available. An applicant wishing to enter the graduate program must have earned a bachelor’s or master’s degree in pharmacy, medicinal chemistry, chemistry, biochemistry, or a closely related field, and must have completed 1 year of organic chemistry with laboratory (equivalent to CHEM 330, CHEM 331, CHEM 335, and CHEM 336). In all cases, general admission requirements must be met.

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Graduate applications (http://www.graduate.ku.edu) and all other requested application materials (transcripts, résumé, statement of purpose, recommendation letters, etc.) must be submitted online:

The University of Kansas
Department of Medicinal Chemistry
Malott Hall
1251 Wescoe Hall Drive, Room 4070
Lawrence, KS 66045-7572

Ph.D. Degree Requirements

If credit has not already been obtained in the courses below or their equivalents, students must complete the following courses as early as is practical in the graduate program: 1 semester of physical chemistry (CHEM 510 or CHEM 530), and biochemistry (MDCM 701). Satisfactory completion of qualifying examinations in organic chemistry and biochemistry also is required.

A series of monthly written cumulative examinations is used to assess students’ knowledge of medicinal chemistry, organic chemistry, and biochemistry. These examinations must be passed at an accelerating rate during the second and third years. After completing the cumulative examinations, the major part of the course work, and other requirements, the student takes an oral comprehensive examination. After completing this examination, the student prepares an original research proposal for presentation to the faculty. The final requirement for the Ph.D. is the preparation and defense of a dissertation based on original laboratory research conducted by the candidate.

Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current Lawrence and Edwards Campus policies on Doctoral Research Skills and Responsible Scholarship are listed in the KU Policy Library.

General requirements, such as those related to the comprehensive oral examination, the dissertation, and the dissertation defense, are listed in the Graduate Studies (p. 2059) section of the online catalog.

Neurosciences Programs

Neurosciences Graduate Programs

The neurosciences program admits students directly for study on the Lawrence campus, with strengths in behavioral, biological, chemical, and pharmaceutical sciences, and the KU Medical Center (http://www.kumc.edu) campus in Kansas City, with strengths in all the biomedical and clinical sciences. Each student is asked which campus he or she would prefer. Students earn a Ph.D. degree in the neurosciences. In exceptional circumstances, the program also offers an M.S. degree in neurosciences.

Graduates can pursue careers in university teaching and research or conduct and supervise research in a pharmaceutical/biotechnology company or government laboratory.

Programs

Neuroscience is a truly multidisciplinary research field. All students are expected to be able to understand the fundamental principles and contributions of each of the major disciplines of the neurosciences core. New students receive training in biochemistry and molecular biology, cell biology, and physiology before proceeding with more focused courses.

Neurosciences Program

Smiseman Research Laboratories
2099 Constant Ave.
Lawrence, KS 66047-3729
785-864-4504
http://www.neuroscience.ku.edu/

Elias K. Michaelis, Co-Director, Lawrence
785-864-7339
emichaelis@ku.edu

Douglas E. Wright, Co-Director, KU Medical Center
913-588-2713
Master of Science in Neurosciences

Neurosciences Graduate Programs

The neurosciences program admits students directly for study on the Lawrence campus, with strengths in behavioral, biological, chemical, and pharmaceutical sciences, and the KU Medical Center (http://www.kumc.edu) campus in Kansas City, with strengths in all the biomedical and clinical sciences. Each student is asked which campus he or she would prefer. Students earn a Ph.D. degree in the neurosciences. In exceptional circumstances, the program also offers an M.S. degree in neurosciences.

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Graduate Admission

All application materials are reviewed by faculty committees in Lawrence and Kansas City. Students should have B.A. or B.S. degrees in anthropology, behavioral sciences, biology, chemistry, engineering, neuroscience, or pharmacological sciences. Preference is given to students who have completed courses in introductory and organic chemistry, calculus, physics, introductory biology, and at least 1 course in advanced biology topics such as biochemistry, physiology, microbiology, or molecular biology. Students who do not have sufficient training complete appropriate courses before admission. The program requires standard Graduate Record Examination scores with all applications, 3 letters of recommendation, and an essay by the applicant about his or her career goals. Selection is based on grade-point average, GRE scores, letters of recommendation, and evidence of previous experience in research. The minimum standard is a grade-point average of 3.0 on a 4.0 scale.

Submit your graduate application online (http://www.graduate.ku.edu). Forward all requested supporting application documents to the program:

The University of Kansas
Neurosciences Graduate Program
Malott Hall
1251 Wescoe Hall Drive, Room 5064
Lawrence, KS 66045-7572

M.S. Degree Requirements

The M.S. is offered in rare cases where attainment of the Ph.D. is inappropriate. A student may earn the M.S. by completing these minimum requirements:

- The courses in the curriculum of the first year of the Ph.D. training program.
- The course in advanced neuroscience.
- A thesis based on either original research or library research.
- The total credit hours of graduate-level courses required for the M.S. degree.

Doctor of Philosophy in Neurosciences

Neurosciences Graduate Programs

The neurosciences program admits students directly for study on the Lawrence campus, with strengths in behavioral, biological, chemical, and pharmaceutical sciences, and the KU Medical Center (http://www.kumc.edu) campus in Kansas City, with strengths in all the biomedical and clinical sciences. Each student is asked which campus he or she would prefer. Students earn a Ph.D. degree in the neurosciences. In exceptional circumstances, the program also offers an M.S. degree in neurosciences.

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Submit your graduate application online (http://www.graduate.ku.edu). Forward all requested supporting application documents to the program:

The University of Kansas
Neurosciences Graduate Program
Malott Hall
1251 Wescoe Hall Drive, Room 5064
Lawrence, KS 66045-7572
Ph.D. Degree Requirements

The neuroscience curriculum is subdivided into core courses that all students must complete and electives representing the 2 major specializations,

- Cell and Molecular Neuroscience and
- Cognitive and Systems Neuroscience.

The core curriculum includes research rotations in 2 laboratories of the student’s choice during the first year. Laboratory rotations offer first-hand research experience. Students complete 2 rotations in faculty research laboratories in the first year. Laboratories are selected by the student and the co-directors. After the rotations, each student chooses a research advisor and begins an independent research project.

Students also receive training in the responsible conduct of research and teaching in the neurosciences. For the Ph.D., the student completes the core curriculum as well as research skills training, comprehensive oral examination, preparation of a dissertation, and final oral examination and defense of the dissertation.

Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current Lawrence and Edwards Campus policies on Doctoral Research Skills and Responsible Scholarship are listed in the KU Policy Library.

Core Curriculum for the Ph.D. in Neurosciences

### Year 1

**Fall**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th><strong>Spring</strong></th>
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<tr>
<td>BIOL 750</td>
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<td>Cognitive and Systems Neuroscience course</td>
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<td>4</td>
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<tr>
<td>NURO 799</td>
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<td>Research skill: 1 lecture course or 1 laboratory course</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>NURO 799</td>
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### Year 2

**Fall**

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<th><strong>Spring</strong></th>
<th>Hours</th>
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<tr>
<td>NURO 801 (offered in the fall every odd-numbered year)</td>
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<td>1 Completion of written and oral comprehensive examination</td>
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<tr>
<td>Cell and Molecular Neuroscience course</td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>Second elective for Cell and Molecular Neuroscience or Cognitive and Systems Neuroscience</td>
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<td>NURO 799</td>
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### Year 3

**Fall**

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### Year 4

**Fall**

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</tr>
<tr>
<td>1-11</td>
<td></td>
<td>1-11</td>
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</tr>
</tbody>
</table>

**Total Hours: 43-83**

Students must

- Complete 1 core course from Cognitive and Systems Neuroscience;
- Complete 1 core course from Cell and Molecular Neuroscience;
- Complete 1 core course from General Neurobiology;
- Take Bioethics or NURO 801 Issues in Scientific Integrity; and
- Receive training in effective oral communication and teaching by enrolling in 1 semester of NURO 800 Neuroscience Teaching Principles, which includes a teaching experience.

Neuroscience Courses

**Cognitive and Systems Neuroscience (9)**

- BIOL 701 Topics in: _____ (Brain Disorders and Neurological Disorders) 3
- NURO 844 Neurophysiology 3
- PSYC 961 Biological Foundations of Psychopathology 3

**Cell and Molecular Neuroscience (9)**

- BIOL 673 Cellular and Molecular Neurobiology 3
- NURO 775 Chemistry of the Nervous System 3
- NURO 848 Molecular Mechanisms of Neurological Disorders 3

**General Neurobiology (10)**

- NURO 846 Advanced Neuroscience 5
- NURO 710 Advanced Neurobiology 3
- NURO 847 Developmental Neurobiology 2

**Neuroscience Seminar (2)**

- NURO 799 Neuroscience Seminar Series 2

**Scientific Integrity (1)**

- NURO 801 Issues in Scientific Integrity 1

**Teaching Experience (2)**

- NURO 800 Neuroscience Teaching Principles 2

Continued enrollment in the neuroscience seminar is required, and students present at least 2 seminars during their graduate careers. In consultation with a 5-member faculty advisory committee including at least 3 members of the neuroscience program, each student chooses electives that provide training relevant to the research goals.

All students must complete a research skill. Commonly used areas are radiation biology and radiation safety, cell culture methodology, techniques of electron and confocal microscopy, molecular biology laboratory training, computer science training, statistics, and training in electronics and instrumentation.

After the first 2 years, students take the comprehensive oral examination. This consists of a research proposal in the general area of the doctoral
research, written in NIH format, and an oral examination on the proposal and on general knowledge in neuroscience and related fields.

**Department of Pharmaceutical Chemistry**

**Pharmaceutical Chemistry Graduate Programs**

The Department of Pharmaceutical Chemistry offers a number of core courses designed to hone the student’s skills in aspects of physical/organic chemistry, chemical kinetics, and equilibrium phenomena, which we consider essential in understanding problems of any origin, including biological processes, on a molecular level. Every student entering the program is expected to complete these core courses successfully during the first year.

Research has become increasingly multidisciplinary; students have the option to focus their didactic training in 2 unique areas of specialization or tracks:

- Pharmaceutical biotechnology and
- Physical/analytical pharmaceutical chemistry.

In addition, students can choose from a variety of elective courses that allow them to gain knowledge and skills in areas specific to individual research project interests.

The department places emphasis on excellence in research, making every effort to ensure that students are able to commit as much time as possible to their research projects, which allows them to earn the Ph.D. degree in a timely fashion. The core courses are taught every year and can be completed in just 2 semesters. Students are fully supported by the department their entire time in the program and are not burdened with time-consuming teaching responsibilities.

**Facilities**

The department is on KU’s west campus in Simons Biosciences Research Laboratories, a 30,000-square-foot, 2-story research facility completed in 1996. There are 18 general laboratories and an experimental cancer chemotherapeutic-agent testing laboratory, a radioisotope handling room, a molecular biology laboratory, a natural products extraction laboratory, and a liquid chromatography mass spectrometry laboratory. The laboratories contain an extensive array of equipment and instrumentation. The department currently maintains 5 mass spectrometers. There are facilities for cell culture, several advanced fluorescence microscopes, NMRs (both solution state and solid state), and numerous components and software for proteomic analysis. In addition, an extensive array of instrumentation is available for the characterization of both small and macromolecules including a circular dichroism spectrophotometer, FTIR, and light-scattering instrumentation to name a few.

An amazing array of equipment and service facilities help with nearly any aspect of research. For example, the Molecular Structures Group (http://msg.dept.ku.edu/webs/msg) is a campuswide facility encompassing NMR, MS, X-ray Crystallography, Biochemical Research Service, and Molecular Graphics and Modeling Laboratories available to all campus members for a nominal fee. Near the Simons building, the structural biology wing of the MSG houses an 800-mHz NMR along with many other instruments and services. The recently completed Multidisciplinary Research Building houses researchers from a variety of disciplines to encourage interaction and collaboration. Professors Middaugh, Lunte, Berkland, and Laurence occupy space in this new facility.

**Department of Pharmaceutical Chemistry**

**McCollum Laboratories**

2095 Constant Ave., Room 236C
Lawrence, KS 66047-3729
Phone: 785-864-4880
Fax: 785-864-5736
http://www.pharmchem.ku.edu/

Christian Schöneich, Chair
785-864-4880
schoneic@ku.edu

Jeff Krise, Graduate Advisor
785-864-2626
krise@ku.edu

**Courses**

**PHCH 510. Emerging Trends in Pharmaceutical Chemistry I. 1 Hour.**

This elective class will explore emerging areas of research currently impacting the pharmaceutical industry. Potential topics include; biologicals as therapeutics, drug targeting, prodrugs, nanotechnology, biological barriers, gene therapy, transporters, vaccines, intracellular drug trafficking, controlled release drug delivery, cancer therapy, analytical biotechnology and many others. The class will be team taught by PHCH faculty and guest speakers. Graded on a satisfactory/unsatisfactory basis.

Prerequisite: Must be accepted to the Pharmacy Program. LEC.

**PHCH 511. Emerging Trends in Pharmaceutical Chemistry II. 1 Hour.**

This elective class will explore emerging areas of research currently impacting the pharmaceutical industry. Potential topics include; biologicals as therapeutics, drug targeting, prodrugs, nanotechnology, biological barriers, gene therapy, transporters, vaccines, intracellular drug trafficking, controlled release drug delivery, cancer therapy, analytical biotechnology and many others. The class will be team taught by PHCH faculty and guest speakers. Prerequisite: Must be accepted to the Pharmacy Program. LEC.

**PHCH 512. Roadmap to Drug Development. 1 Hour.**

This class will explore both the costs and time lines required for the approval of both new as well as generic drug products from identification of drug targets to FDA approval, and Phase 4 studies. Included will be a short history of the establishment of the FDA and its evolving role. The contributions of Frances Kelsey, the FDA scientist who fought the approval of thalidomide in the USA and thus saved many from the trauma of birth defects caused by the drug will be discussed. The class will be team taught by pharmaceutical chemistry faculty and guest speakers.

Graded on a satisfactory/fail basis. Prerequisite: Completion of PHCH 626 or instructor permission. LEC.

**PHCH 514. Scientific Writing for the Health Professional. 1 Hour.**

Communicating research plans and experimental findings is a critical skill for health care professionals working in a research environment, and successful communication depends on clarity of thought and careful use of language. This course is intended for 5th professional (5P) year students who are seeking residency and will need to write research proposals and abstracts, as well as prepare effective posters and presentations. It is an intensive course with multiple writing assignments. Students are expected to participate fully, and individual feedback and guidance on writing will be provided by the instructor. In particular, for this
first class, input from all of the students will be very valuable for future improvements, and the instructor will be flexible with respect to several of the due dates. Graded on a satisfactory/fail. Prerequisite: 5th professional (5P) year students who plan to complete post-doctoral residency training. LEC.

PHCH 517. Pharmacy Calculations. 2 Hours.
An introduction to the mathematics involved in filling prescriptions and in manufacturing pharmaceuticals. Includes an introduction to standard prescription notation and familiarization with pharmaceutical weights and measures. LEC.

PHCH 518. Physical-Chemical Principles of Solution Dosage Forms. 3 Hours.
Physical properties of pharmaceutical solutions and their physiological compatibility will be discussed (intermolecular interactions, energetics, colligative properties, isotonicity, pH, buffers and drug solubility). Kinetics and mechanisms of drug degradation in solution will also be introduced. Prerequisite: PHCH 517. LEC.

PHCH 599. Clinical Application of Basic Science. 1 Hour.
This course is an inter-departmental, team-based, technology-centric elective course. Concomitantly, instructors from the basic and clinical science departments within the school of pharmacy will promote deeper student understanding of the path a drug takes from discovery, development and ultimately clinical use. Instructors will collaborate in course content development to integrate basic and clinical science concepts. The course will utilize a blended learning method, incorporating out of class podcasts, online group collaborative projects, and readiness quizzes and exams. (Same as MDCM 599 and PTX 599.) Prerequisite: 4th or 5th professional year standing (4P/5P) in the school of pharmacy and concomitant enrollment in PHPR 599 is required. LEC.

PHCH 605. Vaccines. 1 Hour.
Vaccines are currently the most powerful therapeutic approach available for infectious disease and promise to become of increasing importance for a wide variety of other pathologies including cancer. This course discusses the immunological basis of vaccinology, types of vaccines currently available and in development and the process by which vaccines are made from the basic research stage through their pharmaceutical development and marketing. Ethical aspects of vaccine use will also be considered. Course graded on a satisfactory/fail basis. LEC.

PHCH 625. Pharmacokinetics. 3 Hours.
A discussion of the basic concepts, and some clinical applications, of pharmacokinetics, clearance concepts, extravascular dosing, and the use of pharmacokinetics in dosage regimen design and adjustment. Prerequisite: PHCH 517 and PHCH 518. LEC.

PHCH 626. Biopharmaceutics and Drug Delivery. 3 Hours.
A study of biological barriers to drug delivery, conventional dosage forms, and new and future drug delivery strategies. Prerequisite: PHCH 517, PHCH 518, and PHCH 625. LEC.

PHCH 667. Introduction to Clinical Chemistry. 2 Hours.
A lecture-discussion course concerned with identification of the contents of physiological fluids, changes in physiological fluid content induced by disease and drugs, and therapeutic drug monitoring: case study discussions and presentations are coordinated with the integrated laboratory. Prerequisite: Fifth-year standing and concomitant enrollment in integrated laboratory. LEC.

PHCH 690. Undergraduate Research in Pharmaceutical Chemistry. 1-5 Hours.
Student will be assigned a suitable research project in the area of pharmaceutical analysis or pharmaceutics. Prerequisite: Consent of instructor. IND.

PHCH 694. Problems in Pharmaceutical Chemistry. 1-5 Hours.
A student will be assigned a suitable research project in an area of pharmaceutical analysis or pharmaceutics. This course is offered regularly by the Department of Pharmaceutical Chemistry to meet the special needs of selected students, usually for one of the following two situations: (1) This course may be taken when a student has a special interest in a problem or area of limited scope and desires to pursue that study in depth under supervision of a member of the faculty. (2) This course is sometimes used as a remedial class to provide a mechanism of intensive review and study in an area of weakness. Prerequisite: Consent of instructor. IND.

PHCH 700. Experimental Methods in Pharmaceutical Chemistry. 1-5 Hours.
Discussions, lectures, and laboratory work designed to acquaint and provide hands on experiences to advanced undergraduate and graduate students with experimental design, methods, and approaches relevant to modern research in pharmaceutical chemistry. Prerequisite: Consent of instructor. LEC.

PHCH 701. Bioinformatics I. 5 Hours.
First semester of a two-semester course. The course is designed to introduce the most important and basic concepts, methods, and tools used in Bioinformatics. Topics include (but not limited to) bioinformatics databases, sequence and structure alignment, protein structure prediction, protein folding, protein-protein interaction, Monte Carlo simulation, and molecular dynamics. Emphasis will be put on the understanding and utilization of these concepts and algorithms. The objective is to help the students to reach rapidly the frontier of bioinformatics and be able to use the bioinformatics tools to solve the problems on their own research. (Same as BINF 701.) LEC.

PHCH 702. Bioinformatics II. 5 Hours.
Second semester of a two-semester course in bioinformatics and computational biology. The course is designed to introduce the most important and basic concepts, methods, and tools used in Bioinformatics. Topics include (but not limited to) bioinformatics databases, sequence and structure alignment, protein structure prediction, protein folding, protein-protein interaction, Monte Carlo simulation, and molecular dynamics. Emphasis will be put on the understanding and utilization of these concepts and algorithms. The objective is to help the students to reach rapidly the frontier of bioinformatics and be able to use the bioinformatics tools to solve the problems on their own research. (Same as BINF 702.) LEC.

PHCH 705. Writing and Communicating Science for Graduate Students. 3 Hours.
Communicating research proposals and experimental findings is a critical skill for scientists. Successful communication depends on clarity of thought and careful use of language. This course will use class discussions with examples and homework assignments to help prepare the graduate student to successfully communicate in both academia or industry settings. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Must be accepted to the Pharmacy Program. LEC.

PHCH 715. Drug Delivery. 3 Hours.
The course will survey the latest technology for delivering pharmaceuticals and biologicals to reduce side effects and enhance drug efficacy. The course will survey the latest research in this area and examine more classical delivery methods. A qualitative and quantitative understanding of drug delivery practice and theory is the goal. Prerequisite: Master’s or PhD candidate in Engineering, Chemistry, Medicinal Chemistry, or Pharmaceutical Chemistry (by appointment for seniors or graduate students in departments not listed). LEC.
PHCH 716. Drug Delivery. 3 Hours.
The course will survey the latest technology for delivering pharmaceuticals and biologicals to reduce side effects and enhance drug efficacy. The course will survey the latest research in this area and examine more classical delivery methods. A qualitative and quantitative understanding of drug delivery practice and theory is the goal. This course is only open to distance education students. Prerequisite: Master’s candidate in Pharmaceutical Chemistry. LEC.

PHCH 718. Physical-Chemical Principles of Solution Dosage Forms. 3 Hours.
Physical properties of pharmaceutical solutions and their physiological compatibility will be discussed (intermolecular interactions, energetics, colligative properties, isotonicity, pH, buffers and drug solubility). Kinetics and mechanisms of drug degradation in solution will also be introduced. Prerequisite: Graduate standing. LEC.

PHCH 719. Physical-Chemical Principles of Solution Dosage Forms. 3 Hours.
Physical properties of pharmaceutical solutions and their physiological compatibility will be discussed (intermolecular interactions, energetics, colligative properties, isotonicity, pH, buffers and drug solubility). Kinetics and mechanisms of drug degradation in solution will also be introduced. This course is only open to distance education students. Prerequisite: Graduate standing. LEC.

PHCH 720. Bibliography of Pharmaceutical Chemistry. 1 Hour.
A course on the use of the library as a research tool and the study of bibliographic techniques of literature searching. Emphasis on the literature of pharmaceutical chemistry and physical pharmacy. LEC.

PHCH 725. Molecular Cell Biology. 3 Hours.
Fundamental and advanced concepts in cell biology and the molecular interactions responsible for cell function, homeostasis and disease will be presented. Current analytical methods for examining cells and their molecular components will be discussed. Emphasis will be placed on the chemical and physical properties of individual proteins, nucleic acids and lipids and their assembly into cellular and subcellular structures. (Same as CPE 725) LEC.

PHCH 726. Molecular Cell Biology. 3 Hours.
Fundamental and advanced concepts in cell biology and the molecular interactions responsible for cell function, homeostasis and disease will be presented. Current analytical methods for examining cells and their molecular components will be discussed. Emphasis will be placed on the chemical and physical properties of individual proteins, nucleic acids and lipids and their assembly into cellular and subcellular structures. This course is only open to distance education students. LEC.

PHCH 744. Organic Chemistry for Pharmaceutical Scientists. 3 Hours.
A consideration of the structural features and driving forces that control the course of chemical reactions. Topics will include functional group chemistry: electronic structure, acid/base properties: molecular structure and properties (dipole, strain, and steric effects, inductive and resonance effects); dynamics of reactions (the major organic reaction mechanism, kinetics, energy profiles, isotope effects, linear free energy relationships), solvent effects, stereochemistry and conformation, an introduction to orbital symmetry control; basic thermodynamic and kinetic concepts; and an overview of important classes of mechanisms. This course is only open to distance education students. Prerequisite: CHEM 624 and CHEM 626. LEC.

PHCH 775. Chemistry of the Nervous System. 3 Hours.
A detailed study of the molecular aspects of nerve transmission will be covered with special emphasis on the uptake, storage, release, biosynthesis, and metabolism of specific neurotransmitters. Drugs affecting these processes and current research on receptor isolation and receptor mechanisms will be discussed from a chemical viewpoint. (Same as PTX 775, BIOL 775, CHEM 775, MDCM 775 and NURO 775.) Prerequisite: BIOL 600 or equivalent. LEC.

PHCH 801. Issues in Scientific Integrity. 1 Hour.
Lectures and discussion on ethical issues in the conduct of a scientific career, with emphasis on practical topics of special importance in molecular-level research in the chemical, biological, and pharmaceutical sciences. Topics will include the nature of ethics, the scientists in the laboratory, the scientist as author, grantee, reviewer, employer/employee, teacher/student, and citizen. Discussions will focus on case histories. Graded on a satisfactory/unsatisfactory basis. (Same as MDCM 801, NURO 801, PTX 801 and PHCH 802.) LEC.

PHCH 802. Issues of Scientific Integrity. 3 Hours.
Lectures and discussion on ethical issues in the conduct of a scientific career, with emphasis on practical topics of special importance in molecular-level research in the chemical, biological, and pharmaceutical sciences. Topics will include the nature of ethics, the scientists in the laboratory, as author, grantee, reviewer, employer/employee, teacher/student, and citizen. Discussions will focus on case histories. Graded on a satisfactory/unsatisfactory basis. This course is only open to distance education students. (Same as PHCH 801, MDCM 801, NURO 801, and PTX 801.) LEC.

PHCH 804. Interdisciplinary Seminar on Ethics in Science and Engineering. 1-3 Hours.
The course will cover basic techniques of moral reasoning, especially as applied to ethical issues in the physical sciences and engineering. Topics covered will include the ethical conduct of research, the federal and professional guidelines for different kinds of research, and the ethical dimensions of publication and professional life. Emphasis will be on practical applications, cases and student involvement. (Same as GS 804, MDCM 804, NURO 804, and PTX 804.) Prerequisite: Must be admitted to the program or division of Pharmacy to enroll in this class. LEC.

PHCH 850. Solid State Stability and Formulation. 1-3 Hours.
This course is designed to provide an understanding of the formulation and stability of small and large drug candidates in the solid state. The first two-thirds of the course will focus on small molecules, with the last third being devoted to proteins. Prerequisite: Graduate standing in PHCH or consent of the instructor. LEC.

PHCH 851. Solid State Stability and Formulation. 3 Hours.
This course is designed to provide an understanding of the formulation and stability of small and large drug candidates in the solid state. The first two-thirds of the course will focus on small molecules, with the last third being devoted to proteins. This course is only open to distance education students. Prerequisite: Graduate standing in PHCH or consent of the instructor. Must be accepted to the Pharmacy Program. LEC.

PHCH 862. Pharmaceutical Equilibrium. 3-4 Hours.
A course on equilibria in aqueous and non-aqueous systems with emphasis on solutions of interest to pharmaceutical technology. Included are association-dissociation equilibria, complexation, protein binding calculation of species concentrations, estimation of solubility and ionization constants. Methods for the determination of chemical potential in solution are presented. LEC.

PHCH 863. Pharmaceutical Equilibria. 3 Hours.
A course on equilibria in aqueous and non-aqueous systems with emphasis on solutions of interest to pharmaceutical technology. Included are association-dissociation equilibria, complexation, protein binding calculation of species concentrations, estimation of solubility and
ionization constants. Methods for the determination of chemical potential in solution are presented. This course open only to distance education students. LEC.

**PHCH 864. Pharmaceutical Analysis. 4 Hours.**
Advanced course on pharmaceutical analysis. LEC.

**PHCH 865. Pharmaceutical Analysis II. 2 Hours.**
This course is intended to be a comprehensive treatment of contemporary techniques used to validate analytical methods for the determination of drugs in the bulk form, pharmaceutical formulations, biological samples and other relevant media. The emphasis will be on chromatographic techniques reflecting the preeminent position that those techniques occupy in the field of pharmaceutical and biomedical analysis. Prerequisite: Previous or concurrent enrollment in PHCH 684. LEC.

**PHCH 866. Pharmaceutical Mass Transport. 2 Hours.**
A course on mass transport problems of pharmaceutical interest. Topics include physiological pharmacokinetic models, diffusive transport, and drug delivery systems. Prerequisite: MATH 320 or equivalent. LEC.

**PHCH 867. Pharmaceutical Mass Transport. 3 Hours.**
A course on mass transport problems of pharmaceutical interest. Topics include physiological pharmacokinetic models, diffusive transport, and drug delivery systems. This course is only open to distance education students. Prerequisite: MATH 320 or equivalent. LEC.

**PHCH 868. Pharmaceutical Analysis. 4 Hours.**
Advanced course on pharmaceutical analysis. This course is only open to distance education students. LEC.

**PHCH 870. Advanced Pharmaceutical Biotechnology. 3 Hours.**
A course designed to emphasize the important facets of recombinant proteins as pharmaceutical agents. Basics of protein structure and analysis will be introduced, and methods for production, isolation, and purification of recombinant proteins will be described. Potential chemical and physical degradation processes and strategies for circumventing these difficulties will be discussed. Prerequisite: BIOL 600 or consent of instructor. LEC.

**PHCH 871. Advanced Pharmaceutical Biotechnology. 3 Hours.**
A course designed to emphasize the important facets of recombinant proteins as pharmaceutical agents. Basics of protein structure and analysis will be introduced, and methods for production, isolation, and purification of recombinant proteins will be described. Potential chemical and physical degradation processes and strategies for circumventing these difficulties will be discussed. This course is only open to distance education students. Prerequisite: BIOL 600 or consent of instructor. LEC.

**PHCH 895. Research in Pharmaceutical Chemistry. 1-11 Hours.**
Advanced level research in collaboration with a faculty member in pharmaceutical chemistry or related areas. This course is limited to students who are doing research, but not necessarily working toward either a master’s or a doctoral degree. RSH.

**PHCH 898. Master’s Thesis. 1-10 Hours.**
Master’s Thesis. This course is only open to distance education students. THE.

**PHCH 899. Master’s Thesis. 1-11 Hours.**
Graded on a Satisfactory/Fail basis. THE.

**PHCH 920. Chemical Kinetics. 2 Hours.**
This course provides the principles of kinetic data analysis as applied to problems in pharmaceutical chemistry. Topics include the setup and solution of rate equations related to chemical reactions; simplifications and approximations in complex equation systems; isotope, solvent and salt rate effects; and diffusion and activation controlled reactions. LEC.

**PHCH 921. Chemical Kinetics. 2 Hours.**
This course provides the principles of kinetic data analysis as applied to problems in pharmaceutical chemistry. Topics include the setup and solution of rate equations related to chemical reactions; simplifications and approximations in complex equation systems; isotope, solvent and salt rate effects; and diffusion and activation controlled reactions. This course is only open to distance education students. LEC.

**PHCH 972. Mechanisms of Drug Deterioration and Stabilization. 2-4 Hours.**
A course dealing with mechanisms and chemical kinetics of drug deterioration and stabilization. LEC.

**PHCH 973. Mechanisms of Drug Deterioration and Stabilization. 3 Hours.**
A course dealing with mechanisms and chemical kinetics of drug deterioration and stabilization. This course is only open to distance education students. LEC.

**PHCH 974. Advanced Special Topics in Pharmaceutical Chemistry. 1-3 Hours.**
Various topics pertinent to the area of pharmaceutical chemistry will be explored. Graded on a satisfactory/unsatisfactory basis. LEC.

**PHCH 975. Advanced Topics in Biopharmaceutics and Pharmacokinetics I. 3 Hours.**
A quantitative treatment of the processes involved with drug absorption, distribution, metabolism, and excretion in living systems. This course open only to distance education students. LEC.

**PHCH 976. Advanced Topics in Biopharmaceutics and Pharmacokinetics I. 3 Hours.**
A quantitative treatment of the processes involved with drug absorption, distribution, metabolism, and excretion in living systems. This course open only to on-campus students. LEC.

**PHCH 977. Advanced Topics in Biopharmaceutics and Pharmacokinetics II. 2 Hours.**
A course addressing special topics in biopharmaceutics and pharmacokinetics including complex modeling, treatment of data using computers, cell culture systems, and research topics. LEC.

**PHCH 978. Pharmaceutical Chemistry Seminar. 1 Hour.**
A seminar on the chemistry of pharmaceutical systems. LEC.

**PHCH 979. Advanced Topics in Biopharmaceutics and Pharmacokinetics II. 3 Hours.**
A course addressing special topics in biopharmaceutics and pharmacokinetics including complex modeling, treatment of data using computers, cell culture systems, and research topics. This course is only open to distance education students. LEC.

**PHCH 999. Doctoral Dissertation in Pharmaceutical Chemistry. 1-11 Hours.**
THE.

**Master of Science in Pharmaceutical Chemistry**

**Pharmaceutical Chemistry Graduate Programs**
The Department of Pharmaceutical Chemistry offers a number of core courses designed to hone the student’s skills in aspects of physical/organic chemistry, chemical kinetics, and equilibrium phenomena, which we consider essential in understanding problems of any origin, including
biological processes, on a molecular level. Every student entering the program is expected to complete these core courses successfully during the first year.

Research has become increasingly multidisciplinary; students have the option to focus their didactic training in 2 unique areas of specialization or tracks:

- Pharmaceutical biotechnology and
- Physical/analytical pharmaceutical chemistry.

In addition, students can choose from a variety of elective courses that allow them to gain knowledge and skills in areas specific to individual research project interests.

The department places emphasis on excellence in research, making every effort to ensure that students are able to commit as much time as possible to their research projects, which allows them to earn the Ph.D. degree in a timely fashion. The core courses are taught every year and can be completed in just 2 semesters. Students are fully supported by the department their entire time in the program and are not burdened with time-consuming teaching responsibilities.

Graduate Admission

Students with bachelor's or master's degrees in chemistry, pharmacy, the biological sciences, material sciences, chemical engineering or related disciplines are encouraged to seek admission. Except under unusual circumstances, we review and accept candidates for admission to fall semester only. All required materials must be received before the department can begin to consider an application.

Required materials to be sent to the Department of Pharmaceutical Chemistry include the following:

1. Graduate Record Examination results (not more than 5 years old) forwarded directly to Graduate Studies/Department of Pharmaceutical Chemistry from the Educational Testing Service. Photocopies of results are not permissible. The institution code for the University of Kansas is R6871. The Department of Pharmaceutical Chemistry's code is R0305.
2. Test of English as a Foreign Language results if applicable. These may not be required if you have completed a degree in an English-speaking country. The current list is limited to the U.S., England, Australia, and New Zealand. Contact the Office of Graduate Studies to learn if your institution is recognized.
3. Official transcripts from all universities/institutions in which the applicant has studied.
4. KU's graduate application (http://www.graduate.ku.edu).
5. The application processing fee (amount varies).
6. A brief personal statement (about one page) that helps us understand why you are interested in graduate studies and specifically why KU's department.
7. An updated copy of your résumé indicating relevant experience, including educational and research experience, if applicable.
8. 3 letters of recommendation from people you believe are best qualified to comment on your potential to succeed in graduate studies. There is no template for letters of recommendation, but please make sure they are on official letterhead.

All of these items should be sent to the department:

The University of Kansas
Department of Pharmaceutical Chemistry
Attn: Nancy Helm
McCollum Laboratories
2095 Constant Ave.
Lawrence, KS 66047-3729

Telephone: 785-864-4822, fax: 785-864-5736, nhelm@ku.edu.

Although the department does not have a formal application deadline, the faculty begins evaluations of applications around January 15 each year. To ensure full consideration, it is highly recommended that complete applications be in the department far in advance of January 15.

Admitted students receive a competitive stipend, tuition, and basic health insurance. Students also can be selected to participate in the Takeru Higuchi and Nigel Manning Ph.D. Intersearch Program, allowing them to conduct a portion of their research at the Victorian College of Pharmacy (www.vcp.monash.edu.au) at Monash University in Melbourne, Australia. In addition, students are encouraged to participate in other industrial and/or academic internship programs the department offers.

A number of fellowship awards are offered to recognize academic superiority and to assist meritorious students in the timely completion of their degree programs. The number of fellowships awarded each year depends upon available funds. For a description of funding opportunities for KU graduate students, visit the Graduate Studies website (http://www.graduate.ku.edu/funding-opportunities). Students with particularly outstanding undergraduate records may be eligible for special awards. The Department of Pharmaceutical Chemistry is a Madison and Lila Self Graduate Fellowship Program (http://selfgraduate.ku.edu) partner at KU. The program provides a generous stipend and tuition to outstanding students for 4 years of graduate study.

At the department level, the Takeru Higuchi and Siegfried Lindenbaum Fellowships are awarded each year to incoming graduate students with high promise.

M.S. Degree Requirements

Except under unusual circumstances, the Department of Pharmaceutical Chemistry does not recruit students seeking the M.S. degree. However, all students who pass the comprehensive qualifying examinations for the Ph.D. degree receive a nonthesis M.S. degree. Students who wish to earn the terminal M.S. degree must complete satisfactorily at least 1/3 of the courses recommended for the Ph.D. degree, present a thesis based on original research or a suitable technical report based on the review of published research in a particular area, and pass a final oral general examination.

Distance Master's Degree Program

The department also offers a distance master's program. See the website (http://www.pharmchem.ku.edu/~pch-web/cgi-bin/mydrupal/?q=node/21) for details. This program features the same high-quality lectures and courses offered in the Ph.D. program but allows students to complete the degree while working at a remote location. Students typically take 1 course a semester. Most of the courses offered by the department can be taken this way. For questions, contact the director of the distance master's program, John Stobaugh, 785-864-3996, rytting@ku.edu.
Doctor of Philosophy in Pharmaceutical Chemistry

Pharmaceutical Chemistry Graduate Programs

The Department of Pharmaceutical Chemistry offers a number of core courses designed to hone the student’s skills in aspects of physical/organic chemistry, chemical kinetics, and equilibrium phenomena, which we consider essential in understanding problems of any origin, including biological processes, on a molecular level. Every student entering the program is expected to complete these core courses successfully during the first year.

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4. KU’s graduate application (http://www.graduate.ku.edu).
5. The application processing fee (amount varies).
6. A brief personal statement (about one page) that helps us understand why you are interested in graduate studies and specifically why KU’s department.
7. An updated copy of your résumé indicating relevant experience, including educational and research experience, if applicable.
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At the department level, the Takeru Higuchi and Siegfried Lindenbaum Fellowships are awarded each year to incoming graduate students with high promise.

Ph.D. Degree Requirements

Entering Background

Students entering the program are expected to be competent in basic principles of physical/organic chemistry and mathematics. These requirements are typically satisfied by most degrees in the basic or pharmaceutical sciences.
Core Courses

Each student must complete 7 core courses with grades of B or higher to be eligible to take the comprehensive core curriculum examination (offered after the spring semester of the first year in the program):

### Year 1

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<tr>
<th>Course</th>
<th>Hours</th>
<th>Semester</th>
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<tr>
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<td>PHCH 804</td>
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<td>PHCH 976</td>
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<td>Spring</td>
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Total Hours: 18

Specialized Areas of Emphasis (Tracks)

Upon successful completion of the core curriculum, students should select a specialized area of emphasis or track. Students may select either the pharmaceutical biotechnology track or the physical/analytical pharmaceutical chemistry track. The student must take the two courses for each track listed below. With the consent of his or her advisor and the department graduate studies advisor, a student with a cross-disciplinary research project may be able to replace a required course from a track with a suitable alternative course.

### Pharmaceutical Biotechnology Track

#### Required Courses

- PHCH 870 Advanced Pharmaceutical Biotechnology (offered every other spring semester, even-numbered years)
- PHCH 725 Molecular Cell Biology (offered every other fall semester, even-numbered years)

### Physical/Analytical Pharmaceutical Chemistry Track

#### Required Courses

- PHCH 850 Solid State Stability and Formulation (offered every other spring, even-numbered years)
- PHCH 864 Pharmaceutical Analysis (offered every other fall semester, odd-numbered years)

### Electives and Foreign Language or Other Research Skills Requirement

Graduate students must take one elective course in addition to the previously listed courses. This may be from the courses offered by the Department of Pharmaceutical Chemistry (see below) or from any other department on campus with prior approval from the student’s research advisor.

Examples of additional courses offered by this department are

- PHCH 866 Pharmaceutical Mass Transport (offered every other spring semester, even-numbered years)
- PHCH 977 Advanced Topics in Biopharmaceutics and Pharmacokinetics II (offered every other fall semester, even-numbered years)

To complete the didactic component, the student must complete the FLORS (foreign language or other research skill) requirement. This may be met by successfully completing an acceptable skills development course. Courses that have been accepted to fulfill the FLORS requirement are as follows (other courses may be permissible upon approval of the pharmaceutical chemistry FLORS committee):

- BIOL 672 Gene Expression
- BIOL 688 The Molecular Biology of Cancer
- BIOL 702 and Radioisotopes and Radiation Safety in Laboratory Practice: Radiation Safety Procedures Research (must be taken together)
- BIOL 704 Research Animal Methods
- BIOL 718 Laboratory in Molecular Biology
- BIOL 756 Cell and Tissue Culture Laboratory
- BIOL 841 Biometry I
- BIOL 918 Modern Biochemical and Biophysical Methods
- MDCM 860 Drug Metabolism
- C&PE 121 Introduction to Computers in Engineering
- PHCH 725 Molecular Cell Biology

Note: Responsible scholarship requirements were approved after this catalog was finalized. Contact your department or program for more information about this requirement for doctoral students.

### Seminar Requirements

All graduate students must attend the weekly departmental seminar. Seminars consist of presentations by guest speakers, faculty members, and students. Typically, graduate students are required to present at least two departmental seminars during their time in the program. The seminar may be based on progress in their research or on a literature review of work related to their research.

### Dissertation

Each Ph.D. candidate must submit and defend a dissertation resulting from research of sufficient originality and quality for publication in peer-reviewed scientific journals. The research is conducted under the supervision and guidance of the student’s advisor, with input from the dissertation committee as needed. The median time for students to complete the Ph.D. degree is 5.3 years.

### Department of Pharmacology and Toxicology

#### Pharmacology and Toxicology Graduate Programs

The Department of Pharmacology and Toxicology has research strengths in neuropharmacology — especially in neurodegeneration, psychiatric disorders, and addiction — and control of energy metabolism and effects of diabetes on the nervous system. The research program is founded on strong Ph.D. and M.S. graduate programs.

Doctoral students are prepared to teach and do research in a university, pharmaceutical, biotechnology, or government laboratory setting.
New Ph.D. students can look forward to personal development in an atmosphere that fosters strong collaborative activities as well as independent scholarship. The department recruits 4 to 5 Ph.D. students each year and offers stipends and tuition coverage.

The major aim of the MS degree program is to provide qualified graduates to institutions in academia, industry, and government. The Master of Science in Pharmacology and Toxicology program emphasizes student’s research skills in molecular and neuro-pharmacology and toxicology. In addition to the didactic component of our training, we view hands-on training in laboratory research critical to the master’s thesis experience.

The department’s research programs and faculty place it at the leading edge of research in the pharmacological and toxicological neurosciences. The School of Pharmacy is ranked third in the nation for the NIH funding.

Facilities
Research facilities offer a range of modern instrumentation and many research support services. Major instruments include tissue culture rooms, ultracentrifuges, scintillation counters, high-pressure liquid chromatography systems, a patch-clamp electrophysiology system with Nikon fluorescent microscope, microprocessor-controlled spectrophotometers and fluorometers including a dual excitation wavelength instrument for intracellular measurements and a time-resolved luminescence and fluorescence microplate reader with dual dispensing capabilities, a Seahorse Extracellular Flux Analyzer for measuring cell metabolism and major energy-producing pathways of the cell, a dark room with a film processor, and real-time PCR equipment.

University research support facilities also contribute to the high quality of research and training for graduate students. These facilities are fully staffed by professionals and include the Electron Microscopy Lab with transmission and scanning scopes; the Biochemical Research Services Lab for Illumina RNAseq, protein and DNA sequencing, amino acid analysis, and oligonucleotide and peptide syntheses; a High Throughput Laboratory for screening compounds as potential tools and drug development, and the Molecular Graphics and Modeling Lab with VAX computers, extensive databases for protein structures, and multiple molecular modeling programs an NMR facility; an X-ray Crystallography Laboratory; a Mass Spectrometry Laboratory; and an Instrumentation Design Laboratory. All labs have current computer technology, including hardware and extensive software for imaging, data analysis, data reduction, protein and gene analysis, and statistical tests.

Courses
P&TX 599. Clinical Application of Basic Science. 1 Hour.
This course is an inter-departmental, team-based, technology-centric elective course. Concomitantly, instructors from the basic and clinical science departments within the school of pharmacy will promote deeper understanding of the path a drug takes from discovery, development and ultimately clinical use. Instructors will collaborate in course content development to integrate basic and clinical science concepts. The course will utilize a blended learning method, incorporating out of class podcasts, online group collaborative projects, and readiness quizzes and exams. (Same as MDCM 599 and PHCH 599.) Prerequisite: 4th or 5th professional year standing (4P/5P) in the school of pharmacy and concomitant enrollment in PHPR 599 is required. LEC.

P&TX 630. Pharmacology I. 4 Hours.
The pharmacology series covers the mechanisms by which drugs interact with living organisms. An integrative emphasis will be placed on understanding the molecular basis of drug action with respect to modifying the pathophysiology of specific disease states. Topics in PTX 630 include, general principles of cell biology, molecular biology, pharmacogenomics, immunology and principles of drug metabolism and disposition. Prerequisite: BIOL 646 or equivalent. LEC.

P&TX 631. Pharmacology II. 4 Hours.
The pharmacology series covers the mechanisms by which drugs interact with living organisms. An integrative emphasis will be placed on understanding the molecular basis of drug action with respect to modifying the pathophysiology of specific disease states. Topics in PTX 631 include, hematology, cancer biology and therapeutics, immunopharmacology, infectious diseases and respiratory disease. Prerequisite: PTX 630 and BIOL 400 or equivalent. LEC.

P&TX 632. Pharmacology III. 4 Hours.
The pharmacology series covers the mechanisms by which drugs interact with living organisms. An integrative emphasis will be placed on understanding the molecular basis of drug action with respect to modifying the pathophysiology of specific disease states. Topics in PTX 632 include, cardiovascular diseases, diuretics, autonomic pharmacology and drugs regulating central nervous system function. Prerequisite: PTX 630 and PTX 631. LEC.

P&TX 633. Pharmacology IV. 3 Hours.
The pharmacology series covers the mechanisms by which drugs interact with living organisms. An integrative emphasis will be placed on understanding the molecular basis of drug action with respect to modifying the pathophysiology of specific disease states. Topics in PTX 633 include endocrine disorders, diabetes and obesity, and gastrointestinal pharmacology. Prerequisite: PTX 630, PTX 631 and PTX 632. LEC.

P&TX 640. Toxicology. 2 Hours.
General principles of toxicology, treatment, and management of accidental poisoning, and current topics of interest. Prerequisite: PTX 630, PTX 631, and PTX 632. LEC.

P&TX 641. Antibiotics: Benefits and Risks. 1 Hour.
Students will read about and discuss the latest research on new antibiotic targets, therapeutic potential, disease prevention, and the emergence of antibiotic resistance. LEC.

P&TX 642. Obesity, Diabetes, and Metabolic Syndrome: Current Concepts. 1 Hour.
The objective of this course is to provide students with an opportunity to read, examine, and report on a broad array of topics relevant to diabetes and obesity. Students will be given broad latitude to propose topics of interest to them within the area of diabetes and obesity. The format of the course will be group presentations. Groups of 3 students will identify a
topic of interest to them in the field of diabetes and obesity, prepare a 30 min presentation and deliver it to the class for discussion. Prerequisite: PTX 630. LEC.

P&TX 643. Current Concepts of Neurodegenerative Disease. 1 Hour. Neurodegenerative diseases, such as Alzheimer’s and Parkinson’s diseases, are associated with older age and/or enhanced oxidative stress. The possible causes for the development and progression of these diseases with relation to current research in the field will be discussed. Additionally, a summary of available and suggested future treatments will be given. Prerequisite: PTX 630. LEC.

P&TX 644. Adverse Drug Events. 1 Hour. The objective of this course is to alerts students to common and preventable adverse drug events. This course will provide students with an opportunity to read, examine, and report on a broad array of topics relevant to adverse drug events. Students will be given broad latitude to propose topics of interest to them within the area of adverse drug events. In addition students can report on common and preventable food-drug, herb-drug, and disease-drug interactions. The format of the course will be group presentations. Groups of 3 students will identify a topic of interest to them among a list of provided topics, prepare a 30 minute presentation and deliver it to the class for discussion. Prerequisite: 3rd, 4th, or 5th professional year standing in the School of Pharmacy. LEC.

P&TX 645. Neurobiological Basis of Addiction: Physiological, Biochemical, Pharmacological & Treatment Concepts. 1 Hour. Several addictions will be discussed including addictions to alcohol, cocaine, methamphetamine, gambling, and others as time permits. The physiology, biochemistry, pharmacology and available treatments for these addictions will be reviewed. The role of pharmacotherapies will be discussed, particularly as they relate to the molecular basis of addiction. Behavioral and psychological approaches also will be examined. Prerequisite: Completion of PTX 632 or special permission from faculty. LEC.

P&TX 694. Undergraduate Laboratory: Research in Pharmacology and Toxicology. 1-5 Hours. Original research on a laboratory problem of limited scope. This course cannot count toward pharmacology and toxicology requirements in the School of Pharmacy. Prerequisite: Consent of instructor. IND.

P&TX 698. Library Problems in Pharmacology and Toxicology. 1-5 Hours. Original library review of a limited special topic in pharmacology and toxicology. The student will write a review in his or her report. This course may count toward pharmacology and toxicology requirements in the School of Pharmacy. Prerequisite: PTX 635 and consent of instructor. IND.

P&TX 700. Professional Issues in the Biomedical Sciences. 2 Hours. A course designed to assist doctoral students in the biomedical sciences in their professional development by providing presentations, discussions, and practical experiences related to career planning. Topics include diverse career opportunities and expectations of each, preparation of vita/resumes and other elements of a successful job search, writing scientific papers and dealing with editors, developing programmatic research programs, balancing professional obligations, advancing through promotions, and related topics. Prerequisite: Graduate standing in pharmacology and toxicology. LEC.

P&TX 730. Advanced Pharmacology I - CNS and ANS. 2 Hours. A detailed study of the fundamentals of autonomic nervous system, central nervous system, and their pharmacology. The student will attend PTX 632 lectures and meet separately with the faculty for additional discussions of advanced material on the topics. The students will be examined on the advanced material. Prerequisite: Graduate standing in Pharmacology and Toxicology Program. LEC.

P&TX 731. Advanced Pharmacology II - Cardiovascular and Renal System. 2 Hours. A detailed study of the fundamentals of cardiovascular system, renal system and their pharmacology. The student will attend PTX 632 lectures and meet separately with the faculty for additional discussions of advanced material on the topics. The students will be examined on the advanced material. Prerequisite: Graduate standing in Pharmacology and Toxicology Program. LEC.

P&TX 732. Advanced Pharmacology III - Cancer Biology and Inflammatory Diseases. 2 Hours. A detailed study of the fundamentals of inflammation, cancer biology and their pharmacology. The student will attend PTX 632 lectures and meet separately with the faculty for additional discussions of advanced material on the topics. The students will be examined on the advanced material. Prerequisite: Graduate standing in Pharmacology and Toxicology Program. LEC.

P&TX 733. Advanced Pharmacology IV - Endocrinology. 2 Hours. A detailed study of the fundamentals of endocrinology and associated pharmacology. The student will attend PTX 632 lectures and meet separately with the faculty for additional discussions of advanced material on the topics. The students will be examined on the advanced material. Prerequisite: Graduate standing in Pharmacology and Toxicology Program. LEC.

P&TX 740. Advanced Biotechnology. 3 Hours. An examination of basic principles of molecular biology, immunology, and protein chemistry as they apply to the identification, production, stability, delivery, and monitoring of new therapeutic agents provided by the expanding biotechnology industry. Students will attend lectures in PTX 633 and meet separately with faculty for additional discussions of more advanced material on these topics. The students will be examined on the advanced material. Prerequisite: Graduate standing in Pharmacology and Toxicology Program. LEC.

P&TX 741. Biomedical Statistics. 3 Hours. This course is primarily intended for students concerned with the analysis of experimental and observational data, with an emphasis on biomedical and pharmaceutical applications. The topics covered by the course include the design of experimental studies, data collection, probability theory, descriptive statistics, probability distribution, hypothesis testing, T-test, analyses of variance for factorial designs, linear and multiple regression, analysis of covariance and non-parametric methods. Prerequisite: PTX graduate student status in good academic standing. LEC.

P&TX 742. Experimental Pharmacology. 4 Hours. Experimental approaches to understanding mechanism of drug action. Use of drugs as tools to understand functioning of biological systems will also be stressed. Historically important experiments will be discussed along with experiments which are currently used to define drug mechanisms. Topics will include: dose-response, drug receptors, drug metabolism, chemotherapy as well as autonomic CNS, cardiovascular and renal pharmacology. Prerequisite: Graduate standing in Pharmacology and Toxicology Program. LEC.

P&TX 747. Molecular Toxicology. 4 Hours. A detailed study of the fundamentals of the experimental methods used in a modern toxicology laboratory. The student will attend PTX 640 lectures and meet separately with the faculty for additional discussions of advanced material on the topics. The students will be examined on the
advanced material. Prerequisite: Graduate standing in Pharmacology and Toxicology Program. LEC.

P&TX 775. Chemistry of the Nervous System. 3 Hours.
A detailed study of the molecular aspects of nerve transmission will be covered with special emphasis on the uptake, storage, release, biosynthesis, and metabolism of specific neurotransmitters. Drugs affecting these processes and current research on receptor isolation and receptor mechanisms will be discussed from a chemical viewpoint. (Same as BIOL 775, CHEM 775, MDCM 775, NURO 775, and PHCH 775.) Prerequisite: BIOL 600 or equivalent. LEC.

P&TX 799. Pharmacology and Toxicology Seminar. 1-2 Hours.
A review of current literature and research in pharmacology and toxicology. Required of all graduate students in the department every fall and spring semester. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Graduate standing in PTX. LEC.

P&TX 800. Pharmacology and Toxicology Teaching Principles. 2 Hours.
This course is to be used by graduate students fulfilling the teaching requirements for the Ph.D. in pharmacology and toxicology. The student will function as a discussion leader and lecturer in a limited number of class sessions. Each student will meet with the faculty whom he or she is assisting. Prerequisite: Graduate standing in pharmacology and toxicology program. RSH.

P&TX 801. Issues in Scientific Integrity. 1-3 Hours.
Lectures and discussion on ethical issues in the conduct of a scientific career, with emphasis on practical topics of special importance in molecular-level research in the chemical, biological, and pharmaceutical sciences. Topics will include the nature of ethics, the scientist in the laboratory, the scientist as author, grantee, reviewer, employer/employee, teacher, student, and citizen. Discussions will focus on case histories. Graded on a satisfactory/unsatisfactory basis. (Same as MDCM 801, NURO 801, PHCH 801 and PHCH 802.) LEC.

P&TX 803. Pharmacology Literature Review I. 1 Hour.
This course is designed for graduate students and will fulfill the first written examination requirement for the Ph.D. in pharmacology and Toxicology. The student will research and write a six-page literature review by choosing a topic provided by the faculty. Prerequisite: Graduate standing in Pharmacology and Toxicology Program. LEC.

P&TX 804. Interdisciplinary Seminar on Ethics in Science and Engineering. 1-3 Hours.
The course will cover basic techniques of moral reasoning, especially as applied to ethical issues in the physical sciences and engineering. Topics covered will include the ethical conduct of research, the federal and professional guidelines for different kinds of research, and the ethical dimensions of publication and professional life. Emphasis will be on practical applications, cases and student involvement. (Same as GS 804, MDCM 804, NURO 804, and PHCH 804.) Prerequisite: Must be admitted to the program or division of Pharmacy to enroll in this class. LEC.

P&TX 805. Pharmacology Literature Review II. 1 Hour.
This course is designed for graduate students and will fulfill the second written examination requirement for the Ph.D. in pharmacology and Toxicology. The student will research and write a twelve-page literature review by choosing a topic provided by the faculty. Prerequisite: Graduate standing in Pharmacology and Toxicology Program. LEC.

P&TX 825. Research in Pharmacology and Toxicology. 1-10 Hours.
Original investigations at an advanced level in the areas of pharmacology or toxicology or related fields. This research will be performed by graduate students in collaboration with a faculty member. Prerequisite: Graduate standing and consent of instructor. RSH.

P&TX 899. Master’s Thesis. 1-11 Hours.
Hours and credit to be arranged. Independent investigation of a research problem of limited scope. Prerequisite: Graduate standing in PTX and consent of instructor. THE.

P&TX 990. Postdoctoral Research. 1-11 Hours.
Advanced level research in collaboration with a faculty member in the department. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Doctoral degree or equivalent in an appropriate related area, and consent of instructor. RSH.

P&TX 999. Doctoral Dissertation. 1-11 Hours.
Hours and credit to be arranged. Original investigation in pharmacology and toxicology. Prerequisite: Consent of instructor. THE.

Master of Science in Pharmacology and Toxicology

Pharmacology and Toxicology Graduate Programs

The Department of Pharmacology and Toxicology has research strengths in neuropharmacology — especially in neurodegeneration, mood disorders, and addiction — and control of energy metabolism and effects of diabetes on the nervous system. The research program is founded on a strong graduate program. The major aim of this Master of Science (MS) degree program is to provide qualified graduates to institutions in academia, industry, and government. The Master of Science in Pharmacology and Toxicology program emphasizes student’s research skills in molecular and neuro-pharmacology and toxicology. In addition to the didactic component of our training, we view hands-on training in laboratory research critical to the master’s thesis experience. The department’s research programs and faculty place it at the leading edge of research in the pharmacological and toxicological neurosciences. The School of Pharmacy is ranked third in the nation for the NIH funding.

Graduate Admission

Admission is based on the student’s undergraduate record in a relevant field, Graduate Record Examination scores, and 3 letters of recommendation. A minimum grade-point average of 3.0 on a 4.0 scale is required. Applications from non-English-speaking countries must include a copy of the Test of English as a Foreign Language score. Acceptance depends on the availability of space and faculty commitment.

Students are expected to have bachelor’s degrees in pharmacy, chemistry, biology, pharmacology, toxicology, or other physical science related disciplines. Submit your graduate application online (http://www.graduate.ku.edu). Send transcripts of all completed college and university course work and all other requested application materials to the department:

The University of Kansas
Department of Pharmacology and Toxicology
Malott Hall
1251 Wescoe Hall Drive, Room 5064
Lawrence, KS 66045-7572

M.S. Degree Requirements

Course Work

Graduate Requirements

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Students must earn 18 credit hours in the following courses or their equivalents:

- **P&TX 730** Advanced Pharmacology I - CNS and ANS 2
- **P&TX 731** Advanced Pharmacology II - Cardiovascular and Renal System 2
- **P&TX 732** Advanced Pharmacology III - Cancer Biology and Inflammatory Diseases 2
- **P&TX 733** Advanced Pharmacology IV - Endocrinology 2
- **P&TX 741** Biomedical Statistics (3 credits)
- **P&TX 742** Experimental Pharmacology 4
- **P&TX 747** Molecular Toxicology 4
- **P&TX 799** Pharmacology and Toxicology Seminar 3
- **P&TX 825** Research in Pharmacology and Toxicology (Combination of P&TX 825 and P&TX 899 must equal 12 hours) 3-9
- **P&TX 899** Master’s Thesis (Combination of P&TX 825 and P&TX 899 must equal 12 hours) 3-9

**Research Skills Requirement**

Each MS degree student is required to take credit hours of Research in Pharmacology and Toxicology (P&TX 825) and Masters Thesis (P&TX 899). Enrollment in either course must continue until a total of 12 credit hours are earned, such that when taken together with didactic coursework, research, and thesis, totals 30 hours of graduate coursework.

Students need to maintain continuous enrollment in the program until completion. It is expected that students usually will complete the requirements and graduate in two years.

Each MS degree student is required to submit and defend a thesis resulting from research of sufficient originality and quality for publication in peer reviewed scientific journals. The research is conducted under the supervision and guidance of the student's advisor, with input from the thesis committee as needed.

Top graduates, if interested, may transfer into a Ph.D. program in Pharmacology and Toxicology offered in the department.

**Doctor of Philosophy in Pharmacology and Toxicology**

**Pharmacology and Toxicology Graduate Programs**

The Department of Pharmacology and Toxicology has research strengths in neuropharmacology — especially in neurodegeneration, mood disorders, and addiction — and control of energy metabolism and effects of diabetes on the nervous system. The research program is founded on a strong Ph.D. graduate program. Doctoral students are prepared to teach and do research in a university, pharmaceutical, biotechnology, or government laboratory setting.

New Ph.D. students can look forward to personal development in an atmosphere that fosters strong collaborative activities as well as independent scholarship. The department recruits about 4 Ph.D. students each year and offers stipends and tuition coverage. The department’s research programs and faculty place it at the leading edge of research in the pharmacological and toxicological neurosciences. The School of Pharmacy is ranked third in the nation for the NIH funding.

**Graduate Admission**

Admission is based on the student’s undergraduate record in a relevant field. Graduate Record Examination scores, and 3 letters of recommendation. A minimum grade-point average of 3.0 on a 4.0 scale is required. Applications from non-English-speaking countries must include a copy of the Test of English as a Foreign Language score. Acceptance depends on the availability of space and faculty commitment.

Students are expected to have bachelor’s degrees in pharmacy, chemistry, biology, pharmacology, toxicology, or other physical science related disciplines. Submit your graduate application online (http://www.graduate.ku.edu). Send transcripts of all completed college and university course work and all other requested application materials to the department:

**The University of Kansas**

Department of Pharmacology and Toxicology

Malott Hall

1251 Wescoe Hall Drive, Room 5064

Lawrence, KS 66045-7572

**Ph.D. Degree Requirements**

**Course Work**

Incoming students should have completed 4 semesters of Chemistry and 4 semesters of Biology, including a course in Cell Biology and one in Biochemistry. Prerequisites can be completed during the first year. The core courses in Pharmacology and Toxicology that all students are required to take are listed below. Prerequisite for all courses is graduate standing in the Pharmacology and Toxicology Program.

- **P&TX 700** Professional Issues in the Biomedical Sciences 2
- **P&TX 730** Advanced Pharmacology I - CNS and ANS 2
- **P&TX 731** Advanced Pharmacology II - Cardiovascular and Renal System 2
- **P&TX 732** Advanced Pharmacology III - Cancer Biology and Inflammatory Diseases 2
- **P&TX 733** Advanced Pharmacology IV - Endocrinology 2
- **P&TX 740** Advanced Biotechnology 3
- **P&TX 742** Experimental Pharmacology 4
- **P&TX 747** Molecular Toxicology 4
- **P&TX 799** Pharmacology and Toxicology Seminar 1-2
- **P&TX 800** Pharmacology and Toxicology Teaching Principles 2
- **P&TX 801** Issues in Scientific Integrity 1
- **P&TX 803** Pharmacology Literature Review I 1
- **P&TX 805** Pharmacology Literature Review II 1
- **BIOL 841** Biometry I 5
- **P&TX 775** Chemistry of the Nervous System ( Elective option that a student may decide to take depending on their interests and the advice of their mentor) 3
- **P&TX 825** Research in Pharmacology and Toxicology (Can be repeated during the graduate program based on the advice of each student’s mentor) 3-9
Research Advisory Committee members for Ph. D degree aspirants should be identified by the end of the second year in the program. The committee is composed of at least three members, and the research director serves as chairman. The final Dissertation Defense Committee should consist of the original Advisory Committee (3 members) plus two (2) other members of the Graduate Faculty. At least one member of the final Dissertation Committee must be from outside the Department.

Comprehensive Exam Requirements for Ph. D. Students

The comprehensive examination is composed of 3 parts:

1. Written Comprehensive Examination: Each student must complete two written examinations to complete P&TX 803 and P&TX 805.

2. Preparation of an NIH-style research proposal: After successful completion of the second written comprehensive exam, the student should begin working on their NIH grant proposal. These serve as the basis for the Oral Comprehensive Exam.

3. Oral Comprehensive Examination: After approval of the research proposal by the student’s advisory committee, each student, in consultation with the advisor, takes an oral examination covering the student’s major field.

Dissertation Research

The student, with the advisor’s assistance, develops a dissertation project. After the oral comprehensive examination, the student presents the dissertation research proposal to the advisory committee and receives periodic advice from this committee throughout the project. Upon acceptance of the dissertation by the advisory committee, the candidate must pass a final oral examination, including a defense of the dissertation before the dissertation committee and any other interested members of the Graduate Faculty.

Department of Pharmacy Practice - Lawrence

2010 Becker Drive, Room 2001
Lawrence, KS 66047-1620
785-864-4881
http://pharmpractice.ku.edu/

David Henry, Chair and Graduate Advisor
785-864-4881

Department of Pharmacy Practice - KUMC

KU Medical Center, 6330 Wescoe
Mail Stop 4040, 3910 Rainbow Blvd.
Kansas City, KS 66160
913-588-5360
http://pharmpractice.ku.edu/

David Henry, Chair and Graduate Advisor
913-588-5360

Courses

PHPR 502. Pharmacy Practice II Pharmaceutical Care Fundamentals. 4 Hours.
Drug interactions will be presented with an emphasis on evaluating the risk of the interaction in a particular patient. Patient counseling and communication techniques will be covered. Approximately half the class time will be spent covering non-prescription drugs and herbs. Prerequisite: PHAR 500. LEC.

PHPR 508. Oncology Elective. 1 Hour.
This course is designed to extend the students’ understanding of Oncology diseases and treatments beyond what is covered in the Pharmacotherapy series in the School of Pharmacy. Prerequisite: PHPR 646. LEC.

PHPR 510. Medical Terminology Elective. 1 Hour.
This course provides the fundamentals for developing a medical vocabulary. The student will develop the ability to understand, define and utilize medical terminology and abbreviations used in patient care. LEC.

PHPR 511. Service-Learning Elective. 1 Hour.
Students will work at a health-related community center and participate in structured learning exercises. The objectives are to: 1) enable students to learn appropriate strategies to communicate and provide services to people with varying languages, cultures, social, and economic backgrounds, disabilities, illnesses, or impairments, 2) increase social interaction and citizenship, 3) heighten social awareness and understanding of ethical issues, and 4) acknowledge social responsibility and realize personal values. FLD.

PHPR 512. Nuclear Pharmacy. 1 Hour.
This course is designed for students interested in learning about nuclear pharmacy practice as a specialty practice in pharmacy. Students will learn about the application of radiopharmaceuticals used in the diagnosis of various diseases or identifying patient therapeutic issues. The course will cover principles of radiation, radiation safety, preparation of and handling of radiopharmaceuticals, their appropriate use, and the training requirements for a nuclear pharmacist. At the conclusion of the course the student will have an insight into this specialty practice in nuclear pharmacy as a potential career. Prerequisite: Students must be admitted to the School of Pharmacy. LEC.
PHPR 513. Chemical Dependency Elective. 1 Hour.
This elective course will enhance the pharmacy student’s knowledge and understanding of the current theories behind the addiction process, frequently abused drugs and/or chemicals and the treatment and recovery process. Prerequisite: Must be accepted to the Pharmacy Program. LEC.

PHPR 514. Communication and Counseling. 1 Hour.
An elective course designed to help students improve professional communication skills. Prerequisite: PHAR 500. LEC.

PHPR 516. Pharmacy in Public Health. 1 Hour.
Public health is more than providing treatment for an illness; it is a concern for the health of an entire population. The ideal is to ensure the health of all. This course will focus on providing students with a solid foundational understanding of what public health is and how pharmacists play a role as a public health provider. The course will cover the concepts and tools used in public health including issues such as: determining health, cultural competence, health promotion, disease prevention, epidemiology and disease, describing populations and community health. Lastly, the course will provide students with specific pharmacist models of public health. Successful models include tobacco cessation programs, community vaccination programs, obesity prevention, tuberculosis monitoring, emergency preparedness and domestic violence. Prerequisite: Must be accepted to the Pharmacy Program. LEC.

PHPR 517. Medication Safety and Error Prevention. 1 Hour.
This course introduces the student to medication safety and the technology as well as the tools used in error prevention. The student will also learn about adverse drug events including both medication errors and adverse drug reactions in hospital and retail pharmacy settings. Prerequisite: 4th or 5th professional year standing in the School of Pharmacy. LEC.

PHPR 518. Cultural Competency in Pharmacy Practice. 1 Hour.
The United States becomes more culturally diverse every year. This course is designed to help student pharmacists excel in today’s multicultural environment by improving their cultural competency skills. Students will explore their own culture and those belonging to other diverse cultures. Students are expected to learn of the beliefs, needs and tendencies of those with cultures much different than themselves. Prerequisite: Must be admitted to the School of Pharmacy. LEC.

PHPR 519. Business Planning for Pharmacy. 1 Hour.
This course is designed for students interested in developing a business plan. Most pharmacists will have an opportunity to develop a new service, product line or even start a new business venture in their careers. Students need to know how to create a formal business plan and how to present the plan to decision makers. The course will cover the basic components and rationale of creating a formal business plan. When finished students will be expected to have created a written business plan and will present their creation to the class. In this manner, students will gain experience in developing an idea into a plan. Prerequisite: Students must be admitted to the school of Pharmacy. LEC.

PHPR 599. Clinical Application of Basic Science. 1 Hour.
This course is an inter-departmental, team-based, technology-centric elective course. Concomitantly, instructors from the basic and clinical science departments within the school of pharmacy will promote deeper student understanding of the path a drug takes from discovery, development and ultimately clinical use. Instructors will collaborate in course content development to integrate basic and clinical science concepts. The course will utilize a blended learning method, incorporating out of class podcasts, online group collaborative projects, and readiness quizzes and exams. Prerequisite: 4th or 5th professional year standing (4P/5P) in the school of pharmacy and concomitant enrollment in either PTX 599, MDCM 599, or PHCH 599 is required. LEC.

PHPR 601. Advanced Pharmacy Practice Experience 1. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

PHPR 602. Advanced Pharmacy Practice Experience 2. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

PHPR 603. Advanced Pharmacy Practice Experience 3. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

PHPR 604. Advanced Pharmacy Practice Experience 4. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

PHPR 605. Advanced Pharmacy Practice Experience 5. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may
include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

PHPR 606. Advanced Pharmacy Practice Experience 6. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

PHPR 607. Advanced Pharmacy Practice Experience 7. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

PHPR 608. Advanced Pharmacy Practice Experience 8. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

PHPR 609. Advanced Pharmacy Practice Experience 9. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.
application of statistical tests commonly used and the interpretation of their results. Prerequisite: Fifth year standing. LEC.

PHPR 635. Problems in Pharmacy Practice. 1-5 Hours.
A course designed for the study of special topics in pharmacy practice. A research paper will be required. Prerequisite: Consent of instructor. IND.

PHPR 646. Pharmacotherapy I. 4 Hours.
A course dealing with the clinical applications of drug knowledge to patient care. Disease and drug knowledge will be applied to the design and monitoring of therapeutic treatment plans for patients. Incorporates three credit hours of lecture and one credit hour of case studies and off-campus professional experience. Prerequisite: Successful completion of Pharmacy Practice II (PHAR 502). LEC.

PHPR 647. Pharmacotherapy II. 4 Hours.
A course dealing with the clinical applications of drug knowledge to patient care. Disease and drug knowledge will be applied to the design and monitoring of therapeutic treatment plans for patients. Incorporates three credit hours of lecture and one credit hour of case studies and off-campus professional experience. This course is graded A,B,C,F. Prerequisite: Fifth year standing and successful completion of Pharmacotherapy I, PHPR 646. LEC.

PHPR 648. Pharmacotherapy III. 4 Hours.
A course dealing with the clinical applications of drug knowledge to patient care. Disease and drug knowledge will be applied to the design and monitoring of therapeutic treatment plans for patients. Incorporates three credit hours of lecture and one credit hour of case studies and off-campus professional experience. This course is graded A,B,C,F. Prerequisite: Fifth year standing and successful completion of Pharmacotherapy II, PHPR 647 with a C or above. LEC.

PHPR 670. Clinical Assessment. 1 Hour.
This laboratory course will allow students to develop clinical assessment skills necessary in the provision of pharmaceutical care to patients with a variety of disease states. Students will combine physical assessment skills, patient counseling skills, and pharmacotherapy knowledge and apply this information to patient care related activities in various clinical settings. Students will apply their skills using various practice models that include medication therapy management, collaborative drug therapy management, and interprofessional healthcare teams. The lab component will require students to meet for one hour between 1:00 to 5:00 PM on either Monday, Tuesday, or Wednesdays. Prerequisite: Students must be admitted to the School of Pharmacy to enroll in this class. A detailed schedule of lab meeting dates and times will be provided in the syllabus. LAB.

PHPR 845. Professional Communications. 2 Hours.
A course designed to give the graduate student a practical experience in areas of professional communications such as administrative proposals, grants, letters, memos, poster presentations, and written papers. The course focuses on the different kinds of communications required to relate to other health care professionals. Prerequisite: Consent of instructor. LEC.

PHPR 850. Introduction to Pharmacoepidemiology. 3 Hours.
Pharmacoepidemiology is the application of the principles of epidemiology to the study of medications and their effects on health. Evaluating a drug’s effects commences when a chemical entity becomes a drug candidate, intensifies through clinical trials, and continues after products reach the market. These studies are critical for supporting the proper use of medications in terms of efficacy, effectiveness, and cost-effectiveness. This course provides a broad introduction to the principles of pharmacoepidemiology with a focus on applications in the medical literature. LEC.

PHPR 855. Economic Evaluation of Health Care Programs and Services. 3 Hours.
The course will provide students with an overview and appraisal of the “state-of-the-art” in the evaluation of health care programs and services (with a special emphasis on pharmaceutical programs, services, and products). The purpose of the course is to provide the student with the tools to conduct economic rather than general evaluation of health care programs and services. There will be some discussion of theoretical concepts, but the major emphasis will be on practical methodological issues in economic evaluation of pharmaceutical programs. The course integrates the perspectives of pharmaceutical and health care technology assessment, managed care, outcomes research, and public health. The main topics covered in the course include: cost, cost-minimization, cost-effectiveness, cost-utility, and cost-benefit analyses. LEC.

PHPR 860. Seminar in Pharmacy Practice. 1 Hour.
Research reports, reviews, and/or presentations on the current status of various aspects of pharmacy practice. Prerequisite: Consent of instructor. LEC.

PHPR 865. Advanced Institutional Pharmacy Services. 3 Hours.
A course dealing with the planning, justification, implementation, management, and coordination of a progressive, comprehensive institutional pharmacy service. Seminar presentations and case studies are used to analyze recent advances and to apply data from the research literature. Prerequisite: Consent of instructor. LEC.

PHPR 875. Health Care Delivery Systems. 3 Hours.
A continuation of PHPR 865 dealing with the current status of health care delivery systems and the impact of changes in this area on pharmacy practice. Prerequisite: PHPR 865 and consent of instructor. LEC.

PHPR 885. Human Resource Management in Institutional Pharmacy Practice. 3 Hours.
A course dealing with recruitment, training, motivation, monitoring of performance, and disciplining of personnel. Seminars, case studies, and role playing are used to apply the information to specific human resource management situations in institutional pharmacy practice. Prerequisite: PHPR 865 and consent of instructor. LEC.

PHPR 889. Research in Pharmacy Practice. 1-6 Hours.
Original investigation in the area of pharmacy practice. Prerequisite: Consent of instructor. RSH.

Master of Science in Pharmacy Practice

Pharmacy Practice Graduate Program

The Department of Pharmacy practice furthers the mission of the School of Pharmacy by striving for excellence in teaching, research, scholarly activity, service, and patient care.

The faculty provide professional educational opportunities for undergraduate, graduate, and postgraduate students and practitioners to enable them to practice pharmaceutical care, adapt to changing professional roles, use new technologies, assume leadership roles in a dynamic health-care environment, and contribute new knowledge to the profession.

Graduate Admission

In addition to meeting the general requirements for admission to graduate studies, applicants are considered for admission if they are graduates
of a school of pharmacy accredited by the Accreditation Council for Pharmaceutical Education (ACPE) (https://www.acpe-accredit.org) and are eligible for licensure as registered pharmacists by the Kansas State Board of Pharmacy (http://pharmacy.ks.gov). A Bachelor of Science degree or a Doctor of Pharmacy (Pharm.D.) degree with a major in pharmacy is required.

Submit your graduate application online (http://www.graduate.ku.edu). Send transcripts of all completed college and university course work and all other requested application materials to the department:

The University of Kansas  
Department of Pharmacy Practice  
2010 Becker Drive, Room 2001  
Lawrence, KS 66047-1620

M.S. Degree Requirements

A minimum of 30 credit hours, with a majority of hours in pharmacy, is required for the degree. These courses may be selected from related fields after approval by the department. Examples are health-system pharmacy, clinical pharmacy, nuclear pharmacy, computer science, business administration, health policy and management, and related fields. An approved project, representing 6 to 9 credit hours of original research, is required. It may be in pharmaceutical sciences, clinical pharmacy, pharmacy practice, pharmacotherapy, or health-system pharmacy.

An accredited PGY1/PGY2 residency in Health-Systems Pharmacy Administration in an approved hospital is required of each student. Requirements for the residency program include eligibility for licensure as a pharmacist in Kansas. The student must complete the residency concurrently with the academic portion of the program. Upon satisfactory completion of the residency, the student receives a certificate of residency from the cooperating hospital. The length of the program is 2 years. For students who have previously completed a residency accredited by the American Society of Health-System Pharmacists (http://www.ashp.org), this part of the program may be waived on approval of the department.
Public Affairs Administration (in CLAS)

Bachelor of Arts and Bachelor of General Studies in Public Administration (p. 2035)
Minor in Public Administration (p. 2036)
Master of Public Administration (p. 2036)
Master of Public Administration and Juris Doctor (p. 2038)
Master of Public Administration and Master of Urban Planning (p. 2039)
Doctor of Philosophy in Public Administration (p. 2040)

Why study public affairs and administration?

The School of Public Affairs and Administration develops skilled leaders, innovators and problem solvers who are ready to confront pressing social and economic challenges at the local, state and national levels. Our graduates become public management practitioners who exemplify a deep commitment to ethical and professional public service administration within a wide variety of public and nonprofit sector professions.

The School of Public Affairs and Administration

The School of Public Affairs and Administration is ranked among the top five programs in the nation in public management administration by U.S. News and World Report.

Founded in 1948, and ranked top program in the nation in city management and urban policy since 1998, the M.P.A. program in city management and urban policy prepares students to assume management and leadership roles in local government. The School also provides a career track for working professionals who want to earn their MPA without a career interruption.

The Public Management Center (PMC), also under SPAA, offers educational programs to meet the leadership training needs for public service professionals. The PMC is the only agency in the state of Kansas that can teach the nationally-accredited Kansas Certified Public Manager® program.

Mission

The mission of the School of Public Affairs & Administration of the University of Kansas is to educate exceptional public professionals and generate thought leadership that provides solutions to the most pressing global and community challenges by advancing the public good, democratic values, and ethical public management practices.

Undergraduate Programs

A bachelor’s degree in public administration provides undergraduate students with the knowledge and skills needed for planning, implementing and evaluating public programs. As students learn to think critically and analytically about public policy, they will better understand the dynamics in their own communities and how to be more effective citizens and public officials.

Graduates of the program will be ready to work in settings like local and state government, nonprofit organizations and private sector businesses.

Graduate Programs

The department offers an M.P.A. degree and a Ph.D. degree. The M.P.A. offers two tracks.

• The Intern track M.P.A. is designed for students who have little or no public administration experience and are willing to commit to one year of full-time study and a second year in a full-time internship to prepare themselves for careers in city or county management.
• The Career track M.P.A. is designed for working professionals seeking to strengthen their leadership skills for careers in public service professions or advance in their current profession without a career interruption.
• The Ph.D. degree is designed primarily for students anticipating careers in research and teaching.

Courses

PUAD 177. First Year Seminar: ____. 3 Hours. SF GE11.
A limited-enrollment, seminar course for first-time freshmen, organized around current issues in public administration. May not contribute to major requirements in public administration. First year seminar topics are coordinated and approved through the Office of First Year Experiences. Prerequisite: First-time freshman status. LEC.

PUAD 330. Introduction to Public Administration. 3 Hours. S.
Introduction to administration, public policy and policy makings is the study of government workers, the organizations in which they work, how they are financed, and how government engages citizens to help form and maintain community. In various ways, the class sessions explore the three important issues of public administration: discretion, authority, and accountability. (Same as POLS 330.) Prerequisite: POLS 110. LEC.

PUAD 331. Introduction to Public Administration, Honors. 3 Hours. S.
Introduction to administration, public policy, and policy making, for honors students is the study of government workers, the organizations in which they work, how they are financed, and how government engages citizens to help form and maintain community. In various ways, the class sessions explore the three important issues of public administration: discretion, authority, and accountability. (Same as POLS 331.) Prerequisite: POLS 110. LEC.

PUAD 332. Quantitative Methods for Public Administration. 3 Hours. S.
Focuses on building the quantitative analysis skills of students in public administration. Students learn basic and intermediate statistics, and methods of data analysis and interpretation. Students gain exposure to the uses of data in public organizational settings. Prerequisite: Math 101 or equivalent placement. LEC.

PUAD 333. Hard Choices in Public Administration: ____. 3 Hours. S.
Focuses on some of America’s most vexing public policy challenges and emphasizes the political context of difficult choices. Course examines models of decision-making and the process of policy analysis. Students learn how to apply the tools of policy analysis to make policy judgments. Prerequisite: PUAD 330 or PUAD 331. LEC.

PUAD 431. Bureaucracy, Public Administration, and the Private Sector. 3 Hours. S.
Examines the problems posed by behaviors within and by bureaucracies. Provides students with a set of conceptual tools for understanding the organizational environment in which policy analysts ply their profession.
and the role of a manager within such organizations. Offers strategies for the policy professional seeking to navigate large bureaucracies. Readings and class discussions integrate theoretical analyses of organizations with detailed case studies. Prerequisite: PUAD 330 or PUAD 331. LEC.

**PUAD 432. Conducting the People’s Business Ethically. 3 Hours. AE51 / S.**
Addresses the moral challenges facing leaders in the public and nonprofit sectors. Examines the values and virtues important to sustained ethical leadership, as well as strategies to build strong institutional cultures and support ethical practices in institutions. Considers moral and political theory by focusing on contemporary cases and issues. Students learn how to identify moral issues in public life and public management. There is a special focus on the integration of moral concerns into public discussion in a manner that contributes to good policy and does not polarize issues. This course considers moral and political theory by focusing on contemporary cases and issues. Prerequisite: PUAD 330 or PUAD 331. LEC.

**PUAD 433. Metropolitics and Macroproblems: The American City in Local and Global Context. 3 Hours. S.**
An interdisciplinary study of American cities, focusing on the rapidly changing demographic, physical, political, social, and economic changes. Sunbelt cities, edge cities, the rustbelt cities, planned and unplanned suburban communities, as well as declining center cities and newly revitalized downtowns are considered. The role of immigration and migration in reshaping the urban environment, and the effects of globalization are also examined. Prerequisite: PUAD 330 or PUAD 331. LEC.

**PUAD 435. Generating, Allocating and Managing Public Resources. 3 Hours. U.**
This course is devoted to topics in public budgeting, finance and financial management. These activities play a central role in public management. The intent of this course is to understand the role these activities play in local, state, and federal governments and to see how policy and management are shaped and influenced by budgets, financial reports, and tax policy. Prerequisite: PUAD 330 or PUAD 331. LEC.

**PUAD 436. Managing People in Public Organizations. 3 Hours. U.**
Effective human resources management is one of the key goals of organizations in both the public and private sectors. This course focuses on human resources management in a public sector context with particular emphasis placed upon past, current, and future challenges in the field. The course covers topics such as the recruitment, selection, and compensation of public sector employees, as well as more contemporary issues such as diversity management and public sector personnel reform. Prerequisite: PUAD 330 or PUAD 331. LEC.

**PUAD 494. Topics in Public Administration: _______. 3 Hours. S.**
An introductory study of selected topics in public affairs and administration. Course may be repeated for credit if content varies. Course may be offered in lecture or online format. Prerequisite: PUAD 330 or PUAD 331. LEC.

**PUAD 601. Crime and Punishment. 3 Hours. S.**
Examines the administration of justice and focuses on differential and discriminatory treatment in policing, criminal prosecutions, trials, sentencing, or imprisonment. Also considered are the basis and impact of racial profiling, harassment, arbitrary detention, and abusive treatment of members of racial and ethnic groups, immigrants, and/or other vulnerable groups by law enforcement, and disparate treatment by prosecutors and the courts. Prerequisite: PUAD 330 or PUAD 331. LEC.

**PUAD 602. Diversity in Public Administration. 3 Hours. AE41 / S.**
Analyzes diversity and leadership in public and private institutions along ethnic, racial, and gender lines and the challenges of the facilitation of open dialogue on diversity. Examines the political, historical, social, and economic reasons why Americans of different ethnic, racial, and gender groups hold divergent views about major public policy areas, as well as fundamental views about democratic participation. Prerequisite: PUAD 330 or PUAD 331. LEC.

**PUAD 603. Foundations of the Nonprofit Sector. 3 Hours. H/S.**
This course provides an overview of the U.S. nonprofit sector, its history, scope, diversity and its positioning among and between the private and public sectors of the U.S. economy. The course explores the legal framework under which nonprofit organizations operate and are regulated. Economic, political, social, organizational and giving theories of the sector are reviewed in order to understand the sectors existence, roles and activities with particular attention to philanthropy and voluntarism. Distinct contributions to society as well as contemporary challenges faced by the sector are examined. Prerequisite: PUAD 330, or POLS 110, or MGMT 305, or a PUAD master’s core course, or consent of instructor. Junior status or above is also required. LEC.

**PUAD 604. Resource Development and Management in Nonprofit Organizations. 3 Hours. H.**
This course provides an overview of the broad range of activities relevant to acquisition, management and utilization of resources in nonprofit organizations. The course identifies the primary strategies through which resources are generated with emphases on grantwriting, fundraising, social entrepreneurship, and public/private partnerships. Development of organizational identity and management of public relations is examined in relation to resource and relationship development. Strategies for management of resources to ensure long-term benefit and sustainability are explored. Prerequisite: PUAD 603. LEC.

**PUAD 605. Managing Nonprofit Relationships. 3 Hours. H.**
This course considers the set of relationships that nonprofit leaders must balance within the organization and beyond organizational boundaries. Both internal relationships (with staff, volunteers, and board members) and external relationships (with stakeholders, other organizations, and the community at large) are critical to mission accomplishment. This course provides students with the resources necessary to understand the challenges and opportunities related to building and LEC.

**PUAD 606. Nonprofit Accountability: Public Needs and Public Values. 3 Hours. H.**
This course examines the role of the nonprofit sector in society by posing broad questions about why nonprofit organizations are held accountable, to whom they are accountable, and detailing how organizations can satisfy accountability demands. The course investigates the public role of the nonprofit sector in society, identifies the stakeholders that are integral to an organization’s mission, and describes and critiques the financial and evaluation tools that nonprofits can use to ensure their social viability. Prerequisite: PUAD 603. LEC.

**PUAD 639. Concepts of Civil Society. 3 Hours. U.**
Concepts of community, social capital, and civil capacity building, and their relations to effective community functioning, democratic politics, and administrative expertise. LEC.

**PUAD 641. Public Service Leadership. 3 Hours. U.**
Concepts of leadership in community, political, and administrative settings. These settings include government and all non-business organizations (e.g. certain for-profit organizations). LEC.
PUAD 660. Organizations and Management I. 3 Hours. U.
An exploration of management in the context of public organizations. Management is explored at the individual, group and organizational level including conflict resolution, problem-solving, planning and legal aspects of organizations. Graded on a satisfactory/unsatisfactory basis. Prerequisite: Permission of instructor. LEC.

PUAD 661. Organizations and Management II. 3 Hours. U.
A continuation of PUAD 660. The context for leading public organizations is explored through knowledge management, collaboration, innovation, process improvement and leadership succession. Graded on a satisfactory/unsatisfactory basis. Prerequisite: PUAD 660, and permission of instructor. LEC.

PUAD 691. Internship in Public Service. 1-6 Hours. U.
Designed to provide public administration students an applied learning experience in either a public or nonprofit organization. Open to majors in Public Administration only. Prerequisite: One of the following: PUAD 330, 331, PUAD 332, PUAD 333, and consent of instructor required. FLD.

PUAD 692. Research Experience in Public Administration. 1-6 Hours. U.
Designed for advanced public administration students. Students learn research skills by working one-on-one with a faculty member to assist in his/her program of research. Open to majors in Public Administration only. Students are required to complete a final project or presentation, through advising and consultation with the designated faculty member. Prerequisite: One of the following: PUAD 330, 331, PUAD 332, PUAD 333 and consent of instructor required. LEC.

PUAD 693. Directed Readings. 1-3 Hours. U.
For advanced undergraduate students who wish to study a specific topic of interest that is not covered in the curriculum. Each student must complete a proposal outlining his or her topic request and submit to the Undergraduate Advisor. Intended for students majoring in Public Administration. Prerequisite: One of the following: PUAD 330, 331, PUAD 332, PUAD 333, and consent of instructor required. LEC.

PUAD 694. Topics in Public Administration: ____. 3 Hours. U.
Study of selected topics in public administration. Course may be repeated for credit if content varies. Course may be offered in lecture or online format. Prerequisite: PUAD 330 or PUAD 331. LEC.

PUAD 824. Public Policy and Administration. 3 Hours.
An exploration of the ways in which public policy is made in the United States, focusing on the role of the administrator at each stage of the policy process: formulation, implementation, and evaluation. Various theories of policy-making with application to specific areas of public policy will be examined. LEC.

PUAD 825. Public Policy and Urban Administration. 3 Hours.
An exploration of policy development, implementation, and evaluation in the local government context. Various theories of the policy process and their application to municipal government are examined. (Same as POLS 825.) LEC.

PUAD 826. Public Policy and Administration of State Government. 3 Hours.
An examination of political and administrative aspects of state government focusing on legislative and executive branches of government. LEC.

PUAD 827. Health Care Policy and Administration. 3 Hours.
A seminar designed to explore the development of public health policy in the United States. Particular attention will be given to (1) the development of public institutions and policy goals; (2) current policy problems such as expenditure-cost controls, prospective reimbursement, utilization review, access, and public and private investment planning; and (3) administrative problems in the current health care system. (Same as HPM 837.) LEC.

PUAD 828. Nonprofit Management and Policy. 3 Hours.
This course focuses on the economic, social, and legal foundations of the nonprofit sector. Nonprofits are examined in the context of a three-sector economy, with emphasis on the ways in which nonprofits compensate for market failures and government failures. The course examines government-nonprofit relations in the modern welfare and offers an in-depth examination of the health, education, and welfare functions as performed by nonprofits. This course also provides exposure to selected topics in nonprofit management such as grant writing, board relations, advocacy, fundraising and volunteer management. LEC.

PUAD 830. Administrative Ethics. 3 Hours.
A survey of ethical issues faced by public administrators. Special attention will be given to ethical problems arising within hierarchical organizations and to the ethical implications of particular public policies. LEC.

PUAD 831. Public Administration Practicum. 1 Hour.
Exposes students to day-to-day operational facets of public management through workshops, speakers, exercises. LEC.

PUAD 832. Organizational Theory. 3 Hours.
An introductory theory course designed to develop an understanding about organizations, their environments, and the political subsystems in which they exist. LEC.

PUAD 833. Administrative Behavior. 3 Hours.
An examination of individual and group behavior within organizations, focusing on motivation, leadership, conflict and conflict resolution, group dynamics and communication. LEC.

PUAD 834. Human Resource Management. 3 Hours.
This course presents the context and practice of effective human resource management, with emphasis on the political, legal, historical, and ethical dimensions of public employment. This course considers the functions of workforce management, including: 1) planning of work and the allocation of labor to that work, 2) acquisition of employees and their competencies, knowledge, skills, and abilities, 3) development of employees to channel, improve and create new knowledge, skills, and abilities, and 4) maintaining the working relationship between employee and employer. Students will apply workforce management theories and techniques to contemporary organizational challenges and investigate the tensions inherent to balancing competing values (such as: responsiveness/neutrality and efficiency/equity) and meeting conflicting demands of organizational stakeholders and society. LEC.

PUAD 835. State and Local Public Finance. 3 Hours.
Focuses on the tax, spending, and debt practices of state and local governments. Drawing on the tools of positive and normative economic analysis, the course explores the implications of these activities on broader economic outcomes, including private allocation of resources and the distribution of wealth. LEC.

PUAD 836. Introduction to Quantitative Methods. 4 Hours.
Introduces quantitative approaches to examine public management and public policy decisions. Concepts of research design, probability, and inferential statistics are covered. LEC.

PUAD 837. Budgeting and Resource Allocation. 3 Hours.
Examines the practices and the political, economic, and organizational contexts of public and nonprofit budgeting, tools of financial analysis, and ethics of financial management. LEC.

PUAD 838. Urban Service Delivery. 3 Hours.
Focuses on organizational arrangements for the provision of basic urban services and the character of service delivery politics. Methods for
evaluating the efficiency and responsiveness of alternative organizational arrangements are treated. LEC.

**PUAD 839. Topics in Public Administration: _____.** 3 Hours.
Study of selected topics in public administration. LEC.

**PUAD 840. Theory of Public Administration.** 3 Hours.
Survey of the development of ideas about public administration among public officials and research investigators. Emphasis on basic concepts, research reports, and theoretical treatises on the nature of public administration. LEC.

**PUAD 841. The Role, Context, and Ethics of Public Administration in American Society.** 3 Hours.
Provides students with an overview of the social context of public administration with an emphasis on political issues, intellectual history, ethics, and the tensions between democracy and bureaucracy. LEC.

**PUAD 842. Law and Public Management.** 3 Hours.
Course investigates major concepts that make up the legal environment of public administration. The accepted uses and procedures of the field, relationships among courts, agencies, the legislature, and basic legal research are examined. LEC.

**PUAD 843. Constitutional Foundations of Public Administration.** 3 Hours.
This course provides a grounding in the constitutional premises of public administration including executive, legislative, and judicial powers, and federalism, and those issues associated with the development of economic institutions and processes such as taxation, employment regulation, and commerce controls. LEC.

**PUAD 844. Advanced Seminar in State and Local Budgeting.** 3 Hours.
This course studies the theories behind selected topics in public budgeting and compares the theories with the actual practice of budgeting in the State of Kansas and its communities. LEC.

**PUAD 845. Organizational Analysis and Public Management.** 3 Hours.
Explores concepts and practices in organization behavior and management theory as they apply to public organizations. Emphasis is placed on understanding the dynamics of individuals, groups, and teams within organizations, dynamics associated with organizational structures, accountability, and culture and dynamics of risk in leadership, collaboration, and contracting. LEC.

**PUAD 846. Kansas and Its Government.** 3 Hours.
This course is designed to offer students the opportunity to obtain a comprehensive overview of the culture, history, economy, and geography of Kansas along with the review of state and local government infrastructure. The review of governments will include the financing of governments in Kansas. LEC.

**PUAD 847. Legislative Process.** 3 Hours.
This course is designed to acquaint students with the workings of the policy process at the level of state government. Its focus will give students an understanding of the political process to enable them to function more effectively in state policy development and implementation. Prerequisite: PUAD 824, PUAD 825, PUAD 826 or PUAD 827. LEC.

This course offers the student an opportunity to enhance skills developed in PUAD 826 in an experiential learning environment that simulates actual management practice. Complex cases will be rank ordered and resolved on a work schedule developed by each work group. Groups will work simultaneously on two or more cases at all times. Prerequisite: PUAD 826. LEC.

**PUAD 849. Law, Courts, and Public Policy.** 3 Hours.
This course provides an overview of the role of law, litigation, and courts in the public policy process, with an emphasis on bureaucratic institutions. The course covers the main theories and empirical research on the policy effects of litigation and intervention, with a particular focus on civil rights in the areas of employment, policing, welfare, prisons, and environmental policy. (Same as POLS 849.) Prerequisite: Graduate standing or consent of instructor. LEC.

**PUAD 850. Intergovernmental Relations.** 3 Hours.
This course focuses on the fiscal and administrative relationships among the three levels of government - federal, state, and local - in the United States. A number of topics will be examined, including a history of intergovernmental relations, the political, constitutional, and legal foundations of the intergovernmental system, and intergovernmental fiscal policy. The impact of the intergovernmental system will be assessed from the perspective of specific areas and intergovernmental programs. LEC.

**PUAD 851. Infra-Structure Management.** 3 Hours.
A survey of land-use, infra-structure, and technology issues in municipalities. LEC.

**PUAD 852. Comparative Public Policy and Administration.** 3 Hours.
This seminar examines the application of theories in public administration, public management, and public policy in international and comparative contexts. Particular attention is given to how governments and publics are connected by way of intergovernmental strategies, governance, and differing political and administrative arrangements. LEC.

**PUAD 853. Policy Analysis and Evaluation.** 3 Hours.
This course will introduce students to the conceptual foundations and applied techniques associated with identifying, describing, and seeking solutions to public policy problems (policy analysis) and evaluating the performance of public programs and organizations (program evaluation). Basic microeconomic theory is introduced. LEC.

**PUAD 854. Innovation and Organizational Change.** 3 Hours.
This course will examine theories of innovation and organizational change as applied to public organizations. Particular emphasis will be placed on the concepts of innovation in bureaucratic organizations, on the process of successful change in organizations, and on leadership and employees’ roles. LEC.

**PUAD 855. Financial Management for Public and Not-for-Profit Organizations.** 3 Hours.
Financial management focuses on the use of financial information for decision making and evaluation. This course will rely on fundamental accounting concepts as they relate to the basic financial statements of government and not-for-profit organizations. Time will also be spent on financial management practices (e.g. cash management, debt management, etc.) and financial condition analysis. Material presented in this course expands on the foundational material covered in PUAD 837. Prerequisite: PUAD 837 or permission from the instructor. LEC.

**PUAD 856. Management and Information Technology.** 3 Hours.
An introduction to the concepts of information policy and management of technology within governmental organizations. The course covers the effects of technology on government and society as well as information policy (privacy, security and access) and their importance to democracy. The course also includes a leadership perspective on planning, funding, and implementation of technology systems in governmental organizations as well as the role of Chief Information Officer. LEC.
PUAD 857. Performance Management and Governance. 3 Hours.
This course examines the practice and governance challenges of performance management and budgeting in the public sector. Topics covered in this course include: a) the governance context of performance measurement and management; b) the historical and theoretical foundation of performance measurement and management; c) the global trend of performance-oriented reforms; d) the practice and politics of performance measurement and management; and e) governance and ethical issues in managing for results. LEC.

PUAD 858. Performance Audit. 3 Hours.
This course examines the practice of performance audit at the national, state, and local levels. Topics covered in the course include: a) the concept of performance audit and the roles of auditors in performance management; b) performance audit systems and standards at the national, state and local levels; c) performance audit methodologies and techniques; d) the establishment of audit criteria; e) the concept and practice of risk and vulnerability analysis; f) the reporting and communication of performance audit results. LEC.

PUAD 859. Service Management. 3 Hours.
This course provides an introduction to service management in the public sector and will focus on providing students with the conceptual understanding and skills to design, promote, manage, and deliver public services. The course will integrate concepts of service management with quality assurance, business process analysis, and project management. Through this course, students will develop a better understanding of methods for improving responsiveness and accountability to organizational goals and mission. LEC.

PUAD 892. Public Administration Internship. 3 Hours.
A part-time supervised professional work experience designed to provide students the knowledge, background, and practical experience in public service. A written summary of the experience including a job description, projects the student, and a reflective statement on integrating the internship with theoretical issues regarding public administration. This course brings theory and practice together. Graded on a satisfactory/unsatisfactory basis. FLD.

PUAD 893. Directed Readings. 1-3 Hours.
Designed to meet the needs of advanced students whose study in public administration cannot be met with current course work. RSH.

PUAD 894. Professional Development Seminar I. 3 Hours.
Open only to precareer students with internships, this intensive seminar is designed around issues interns confront in their working relationships. Emphasis is placed on the transition of the student from an academic environment to a professional work relationship. Class sessions deal with issues like employee socialization, power and trust, and administrative change. Graded on a satisfactory/unsatisfactory basis. FLD.

PUAD 895. Professional Development Seminar II. 3 Hours.
Continuation of PUAD 894. Graded on a satisfactory/unsatisfactory basis. FLD.

PUAD 897. Public Administration Contemporary Issues and Competency Assessment. 3 Hours.
This course exposes students to the contemporary issues in public management and analysis of competencies for public management in four theme areas. Students will participate in discussions of issues and in three assessments of their preparation to lead public organizations. Students will complete the MPA Final Essay which focuses on integration of course and work experience in relation to the values theme of the MPA program. Graded on a satisfactory/unsatisfactory basis. LAB.

PUAD 898. Leadership, Professionalism, and Citizen Engagement. 3 Hours.
This course explores connections between facilitative political and administrative leadership, professional expertise, and citizen engagement. It will explore politics and the political arena; administrative/technical expertise and the relationship between the arenas of politics and administration. It will present the concept of citizen engagement and adaptive work, complicating as well as enriching public policy making and implementation. LEC.

PUAD 930. Research Seminar in Public Administration and Democracy. 3 Hours.
This course focuses on the democratic context of public administration. Topics could include: the role of control in public administration; the functioning of public administration in a constitutional democracy; issues relating to control and discretion of public administrators; citizenship and representative bureaucracy; theories of bureaucratic values such as equity, justice and efficiency, ethics and accountability; theories of institutions. SEM.

PUAD 931. Research Seminar in Public Management. 3 Hours.
This course, on the topic which increasingly is approached as an interdisciplinary field, focuses on the management of public and non-profit agencies. Topics could include: the nature of public agencies and the roles of public executives, managers, and professionals; distinctions between public, private, and non-profit agencies in America and internationally; creating and managing organizational networks; leadership; work motivation; and the ethics of decision-making. SEM.

PUAD 932. Seminar in the Intellectual History of Public Administration. 3 Hours.
This course will analyze the intellectual currents that undergird the theories and concepts in public administration. There are three primary perspectives crosscutting the topics. They are historical, cultural and analytical. SEM.

PUAD 934. Research Methods in Public Administration. 3 Hours.
The course examines issues of research and epistemology with an emphasis on connecting theory and research and doing research in field settings. RSH.

PUAD 935. Advanced Quantitative Methods for Public Administration. 3 Hours.
This seminar will assist students to develop a thorough competence in both theory and application of multivariate statistical models of the types that are commonly used to study questions of organization and policy in the public sector. These will include inference for the general linear regression model under a wide variety of specifications, as well as a consideration of path models and systems of simultaneous equations. The principal goal of this course is to strengthen the ability of doctoral students in public administration to work methodologically as independent scholars using relatively advanced designs and technique in their work. SEM.

PUAD 936. Policy Analysis and Program Evaluation. 3 Hours.
This course examines the theoretical foundations and analytical components of policy analysis and program evaluation, common tools for assessing alternative courses of public action and program effectiveness. This examination will include a review and critique of common quantitative and qualitative approaches, including cost-benefit analysis, cost-effectiveness analysis, and quasi-experimental design. LEC.

PUAD 937. Qualitative Methods in Public Administration. 3 Hours.
This course examines the concepts and practices of qualitative research. The focus will be on field research and the collection of "textual data" through observation, interviewing, and documents. The course will also
examine the interpretation and analysis of qualitative data and how to present qualitative findings. RSH.

**PUAD 939. Topics in Public Administration: _____**. 1-3 Hours.
A study of selective topics in public administration. Course may be taken more than once. LEC.

**PUAD 943. Constitutional Foundations of Public Administration. 3 Hours.**
This course provides grounding in the constitutional premises of public administration including executive, legislative, and judicial powers, and federalism, and those issues associated with the development of economic institutions and processes such as taxation, employment regulation, and commerce controls. LEC.

**PUAD 949. Law, Courts, and Public Policy. 3 Hours.**
This course provides an in-depth analysis of the role of law, litigation, and courts in the public policy process, with an emphasis on bureaucratic institutions. The course covers the main theories and empirical research on the policy effects of litigation and intervention, with a particular focus on civil rights in the areas of employment, policing, welfare, prisons, and environmental policy. As part of the course requirements, students will conduct original empirical research. LEC.

**PUAD 990. Research Practicum in Public Policy and Administration. 3 Hours.**
This course will provide students with an opportunity to conduct applied research in a field setting with faculty guidance. May be pursued as an independent study or as a regularly scheduled class with a group of students. Prerequisite: PUAD 934 and PUAD 935. RSH.

**PUAD 998. Directed Reading on Public Administration. 1-6 Hours.**
Designed to meet the needs of graduate students whose study in public administration cannot be met with present course. Prerequisite: consent of instructor. RSH.

**PUAD 999. Dissertation. 1-15 Hours.**
Enrollment for writing doctoral dissertations. Graded on a satisfactory/unsatisfactory basis. THE.

### Bachelor of Arts and Bachelor of General Studies in Public Administration

**Why study public affairs and administration?**

Our programs prepare leaders and build professionalism in the public and nonprofit sectors and link KU resources to the challenges of public management. We produce skilled leaders, innovators, and problem-solvers, ready to confront pressing social and economic challenges at the local, state, and national levels.

Since 1998, U.S. News & World Report has ranked the M.P.A. degree program in city management and urban policy first in the nation and the school is ranked fifth in public management.

### First-and Second-Year Preparation

**KU Edwards Campus**
The undergraduate program in public administration is offered in its entirety only at the KU Edwards Campus (http://edwardscampus.ku.edu), 12600 Quivira Rd., Overland Park, KS 66213. This program is designed for students who have earned an associate’s degree or equivalent hours and wish to complete the upper-level courses necessary for a bachelor’s degree.

### Public Administration Program

The major accommodates both traditional and nontraditional students. Public administration offers students the necessary knowledge and skills for planning, implementing, and evaluating public programs. Students will be able to work in such settings as local and state government, nonprofit organizations, and private sector businesses.

Students fulfill their first-year and sophomore hours through general education requirements. Students are encouraged, but not required to take POLS 110 as part of their general education hours. Students considering the major should contact the CLAS undergraduate advisor on the Edwards Campus, Dan Mueller, dmueller@ku.edu, 864-8659 (from Lawrence) or 913-897-8659 (outside of Lawrence) for advising on general education requirements leading up to the major.

### Requirements for the B.A. or B.G.S. Major

**Public Administration Required Courses (12)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUAD 330 Introduction to Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>or PUAD 331 Introduction to Public Administration, Honors</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Methods for Public Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

**Hard Choices in Public Administration. Satisfied by:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUAD 333 Hard Choices in Public Administration: _____</td>
<td>3</td>
</tr>
</tbody>
</table>

**Public Administration Required Electives (18)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUAD 431 Bureaucracy, Public Administration, and the Private Sector</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 432 Conducting the People’s Business Ethically</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 433 Metropolitics and Macroproblems: The American City in Local and Global Context</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 435 Generating, Allocating and Managing Public Resources</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 436 Managing People in Public Organizations</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 601 Crime and Punishment</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 602 Diversity in Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 603 Foundations of the Nonprofit Sector</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 604 Resource Development and Management in Nonprofit Organizations</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 605 Managing Nonprofit Relationships</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 606 Nonprofit Accountability: Public Needs and Public Values</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 639 Concepts of Civil Society</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 691 Internship in Public Service</td>
<td>3</td>
</tr>
</tbody>
</table>

**Internship in Public Service**

No more than 3 hours of PUAD 691 - Internship in Public Service may be used to satisfy major requirements.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUAD 692 Research Experience in Public Administration</td>
<td>3</td>
</tr>
</tbody>
</table>
Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 27 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 24 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Minor Hours & Minor GPA

While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

Minor Hours
Satisfied by 18 hours of minor courses.

Minor Hours in Residence
Satisfied by a minimum of 9 hours of KU resident credit in the minor.

Minor Junior/Senior Hours
Satisfied by a minimum of 18 hours from junior/senior courses (300+) in the minor.

Minor Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in all departmental courses (300+) in the minor. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator (http://clas.ku.edu/undergrad/tools/gpa).

Graduation Plan

With careful planning and commitment to a full-time course load, you can graduate in 4 years. Please consult the program for details.

Minor in Public Administration

Why study public affairs and administration?

The School of Public Affairs and Administration also offers a minor. All coursework related to the minor is offered at the KU Edwards Campus in Overland Park, Kansas, although PUAD 330/331 is also offered in Lawrence. The minor requires 18 hours of PUAD coursework. Six of these credits will consist of required core coursework, and the additional twelve will consist of elective PUAD courses.

Requirements for the Minor

KU Edwards Campus

All minor course work is offered on the KU Edwards Campus (http://edwardscampus.ku.edu), although PUAD 330/PUAD 331 can be taken in Lawrence.

Public Administration Minor Core Courses (6)

Minors must complete a course in each of the following areas:
Introduction to Public Administration. Satisfied by:
- PUAD 330 Introduction to Public Administration 3
- or PUAD 331 Introduction to Public Administration, Honors
Hard Choices in Public Administration. Satisfied by:
- PUAD 333 Hard Choices in Public Administration: _____ 3

Public Administration Required Electives (12)

Minors must complete 4 courses (12 hours) from the following:
- PUAD 431 Bureaucracy, Public Administration, and the Private Sector
- PUAD 432 Conducting the People’s Business Ethically
- PUAD 433 Metropolitics and Macroproblems: The American City in Local and Global Context
- PUAD 435 Generating, Allocating and Managing Public Resources
- PUAD 436 Managing People in Public Organizations
- PUAD 601 Crime and Punishment
- PUAD 602 Diversity in Public Administration
- PUAD 603 Foundations of the Nonprofit Sector
- PUAD 604 Resource Development and Management in Nonprofit Organizations
- PUAD 605 Managing Nonprofit Relationships
- PUAD 606 Nonprofit Accountability: Public Needs and Public Values
- PUAD 639 Concepts of Civil Society
- PUAD 691 Internship in Public Service
- PUAD 692 Research Experience in Public Administration
- PUAD 693 Directed Readings
- PUAD 694 Topics in Public Administration: _____

Master of Public Administration

Why study public affairs and administration?

Our programs prepare leaders and build professionalism in the public and nonprofit sectors and link KU resources to the challenges of public management. We produce skilled leaders, innovators, and problem-solvers, ready to confront pressing social and economic challenges at the local, state, and national levels.

Since 1998, U.S. News & World Report has ranked the M.P.A. degree program in city management and urban policy first in the nation and the school is ranked fifth in public management.
M.P.A. Admission

The academic prerequisites for regular admission to the M.P.A. program are

1. Completion of a bachelor’s degree, preferably with a background in the social sciences, including basic college algebra and statistics courses.
2. A grade-point average of B (3.0 on a 4.0 scale) for all previous university or college work (in certain circumstances, when the GPA is slightly below 3.0, other factors, such as strong Graduate Record Examination scores or exceptional letters of recommendation may be considered).

Admission is competitive and limited. For all applicants, a completed application includes

1. Online Graduate Studies application (http://www.graduate.ku.edu).
2. A nonrefundable application fee, submitted online with the application form. For domestic applicants, the application fee is $55; for international applicants, the application fee is $65.
3. 1 official transcript from the degree-granting college or university and any post-graduate college or university attended.
4. 3 letters of recommendation. If possible, at least 1 should be an academic reference. The MPA reference form, available through the website (https://kupa.drupal.ku.edu/admissions-intern-option), must be submitted with each letter.
5. A 3- to 5-page essay describing your background and career goals and clearly indicating how the M.P.A. degree fits into those goals and addressing any deficiencies in your academic preparation.
6. A current résumé.
7. A writing sample that is at least 5 pages long. It should be a well-cited work in which you critically analyze (not just summarize) an issue.

Additional Requirements for Intern-option Applicants:

- Graduate Record Examination scores (General test only — verbal, analytical, and quantitative).
- Additionally, an M.P.A. alum or faculty member may be assigned to interview you. That person’s comments are placed in and considered a part of your application packet.

Additional Requirements for International Applicants:

- Graduate Record Examination scores (General test only — verbal, analytical, and quantitative). For reporting GRE scores to the KU School of Public Affairs and Administration, the institution code is 6871 and the department code is 4801.
- An official Test of English as a Foreign Language score report. Please note that any international students admitted to a KU program must also be tested by the Applied English Center (http://www.aec.ku.edu) upon arrival, regardless of TOEFL score.

Deadlines

Applications for intern-option applicants must be received by February 1.

Applications for career-option applicants: Deadlines are May 1 and June 15 for fall admission and November 1 for spring admission. Note: No preference is given to applications received by the earlier deadlines. We offer the earlier dates to accommodate applicants who need an earlier decision for planning purposes.

International students: The deadline for international students is February 1.

Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to

The University of Kansas
School of Public Affairs and Administration
Attn: M.P.A. Admissions
4060 Wescoe Hall
1445 Jayhawk Blvd.
Lawrence, KS 66045-7594

or via email to: padept@ku.edu

Campuses

The M.P.A. program is also offered at the following location:

KU Edwards Campus

KU offers a variety of graduate and undergraduate programs on the KU Edwards Campus in Overland Park, Kansas. The Edwards Campus offers late-afternoon and evening classes, catering to working professionals. For more information, call the Edwards Campus at 864-8400 from Lawrence or 913-897-8400 from other locations.

Topeka, Kansas

Each semester, select courses are offered at the Brown v. Board of Education National Historic Site in Topeka, Kansas.

Master of Public Administration Degree

The School of Public Affairs and Administration is home to the Edwin O. Stene Graduate Program in Public Administration and offers a Master of Public Administration degree. The Edwin O. Stene Master’s program is one of the oldest and most respected programs in the United States, with our local government leadership program dating to 1948. Since 1998, our tradition of excellence in educating students at the masters’ level has been recognized by U.S. News and World Report with a #1 ranking in city management and urban policy. The MPA degree may be obtained through course work in Lawrence, Topeka, and the KU Edwards Campus in Overland Park for the Kansas City area.

The KU MPA offers 2 tracks:

1. The Intern track is designed for students who have little or no public administration experience and are willing to commit to one year of full-time study and a second year in a full-time internship to prepare themselves for careers in city or county management.
2. The Career track is designed for working professionals seeking to strengthen their leadership skills for careers in public service professions or advance in their current profession without a career interruption. Most career-track students attend part-time.

Intern track students begin the program in the summer semester, and complete the majority of their coursework over three semesters (summer, fall, spring). Career-track students may begin in any semester.
M.P.A. Degree Requirements
The master’s degree is awarded after successful completion of 43 credit hours of course work. This includes 31 hours (10 courses) of required core courses (listed below) that all students complete, and 12 hours (4 courses) tailored to the student’s interests and/or track (intern or career). In addition, all students must pass a written master’s examination (final paper) to complete the requirements for the M.P.A. degree which is part of the PUAD 897 core course. Once a student begins the program, all degree requirements must be completed within 7 years.

The MPA core coursework includes the following courses (31 credit hours):
- PUAD Policy course (824 or 825 or 826 or 827 or 828) (3 hours)
- PUAD 834 Human Resource Management (3 hours)
- PUAD 835 Finacing Public Services (3 hours)
- PUAD 836 Introduction to Quantitative Methods (4 hours)
- PUAD 837 Resource Allocation and Control (3 hours)
- PUAD 841 Role & Context of PA (3 hours)
- PUAD 842 Law and Public Management (3 hours)
- PUAD 845 Organizational Analysis and Public Management (3 hours)
- PUAD 853 Policy Analysis and Program Evaluation (3 hours)
- PUAD 897 Public Administration Contemporary Issues and Competency Assessment (3 hours)

Intern track students will take the following courses to complete the program: PUAD 892 Public Administration Internship (3 hours), PUAD 898 Leadership, Professionalism and Citizen Engagement (3 hours) and two electives (6 hours).

Career track students will take four electives (12 hours) to complete the program.

Master of Public Administration and Juris Doctor
M.P.A.-J.D. Combined Program
The joint degree program is designed for the student who intends to combine career preparation in law and public administration. Examples of career objectives for this degree are the practice of law in communities (for example, a city attorney, who may be called upon to perform legal services for a municipality) and for city managers (who may need to deal with legal questions and interact with legal professionals). The program combines into 4 years the normal 3-year Juris Doctor (p. 776) program offered by the School of Law (http://www.law.ku.edu) and the 2-year M.P.A. program offered by the School of Public Affairs and Administration (http://www2.ku.edu/~kupa). Students must complete 116 total credit hours: 78 credit hours in the School of Law (42 required and 36 elective), 26 hours in the School of Public Affairs and Administration, and 12 hours of electives of which only 3 hours may be law courses.

Of the 25 required hours in public administration, 6 hours are earned during the internship in the fourth year. The internship may not be taken concurrently with course work. At the conclusion of the internship year, each candidate must successfully pass a final written examination administered by public administration. The J.D. degree is awarded at the completion of the total required credit hours other than those associated with the internship. The M.P.A. degree is awarded upon successful completion of the internship and final examination. All course work counted toward any master’s degree requires a B average for the award of the degree. Specifically, students should understand that if they elect 6 or fewer hours of law requirements, the grades received in those law courses are incorporated into the M.P.A. grade-point average, which must be 3.0 for the award of the M.P.A.

For admission a student must meet requirements of both programs. Dual admission requires submitting separate sets of application materials as required by the respective programs. The M.P.A./J.D. program is open to those who have earned baccalaureate degrees and whose undergraduate academic records indicate that they have the capacity to complete these programs.

Since the total course work, excluding the internship, is 109 hours, students pursuing the joint degree should plan to enroll in course work for 2, and in some instances 3, summers.

M.P.A. Admission
The academic prerequisites for regular admission to the M.P.A. program are

1. Completion of a bachelor’s degree, preferably with a background in the social sciences, including basic college algebra and statistics courses.
2. A grade-point average of B (3.0 on a 4.0 scale) for all previous university or college work (in certain circumstances, when the GPA is slightly below 3.0, other factors, such as strong Graduate Record Examination scores or exceptional letters of recommendation may be considered).

Admission is competitive and limited. For all applicants, a completed application includes

1. Online Graduate Studies application (http://www.graduate.ku.edu).
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3. 1 official transcript from the degree-granting college or university and any post-graduate college or university attended.
4. 3 letters of recommendation. If possible, at least 1 should be an academic reference. The MPA reference form, available through the website (https://kupa.drupal.ku.edu/admissions-intern-option), must be submitted with each letter.
5. A 3- to 5-page essay describing your background and career goals and clearly indicating how the M.P.A. degree fits into those goals and addressing any deficiencies in your academic preparation.
6. A current résumé.
7. A writing sample that is at least 5 pages long. It should be a well-cited work in which you critically analyze (not just summarize) an issue.

Additional Requirements for Intern-option Applicants:
- Graduate Record Examination scores (General test only — verbal, analytical, and quantitative).
- Additionally, an M.P.A. alum or faculty member may be assigned to interview you. That person’s comments are placed in and considered a part of your application packet.
Additional Requirements for International Applicants:

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• An official Test of English as a Foreign Language score report. Please note that any international students admitted to a KU program must also be tested by the Applied English Center (http://www.aec.ku.edu) upon arrival, regardless of TOEFL score.

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4060 Wescoe Hall
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or via email to: padpt@ku.edu

Campuses

The M.P.A. degree program is also offered at the following location:

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KU offers a variety of graduate and undergraduate programs on the KU Edwards Campus in Overland Park, Kansas. The Edwards Campus offers late-afternoon and evening classes, catering to working professionals. For more information, call the Edwards Campus at 864-8400 from Lawrence or 913-897-8400 from other locations.

Topeka, Kansas

Each semester, select courses are offered at the Brown v. Board of Education National Historic Site in Topeka, Kansas.

Master of Public Administration and Master of Urban Planning

M.P.A.-M.U.P. Combined Program

This program is designed for the student with career goals that center on assuming administrative and management responsibilities in urban planning and urban affairs. It combines into 3 years (excluding the 1-year internship required for the M.P.A. program) the normal course work required for the 2-year Master of Urban Planning (p. 93) degree and the 2-year M.P.A. degree. The program offers students experience not only in public policy management, but also in management with particular expertise in urban problem resolution.

A student must meet admission requirements of both programs. Dual admission requires submitting separate sets of application materials as required by the respective programs. The M.P.A./M.U.P. program is open to those who have earned baccalaureate degrees and whose undergraduate academic records indicate that they have the capacity to complete these graduate programs.

Contact the School of Public Affairs and Administration (http://www2.ku.edu/~kupa) or the Department of Urban Planning (http://www.sadp.ku.edu/urban-planning) for more information.

M.P.A. Admission

The academic prerequisites for regular admission to the M.P.A. program are

1. Completion of a bachelor’s degree, preferably with a background in the social sciences, including basic college algebra and statistics courses.

2. A grade-point average of B (3.0 on a 4.0 scale) for all previous university or college work (in certain circumstances, when the GPA is slightly below 3.0, other factors, such as strong Graduate Record Examination scores or exceptional letters of recommendation may be considered).

Admission is competitive and limited. For all applicants, a completed application includes

1. Online Graduate Studies application (http://www.graduate.ku.edu).

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3. 1 official transcript from the degree-granting college or university and any post-graduate college or university attended.

4. 3 letters of recommendation. If possible, at least 1 should be an academic reference. The MPA reference form, available through the website (https://kupa.drupal.ku.edu/admissions-intern-option), must be submitted with each letter.

5. A 3- to 5-page essay describing your background and career goals and clearly indicating how the M.P.A. degree fits into those goals and addressing any deficiencies in your academic preparation.

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Topeka, Kansas

Each semester, select courses are offered at the Brown v. Board of Education National Historic Site in Topeka, Kansas.

Doctor of Philosophy in Public Administration

Why study public affairs and administration?

The mission of the doctoral program in the KU School of Public Affairs and Administration is to provide advanced graduate education in theory and research in order to prepare students for academic and research careers in public administration, as well as professional careers in advanced practice of public administration.

KU SPAA doctoral students are expected to:

• Assist in research being conducted by a public administration faculty member;
• Serve as teaching assistants to gain experience and contribute to the production function of the School;
• Co-author a refereed article with a faculty member;
• Present a scholarly paper at a national conference.

For additional doctoral program data, view doctoral program profiles on the Graduate Studies website (click on Public Affairs and Administration under College of Liberal Arts and Sciences).

Ph.D. Admission

Admission is based on the applicant’s undergraduate and/or graduate academic record, standardized test scores, and references from instructors. All applicants must have completed a bachelor’s degree and an M.P.A. or equivalent degree. Students without an M.P.A. or equivalent degree must complete KU core M.P.A. requirements as part of their doctoral studies.

A completed application must include

• Online application and nonrefundable application fee (see Admission in the Graduate Studies section of the online catalog);
• Graduate Record Examination results — verbal, quantitative, and analytical;
• 2-page statement of goals and research interests including evidence of research aptitude and interest;
• 3 letters of recommendation, preferably from faculty members who can comment on the applicant’s potential for doctoral study;
• A writing sample that reflects the applicant’s interest in and ability to conduct research;
• A current resume; and
• 1 official transcript from each college or university attended.

In addition, international students must submit Test of English as a Foreign Language (TOEFL) scores from an examination administered no more than 2 years before the date of application. Immigration requirements and a financial statement are available from the Office of International Student and Scholar Services (http://www.iss.ku.edu). All materials must be received before the application can be considered.

For fall admission and financial aid, the application file must be completed by January 25. Applicants who do not meet this deadline are unlikely to be considered for financial aid, even though applications may be considered throughout the year.

Please refer to the School of Public Affairs and Administration’s website (https://kupa.drupal.ku.edu/admissions-phd) for complete details regarding Ph.D. admission requirements. Submit your graduate application online (http://www.graduate.ku.edu). Send all other requested application materials to

The University of Kansas
School of Public Affairs and Administration
Attn: Doctoral Admissions
4060 Wescoe Hall
Ph.D. Degree Requirements

The Ph.D. program requires a minimum of 66 credit hours of courses, including up to 30 hours earned completing the M.P.A. degree or its equivalent, plus a minimum of 9 hours for the dissertation, for a total of 75 credit hours. (An applicant with a KU M.P.A. may apply 30 hours toward the 75-hour course work requirement.)

All students who enter the Ph.D. program must already have completed the core curriculum (8 courses) for the KU M.P.A. degree or the equivalent at another university, or they must take the appropriate courses after entering the program.

The requirements for the Ph.D. are based on formal course work and independent study in several fields:

- Foundations of public administration
- Specialization field within public administration
- Cognate field
- Methods sequence

Foundations of Public Administration

4 of the 5 courses listed below are required of all doctoral students.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>PUAD 930</td>
<td>Research Seminar in Public Administration and Democracy</td>
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<tr>
<td>PUAD 931</td>
<td>Research Seminar in Public Management</td>
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<tr>
<td>PUAD 932</td>
<td>Seminar in the Intellectual History of Public Administration</td>
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<tr>
<td>PUAD 943</td>
<td>Constitutional Foundations of Public Administration or PUAD 949 Law, Courts, and Public Policy</td>
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</table>

Substitutions require the approval of the coordinator of doctoral studies.

Public Administration Specialization

In consultation with the coordinator of doctoral studies, each student must develop a public administration specialization of at least 3 courses. Common specializations include budgeting, public finance, human resources management, public policy analysis and evaluation, public values and ethics, organizations and organization theory, public law and administration, and urban policy/politics and community building.

Each has a basic course that is regularly taught in the present graduate curriculum at the 800 level, and it is presumed that at least an additional course would come from independent study. A third course could come from the school or could be taken outside. Potential cooperating units include the Departments of Political Science, Communication Studies, and Economics, and the Schools of Education and Business. Additional subfield specializations are available in consultation with faculty.

Cognate Fields

The degree requires a cognate field in addition to the public administration specialization. The cognate field is a subfield in economics, political science, education administration, etc., or a policy specialization (environmental policy, transportation policy, etc.) The cognate field’s sequence of 3 courses requires the approval of the coordinator of doctoral studies and does not require a comprehensive examination.

Methods

The doctorate emphasizes the development of research skills. It requires PUAD 934 Research Methods in Public Administration, with the prerequisite PUAD 836 or its equivalent, and PUAD 935 Advanced Quantitative Methods for Public Administration. Students also are encouraged to take PUAD 937 Qualitative Methods in Public Administration. Substitutions require the approval of the coordinator of doctoral studies. The methods requirement satisfies Option 1 of the Foreign Language or Other Research Skills Requirement.

Note: Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current policies on Doctoral Research Skills and Responsible Scholarship are listed in the KU Policy Library.

To become a Ph.D. candidate, the student must complete a comprehensive oral examination. No student may attempt the comprehensive oral until he or she has satisfied requirements for the cognate field and passed the preliminary written examination in both the foundations and specialization fields. The doctoral coordinator certifies that the student has met these requirements.

After passing the comprehensive oral examination, the doctoral candidate must write a dissertation approved by a dissertation committee and pass a final oral defense of the dissertation to qualify for the degree. If the aspirant receives a grade of unsatisfactory, the examination may be repeated, but under no circumstances may the student take it more than twice.
Social Welfare

Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU (see your advisor (http://www.advising.ku.edu) for details). Other years' catalogs (http://catalog.ku.edu/archive)

Bachelor of Social Work (p. 2050)
Master of Social Work (p. 2053)
Doctor of Philosophy in Social Work (p. 2057)

The School of Social Welfare

The University of Kansas School of Social Welfare offers the only comprehensive program in social work in Kansas: the professional degrees of

- Doctor of Philosophy in Social Work (p. 2057),
- Master of Social Work (p. 2053), and
- Bachelor of Social Work (p. 2050).

KU’s School of Social Welfare is an excellent place to pursue your interests in professional social work education. It is the oldest school of social welfare in the state and the only one to offer degree preparation from undergraduate through doctoral degrees in social work.

Social work education began at KU in 1937. The Master of Social Work program, established in Lawrence and at the KU Medical Center in Kansas City in 1946, has been continuously accredited since 1948. The Bachelor of Social Work degree has been awarded since 1971. In 1974, the B.S.W. program became one of the first in the nation to receive accredited status. The Council on Social Work Education (http://www.cswe.org), the accrediting body for social work education, most recently reaccredited the B.S.W. and M.S.W. programs in 2010. The doctoral program admitted its first students in 1981.

KU’s Master of Social Work program consistently ranks among the top U.S. national public universities, according to U.S. News & World Report’s “America’s Best Graduate Schools”. The School of Social Welfare is recognized internationally as an innovator in social work theory development and in research that makes positive contributions to our communities.

The school is housed on KU’s Lawrence campus in Twente Hall, named for nationally renowned social work educator Esther Twente, who chaired the social work department from 1946 to 1957. The school also offers the M.S.W. program at the KU Edwards Campus in Overland Park, a suburb of Kansas City, and in western Kansas in collaboration with Fort Hays State University and Garden City Community College. An on-site 2+2 B.S.W. degree-completion program is offered at Kansas City Kansas Community College.

Mission and Themes

Mission

The threefold mission of the University of Kansas School of Social Welfare is to educate students at the B.S.W., M.S.W., and Ph.D. levels, to conduct scholarly inquiry that contributes to the knowledge base of the profession, and to provide leadership in formulating social policy and developing service delivery strategies and systems.

In the B.S.W. and M.S.W. programs, students learn generalist and advanced-level social work practice methods and skills that advance the empowerment and well-being of individuals, families, and communities. At the Ph.D. level, students are equipped with the necessary skills for critical inquiry and scholarship to become leaders in the social work profession in academic, research, and public policy realms.

Guiding Principles and Themes

The KU School of Social Welfare is committed to practicing educational approaches and conducting scholarship that directly and explicitly enhance the connection of theory and concepts to the needs of clients and the demands of everyday practice. This commitment flows from the values and ethical principles of the profession and is enriched by our commitment to these 4 themes:

- A focus on people’s strengths
- An understanding of human diversity
- The promotion of social and economic justice
- The development of a critical perspective

Strengths

A perspective that recognizes, mobilizes, and supports the inherent strengths of individuals, families, neighborhoods, organizations, and communities to discover and develop their own and communal resources and assets in their struggle for a better quality of life.

Diversity

Understanding, valuing, and engaging the broad range of differences and commonalities that are brought to the interaction among social workers, clients, and the social environment and that reflect clients’ culture, ethnicity, race, geography, gender, social class, religion, sexual orientation, and physical and mental abilities — particularly when those differences are the cause for discrimination.

Social and Economic Justice

A commitment to promoting fairness, equality of power, and equity of resources based on a complex understanding of the effects of economic, political, and social structures on people’s life chances, particularly related to economic inequality and the allocation of necessary social resources.

Critical Perspective

The capacity to engage in a deliberate and continuing examination of the assumptions underlying the theories, methods, and approaches used by social work in understanding and responding to human needs.

The Programs

At the University of Kansas, students have the opportunity to prepare for professional careers in social work at the bachelor’s, master’s, and doctoral levels. The curriculum is carefully laid out to bring students from the introductory level through advanced study in clinical social work practice or social work administrative and advocacy practice. Under the umbrella of a practice orientation, the programs are structured to support the essential themes of the school, which focus on people’s strengths, celebrate human diversity, promote social and economic justice, and provide a critical perspective.

Classroom work is one half of professional preparation; field placements are the other half. Placements in social service agencies offer students the opportunity to apply skills learned in the classroom. B.S.W. and M.S.W. students spend time in practicum settings throughout the region.
Our students provide more than 250,000 hours of service to underserved populations through practicum experiences.

Learn more about the School of Social Welfare programs (http://socwel.ku.edu/degrees).

Professional and Community Education

To help our graduates and other professionals maintain proficiency in practice skills and to expand their capacities, the school offers a wide range of courses and workshops through the Professional and Community Education Program (http://socwel.ku.edu/alumni/pce/intro).

These offerings are designed specifically for the practicing professional. Courses are developed in conjunction with the local human services community. They range from management skills to sophisticated clinical strategies. Evening and weekend classes are offered with a variety of credit and noncredit options. For information on the program and its offerings, please contact the program director, KU Edwards Campus (http://edwardscampus.ku.edu), 913-897-8550.

Student Profile

The School of Social Welfare currently has more than 500 students, approximately 150 in the B.S.W. program, 350 in the master’s program, and 40 in the Ph.D. program. More than 350 students are enrolled in field practicum settings that reflect the range of practice of professional social work. Many students enter social work as a second career after an extended period away from school.

Student Handbook

During orientation, students who are admitted to degree-seeking status are directed to the student handbook (http://socwel.ku.edu/resources/forstudents/academic-handbooks), which contains full descriptions of policies and other details.

The Profession

Through the long history of the profession, social workers have understood the desperation of the homeless, the despair of the poor, the ostracism suffered by the mentally ill, the pain of those who are abused and neglected, and the humiliation endured by victims of discrimination. By carrying out this special commitment to helping vulnerable groups and individuals, social workers believe that society as a whole is strengthened. At the same time, social workers celebrate differences among people and believe that respecting those differences — whether of race, culture, religion, gender, sexual orientation, or age — enriches the quality of life for all.

Purpose and Objectives of Social Work

Social work is a vital, evolving profession that changes with the world in which we live. The purpose of social work is to promote or restore a mutually beneficial interaction between individuals and society in order to improve the quality of life for everyone. Social workers support the following values:

- The environment (social, physical, organizational) should provide the opportunity and resources for the maximum realization of the potential and aspirations of all individuals, and should provide for their common human needs and for the alleviation of distress and suffering.
- Individuals should contribute as effectively as they can to their own well-being and to the social welfare of others in their immediate environment, as well as to the collective society.
- Transactions between individuals and others in their environment should enhance the dignity, individuality, and self-determination of everyone. People should be treated humanely and fairly.

Social workers focus on person-and-environment interaction. To carry out their purpose, they work with people to achieve the following objectives:

- Help people increase their competence and problem-solving abilities.
- Help people obtain resources.
- Make organizations responsive to people.
- Facilitate interaction between individuals and others in their environment.
- Influence interactions between organizations and institutions.
- Influence social and environmental policy.

Social workers are educated to provide services to individuals, families, groups, and communities; to develop, administer, and evaluate programs and organizations; and to participate in policy formulation and planning at the local, state, and national levels.

NASW Code of Ethics

As a guide to professional conduct, the Code of Ethics of the National Association of Social Workers (http://www.socialworkers.org) represents the fundamental values of the profession. The National Association of Social Workers is the largest organization of professional social workers in the world, with a membership of 166,000.

The Code of Ethics identifies 6 values that inform the following principles:

- Social workers’ primary goal is to help people in need and to address social problems.
- Social workers challenge social injustice.
- Social workers respect the inherent dignity and worth of the person.
- Social workers recognize the central importance of human relations.
- Social workers behave in a trustworthy manner.
- Social workers practice within their areas of competence and develop and enhance their professional expertise.

View the entire Code of Ethics (http://www.socialworkers.org) or request a copy.

Resources

Area Research Offices

The school supports research and policy development in a number of key areas, providing leadership and resources at the local, state, and national levels:

- Office of Aging and Long-Term Care (http://socwel.ku.edu/research-social-work-practice-social-policy)
- Office of Mental Health Research and Innovation (http://socwel.ku.edu/research-social-work-practice-social-policy)
- Assets and Education Initiative (http://socwel.ku.edu/research-social-work-practice-social-policy)
Faculty
The faculty’s scholarly interests, as reflected in teaching, research, and publications, span a wide range, including health, mental health, child welfare, adult and juvenile justice, gerontology, multiculturalism, women’s issues, history of social work, public policy analysis, homelessness, gender equity, poverty reduction and asset building, and social administration.

School of Social Welfare faculty members hold doctoral degrees in social work, social welfare, psychology, and other fields. In addition, outstanding social work practitioners serve as part-time classroom instructors, and 280 social work practitioners serve as practicum instructors.

Faculty members serve the public interest and the profession of social work as consultants and board members in professional and citizens’ organizations.

Undergraduate Programs
The undergraduate program (http://socwel.ku.edu/academics/degrees/bsw/bsw/overview) prepares graduates for generalist social work practice. The program defines generalist practice as maintaining focus on the interface between systems — individuals, families, groups, organizations, and communities.

The B.S.W. program also is offered at Kansas City Kansas Community College as a 2+2 degree-completion program. If you are interested, contact the student services coordinator at 913-288-7304 to make an appointment.

University Honors Program
The school encourages qualified undergraduates to participate in the University Honors Program (http://www.honors.ku.edu).

Graduate Programs
The Master of Social Work program (http://socwel.ku.edu/academics/degrees/msw/regular/overview), established in Lawrence and at the KU Medical Center in Kansas City in 1946, has been continuously accredited since 1948. KU’s M.S.W. program ranked 15th among U.S. national public universities, according to U.S. News & World Report’s “America’s Best Graduate Schools” rankings for 2014.

The doctoral program (http://socwel.ku.edu/academics/degrees/phd/overview) admitted its first students in 1981. It prepares students to be leaders of the profession through advanced research, scholarship, and teaching.

Financial Aid
To be eligible for financial aid, applicants should complete the Free Application for Federal Student Aid (FAFSA) by February 15 (March 1 is the priority deadline), even before receiving information about acceptance. FAFSA materials can be obtained from all college or university financial aid offices or submitted online. The School of Social Welfare uses the FAFSA need determination level in making awards. For more information regarding financial aid visit the KU Office of Financial Aid & Scholarship (http://affordability.ku.edu)

For Ph.D. students (http://socwel.ku.edu/academics/degrees/phd/financialsupport), financial assistance, including tuition and significant salary, is available from the school through teaching and research assistantships in research and training areas such as adult and children’s mental health, aging, child welfare, corrections, social policy, spiritual diversity, or other areas of faculty grants and interests.

Scholarships and Awards
The School of Social Welfare has several sources of financial assistance available to students who meet the various criteria. Awards are made on an annual basis and are applied directly towards tuition and fees in most instances. All students interested in applying are required to submit a Free Application for Federal Student Aid by March 1. All recipients are expected to maintain a minimum grade point average of 3.0. Students must renew their applications each year they wish to be considered.

Undergraduate University Regulations
For information about university regulations, see Regulations (p. 12) or visit the University of Kansas Policy Library (http://www.policy.ku.edu).

For information about school regulations refer to the student handbook (http://socwel.ku.edu/resources/forstudents/academic-handbooks).

Change of School
To change from one school to another, you must submit a Change of School form in the B.S.W. program office. Follow the deadlines on the form.

Applicants are reviewed for admission two times a year: February 1, and June 1 (transfer only). Additional information is available from the B.S.W. program office.

Graduation with Distinction
The top 10 percent of the graduates of the B.S.W. program each year receive degrees with distinction.

Honor Roll (Dean’s List)
Students who have been accepted into the B.S.W. program, enrolled in a minimum of 9 credit hours during the semester, and earned a semester grade-point average in the top 20 percent of their class (junior or senior) qualify for the KU School of Social Welfare B.S.W. Dean’s List.

Guidelines for Conduct
Refer to the student handbook for specific information.

Required Work in Residence
No baccalaureate degree is granted to an undergraduate who has not completed at least 30 semester credit hours of residence courses at KU. No exceptions are granted.

To earn a bachelor’s degree from KU, you must complete the last 30 hours of credit for the degree by resident study. You may petition the dean for a waiver.
Transfer of Credit
CredTran is a transfer course equivalency system that lists more than 2,200 colleges and universities from which KU has accepted transfer courses in the past. If your school or course is not listed, your evaluation will be completed when you are admitted to KU.

Transfer of credit allows specific course work from other accredited colleges or universities to count toward the B.S.W. degree. Decisions to accept prior credits are made by KU’s transcript evaluator during the admission process. Exceptions must be petitioned through the B.S.W. director. Petitions must be accompanied by a catalog description and a syllabus of the course and submitted at the time of application. Community college equivalents to KU courses are available from the school or through community college counselors. A maximum of 64 credit hours from a community college may be transferred toward the B.S.W. degree.

Prior Work Experience
In accordance with national curriculum policy, prior employment and life experience may not be credited toward classroom course work or practicum requirements.

Leave of Absence and Withdrawal
Refer to the student handbook for specific information.

Advising
Each student is assigned a faculty advisor who assists with career and academic decision making. Scheduling/enrollment advisors are available at the time of enrollment.

Employment Opportunities
Some employment opportunities for social workers include:

- Child protection, foster care, and adoption services.
- Services in community centers, juvenile courts, and residential treatment centers.
- Women’s counseling and shelter facilities.
- Family services, substance abuse, illness, and unemployment services.
- Community services for the mentally ill.
- Services for the elderly in home care, nursing homes, and senior centers.
- Services for offenders and their families in community corrections programs.

Courses

SW 177. First Year Seminar: _____. 3 Hours.
A limited-enrollment, seminar course for first-time freshmen, addressing current issues in social work. Course is designed to meet the critical thinking learning outcome of the KU Core. Prerequisite: First-time freshman status. LEC.

SW 210. Contemporary Social Topics: _____. 1-3 Hours.
This course provides the opportunity for experimentation with innovative content and unique learning strategies in accordance with guidelines established by faculty. Subjects offered as topics include Training for Diversity, Organizing in Underserved Communities, etc. LEC.

SW 220. Social Work, Social Welfare and U.S. Society. 3 Hours. SF GE3S / S.
An introduction to the field of social welfare and its relationship to the social work profession, charged with carrying out its primary missions. Specific social welfare policies will be analyzed, particularly as those policies affect individuals and families in need. LEC.

SW 303. Human Sexuality in Everyday Life. 3 Hours. GE3S.
An introductory course which focuses on assisting students to understand their own and others’ sexual development and expression, as found in attitudes, beliefs, and behaviors. Physiological, psychological, and social/cultural aspects of human sexuality will be reviewed. The format of the course will include: lectures, discussion, value clarification exercises, and the use of explicit audio-visual materials. LEC.

SW 310. Managing Stress: Principles and Techniques for Coping, Prevention, and Wellness. 3 Hours.
Covers major stress-management techniques, helping others cope with stress, and promoting wellness. Concepts, theories, and models of stress, psychological basis for stress, relationship between personality and stress, family and social stress, job stress, dissatisfaction, and burnout are discussed. LEC.
SW 410. Professional Writing Skills in Social Work. 3 Hours.
Students learn the principles of organizing, developing, writing and revising for different professional social work settings. Student will master basic writing skills and become proficient in several types of social work writing styles. LEC.

SW 420. Social Work in Urban Settings. 3 Hours.
Students gain knowledge about the historical and current relationships between the definition of social problems, the development of social welfare policies, and the delivery of social services in urban settings. Students will learn to access current policies and practices as they impact local communities in the Kansas City area. LEC.

SW 455. Topics in Social Welfare: ______. 1-3 Hours.
This course covers a variety of topics on a rotating basis and provides the opportunity for experimentation with innovated course content in accordance with guidelines established by faculty. These topics may include, but are not limited to, globalization and poverty, special topics in child welfare, mental health, juvenile justice, etc. LEC.

SW 490. Directed Readings. 1-3 Hours.
Individual and supervised readings in selected areas of social welfare. Prerequisite: Consent of instructor and approval by dean's office. IND.

SW 510. Fundamentals of Social Work Practice. 3 Hours.
Introduces the basic concepts of social work practice including the focus and context of practice, the nature of a social work relationship; basic skills and techniques common to practice such as interviewing, engagement, information gathering, etc. Introduction to problem solving and social work roles. Prerequisite: SW 530, SW 540, and SW 555. LEC.

SW 530. Human Behavior in the Social Environment. 3 Hours. AE61.
A study of theoretical frameworks for understanding human behavior. The theories include the developmental stages across the life cycle, abnormal behavior compared to normal, analysis of family and societal processes and their effects on the individual, and individual behavior in relation to social class, ethnicity, and cultural background. Junior social work classification required. LEC.

SW 532. Community and Organizational Dynamics and Human Behavior. 3 Hours. AE51.
An analysis of community and organizational life with emphasis on human behavior dynamics. Systems operation and change are considered and related to social functioning, especially as it impinges on social welfare objectives. Junior social work classification required. LEC.

SW 540. Fundamentals of Social Work Research. 3 Hours. AE61.
An examination of the basic concepts and principles of scientific inquiry as applied to the social work profession's quest for and utilization of knowledge. Positivistic and naturalistic methods of inquiry are covered. Other content includes conceptualization, operationalization, sample design, ethics, and culturally sensitive research practice. Junior social work classification required. LEC.

SW 541. Social Work Research Seminar. 3 Hours. AE61.
Focus is on applying material learned in SW 540 to the critique of empirical work in the social work arena and to the development of a proposal for a practice-based research project. Emphasis on assessing relevance of research to special populations. Content on the interpretation of graphs, tables, and statistical measures provided. Prerequisite: SW 540. LEC.

This course will provide the conceptual, theoretical and empirical knowledge base related to difference, oppression, social justice and empowerment. This knowledge is necessary for culturally competent social work practice in a multicultural society. Junior social work classification required. LEC.

SW 556. Diversity, Oppression and Social Justice. 3 Hours.
This course offers non-social work majors the opportunity to explore conceptual, theoretical, and empirical knowledge related to differences based upon race, class, gender, and sexual orientation. The course explores the interplay of social and cultural identities, societal power relations, and other societal forces as they impact human functioning. Assignments and lectures in this course are geared toward helping students develop an informed world view of human diversity and its impact on our own lives and the lives of others. LEC.

SW 560. Topics in Social Welfare: ______. 1-3 Hours.
This course covers a variety of topics on a rotating basis. These topics may include, but are limited to, practice issues pertaining to child welfare, alcohol and other drug abuse, social work in health care settings, Study Abroad opportunities in developed and developing countries such as Costa Rica, South Korea, India and Ireland, etc. Junior Social Work classification required. LEC.

SW 601. Field Practicum. 6 Hours. AE61.
Students are assigned to social service agencies that provide generalist practice opportunities under the supervision of a qualified field instructor. This provides students with the opportunity to apply and test social work knowledge, values, and skills within an approved practice setting in order to gain competency as beginning social workers. This course is taken for two semesters (fall-spring), with credit being given only after completion of the second semester. Enrollment in this course must be concurrent with enrollment in SW 610 and SW 612. FLD.

SW 610. Social Work Practice Seminar I. 3 Hours.
Focuses on learning and implementing the problem-solving and interaction models of practice to be applied to individuals, families, and small groups. Concurrent with SW 601, practicum; students bring issues with clients to class for discussion. Open only to BSW seniors. Prerequisite: SW 510. LEC.

SW 612. Social Work Practice Seminar II. 3 Hours.
Second of two-course sequence extends the work begun in SW 610. Examines interventional strategies applicable to practice with larger systems. Models of community organization and community development are presented. Concurrent with SW 601, practicum; students work on individualized, agency-related projects. Prerequisite: SW 610. LEC.

SW 620. Social Policies and Program Analysis. 3 Hours.
Conceptual models for the analysis of social welfare problems and policies are developed. The frameworks are applied to the problem of poverty and major policies and programs developed to cope with that problem. In addition the model is used to examine social welfare problems/needs being addressed in the students' practicum agencies. The focus throughout is on the understanding and application of analytic framework. Open only to BSW seniors. LEC.

SW 621. Social Policy Analysis and Advocacy. 3 Hours.
The course builds on SW 620 using the conceptual models to examine a range of social welfare problems/needs, policies and programs. Emphasis is on advancing student's understanding and skills for using the analytic framework and building policy advocacy skills. Attention given to the role of social workers in the legislative process for shaping social welfare policies. Prerequisite: SW 620. LEC.

SW 623. Seminar in Professional Issues. 3 Hours. AE51.
Seminar in the philosophy, values, and issues in contemporary social work and social welfare. Seminar will address areas such as conception of professional and professionalism, ethics and values, standards,
licensing, and professional regulation, accountability and professional responsibility. Senior social work classification is required. LEC.

SW 630. Topics in Social Work Practice: Antisocial, Aggressive Behavior in Childhood and Early Adolescence. 1.5 Hour.
This course explores the theories and methods related to practice with children whose behavior is disruptive, oppositional, aggressive, or otherwise antisocial. Emphasis is placed on using protective and risk factors to design appropriate interventions. Open only to BSW seniors. LEC.

SW 631. Topics in Social Work Practice: Intimate Partner Violence. 1.5 Hour.
This course provides students with a beginning understanding of intimate partner violence including definitions, prevalence, theoretical frameworks, dynamics, and consequences for the individual, the family, the community and society. Students will develop skills required to assess, intervene, and prevent domestic violence cases. Open only to BSW seniors. LEC.

SW 632. Topics in Social Work Practice: Substance Abuse and Social Work Practice. 1.5 Hour.
This course will offer BSW students a very basic understanding of concepts associated with social work practice with people who confront challenges with alcohol and other drugs. Students will learn about substance abuse problems currently prevalent, recognize behavior related to substance abuse disorders and applicability of generalist social work practice models in developing interventions. Open only to BSW seniors LEC.

SW 633. Topics in Social Work Practice: Crisis Intervention. 1.5 Hour.
This course will provide undergraduate social work students with a basic introduction to crisis intervention, including theoretical models, the evolution and use of crisis theory and the design of interventions across a broad range of crisis situations. Open only to BSW seniors. LEC.

SW 690. Professional Education Topics in Social Welfare: ____. 0.5-3 Hours.
Current topics supplementing general social work knowledge of professionals in the field. Subjects offered as topics include: Addictions and Professional Enabling, Dynamics of Change, Computer Skills for Social Services Budgeting, Short Term Social Work Interaction. LEC.

SW 701. Basic Field Practicum. 7 Hours.
Students are assigned to social service agencies that provide generalist practice opportunities that prepare students for entry into the advanced level of either clinical social work practice or social work administration and advocacy practice. All students work under the supervision of a qualified field instructor where they have the opportunity to apply and test social work knowledge, values, and skills. This course is generally taken for two semesters, with credit being given only after completion of the second semester. Open only to first-level M.S.W. students. Enrollment must be concurrent with enrollment in SW 710 and SW 711. FLD.

SW 710. Social Work Practice I. 3 Hours.
The first of two-course sequence prepares students to begin to translate theory into strategies of intervention that cut across social work practice with systems of all sizes. Presents an integrating framework of generalist social work based on a strengths perspective and a person-in-environment frame of reference. Course taken concurrently with SW 701 which provides students an opportunity to integrate theory and practice in work with clients. LEC.

SW 711. Social Work Practice II. 3 Hours.
Second of two-course sequence and extends the work begun in SW 710. Focus in the second course is on mastery of the basics of helping relationships and the development of intervention skills for the middle and ending phases of intervention. Content is structured to prepare students to enter the advanced level of the M.S.W. program. Course taken concurrent with SW 701. Prerequisite: SW 710. LEC.

SW 712. Social Work Practice Seminar. 3 Hours.
Introduces advanced standing students to the themes of the school. Special emphasis is given to the Strengths Perspective, a multicultural approach to practice, and developing the skills to critically and reflectively think about one’s own practice. Advanced standing status required. LEC.

SW 713. Community and Organizational Practice. 3 Hours.
Students will be exposed to a body of knowledge and skills necessary to practice with communities and organizations. An advocacy perspective will act as the course’s unifying theme with client well-being acting as the driving force behind the activities of community and organizational practitioners. LEC.

SW 720. Social Policy and Program Analysis. 3 Hours.
This course provides a broad social context for identifying and analyzing social problems and social policy/program responses. Economic and social justice issues are exemplars for understanding societal dynamics and evaluating related policies. Emphasis is given to the development of conceptual sills in identifying and analyzing needs addressed by programs and policies. LEC.

SW 730. Human Behavior in the Social Environment. 3 Hours.
Course provides foundation knowledge about bio-psycho-social aspects of individual and family behavior. Theoretical perspectives on well being dysfunction, and developmental processes are critically analyzed, especially concerning applicability to social work practice that supports client strengths, diversity, and social justice. A holistic conceptual framework is used to integrate these micro-system perspectives with larger environmental socio-political concerns. LEC.

SW 740. Social Work Research. 3 Hours.
An examination of professionally relevant aspects of the nature of science: the nature of knowing, a constructed reality, the logic of explanation and inquiry, the nature of concepts, hypotheses, and assumptions. The content will include such issues as sampling, measurement reliability and validity, developing survey questions, types of qualitative and quantitative research, and an introduction to descriptive and inferential statistics. LEC.

SW 755. Studies: ____. 1-3 Hours.
This course provides the opportunity for experimentation with innovative course content in accordance with guidelines established by faculty. LEC.

SW 801. Advanced Field Practicum-Clinical Practice. 7 Hours.
Students are assigned to social service agencies that provide opportunities for advanced level clinical social work practice. All students work under the supervision of a qualified field instructor where they have the opportunity to integrate theory and practice and develop beginning competence in clinical social work practice. This course is generally taken for two semesters, with credit being given only after completion of the second semester. Open only to Advanced-level M.S.W. students. Enrollment must be concurrent with enrollment in SW 810 and SW 811. Prerequisite: Completion of all foundation requirements. FLD.

SW 804. Advanced Field Practicum-Social Work Administration. 7 Hours.
Students are assigned to social service agencies that provide practice opportunities in social work administration. All students work under the supervision of a qualified field instructor where they have the opportunity to develop beginning competence in social work administration. This course is generally taken for two semesters, with credit being given only after completion of the second semester. Open only to Advanced-level M.S.W. students. Enrollment in fall semester must be concurrent with
enrollment in SW 840, SW 841, and SW 849 and in Spring semester enrollment must be concurrent with enrollment in SW 842, and SW 843. Prerequisite: Completion of all foundation requirements. FLD.

**SW 810. Clinical Social Work Practice. 3 Hours.**
Clinical social work practice occurs in a variety of settings, from large public and private agencies and institutions through many types of individual and group private practice situations. This course is designed to teach advanced knowledge and skills that transcend contextual factors in order to produce a variety of positive client outcomes in a range of practice situations. In addition, this course focuses on the commitment of social work practitioners to provide services to those groups who, by reason of class, race, sex, or other characteristics, are not ordinarily well served by the many institutions in this society. Course taken concurrently with SW 801 which provides an opportunity to integrate theory and practice in work with clients. Prerequisite: Completion of all foundation requirements. LEC.

**SW 811. Topics in Advanced Clinical Social Work: _____. 3 Hours.**
The organizing theme of the advanced clinical selective emphasizes application of advanced theoretical and practice principles to client systems. This advanced selective provides students with the opportunity to critically consider the themes of the school as they relate to the need for assessment, diagnostic, and process evaluations with a variety of client systems. Every student will engage in activities designed to solidify their professional identity as clinical practitioners as they enter the workforce. Topics offered may include solution-focused brief therapy; family therapy, and cognitive behavioral therapy. Prerequisite: Completion of SW 810. LEC.

**SW 830. Social Work in Child and Family Settings. 3 Hours.**
An in-depth examination of social work in child and family settings. Students demonstrate the capacity to integrate research, policy, direct practice, and human behavior in considering the issues central to this area of practice. Students will also be able to explain how diversity issues manifest themselves at both the policy and direct practice levels. Prerequisite: Completion of all foundation requirements. LEC.

**SW 832. Social Work in Health Care and Mental Health Settings. 3 Hours.**
Content as in SW 830 focused on health care and mental health. LEC.

**SW 833. Social Work and Aging. 3 Hours.**
Content as in SW 830 focused on aging. LEC.

**SW 834. Social Work in Schools. 3 Hours.**
Content as in SW 830 focused on schools. LEC.

**SW 840. Program Design and Grant Writing. 3 Hours.**
Introduction to the effective construction of social programs, and the acquisition of agency resources through grant writing and fundraising. Topics include the design and analysis of social programs and the process of preparing a fundable grant proposal. Prerequisite: Completion of social welfare foundation level requirements. LEC.

**SW 841. Advanced Policy and Programs. 3 Hours.**
The focus is on the development of skills to stay abreast of and knowledgeable about critical federal and state policies, regulations, and funding structures and streams in students' chosen field of practice. Students will also learn how to research the literature on best practice and effective programs. All of these skills and consequential knowledge will be used to inform program design, resource acquisition, financial management, personnel management, outcome management, and other administrative functions. Prerequisite: Completion of all foundation requirements. LEC.

**SW 842. Using Outcomes for Administrative and Advocacy Practice. 3 Hours.**
Emphasis is on the use of information to improve human service program performance. Includes content for the design, implementation, and evaluation of information systems. Prerequisite: Completion of all foundation requirements. LEC.

**SW 843. Program Management and Supervision. 3 Hours.**
Introduction to client centered human service management including the variety of tasks, roles, and functions of managers. Builds knowledge and skills in effective employee supervision and human resource management including the development of a diverse workforce. Prerequisite: Completion of all foundation requirements. LEC.

**SW 846. Advanced Community and Advocacy Practice. 3 Hours.**
This course is designed to build on the content of the foundation course on community and organizational practice by further developing the theories, methods, and skills of community and advocacy practice. The course will help students know and further develop the analytical and empirical skills needed to effectively manage and advocate with and on behalf of different human service communities. Throughout the course, skill-based exercises are presented to aid in understanding theoretical concepts. Prerequisite: Completion of all foundation requirements. LEC.

**SW 849. Managing Financial Resources. 3 Hours.**
Focus on the use of resources needed to operate a client centered program. Includes budgeting techniques and their application; use of budgets for decision making, and problems of reallocation. Prerequisite: Completion of all foundation requirements. LEC.

**SW 852. Social Work with Groups. 3 Hours.**
Theory and practice of social work in the wide range of groups in which social workers participate as workers and co-workers. Focus on the social worker’s tasks and behaviors in establishing group services and in facilitating work in the group from the time of its formation to its termination as a service entity. Prerequisite: Completion of foundation requirements. LEC.

**SW 855. Studies: _____. 3 Hours.**
Course provides opportunity for experimentation with innovative content in accordance with guidelines established by faculty. Currently includes Study Abroad opportunities in developed and developing countries such as Costa Rica, India, Ireland, Italy and South Korea. LEC.

**SW 860. Loss and Grief. 3 Hours.**
Examines the multiple faces of loss and grief throughout the human life cycle. Examines personal and societal attitudes toward death and dying and the processes of dying and grieving. Course includes exploration of assessment and interventions that enable individuals and their families to cope with loss. Prerequisite: Completion of all foundation requirements. LEC.

**SW 861. Intimate Partner Violence. 1.5 Hour.**
This advanced practice course addresses the seriousness and extent of the problem, contributing factors, consequences for the individual, the family, the community, and society. Prevention and intervention practice models will be discussed within a clinical and strengths framework with a focus on developing skills for assessment, intervention, and prevention of violence with individuals and families. LEC.

**SW 862. Intrafamilial Sexual Abuse. 3 Hours.**
This course will focus on sexual misuse that occurs within the family system. Students will obtain a comprehensive understanding of sexual misuse that occurs within the family system and develop assessment and helping skills needed when working with abusive families. Theoretical, assessment, and helping aspects of intrafamilial sexual abuse will be examined. Prerequisite: Completion of all foundation requirements. LEC.
SW 863. Mental Health and Psychopathology. 3 Hours.
Theories of mental health and psychopathology are compared concerning etiology, classification, assessment, and treatment of distress and mental disorders. Theories and practices are evaluated critically for their usefulness in a strengths approach to social work in mental health settings. Prerequisite: Completion of all foundation requirements. LEC.

SW 866. Social Work Practice with Children and Adolescents. 3 Hours.
Developmental norms and processes in childhood and adolescence and related implications for assessment and intervention methods in work with children and adolescents. Topics include countertransference issues in work with children, working with parents and children, intervention tools, stress in childhood, special issues, and concerns in adolescence, sexual abuse of children. Prerequisite: Completion of all foundation requirements. LEC.

SW 868. Crisis Intervention and Suicide Risk Reduction. 3 Hours.
Principles of planned short term intervention generally and of crisis intervention specifically are addressed. The use of and application of crisis theory, crisis intervention, and suicide risk reduction are examined. Evidence based practices regarding the effects of crises including disasters on individual, family, and community well-being are considered. Prerequisite: Completion of all foundation requirements. LEC.

SW 869. Social Work with Clients with Alcohol and Drug-Related Problems. 3 Hours.
Focus is on developing value consciousness and multidimensional understandings in relation to drug use and abuse. Patterns of drug use, sociocultural attitudes toward drug use and definitional issues in the drug field will be examined. Explanatory theories and contemporary interventions, including the applicability of generalist social work practice models are presented and critically assessed. Prerequisite: Completion of all foundation requirements. LEC.

SW 870. Spiritual Aspects of Social Work Practice. 3 Hours.
This course provides a framework of knowledge, values, and skills for spiritually-sensitive social work practice. In order to prepare students to respond competently and ethically to diverse spiritual perspectives, a comparative, critically reflective approach to content is employed. The role of religion and spirituality in supporting or impeding individual strengths and social justice is considered. Prerequisite: Completion of all foundation requirements. LEC.

SW 872. Cultural Diversity in Social Work Practice. 3 Hours.
Provides students with a framework of knowledge, values, and practice methodology for culturally competent social work practice. Emphasizes themes of oppression and empowerment, culture-specific strengths and resources, and multicultural/transcultural perspectives. Prerequisite: Completion of all foundation requirements. LEC.

SW 873. Social Work with Gay, Lesbian, Transgendered and Bisexual Clients. 3 Hours.
The purpose of this course is to introduce students to the basic knowledge, values, and skills needed to work effectively with people who are gay, lesbian, and bisexual. The course will reflect a person-environment perspective, focusing on strategies that empower lesbians, gay men, and bisexuals to develop personal and environmental resources from a strengths perspective. Throughout the course, attention will be given to issues of diversity within the lesbian and gay population. Prerequisite: Completion of all foundation requirements. LEC.

SW 874. Social Work Practice with Women. 3 Hours.
Expands knowledge and practice skills in working with women in diverse social work practice settings. Critical examination of traditional and feminist practice approaches to problems that frequently confront women. Prerequisite: Completion of foundation requirements. LEC.

SW 875. Readings and Investigations: _____. 1-3 Hours.
Opportunity for scholarly investigation in an area of special interest. Students pursue independent study in an area of social work practice through the guidance of a selected faculty member. RSH.

SW 878. Social Work with African American Families. 3 Hours.
The purpose of this course is to introduce students to the basic knowledge, values, and skills needed to work effectively with African American clients and their families. Critical examination of issues such as racism, oppression, and the historical context and their impact on African American families. Prerequisite: Completion of all foundation requirements. LEC.

SW 890. Current Issues in Professional Social Work Education: _____. 0.5-3 Hours.
Course provides opportunity for innovative course content designed for the social work professional. Subjects offered include: Psychopathology: A Biopsychosocial Approach, Ethics and the Social Worker, Mediation, Solution Focused Practice, Strengths-based Management, Outcome-based Measurement of Practice. LEC.

SW 955. Doctoral Studies: _____. 1-3 Hours.
This course provides the opportunity for exploration of innovative content under the guidance of Ph.D. faculty, including Study Abroad opportunities in developed and developing countries such as Costa Rica, South Korea, India and Ireland. LEC.

SW 978. Research Design and Methods. 3 Hours.
This class is an in-depth introduction to the process of conducting research. This introduction provides the essential context for the qualitative, quantitative, and mixed methods research courses. LEC.

SW 979. Methods of Qualitative Inquiry. 3 Hours.
This course provides a detailed overview of knowledge and skills in qualitative inquiry. It examines issues in the philosophy of science and paradigms for qualitative inquiry in social work. It emphasizes principles and procedures for qualitative inquiry design, including an introduction to data collection, analysis, report writing, while attending to criteria for establishing trustworthiness. LEC.

SW 980. History and Philosophy of Social Work. 3 Hours.
This course is designed to provide students with opportunities to examine the underlying conceptual frameworks of social work practice-their history and present manifestations. This course rests on the definition of social work practice that includes the interaction of knowledge, value, and skill around professional purpose and in the context of professional sanction. LEC.

SW 981. Advanced Quantitative Research Methods. 3 Hours.
This course, which includes a lab, focuses on quantitative research methodology and related inferential statistics, emphasizing mastery of specific methodological and statistical knowledge and skills. The course will address the following topics: the framing of research questions; the selection of appropriate research methods and designs; the selection of appropriate statistics for data analysis; the principles of analysis; interpretation of findings; and the presentation of results. LEC.

SW 982. Social Welfare Policy. 3 Hours.
This seminar helps doctoral students learn to analyze social welfare policies and programs. After comparing and contrasting various policy analysis frameworks, students learn to analyze the ways in which social conditions, values, and ideologies shape the definitions of social problems as well as the development, implementation, and evaluation of social welfare policies that impact those problems. LEC.
SW 983. Advanced Research Methods II. 3 Hours.
The purpose of this advanced research methods course is to help equip professionals to design and carry out research with direct implications for social work practice and social welfare policy. Building on the experience in SW 978 and SW 981, this course will focus on more advanced topics in research design and both experimental and correlational statistical analyses. LEC.

SW 984. Social Work Practice: Identifying and Improving “Best Practices. 3 Hours.
The main focus of this seminar is on developing skills for conduction multidimensional, value critical inquiry about “best practices” relevant to social work practice, and applying the results of that inquiry toward extending and improving current “best practices”. LEC.

SW 985. Theory for Research: _____ : 3 Hours.
This course provides an introduction to interdisciplinary theory for applied social research, focusing on: (1) the roles and uses of theory in social inquiry (2) theory building and theory testing (3) induction and deduction (4) the articulation of common or related theoretical traditions in various social science disciplines. LEC.

SW 987. Teaching Social Work: Philosophy and Methods. 3 Hours.
The purpose of the course is to prepare doctoral students for effective teaching of Social Work courses at all levels of higher education. Doctoral students need practical skills, a theoretical base, experience, and confidence in order to improve their teaching performance. LEC.

SW 988. Mixing Methods in Social Science Research. 3 Hours.
The purpose of this course is to provide an overview of mixed methods research, consisting of the history and philosophy of mixed methods research, the emerging literature on it, purposes and characteristics of mixed methods research, types of research problems addressed, the specification of mixed methods purpose statements and research questions, types of major mixed methods designs, data collection and analysis strategies, and reporting and evaluating results. LEC.

SW 990. Graduate Research. 1-9 Hours.
Individual research preparatory to defense of dissertation prospectus. (By arrangement with doctoral chair.) RSH.

SW 998. Doctoral Applied Research and Education Studies. 1 Hour.
This course provides the opportunity for doctoral students to learn about research or teaching through direct application of research or teaching skills under the mentorship of faculty. RSH.

SW 999. Dissertation. 1-12 Hours.
THE.

Bachelor of Social Work

Bachelor of Social Work Program

The School of Social Welfare provides the education and experience necessary for a career in social work. By helping shape students' capacity for caring, the school prepares social workers to carry out the unique purposes of the profession — to develop human potential, to promote individual well-being, and to bring about a more just society.

Social work is a major professional discipline in the broad institution of social welfare. The term social welfare denotes the dimensions of society concerned with human needs: health, education, economic security, housing, and mental health.

The undergraduate program of the KU School of Social Welfare prepares graduates for beginning generalist social work practice. The program defines generalist practice as maintaining focus on the interface between systems (i.e., individual, family, groups, organizations, and communities), with particular emphasis on

- The strengths inherent in these systems.
- The need to understand the role of gender, age, race/ethnicity, class, religious beliefs, sexual orientation, disability, and culture in all phases of the social work process.
- The promotion of social and economic justice for those disenfranchised on the basis of the attributes listed above.
- The assumption of a critical perspective regarding different ways of knowing.

Beginning generalist practice uses multilevel methodology, depending on the needs of the client system, and incorporates a knowledge, value, and skill base that is transferable between and among diverse contexts and locations.

The B.S.W. program is offered on the Lawrence campus and through the Edwards Campus as part of a degree-completion program at Kansas City Kansas Community College.

Offered on the KCKCC Campus

The B.S.W. curriculum is designed as a 2+2 degree-completion program. Associate of Arts degree holders interested in completing their undergraduate degrees take all of the necessary course work at Kansas City Kansas Community College and receive a KU degree. For more information, contact the B.S.W. 2+2 student services at 913-288-7304 to make an appointment.

Advising

While Deciding on a Major

Early advising is recommended for undergraduates interested in social work. Pre-social-work students (both KU and transfer) are encouraged to attend group advising through the school during each enrollment period.

From Another College

For undergraduates who plan to transfer to KU but currently attend another college, advising is available by phone or mail. The school works closely with counselors from all Kansas colleges.

Once Admitted

Once a student is admitted to the School of Social Welfare, a member of the School’s faculty is assigned as professional/career advisor to assist career matters. In addition, an academic advisor will be able to assist students in the enrollment process, filling out enrollment forms and other academic program requirements. Students consult with their academic advisor before enrollment each semester and have their advising hold removed.

For more information on B.S.W. advising, review the student handbook (http://socwel.ku.edu/resources/forstudents/academic-handbooks).

4 semesters, beginning in the fall semester, are necessary to complete professional social work courses required for the B.S.W. degree.
Certificate Programs

Undergraduate Engaged Learning Certificate Programs

The university offers several engaged learning certificate programs that work well with the undergraduate social work major. Students who complete an engaged learning certificate program receive a notation of it on their transcripts. Learn more about certificate programs (http://socwel.ku.edu/academics/degrees/bsw/bsw/certificateprograms).

Undergraduate Admission to KU

First-year students enter the College of Liberal Arts and Sciences and complete 3 semesters of work (36 credit hours) before applying to the B.S.W. program. Visit the Office of Admissions (http://admissions.ku.edu) for information about admission to KU. Visit the Office of International Student and Scholar Services (http://www.iss.ku.edu) for information about international admissions.

Undergraduate Admission to the School of Social Welfare

Admission Requirements

- Completion of 36 hours of course work, including mathematics and English composition I and II.
- A minimum grade-point average of 2.5.
- Submission of completed application forms, an essay answering 3 questions, a résumé, and 3 reference forms.

Grade-Point Average

Evaluation of transcripts submitted as part of the application for admission includes computation of grade-point average for all work completed. This admission grade-point average is adjusted to include only courses that transfer. A student must maintain a minimum cumulative grade-point average of 2.5 and a 2.5 in social work required courses.

Admission Process

Students are admitted for fall semester only. Applications are accepted 2 times a year: February 1 for KU students and new transfer students; June 1 for new transfer students only.

Learn more about the admission process (http://socwel.ku.edu/admission).

Bachelor of Social Work Degree Requirements

Primary responsibility for meeting graduation requirements rests with the student.

- A minimum of 120 credit hours of course work, including 12 credit hours of field practicum. At least 30 hours must be taken in residence.
- A 2.5 minimum grade-point average for all classroom work.
- A 2.5 minimum grade-point average in required social work courses.
- Successful completion of field practicum.
- Recommendation by the faculty of the school to the chancellor and the Kansas Board of Regents that the degree be granted.

Curriculum

Professional Socialization (6)

SW 623 Seminar in Professional Issues 3

Students prepare for the responsibilities of social work, involving professional functioning, knowledge and use of professional ethics, values, attitudes, and skills. Students analyze their values critically to develop a unified personal and professional framework. Students develop their professional commitment to a code of ethics and understanding of social work to govern their professional behavior.

Human Behavior and the Social Environment (6)

SW 530 Human Behavior in the Social Environment 3
SW 532 Community and Organizational Dynamics and Human Behavior 3

Students acquire a knowledge and understanding of individual, group, community, institutional, and cultural dynamics and behavior. Students become familiar with concepts, theories, and empirical findings that enable them to practice effectively as professional social workers.

Research (6)

SW 540 Fundamentals of Social Work Research 3
SW 541 Social Work Research Seminar 3

Students achieve a command of fundamental social work research. A knowledge of the scientific method is acquired and applied to current research. Students learn to apply critical thinking to the professional literature.

Social Work Practice (19-21)

SW 510 Fundamentals of Social Work Practice 3
SW 555 Diversity, Oppression, and Social Justice: Culturally Competent Social Work 3
SW 560 Topics in Social Welfare: _____ 1-3
SW 610 Social Work Practice Seminar I 3
SW 612 Social Work Practice Seminar II 3
SW 630 Topics in Social Work Practice: Antisocial, Aggressive Behavior in Childhood and Early Adolescence 1.5
SW 631 Topics in Social Work Practice: Intimate Partner Violence 1.5
SW 632 Topics in Social Work Practice: Substance Abuse and Social Work Practice 1.5
SW 633 Topics in Social Work Practice: Crisis Intervention 1.5

Students acquire knowledge and skills needed for effective social work practice. The accumulated knowledge and understanding of the social work curriculum come together in the practice courses.

Social Policy (6)

SW 620 Social Policies and Program Analysis 3
SW 621 Social Policy Analysis and Advocacy 3

Students develop the capacity for critical analysis of social problems, policies, and programs. Students analyze social work practice to understand the effect of policy on direct service. Basic policy analysis skills acquired in the first course are applied in specified areas of practice, applying analytical skills to problems, policies, and programs.

Study Abroad (1-3)

SW 560 Topics in Social Welfare: _____ 1-3
Students get exposure to international aspects of social welfare in countries such as Costa Rica, South Korea, India, and Ireland. An elective course that meets general education credit hour requirements.

Field Practicum (SW 601)
The field education office works with community agencies throughout Kansas and western Missouri to provide field practicum opportunities for students. Students are placed in these agencies through a collaborative process among the field education office, the student, and the agency. The field education office is responsible for ensuring that all field placements are able to provide the appropriate learning opportunities for students and that qualified field instructors will be available to the student.

Learn more about field education (http://socwel.ku.edu/academics/degrees/bsw/bsw-fe/fieldeducation).

Required Hours for Field Practicum
Students with 9 or more remaining elective or general education requirement credit hours in the fall of the senior year must complete these hours before beginning field placement. Students who are completing these hours may take SW 620, SW 621, and the mini-courses, but they cannot enroll in SW 610, SW 612, or SW 623. Students will be able to meet the requirements of Core Goals 4, 5, and 6 as a result of completing the major.

KCKCC B.S.W. Program
The B.S.W. curriculum is available at Kansas City Kansas Community College. The KCKCC curriculum is designed as a 2+2 degree-completion program (http://socwel.ku.edu/academics/degrees/bsw/2plus2/overview). Associate of Arts degree holders interested in completing their undergraduate degrees take all of the necessary course work at KCKCC and receive a KU degree. For more information, contact the B.S.W. 2+2 student services coordinator at 913-288-7304 to make an appointment.

Liberal Arts Prerequisites for a broad base of understanding
Learn more about the B.S.W. curriculum (http://socwel.ku.edu/academics/degrees/bsw/bsw/curriculum) and liberal arts prerequisites.

COMMUNICATIONS SKILLS

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<td><strong>English</strong></td>
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<td>ENGL 101 Composition</td>
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<td>ENGL 102 Critical Reading and Writing</td>
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<td><strong>Literature</strong></td>
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<td>(One of the following or any 200-level course or above excluding Children’s Literature)</td>
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<td>ENGL 203 Topics in Reading and Writing: ______</td>
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<td>ENGL 209 Introduction to Fiction</td>
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<td>ENGL 210 Introduction to Poetry</td>
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<td>ENGL 211 Introduction to the Drama</td>
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<td><strong>Speech Communications</strong></td>
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<td>COMS 130 Speaker-Audience Communication</td>
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<td>PHIL 149 does NOT count</td>
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<td>Exemption - written verification of two semesters of high school speech/debate with grade of B or better</td>
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MATHEMATICS

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<td>MATH 101 College Algebra</td>
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U.S. CULTURAL STUDIES (one of the following)

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<td>AAAS 306 The Black Experience in the U.S. Since Emancipation</td>
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<td>AMS 100 Introduction to American Studies</td>
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<td>AMS 110 American Identities</td>
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<td>AMS 290 Religion in American Society</td>
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<td>AMS 330 American Society</td>
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<td>AMS 696 Studies in: ______</td>
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<td>HIST 128 History of the United States Through the Civil War</td>
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<td>HIST 129 History of the United States After the Civil War</td>
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<td>HIST 373 The Supreme Court and Religious Issues in the United States</td>
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<td>HIST 530 History of American Women--Colonial Times to 1870</td>
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<td>HIST 531 History of American Women--1870 to Present</td>
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<td>HIST 616 Contemporary America, 1941-Present</td>
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<td>PHIL 160 Introduction to Ethics</td>
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<td>POLS 110 Introduction to U.S. Politics</td>
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<td>POLS 611 Constitutional Law: Civil Liberties</td>
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<td>REL 171 Religion in American Society</td>
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<td>SOC 160 Social Problems and American Values</td>
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WESTERN CIVILIZATION

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<td>HWC 204 Western Civilization I</td>
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<td>HWC 205 Western Civilization II</td>
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INTERCULTURAL STUDIES

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<td>AAAS 103 Introduction to Africa</td>
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<td>AAAS 104 Introduction to African-American Studies</td>
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<td>AAAS 105 Introduction to African History</td>
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<td>AAAS 106 The Black Experience in the Americas</td>
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<td>AAAS 300 African Traditional Religion and Thought</td>
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<td>AAAS 301 Portrait of a Third-World Nation: Haiti</td>
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<td>AAAS 305 Modern African History</td>
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<td>AAAS 332 Introduction to African Literature</td>
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<td>AAAS 351 Africa’s Human Geographies</td>
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<td>AAAS 370 Introduction to the Languages of Africa</td>
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<td>AAAS 376 West African Art</td>
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<td>AAAS 415 Women and Islam</td>
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<td>AAAS 435 Muslim Women’s Autobiography</td>
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<td>AAAS 470 Language and Society in Africa</td>
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<td>ANTH 108 Introduction to Cultural Anthropology</td>
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<td>ANTH 160 The Varieties of Human Experience</td>
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<td>ANTH 161 The Third World: Anthropological Approaches</td>
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<td>ANTH 293 Myth, Legend, and Folk Beliefs in East Asia</td>
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<td>ANTH 362 Peoples of Southeast Asia</td>
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<td>ANTH 364 Peoples of Japan and Korea</td>
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<td>ANTH 368 The Peoples of China</td>
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<td>ANTH 370 Peoples and Cultures of the Pacific</td>
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<td>ANTH 372 Religion, Power, and Sexuality in Arab Societies</td>
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<td>ANTH 376 North American Indians</td>
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<td>ANTH 389 The Anthropology of Gender: Female, Male, and Beyond</td>
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<td>COMS 246 Introduction to Intercultural Communication</td>
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Requirements for the Major in Social Work

Preprofessional course (3)

The School of Social Welfare requires students to take SW 220 before entering senior-level classes.

Junior

Fall Hours Spring Hours
SW 530 3 SW 510 3
SW 555 3 SW 541 3
SW 540 3 SW 532 3
9 9

Senior

Fall Hours Spring Hours
SW 610 3 SW 612 3
Select two of the following: 3 SW 621 3
SW 630 SW 623 3
SW 631 SW 601 (fall and spring) 6
SW 632

SW 633
SW 620 3
SW 601 (fall and spring) 6
15 15

Total Hours: 48

Master of Social Work

Master of Social Work

Built upon the commitment to a strengths perspective of social work practice, the Master of Social Work program (http://socwel.ku.edu/academics/degrees/msw/regular/overview) offers educational opportunities for those who wish to expand their skills in helping individuals and communities develop their capacities to support and enhance the quality of life for all people. The school recognizes that individuals with a natural skill in helping come from all backgrounds and encourages them to apply.

The Master of Social Work degree prepares graduates for advanced social work practice in 1 of 2 broad areas — clinical social work practice with individuals, families, and groups or social work administrative and advocacy practice aimed at macro-level practice. The first level of the master’s curriculum is a generalist foundation required of all students. The foundation consists of 6 classroom courses and a 2-semester practicum that reflects the generalist intent.

At the advanced level, students choose a concentration in clinical social work practice with a focus in a particular field of practice — child and family, health/mental health, aging — or social work administrative and advocacy practice. The advanced-level practicum implements students’ choice of concentration.
Full-time regular M.S.W. students complete the program in 2 years. Students admitted for part-time study may extend the program for up to 4 years.

The Advanced-Standing Program admits individuals with B.S.W. degrees with strong academic records. Applicants generally have relevant post-degree work experience.

The regular M.S.W. program is available full time or part time. Part-time students complete the program in either 3 or 4 years. On the KU Edwards Campus (http://edwardscampus.ku.edu), students can complete the M.S.W. curriculum in morning, afternoon, evening, and Saturday classes. On the Lawrence campus, morning and afternoon classes are offered on weekdays.

The M.S.W. program offers blended courses, combining face-to-face and online learning with in-class attendance.

Postgraduate Education Options

A special program has been created to help meet the continuing education needs of professional social workers in the community. For more information, see the Professional and Community Education Program (http://socwel.ku.edu/alumni/pce/intro).

Social Work & Law

Joint Degree in Social Work and Law

The Juris Doctor/Master of Social Work joint degree program combines into 4 years of study the 3-year Juris Doctor (p. 776) program offered by the School of Law (http://www.law.ku.edu) and the 2-year M.S.W. degree offered by the School of Social Welfare. The social work practitioner gains an understanding of the legal environment in which he or she works and its impact on social problems. The legal practitioner learns how social problems shape the law. Applicants must apply to and meet the criteria for admission to both schools. Contact each school for separate admission information.

School Social Work

The Kansas Department of Education no longer certifies school social workers. However, the School of Social Welfare strongly recommends that students interested in practicing in a school setting take the following:

- A practicum experience at the advanced level in a public school setting under the direct supervision of a school social worker.
- Clinical social work concentration.
- SW 830 Social Work in Child and Family Settings.
- SW 834 Social Work in Schools as 1 clinical elective.
- SPED 725 is highly recommended as an elective choice for students planning a future in school social work.

2-Year Full-Time or Part-Time Program

Applicants must have bachelor’s degrees from accredited universities before beginning the M.S.W. course and field work. Applicants’ undergraduate studies must reflect the successful completion of liberal arts courses, including those in the social sciences and humanities which focus on the development of knowledge in communication; social, biological, and behavioral sciences; history; philosophy and the ways in which knowledge is gained and applied; and the value of a multicultural and diverse society.

Advanced-Standing Criteria

The Advanced-Standing Program requires a bachelor’s degree from a CSWE-accredited social work program with a grade-point average of at least 3.0. A higher grade-point average is desirable. Applicants who earned their social work bachelor’s degrees within the 2 years before applying to the M.S.W. program must submit a copy of their practicum evaluation as well as a letter of recommendation for graduate studies completed by one of their practice instructors. In addition, all applicants who have been employed in a social work setting should submit a letter of recommendation from at least one supervisor who can address the applicant’s knowledge, skill, and readiness for graduate education.

Admission decisions take into account the applicants’ amount and types of social service experience, letters of recommendation, narrative statement, writing skills, and undergraduate grade-point averages and courses completed.

The Advanced-Standing Program is a full-time 1-year program or part-time 2-year program. To be considered for advanced standing, current seniors should submit transcripts that document their fall semester grades and their successful practicum experience. All applications to either the regular M.S.W. or the Advanced-Standing Program become the property of the University of Kansas.

Learn more about the M.S.W. programs (http://socwel.ku.edu/academics/degrees/msw/regular/overview).

Application Procedure for All Options

A minimum undergraduate grade-point average of 3.0 on a 4.0 scale is preferred. The admissions committee takes into account special circumstances such as improvement of grades in upper-division or graduate courses. We look for evidence of an applicant’s commitment to the well-being of people and communities; a well-developed sense of self; emotional maturity and the ability to think clearly, creatively, and independently. Graduate Record Examination scores are not required.

Applicants are evaluated on undergraduate grade-point average, graduate course work (if any), volunteer and work experience especially related to social work, and evidence of potential for a social work career in the application narrative and references.

Applications can be filled out and submitted online beginning October 1 each year. The applicant is responsible for gathering the following supporting materials:

- 1 copy of student-issued transcripts from all previously attended schools regardless of degree status,
- 3 letters of reference via the online process, and
- A nonrefundable application fee.

Please observe the specific instructions provided in the application area of the school’s website.

Applications are reviewed beginning in October. Admission decisions are made in the spring of each year. Advanced-Standing M.S.W. students begin in June; all other M.S.W. students (full time and part time) begin in August. A final, official degree-posted transcript in a sealed envelope must be submitted before the start of classes.
Final Deadlines
All applications are reviewed upon receipt. The deadline for the Advanced-Standing Program is January 15. The deadline for applications to the regular M.S.W. program (full time or part time) is February 15. Early application is encouraged.

To ensure your privacy, we are unable to provide admission decisions by telephone. All decision notifications are sent via email.

All application materials become the property of the University of Kansas.

Learn more about the application process (http://socwel.ku.edu/admission).

Planning Your Commitment
Students are admitted on either a full- or a part-time basis. In making decisions about full- or part-time study, students should consider that each class requires several hours of preparation each week. The program is demanding; students can expect reading assignments and paper preparation and be prepared to fulfill practicum commitments averaging 2½ to 3 days a week.

Students admitted part-time take 6 credit hours each semester the first year and the additional 10 hours, including practicum, the second year. Full-time students enroll in 16 credit hours each semester. Currently, the M.S.W. program is a weekday program in Lawrence. Morning, afternoon, evening, and Saturday courses are offered on the KU Edwards Campus (http://edwardscampus.ku.edu).

At the foundation level and in the social work administrative and advocacy practice concentration, all courses offer the blended courses option. In the clinical concentration, blended courses are offered that meet concentration requirements for students interested in Health/Mental Health and Children and Families. The blended courses option combines face-to-face and online learning, with in-class attendance on either the Lawrence or KU Edwards campus. We offer morning, afternoon, evening, and Saturday courses on the Edwards campus. Blended courses are offered on Saturdays at the Edwards campus. On the Lawrence campus, classes are offered during the week in both traditional and blended courses formats. An offer of admission does not guarantee a student’s choice for classes held at specific days of the week or time of day or in a special format.

International Students
All students from abroad, including students from English-speaking countries, must visit KU’s Applied English Center (http://www.aec.ku.edu) for verification of English language skills. You may be required to take an English Language Proficiency Test and to enroll in English language courses formats. An offer of admission does not guarantee a student’s choice for classes held at specific days of the week or time of day or in a special format.

The International Conference on Social Welfare recommends that before seeking professional education for social work in the United States, a student should complete comparable study available in his or her own country and acquire a minimum of 2 years of social work experience there.

International students also must submit
1. Original bank statements showing evidence of your and/or your sponsor’s financial ability to pay for your educational and living expenses. Adequate health insurance coverage also is required.
2. Evidence of having taken the Test of English as a Foreign Language (TOEFL) examination within the past 2 years. Minimum scores are subject to change. Please visit the application area of our website for the latest minimum scores.
3. 1 official, original-language copy of your academic records with a certified English translation.

M.S.W. Degree Requirements
The School of Social Welfare requires a total of 64 credit hours for the M.S.W. degree, consisting of

- 36 credit hours of classroom work maintaining a grade-point average of 3.0 (B) — a total of 108 grade points on a 4.0 grading scale.¹
- 28 credit hours of field practicum with an S grade for satisfactory performance.
- 2 sequential semesters of 10-credit-hour enrollments are necessary to meet residence requirements.
- Recommendation of the faculty of the School of Social Welfare to the University Registrar that the master’s degree be granted.

¹ Students who maintain grade-point averages of at least 3.0 in the foundation courses are eligible to take additional courses beyond the minimum requirement.

M.S.W. Foundation Curriculum
Social Work Practice (SW 710, SW 711). Based on the school’s unique strengths perspective, courses provide core knowledge and skills essential for working with individuals, families, and groups.

Community and Organizational Practice (SW 713). This practice class gives students an understanding of the core elements of practice in organizations and communities.

Social Policy and Program Analysis (SW 720). Course emphasizes the effect of social problems, policies, and programs on people and gives students the skills to analyze the effectiveness of policies and programs.

Human Behavior in the Social Environment (SW 730). Theoretical underpinnings essential for effective social work practice and for understanding the behavior of individuals, families, groups, and communities.

Social Work Research (SW 740). Course offers students the opportunity to become informed consumers of social-work-relevant research and to develop skill in evaluating the effectiveness of their own work with clients and the effectiveness of the programs in which they work.

Field Practicum (SW 701). Community agencies throughout Kansas and western Missouri offer practicum opportunities for the application of knowledge, values, and skills learned in the classroom. Field experiences
for foundation-level students extend the curriculum goal of generalist social work and are designed so that students acquire fundamental competencies and practice skills across multiple social systems.

**Foundation Courses**

The following courses are required (32 credit hours):

- SW 701 Basic Field Practicum 7
- SW 701 Basic Field Practicum 7
- SW 710 Social Work Practice I 3
- SW 711 Social Work Practice II 3
- SW 713 Community and Organizational Practice 3
- SW 720 Social Policy and Program Analysis 3
- SW 730 Human Behavior in the Social Environment 3
- SW 740 Social Work Research 3

**M.S.W. Advanced-Level Curriculum**

Students at the advanced level select a concentration in either clinical social work practice or social work administrative and advocacy practice. This selection is based on their goals of working directly with individuals, families, and groups or at the macro-level of practice in advocacy and community practice. With the exception of study abroad courses offered by the School of Social Welfare, students may not enroll in advanced-level classes before completing foundation requirements.

All students completing the M.S.W. degree are eligible to apply for licensure in the State of Kansas as Licensed Master Social Workers (LMSW). Students who anticipate working towards meeting the requirements for the Licensed Specialist Clinical Social Worker (LSCSW) examination should enroll in the clinical social work practice concentration.

**Clinical Social Work Concentration**

This 32-credit-hour concentration prepares students for social work practice with individuals, families, and small groups. The focus of the student’s academic preparation is twofold: on developing the assessment skills needed to identify client’s personal, interpersonal, environmental and/or systems needs; and on selecting, in concert with the client, appropriate interventions that are evidence based and supported as best practices. Students are exposed to social work theories and methods applicable to the range of practice settings in which clinical social work services are provided; they simultaneously have the opportunity to apply this developing knowledge in the field education component of their graduate programs. Students who anticipate taking the Licensed Specialist Clinical Social Worker (LSCSW) examination should enroll in the clinical social work practice concentration.

The following courses must be taken in the clinical concentration (32 credit hours):

- SW 801 Advanced Field Practicum-Clinical Practice 7
- SW 801 Advanced Field Practicum-Clinical Practice 7
- SW 810 Clinical Social Work Practice 3
- SW 863 Mental Health and Psychopathology 3
- SW 811 Topics in Advanced Clinical Social Work: _____ (Clinical Practice Selective) 3

This selection of offerings emphasizes application of advanced theoretical and practice principles to client systems.

Integrative seminar: 3

Students must select an integrative seminar that complements the advanced field practicum. Courses include:

- SW 830 Social Work in Child and Family Settings
- SW 832 Social Work in Health Care and Mental Health Settings
- SW 833 Social Work and Aging
- SW 870 Spiritual Aspects of Social Work Practice 3
- SW 872 Cultural Diversity in Social Work Practice 3
- SW 874 Social Work Practice with Women 3

This cluster of courses is organized around understanding diversity and applying that understanding to specific populations of people who have been marginalized and oppressed.

**Clinical Practice Electives**

- SW 834 Social Work in Schools 3
- SW 852 Social Work with Groups 3
- SW 860 Loss and Grief 3
- SW 862 Intrafamilial Sexual Abuse 3
- SW 868 Crisis Intervention and Suicide Risk Reduction 3
- SW 869 Social Work with Clients with Alcohol and Drug-Related Problems 3

The clinical practice elective offers students an opportunity to acquire in-depth knowledge in a core area of clinical social work practice. Topics may include ethics, human sexuality, mental health and psychopathology, family mediation, loss and grief. Study Abroad courses do not meet clinical practice elective requirements.

**Non-Clinical Electives**

- SW 846 Advanced Community and Advocacy Practice 3
- SW 855 Studies: _____ 3
- SW 875 Readings and Investigations: _____ 1-3

These courses are macro-oriented and do not have significant clinical content.

(For students expecting to sit for the LSCSW license in the future, at least one of the clinical electives must meet the BSRB requirement for diagnosis and treatment. Those interested in school social work should take SW 834 as one of their elective courses.)

Note: Earning an M.S.W. in the clinical social work concentration requires 15 credit hours of course work which has clinical content covering issues of diagnosis and treatment. These courses include SW SW 810, SW 811, SW 863, integrative seminars, and diversity selectives. Study Abroad courses do not contain clinical content and may be used toward the diversity selective requirement or as an elective. If a student enrolls in Study Abroad for the diversity selective requirement, the elective course must contain clinical social work content.

**Social Work Administrative and Advocacy Practice Concentration**

The 32-credit-hour social work administrative and advocacy practice (SWAAP) curriculum prepares graduates for management or advocacy positions in public and voluntary human services organizations. The concentration helps students achieve competence in managerial and advocacy practice grounded in the knowledge and values of social work. Knowledge and skill areas include program design, managing information, managing people, managing resources, community advocacy, and program evaluation. This concentration prepares students to be program
managers, supervisors, agency administrators, program monitors, advocates and evaluators, and social planners with voluntary health and welfare planning agencies; federal, state, and local planning bodies; and advocacy and self-help organizations. Students graduating from the social work administrative and advocacy practice concentration are eligible for licensure at the LMSW level in the state of Kansas.

The following courses must be taken in the SWAAP concentration (32 credit hours):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW 804</td>
<td>Advanced Field Practicum-Social Work Administration</td>
<td>7</td>
</tr>
<tr>
<td>SW 804</td>
<td>Advanced Field Practicum-Social Work Administration</td>
<td>7</td>
</tr>
<tr>
<td>SW 840</td>
<td>Program Design and Grant Writing</td>
<td>3</td>
</tr>
<tr>
<td>SW 842</td>
<td>Using Outcomes for Administrative and Advocacy Practice</td>
<td>3</td>
</tr>
<tr>
<td>SW 841</td>
<td>Advanced Policy and Programs</td>
<td>3</td>
</tr>
<tr>
<td>SW 843</td>
<td>Program Management and Supervision</td>
<td>3</td>
</tr>
<tr>
<td>SW 849</td>
<td>Managing Financial Resources</td>
<td>3</td>
</tr>
<tr>
<td>SW 8xx</td>
<td>Advanced administrative practice selective</td>
<td>3</td>
</tr>
</tbody>
</table>

**M.S.W. Advanced-Standing Program**

The Advanced-Standing program requires an enrollment of 38 credit hours, as follows:

- A summer enrollment in 2 classes:
  - a. SW 712, a social work practice class organized around the school’s major curriculum themes, and
  - b. an elective course selected by the student to broaden the base of knowledge. Electives are offered in various locations. (Students must earn a minimum grade of B in SW 712 to continue matriculating.)

No credit is given for courses taken before admission. The advanced level of this program may be taken full time or extended up to 2 years. Two sequential semesters of 10-credit-hour enrollments are necessary to meet residence requirements.

**Field Practicum**

The field education office works with community agencies throughout Kansas and western Missouri to provide field practicum opportunities for students. Students are placed in these agencies through a collaborative process among the field education office, the student, and the agency. The field education office is responsible for ensuring that all field placements are able to provide the appropriate learning opportunities for students and that qualified field instructors will be available to the student.

Learn more about field education (http://socwel.ku.edu/academics/degrees/msw/regular-fe/fieldeducation).

**Prior Work Experience**

In accordance with national curriculum policy, prior employment and life experience may not be credited toward classroom course work or practicum requirements.

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**Doctor of Philosophy in Social Work**

**Doctor of Philosophy in Social Work**

Challenging ideas and creative thinking are happening at KU’s School of Social Welfare, which is consistently ranked in the top 10 public university programs. The doctoral program prepares students to be leaders of the profession through advanced research, scholarship, and teaching. The school is known internationally as a prime innovator in the Strengths Perspective for social work practice. Doctoral students have played a key role in this exciting initiative.

**Program Highlights**

- Creative, critical thinking about practice, policy, and theory
- Quantitative and qualitative skills for research
- Innovative scholarship and teaching
- Student-centered educational approach
- Financial support and mentoring for students
- Full- and part-time enrollment options
- Personal and community strengths
- Appreciation for human diversity and global perspective
- Social justice

Doctoral students become conversant with the excitement and creativity in the profession — how professionals come to know what they know, how they put that knowledge into practice, and how it affects consumers.

**Consider Our Program**

The Ph.D. program (http://socwel.ku.edu/academics/degrees/phd/overview) offers effective alternatives for building knowledge and inquiring into social work practice and social welfare policy. We are dedicated to educating scholars who can develop knowledge for the profession through quantitative, qualitative, theoretical, or conceptual analyses, and historiographic investigations. Demand for our Ph.D. graduates is high. Recent alumni are employed in teaching, research, and combined teaching/research positions at large and small universities.

**Curriculum**

Doctoral courses (http://socwel.ku.edu/academics/degrees/phd/curriculum) prepare students as scholars with conceptual and methodological sophistication.

- The history and philosophy course focuses on the intellectual history, current status, and innovation of social work ideas, ideologies, and theories.
- In the research sequence, students learn both qualitative and quantitative methodologies, designs, advanced modes of analysis, theory for research, and appropriate applications.
- The policy/practice courses provide the opportunity to analyze policies of interest to the student and discover “best” practices as they affect a population. Students critically consider human problems, strengths, and strategies for change and transformation.
- Qualifying papers and electives help students develop deep understanding in areas of special interest.
- Seminars on teaching enable students to be effective educators.
The dissertation involves advanced and focused research into a topic selected by the student, based on quantitative, qualitative, historical, or other methods of inquiry.

GTA & GRA

Teaching and Research Opportunities

Our Ph.D. program contributes significantly to the model of strengths and community-based research, service, and education developed by the school. Under the direction of faculty members, many Ph.D. students help with research projects and serve as teaching assistants or as field instructors. For example, doctoral research assistants work in such areas as aging, child welfare, criminal justice, diversity issues, domestic violence, health and disability, child and adult mental health, social policy, and spirituality.

It is part of the school’s mission to focus on teaching, inquiry, and practice that benefit populations who experience oppression of all kinds. The school is committed to diversity and multicultural perspectives. Many of the research and service projects of faculty members and doctoral students are committed to direct and positive impact on people of color, status minorities, and oppressed peoples, individually, collectively, and internationally.

Responsible Scholarship

Contact your department or program for more information about research skills and responsible scholarship, and the current requirements for doctoral students. Current Lawrence and Edwards Campus policies on Doctoral Research Skills and Responsible Scholarship are listed in the KU Policy Library.

Admission Criteria

Criteria used in judging applications include the applicant’s potential for excellence in academic performance, professional practice experience, and potential for contributions to knowledge-building for social work.

Application Timeline and Procedure

Applications are not reviewed until all materials are received. The deadline is February 1. Applicants are strongly encouraged to take the Graduate Record Examination well in advance of the February 1 deadline. Late applications are considered only on a space-available basis.

Learn more about the admission process.

International Students

International students from all regions of the world are encouraged to apply. Contact the school at admissionsw-phd@ku.edu for more information about international student applications and resources and regulations of International Student and Scholar Services (http://www.iss.ku.edu) and the Applied English Center (http://www.aec.ku.edu).

Ph.D. Degree Requirements

The program requires a minimum of 54 credit hours. This total includes 24 hours of required courses, 12 hours of electives, a qualifying paper, a comprehensive examination process, and the dissertation. In fulfilling the elective hours, students may take graduate-level courses in any substantive area or research skills necessary for successful completion of their goals. Students can fulfill this requirement by taking electives in social science or other relevant graduate disciplines. Before students are certified as eligible for candidate status, they must complete course requirements, a qualifying paper, and a dissertation proposal.

Commuting for 1 or 2 days a week is possible. Required course work (http://socwel.ku.edu/academics/degrees/phd/curriculum) can be completed in 2 years. Additional time is needed to complete the qualifying papers and dissertation. The program can be completed in 4 years of focused work. Students may start on a part-time basis but eventually must spend 1 year in residence, which entails 2 semesters of full-time course work (9 hours) and may include one summer session (6 hours); or a combination of 6 hours of course work and half-time appointment as a teaching or research assistant for 2 semesters.

Doctoral Courses (60)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW 978</td>
<td>Research Design and Methods</td>
<td>3</td>
</tr>
<tr>
<td>SW 979</td>
<td>Methods of Qualitative Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>SW 980</td>
<td>History and Philosophy of Social Work</td>
<td>3</td>
</tr>
<tr>
<td>SW 981</td>
<td>Advanced Quantitative Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>SW 982</td>
<td>Social Welfare Policy</td>
<td>3</td>
</tr>
<tr>
<td>SW 983</td>
<td>Advanced Research Methods II</td>
<td>3</td>
</tr>
<tr>
<td>SW 984</td>
<td>Social Work Practice: Identifying and Improving “Best Practices”</td>
<td>3</td>
</tr>
<tr>
<td>SW 985</td>
<td>Theory for Research: _____</td>
<td>3</td>
</tr>
<tr>
<td>SW 987</td>
<td>Teaching Social Work: Philosophy and Methods (optional elective)</td>
<td>3</td>
</tr>
<tr>
<td>SW 988</td>
<td>Mixing Methods in Social Science Research (optional elective)</td>
<td>3</td>
</tr>
</tbody>
</table>

Substantive electives 12

SW 999  Dissertation 18
Office of Graduate Studies, Lawrence and Edwards Campus Students

Graduate Studies

Graduate Studies (http://www.graduate.ku.edu) at the University of Kansas is the administrative unit responsible for graduate education for the Lawrence and Edwards Campuses.

Graduate Studies (http://www.kumc.edu/academic-affairs/graduate-studies.html) on the KU Medical Center campus (a unit of the Office of Academic Affairs) is responsible for graduate programs in the Schools of Health Professions, Medicine, and Nursing. Please see the online catalog section for the KU Medical Center - Office of Graduate Studies for more information.

Graduate degrees are conferred by the professional schools and the College of Liberal Arts and Sciences with the exception of the Health Informatics master’s degree, which is conferred by the KUMC Office of Graduate Studies upon recommendation by the Health Informatics Advisory Council. Appointments to the Graduate Faculty are authorized by the schools and the College and by the individual academic units on the Medical Center campus and administered by the appropriate Graduate Studies office.

KU offers the Master of Arts degree in 54 fields, the Master of Science in 41, specific professional master’s degrees in 20 programs, the professional degree of Specialist in Education, and the Doctor of Philosophy degree in over 80 fields, as well as professional doctorates of Audiology, Education, Engineering, Musical Arts, Nursing Practice, Occupational Therapy, and Physical Therapy. KU currently enrolls more than 7,000 graduate students.

Goals of Graduate Study

Independent scholarship, competence in research or other creative work, and the cultivation of teaching commitment and skill are the traditional goals of graduate study. Having acquired a broad education as an undergraduate, the student is expected to master a special field, to learn the methods of investigation employed therein, and to proceed toward making an original contribution to knowledge. Since many of those who earn advanced degrees find careers in higher education, the acquisition of skill in teaching and in directing research is also an essential part of graduate education.

These traditional goals gain renewed significance in changing times, while newly emerging societal interests and needs and new demands of the marketplace both underscore their importance and emphasize the necessity for flexibility in programs and accommodation in career objectives. Careers for graduates in many fields are more broadly dispersed, and the contributions of graduate study and research to society must become more widely spread and recognized in government, business and industry, and in diverse professions and arts. At the same time, entering students must realize that a change in employment patterns for graduates is under way in many fields where the major, if not the sole, employment opportunity after graduation was once to be found in a teaching career.

Graduate Military Programs

Graduate Military Programs (GMP) facilitates collaboration between the university and the US Armed Forces for the development of academic programs and research initiatives that support the needs of the Department of Defense (DOD). GMP develops and maintains programs for select officers attending the Command and General Staff College at nearby Fort Leavenworth, instructors at the United States military academies, foreign area officers, logisticians, and other DOD personnel requiring the advanced degrees necessary to teach and conduct research at the highest level. The office assists principal investigators throughout the university to find well matched research grant opportunities, prepare proposals, and coordinate with the appropriate DOD entities. GMP also serves as the voice for all veteran student related educational issues and is committed to creating and maintaining a positive learning environment for military veterans attending our university.

Research

Research and graduate studies are integral parts of the university’s educational mission. The National Science Foundation classifies KU as a major university receiving substantial research support. KU is also a Carnegie Doctoral/Research Extensive University and has been a member of the Association of American Universities since 1909. The university has a long and successful record of research collaboration through independent, multidisciplinary research centers that focus on common themes. KU is home to 12 university research centers and institutes, two affiliated centers, 26 core service labs, the Kansas Geological Survey, and the Kansas Biological Survey. In addition, a number of research centers exist in individual departments and academic units throughout the university. For more information about research on the Lawrence campus, visit the Research (http://www.ku.edu/research) page or the Office of Research (http://www.research.ku.edu). For the Medical Center campus, visit the University of Kansas Medical Center Research Institute (http://www.kumc.edu/kumcri.html) page.

Fellowships and Scholarships

Visit the Graduate Studies website for information about funding opportunities (http://www.graduate.ku.edu/funding-opportunities) for graduate students at KU. In addition, KU Medical Center students may be eligible for Student Travel Awards (http://www.kumc.edu/academic-affairs/graduate-studies/graduate-student-travel-awards.html).

Admission to Graduate Studies

Persons whose records indicate their ability to succeed with advanced work may be admitted for graduate study to the University of Kansas in one of the professional schools or College of Liberal Arts and Sciences.

Applicants can either apply as degree-seeking, non-degree-seeking, or certificate-seeking. Applicants seeking an identifiable degree program are degree-seeking, while those applicants who do not have an identified degree or certificate program should be admitted under the non-degree-seeking category. No student may work toward a graduate degree without being accepted as a degree-seeking student in a specific graduate program. (View the current policies on Graduate admission (http://policy.ku.edu/graduate-studies/admission-to-graduate-studies).)
English Proficiency:

Domestic and/or international applicants who are not native speakers of English must verify English proficiency for purposes of admission in accordance with the policy on English Proficiency Requirements for Admitting Graduate Students (https://documents.ku.edu/policies/Graduate_Studies/EnglishProficiencyIntlStudents.htm?num1.5).

Degree-Seeking Admission

Students who wish to work toward graduate degrees should be considered for admission under the degree-seeking category in either the regular or provisional category.

Regular Admission

Regular admission requires evidence of a bachelor’s degree. The bachelor’s degree is not acceptable if it contains credit awarded for work experience that was not directly supervised by faculty members (life experience) of an accredited university or not evaluated in units that identify the academic content (e.g., P/F, S/U). In exceptional cases, persons not holding bachelor’s degrees may be admitted if they are academically well prepared. In these cases, the Dean of Graduate Studies reviews the student’s academic background before the student is admitted.

Additionally, applicants must demonstrate a grade-point average (GPA) of at least 3.0 (on a 4.0 scale), in a completed degree program from KU or from another regionally-accredited institution or foreign university with substantially equivalent bachelor’s, master’s, or doctoral degree requirements.

*Students may be admitted based on the cumulative GPA in the last term of an active degree program, but evidence of a completed bachelor’s degree will be required prior to enrollment in the second term of graduate study at KU.

Provisional Admission

An applicant who has one or more deficiencies in grade-point average, English proficiency scores (see the policy on English Proficiency Requirements for Admitting Graduate Students (https://documents.ku.edu/policies/Graduate_Studies/EnglishProficiencyIntlStudents.htm?num1.5)), prerequisite course work, or in other areas as determined by the department/program, but who meets all other admission standards, may be admitted on a provisional basis.

If a student is admitted provisionally for a lack of prerequisite coursework or low English proficiency scores, it is expected that the student will be reviewed immediately following the first semester of graduate study to determine if the student has met the requirements of regular admission.

If the student meets the requirements of regular admission, the department or program in which the student is enrolled will request that Graduate Studies move the student from provisional to regular status. If the student has not met the requirements of his or her provisional admission at the time of review, the student may be continued on provisional status or dismissed immediately.

A student admitted provisionally may be dismissed at the conclusion of any semester if s/he reaches a 3.0 GPA or meet other requirements of regular admission. If, after the first semester, provisional continuation is recommended by the department or program and approved by the graduate division, the student may remain on provisional status until the requirements of regular status are met. Students who have been dismissed from a graduate program may be admitted for further graduate study at KU only by petition of the graduate division that will accept the student. The petition must be approved by the Dean of Graduate Studies.

Non-degree-Seeking Student Admission

A non-degree-seeking applicant applies to the University for admission as a non-degree-seeking student, not to a department or program or school. A non-degree-seeking applicant must confirm that s/he has completed an undergraduate degree and, if applicable, meets English proficiency requirements for provisional admission [for more information, see the policy here (https://policy.drupal.ku.edu/graduate-studies/english-proficiency-international-students)], but s/he is not required to meet the other admission standards of Regular admission.

Non-degree-seeking admission is not intended to bypass regular admission into a graduate degree program. However, if a non-degree-seeking student later applies for admission as a regular degree-seeking student, and if s/he is accepted by a department or program, the total transfer credits toward a graduate degree may not exceed 6 hours, or 8 hours if the student holds a baccalaureate degree from KU (this total includes credit from other accredited graduate schools as well as non-degree credit earned at KU).

Easy Admit

An applicant to graduate study who wishes only to attend institutes or workshops that require graduate admitted status may be admitted under the easy admit process. This process allows any person, with evidence of a baccalaureate degree from an accredited institution, to take one course per semester without needing to meet the additional requirements of provisional admission.

The easy admit process is limited to certain Lawrence campus programs that tend to have a high volume of applicants who enroll in institutes or workshops for continuing education purposes. Easy admit is not available to applicants at the KU Medical Center. An applicant should verify that the easy admit option is available for the course in which s/he is interested before pursuing this option.

Note: This option is not available at KU Medical Center.

Certificate-Seeking Admission

The policies for admissions to a graduate certificate program can be found under Certificates in the Graduate Studies section of the current Academic Catalog.

View the current policy on Eligibility and Admission to a Graduate Certificate Program (http://policy.ku.edu/graduate-studies/grad-certification-program-admission).

Admission Procedure

Apply for admission online (http://www.graduate.ku.edu/application-process). To ensure adequate time for review, the applicant should check with each individual degree program for its application deadline date. In addition to the application, Graduate Studies requires official transcripts from the baccalaureate granting institution that show the receipt of a degree, plus any transcripts from institutions attended post-baccalaureate. Programs may request all transcripts if they prefer.

In addition, letters of recommendation and test scores may be required. Applicants should check with the program to which they are applying...
for more information on required application materials. Please note, transcripts and test scores that have been faxed are not accepted as official copies.

International applicants must also provide English proficiency test scores (see English Proficiency Requirements). The university is unable to issue immigration documents until the international applicant furnishes a financial resources statement. Degree programs may choose not to consider international applications if they are not accompanied by a financial statement.

Nonrefundable application fees payable to the University of Kansas are required. Rates are subject to change. Some departments and programs require deposits from admitted students to be fully credited against required fees upon enrollment.

**Application Fees**

<table>
<thead>
<tr>
<th>Type</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree-seeking domestic</td>
<td>$55</td>
</tr>
<tr>
<td>application</td>
<td></td>
</tr>
<tr>
<td>Degree-seeking domestic</td>
<td>$65</td>
</tr>
<tr>
<td>application, Business</td>
<td></td>
</tr>
<tr>
<td>Degree-seeking International</td>
<td>$65*</td>
</tr>
<tr>
<td>application</td>
<td></td>
</tr>
<tr>
<td>Non-degree-seeking application</td>
<td>$30</td>
</tr>
<tr>
<td>(domestic and international)</td>
<td></td>
</tr>
<tr>
<td>Readmission application</td>
<td>$20</td>
</tr>
<tr>
<td>Easy Admit**</td>
<td>$10</td>
</tr>
</tbody>
</table>

*The international application fee will be $75 starting with spring 2015 applications.

**Applicants should check with their department or the Graduate Admissions Office to see if they qualify for the Easy Admit category.

View the current Lawrence and Edwards Campus application fees (https://documents.ku.edu/policies/Graduate_Studies/ApplicationFeesGraduate.htm).

**Admission Notification**

Each applicant is notified in writing of the admission decision which clearly explains the admission classification (regular, provisional, certificate, or non-degree-seeking).

For all admission categories, enrollment in specific courses may be subject to fulfillment of departmental course prerequisites and consent of the instructor.

Admission to Graduate Studies does not imply admission to candidacy for a higher degree. A student becomes a candidate for an advanced degree only by demonstrating through resident study at KU the requisite preparation and ability. Requirements specified for an advanced degree must be regarded as minimum requirements. Additional requirements depend on the student’s undergraduate preparation and the particular field of graduate work chosen.

After an absence of one year from KU, students must re-apply for admission to their graduate programs and to the appropriate Graduate Division.

**Limitations on Admission**

Because of limitations of space, faculty, or general resources for research and instruction, some programs must restrict the number of applicants they admit. Questions should be directed to the program to which the prospective student wishes to apply.

View the current Graduate admission procedures (http://policy.ku.edu/graduate-studies/admission-procedure).

**English Proficiency Requirements for Admission to a Graduate Program**

The following are acceptable means for verifying English proficiency for purposes of admitting students – whether domestic or international – to graduate study who are not native speakers of English:

- Graduation with a baccalaureate degree (or higher) earned in residence from an accredited English-medium U.S. college or university or a college or university in the United Kingdom, Australia, New Zealand, Ireland, English-speaking province of Canada, or an English-speaking Caribbean country, with instruction conducted in English.

- Degrees earned online may not be used to verify English proficiency.

- Receipt of official copy (not student’s copy) of applicant’s English proficiency standardized test scores (e.g., TOEFL) achieved not more than two years prior to the semester of first enrollment.

**Regular Admission Minimums for Campus-based Programs**

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Minimums</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOEFL (paper)</td>
<td>All part scores at least 53</td>
</tr>
<tr>
<td>TOEFL (iBT)</td>
<td>Reading, Listening, and Writing part scores at least 20</td>
</tr>
<tr>
<td>IELTS</td>
<td>Minimum overall score 6.0 with no part score below 5.5</td>
</tr>
</tbody>
</table>

**Regular Admission Minimums for Online and Distance Learning Programs**

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Minimums</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOEFL (paper)</td>
<td>All part scores at least 57, TWE 5.0</td>
</tr>
<tr>
<td>TOEFL (iBT)</td>
<td>Reading, Listening, and Writing part scores at least 23</td>
</tr>
<tr>
<td>IELTS</td>
<td>Minimum overall score 6.5, at least 6.0 in Listening, Reading, and Writing</td>
</tr>
</tbody>
</table>

**Provisional Admission Minimums**

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Minimums</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOEFL (paper)</td>
<td>All part scores at least 51-52</td>
</tr>
<tr>
<td>TOEFL (iBT)</td>
<td>Reading, Listening, and Writing part scores 18-19</td>
</tr>
<tr>
<td>IELTS</td>
<td>Minimum overall score 5.5 with no part score below 5.0</td>
</tr>
</tbody>
</table>

**Deny Admission & Recommend Applying to Applied English Center (AEC)**

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Minimums</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOEFL (paper)</td>
<td>One or more part scores below 51</td>
</tr>
<tr>
<td>TOEFL (iBT)</td>
<td>Any part of these part scores below 18: Reading, Listening, and Writing</td>
</tr>
<tr>
<td>IELTS</td>
<td>Overall score 5.5 or any part score below 5.0</td>
</tr>
</tbody>
</table>

For information on the spoken English requirements for GTAs, please see the policy on Spoken English Language Competency of Faculty and
All students who are not native speakers of English and who are admitted to campus-based programs are required to check in at the Applied English Center (AEC) upon arrival on campus. At that time, the AEC will confirm the student’s level of English proficiency and determine if English courses are required.

Any U.S. citizen or U.S. permanent resident who has declared that his/her native language is not English must report to the AEC for verification of English proficiency before enrolling.

Note: Provisional admission is not available to students in all programs. View the current Lawrence and Edwards Campus English proficiency policy (https://documents.ku.edu/policies/Graduate_Studies/EnglishProficiencyIntlStudents.htm).

Additional Spoken English Proficiency Requirements for Graduate Teaching Assistants, Lawrence and Edwards Campuses

The Kansas Board of Regents (http://www.kansasregents.org) requires a spoken language proficiency assessment for employment positions requiring classroom or laboratory instructional responsibility and/or direct tutorial responsibilities. Therefore, GTAs must achieve a minimum SPEAK score of 50, an iBT speaking score of 22; or IELTS score of 8. If this is not achieved,

• The student must provide a personal financial document as required by the U.S. government to issue the DS-2019 or I-20;
• The department may retract the GTA offer;
• The department may still honor the GTA offer, but the student must take the SPEAK test offered by the Applied English Center and achieve a score of at least 50.

All prospective graduate teaching assistants whose first language is not English must be interviewed by and have their competency in spoken English assessed by no fewer than three institutional personnel, one of which should be a student. An oral interview shall be conducted either face-to-face or by mediated means.

Permit to Re-enroll

A student who has been actively enrolled in a degree-seeking graduate program but who has not been enrolled for one academic year (three consecutive semesters, including the summer semester) or less, may be eligible to use the permit to re-enroll form with the consent of his/her department/program.

A student who has been actively enrolled in a degree-seeking program and has not enrolled for four or more consecutive semesters without an approved Leave of Absence is not eligible to use the permit to re-enroll form and must re-apply for Graduate admission.

The permit to re-enroll form is not available to a student who:

• was dismissed from a program at KU;
• was voluntarily discontinued (formally withdrew) from a graduate program;
• completed the graduate degree program; or
• most recently enrolled as a non-degree seeking graduate student.

Before completing the permit to re-enroll form, students should contact their graduate program directly to confirm availability of the permit to re-enroll.

Students returning from an approved Leave of Absence will be returned from leave by their department; such students are not required to use the Permit to Re-enroll.

View the current Lawrence and Edwards Campus policy on permit to re-enroll (http://policy.ku.edu/graduate-studies/permit-to-reenroll).

Degrees

Degrees are awarded three times each year, in August, December, and May. Each academic year’s degrees are conferred formally at the annual commencement in May. Degree candidates are not eligible to graduate if the graduate grade-point average is lower than 3.0 in all courses acceptable for graduate credit.

Students who are working toward two degrees must complete requirements for each degree. Course work may not count toward fulfilling degree requirements for more than one degree.

Graduate students may not earn an additional KU degree with the same name and degree code as a previously awarded degree from KU. This applies to the completion of different degree tracks, concentrations, and subspecialties within a given degree. This does not prohibit students from earning additional master’s or doctoral degrees in another discipline.

View the current list of all master’s and doctoral degrees on the Graduate Studies Academics page (http://www.graduate.ku.edu/find-graduate-program).

View the current Lawrence and Edwards Campus policy on graduate degrees (http://policy.ku.edu/graduate-studies/degrees).

Master’s Degree Programs

Traditional Master of Arts and Master of Science degrees are granted, as well as a number of professional master’s degrees that have developed out of the arts and science degrees.

Master of Arts and Master of Science

Historically, most of the master’s degrees granted have been the Master of Arts and Master of Science. This fact conforms with the traditional liberal arts background out of which most U.S. graduate schools developed. Degree requirements are generally concentrated in one area or major discipline.

Professional Master’s Degrees

A number of professional master’s degrees are granted, most of which are offered through the professional schools. Consult the appropriate college or school section of the online catalog for detailed descriptions of all professional master’s programs.

Master’s Degree Requirements

This section gives the general and common requirements for the traditional degrees of Master of Arts and Master of Science. The school and college sections of the online catalog give specific requirements for
these degrees in the programs they offer. Schools list requirements for the professional master’s degrees they offer.

**Program Time Constraints**

Normal expectations are that most master’s degrees (excluding some professional terminal degrees) should be completed in two years of full-time study. However, master’s degree students are allowed seven years for completion of all degree requirements. In cases in which compelling reasons or circumstances recommend a one-year extension, the graduate division, on recommendation of the department/committee, has authority to grant the extension. In cases where more than eight years are requested, the appropriate appeals body of the school considers petitions for further extensions and, where evidence of continuous progress, currency of knowledge, and other reasons are compelling, may grant them. Some departments may have more stringent rulings about time restrictions. Students should ask about the policy in effect in the department in which they plan to study.

View the current Lawrence and Edwards Campus policy on master’s program time constraints (http://policy.ku.edu/graduate-studies/ma-program-time-constraints).

**M.A. and M.S. Degrees**

A Master of Arts or a Master of Science degree requires at least one year of graduate work or its equivalent. Stated in terms of hours of credit, the standard master’s program requires 30 hours, though some degrees, especially in professional areas, may require as many as 36 or 40 or more. With permission of the department (or in the case of interdepartmental programs, permission of the joint program committee) and of the graduate division, it is sometimes possible to complete a 30-hour master’s degree with as few as 24 hours if the student enters the program especially well prepared and maintains a superior grade-point average. Work for a master’s degree is concentrated in the major area, with only a minimal amount of work (usually no more than 6 hours) that is completed at KU permitted outside the major department. Each master’s program must contain a research component, represented either by a thesis (usually for 6 hours of credit) or by an equivalent enrollment in research, independent investigation, or seminars. Within these requirements and well-founded practices, departmental master’s programs may be flexible enough to meet the particular needs of individual students.

In a few cases, the degree is offered through two schools and administered by joint committees from the two faculties. The Master of Arts degree in speech-language pathology and the Master of Arts degree in audiology are administered by an intercampus committee drawn from the Department of Speech-Language-Hearing: Sciences and Disorders in Lawrence and from the Department of Hearing and Speech of the School of Health Professions in Kansas City.

View the current Lawrence and Edwards Campus policy on master’s degrees (http://policy.ku.edu/graduate-studies/ma-ms-degrees).

**Master’s Final Examinations**

A final general examination or defense of the thesis or culminating master’s project in the major subject is required of all candidates for the Master of Arts or Master of Science. The degree program and the Graduate Division should ascertain that the graduate student is in good academic standing (3.0 or higher grade-point average) before scheduling the final general examination or thesis defense.

At the option of the department, the examination may be oral or written, or partly oral and partly written. In some departments, passing a written examination is a necessary preliminary to taking the oral examination by which success or failure is judged.

Master’s examinations are administered by a committee of at least three members of the Graduate Faculty.

The examination is held during the semester of the student’s final enrollment in course work. The thesis defense should be held when the thesis has been substantially completed.

The department’s request to schedule the general examination must be made on or before the date set by the graduate division, normally a minimum of two weeks before the examination date.

Students earning a master’s thesis degree must have completed at least one hour of thesis enrollment before the master’s degree may be awarded. See the Graduate Studies website (http://www.graduate.ku.edu/electronic-thesis-and-dissertation) for information and requirements for submitting the thesis electronically.

View the current Lawrence and Edwards Campus policy on master’s thesis examinations (http://policy.ku.edu/graduate-studies/masters-final-exams).

**Master’s Thesis Submission**

When the master’s candidate has passed the final oral examination and the members of the committee have signed the thesis, a title page and acceptance page with original signatures are to be delivered to the graduate division of the school in which the student’s program resides so that completion of degree requirements may be officially certified. As a requirement of graduation, the candidate must arrange publication of the thesis and payment of all applicable fees, through the electronic submission process found here (http://www.graduate.ku.edu/electronic-thesis-and-dissertation).

**Theses will be made available through UMI/Proquest and KU ScholarWorks, unless there is an embargo in place or special circumstances pertain as outlined in the KU Embargo policy.**

The student must be the author of the thesis, and every publication from it must indicate that authorship. Practices vary among disciplines — and even among scholars in a given field— as to whether the mentor’s name may appear as a co-author, and whether as senior or junior author co-author, on subsequent publication of the thesis (usually revised), or on articles prepared from it. It is expected that clear understandings in individual cases will be established during the apprenticeship period, when ethical practices in publication are addressed within the professional development training of the program.

View the current Lawrence and Edwards Campus policy on master’s thesis submission (http://policy.ku.edu/graduate-studies/ma-thesis).

**Master’s Enrollment Requirements**

All graduate students enrolled in master’s graduate programs must be enrolled the semester they complete master’s degree requirements. Master’s students who complete degree requirements during the first week of summer session or within the first 2 weeks of the fall or spring semester are not required to be enrolled for that term unless they were not enrolled during the previous semester.
View the current Lawrence and Edwards Campus policy on master’s enrollment requirements (http://policy.ku.edu/graduate-studies/ma-enrollment-requirements).

Specialist in Education
The degree of Specialist in Education (http://catalog.dept.ku.edu/201314/schools/educ/departments/pre/programs/eds/requirements) is offered through the School of Education and may be earned as a concentration on the basis of two years of graduate work (which can include an appropriate master’s degree or equivalent). Information on this degree, including the concentration in which it may be earned, can be found in the School of Education section of the online catalog.

Doctoral Degree Programs
KU offers eight graduate doctoral degrees:

• Doctor of Philosophy (Ph.D.),
• Doctor of Audiology (Au.D.),
• Doctor of Education (Ed.D.),
• Doctor of Engineering (D.E.),
• Doctor of Musical Arts (D.M.A.),
• Doctor of Nursing Practice (D.N.P.),
• Doctor of Occupational Therapy (O.T.D.), and
• Doctor of Physical Therapy (D.P.T.).

The School of Law offers the Juris Doctor (J.D.) and Doctor of Juridical Science (S.J.D.) degrees. The School of Medicine offers the Doctor of Medicine (http://www2.kumc.edu/somcatalog) (M.D.) degree. The School of Pharmacy offers the Doctor of Pharmacy (Pharm.D.) degree.

The programs offering these degrees are administered by the schools and colleges through their departments and graduate divisions, from admission through final recommendation for degree award.

General descriptions for each of the doctoral degrees are given here in succinct form to provide convenient comparison of the degrees. Detailed information about requirements for each degree as it is offered in specific disciplines should be obtained from the appropriate college, school, or department listing in the online catalog. The requirements there are in addition to the general requirements listed here.

Doctor of Philosophy
The degree of Doctor of Philosophy (Ph.D.) is the highest degree offered by the university. It is awarded for mastering a field of scholarship, for learning the methods of investigation appropriate to that field, and for completing a substantial piece of original research. In addition to preparing research specialists, the process of earning a Ph.D. shares certain goals with liberal education: putting order into human experience; fostering a love of learning for its own sake; instilling respect for human values; integrating various human powers into a process of creation; and making vital, in many fields at least, a sense of history.

Although the courses and research leading to the Ph.D. are necessarily specialized, the attainment of this degree should not be an isolated event in the enterprise of learning. The Ph.D. aspirant is expected to be a well-educated person with a broad base of general knowledge, not only as preparation for more advanced work but also as a means of knowing how the chosen specialty is related to other fields of human thought.

To give depth and breadth to their doctoral programs, many departments require some work in a minor field or at least an articulated selection of extra-departmental courses. Because of the diversity of the fields in which the Ph.D. is offered, and the variety of needs and interests of individual students, the degree does not have a specific requirement for a minor. However, the Ph.D. aspirant is encouraged to plan an integrated program, under departmental direction, that includes courses outside the major field.

Doctor of Audiology
The Doctor of Audiology (Au.D.) degree program prepares the student to enter clinical practice as an audiologist. Offered by the KU School of Health Professions, the program produces professionals skilled in providing diagnostic, rehabilitative, and related services in the fields of sound, balance, and hearing sciences. There is an emphasis on the clinical learning experience, although research is also a significant component of the program. A baccalaureate degree is required for admission. Degree requirements are listed under Communicative Disorders: Intercampus Program in the online catalog.

Doctor of Education
The degree of Doctor of Education (Ed.D.) is a professional degree designed primarily for practitioners in the field of education. Applicants must present evidence of successful experience in professional education. While many of the requirements for the degree closely parallel those for the Ph.D., the degree program—particularly the dissertation—focuses on research concerned with application of existing knowledge rather than on basic research. Specific degree requirements are listed in the School of Education section of the online catalog.

Doctor of Engineering
The degree of Doctor of Engineering (D.E.) is directed toward the practice of engineering and includes the entire process of technology from planning to product. Candidates for the degree are intimately associated throughout their tenure with technology project teams, generally composed of master’s degree candidates and undergraduates. Specific degree requirements are listed in the School of Engineering section of the online catalog.

Doctor of Musical Arts
The degree of Doctor of Musical Arts (D.M.A.) is intended as recognition of high professional attainment. Since only exceptionally well-qualified candidates are admitted to the program, students are expected to devote their doctoral studies primarily to developing professional qualifications for teaching at the college level. The degree of Doctor of Musical Arts is offered in the specific fields of bassoon; church music (organ or choral conducting emphasis); clarinet; composition; conducting (band, choral, or orchestral); flute; French horn; oboe; organ; percussion; piano performance, literature, and pedagogy; saxophone; strings; trombone; trumpet; tuba; and voice.

Doctor of Nursing Practice
The Doctor of Nursing Practice (D.N.P.) at the KU School of Nursing prepares advanced-practice nurses at the highest level of nursing practice. The D.N.P. offers sophisticated, cutting-edge experiences that help nurses actively engage in a complex, dynamic, and demanding health care field. Skills in collaboration, innovation, and evaluation, complemented by advanced practice skills, prepare nurses to share the future of health care. Students preparing for advanced practice roles learn to provide patient-centered care that is evidence-based, and contribute to
the development of the highest level of evidence-based practice. Students preparing for indirect care roles learn to provide the highest level of leadership in a variety of care and educational settings. Requirements are listed in the School of Nursing section of the online catalog.

**Doctor of Occupational Therapy**

The Doctor of Occupational Therapy (O.T.D.) is a professional degree offered by the School of Health Professions. This program of study is intended for therapists already in practice who have either a bachelor's degree or a Master of Occupational Therapy degree and wish to upgrade their knowledge and skills to the doctoral level to meet the increasing demands of complex practice issues. Requirements for admission are listed in the School of Health Professions section of the online catalog.

**Doctor of Physical Therapy**

The Doctor of Physical Therapy (D.P.T.) is designed for individuals pursuing careers in physical therapy. The program prepares a generalist physical therapy practitioner with the skills for lifelong professional development. To be eligible for admission, the student must have a minimum of a baccalaureate degree or its equivalent. A post-professional D.P.T. program for practicing physical therapists is also available. Both programs are offered by the KU School of Health Professions. Requirements for admission are listed in the School of Health Professions section of the online catalog.

View the current list of all master's and doctoral degrees is available on the Graduate Academics page (http://www.graduate.ku.edu/find-graduate-program).

**Doctoral Degree Requirements**

The sections immediately following list the general and common requirements for doctoral degrees. Specific degree requirements, including requirements for the professional doctoral and clinical doctoral degrees, set by specific departments, programs, and schools, appear in the sections of the catalog devoted to those units.

View the current Lawrence and Edwards Campus policy on doctoral degree requirements (http://policy.ku.edu/graduate-studies/doctoral-degree-requirements).

**Doctor of Philosophy**

This section lists KU regulations common to the administration of all doctoral programs. The particular application, interpretation, or method of implementation of such a common element for individual degree programs and departments is, in certain cases, left to the faculty of the department or the degree program (e.g., Research Skills). Additional requirements specific to each degree, along with variations permitting each student to achieve particular academic goals, are listed in the section of this catalog for the school through which the degree program is offered.

When a department or program requests its graduate division to schedule a comprehensive oral examination or a final oral examination for a student, it must report on the student's completion of both the general requirements and the specific requirements of the degree program, department, and school. The degree program and Graduate Division should ascertain that the graduate student is in good academic standing (3.0 or higher grade-point average) before scheduling a comprehensive oral examination or a final oral examination.

Doctoral students completing all their degree requirements within the first week of summer session or within the first two weeks of the fall or spring semester are not required to be enrolled for that term.

View the current Lawrence and Edwards Campus policy on the Doctor of Philosophy degree (https://documents.ku.edu/policies/Graduate_Studies/docofphilosophy.htm).

1. **Application and Admission**

A student who seeks admission to a doctoral program must apply to the graduate degree program and school offering the desired degree. Upon admission, the student is known as an aspirant for the degree and remains so designated until successful completion of the comprehensive oral examination. After passing that examination, the student is designated a candidate for the degree.

View the current Lawrence and Edwards Campus policy on doctoral application and admission (http://policy.ku.edu/graduate-studies/doctoral-application-and-admission).

2. **Program Time Constraints**

**Minimum Tenure**

The student must spend three full academic years, or the bona fide equivalent thereof, in resident study at this or some other approved university, including the time spent in attaining the master's degree. Resident study at less than full time requires a correspondingly longer period, but the requirement is not measured merely in hours of enrollment. Because a minimum number of hours for the degree is not prescribed, no transfer of credit is appropriate. However, graduate degree programs take relevant prior graduate work into consideration in setting up programs of study leading to the doctorate.

**Residence Requirement**

Two semesters, which may include one summer session, must be spent in resident study at KU. During this period, the student must be involved full time in academic or professional pursuits, which may include an appointment for teaching or research if it is directed specifically toward degree objectives. Enrollment in approved distance-learning courses offered through KU cannot be used to meet the doctoral residence requirement. The student must be enrolled in a minimum of 6 credit hours a semester, and the increased research involvement must be fully supported and documented by the dissertation supervisor as contributing to the student’s dissertation or program objectives. Research must be performed under the direct supervision of the major advisor if on campus, or with adequate liaison if off campus.

**Note:** These are minimum residence requirements. Students should check with the graduate division of the professional school/college for additional requirements.

**Maximum Tenure**

After being admitted to doctoral programs at KU, students must complete all degree requirements in eight years. In cases in which compelling circumstances recommend a one-year extension, the graduate division has authority to grant the extension on the written advice of the department and dissertation committee. Students who complete the master’s degree at KU and subsequently begin doctoral studies have a maximum total enrolled time of ten years to complete both degrees. Normal expectations, however, are that most master’s degrees (excluding some professional terminal degrees) should be completed in two years of full-time study, and both master’s and doctorate degrees in six years of
full-time study. Some graduate degree programs may have more stringent time restrictions. Students should inquire about the policy in effect in the department in which they plan to study.

A student in any of the above categories may petition the graduate division through the department for a leave of absence during either the pre- or post-comprehensive period to pursue full-time professional activities related to the doctoral program and long-range professional goals. Leaves of absence also may be granted because of illness or other emergency. Ordinarily a leave of absence is granted for one year, with the possibility of extension upon request. After an absence of five years, however, a doctoral aspirant or candidate loses status as such and must apply for readmission to the program and the graduate division. See Leave of Absence under General Regulations.

View the current Lawrence and Edwards Campus policy on doctoral program time constraints (http://policy.ku.edu/graduate-studies/doctoral-program-time-contraints).

3. Research Skills and Responsible Scholarship

All doctoral students must meet the Research Skills requirement before proceeding to comprehensive exams. The requirement must include at least two components:

1. Every doctoral student is required to have training in responsible scholarship pertinent to the field of research.
2. Every doctoral student is required to obtain research skills pertinent to the doctoral level of research in their field(s).

Procedure

For both of these requirements, it is the responsibility of the department to report when the student completed the requirement and how the requirement was met via the Progress-to-Degree form. Meeting this requirement is determined by the program/department according to the department’s approved research skills requirement plan.

All doctoral programs must have a research skills requirement plan approved by the school/College and the Graduate Studies Office.

As outlined in USRR 2.2.7.6, no course graded CR or NC can count toward the satisfaction of the requirements for a graduate degree. This prohibition includes any courses taken to meet the Research Skills and Responsible Scholarship requirement.

View the current Lawrence and Edwards Campus policy on doctoral research skills and responsible scholarship (http://policy.ku.edu/graduate-studies/research-skills-responsible-scholarship).

4. Comprehensive Oral Examination

When a doctoral aspirant has completed the major portion of the course work at a level satisfactory to the graduate degree program and school and met all other program, school, and general requirements prerequisite to the comprehensive oral examination, including the research skills requirement as appropriately applied and established for the student’s particular program, the degree program must request the graduate division of its school to schedule the comprehensive oral examination. It should be determined that the student is in good academic standing (3.0 or higher grade-point average) before scheduling the examination. The examination request must be submitted in advance of the examination date by at least the period specified by the graduate division, normally a minimum of two weeks. The graduate division ascertain whether all pertinent requirements have been satisfied and if reports of any previously scheduled comprehensive oral examinations have been properly submitted and recorded.

The committee for the comprehensive oral examination must consist of at least five members, all of whom must be members of the Graduate Faculty. Its members are appointed by the graduate division of the school or college on the basis of nominations submitted by the graduate degree program. At least one member must be from a department other than the aspirant’s major department. This member represents Graduate Studies and must be a regular member of the Graduate Faculty. The Graduate Studies representative is a voting member of the committee, has full right to participate in the examination, and reports any unsatisfactory or irregular aspects of the examination to the committee chair, department chair, graduate division, and Graduate Studies. The examination may be scheduled provided that at least 5 months have elapsed from the time of the aspirant’s first enrollment at KU.

The comprehensive oral examination covers the major field and any extra departmental work for which the program wishes to hold the aspirant responsible. For every scheduled examination, the degree program reports a grade of Honors, Satisfactory, or Unsatisfactory. If the aspirant receives a grade of Unsatisfactory on the comprehensive oral examination, it may be repeated on the recommendation of the degree program, but under no circumstances may it be taken more than three times. In any case, the examination may not be repeated until at least 90 days have elapsed since the last unsuccessful attempt.

Doctoral Comprehensive Exam Time Constraints

Under normal circumstances, the doctoral candidacy period between passage of the oral comprehensive examination and the final dissertation defense must last no longer than five years. If a student took the oral comprehensive examination more than five years prior to the dissertation defense, a re-evaluation of the student’s candidacy status is necessary. Re-evaluation of the student’s candidacy status can include retaking the comprehensive oral examination.

View the current Lawrence and Edwards Campus policy on doctoral comprehensive oral examinations (http://policy.ku.edu/graduate/studies/doctoral-oral-exams).

5. Candidacy

Dissertation Committee

Upon passing the comprehensive oral examination, the aspirant becomes a candidate for the doctorate. If it has not begun before, the traditional, close student-mentor apprenticeship relationship comes into being. The student is expected to learn by both precept and example of the mentor, and often in collaboration. The chosen field of scholarship is explored and must be a regular member of the Graduate Faculty. Its members are appointed by the graduate division of the school at least five members, all of whom must be members of the Graduate Faculty of at least five members, all of whom must be members of the Graduate Faculty and divisions or, on occasion, members from other departments and professional fields become part of the student’s thinking and working.

When the student passes the comprehensive oral examination, the graduate division of the appropriate school designates the candidate’s dissertation committee based on the recommendations of the candidate’s major department. The dissertation committee must consist of at least five members and may include members from other departments and divisions or, on occasion, members from outside the university. All members of the committee must be chosen from the Graduate Faculty, and the chair must, in addition, be authorized to chair doctoral dissertations. A prospective member of the committee from outside the
university must have gained appointment as Special member of the Graduate Faculty before appointment to the committee.

Post-Comprehensive Enrollment

Doctoral candidates are required, after passing the comprehensive oral examination, to be continuously enrolled in one or more hours of dissertation or programmatically equivalent coursework (for example, document hours for DMA students) that both moves the student towards degree completion and reflects, as accurately as possible, the candidate’s demands on faculty time and university facilities. During this time, until all requirements for the degree are completed (including the filing of the dissertation) or until 18 post-comprehensive hours have been completed (whichever comes first), the candidate must enroll for a minimum of 6 hours a semester and 3 hours a summer session. Post-comprehensive enrollment may include enrollment during the semester or summer session in which the comprehensive oral examination has been passed. If after 18 hours of post-comprehensive enrollment the degree is not completed, the candidate must continue to enroll each semester and each summer session until all degree requirements have been met. The number of hours of each enrollment must be determined by the candidate’s advisor and must reflect as accurately as possible the candidate’s demands on faculty time and university facilities.

View the current Lawrence and Edwards Campus policy on doctoral candidacy (http://policy.ku.edu/graduate-studies/doctoral-candidacy) are listed in the KU Policy Library. KU Medical Center policies are listed in each year’s Academic Catalog.

6. Dissertation

The doctoral candidate must present a dissertation showing the planning, conduct, and results of original research and/or scholarly creativity. The purpose of the dissertation is to encourage and ensure the development of broad intellectual capabilities and to demonstrate an intensive focus on a problem or research area. The dissertation itself should be an evident product of the candidate’s growth and attainment of the ability to identify significant problems; organize, analyze, and communicate scholarly results; and bring to bear on an area of scholarly or scientific interest a variety of research skills and scholarly or creative processes. The dissertation must show some original accomplishment, but it should also demonstrate without doubt the candidate’s potential to make future contributions to knowledge and understanding.

The dissertation is to be a coherent scholarly work, not a collage of separate, distinct pieces. Its unity of theme and treatment may still accommodate several subtopics by demonstrating their relationships and interactions. If previously published material by other authors is included in the dissertation, it must be quoted and documented. Final acceptance of the dissertation is subject to the approval of the dissertation committee. It should be noted that prior publication does not guarantee acceptance of the dissertation by the dissertation committee. The dissertation—or one or more substantial portions of it, often rewritten—is expected to be publishable and, indeed, to be published.

Both the dissertation research and the dissertation itself are to be completed under the guidance and direction of the committee appointed as described in the Graduate Student Oral Exam Committee Composition policy. Instructions about the proper form of the dissertation may be obtained from the KU Graduate Studies website (http://www.graduate.ku.edu/formatting), or from the graduate division of each school/college. Candidates and faculty members are reminded that the dissertation is to be a coherent, logically organized scholarly document. Because the demands and practices of different disciplines are varied, the format is somewhat flexibly described, and moderate departures from the norm are allowed when justified by the nature of the work or the circumstances of presentation. Any substantial divergences must be approved in advance as prescribed by the instructions, and candidates and faculty members are urged to seek early approval to avoid last-minute disappointments over unacceptable format or reproduction.

View the current Lawrence and Edwards Campus policy on doctoral dissertations (http://policy.ku.edu/graduate-studies/doctoral-dissertation).

7. Final Oral Examination

Completion of the dissertation is the culminating academic phase of a doctoral program, climaxed by the final oral examination and defense of the dissertation. In all but the rarest cases, tentative approval of the dissertation is followed promptly by the final oral examination. When the completed dissertation has been accepted by the committee in final draft form, and all other degree requirements have been satisfied, the chair of the committee requests the graduate division to schedule the final oral examination. This request must be made in advance of the desired examination by at least the period specified by the graduate division (normally at least three weeks). The submission of the request must allow sufficient time to publicize the examination so that interested members of the university community may attend. At least five months must elapse between the successful completion of the comprehensive oral examination and the date of the final oral examination. Three months must elapse between the comprehensive exam and the final defense of the D.M.A. document for Doctor of Musical Arts candidates.

The committee for the final oral examination must consist of at least five members (the members of the dissertation committee plus other members of the Graduate Faculty recommended by the committee chair and the department and appointed by the graduate division). At least one member must be from a department other than the major department. This member represents Graduate Studies and must be a regular member of the Graduate Faculty. Before the examination, the graduate division provides a list of responsibilities to the Graduate Studies representative. The Graduate Studies representative is a voting member of the committee, has full right to participate in the examination, and provides a written report on any unsatisfactory or irregular aspects of the examination to the committee chair, department chair, graduate division, and Graduate Studies. The graduate division ascertains whether all other degree requirements have been met and if reports of any previously scheduled final oral examinations have been submitted and recorded. Upon approval of the request, the final oral examination is scheduled at the time and place designated by the graduate division. This information must be published in a news medium as prescribed by the Graduate Faculty. Interested members of the university community are encouraged to attend these examinations.

For every scheduled final oral examination, the department reports to the graduate division a grade of Honors, Satisfactory, or Unsatisfactory for the candidate’s performance. If an Unsatisfactory grade is reported, the candidate may be allowed to repeat the examination on the recommendation of the department.

View the current Lawrence and Edwards Campus policy on doctoral final oral examinations (http://policy.ku.edu/graduate-studies/final-oral-exams).

8. Dissertation Submission and Publication

When the candidate has passed the final oral examination and the members of the dissertation committee have signed the dissertation, a title page and acceptance page with original signatures are to be
To enter the program, a student should:

Preadmission Procedures

1. Determine that KU offers courses and research in the areas appropriate to the student’s interest(s).
2. Prepare a tentative study plan based on those offerings to serve as a basis for initial discussion.
3. Approach a professor whose interests are comparable to those of the student and request that he or she act as advisor. Normally this professor is a faculty member of the program of principal interest to the student. To grant an M.A. or M.S. in Interdisciplinary Studies, it is essential that the school has the authority to grant master’s degrees. To grant a Ph.D. in Interdisciplinary Studies, it is essential that the school has the authority to grant doctoral degrees. The selected professor must be a full member of the graduate faculty and authorized to chair doctoral dissertation committees for Ph.D. in Interdisciplinary Studies.
4. After a professor agrees to serve as an advisor, the student should assemble an advisory committee of at least three additional professors representing the disciplines covered in the Interdisciplinary program. At least two disciplines or departments must be represented.
5. In conjunction with the advisor and the committee, the student prepares a proposal for study, including
   - A statement, with supporting documentation, that the proposed Interdisciplinary Studies program cannot be accomplished through established programs.
   - A statement of the interdisciplinary or transdisciplinary nature of the proposed area of study.
   - A definition of the field of study incorporating in a consistent way a description of the contribution of each included discipline to the broader field.
   - An outline of the course of study, indicating substantive work in the fields represented. Readings courses and independent study do not substitute for regular courses.
   - A description of the method for satisfying research skills and responsible scholarship requirements.
   - A description of the comprehensive examination procedures for the Ph.D. (nature of the examinations and possible examining committee) or final examination for the M.A./M.S.
   - A description, to the extent possible, of the nature of the field in which a dissertation or master’s thesis might be written, indicating the respective contributions of the selected disciplines to the final product.
   - Attach the following:
     i. complete transcripts of all previous work,
     ii. a cover sheet, signed by committee members, indicating their support of the proposal,
     iii. letters of recommendation and other appropriate supporting documents.

Note: The diploma indicates the degree awarded as “M.A. in Interdisciplinary Studies,” “M.S. in Interdisciplinary Studies,” or “Ph.D. in Interdisciplinary Studies,” and does not specify the area of specialization. The transcript notes the area of specialization as determined by the admissions committee.

Admission and Review Procedure

Upon completion of the above, the student must submit the application for admission into the Interdisciplinary Studies program to the dean of Graduate Studies in Research and Graduate Studies. The dean of Graduate Studies appoints an admission committee consisting of (a)
Approved Program Implementation

Upon acceptance of the proposal and admission to the Interdisciplinary Studies program, the student is admitted to the school of the major advisor to facilitate record keeping and to provide a central administrative office. The associate dean or director of graduate studies of that school must enroll the student and monitor the program and, along with the major advisor, must make annual reports to Graduate Studies on the student’s progress. These reports are distributed to the directors of other involved programs along with a request to supply any additional information regarding the student’s performance. Proposals for major deviations from the approved course of study must be submitted for review by Graduate Studies and by the graduate studies office of the school in which the student resides. It is understood that no additional requirements unique to traditional graduate programs of the school(s) or departments may be imposed unless stated explicitly in the approved study plan.

Once approved, changes to the program plan must be approved by a Graduate Studies committee, appointed by the dean of Graduate Studies. Significant curricular changes may require a new proposal and admissions process.

All basic rules and requirements for the Master of Arts, Master of Science, and Doctor of Philosophy degrees apply to Interdisciplinary Studies programs. These include program time constraints, residence requirement, post-comprehensive enrollment, final examinations, research skills and responsible scholarship requirements, dissertation submission and publication, grade-point average, etc. (See Master’s Degree Requirements and Doctoral Degree Requirements in this section of the online catalog.)

View the current Lawrence and Edwards Campus policy on interdisciplinary studies (http://policy.ku.edu/graduate-studies/ma-ms-phd-interdisciplinary-studies).

Combined Degrees

Combined degrees are granted in programs meeting the requirements of the graduate master’s or doctoral degree and the professional post-baccalaureate degree. Approved programs include the following degrees:

| Bachelor of Science (B.S.) in Architectural Engineering with M.Arch. (3-year) |
| Bachelor of Science (B.S.) in Health with M.H.S.A. Information Management |
| Doctor of Audiology (Au.D.) with Ph.D. in Audiology |
| Doctor of Medicine (M.D.) with M.A. or M.S. in basic medical science fields |
| Doctor of Medicine (M.D.) with M.H.S.A. |
| Doctor of Medicine (M.D.) with M.P.H. |
| Doctor of Medicine (M.D.) with Ph.D. in Bioengineering |
| Doctor of Medicine (M.D.) with Ph.D. in basic medical science fields |
| Doctor of Pharmacy (Pharm.D.) with M.B.A. |
| Doctor of Philosophy (Ph.D.) with Au.D. |
| Doctor of Philosophy (Ph.D.) with M.D. |
| Doctor of Philosophy (Ph.D.) in Behavioral Psychology, offered through the Department of Applied Behavioral Science with M.P.H. |
| Doctor of Philosophy (Ph.D.) in Bioengineering with M.D. |
| Juris Doctor (J.D.) with M.A. with a major in East Asian Languages and Cultures |
| Juris Doctor (J.D.) with M.A. with a major in Economics |
| Juris Doctor (J.D.) with M.A. with a major in Global Indigenous Nations Studies |
| Juris Doctor (J.D.) with M.A. with a major in Philosophy |
| Juris Doctor (J.D.) with M.A. with a major in Political Science |
| Juris Doctor (J.D.) with M.B.A. |
| Juris Doctor (J.D.) with M.H.S.A. |
| Juris Doctor (J.D.) with M.P.A. |
| Juris Doctor (J.D.) with M.S. in Journalism |
| Juris Doctor (J.D.) with M.S.W. |
| Juris Doctor (J.D.) with M.U.P. Master of Architecture (M.Arch.) (3-year) with M.B.A. |
| Master of Architecture (M.Arch.) (3-year) with M.U.P. |
| Master of Arts (M.A.) or Master of Science (M.S.) in basic medical science fields |
| Master of Arts (M.A.) with a major in American Studies with M.U.P. |
| Master of Arts (M.A.) with a major in East Asian Languages and Cultures with M.B.A. |
| Master of Arts (M.A.) with a major in East Asian Languages and Cultures with J.D. |
| Master of Arts (M.A.) with a major in Economics with M.B.A. |
| Master of Arts (M.A.) with a major in Geography with M.U.P. |
| Master of Arts (M.A.) with a major in Global Indigenous Nations Studies with J.D. |
| Master of Arts (M.A.) with a major in Latin American Area Studies with M.B.A. |
| Master of Arts (M.A.) with a major in Political Science with M.B.A. |
| Master of Arts (M.A.) with a major in Russian, East European, and Eurasian Studies with M.B.A. |
Master of Business Administration (M.B.A.)
Master of Business Administration (M.B.A.)
Master of Business Administration (M.B.A.)
Master of Business Administration (M.B.A.)
Master of Business Administration (M.B.A.)
Master of Business Administration (M.B.A.)
Master of Business Administration (M.B.A.)
Master of Business Administration (M.B.A.)
Master of Business Administration (M.B.A.)
Master of Health Services Administration (M.H.S.A.)
Master of Health Services Administration (M.H.S.A.)
Master of Health Services Administration (M.H.S.A.)
Master of Public Administration (M.P.A.)
Master of Public Administration (M.P.A.)
Master of Public Administration (M.P.A.)
Master of Public Administration (M.P.A.)
Master of Public Administration (M.P.A.)
Master of Science (M.S.) in Nursing
Master of Science (M.S.) in Nursing
Master of Science (M.S.) in Nursing
Master of Science (M.S.) in Nursing
Master of Science (M.S.) in Nursing
Master of Social Work (M.S.W.)
Master of Social Work (M.S.W.)
Master of Social Work (M.S.W.)
Master of Urban Planning (M.U.P.)
Master of Urban Planning (M.U.P.)
Master of Urban Planning (M.U.P.)
Master of Urban Planning (M.U.P.)
Master of Urban Planning (M.U.P.)
Master of Urban Planning (M.U.P.)
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Master of Urban Planning (M.U.P.)

Eligibility and Admission Criteria

An application is required in order to be admitted to and pursue a Graduate certificate. Degree-seeking graduate students who wish to apply to a certificate program must be in good standing in their departments or programs. An individual who is not currently a degree-seeking graduate student at KU must be admitted directly to a graduate certificate program.

With the consent of the certificate-granting department, degree-seeking or non-degree seeking students may count up to two (2) courses — for a maximum of 8 credit hours — taken at KU prior to admission to the certificate program toward the graduate certificate. Any course credits that are counted are subject to the specific certificate coursework requirements in the certificate program. Graduate certificates are not granted retroactively and no exceptions to this two-course limit will be granted. Students who withdraw from a degree program and subsequently seek admission to a certificate program are subject to these same limits (i.e., 8 hours).

If students admitted to a graduate certificate program are later admitted to a graduate degree program as degree-seeking students, applicable courses taken for the graduate certificate program may be counted toward the degree with the approval of the degree-granting program.

While the courses comprising a graduate certificate may be used as evidence in support of a student’s application for admission to a graduate degree program, the certificate itself is not considered to be a prerequisite and does not guarantee admission into any graduate degree program.

Graduate credit from another institution may not be transferred to a KU graduate certificate program.

View the current policy on eligibility and admission to a graduate certificate program (http://policy.ku.edu/graduate-studies/grad-certification-program-admission). A current list of all certificate programs (http://www.ku.edu/academics/?keywords=&school=Any&undergrad=off&minor=off&certificate=on&masters=off&doctoral=off&go=1) is available on the Academics page.

Policies and Processes for Graduate Certificate Programs

The graduate certificate is a focused collection of courses that, when completed, affords the student some record of coherent academic accomplishment in a given discipline or set of related disciplines. Students may be awarded these certificates upon completion of a well-defined program of course work. The didactic material comprised within a graduate certificate program may represent a more practice-oriented subset of an existing graduate discipline.

A graduate certificate program will comprise no less than 9 and generally no more than 18 credit hours of course work in a particular discipline or related disciplines of study.

All proposals for graduate certificate programs will be adopted for a seven-year time period. The certificate program will expire at the end of that period. The program may request renewal of the certificate program by sending an updated program proposal, endorsed by the department and school/College to the Executive Council of Graduate Faculty on the Lawrence campus or to the KUMC Graduate Council on the Medical Center campus. The proposal will be evaluated for an additional seven-year period. Graduate Studies will remind the graduate certificate program about its renewal one year before the graduate certificate program is scheduled to expire. If a program expires or is discontinued, no new students may be enrolled in the program and those students currently in the program will continue until completion.

Student Records Criteria

- It is the responsibility of the degree program that houses the graduate certificate program to maintain all student records of the graduate certificate program. These records should include, but are not limited to, the number of students that apply to the program, the number accepted and denied into the program, and the number of students enrolled in the program by semester, the number of students who complete the program by semester.
• The courses taken in the graduate certificate program will be listed on the student's transcript and recognition of the earned certificate will also be posted on the transcript.

• The awarding of graduate certificates will coincide with the August, December and May graduations at the University of Kansas. The certificate-awarding department will forward its list of certificate recipients to the graduate division of the school/College that holds the certificate program. The graduate division will forward names of the students completing graduate certificates in a given semester to the Graduate Studies office. The same degree-granting deadline dates will apply to the awarding of graduate certificates.

• Graduate Studies will be responsible for providing the University Registrar's office with the names of certificate recipients along with the corresponding names of the completed certificate programs.

• Each semester, Graduate Studies will provide departments with authorized Graduate Certificates for students who successfully complete all certificate program requirements. The department will be responsible for completing the certificates and presenting them to the students.

Graduate certificates will not be recognized by any Graduate Studies official graduation ceremony.

View the current graduate certificate policies and processes (http://policy.ku.edu/graduate-studies/certificate-programs).

The Graduate Faculty

The Graduate Faculty consists of members of the university faculty and other persons qualified by training and experience who are duly nominated and appointed. Only members of the Graduate Faculty may teach courses for graduate credit, supervise master's programs and theses, or serve on doctoral committees.

View the current policies on Graduate Faculty appointments (http://policy.ku.edu/graduate-studies/graduate-faculty-appointments).

Regular Graduate Faculty Status

Any faculty member who is appointed to a tenure-track position automatically receives Regular graduate status. These members of the Graduate Faculty may teach courses for graduate credit, supervise the master's program and thesis, serve on committees, and sit on doctoral and/or master's committees.

When appropriate, a qualified member of the Regular Graduate Faculty may be nominated to serve as co-chair of a specific dissertation committee if a faculty member with Dissertation Chair status serves as co-chair of the committee and agrees to ensure that all requirements are met. However, if the regular member of the Graduate Faculty has lost dissertation chair status, this does not apply. Present or newly appointed faculty members in tenure-track appointments with the rank of assistant professor or above in departments or programs with approved graduate programs are granted regular membership in the Graduate Faculty, provided they have received the terminal degree in their field of specialization or have acquired equivalent training and/or professional experience as determined by the appropriate graduate division.

In special cases where faculty members who hold regular membership in the graduate faculty enroll in a KU graduate program as part of their professional development, they may be permitted to retain their graduate faculty status. They may not supervise or serve as the instructor of record for students that are peers in the graduate program in which they are enrolled. To hold regular membership in the Graduate Faculty, a faculty member must continue to show evidence of a pattern of productive professional activity demonstrating the ability to contribute to high-quality graduate education. The form that productive professional activity may take varies across disciplines. Conventional evidence of such activity includes such things as effective teaching, scholarly publication, participation in professional societies, and other scholarly activity. Graduate degree programs are responsible for monitoring faculty with regular membership in the Graduate Faculty.

View the current policies on Regular Graduate Faculty status (http://policy.ku.edu/graduate-studies/grad-faculty-status).

Dissertation Status

To qualify for the privilege of chairing doctoral dissertation committees, a regular member of the Graduate Faculty must demonstrate continuing activity commensurate with being an established scholar in his or her field and involvement in the graduate education program as evidenced by

1. Teaching graduate courses;
2. Advising and mentoring graduate students and serving on thesis and dissertation committees;
3. Maintaining an ongoing program of scholarly activity including a record of scholarship, publication and other contributions to the field.

It is the graduate program's responsibility to nominate members of the Graduate Faculty for authorization to chair doctoral committees and to provide evidence of scholarship and involvement in the graduate education program. Authorization to chair dissertation committees is reviewed as part of each graduate program review.

View the current policy on Dissertation Graduate Faculty status (http://policy.ku.edu/graduate-studies/grad-faculty-dissertation-status).

Special Appointments

Special membership may be granted to employees of the university and its affiliates who do not have tenure track faculty appointments in a department granting graduate degrees but who are uniquely qualified by training or experience and otherwise meet the established criteria for regular membership in the Graduate Faculty.

Such membership is for the purpose of:

1. Teaching a course or courses;
2. Having courses cross-listed as KU courses if they are part of a cooperative graduate program between KU and the appointee’s home institution;
3. Serving on the thesis, dissertation, or examination committee of a particular student or students;
4. Chairing master’s thesis committees of a particular student or students.

When appropriate, Graduate Studies may authorize a qualified committee member with special status to serve as co-chair of a specific dissertation committee. While committees are not required to have a co-chair, the student or the committee members may decide to select a co-chair. The chair must have dissertation status, while the co-chair can hold any status.

Special memberships are limited to a maximum period of five calendar years for teaching purposes or for the duration of the specified committee
assignment. All nominations for special membership must state clearly the specific purposes for which the nomination is being sought and, when it can be known in advance, the length of time for which it is being requested. Special appointments are reviewed by the appointing graduate department and continued as appropriate.

View the current policy on Special Graduate Faculty status (http://policy.ku.edu/graduate-studies/grad-fac-special-members-status).

**Graduate Faculty Appointment Chart**

This chart summarizes the organization and privileges of the various types of Graduate Faculty appointments.

<table>
<thead>
<tr>
<th>Type of Graduate Faculty appointment</th>
<th>Employed by University</th>
<th>Tenure or Tenured</th>
<th>Chair of Doctoral Committee</th>
<th>Chair of Master’s Committee</th>
<th>Co-Chair</th>
<th>Chair of Outside Committee</th>
<th>Chair of Doctoral Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular KU Graduate Faculty</td>
<td>Tenure-Yes, Tenured</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes, unless dissertation status was discontinued</td>
<td></td>
</tr>
<tr>
<td>Gradually PhD Faculty with dissertation status</td>
<td>Tenure-Yes, Tenured</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes, if a Graduate Faculty member with dissertation status serves as chair</td>
<td></td>
</tr>
<tr>
<td>Special KU Graduate Faculty affiliates</td>
<td>Nontenured</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes, if a Graduate Faculty member with dissertation status serves as chair</td>
<td></td>
</tr>
</tbody>
</table>

1. The term “doctoral committee” refers to both oral comprehensive and dissertation defense committees.

2. A faculty member with the appropriate status may chair a degree committee alone or co-chair a degree committee with another faculty member (i.e., both co-chairs have equal status). Degree committees cannot have both a chair and a co-chair.

3. For approved professional master’s degree programs (listed in exclusions and special circumstances), the committee may be composed as described above, or any number of the committee members may be professors of the practice in the department/program.

For information about the Graduate Faculty on the Lawrence and Edwards campuses, contact Graduate Studies (http://www.graduate.ku.edu).

**Non-reappointment, Graduate Faculty Eligibility, and Procedures When Graduate Faculty Are Given Terminal Contracts**

Faculty members given a notice of non-reappointment are not eligible to hold Graduate faculty status. The Provost’s Office will provide Graduate Studies with a written list of faculty who receive a notice of non-reappointment. Graduate Studies will remove graduate faculty status for the above faculty for the appointment period for which the terminal notice is effective.

Upon non-reappointment the faculty member is no longer eligible for graduate faculty status. The named faculty member will no longer be allowed to teach future courses for graduate credit or to serve on graduate students’ committees.

The appropriate dean of the school/College of the faculty member receiving the terminal notice may request, in writing, an exception to the policy from the Dean of Graduate Studies. Permission may be given to the faculty member to serve on a graduate student’s committee if the graduate student will meet all degree requirements within the semester.

The faculty member who received notice of non-reappointment will be given a copy of the initial letter sent to the dean and will be provided a copy of the letter sent requesting and defining an exception.

View the current policy on non-reappointment (http://policy.ku.edu/graduate-studies/gra-terminal) and procedures when graduate faculty are given terminal contracts (http://policy.ku.edu/graduate-studies/gra-terminal).

**University Faculty and Advanced Degrees**

Members of the university faculty having, or eligible for, tenure or holding any rank above that of instructor will not be granted degrees or certificates. Because of the variety of appointments covered by such terms as Lecturer, Associate, or the like, every case must be considered individually, with the student’s department making a recommendation to Graduate Studies before the student begins the graduate degree or certificate program, or for students already in graduate programs, before the appointment is made. Although appointing departments are expected to bring this rule to the attention of prospective appointees who plan to seek degrees or certificates, the responsibility for initiating a request for waiver of the rule lies with the student. Waivers may be granted in rare cases where the student and the department demonstrate satisfactorily that circumstances and conditions assure freedom from conflict of interest and undue influence.

View the current policy on university faculty and advanced degrees (http://policy.ku.edu/graduate-studies/university-faculty-advanced-degrees).

**Graduate Research Assistants, Graduate Teaching Assistants, and Graduate Assistants**

The following premises and eligibility requirements govern all graduate research assistant (GRA), graduate teaching assistant (GTA) and graduate assistant (GA) appointments at the University of Kansas, Lawrence:
Graduate Assistantships

Graduate assistantships may be available to graduate students. For further information, the applicant should write directly to the chair or graduate advisor of the major department. Additional information on tuition, appointments, wages, benefits, and other topics of interest to GAs is available on the Graduate Studies website (http://www.graduate.ku.edu).

GRA, GTA, and GA Eligibility (Lawrence campus)

GRA Eligibility

The following eligibility requirements govern all Graduate Research Assistant (GRA) appointments at the University of Kansas, Lawrence:

1. Graduate Research Assistants are salaried student employees who perform research that is in their fields (or a closely related field) of study and is integral to the student’s education (e.g., dissertation topic). The duties performed are under the direct supervision of faculty or research professionals. The duties do not involve classroom instruction. GRA appointments must be approved by the Vice Chancellor for Research and Graduate Studies (for all funds under Research and KUCR), the Budget Office (for the professional schools’ state- and endowment-funded GRA positions), or the College of Liberal Arts and Sciences (for state- and endowment-funded GRA positions in CLAS).

2. In order to be eligible for a GRA appointment, a graduate student must meet all of the following conditions:

   a. Enrollment and Post Comps: Upon successful completion of the doctoral comprehensive examination and all other Graduate Studies and departmental requirements for candidacy to the doctoral degree and upon completion of eighteen post-comprehensive credit hours, the person may enroll in one or more dissertation, thesis, or equivalent credit hours as approved by the Graduate Studies Office or the Dean’s Office of the College of Liberal Arts and Sciences as appropriate to qualify for a graduate research assistantship appointment. [Note: Candidates for professional doctoral degrees may enroll in dissertation-equivalent hours as approved by Graduate Studies. More detailed information about post-comprehensive enrollment can be found under “Regulations” in the Graduate Studies section of the catalog.]

   b. 

3. During the term of appointment, the GRA must be in academic good standing and be making satisfactory progress toward a graduate degree, as determined by the University of Kansas;
Graduate Studies under extraordinary circumstances.] A graduate student must maintain a cumulative grade point average (GPA) of 3.0 to remain in academic good standing. However, if a department judges that a graduate student whose GPA falls below 3.0 after the first semester at KU is nonetheless making satisfactory progress, the department may recommend to the Dean of Graduate Studies that the student be allowed to keep his/her GRA position for one additional semester.

4. The person must successfully pass a background check established by the University.

5. A student who has earned a graduate degree may not continue in a GRA appointment after the graduation date unless he or she has just completed a master’s degree and is enrolled in a doctoral program in the same field or a closely related field or is a doctoral graduate who has been accepted into another graduate program.

Enrollment Exceptions for GRAs

Doctoral Candidates: In accordance with Graduate Studies requirements, after passing the comprehensive oral examination for a doctoral degree, the candidate must be continuously enrolled, including summer sessions, until all requirements for the degree are completed, and each enrollment must reflect as accurately as possible the candidate’s demand on faculty time and University facilities. Until 18 post-comprehensive hours are completed, the candidate must enroll in a minimum of six hours each semester and three hours during the summer session. Doctoral candidates may be enrolled in fewer than six post-comprehensive hours in the fall and spring semesters and in fewer than three hours during the summer session if all of the described in 2.A. above are met.

Please note that different enrollment criteria may be used in determining eligibility for student financial aid and student loan deferments. GRAs are advised to consult with Financial Aid and Scholarships (http://affordability.ku.edu) to determine student financial aid eligibility.

In certain master’s degree programs, students who are in the final semester may be able to complete the course and hours requirements for the degree while enrolling in fewer than six hours. Such students may enroll in fewer than six hours and still retain eligibility to hold a position as a Graduate Research Assistant (GRA) provided that the student will not be continuing in a doctoral program at the University of Kansas. The option of enrolling in fewer than six hours during the final semester is available only to master’s students with GRA appointments. It is not available to master’s students with GTA or GA appointments.

Process: In order to certify that a GRA is eligible to enroll in fewer than six credit hours, campus departments must submit the Certification of Eligibility to Enroll in Fewer than Six Hours Form for doctoral candidates (GRAs, GTAs, or GAs) or the Certification of Eligibility form for Master’s Level Graduate Research Assistants.

View the current policy on GRA appointment eligibility (http://policy.ku.edu/graduate-studies/GRA-appointment-eligibility).

GTA Eligibility

The following eligibility requirements govern all Graduate Teaching Assistant (GTA) appointments at the University of Kansas, Lawrence:

Graduate Teaching Assistants are salaried student employees whose job duties consist primarily of direct involvement in classroom or laboratory instruction. The duties are performed under the supervision of faculty. The University also requires that a GTA’s teaching assignment be in his/her own field of study or one that is closely related. Out-of-field appointments require consultation with the student’s home academic unit and the explicit approval of the Office of Graduate Studies or College of Liberal Arts and Sciences.

In accordance with the Memorandum of Agreement between the University of Kansas and the Board of Regents and the Kansas Association of Public Employees (MOA), in order to be eligible for a GTA appointment, a graduate student must meet all of the following conditions:

1. During the term of appointment, the person is admitted to and enrolled in a graduate degree program offered by the University of Kansas;

2. During the term of appointment, the person is enrolled in no fewer than six graduate credit hours per semester or other credit hours as required for the student’s graduate degree and as approved by Graduate Studies or the Dean’s Office of the College of Liberal Arts and Sciences as appropriate. [Note: GTAs on summer session appointments may enroll but are not required to do so unless they are doctoral candidates, who are required to be continuously enrolled.]

   a. Enrollment and Medical Leave: Should the person be unable to enroll in six graduate or other approved hours for reasons of medical condition or other hardship, that person may, with supporting documentation and the approval of the department of employment (and the department of study in cases in which the two are different), petition the Graduate Studies Office or the Dean’s Office of the College of Liberal Arts and Sciences as appropriate that this requirement be waived. Final approval rests with the Graduate Studies Office of the Dean’s Office of the College of Liberal Arts and Sciences as appropriate.

   b. Enrollment and Post Comps: Upon successful completion of the doctoral comprehensive examination and all other Graduate Studies and departmental requirements for candidacy to the doctoral degree and upon completion of eighteen post-comprehensive credit hours, the person may enroll in one or more dissertation, thesis, or equivalent credit hours as approved by Graduate Studies or the Dean’s Office of the College of Liberal Arts and Sciences as appropriate to qualify for a graduate teaching assistantship appointment. [Note: Candidates for professional doctoral degrees may enroll in dissertation-equivalent hours as approved by Graduate Studies. More detailed information about post-comprehensive enrollment can be found under “Regulations” in the Graduate Studies section of the catalog.]

3. During the term of appointment, the GTA must be in academic good standing and making satisfactory progress toward a graduate degree, as determined by Graduate Studies and the department in which the person is enrolled. [Note: Students who are admitted to a degree program on probationary or provisional status are not considered to be in academic good standing for the purpose of GTA appointments. A graduate student must maintain a cumulative grade point average (GPA) of 3.0 to remain in academic good standing. However, if a department judges that a graduate student whose GPA falls below 3.0 after the first semester at KU is nonetheless making satisfactory progress, the department may recommend to the Dean of Graduate Studies or the Dean of the College of Liberal Arts and Sciences that the student be allowed to keep his/her GTA position for one additional semester.]

4. The graduate student must satisfy any and all English proficiency criteria established by the Regents and/or the University. [Note: Prior to finalization of a GTA appointment, every prospective
GTA must be interviewed and have his or her spoken English competency certified by no fewer than three institutional personnel, at least one of whom should be a student. Non-native speakers of English must achieve a minimum score of 50 on the SPOAK (Speaking Proficiency English Assessment Kit), a score of 22 on the iBT (Internet-based TOEFL), or an 8 on the IELTS (International English Language Testing System).

5. During the term of the appointment, the person’s assigned responsibilities consist primarily of direct involvement in classroom or laboratory instruction.

6. The person has satisfactorily completed all of the components of the orientation and training as specified in section 7 of the MOA within the timeframes established by the University.

7. The department may require a graduate teaching assistant to be on campus to assume the responsibilities of his/her employment, not to exceed five weekdays (excluding weekend days) prior to the first day of classes each semester [Note: In accordance with Article 5, Section 1, of the MOA, “Individuals who are being reappointed as GTAs, regardless of whether the appointment is for an academic year or a shorter period, shall begin work on the first day of classes of each semester for which they are appointed, unless notified by the GTA’s department of earlier required assignments. Attendance at GTA orientation prior to the start of the semester is required as a condition of employment for any person who has not previously served as a GTA at the University of Kansas or for any returning GTA who has been identified as needing to attend GTA orientation.”]

8. The person must successfully pass a background check established by the University.

In addition to the conditions of appointment set forth in the MOA, the University has established the following condition:

A student who has earned a graduate degree may not continue in a GTA appointment after the graduation date unless he or she has just completed a master’s degree and is enrolled in a doctoral program in the same field or a closely related field or is a doctoral graduate who has been accepted into another graduate program.

Enrollment Exceptions for GTAs who are Doctoral Candidates

In accordance with Graduate Studies requirements, after passing the comprehensive oral examination for a doctoral degree, the candidate must be continuously enrolled, including summer sessions, until all requirements for the degree are completed, and each enrollment must reflect as accurately as possible the candidate’s demand on faculty time and University facilities. Until 18 post-comprehensive hours are completed, the candidate must enroll in a minimum of six hours each semester and three hours during the summer session. Doctoral candidates may be enrolled in fewer than six post-comprehensive hours in the fall and spring semesters and in fewer than three hours during the summer session if all of the conditions described in 2b (above) are met.

Please note that different enrollment criteria may be used in determining eligibility for student financial aid and student loan deferments. GTAs are advised to consult with Financial Aid and Scholarships (http://affordability.ku.edu) to determine student financial aid eligibility.

Process: In order to certify that a GTA is eligible to enroll in fewer than six credit hours, campus departments must submit the Certification of Eligibility to Enroll in Fewer than Six Hours Form for doctoral students (available here: https://policy.drupal.ku.edu/graduate-studies/doctoral-GTA-eligibility-fewer-six-hours).

View the current policy on GTA appointment eligibility (http://policy.ku.edu/graduate-studies/GTA-appointment-eligibility).

GA Eligibility

The following eligibility requirements govern all Graduate Assistant (GA) appointments at the University of Kansas, Lawrence:

Graduate Assistants are salaried student employees (as determined by Human Resources and Equal Opportunity) who hold a position that furthers the professional and/or academic development of the graduate student. The duties performed are professional in nature and under the direct supervision of faculty, academic professionals, or administrators. The duties do not involve classroom instruction or research integral to the student’s degree program or dissertation. The graduate assistant’s responsibilities may include, but are not limited to, administrative and professional internships. The Dean of Graduate Studies must approve GA appointments. [Note: Graduate Assistant positions are a distinct category of graduate student support. This category does not include Graduate Research Assistants or Graduate Teaching Assistants.]

In order to be eligible for a GA appointment, a graduate student must meet all of the following criteria:

1. During the term of appointment, the person is admitted to and enrolled in a graduate degree program offered by the University of Kansas;

2. During the fall and/or spring semesters in which the graduate student holds a GA appointment, he or she must be enrolled in no fewer than six credit hours required for the student’s graduate degree. GAs on summer session appointments may enroll but are not required to do so unless they are doctoral candidates, who are required to be continuously enrolled.

a. Enrollment and Post Comps: Upon successful completion of the doctoral comprehensive examination and all other Graduate Studies and departmental requirements for candidacy to the doctoral degree and upon completion of eighteen post-comprehensive credit hours, the person may enroll in one or more dissertation, thesis, or equivalent credit hours as approved by Graduate Studies or the Dean’s Office of the College of Liberal Arts and Sciences as appropriate to qualify for a graduate teaching assistantship appointment. [Note: Candidates for the professional doctoral degrees may enroll in dissertation-equivalent hours as approved by Graduate Studies. More detailed information about post-comprehensive enrollment can be found under “Regulations” in the Graduate Studies section of the catalog.]

3. During the term of appointment, the GA must be in academic good standing and making satisfactory progress toward a graduate degree, as determined by Graduate Studies and the department in which the person is enrolled. Students who are admitted to a degree program on provisional status are not considered to be in academic good standing for the purpose of GA appointments. Exceptions may be granted by the Dean of Graduate Studies under extraordinary circumstances. A graduate student must maintain a cumulative grade point average (GPA) of 3.0 to remain in academic good standing. However, if a department judges that a graduate student whose GPA falls below 3.0 after the first semester at KU is nonetheless making satisfactory progress, the department may recommend to the Dean of Graduate Studies that the student be allowed to keep his/her GA position for one additional semester.
4. The person must successfully pass a background check established by the University.
5. A student who has earned a graduate degree may not continue in a GA appointment after the graduation date unless he or she has just completed a master’s degree and is enrolled in a doctoral program in the same field or a closely related field or is a doctoral graduate who has been accepted into another graduate program.

Enrollment Exceptions for GAs who are Doctoral Candidates

In accordance with Graduate Studies requirements, after passing the comprehensive oral examination for a doctoral degree, the candidate must be continuously enrolled, including summer sessions, until all requirements for the degree are completed, and each enrollment must reflect as accurately as possible the candidate’s demand on faculty time and University Facilities. Until 18 post-comprehensive hours are completed, the candidate must enroll in a minimum of six hours each semester and three hours during the summer session. Doctoral candidates may be enrolled in fewer than six post-comprehensive hours in the fall and spring semesters and in fewer than three hours during the summer session if all of the described in 2.A. above are met.

Please note that different enrollment criteria may be used in determining eligibility for student financial aid and student loan deferments. GAs are advised to consult with Financial Aid and Scholarships (http://affordability.ku.edu) to determine student financial aid eligibility.

Process: In order to certify that a GA is eligible to enroll in fewer than six credit hours, campus departments must submit to Graduate Studies the Certification of Eligibility to Enroll in Fewer than Six Hours Form for doctoral candidates.

View the current policy on GA appointment eligibility (http://policy.ku.edu/graduate-studies/GA-appointment-eligibility).

GRA, GTA, and GA Benefits - Lawrence and Edwards Campuses

The University is authorized by Kansas statutes and administrative regulations to provide graduate research assistants (GRAs), graduate teaching assistants (GTAs) and graduate assistants (GAs) with certain benefits that are not available to other student employees. The Memorandum of Agreement (MOA) between the University of Kansas and the Board of Regents and the Kansas Association of Public Employees (representing Graduate Teaching Assistants at the University of Kansas, Lawrence), available at http://www.humanresources.ku.edu/files/documents/gta_moa.pdf, provides further information about benefits available to GTAs. This summary is provided for informational purposes only. For information about specific benefits, contact the offices listed at the end of this document.

1. STAFF RATES. Graduate students with GRA, GTA or GA appointments of 40% or more are eligible for staff (resident) rates for tuition, as are individuals who hold concurrent GRA, GTA and GA appointments totaling 40% or more as stipulated in the Staff and Staff Dependent Tuition Rates policy (http://policy.drupal.ku.edu/registrar/staff-tuition-rates#GTA).

2. PAYMENT OF TUITION. GRAs and GTAs are eligible to have all or some of their tuition paid, including any differential tuition assessed, according to the provisions below.

Graduate Research Assistants:
a GRA/GTA appointment. The GRA/GTA will lose his or her eligibility for staff rates and, if a non-resident, will be required to pay non-resident tuition for that semester.

If a GA resigns or abandons the GA position or the appointment is terminated, the GA will lose his or her eligibility for staff rates and, if a non-resident, will be required to pay non-resident tuition for that semester.

5. DEFERMENT OF TUITION AND FEES. Returning GRAs, GTAs and GAs have the option of deferred payment for any tuition and required campus fees until September 15 (fall) and February 15 (spring). Please note that housing costs, optional campus fees, or other charges are not eligible for deferment. The fall deadline for returning graduate students to request a fee deferment is August 10; the spring deadline is January 10. Returning GTAs, GRAs, or GAs who do not request a deferment or do not pay their tuition and fees by the deadline will be assessed a late fee.

6. PAYMENT OF TUITION AND FEES FOR REQUIRED ORIENTATION/TRAINING COURSE. In cases where a GTA is required to enroll in a for-credit orientation or training course, the University covers the full tuition and campus fee associated with one orientation/training course.

7. HEALTH INSURANCE. The Kansas Board of Regents, in cooperation with the state universities, offers health insurance for students. Full information can be found at: http://www.hr.ku.edu/benefits_pay/benefits_info/health_insurance_programs/gta_gra_health_insurance.aspx.

8. SICK LEAVE AND ANNUAL (VACATION) LEAVE. In accordance with Board of Regents policy, persons appointed to student unclassified positions (including GRA, GTA and GA positions) do not accrue sick leave or annual leave.

9. APPROVED MEDICAL LEAVE. The GTA MOA (Article 5, Section 10) provides that GTAs with a medical condition that necessitates an absence of more than a week from assigned responsibilities shall request unpaid leave with appropriate medical documentation. Such unpaid leave of absence shall be requested in writing from the department/school by the GTA or a representative in advance of taking the leave, unless the illness or injury precludes advance notice. The request for leave without pay must be reviewed and approved by the department/school or college, the Graduate Studies Office, and by the Department of Human Resources and Equal Opportunity before being granted, but approval shall not be withheld if appropriate supporting medical documentation is provided. If additional documentation is needed, the GTA or authorized representative from the department/school will be notified and given reasonable time to provide the documentation. Failure to request a leave of absence or to have a leave of absence approved according to this provision shall result in the placement of the GTA on leave without pay or the termination of the GTA’s appointment.

GRAs or GAs with a medical condition that necessitates an absence of more than a week from assigned responsibilities shall request unpaid leave with appropriate medical documentation. Such unpaid leave of absence shall be requested in writing from the department/school by the GRA/GA or a representative in advance of taking the leave, unless the illness or injury precludes advance notice. The request for leave without pay must be reviewed and approved by the department/school or college, the Graduate Studies Office, and by the Department of Human Resources and Equal Opportunity before being granted, but approval shall not be withheld if appropriate supporting medical documentation is provided. If additional documentation is needed, the GRA/GA or authorized representative from the department/school will be notified and given reasonable time to provide the documentation. Failure to request a leave of absence or to have a leave of absence approved according to this provision shall result in the placement of the GRA/GA on leave without pay or the termination of the GRA/GA’s appointment.

Please note that the approval of a medical leave of absence from a GRA, GTA, or GA position does not affect the academic status of a graduate student. A student who wishes to reduce his or her enrollment level due to a medical condition must consult with the department/school; doctoral students who wish to take a leave of absence from graduate studies because of a medical condition must request a leave from the department.

10. OTHER BENEFIT PROGRAMS. GRAs, GTAs and GAs also can participate in voluntary benefit programs. Additional information is located at: http://www.hr.ku.edu/benefits_pay/benefits_info/gta_gra_other_voluntary_benefits.aspx.

A graduate student who has a GTA, GRA, GA, or combination appointment at the half-time level for a semester is eligible to participate in a health care benefits plan, for which KU provides a contribution. The health care benefits plan is available to all students, regardless of employment status, but students who do not meet the eligibility criteria described above are responsible for the full cost of the plan.

View current policies on GTA/GRAs/GA Benefits (http://policy.ku.edu/graduate-studies/benefits-for-GRAs-GTAs-GAs). Further information about tuition (http://affordability.ku.edu/cs/index.shtml) and fees is available from the Office of the University Registrar (http://www.registrar.ku.edu/tuition-and-fees).

GTAs Who Are Non-Native Speakers of English

All prospective graduate teaching assistants of the state universities shall have their English competency assessed prior to being considered for any employment having classroom or laboratory instructional responsibility and/or direct tutorial responsibilities. The following shall be used to implement this policy:

(1) All prospective graduate teaching assistants, whose first language is not English, must be interviewed by and have their competency in spoken English assessed by no fewer than three institutional personnel, one of which should be a student. An oral interview shall be conducted either face-to-face or by mediated means.

(2) To be eligible for an appointment without spoken English language remediation conditions, all prospective graduate teaching assistants, whose first language is not English, shall be required to achieve a minimum score of 50 on the Test of Spoken English (TSE) or the Speaking Proficiency English Assessment Kit (SPEAK), or equivalent, or a minimum score, set by Board staff in consultation with the Council of Chief Academic Officers and with the approval of the Board Academic Affairs Standing Committee, on the Speaking section of the Test of English as a Foreign Language internet Based Test (TOEFLiBT).

(3) All prospective graduate teaching assistants who do not meet the above requirements shall not be assigned teaching responsibilities nor other tasks requiring direct instructional contact with students.

(4) An exception will be made for courses taught in sign language.

(5) A report detailing the process for interviewing graduate teaching assistants, whose first language is not English, including the composition of the interview team and scores from the TSE or SPEAK for each candidate, will be submitted to the President/CEO every other year.
View the current policy on Spoken English Language Competency of Faculty and Graduate Teaching Assistants (Kansas Board of Regents Policy) (https://policy.drupal.ku.edu/provost/spoken-english-competency-BOR-policy).

**Academic Calendar**

The Graduate Studies academic calendar and older versions are available online (http://www.graduate.ku.edu/student-resources).

**Academic Probation**

Upon falling below a cumulative graduate grade-point average of B, computed with the inclusion of grades earned at KU for all courses acceptable for graduate credit, the student is placed on probation by the graduate division or school/College. The grades of P, S, U, and I, for which no numerical equivalents are defined, are excluded from the computation. If the student’s overall graduate average has been raised to B by the end of the next semester of enrollment after being placed on probation, the student may be returned to regular status. If not, the student is not permitted to re-enroll unless the graduate division acts favorably on a departmental recommendation for the student to continue study.

If admitted provisionally due to deficiencies in grade point average, a student must earn an overall graduate average of at least B during the first semester of enrollment (in which case the student is considered to have achieved regular status) to be permitted to re-enroll. A student admitted provisionally who fails to earn a B average in the first semester of enrollment may be dismissed immediately. If provisional continuation is recommended by the department or program, and approved by the graduate division, the student may remain on provisional status for one additional semester. Students who have been dismissed from a graduate program may be readmitted for further graduate study at KU only by petition of the graduate division that will accept the student. The petition must be approved by the Dean of Graduate Studies on the appropriate campus.

View the current policy on academic probation (http://policy.ku.edu/graduate-studies/academic-probation).

**Course Numbering System**

Generally, graduate courses are numbered according to the following scheme:

- **Courses numbered 500-699** are designed for juniors and seniors, but are also taken by some graduate students who have fewer than 30 hours of graduate credit.
- **Courses numbered 700-799** are designed for graduate students who have fewer than 30 hours of graduate credit, but they are also taken by some undergraduates.
- **Courses numbered 800-899** are designed for graduate students who have fewer than 30 hours of graduate credit.
- **Courses numbered 900-999** are designed for graduate students who have 30 or more hours of graduate credit.

Courses that contain a mixture of undergraduate and graduate students should set requirements for graduate credit beyond or different from the requirements for undergraduate credit. No course, regardless of its number, can give graduate credit unless it has been approved for graduate credit by the appropriate Graduate Division and is taught by a person holding a current appointment to the Graduate Faculty. See the graduate credit section of the catalog (below) for more information.

**Co-enrollment and Graduate Study (Coenrollment)**

Seniors at KU who will complete the requirements for a baccalaureate degree in a given semester, and who have very strong academic records (grade-point average higher than 3.0 on a 4.0 scale), must apply and be admitted provisionally as degree-seeking students and request the permission of the appropriate Graduate Division to co-enroll for the final undergraduate semester. Seniors requesting the privilege of co-enrollment must make formal application through the online graduate application.

**Procedure**

To meet the criteria of co-enrollment, the student must earn undergraduate credit for at least one class during the co-enrollment semester. Continuing education courses may be used to satisfy this requirement. If after the co-enrollment semester the baccalaureate degree is not completed, the student will not be permitted to enroll in courses for graduate credit until the baccalaureate degree has been conferred. After one semester, students are not eligible for co-enrollment and the graduate admission will be retracted.

Students who are eligible to co-enroll receive an email from the Registrar’s Office before enrollment with instructions on how to enroll in more than one career (ex. LAW, GRDL-Graduate, UGDL-Undergraduate). Students will have separate appointment times to enroll for each career and must enroll only in the courses that will count correctly toward the career in which they are enrolling during each appointment time. When enrollment is complete for each career, students must check the grading option for each course to ensure the class will be counted correctly.

View the current policy on coenrollment (http://policy.ku.edu/graduate-studies/seniors-and-grad-study?num2.8).

**Discontinued Enrollment**

A student may voluntarily resign from their program of study by requesting discontinuance. Once this request is granted, the student resigns their place in the program and if they choose to return to their studies at a later date, they must reapply for admission. Discontinuance is requested through the Progress to Degree form.

View the current Lawrence and Edwards Campus policy on discontinued enrollment (http://policy.ku.edu/graduate-studies/discontinued-enrollment?num2.1).

**Dismissed Enrollment (Dismissal)**

Graduate programs are responsible for evaluating the students in their programs to ensure that they are making satisfactory progress toward a degree. If the graduate program finds that a student is not making satisfactory progress due to, but not limited to, cases where the student has run out of time to degree, or the student has neither been enrolled nor received an approved leave of absence for two consecutive semesters, or academic misconduct has occurred the program may recommend to the school/College that the student be dismissed from the program. Dismissal is requested by the graduate program through the Progress to Degree form.
Students who have been dismissed from a graduate program may be readmitted for further graduate study at KU only by petition of the graduate division of the school/College that will accept the student. The petition must be approved by the Dean of Graduate Studies.

**Academic Probation and Dismissal**

Upon falling below a cumulative grade-point average of 3.0, computed with the inclusion of grades earned at KU for all courses acceptable for graduate credit, the student is placed on probation by the graduate division of the school/College. The grades of P, S, U, and I, for which no numerical equivalents are defined, are excluded from the computation. If the student’s overall GPA has been raised to 3.0 by the end of the next semester of enrollment after being placed on probation, the student may be returned to good academic standing. If not, the student is not permitted to re-enroll and will be dismissed unless the graduate division of the school/college acts favorably on a departmental recommendation for the student to continue study.

Graduate divisions within the schools/College may have more stringent dismissal policies in place. Please check with the graduate division of the school/College for more information.

View the current policy on dismissal (http://policy.ku.edu/graduate-studies/dismissed-enrollment?num2.2).

**Distance Education**

The University of Kansas offers online and hybrid courses and certificate and degree programs. For more information about specific online course and degree program options, students should contact their academic department of study. Similar to regular courses, the availability of online courses varies by semester and year.

**Online or Hybrid Graduate Programs**

- Master of Social Work hybrid course option (http://www.socwel.ku.edu/academics/degrees/msw/regular/curriculum)
- Master of Science in Pharmaceutical Chemistry (http://www.pharmchem.ku.edu/~phch-web/cgi-bin/mydrupal/?q=node/21)
- Master of Science in Education Administration (http://elps.soe.ku.edu/academics/edadmin/mse)
- Master of Science in Education in Special Education with an emphasis in High-Incidence Disabilities (Adaptive) (http://educationonline.ku.edu/masters-in-special-ed)
- Master of Science in Education in Special Education with an emphasis in Transition Education and Services (http://specialedu.soe.ku.edu/academics/transition/mse)
- Doctor of Philosophy in Pharmaceutical Chemistry

Additional online programs may be available. View KU’s current online or hybrid programs (https://online.ku.edu/programs) or contact the KU Center for Online and Distance Learning (http://www.independentstudy.ku.edu/index.shtml) for more information on online and hybrid courses.

**Independent Study**

Independent study is a research experience or directed readings independently pursued through an academic department. Students should contact their academic department to discuss independent study opportunities to investigate a special research problem or directed readings in an area not covered by regular courses.

**Embargo of Theses and Dissertations**

When an exception to the immediate release of a thesis or dissertation is necessary, an embargo provides a temporary, delayed public release of the work. Embargo periods of six months, one year, or two years are available. While embargoes are not intended to be permanent, renewals of the original embargo period are permissible. Considerations that may be deemed reasonable for granting permission for an embargo include, but are not limited to:

- Patentable rights or other issues are contained in the work the disclosure of which may be detrimental to the rights or interests of the author.
- There is a need to prevent disclosure of government information about persons, institutions, technologies, etc. that is contained in the work.
- An academic or commercial press has expressed interest in acquiring the rights to publish the work as a book that may require an embargo.
- The work contains content that has already been submitted to a peer-reviewed journal that may require an embargo.
- Approval for delay has been granted by the KU Restricted Research Committee.

Requests for an extension of the embargo should be directed to the Office of Graduate Studies and must be received at least one month prior to the expiration of the current embargo to ensure sufficient time to process the request. A request for an embargo submitted to the University of Kansas affects only the publication of the thesis or dissertation in KU ScholarWorks. It is the graduate student's responsibility to request an extension from both the University of Kansas for the copy in KU ScholarWorks and separately through ProQuest/UMI.

While there is no limit to the number of times a student can request an embargo extension, embargoes that have been allowed to expire without a request for an extension will result in the thesis or dissertation being made publicly available.

The embargo period will be calculated beginning at the end of the semester in which the student graduates with the specific dates being: December 31st, May 31st, and August 31st.

**Procedure**

**Steps necessary for embargoing a thesis or dissertation:**

Theses and dissertations at the University of Kansas are made available in two electronic databases: KU ScholarWorks and ProQuest/UMI Dissertations and Theses. Items in KU ScholarWorks are publicly accessible on the world-wide web and can be indexed by search engines such as Google, Bing, Yahoo, and others.

A student who does not wish to have his/her thesis or dissertation made public in these two venues for some limited period of time must receive permission to embargo the thesis or dissertation from the director of graduate studies in his/her department, the committee chair, the department chair, or the dean of the pertinent school/college. The student must request this permission with the Electronic Thesis and Dissertation (ETD) Release Form. The University of Kansas will accept the thesis or dissertation—thereby completing all degree requirements—only if the student signs this release form. Likewise, the University of Kansas will
only entertain requests for an embargo on the publication of a thesis or dissertation through submission of this same form.

To ensure that embargoed work is restricted, students must take two steps after receiving the appropriate signatures before graduation.

- First, the student must submit the Electronic Thesis and Dissertation (ETD) Release Form to the school/College. If an embargo has been approved, this form will ensure that the work is temporarily restricted in KU ScholarWorks.

- Second, during the electronic submission process to ProQuest/UMI, the student must select the embargo option under the publishing restrictions section. If an embargo has been approved, this step will ensure that public view of the work is temporarily restricted in the ProQuest/UMI Dissertations and Theses database. See the related documents section below for more information.

Note: If a student does not receive permission for an embargo and/or does not submit the required documentation requesting such an embargo to Graduate Studies prior to graduation, the work will be made publicly available through KU ScholarWorks, and search engines like Google, Bing, Yahoo, and others will find and index the work. For this reason, once a work is released publicly, it is impossible to deploy an embargo in its entirety, because copies of a released work are likely to be stored on the web even if the KU ScholarWorks or ProQuest/UMI copies are retracted. It is therefore crucial for students who desire the embargo option to request it prior to graduation and to request extensions, if needed, prior to the work being exposed to public search engines.

Dissertation defenses are open to the public. In the event that an embargo is deemed necessary for a dissertation, the committee should consider holding an additional question period for the defense that is closed to the public. Any sensitive data may be discussed in the closed session.

View the current policy on embargo of theses and dissertations (http://policy.ku.edu/graduate-studies/embargo-policy). Students from the following programs are permitted to request a permanent embargo of their theses and dissertations: Master of Fine Arts (MFA) in Creative Writing and the PhD in English: Literature and Creative Writing track.

**Enrollment**

All graduate students are expected to fit into one of the following enrollment categories at all times while completing the credits required for the fulfillment of their degrees.

Graduate students are not normally permitted to enroll for more than 16 hours a semester or more than 8 hours in the summer session.

- Full-time Enrollment
- Leave of Absence
- Discontinued
- Dismissed
- Post-comp Enrollment for Doctoral Candidates

View the current policy on doctoral post-comprehensive enrollment (http://policy.ku.edu/graduate-studies/doctoral-candidacy).

**Full-Time Enrollment for Graduate Students**

Full-time and half-time enrollment consists of the following:

**Full-time enrollment for fall and spring semesters**

- Enrollment in 9 credit hours;
- Enrollment in 6 credit hours plus a GTA, GRA, or GA appointment, regardless of percentage of appointment;
- Enrollment in 6 credit hours for graduate students using the Montgomery GI Bill – Active Duty (MGI-B-AD) and Post-9/11 GI Bill – Active Duty;
- Doctoral candidates enrolled in dissertation hour(s).

*See Doctoral post-comprehensive enrollment.

**Full-time enrollment for summer sessions**

- Enrollment in 6 credit hours;
- Enrollment in 3 credit hours plus a GTA, GRA, or GA appointment, regardless of percentage of appointment;
- Enrollment in 3 credit hours for graduate students using the Montgomery GI Bill – Active Duty (MGI-B-AD) and Post-9/11 GI Bill – Active Duty;
- Doctoral candidates enrolled in dissertation hour(s).

**Half-time enrollment for fall and spring semesters**

- Enrollment in 5 credit hours;
- Enrollment in 3 credit hours plus a GTA, GRA, or GA appointment, regardless of percentage of appointment;
- Enrollment in 3 credit hours for graduate students using the Montgomery GI Bill – Active Duty (MGI-B-AD) and Post-9/11 GI Bill – Active Duty.

**Half-time enrollment for summer sessions**

- Enrollment in 3 credit hours;
- Enrollment in 1 credit hour plus a GTA, GRA, or GA appointment, regardless of percentage of appointment;
- Enrollment in 1 credit hour for graduate students using the Montgomery GI Bill – Active Duty (MGI-B-AD) and Post-9/11 GI Bill – Active Duty.

Students enrolled in fewer hours than defined by half-time enrollment are considered part-time.

All students should check with their graduate degree programs and Graduate Studies’ policies to determine if additional enrollment requirements or summer enrollment requirements exist.

View the current policy on full-time enrollment for graduate students (http://policy.ku.edu/graduate-studies/fulltime-enrollment).

**Note:** A few internship programs have been approved by Graduate Studies to count as full-time enrollment. Students enrolled in these internship programs will be counted as full-time students. Please contact your program to verify that an internship program qualifies.

*A doctoral candidate is defined as a doctoral student who has successfully passed the comprehensive examination. View the current policy on doctoral post-comprehensive enrollment (http://policy.ku.edu/graduate-studies/doctoral-candidacy).
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International Students

International students in F-1 and J-1 status must also comply with Federal immigration requirements of pursuing a full course of study each semester to maintain their legal status. All international students must conform to residence requirements, even though immigration regulatory requirements may be lower.

All students should check with their graduate degree programs to determine if the program has additional enrollment requirements.

Grading

The basic system is an A, B, C, D, F system, where A designates above-average graduate work; B, average graduate work; C, passing but not average graduate work (C– is not considered a passing grade); D and F, failing graduate work. C–, D, and F work does not count toward fulfilling degree requirements.

The letter P is used only to indicate participation in thesis, dissertation, and research enrollments (related to thesis or dissertation), and in the first semester enrollment of a two-semester sequence course. In any semester, an instructor may, at his or her option, assign a letter grade of A, B, C, D, or F when evidence about performance is available. Upon completion of thesis/dissertation or research hours leading to a master’s or doctoral degree, the P remains on the final transcript except for the last semester of enrollment. A letter grade (A, B, C, D, or F) is assigned in the last semester of enrollment to characterize the quality of the final product. The I grade is not appropriate for enrollment in thesis, dissertation, or research, and is not accepted.

For enrollments other than thesis, dissertation, or research, the letter I indicates course work that has been of passing quality, some part of which is, for good reason, unfinished.

As stated in University Senate Rules and Regulations (http://policy.ku.edu/governance/USRR), Article II, Section 2.2.3.2: “A student who has an I posted for a course must make up the work by the date determined by the instructor, in consultation with the student, which may not exceed one calendar year, or the last day of the term of graduation, whichever comes first. An I not removed according to this rule shall automatically convert to a grade of F or U, or the lapse grade assigned by the course instructor, and shall be indicated on the student’s record.”

The grades of S and U may be used to designate satisfactory and unsatisfactory performance, respectively, in continuing education, workshop, and institute courses upon the recommendation of the department offering the course. No more than 6 hours total of graduate courses graded S are permitted to count toward a degree.

In courses numbered 800 or above for which specific authorization has been given, the instructor may report a grade of S for students who have satisfactorily attended the course but for whom it has not been possible to evaluate the quality of performance.

Once the S grade for a particular course (or a particular faculty member’s section of a multi-section course) has been recommended by the department and approved by the Graduate Division, it must be applied to the entire student enrollment in the course or section. This applies to those 800- or 900-level courses eligible for the S grade (or its alternative of F), as well as to Continuing Education, institute, and workshop courses. The S and U grades are not used in computing the grade-point average.

The Credit/No Credit option is authorized for graduate students. For graduate students, the grade of CR will be received for grades of C and above, and the grade of NC (no credit) will be received for grades of C– and below.

As outlined in USRR 2.2.7.6, no course graded CR or NC can count toward the satisfaction of the requirements for a graduate degree or a graduate certificate. This prohibition includes any courses taken to meet the Research Skills and Responsible Scholarship requirement.

Please see the Research Skills and Responsible Scholarship policy (https://policy.drupal.ku.edu/graduate-studies/research-skills-responsible-scholarship) for more information.

The individual schools have the option of using or not using +/-, according to the policy adopted by the particular school. B– does not represent satisfactory work in graduate studies.

In the grading system defined above, at least a B average is required on course work counted toward any of the master’s degrees or the Specialist in Education degree at KU, and only courses graded A, B, or C (excluding C–) may be so counted. Course work counted toward a doctorate, including that for a master’s degree if obtained at KU, should average better than a B. Courses graded P, S, U, or I are excluded from the computation of the average.

Performance is graded Honors, Satisfactory, or Unsatisfactory for the following examinations:

1. The general examination for the master’s degree.
2. The general examination for the degree of Specialist in Education.
3. The comprehensive oral examination for the doctorate.
4. The final examination for the doctorate.

View the current Graduate Studies policy on grading (http://policy.ku.edu/graduate-studies/grading?num2.4).

Graduate Credit

Three conditions must be met for a student to receive graduate credit for work satisfactorily completed at KU:

1. The student must have gained graduate admission.
2. The course must be numbered 500 level or above and have been approved for graduate credit by the appropriate school/College.
3. The instructor must have gained appointment to the Graduate Faculty.

Credit by Examination

Credit by examination is not accepted toward graduate degrees.

Transfer Credit

Six hours of graduate credit taken at a regionally accredited graduate school may be transferred and applied to a KU program leading to a KU master’s degree if the credits were taken before the final semester of enrollment at KU and have the approval of the major department and the appropriate school.

Eight hours may be approved for transfer if the student holds a baccalaureate degree from KU.

The total of transferred credit, including graduate continuing education credit and distance-learning courses taken at KU may not exceed 6 hours, or 8 if the student holds a baccalaureate from KU.
Only work graded B (3.0 on a 4.0 scale) or higher may be transferred. KU does not accept transfer credit for courses that have been graded B- or below. KU also does not accept transfer for institutes, workshops, or for life/work experience. Any exceptions to this must be approved by the department, schools/divisions, and the Office of Graduate Studies.

Credit will not transfer for courses that were counted toward the requirements for an undergraduate or graduate degree, whether completed at KU or another institution.

No credit is actually transferred toward the doctorate, but departments may take relevant prior graduate work into consideration in setting up programs of study. In order to transfer credits, the appropriate paperwork must be initiated by the student’s department.

View the current policy on graduate credit (http://policy.ku.edu/graduate-studies/graduate-credit).

**Graduate Course Work Expiration Dates**

Courses completed at the University of Kansas, or transfer credits from another university, cannot be used to fulfill graduate degree requirements if these courses were completed more than ten (10) years prior to the final defense for doctoral candidates or graduation for master’s students.

Faculty members retain the responsibility for determining the validity of courses that count toward the degree. Any decision to make an exception to the policy outlined above must be approved by the graduate affairs office of the school/college in which the student’s program resides.

**Graduate Student Oral Exams**

**Attendance**

Ideally, all members of the committee are physically present at graduate student oral examinations, which include the master’s comprehensive oral exam, the master’s final oral exam (i.e., thesis defense), the doctoral comprehensive oral exam, and the doctoral final oral exam (i.e., dissertation defense).

A majority of committee members must be physically present for an examination to commence; for doctoral oral examinations this requirement is 3 of the 5 members, for master’s oral examinations the requirement is 2 of the 3 members.

In addition, it is required that the student being examined, the chair of the committee, and the outside committee member all be physically present at the examination or defense. Mediated attendance by the student, chair and outside member is prohibited. When a situation arises in which a member cannot be physically present, attendance via mediated means (tele/video-conferencing) is acceptable at the discretion of the committee chair.

In cases where the student prefers an examination in which all committee members are physically present, the student’s preference shall be honored.

In the case of failure of technology during the examination, all members of the committee present must concur that the examination was substantially complete. If any member of the committee dissents, the examination is considered cancelled and must be rescheduled. The committee members at remote locations must be contacted to submit their decision concerning the assessment of the examination before the exam results are recorded.

The Office of Graduate Studies will manage consideration of and decisions on exceptions to the policy outlined above. Requests for exceptions to this policy shall be submitted in writing to the Dean of Graduate Studies. If exceptions are granted, Graduate Studies will request that a member of the departmental leadership (the chair or director of graduate studies) be present at the examination.

**Committee Composition**

The majority of committee members serving on a graduate student oral examination committee must be tenured/tenure-track faculty holding regular or dissertation graduate faculty status in the candidate’s department/program of study. Graduate student oral examinations include the master’s comprehensive oral exam, the master’s final oral exam (i.e., thesis defense), the doctoral comprehensive oral exam, and the doctoral final oral exam (i.e., dissertation defense).

Doctoral committees are composed of at least five voting members and must adhere to the following requirements:

1. Three committee members must be faculty holding regular or dissertation graduate faculty status and be members of the student’s department/program.
2. One member must meet the requirements for serving as an outside member: i.e., be a KU faculty member (which includes faculty who are affiliated with KU but do not have their tenured home in the candidate’s department/program) holding regular or dissertation graduate faculty status, and s/he cannot be a member of the candidate’s department/program. The outside member represents Graduate Studies and is a voting member of the committee, has full rights to participate in the examination, and reports any unsatisfactory or irregular aspects of the examination.
3. One member may hold any graduate faculty status, including regular, dissertation, or special status.

While committees are not required to have a co-chair, the student or the committee members may decide to select a co-chair. For doctoral committees, the chair must hold dissertation status; the co-chair can hold any graduate faculty status.

Master’s committees are composed of at least three voting members and must adhere to the following requirements:

1. Two committee members must be tenured/tenure-track faculty holding regular graduate faculty or dissertation status and be members of the candidate’s department/program.
2. One member must hold any graduate faculty status, including regular, dissertation, or special status. This third member can be, but need not be, a member of the candidate’s department/program.
3. For approved professional master’s degree programs (Master of Science in Engineering Management; please see the KU Policy Library for currently approved programs), the committee may be composed as described above, or any number of the committee members may be professors of the practice in the department/program.

For both master’s and doctoral committees, substitutions of the committee chair (and/or co-chair) are prohibited after the committee has been approved by the graduate affairs division of the school/college. If a committee chair (and/or co-chair) needs to be replaced, the revised committee must be approved by the school/college two weeks in advance of the exam.

Substitutions of the committee members are permitted as long as the new members hold regular or dissertation graduate faculty status. Special members can be added after the committee has been approved by the
graduate affairs division of the school/college, but these additions must be approved by the school/college no later than two weeks in advance of the exam.

Grievance Policy and Procedures for Graduate Students

A graduate student who believes himself or herself to be unfairly or unlawfully treated in an academic matter may present a grievance to the academic department or program chair. Each academic unit and all graduate divisions have established grievance policies and procedures. Appeal of a grievance heard at one of these levels is made to the Judicial Board. The Office of Graduate Studies has established a set of guidelines for graduate student petitions in certain categories that may not be under the jurisdiction of other hearing bodies.

The Executive Council of the Graduate Faculty has identified 2 categories as the purview of Graduate Studies:

1. Cases involving the graduate divisions of two or more schools or colleges;
2. Cases involving the interpretation of Graduate Studies policy as it pertains to the graduate division of a school or college.

For disputes involving alleged academic misconduct or alleged violations of student rights, the initial hearing normally is held at the unit level. There is an option to hold an initial hearing at the Judicial Board level if both parties agree, or if either party petitions the Judicial Board chair to hold the hearing at the Judicial Board level and the petition is granted. The petition must state why a fair hearing cannot be obtained at the unit level; the opposing party has an opportunity to respond to the petition.

Procedures for Graduate Student Grievances

Pursuant to Article XIV of the University Senate Code and Articles V and VI of the University Senate Rules and Regulations (http://policy.ku.edu/governance/USRR) of the University of Kansas, Lawrence, Graduate Studies establishes the following procedures to hear the individual grievances of graduate students. Except as provided in USRR 6.5.4, no person shall be disciplined for using the grievance procedure or assisting another in using the grievance procedure. Graduate Studies shall provide a complete copy of the response to the complaining party.

A sub-committee of the Executive Council of Graduate Faculty is charged to “establish policies governing the handling of individual grievances of graduate students brought to the attention of Graduate Studies and to carry out or delegate the investigation of individual grievances presented to Graduate Studies,” and to “make and report final recommendations to the Dean of Graduate Studies with respect to individual grievances.” Since the committee has the responsibility to adjudicate and hence to hear grievances, it cannot function to develop evidence on behalf of either complainant or respondent. It is appropriate, however, for Graduate Studies, in its administrative capacity, to look into complaints prior to scheduling a grievance hearing, to interview parties, to secure documents, and to seek a conciliatory solution. Before pursuing formal grievance procedures, a grievant should ordinarily attempt to resolve the matter informally through direct or indirect consultation with the other party, through discussions with supervisory personnel or through informal mediation. If the problem is not solved in this fashion the dean shall refer the complainant to the committee or, if appropriate, to another appropriate unit charged with jurisdiction to resolve the dispute. If it is referred to the committee, the Office of Graduate Studies shall make available to the committee what it has learned that bears on the complaint. This shall not be construed, however, to deny the right of a student to file a complaint directly with the committee.

1. To start the grievance process, the complainant must submit a written grievance to Graduate Studies. The complaint shall contain a statement of the facts underlying the complaint and specify the provision(s) of the Faculty Code of Conduct, University Senate Code, the University Senate Rules and Regulations, the Code of Student Rights and Responsibilities, or other applicable rule, policy, regulation, or law allegedly violated. The complaint shall also indicate the witnesses or other evidence relied on by the complaining party, and copies of any documents relevant to the complaint shall be attached to the complaint.

2. At the time the complaint is submitted to Graduate Studies, the complaining party shall provide a copy of the complaint, with accompanying documents, to the respondent(s).

3. Upon receipt of the complaint, Graduate Studies shall contact the respondent to verify that the respondent has received a copy of the complaint and to provide the respondent with a copy of these procedures.

4. Pursuant to University Senate Code 14.2.c, a respondent has the privilege of remaining silent and refusing to give evidence in response to a complaint. The respondent also has the right to respond and give evidence in response to the complaint.

5. The respondent shall submit a written response to Graduate Studies within 14 calendar days of receiving the complaint. The response shall contain the respondent’s statement of the facts underlying the dispute as well as any other defenses to the allegations in the complaint. The respondent shall also identify the witnesses or other evidence relied on by the respondent and shall include copies of any documents relevant to the response. The respondent shall provide a complete copy of the response to the complaining party.

6. Upon receipt of the response, Graduate Studies shall contact the complaining party to verify that a copy of the response has been provided.

7. Upon receiving the complaint and response, or if the respondent fails to respond within the 14-day time period, Graduate Studies shall appoint a committee to consider the complaint. Normally, a complaint shall be heard by a sub-committee of the Executive Council of Graduate Faculty from among the members of the committee. The committee members shall be disinterested parties who have not had previous involvement in the specific situation forming the basis of the complaint. In the summer, if the complainant requests a hearing before the full committee he or she must waive the right to timely hearing (see 11 below) and a hearing date will be scheduled early in the fall.

8. Pursuant to USRR 6.8.4.2, the chair of the committee may contact other hearing bodies within the University to determine whether a grievance or complaint involving the underlying occurrence or events is currently pending before or has been decided by any other hearing body.

9. Time limits. To use this procedure, the complainant must file the written complaint with Graduate Studies within six months from the action or event that forms the basis of the complaint. The six-month time period shall be calculated using calendar days (including weekends and days during which classes are not in session).

10. Upon receiving the complaint, if the chair of the committee determines that any of the following grounds exist, he or she may recommend to the dean that the complaint be dismissed without further proceedings. The grounds for such dismissal are: (a) the
20. The chair of the committee shall have the authority and responsibility to keep order, rule on questions of evidence and relevance, and shall possess other reasonable powers necessary for a fair and orderly hearing.

21. The hearing shall not be governed by the rules of evidence, but the chair of the committee may exclude information he or she deems irrelevant, unnecessary, or duplicative. Statements or admissions made as part of the mediation process are not admissible.

22. The committee will make an audiotape of the hearing but not of the deliberations of the committee. The audiotape will be available to the parties, their authorized representatives, the committee and the Dean. If a party desires a copy of the audiotape or a transcript of the tape, that party will pay for the cost of such copy or transcript. In the event of an appeal, the audiotape will be provided to the appellate body as part of the record of the case.

23. After the presentation of evidence and arguments, the committee will excuse the parties and deliberate. The committee’s decision will be a written recommendation to the Dean. The committee shall base its recommendations solely upon the information presented at the hearing.

24. The committee will send its written recommendation to the Dean and the parties as soon possible and no later than 14 calendar days after the end of the hearing.

25. Within 14 calendar days of receiving the committee recommendation, the Dean will notify the parties of the acceptance, modification, or rejection of the recommendation. The Dean will advise the parties of the procedure available to appeal the decision.

These procedures have been reviewed by Graduate Council Executive Committee and the Office of the University General Counsel and are effective immediately.

View the current Lawrence and Edwards Campus policy on grievances (http://policy.ku.edu/graduate-studies/grad-student-grievance-policy). The KU Medical Center policies and procedures regarding Graduate student grievances (http://www.kumc.edu/studenthandbook/graduate.html#grievances) are available in the online student handbook and the KU Medical Center section of the academic catalog.

**Intellectual Property Policy**

All enrolled students are subject to the Board of Regents and KU Intellectual Property Policies. The ownership of student works submitted in fulfillment of academic requirements is retained by the creator(s). By enrolling, the student gives the institution a nonexclusive royalty-free license to make on, modify, retain the work in the process of instruction, or otherwise handle the work, as set out in the institution’s Intellectual Property Policy or in the course syllabus. The institution does not have the right to use the work in any other manner without the written consent of the creator(s). The policy is available in its entirety on the Provost’s website (http://www.provost.ku.edu).

View the current policy on intellectual property (http://policy.ku.edu/provost/intellectual-property-policy).

**Leave of Absence**

A leave of absence may be granted upon request to the graduate program in advance of leave. A leave of absence may be granted in extraordinary circumstances (e.g., cases of illness, emergency, financial hardship, military leave), to pursue family responsibilities, or to pursue full-time activities related to long-range professional goals.

Appropriate documentation related to these extraordinary circumstances may be requested from the student directly. Evidence of progress towards degree will also be a determining factor in the decision to grant an exception.

The time taken for a leave of absence does not count against the student’s time to degree. However, if the total time for the leave extends more than five years, the student will lose his/her place in the program and must reapply for admission.

For more information, go to the Graduate Studies website (http://policy.ku.edu/graduate-studies/leave-of-absence).
Post-Comprehensive Enrollment for Doctoral Candidates

Doctoral candidates are required, after passing the comprehensive oral examination, to be continuously enrolled in one or more hours of dissertation or programmatic coursework (for example, document hours for DMA students) that both moves the student towards degree completion and reflects, as accurately as possible, the candidate’s demands on faculty time and university facilities. During this time, until all requirements for the degree are completed (including the filing of the dissertation) or until 18 post-comprehensive hours have been completed (whichever comes first), the candidate must enroll for a minimum of 6 hours a semester and 3 hours a summer session.

Post-comprehensive enrollment may include enrollment during the semester or summer session in which the comprehensive oral examination has been passed. If after 18 hours of post-comprehensive enrollment the degree is not completed, the candidate must continue to enroll each semester and each summer session until all degree requirements have been met. The number of hours of each enrollment must be determined by the candidate’s advisor and must reflect as accurately as possible the candidate’s demands on faculty time and university facilities.

View the current policy on doctoral post-comprehensive enrollment (http://policy.ku.edu/graduate-studies/doctoral-candidacy).

Posthumous Degrees

In order to recognize the achievement of students who have died, the University of Kansas may grant undergraduate, graduate and professional degrees posthumously. This policy applies to deceased students who were in good academic standing at the time of death and enrolled for their final semester at the University of Kansas, as determined by the dean of the school or college. Requests for posthumous degrees must be initiated by the student’s academic department and approved by the dean of the school or college conferring the degree. Each case will be determined on its own merits.

The dean of the school or college posthumously conferring the degree should contact the Office of the University Registrar to confirm the correct information for the degree to be conferred, notify the Vice Provost for Academic Affairs, and coordinate with the Office of the Chancellor for notification of the family. Posthumous degrees are conferred during the semester in which the student was expected to graduate. The Chancellor informs the student’s family in writing of the posthumous award of the degree.

Progress to Degree Forms

The Progress to Degree forms are the official form recognized by Graduate Studies to track and monitor graduate student progress at the University of Kansas. The forms should be used to report every aspect of academia from change in degree plans within the same department to changes in academic status, to request time limit extensions and leaves of absence, transfer credit towards a master’s degree, and report the completion of comprehensive and oral exams, certificate programs, and Research Skills and Responsible Scholarship requirements.

The forms are available on the Graduate Studies website and should follow the workflow indicated for the individual function required.

View current Lawrence and Edwards Campus policy on progress to degree (https://documents.ku.edu/policies/Graduate_Studies/ptdforms.htm).

Special Conditions for Specified Types of Research

There are certain types of research or activities that may not be pursued unless specific prior approval and/or training has been obtained. The student’s responsibilities for such activities are as follows:

1. Human Subjects Committee, KU requires prior review by the Human Subjects Committee Lawrence (HSCL) of all research projects involving human subjects. There are no exceptions. Although certain types of research may be exempt from record keeping, the committee decides which projects fall in the exempt class. It is the student’s responsibility to become acquainted with KU guidelines for research involving human subjects, to submit an application, and to observe the conditions of the committee-approved application. Normally these guidelines first are discussed with the student’s advisor, but students are encouraged to contact the HSCL co-coordinator, Mary Denning 785-864-7385, mdenning@ku.edu, for information, applications, and instructions at any time. Expedited projects may be approved within 1 week. Committee-reviewed projects may take 4 weeks. Delays may be avoided by contacting HSCL before submitting applications.

2. Research or classroom activities involving ionizing radiation sources or class 2, 3, or 4 lasers. No student may handle sources or machines that emit ionizing radiation or class 2, 3, or 4 lasers unless that student has been appropriately trained and the Environment, Health, and Safety—Radiation Safety Service has verified, documented, and approved that training to be adequate for the proposed activities. Appropriate safety courses or training normally are available during each academic term. A source of ionizing radiation may be used only as specified in an approved permit issued by the EHS—Radiation Safety Service and/or the Laboratory Safety—Laser Safety Subcommittee. The student is responsible for knowing the conditions of the permit under which the activities will be carried out. Usually such activities will be discussed first with the research advisor or classroom instructor, but students may contact the EHS—Radiation Safety Service, 785-864-4089, at any time.

3. Research or classroom activities involving biohazards or hazardous chemicals. No student may handle biohazards or hazardous chemicals unless that student has been appropriately trained by a qualified individual. (This may be an instructor, a research advisor or the Environment, Health, and Safety department.) Activities or projects involving the use of biohazards or hazardous chemicals require that the EHS department be notified. Some projects or activities may require an approved permit issued by the EHS department, the Laboratory Safety—Biosafety Subcommittee, or the Laboratory Safety—Chemical Safety Subcommittee. Recombinant DNA research must be approved by the Recombinant DNA committee. If the student’s activities potentially involve biohazards or hazardous chemicals, prior consultation with the instructor, research advisor, or the EHS department concerning safe use and disposal requirements is mandatory. Contact EHS at 785-864-4089.

4. Research involving animals. All research involving animals requires prior approval of the Institutional Animal Care and Use Committee (IACUC) and must be carried out by individuals...
appropriately trained as specified in federal regulations and approved by IACUC. The staff of the Animal Care Unit (ACU) conducts orientation and training sessions at the beginning of every semester and as needed. IACUC policy requires attendance at such a session before working with animals. Faculty members are advised of meeting times. Although the student’s advisor should be familiar with requirements, students may contact IACUC (http://www2.ku.edu/~acu/iacuc.shtml) at 785-864-8841 in Lawrence, or 913-588-7015 at KU Medical Center (http://www.kumc.edu/compliance/office-of-animal-welfare.html), for information.

Special Sessions and Programs

Extramural (Off-Campus) Graduate Study

With the approval of the Executive Council of the Graduate Faculty, off-campus centers may be established to permit students to work for graduate residence credit (credit that counts toward a graduate degree). Extramural centers must meet established criteria for faculty, students, programs, resources (library and laboratory, etc.), and administration. Centers for extramural programs have been approved in the U.S. Army Command and General Staff College at Fort Leavenworth journalism and business); the KU Public Management Center (http://www.kupmc.org) at Topeka (public administration and civil engineering); and the KU Edwards Campus (http://edwardscampus.ku.edu) for graduate studies generally in the Kansas City area. Write to KU’s Edwards Campus, 12600 Quivira Rd., Overland Park, KS 66213-2402, 785-864-8400 or 913-897-8400 for information on programs at that campus. Residence credit courses (education and applied behavioral science) are offered in the Leavenworth public school system, although it is not fully recognized as a center. The Schiefelbusch Institute for Life Span Studies coordinates KU extramural programs at the Kansas Intellectual and Developmental Disabilities Research Center (http://www.parsons.lsi.ku.edu) at Parsons State Hospital and Training Center in Parsons, Kan. These programs are offered by the School of Education, the Department of Applied Behavioral Science, and the Intercampus Program in Communicative Disorders.

Student Responsibilities

All graduate students are responsible for informing themselves of requirements and policies of the Office of Graduate Studies. Visit the Lawrence Graduate Studies website (http://www.graduate.ku.edu) for the most up-to-date requirements and policies. They are also expected to be familiar with the regulations and requirements of their Graduate Divisions and departments and of their graduate programs. Members of the Graduate Faculty and of the staffs of the graduate divisions are ready to answer questions and offer counsel. It is each graduate student's responsibility to know and observe all regulations and procedures relating to the graduate degree program the student is pursuing. In no case will a regulation be waived or an exception be granted because students plead ignorance of, or contend that they were not informed of, requirements, regulations, procedures, and deadlines. Responsibility for following all policies and meeting all requirements and deadlines rests with the student.

Undergraduate Enrollment in Graduate-Level Courses

Well-qualified undergraduate students may be permitted to enroll in 800- or 900-level courses for undergraduate credit with the approval of the instructor, the student’s advisor, and the Graduate Division. The student must bring a Count Towards Degree form signed by the instructor, a letter of explanation and recommendation from the advisor, and current academic record to the Graduate Division for approval. If approved, the Graduate Division signs the Count Towards Degree form, which the student must present to the staff in the Student Records Center to enroll in the courses. Courses taken for undergraduate credit may not be transferred to graduate credit.

View current policy on undergraduate enrollment in graduate-level courses (http://policy.ku.edu/graduate-studies/undergrad-student-enroll-grad-course).
Office of Graduate Studies, Medical Center Campus Students

The Office of Graduate Studies (a unit of Academic Affairs) on the KU Medical Center campus is the administrative unit responsible for graduate education on that campus. A variety of graduate programs are offered through the Medical Center’s Schools of Health Professions, Medicine, and Nursing.

Graduate degrees on the Medical Center campus are conferred by the Schools of Health Professions, Medicine and Nursing with the exception of the Health Informatics master’s degree, which is conferred by the Office of Graduate Studies upon recommendation by the Health Informatics Advisory Council. Appointments to the Graduate Faculty are authorized by individual academic units and administered by the Graduate Studies office.

Goals of Graduate Study

Independent scholarship, competence in research or other creative work, and the cultivation of teaching commitment and skill are the traditional goals of graduate study. Having acquired a broad education as an undergraduate, the student is expected to master a special field, to learn the methods of investigation employed therein, and to proceed toward making an original contribution to knowledge. Since many of those who earn advanced degrees find careers in higher education, the acquisition of skill in teaching and in directing research is also an essential part of graduate education.

These traditional goals gain renewed significance in changing times, while newly emerging societal interests and needs and new demands of the marketplace both underscore their importance and emphasize the necessity for flexibility in programs and accommodation in career objectives.

Research

Research is an integral part of the university’s educational mission. The National Science Foundation classifies KU as a major university receiving substantial research support. KU is also a Carnegie Doctoral/Research Extensive University and has been a member of the Association of American Universities since 1909. The university has a long and successful record of research collaboration through independent, multidisciplinary research centers that focus on common themes. For more information about research on the Medical Center campus, visit the University of Kansas Medical Center Research Institute (http://www.kumc.edu/kumcri.html) website page.

This catalog is not itself a source of policy and does not create a contract between the University of Kansas and its students. University policy is the binding agent in the event an inconsistency is noted between the catalog and official University policy. Whenever possible the catalog provides information from the latest policies at the time of publication and links to the policies referenced.

Admission to Graduate Studies

Persons whose records indicate their ability to succeed with advanced work may be admitted for graduate study. Applicants may either apply as degree seeking, non-degree seeking, or to a Graduate Certificate program. Applicants seeking an identifiable degree program are degree seeking, while those applicants who do not have an identified degree program should be admitted under the non-degree seeking category. No student may work toward a graduate degree without being accepted as a degree seeking student in a specific graduate program.

Degree Seeking Admission

Students who wish to work toward a specific graduate degree should be considered for admission under the degree seeking category in either the regular or provisional category.

Regular Admission

Regular admission requires a bachelor’s degree and a cumulative grade-point average (GPA) of at least a 3.0 on a 4.0 scale, from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements. The bachelor’s degree is not acceptable if it contains credit awarded for work experience that was not directly supervised by faculty members (life experience) of an accredited university or not evaluated in units that identify the academic content (e.g., P/F, S/U). Applicants who are not native speakers of English must demonstrate they meet the Minimum English Proficiency Requirements as described below.

Applicants must meet these minimum admission requirements to qualify for regular admission. Individual academic programs may have additional admission requirements that the applicant must also meet to be eligible for regular admission status to that program.

In exceptional cases, persons not holding bachelor’s degrees may be admitted if they are academically well prepared. In these cases, the Dean of Graduate Studies reviews the student’s academic background and approves graduate admission.

Regular Admission, Special B

This category is available only to degree seeking graduate students applying to the Interdisciplinary Graduate Program in Biomedical Sciences (IGPBS) offered by the School of Medicine. A student meeting the minimum admissions requirements described under Regular Admission and the academic standards of the basic science departments is admitted to graduate study in IGPBS. If the applicant does not meet the minimum admissions requirements, he or she may be admitted in the provisional category.

After completion of the IGPBS program, the student seeks entrance directly into a specific graduate discipline in one of the basic science departments. When the department accepts an IGPBS student, the department submits a Progress to Degree form to formally change the individual student’s academic program from IGPBS to the specific basic science doctoral program.

Provisional Admission

An applicant who has one or more deficiencies in 1) grade-point average, 2) English proficiency scores, 3) prerequisite course work, and/or 4) other specific deficiencies determined by the academic program, may be admitted on a provisional basis.
If admitted provisionally for a lack of prerequisite course work or low English proficiency scores, it is expected that the student will be reviewed immediately following the first semester of graduate study to determine if the student has met the requirements of regular admission. When the student meets the requirements of regular admission the program submits a Progress to Degree form to Graduate Studies to move the student from provisional to regular status. If the student has not met the requirements of his or her provisional admission at the time of review, the program may recommend to the Dean of Graduate Studies to continue the student on provisional status for another semester or dismiss immediately. A student admitted provisionally for any reason who fails to earn a B (3.0) average in their first semester may be dismissed immediately.

Students who have been dismissed from a graduate program may be admitted for further graduate study at KU only if the new academic program receives approval by petition from the Dean of Graduate Studies.

**Non-degree Seeking Student Admission**

A non-degree seeking applicant applies to the university for admission as a non-degree seeking student, not to a specific department or program. Admission requires a bachelor’s degree from KU or from another regionally accredited institution or foreign university with substantially equivalent bachelor’s degree requirements. Applicants who are not native speakers of English, must demonstrate they meet the Minimum English Proficiency Requirements as described below. The applicant is not required to meet the other admission standards of regular admission.

Non-degree seeking admission is not intended to bypass regular admission into a graduate degree program. However, if a non-degree seeking student later applies for admission as a regular degree seeking student, and is accepted by an academic program, the total transfer credits toward a graduate degree may not exceed six hours, or eight hours if the student holds a baccalaureate degree from KU (this total includes credit from other accredited graduate programs as well as non-degree credit earned at KU).

**Graduate Certificate Admission**

An application is required to pursue a graduate certificate. A graduate certificate program must adhere to the same minimum admission standards required for degree seeking admission (bachelor’s degree, 3.0 grade-point average, English proficiency).

No student may work toward a graduate certificate without being accepted in a specific graduate certificate program. Graduate certificates are not granted retroactively. Graduate credit from another institution may not be transferred to a KU graduate certificate program. The certificate program is not intended to serve as a default system for students in a degree program who find that they are not able to complete the degree for academic or other reasons. Should a student drop out of a degree program and seek admission to a certificate program, all certificate admission requirements must be followed for admission and conferral of the certificate.

Applicants apply directly to a graduate certificate program for admission unless the applicant is a current graduate degree seeking student. To admit a current degree seeking graduate student to a certificate program, the student must be in good standing (3.0 or higher grade-point average) with their degree program. If pursuing a graduate certificate offered by another department, the student must inform the graduate director, advisor, or coordinator in the home degree program of intent to seek the certificate. If approved by the home department, the student must then make application directly to the graduate certificate program.

The graduate certificate program is not a means of entry into a graduate degree program. If students admitted to a graduate certificate program are later admitted to a graduate degree program as degree seeking, applicable courses taken for the graduate certificate program may, upon recommendation of the program to the Office of Graduate Studies and within general guidelines, be approved by the Dean of Graduate Studies to be counted toward the degree.

While the courses comprising a graduate certificate may be used as evidence in support of a student’s application for admission to a graduate degree program, the certificate itself is not considered to be a prerequisite and does not guarantee admission into any graduate degree program.

**Minimum English Proficiency Requirement for Admission to a Graduate Program**

Academic programs must verify that all applicants, whether domestic or international, who are not native speakers of English, meet the minimum English proficiency requirement to be admitted for graduate study as degree seeking, non-degree seeking or certificate program. Verification may come in any one of the following forms:

- Official transcript showing the applicant graduated with a baccalaureate degree (or higher) earned in residence from an accredited U.S. institution of higher education.
- Official transcript showing the applicant graduated with a baccalaureate degree (or higher) from an institution whose medium of instruction is English. This does not apply to degrees earned online. Verification of English instruction from the institution must be included. This verification may be from a catalog or program description brochure or an official letter from a department chair, dean, or other university official stipulating English as the language of instruction. The program considering admission should also conduct a phone interview with the prospective student.
- Receipt of official copy (not student’s copy) of applicant’s TOEFL or IELTS scores achieved not more than two years before the semester of admission.

Below are the minimum scores required on the TOEFL or IELTS to satisfy the minimum English proficiency requirement for admission. Individual programs may opt for a more restrictive policy regarding English proficiency for the students they admit.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>TOEFL scores (paper)</th>
<th>TOEFL scores (iBT)</th>
<th>IELTS scores</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regular admission</strong></td>
<td>57 overall minimum</td>
<td>23 minimum</td>
<td>6.5 overall</td>
</tr>
<tr>
<td></td>
<td>5.0 minimum on essay</td>
<td>on Reading and</td>
<td>minimum with</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Listening</td>
<td>no part below</td>
</tr>
<tr>
<td></td>
<td></td>
<td>19 minimum</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>on Writing</td>
<td></td>
</tr>
<tr>
<td><strong>Provisional admission</strong></td>
<td>51-56 overall minimum</td>
<td>18-22 on</td>
<td>5.5-6.0 overall</td>
</tr>
<tr>
<td></td>
<td>3.5-4.5 minimum on</td>
<td>Reading and</td>
<td>minimum with</td>
</tr>
<tr>
<td></td>
<td>essay</td>
<td>Listening</td>
<td>all parts below</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13-18 minimum on</td>
<td>5.0-5.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Writing</td>
<td></td>
</tr>
</tbody>
</table>
Contact the Office of International Programs  
- Any score below 51  
- Below 3.5 on essay  
- Below 18 on Reading and Listening  
- Below 13 on Writing  
- 5.5 overall minimum with all part scores 5.0

If a student qualifies for provisional admission, the Office of International Programs contacts the student to arrange an English language evaluation upon arrival and recommends, if necessary, any required steps for remediation. This may include passing one or more English classes or retaking the TOEFL/IELTS or equivalent proficiency test. Please note that the student also has the option to retake the TOEFL before arriving on campus. If the new scores exceed the minimum required, the student’s English will not be evaluated upon arrival.

Additional Spoken English Proficiency Requirements for Graduate Teaching Assistants, Medical Center Campus

The Kansas Board of Regents requires that in order to be appointed as a Graduate Teaching Assistant (GTA), students must first attain a minimum score of 50 on the TSE or SPOAK tests, a minimum iBT speaking score of 24, or a minimum IELTS speaking score of 8. The SPOAK test is administered free of charge by appointment in the Office of International Programs. SPOAK scores from other institutions will not be accepted.

Admission Procedure — Medical Center Campus

The Office of Admissions (http://www.kumc.edu/student-services/office-of-admissions.html) facilitates the application process for all graduate programs through the KUMC online application (https://www.applyweb.com/apply/kumc). To ensure adequate time for review, the applicant should check with each individual degree program for its application deadline date.

Graduate Studies requires official transcripts from the baccalaureate granting institution that show a bachelor’s degree was conferred, plus any transcripts from institutions attended post-baccalaureate. International applicants must provide English proficiency test scores, see “Minimum English Proficiency Requirement” above. Programs may request transcripts for all college courses taken and other application materials. Applicants should check with the program to which they are applying for information on required application materials.

Background Check

A background check is required during the admission process; it may affect the student’s eligibility to enter the program. In the case of students involved in direct patient contact, additional checks maintained by various health care disciplines may be required. Prospective students should check with their individual academic programs regarding these requirements.

All domestic students, as well as any international students who have been in the United States for more than 30 days prior to admission*, must submit to at least a standard background check through Validity Screening Solutions. In the case of students involved in direct patient contact, additional checks of Employment Disqualified Listings maintained by various health care disciplines may be required by specific programs. Prospective students should check with their individual department or program to determine the process and appropriate institutional or program code number to be provided to Validity Screening Solutions for the transmittal of the background check results.

Background check results will be considered on a case-by-case basis but, in general, the following may be considered as disqualifying findings and therefore prevent admission or matriculation. Future licensing requirements can determine admission.

- Felony convictions
- Misdemeanor convictions or felony deferred adjudications involving crimes against persons (physical or sexual assault or abuse)
- Misdemeanor convictions related to moral turpitude (e.g., prostitution, public lewdness, etc.)
- Felony deferred adjudications for the sale, possession, distribution or transfer of narcotic drugs or other controlled substances.
- Registered sex offender status
- Medicare, Medicaid or other healthcare fraud or misuse

Should you have any questions concerning this requirement for admission to Medical Center campus programs, please contact your specific program or department.

*International students admitted on valid visas and who have not resided in the United States for more than 30 days may be excused from this requirement due to the background checks conducted as part of their visa screening process.

Application Fees

Nonrefundable application fees payable to the University of Kansas are required. Rates are subject to change. Some departments and programs require deposits from admitted students to be fully credited against required fees upon enrollment.

<table>
<thead>
<tr>
<th>Category</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree-seeking domestic application</td>
<td>$60</td>
</tr>
<tr>
<td>Degree-seeking international application</td>
<td>$60</td>
</tr>
<tr>
<td>Non-degree-seeking application (domestic and international)</td>
<td>$30</td>
</tr>
<tr>
<td>Readmission application</td>
<td>$60</td>
</tr>
</tbody>
</table>

Admission Notification

Each applicant is notified in writing of the admission decision. The admission decision letter includes the admission classification (Regular Degree Seeking, Special B, Provisional Degree Seeking, Non-degree Seeking or Graduate Certificate). For all admission categories, enrollment in specific courses may be subject to fulfillment of program course prerequisites and/or consent of the instructor.

After an applicant has been admitted, a program may defer an applicant’s admission for one year after which time the applicant must submit a new application.

Admission to graduate studies does not imply admission to candidacy for a higher degree. A student becomes a candidate for an advanced degree only by demonstrating through resident study at KU the requisite preparation and ability. Requirements for an advanced degree must be regarded as minimum requirements. Additional requirements depend on the student’s undergraduate preparation and the particular field of graduate work chosen.
Reactivation

Students who are not continuously enrolled should check with the academic program to see if they will be required to re-apply for admission or if they may be reactivated without re-applying. If permission is granted by the program to reactivate, the student completes the Reactivation Form on the Registrar’s website and pays the reactivation fee that is in place at the time of reactivation. Individual programs make the determination about when a student is required to re-apply. However, after an absence of 5 years, Graduate Studies requires the student to re-apply for admission to their graduate program.

Limitations on Admission

Because of limitations of space, faculty, or general resources for research and instruction, some programs must restrict the number of applicants they admit. Questions should be directed to the program to which the prospective student wishes to apply.

Degrees

Degrees are awarded 3 times each year, in August, December, and May. Each academic year’s degrees are conferred formally at the annual commencement in May. Degree candidates are not eligible to graduate if the graduate cumulative grade-point average is lower than 3.0 in all courses taken for graduate credit.

Students who are working toward 2 degrees must complete requirements for each degree. Course work may not count toward fulfilling degree requirements for more than 1 degree.

Graduate students may not earn an additional KU degree with the same name and degree code as a previously awarded degree from KU. This applies to the completion of different degree tracks, concentrations, and subspecialties within a given degree. This does not prohibit students from earning additional master’s or doctoral degrees in another discipline.

Master’s Degree Programs

Master of Arts and Master of Science

Historically, most of the master’s degrees granted have been the Master of Arts (M.A.) and Master of Science (M.S.). This fact conforms with the traditional liberal arts background out of which most U.S. graduate schools developed. These degrees’ requirements are generally concentrated in 1 area or major discipline.

Professional Master’s Degrees

In more recent years, professional master’s degree programs have been developed for entry level or advancement in specific professions. On the Medical Center campus this includes health services administration (M.H.S.A.), occupational therapy (M.O.T.), and public health (M.P.H.).

Master’s Degree Requirements

This section gives the general and common requirements for all master’s degree programs. The program sections of the online catalog give specific requirements for the degrees they offer.

Master’s Program Time Constraints

Normal expectations are that most master’s degrees (excluding some professional terminal degrees) should be completed in 2 years of full-time study. However, master’s degree students are allowed 7 years for completion of all degree requirements. In cases in which compelling reasons or circumstances recommend a 1-year extension, the Office of Graduate Studies, on recommendation of the academic program, has authority to grant the extension. In cases where more than 8 years are requested, the Office of Graduate Studies considers petitions for further extensions and, where evidence of continuous progress, currency of knowledge, and other reasons are compelling, may grant them. Some academic programs may have more stringent rulings about time restrictions. Students should ask about the policy in effect in the academic program in which they plan to study.

Master’s Enrollment Requirement

All graduate students enrolled in master’s graduate programs must be enrolled the semester they complete master’s degree requirements. Master’s students who complete degree requirements during the first week of summer session or within the first 2 weeks of the fall or spring semester are not required to be enrolled for that term unless they were not enrolled during the previous semester. See the current Graduate Studies calendar for deadlines for specific semesters.

M.A. and M.S. Degree Requirements

A Master of Arts (M.A.) or a Master of Science (M.S.) degree requires at least 1 year of graduate work or its equivalent. Stated in terms of hours of credit, the standard master’s program requires 30 hours. With permission of the academic program (or in the case of interdepartmental programs, permission of the joint program committee) and of the Office of Graduate Studies, it is sometimes possible to complete a 30-hour master’s degree with as few as 24 hours if the student enters the program especially well prepared and maintains a superior grade-point average. Work for a master’s degree is concentrated in the major area, with only a minimal amount of work (usually no more than 6 hours) that is completed at KU permitted outside the major department. Each master’s program must contain a research component, represented either by a thesis (usually for 6 hours of credit) or by an equivalent enrollment in research, independent investigation, or seminars. Within these requirements, departmental master’s programs may be flexible enough to meet the particular needs of individual students.

In a few cases, the degree is offered through two schools and administered by joint committees with faculty representation from both schools. The Master of Arts degree in speech-language pathology and the Master of Arts degree in audiology are administered by an intercampus committee drawn from the Department of Speech-Language-Hearing: Sciences and Disorders in Lawrence and from the Department of Hearing and Speech in the School of Health Professions in Kansas City.

M.A. and M.S. Final General Examination, Thesis Defense or Project Defense

Completion of a final general examination, defense of a thesis or defense of a project in the major subject, is the culminating academic phase of the M.A. and M.S. degree programs and is required of all candidates for these two degrees. At the option of the academic program, the final general examination may be oral or written, or partly oral and partly written. In some departments, passing a written examination is a necessary preliminary to taking the oral examination by which success or failure is judged. For students defending a master’s thesis, the student must be enrolled in a minimum of one hour of master thesis the semester the thesis is defended.

When a M.A. or M.S. student is in their final semester, the degree program requests the Office of Graduate Studies approve the scheduling
of the final general exam, thesis or project defense via the Progress to Degree form. The degree program should ascertain that the student is in good academic standing (3.0 or higher grade-point average) and is currently in regular admission status, if the student was admitted provisionally, before scheduling the examination or defense. This request must be submitted in advance of the examination date by a minimum of two weeks.

The committee for the administration of the general exam or the defense of a thesis or project, must consist of at least 3 members, all of whom must be members of the Graduate Faculty (see Graduate Faculty section of this catalog.)

The Office of Graduate Studies verifies that all criteria described in the preceding three paragraphs has been met upon receiving a Progress to Degree form requesting the scheduling of the general exam, thesis defense or project defense. If the criteria has been met, Graduate Studies approves the request to proceed.

M.A. and M.S. Thesis Submission
For those students completing a thesis, when the final oral examination has been passed and the thesis title page has been signed by the members of the committee, the title page with original signatures are to be delivered to the Office of Graduate Studies. When all requested changes have been made to thesis, the student arranges for the thesis committee chair to review changes, then sign and date the acceptance page, verifying the thesis is approved for publishing. The acceptance page with original signature is also delivered to the Office of Graduate Studies.

The student is then required to arrange publication of the thesis and payment of all associated fees (including copyright fee if applicable), through the electronic submission process (http://www_graduate.ku.edu/electronic-thesis-and-dissertation) detailed on the Graduate Studies website. The student must be the author of the thesis, and every publication from it naturally must indicate that authorship. However, practices vary among disciplines, and even among scholars in a given field, as to whether the mentor’s name may appear as a co-author and whether as senior or junior, on subsequent publication of the thesis (usually revised), or on articles prepared from it. Clear understandings in individual cases are expected to be established during the apprenticeship period, when the ethical practices in publication are addressed within the program’s professional development training.

Doctoral Degree Programs
KU Medical Center campus with oversight from the Office of Graduate Studies offers 5 graduate doctoral degrees:

- Doctor of Philosophy (Ph.D.),
- Doctor of Audiology (Au.D.),
- Doctor of Nursing Practice (D.N.P.),
- Doctor of Occupational Therapy (O.T.D.), and
- Doctor of Physical Therapy (D.P.T.).

The School of Medicine offers the Doctor of Medicine (p. 1827) (M.D.) degree which is administered by the School of Medicine.

General descriptions for each of the five doctoral degrees administered by the Office of Graduate Studies are given here in succinct form to provide convenient comparison of the degrees. Detailed information about requirements for each degree as it is offered in specific disciplines should be obtained from the appropriate academic program elsewhere in this catalog.

Doctor of Philosophy
The degree of Doctor of Philosophy (Ph.D.) is the highest degree offered by the university. It is awarded for mastering a field of scholarship, for learning the methods of investigation appropriate to that field, and for completing a substantial piece of original research. In addition to preparing research specialists, the process of earning a Ph.D. shares certain goals with liberal education: putting order into human experience; fostering a love of learning for its own sake; instilling respect for human values; integrating various human powers into a process of creation; and making vital, in many fields at least, a sense of history.

Although the courses and research leading to the Ph.D. are necessarily specialized, the attainment of this degree should not be an isolated event in the enterprise of learning. The Ph.D. aspirant is expected to be a well-educated person with a broad base of general knowledge, not only as preparation for more advanced work but also as a means of knowing how the chosen specialty is related to other fields of human thought.

To give depth and breadth to their doctoral programs, many departments require some work in a minor field or at least an articulated selection of courses. Because of the diversity of the fields in which the Ph.D. is offered, and the variety of needs and interests of individual students, the degree does not have a specific requirement for a minor. However, the Ph.D. aspirant is encouraged to plan an integrated program, under departmental direction, that includes courses outside the major field.

Doctor of Audiology
The Doctor of Audiology (Au.D.) degree program prepares the student to enter clinical practice as an audiologist. Offered by the KU School of Health Professions, the program produces professionals skilled in providing diagnostic, rehabilitative, and related services in the fields of sound, balance, and hearing sciences. There is an emphasis on the clinical learning experience, although research is also a significant component of the program. A baccalaureate degree is required for admission. Degree requirements are listed under Communicative Disorders: Intercampus Program (p. 674) in the online catalog.

Doctor of Nursing Practice
The Doctor of Nursing Practice (D.N.P.) at the KU School of Nursing prepares advanced practice nurses at the highest level of nursing practice. The D.N.P. offers sophisticated, cutting-edge experiences that help nurses actively engage in a complex, dynamic, and demanding health care field. Skills in collaboration, innovation, and evaluation, complemented by advanced practice skills, prepare nurses to share the future of health care. Students preparing for advanced practice roles learn to provide patient-centered care that is evidence-based, and contribute to the development of the highest level of evidence-based practice. Students preparing for indirect care roles learn to provide the highest level of leadership in a variety of care and educational settings. Requirements are listed in the School of Nursing (p. 1952) section of the online catalog.

Doctor of Occupational Therapy
The Doctor of Occupational Therapy (O.T.D.) is a professional degree offered by the School of Health Professions. This program of study is intended for therapists already in practice who have either a bachelor’s degree or a Master of Occupational Therapy degree and wish to upgrade their knowledge and skills to the doctoral level to meet the increasing demands of complex practice issues. Requirements for admission are
listed in the School of Health Professions (p. 710) section of the online catalog.

Doctor of Physical Therapy
The Doctor of Physical Therapy (D.P.T.) is designed for individuals pursuing careers in physical therapy. The program prepares a physical therapy practitioner with the skills for lifelong professional development. To be eligible for admission, the student must have a minimum of a baccalaureate degree or its equivalent. Requirements for admission are listed in the School of Health Professions (p. 717) section of the online catalog.

Doctoral Degree Requirements
The sections immediately following list the general and common requirements for doctoral degrees. Specific degree requirements, including requirements for the clinical doctoral degrees, set by specific departments, programs, and schools, appear in the sections of the catalog devoted to those units.

Maximum Tenure for Doctoral Programs
After being admitted to doctoral programs at KU, students complete all degree requirements in 8 years. In cases in which compelling circumstances recommend a 1-year extension, the Graduate Division has authority to grant the extension on the written advice of the department and dissertation committee. Students who complete the master’s degree at KU and subsequently begin doctoral studies have a maximum total enrolled time of 10 years to complete both degrees. Normal expectations, however, are that most master’s degrees (excluding some professional terminal degrees) should be completed in 2 years of full-time study, and both master’s and doctorate in 6 years of full-time study. Some graduate degree programs may have more stringent time restrictions. Students should inquire about the policy in effect in the department in which they plan to study.

Doctoral Enrollment Requirement
All graduate students enrolled in doctoral graduate programs must be enrolled the semester they complete doctoral degree requirements. Doctoral students who complete degree requirements during the first week of summer session or within the first 2 weeks of the fall or spring semester are not required to be enrolled for that term unless they were not enrolled during the previous semester. See the current Graduate Studies Calendar (http://www.kumc.edu/academic-affairs/graduate-studies/calendars.html) for deadlines for specific semesters.

Doctor of Philosophy Degree Requirements
This section lists KU regulations common to the administration of all doctoral Ph.D. programs. The particular application, interpretation, or method of implementation of such a common element for individual degree programs and departments is, in certain cases, left to the faculty of the department or the degree program (e.g., Research Skills and Responsible Scholarship requirement). Additional requirements specific to each degree, along with variations permitting each student to achieve particular academic goals, are listed in the section of this catalog for the school through which the degree program is offered.

1. Application and Admission
A student who seeks admission to a doctoral program must apply to the graduate degree program and school offering the desired degree. Upon admission, the student is known as an aspirant for the degree and remains so designated until successful completion of the comprehensive oral examination. After passing that examination, the student is designated a candidate for the degree.

2. Program Time Constraints
Minimum Tenure
The student must spend 3 full academic years, or the bona fide equivalent thereof, in resident study at this or some other approved university, including the time spent in attaining the master’s degree. Resident study at less than full time requires a correspondingly longer period, but the requirement is not measured merely in hours of enrollment. Because a minimum number of hours for the degree is not prescribed, no transfer of credit is appropriate. However, graduate degree programs take relevant prior graduate work into consideration in setting up programs of study leading to the doctorate.

Residence Requirement
Two semesters, which may include one summer session, must be spent in resident study at KU. For the two specific semesters counted towards meeting this requirement, the student must be involved full time in academic or professional pursuits such as a GTA or GRA appointment for teaching or research if it is directed specifically toward degree objectives. Enrollment in approved distance-learning courses offered through KU cannot be used to meet the doctoral residence requirement.

Full time enrollment for a graduate student is 9 hours for Fall or Spring semesters and 6 hours for the Summer semester. For semesters in which a student holds a GTA or GRA appointment, full-time enrollment is 6 hours for Fall or Spring semesters and 3 hours for the Summer semester. The residence requirement must be met prior to the semester the Comprehensive Oral Examination is scheduled. It is the responsibility of the academic program to report the two semesters that will satisfy this requirement via the Progress to Degree form requesting approval to schedule the Comprehensive Oral Examination.

Note: These are minimum residence requirements. Please check with the individual program for any additional requirements.

Maximum Tenure
After being admitted to doctoral programs at KU, students complete all degree requirements in 8 years. In cases in which compelling circumstances recommend a 1-year extension, Graduate Studies has authority to grant the extension on the written advice of the department and dissertation committee. Students who complete the master’s degree at KU and subsequently begin doctoral studies have a maximum total enrolled time of 10 years to complete both degrees. Normal expectations, however, are that most master’s degrees (excluding some professional terminal degrees) should be completed in 2 years of full-time study, and both master’s and doctorate in 6 years of full-time study. Some graduate degree programs may have more stringent time restrictions. Students should inquire about the policy in effect in the department in which they plan to study.

A student in any of the above categories may petition the Dean of Graduate Studies through the program for a leave of absence during either the pre- or post-comprehensive period to pursue full-time professional activities related to the doctoral program and long-range professional goals. Leaves of absence also may be granted because of illness or other emergency. Ordinarily a leave of absence is granted for 1 year, with the possibility of extension upon request. After an absence of 5
years, however, a doctoral aspirant or candidate loses status as such and must apply for readmission to the program.

3. Research Skills and Responsible Scholarship

All doctoral students must meet this requirement before proceeding to comprehensive exams. The requirement must include at least 2 components:

1. Every doctoral student is required to have training in responsible scholarship pertinent to the field of research.
2. Every doctoral student is required to obtain research skills pertinent to the doctoral level of research in their field(s).

Procedure

All doctoral programs must have a research skills and responsible scholarship requirement plan approved by the Graduate Studies Office. Students meet this requirement as determined by the approved plan for their program. It is the responsibility of the program to report when the student completed the requirement and how the requirement was met via the Progress to Degree form requesting approval to schedule the Comprehensive Oral Examination.

No course graded CR or NC can count toward the satisfaction of the requirements for a graduate degree. This prohibition includes any courses taken to meet the Research Skills and Responsible Scholarship requirement.

It is the purview of the department or program to determine the necessary topics in training doctoral students in the areas of responsible scholarship. Such topics may include:

- Protection of human subjects
- Welfare of laboratory animals
- Conflicts of interest
- Data management
- Mentor/student responsibilities
- Collaborative research
- Authorship, publication, plagiarism, copyright
- Peer review
- Professional practices
- Maintenance of confidentiality
- Appropriate research conduct and research misconduct

It is also the purview of the department or program to determine the research skills necessary to perform doctoral level research. Research skills may include:

- Knowledge of language(s) significant to the field
- Research methodology
- Methods of qualitative and quantitative data analysis
- Computer programming necessary for the field
- Laboratory skills and techniques necessary for the discipline

Note: These lists serve as guides; additional appropriate topics may exist.

4. Comprehensive Oral Examination

The comprehensive oral examination covers the major field and any extra departmental work for which the program wishes to hold the aspirant responsible. When a doctoral aspirant has completed the major portion of the course work at a level satisfactory to the graduate degree program and met all other program and general requirements prerequisite to the comprehensive oral examination, including the research skills and responsible research requirement as appropriately applied and established for the student’s particular program, the degree program requests the Office of Graduate Studies approve the scheduling of the comprehensive oral examination via the Progress to Degree form. The degree program should ascertain that the student is in good academic standing (3.0 or higher grade-point average) and is currently in regular admission status, if the student was admitted provisionally, before scheduling the examination. The examination may be scheduled provided that at least 5 months have elapsed from the time of the aspirant’s first enrollment at KU and at least 90 days have elapsed since any unsuccessful attempt. The examination request must be submitted in advance of the examination date by a minimum of two weeks.

The committee for the comprehensive oral examination must consist of at least 5 members, all of whom must be members of the Graduate Faculty (see Graduate Faculty section of this catalog.) At least one member of the committee must be from a department other than the aspirant’s major department. This outside committee member represents the Office of Graduate Studies and must hold either regular or dissertation graduate faculty status to be eligible to serve in this capacity. Before the examination, Graduate Studies provides the outside committee member a list of responsibilities as the Graduate Studies representative. The Graduate Studies representative is a voting member of the committee, has full right to participate in the examination, and reports any unsatisfactory or irregular aspects of the examination to the committee chair, department chair, and Graduate Studies.

The Office of Graduate Studies verifies that all criteria described in the preceding two paragraphs has been met upon receiving a Progress to Degree form requesting the scheduling of the Comprehensive Exam. If the criteria has been met, Graduate Studies approves the request to proceed with the exam.

For every scheduled examination, the degree program reports an exam result of Honors, Satisfactory, or Unsatisfactory. If the aspirant receives a grade of Unsatisfactory on the comprehensive oral examination, it may be repeated on the recommendation of the program, but under no circumstances may it be taken more than 3 times. In any case, the examination may not be repeated until at least 90 days have elapsed since the last unsuccessful attempt.

5. Candidacy

Dissertation Committee

Upon passing the comprehensive oral examination, the aspirant becomes a candidate for the doctorate. If it has not begun before, the traditional, close student-mentor apprenticeship relationship comes into being. The student is expected to learn by both precept and example of the mentor, and often in collaboration. The chosen field of scholarship is explored and often in collaboration. The chosen field of scholarship is explored using acquired research tools. The principles and customs of academic inquiry and the codes of ethics traditional to the various disciplines and professional fields become part of the student’s thinking and working.

When the student passes the comprehensive oral examination, the program designates the candidate’s dissertation committee. All members of the committee must be chosen from the Graduate Faculty, and the chair must, in addition, be authorized to chair doctoral dissertations.

Post-Comprehensive Enrollment

Doctoral candidates are required, after passing the comprehensive oral examination, to be continuously enrolled in one or more hours that both moves the student towards degree completion and reflects, as
accurately as possible, the candidate’s demands on faculty time and university facilities. During this time, until all requirements for the degree are completed (including the filing of the dissertation) or until 18 post-comprehensive hours have been completed (whichever comes first), the candidate must enroll for a minimum of 6 hours a semester and 3 hours a summer session. Post-comprehensive enrollment may include enrollment during the semester in which the comprehensive oral examination has been passed. If after 18 hours of post-comprehensive enrollment the degree is not completed, the candidate must continue to enroll each semester until all degree requirements have been met. The number of hours at this stage may be as little as one hour a semester. The number of hours of enrollment is determined by the candidate’s advisor and must reflect as accurately as possible the candidate’s demands on faculty time and university facilities.

6. Dissertation

The candidate must present a dissertation showing the planning, conduct, and results of original research and scholarly creativity. The purpose of the dissertation is to encourage and ensure the development of broad intellectual capabilities as well as to demonstrate an intensive focus on a problem or research area. The dissertation itself should be an evident product of the candidate’s growth and attainment of the ability to identify significant problems; organize, analyze, and communicate scholarly results; and bring to bear on a useful area of interest a variety of research skills and scholarly or creative processes. It must show some original accomplishment, but it should also demonstrate without doubt the candidate’s potential to make future contributions to knowledge and understanding.

The dissertation is to be a coherent scholarly work, not a collage of separate, distinct pieces. Its unity of theme and treatment may still accommodate several subtopics by demonstrating their relationships and interactions. If previously published material by other authors is included in the dissertation, it must be quoted and documented. It should be noted that prior publication does not guarantee acceptance of the dissertation by the dissertation committee. Final acceptance of the dissertation is subject to the approval of the dissertation committee. The dissertation—or one or more substantial portions of it, often rewritten—is expected to be publishable and indeed to be published (see the Dissertation Submission and Publication section).

Both the dissertation research and the dissertation itself are to be completed under the guidance and direction of the dissertation committee. Instructions about the proper format of the dissertation are available on the Graduate Studies website (http://www.graduate.ku.edu/electronic-thesis-and-dissertation) Candidates and faculty members are reminded that the dissertation is to be a coherent, logically organized scholarly document. Because the demands and practices of different disciplines are varied, the format is somewhat flexibly described, and moderate departures from the norm are allowed when justified by the nature of the work or the circumstances of presentation. Any substantial divergences must be approved in advance as prescribed by the instructions, and candidates and faculty members are urged to seek early approval to avoid last-minute disappointments over unacceptable format or reproduction.

7. Final Oral Examination

Completion of the dissertation is the culminating academic phase of a doctoral program, climaxed by the final oral examination and defense of the dissertation. In all but the rarest cases, tentative approval of the dissertation is followed promptly by the final oral examination. When the completed dissertation has been accepted by the committee in final draft form, and all other degree requirements have been satisfied, the chair of the committee requests Graduate Studies approve the scheduling of the final oral examination via the Progress to Degree form. This request must be made in advance of the desired examination by at least 3 weeks to allow sufficient time to publicize the examination so that interested members of the university community may attend.

At least 5 months must elapse between the successful completion of the comprehensive oral examination and the date of the final oral examination. Under normal circumstances, the doctoral candidacy period between passage of the oral comprehensive examination and the final dissertation defense must last no longer than 5 years. If a student took the oral comprehensive examination more than 5 years prior to the dissertation defense, a re-evaluation of the student’s candidacy status is necessary. Re-evaluation of the student’s candidacy status can include retaking the comprehensive oral examination.

The committee for the final oral examination must consist of at least 5 members, all of whom must be members of the Graduate Faculty (see Graduate Faculty section of this catalog.) At least one member of the committee must be from a department other than the aspirant’s major department. This outside committee member represents the Office of Graduate Studies and must hold either regular or dissertation graduate faculty status to be eligible to serve in this capacity. Before the examination, Graduate Studies provides the outside committee member a list of responsibilities as the Graduate Studies representative. The Graduate Studies representative is a voting member of the committee, has full right to participate in the examination, and reports any unsatisfactory or irregular aspects of the examination to the committee chair, department chair, and Graduate Studies.

The Office of Graduate Studies verifies that all criteria described in the preceding three paragraphs has been met upon receiving a Progress to Degree form requesting the scheduling of the Final Oral Exam. If the criteria has been met, Graduate Studies approves the request to proceed with the exam. Upon approval of the request, Graduate Studies publishes the final oral examination information in a Medical Center campus news medium so interested members of the university community may attend the examination.

For every scheduled final oral examination, the department reports to Graduate Studies an examination result of Honors, Satisfactory, or Unsatisfactory for the candidate’s performance. If an Unsatisfactory grade is reported, the candidate may be allowed to repeat the examination on the recommendation of the department.

8. Dissertation Submission and Publication

When the final oral examination has been passed and the dissertation title page has been signed by the members of the committee, the title page with original signatures are to be delivered to the Office of Graduate Studies. When all requested changes have been made to the dissertation, the student arranges for the dissertation committee chair to review changes, then sign and date the acceptance page, verifying the dissertation is approved for publishing. The acceptance page with original signature is also delivered to the Office of Graduate Studies.

The student is then required to arrange publication of the dissertation and payment of all associated fees (including copyright fee if applicable), through the electronic submission process detailed on the Graduate Studies website. The student must be the author of the dissertation, and every publication from it naturally must indicate that authorship. However, practices vary among disciplines, and even among scholars in a given field, as to whether the mentor’s name may appear as a co-author and whether as senior or junior, on subsequent publication of the dissertation.
To enter the program, a student should prepare admission documentation to support the application. Her potential eligibility through consultation with graduate advisors and, if he or she has tried and failed to achieve candidacy in a regular graduate program at KU, the student is expected to assume the initiative in determining his or her eligibility for this program. A student is not eligible for the Interdisciplinary Studies program if he or she has failed to maintain the required grade-point average. A graduate student who has failed to maintain the required grade-point average is not eligible for the Interdisciplinary Studies program at KU at the time of application. A graduate student who has been taken) and must be admitted to and enrolled in a graduate department or program at KU. The student seeking to enter the Interdisciplinary Studies program must have an outstanding academic record (a grade-point average of 3.75 or higher on a 4.0 scale for undergraduate courses or a grade-point average of 3.5 or higher on a 4.0 scale for undergraduate courses if no graduate courses have been taken) and must be admitted to and enrolled in a graduate program at KU at the time of application. A graduate student who has failed to maintain the required grade-point average is not eligible for the Interdisciplinary Studies program. A student is not eligible for this program if he or she has tried and failed to achieve candidacy in a regular graduate department or program at KU. The student is expected to assume the initiative in determining his or her potential eligibility through consultation with graduate advisors and, if deemed eligible, in forming an advisory committee and preparing documentation to support the application.

Preadmission Procedures

To enter the program, a student should

1. Determine that KU offers courses and research in the areas appropriate to the student's interest(s).
2. Prepare a tentative study plan based on those offerings to serve as a basis for initial discussion.
3. Approach a professor whose interests are comparable to those of the student and request that he or she acts as advisor. Normally this professor is a faculty member of the program of principal interest to the student. To grant an M.A. or M.S. in Interdisciplinary Studies, it is essential that the school has the authority to grant master’s degrees. To grant a Ph.D. in Interdisciplinary Studies, it is essential that the school has the authority to grant doctoral degrees. The selected professor must be a full member of the graduate faculty and authorized to chair doctoral dissertation committees for Ph.D. in Interdisciplinary Studies.
4. After a professor agrees to serve as an advisor, the student should assemble an advisory committee of at least 3 additional professors representing the disciplines covered in the Interdisciplinary program. At least 2 disciplines or departments must be represented.

5. In conjunction with the advisor and the committee, the student prepares a proposal for study, including
   • A statement, with supporting documentation, that the proposed Interdisciplinary Studies program cannot be accomplished through established programs.
   • A statement of the interdisciplinary or transdisciplinary nature of the proposed area of study.
   • A definition of the field of study incorporating in a consistent way a description of the contribution of each included discipline to the broader field.
   • An outline of the course of study, indicating substantive work in the fields represented. Readings courses and independent study do not substitute for regular courses.
   • A description of the method for satisfying research skills and responsible scholarship requirements.
   • A description of the comprehensive examination procedures for the Ph.D. (nature of the examinations and possible examining committee) or final examination for the M.A./M.S.
   • A description, to the extent possible, of the nature of the field in which a dissertation or master’s thesis might be written, indicating the respective contributions of the selected disciplines to the final product.
   • Attach the following:
     i. complete transcripts of all previous work,
     ii. a cover sheet, signed by committee members, indicating their support of the proposal,
     iii. letters of recommendation and other appropriate supporting documents.

Note: The diploma indicates the degree awarded as "M.A. in Interdisciplinary Studies," "M.S. in Interdisciplinary Studies," or "Ph.D. in Interdisciplinary Studies," and does not specify the area of specialization. The transcript notes the area of specialization as determined by the admissions committee.

Admission and Review Procedure

Upon completion of the above, the student must submit the application for admission into the Interdisciplinary Studies program to the Dean of Graduate Studies. The Dean of Graduate Studies appoints an admission committee consisting of (a) the associate dean of graduate studies or associate dean’s designate for the school most involved in the interdisciplinary undertaking (the school in which the major advisor resides), (b) 2 or more doctoral chairing faculty members from unrelated fields, including at least 1 member of the Graduate Council, and (c) the chair or director of graduate studies of the department in which the student resides at time of application. The Dean of Graduate Studies serves as ex officio chair of the Interdisciplinary Studies admissions committee. The committee reviews the documents and may, if necessary, interview the student and the advisor for clarification and additional information or to discuss suggested revisions to the proposal.

Approved Program Implementation

Upon acceptance of the proposal and admission to the Interdisciplinary Studies program, the student is admitted to the school of the major advisor to facilitate record keeping and to provide a central administrative office. The associate dean or director of graduate studies of that school must enroll the student and monitor the program and, along with the major advisor, make annual reports to Graduate Studies on the student’s progress. These reports are distributed to the directors of other involved
programs along with a request to supply any additional information regarding the student’s performance. Proposals for major deviations from the approved course of study must be submitted for review by Graduate Studies and by the school in which the student resides. It is understood that no additional requirements unique to traditional graduate programs of the school(s) or departments may be imposed unless stated explicitly in the approved study plan.

Once approved, changes to the program plan must be approved by a Graduate Studies committee, appointed by the Dean of Graduate Studies. Significant curricular changes may require a new proposal and admissions process.

All basic rules and requirements for the Master of Arts, Master of Science, and Doctor of Philosophy degrees apply to Interdisciplinary Studies programs. These include program time constraints, residence requirement, post-comprehensive enrollment, final examinations, research skills and responsible scholarship requirements, thesis or dissertation submission and publication, grade-point average, etc. (See Master’s Degree Requirements and Doctoral Degree Requirements in this section of the online catalog.)

**Combined Degrees**

Combined degrees are granted in programs meeting the requirements of the graduate master’s or doctoral degree and the professional post-baccalaureate degree. Approved programs include the following degrees:

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor of Audiology (Au.D.)</td>
<td>with Ph.D. in Audiology</td>
</tr>
<tr>
<td>Doctor of Philosophy (Ph.D.) in</td>
<td></td>
</tr>
<tr>
<td>basic medical science fields</td>
<td>with M.D.</td>
</tr>
<tr>
<td>Doctor of Philosophy (Ph.D.)</td>
<td>with Au.D.</td>
</tr>
<tr>
<td>Master of Health Services Administration</td>
<td>with B.S. in Health Information</td>
</tr>
<tr>
<td>(M.H.S.A.)</td>
<td>Management</td>
</tr>
<tr>
<td>Master of Health Services Administration</td>
<td>with J.D.</td>
</tr>
<tr>
<td>(M.H.S.A.)</td>
<td></td>
</tr>
<tr>
<td>Master of Arts (M.A.) or Master of Science</td>
<td>with M.D.</td>
</tr>
<tr>
<td>(M.S.) in basic medical science fields</td>
<td></td>
</tr>
<tr>
<td>Master of Health Services Administration</td>
<td>with M.D.</td>
</tr>
<tr>
<td>(M.H.S.A.)</td>
<td></td>
</tr>
<tr>
<td>Master of Science (M.S.) in Nursing</td>
<td>with M.H.S.A.</td>
</tr>
<tr>
<td>Master of Science (M.S.) in Nursing</td>
<td>with M.H.</td>
</tr>
</tbody>
</table>

**Combined Medical and Master’s Degrees**

Graduate students in the basic medical science departments in the School of Medicine are enrolled, for the most part, only in graduate programs. Outstanding medical students, however, are allowed to participate in work leading jointly to the M.D. degree and a graduate degree. A student admitted to both academic programs may enroll concurrently in courses in the respective programs, provided the regular medical course load is reduced to compensate for the added graduate work. The student should discuss concurrent enrollment with the chair or graduate advisor of the master’s degree program; departmental policies vary. All requirements for the degrees must be met, but within these limitations, superior students may be able to complete the joint degree program in less time than the total required for the 2 degrees to be earned separately. For the master’s degree, a student must complete graduate work equivalent to at least 1 academic year in addition to the time spent on the medical curriculum.

**Combined Medical and Doctoral Degrees**

Outstanding students who are qualified to do so may participate concurrently in work leading to the M.D. and the Ph.D. degrees. Credit hours earned in the medical curriculum cannot be transferred as graduate credit hours toward the requirements for the Ph.D. degree, although recognition of satisfactory performance in appropriate medical courses may be given by the involved Ph.D. program when formulating the student’s additional graduate curriculum for the Ph.D. All the requirements for the respective degrees must be met. The joint degree requirements and application information for the joint M.D.-Ph.D. program are posted on the M.D.-Ph.D. website (http://www.kumc.edu/md-phd-program.html).

**Policies and Processes for Graduate Certificate Programs**

The graduate certificate is a focused collection of courses that, when completed, affords the student some record of coherent academic accomplishment in a given discipline or set of related disciplines. Students may be awarded these certificates upon completion of a well-defined program of course work. The didactic material comprised within a graduate certificate program may represent a more practice-oriented subset of an existing graduate discipline.

A current list of all certificate programs is available on the Academics page.

**Eligibility and Admission Criteria**

See Graduate Certificate Admission section of this Academic catalog.

**Number of Credits**

A graduate certificate program will comprise no less than 9 and generally no more than 18 credit hours of course work in a particular discipline or related disciplines of study.

**Expiration of Program**

All proposals for graduate certificate programs will be adopted for a 7-year time period. The certificate program will expire at the end of that period. The program may request renewal of the certificate program by sending an updated program proposal, endorsed by the department and School to the Graduate Council on the Medical Center campus. The proposal will be evaluated for an additional 7-year period. The Office of Graduate Studies will remind the graduate certificate program about its renewal one year before the graduate certificate program is scheduled to expire. If a program expires or is discontinued, no new students may be enrolled in the program and those students currently in the program will continue until completion.

**Student Records Criteria**

- It is the responsibility of the degree program that houses the graduate certificate program to maintain all student records of the graduate certificate program. These records should include, but are not limited to, the number of students that apply to the program, the number accepted and denied into the program, the number of students enrolled in the program by semester, the number of students who complete the program by semester.

- The courses taken in the graduate certificate program will be listed on the student’s transcript and recognition of the earned certificate will also be posted on the transcript.
The University of Kansas

Process of Approval for New Graduate Certificate Programs

Approval Process

Proposals for new graduate certificate programs may be created and submitted by graduate faculty in the same manner as proposals for new graduate degree programs, with the exception that all approvals are made internally at the University of Kansas. The proposal must be approved by the Vice Chancellor for Academic Affairs and accompanied by endorsement from the department chairperson, and dean of the school in which the contributing course work is administered.

After a proposal has been endorsed by the sponsoring department and school, the proposal must go to the Graduate Council and, if approved, will be forwarded to the Vice Chancellor for Academic Affairs.

Curriculum Criteria

• All certificate programs must be linked to a specific KU degree program(s), such that they provide a specific set of skills or knowledge base within a defined body of knowledge of the particular discipline. Certificate programs are encouraged where they might provide value-added benefits to students in existing graduate degree programs or provide a needed educational initiative for post-baccalaureate students in an area not currently addressed by a graduate degree program. These programs are not encouraged where they might detract from existing graduate programs.
• The proposed sequence of course work must offer a clear and appropriate educational objective at the post-baccalaureate level.
• The proposed certificate program must achieve its educational objective in an efficient and well-defined manner.
• A statement of the proposed course sequence associated with the certificate, including titles, number of credit hours of courses, and course descriptions both for existing courses and any new courses that may be developed.
• Graduate certificate programs may be at the post-baccalaureate, the post-master’s or post-doctoral level.
• Graduate certificate programs must be proposed for current KU graduate students or new KU students seeking a post-baccalaureate certificate.
• The certificate program must include an appropriate number of credit hours. In general, certificate programs should be no less than 9 credit hours. All proposals must have a maximum time to completion of no more than 4 full academic years.

Faculty Criteria

Instructors in graduate certificate programs must have gained appointment to the Graduate Faculty.

Materials Required for New Certificate Proposal

Proposals for a graduate certificate program at KU must include the following materials:

• A statement of the educational objectives of the program.
• A statement of the proposed course sequence associated with the certificate, including titles, number of graduate credit hours, and course descriptions both for existing courses and any new graduate courses that may be developed.
• A statement identifying the important academic objectives of the proposed certificate program, including the range of skills and knowledge future graduates will possess. Proposals should show how the graduate certificate program complements existing courses and does not detract from existing programs.
• A statement of how the proposed course sequence associated with the certificate will meet the stated educational objectives.
• A statement of the need for the proposed program and the basis for such need, supported by either external or internal derived data.
• A list of the names of the faculty associated with or contributing to the certificate program, either by teaching the courses or advising the students within the program. An up-to-date curriculum vitae for each faculty member listed needs to be included.
• The name and curriculum vitae of the faculty member who will be designated as the coordinator of the program.
• A planned date of implementation.

The Graduate Faculty

The Graduate Faculty consists of members of the university faculty and other persons qualified by training and experience who are duly nominated and appointed. Only members of the Graduate Faculty may teach courses for graduate credit, supervise master’s programs and theses, or serve on doctoral committees.

Regular Graduate Faculty Status

Any faculty member who is appointed to a tenure-track position in a graduate degree granting department on the Medical Center campus receives regular graduate status. These members of the Graduate Faculty may teach courses for graduate credit, supervise the master’s program and thesis, serve on committees, and sit on doctoral and/or master’s committees.

When appropriate, a qualified member of the Regular Graduate Faculty may be nominated to serve as co-chair of a specific dissertation committee if a faculty member with Dissertation Chair status serves as co-chair of the committee and agrees to ensure that all requirements are met. However, if the regular member of the Graduate Faculty has
lost dissertation chair status, this does not apply. Present or newly appointed faculty members in tenure-track appointments with the rank of assistant professor or above in departments or programs with approved graduate programs are granted regular membership in the Graduate Faculty, provided they have received the terminal degree in their field of specialization or have acquired equivalent training and/or professional experience as determined by the appropriate Graduate Division.

In special cases where faculty members who hold regular membership in the graduate faculty enroll in a KU graduate program as part of their professional development, they may be permitted to retain their graduate faculty status. They may not supervise or serve as the instructor of record for students who are peers in the graduate program in which they are enrolled. To hold regular membership in the Graduate Faculty, a faculty member must continue to show evidence of a pattern of productive professional activity demonstrating the ability to contribute to high-quality graduate education. The form that productive professional activity may take varies across disciplines. Conventional evidence of such activity includes such things as effective teaching, scholarly publication, participation in professional societies, and other scholarly activity. Graduate degree programs are responsible for monitoring faculty with regular membership in the Graduate Faculty.

Dissertation Status
To qualify for the privilege of chairing doctoral dissertation committees, a regular member of the Graduate Faculty must demonstrate continuing activity commensurate with being an established scholar in his or her field and involvement in the graduate education program as evidenced by:

1. Teaching graduate courses,
2. Advising and mentoring graduate students and serving on thesis and dissertation committees, and
3. Maintaining an ongoing program of scholarly activity including a record of scholarship, publication and other contributions to the field.

It is the graduate program’s responsibility to nominate members of the Graduate Faculty for authorization to chair doctoral committees and to provide evidence of scholarship and involvement in the graduate education program. Authorization to chair dissertation committees is reviewed as part of each graduate program review.

Special Appointments
Special membership may be granted to any university employee or non-employee who is uniquely qualified by training or experience for membership in the Graduate Faculty for the purposes of:

1. Teaching a course or courses;
2. Having courses cross-listed as KU courses if they are part of a cooperative graduate program between KU and the appointee’s home institution;
3. Serving on the thesis, dissertation, or examination committee of a particular student or students;
4. Chairing master’s thesis committees of a particular student or students;
5. Co-chairing dissertation committees of a particular student or students. The other co-chair must hold dissertation status and agrees to ensure that all requirements are met.

Special memberships are limited to a maximum period of 5 calendar years for teaching purposes or for the duration of the specified committee assignment. All nominations for special membership must state clearly the specific purposes for which the nomination is being sought and, when it can be known in advance, the length of time for which it is being requested. Special appointments are reviewed by the appointing graduate department and continued as appropriate.

Graduate Faculty Appointment Chart
This chart summarizes the organization and privileges of the various types of Graduate Faculty appointments.

### Type of Grad Faculty
<table>
<thead>
<tr>
<th>Type</th>
<th>Employed</th>
<th>Teach Graduate</th>
<th>Serve as Doctoral Committee Member</th>
<th>Chair Doctoral Committees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular KU Graduate Faculty</td>
<td>Tenure-tenured</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes, unless dissertation status was discontinued</td>
</tr>
<tr>
<td>GraduatetKU Faculty with dissertation status</td>
<td>Tenure-tenured</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes, Chair discontinued</td>
</tr>
<tr>
<td>Special KU Graduate Faculty affiliates</td>
<td>Tenure-tenured</td>
<td>No</td>
<td>No</td>
<td>No, Chair discontinued</td>
</tr>
</tbody>
</table>

1 The term “doctoral committee” refers to both oral comprehensive and dissertation defense committees.
2 A faculty member with the appropriate status may chair a degree committee alone or co-chair a degree committee with another faculty member (i.e., both co-chairs have equal status). Degree committees cannot have both a chair and a co-chair.

A current list of Graduate Faculty on the Medical Center campus is posted on the Graduate Studies website (http://www.kumc.edu/academic-affairs/graduate-studies/graduate-faculty.html).

Notice of Non-reappointment and Graduate Faculty Eligibility
Faculty members given a notice of non-reappointment are not eligible to hold Graduate faculty status. The Office of Faculty Affairs on the Medical Center campus will provide the Office of Graduate Studies with a written list of faculty who receive a notice of non-reappointment. The Office of Graduate Studies will remove graduate faculty status for these non-reappointed faculty for the appointment period for which the terminal notice is effective.

Upon non-reappointment the faculty member is no longer eligible for graduate faculty status. The named faculty member will no longer be allowed to teach future courses for graduate credit or to serve on graduate students’ committees.

The appropriate chairperson for the faculty member receiving the terminal notice may request, in writing, an exception to the policy from the Dean of Graduate Studies. Permission may be given to the faculty member to
serve on a graduate student’s committee if the graduate student will meet all degree requirements within the semester.

The faculty member who received notice of non-reappointment will be given a copy of the initial letter sent to the dean and will be provided a copy of the letter sent requesting and defining an exception.

**Principles Guiding Assistantships**

The following principles govern all graduate teaching assistant (GTA) and graduate research assistant (GRA) appointments on the Medical Center campus:

1. Individuals who enroll in graduate educational programs at the University of Kansas do so in order to attain specific educational goals. It is the University’s responsibility to help ensure that graduate students attain their academic goals in a reasonable amount of time and move on to the next stage in their careers, whether to another advanced degree program or to professional employment.

2. When academic programs/departments offer GTA or GRA appointments, the assistantships must contribute to the training experience of the graduate student.

3. The responsibilities required of the GTA or GRA should be in balance with their responsibilities as a student in the graduate program. For appointments of .50 FTE, the expectation is that the assigned duties will average no more than 20 hours per week during the semester. For appointments at other percentages, the number of hours per week must be proportional to the appointment percentage.

Appointments shall not normally exceed .50 FTE. Appointments in excess of .50 FTE but not exceeding .75 FTE, must be approved by the academic program and the Dean of Graduate Studies in advance of an appointment offer and will be approved only in special circumstances. Departments are expected to monitor appointments in excess of .50 FTE to ensure that the graduate students’ assistantship assignments enhance their academic preparation and do not interfere with progress towards degree.

**Graduate Teaching Assistantships**

Graduate Teaching Assistants are salaried student employees whose job duties consist primarily of direct involvement in classroom or laboratory instruction. The duties are performed under the supervision of faculty. The University also requires that a GTA’s teaching assignment be in his/her own field of study or one that is closely related.

A limited number of graduate teaching assistantships are available. Graduate students should inquire directly to their academic program/department about GTA appointment opportunities. Graduate teaching assistantship policy is administered on the Medical Center campus by the Office of Graduate Studies. [Note: Graduate teaching assistantships on the Lawrence campus differ in that they are governed by a memorandum of agreement among KU, the Kansas Board of Regents, and the Kansas Association of Public Employees, which represents KU GTAs in Lawrence only.]

**GTA Eligibility**

The following eligibility requirements govern all Graduate Teaching Assistant (GTA) appointments at the Medical Center campus:

1. During the semester of appointment, the GTA is admitted to and enrolled in a graduate degree program offered by the Medical Center campus.

2. During the semester of appointment, the GTA is enrolled in no fewer than six graduate credit hours per Fall and Spring semester and no fewer than 3 credit hours per Summer semester. See “Enrollment Exceptions” below.

3. During the semester of appointment, the GTA must be in good academic standing and making satisfactory progress toward a graduate degree, as determined by Graduate Studies and the department in which the student is enrolled. [Note: A graduate student must maintain a cumulative grade point average of 3.0 to remain in good academic standing. However, if a program judges that a graduate student whose GPA falls below 3.0 is nonetheless making satisfactory progress, the program may recommend to the Dean of Graduate Studies that the student be allowed to continue with the GTA appointment.]

4. The GTA must satisfy the English proficiency criteria established by the Board of Regents for GTAs - see Minimum English Requirement for GTAs below.

5. A student completing his or her graduate degree may not continue in a GTA appointment after the graduation date unless he or she has just completed a master’s degree and is enrolled in a doctoral program in the same field or a closely related field or is a doctoral graduate who has been accepted into another graduate program.

**Enrollment Exceptions**

A Ph.D. student appointed as a GTA, who has successfully completed the doctoral comprehensive examination and 18 post-comprehensive credit hours, may request approval to reduce enrollment below the GTA minimum enrollment requirement. The request form is located on the Graduate Studies website and is subject to approval by the academic department and the Dean of Graduate Studies.

A professional doctoral (Au.D., D.N.P., D.P.T., O.T.D.) student appointed as a GTA, who is in his or her final semester, may request approval to reduce enrollment below the GTA minimum enrollment requirement. The request form is located on the Graduate Studies website and is subject to approval by the academic department and the Dean of Graduate Studies. Approval will not be granted for a subsequent semester if the semester approved for reduced enrollment is not his or her final semester after all.

A master’s student appointed as a GTA, who is in his or her final semester, may request approval to reduce enrollment below the GTA minimum enrollment requirement. The request form is located on the Graduate Studies website and is subject to approval by the academic department and the Dean of Graduate Studies. Approval will not be granted for a subsequent semester if the semester approved for reduced enrollment is not his or her final semester after all.

**Minimum English Requirement for GTAs**

All applicants for graduate teaching assistantships whose first language is not English, including international students and U.S. residents or citizens, must meet one of the following criteria:

1. Score a minimum of 22 on the spoken English portion of the TOEFL iBT.

2. Score a minimum of 8 on the spoken English portion of the IELTS.
3. Score a minimum of 50 on the SPEAK administered by the Office of International Programs on the Medical Center campus.

**GTA Tuition Benefit**

The Medical Center campus pays the tuition of graduate students who receive appointments as graduate teaching assistants as defined below for the semester of appointment:

<table>
<thead>
<tr>
<th>FTE</th>
<th>Tuition Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>.40 FTE or more appointment</td>
<td>100% of tuition</td>
</tr>
<tr>
<td>.30 FTE but less than .40 FTE appointment</td>
<td>75% of tuition</td>
</tr>
<tr>
<td>.20 FTE but less than .30 FTE appointment</td>
<td>50% of tuition</td>
</tr>
<tr>
<td>.10 FTE but less than .20 FTE appointment</td>
<td>25% of tuition</td>
</tr>
</tbody>
</table>

A graduate student who has a GTA appointment or a combination of a GTA and GRA appointment of at least .40 FTE is eligible for staff (resident) tuition rates for the semester of appointment. The staff rate is assessed before tuition is paid. The tuition payment program covers only tuition, including any differential tuition assessed. It is not applicable for campus fees, KU Edwards Campus construction fee, union fee, and required fees; mediated and Continuing Education course fees; optional fees; housing costs; or other specialized fees.

**GTA Health Insurance Benefit**

A graduate student who has a GTA appointment or combination GTA and GRA appointment of at least .40 FTE for a given semester is eligible to participate in a health care benefits plan for that semester, for which the University provides a contribution. The health care benefits plan is the same plan that is available to all students, but a portion of the premium is paid if the student appointed as a .50 FTE GTA/GRA selects the plan. The health insurance information is available from the Student Health Insurance Office in Student Services.

**Resignation or Termination**

If a GTA resigns or abandons the position or the appointment is terminated before working a minimum of 8 pay-periods during the semester, the student must pay full tuition for that semester and will lose eligibility for staff (resident) tuition rates and, if a non-resident, will be required to pay non-resident tuition for that semester.

**Graduate Research Assistantships**

Graduate Research Assistants are salaried student employees who perform research that is in their fields (or a closely related field) of study and is integral to the student’s education (e.g., dissertation topic). The duties performed are under the direct supervision of faculty or research professionals.

A limited number of graduate research assistantships (GRA) are available. Graduate students should inquire directly to their academic program/department about GRA appointment opportunities. Graduate research assistantship policy is administered on the Medical Center campus by the Office of Graduate Studies.

**GRA Eligibility**

The following eligibility requirements govern all Graduate Research Assistant (GRA) appointments at the Medical Center campus:

1. During the semester of appointment, the GRA is admitted to and enrolled in a graduate degree program offered by the Medical Center campus.
2. During the semester of appointment, the GRA is enrolled in no fewer than six graduate credit hours per Fall and Spring semester and no fewer than 3 credit hours per Summer semester. See “Enrollment Exceptions” below.
3. During the semester of appointment, the GRA must be in good academic standing and making satisfactory progress toward a graduate degree, as determined by Graduate Studies and the department in which the student is enrolled. (Note: A graduate student must maintain a cumulative grade point average of 3.0 to remain in good academic standing. However, if a program judges that a graduate student whose GPA falls below 3.0 is nonetheless making satisfactory progress, the program may recommend to the Dean of Graduate Studies that the student be allowed to continue with the GRA appointment.)
4. A student completing his or her graduate degree may not continue in a GRA appointment after the graduation date unless he or she has just completed a master’s degree and is enrolled in a doctoral program in the same field or a closely related field or is a doctoral graduate who has been accepted into another graduate program.

**Enrollment Exceptions for GRAs**

A Ph.D. student appointed as a GRA, who has successfully completed the doctoral comprehensive examination and 18 post-comprehensive credit hours, may request approval to reduce enrollment below the GRA minimum enrollment requirement. The request form is located on the Graduate Studies website and is subject to approval by the academic department and the Dean of Graduate Studies.

A professional doctoral (Au.D., D.N.P., D.P.T., O.T.D.) student appointed as a GRA, who is in his or her final semester, may request approval to reduce enrollment below the GRA minimum enrollment requirement. The request form is located on the Graduate Studies website and is subject to approval by the academic department and the Dean of Graduate Studies. Approval will not be granted for a subsequent semester if the semester approved for reduced enrollment is not his or her final semester after all.

A master’s student appointed as a GRA, who is in his or her final semester, may request approval to reduce enrollment below the GRA minimum enrollment requirement. The request form is located on the Graduate Studies website and is subject to approval by the academic department and the Dean of Graduate Studies. Approval will not be granted for a subsequent semester if the semester approved for reduced enrollment is not his or her final semester after all.

**GRA Tuition Benefit**

A graduate student who has a GRA appointment or combination of a GRA and GTA appointment of at least .40 FTE is eligible for staff (resident) tuition rates for the semester of appointment.

**GRA Health Insurance Benefit**

A graduate student who has a GRA appointment or combination GRA and GTA appointment of at least .50 FTE for a given semester is eligible to participate in a health care benefits plan for that semester, for which the University provides a contribution. The health care benefits plan is the same plan that is available to all students, but a portion of the premium is paid if the student appointed as a .50 FTE GTA/GRA selects the plan.
Guidelines for Alleged Misconduct

Academic Calendar

The Academic Calendar (http://www.kumc.edu/student-services/office-of-the-registrar/current-students/academic-calendar.html) with the official university calendar dates is maintained by the Office of the Registrar and is available online. Many of the Medical Center campus programs have different starting and ending dates so check with your academic program for more detailed information.

The Graduate Studies Calendar (http://www.kumc.edu/academic-affairs/graduate-studies/calendars.html) indicates graduation deadlines related to master’s and doctoral examination dates and the submission of theses and dissertations.

Academic Misconduct

Academic misconduct by a student shall include, but not be limited to: cheating on examinations whether by a student on his/ her own behalf or by giving to another student or receiving from another student unauthorized aid on examinations; giving or receiving of unauthorized aid in the preparation of notebooks, themes, reports, or other types of assignments, or in the preparation of master’s theses and/ or doctoral dissertations; or knowingly misrepresenting the source of any academic work, falsification of research results, plagiarizing of another’s work, violation of regulations, ethical or professional codes for the treatment of humans and animals, or otherwise acting dishonestly.

I. Expectations for Conduct by a Graduate Student

One goal shared by the graduate programs at the University of Kansas Medical Center is to provide a seminal educational environment in which a student can master a special field of knowledge and strive to develop competence in independent scholarship and research, in order to make original contributions to knowledge. In achieving that goal, there is an expectation by the University of Kansas Medical Center that the graduate faculty and their students will conduct themselves with high integrity and professional ethics. Such conduct by a graduate student must include adherence to the written and observed or taught guidelines for ethical standards of the profession for which the student is seeking to enter. A graduate student is responsible for informing himself/ herself about these requirements and expectations of conduct as well as seeking answers to his/ her own questions about what constitutes misconduct. Potential sources for this information include the:

A. Director of the Graduate Program and the faculty members of the department in which the graduate student has entered;
B. Student Handbook or a similar document prepared by the student’s academic program, department and/ or school;
C. the University of Kansas Medical Center “Behavioral Standards in Patient Care.”

II. Decisions by a Faculty Member Relative to Academic Misconduct

A. Not to Make a Recommendation for an Investigative Hearing: A faculty member (acting as an instructor or assistant in a course, or a graduate student’s advisor or mentor for his/ her research and/ or academic program, etc.) may decide not to recommend an investigative hearing, as outlined in these Guidelines, for what he/ she believes is academic misconduct by a student. The faculty member thus may treat as unsatisfactory any student work which he/ she believes is a product of academic misconduct and impose a sanction( s) appropriate to the traditionally accepted realm of authority or jurisdiction of the faculty member. Any action by the faculty member shall be with due written notice to the student.

B. Make a Recommendation for an Investigative Hearing: The Faculty Member may decide to recommend to his/ her Chairperson (also see Section IV. A. 4, and Section IV. B., below):

1. that an investigative Hearing be held for the alleged occurrence of academic misconduct, and/ or
2. imposing a sanction that is outside of the traditionally accepted realm of authority or jurisdiction of The Faculty Member (e. g., see Section VI. D. below). Hence, The Faculty Member initiates the procedures in Section IV.

III. Procedural Information for and Investigative Hearing Process

A. Definitions of Terms Hereafter Applied in these Guidelines

1. "The Faculty Member” is the faculty member initiating an allegation of academic misconduct by a student.
2. "The Student” is the graduate student identified by The Faculty Member as the subject of the alleged act( s) of academic misconduct.
3. The "Involved Department” is the department, center, or functional unit in which the act( s) of academic misconduct allegedly occurred by The Student.
4. The "Chairperson” is the Chairperson of the Involved Department in which the act( s) of academic misconduct allegedly occurred by The Student and is the next higher administrative officer to whom The Faculty Member sends the initial report about an allegation of academic misconduct.

a. "Dean of the School of Nursing” replaces the designation of "Chairperson" hereafter throughout these Guidelines for Dealing With Alleged Misconduct by a Graduate Student as the appropriate administrative officer to whom faculty
members in the School of Nursing shall forward any report or recommendation, if the alleged act occurred in this School.

b. Possible Conflicts of Interest:

i. If The Faculty Member perceives (relative to Section III. B., above) that there may be a conflict of interest involved in this issue between The Student and The Chairperson, or If The Chairperson is The Faculty Member initiating the allegation of misconduct, then The Faculty Member’s Inquiry Report of the alleged incident(s) (see Section IV. B., below) shall be forwarded to the Dean of the Faculty Member’s or Chairperson’s, respectively, School or the next higher administrative officer, as appropriate, who thereafter will assume the responsibilities of “The Chairperson” identified throughout these Guidelines for Dealing With Alleged Misconduct by a Graduate Student.

ii. For Other Situations when questions arise about conflict of interest, the questions shall be directed to the Dean of Graduate Studies.

5. The Official Record of the Hearing Process: The Dean of Graduate Studies shall initiate and maintain in the Office of Graduate Studies an Official Record (i.e., file) of the entire Hearing Process. All subsequent original written communications, documents, audio tape recordings (see Section V. 3., below), and recommendations that relate to the alleged misconduct and the Hearing shall be sent on a timely basis by The Chairperson and/or the Hearing Officer (see Section IV. E., below) to the Dean of Graduate Studies for inclusion in the Official Record. If the final conclusion of the Hearing Process is that academic misconduct has not occurred, then only the Dean’s Official Record of the entire Hearing Process shall be saved as the permanent record; all other faculty, Departmental, and School copies of a “record/file” for the Hearing Process must be destroyed (see Section V. B. 2. a., below).

6. The Time Periods for the Hearing Process: Throughout these Guidelines, MAXIMUM LIMITS are specified for the length of time allowed for certain stages of the overall Hearing Process to take place. Unless specified otherwise, all lengths of time shall be in terms of the traditionally considered “working days” of any given week (recognized holidays that occur on otherwise traditional working days are not to be counted in these time frames). Any request for an extension of a time limit shall be made expeditiously, and before the expiration of the limit, to either the Chairperson or the Hearing Officer or the Dean of Graduate Studies, as appropriate, (or, in their absence, their designates), who shall decide and notify within three (3) days if there is good cause for the extension and, if so, for what period of time. Notification shall be to all involved parties of the Hearing Process and may be done first by telephone if deemed appropriate, and then shall be followed by written notification.

B. Inquiry Report by the Faculty Member is Sent to the Chairperson: Following the decision by The Faculty Member in Section III. B., above, and with due notice to The Student, The Faculty Member shall submit a detailed written report about the allegation (hereafter called the Inquiry Report) to the Chairperson. The Inquiry Report shall be submitted within twenty (20) days of the discovery of the alleged occurrence of misconduct. The Chairperson shall, within 15 days of receiving the Inquiry Report, review the report and attempt to resolve the allegation through consultation and mediation with the involved persons. If the Chairperson determines that the allegation should be resolved through the investigative Hearing Process, then the Chairperson shall continue the procedure outlined hereafter in these Guidelines. Written notice shall be sent to The Student (see Section IV. D., below) and to the Faculty Member (including a request for the Faculty Member to respond, within 10 days of receipt of the notice, with his/her selection of a faculty member to serve on the Hearing Panel; see Section IV. E. 2., below).

C. Notification of the Dean of Graduate Studies: The Chairperson shall send a written notification to the Dean of Graduate Studies that an investigative Hearing Process for alleged academic misconduct by The Student is going to be initiated. The Chairperson’s notification shall include copies of The Faculty Member’s Inquiry Report of the alleged misconduct and all written communications up to this time with The Student.

D. Notification About the Allegation to the Student: A written notification of the specific allegation shall be sent (certified or registered letter with return receipt requested indicating the date of receipt) to The Student by The Chairperson within fifteen (15) days after the time The Chairperson receives the Faculty Member’s Inquiry Report. A copy of this notification shall be sent to the Dean of Graduate Studies. The notice shall include:

1. a statement of the specific allegation(s) with sufficient explanatory information to enable The Student to understand the nature and extent of the allegation(s);
2. an invitation for The Student to provide, to The Chairperson, within ten (10) days after receiving the notification letter: a. a written response to the allegation(s); and b. the name of a faculty member whom The Student selects to serve on the Hearing Panel (see Section IV. E. 2., below), and a statement indicating that this faculty member told The Student that he/she agreed to serve;
3. a statement indicating that The Student has the right to continue attending class as scheduled until such time as the Dean of Graduate Studies has reached his/her final decision UNLESS there is a question of unsafe and/or disruptive behavior and/or offense against other persons (including patients of or visitors to) and/or property of the University of Kansas.
4. a copy of these “Guidelines for Dealing With Alleged Academic Misconduct by a Graduate Student” so that The Student is aware of the procedural process and possible actions.

E. Selection of Members for the Hearing Panel: The Hearing Panel shall be composed of four (4) members of the graduate faculty (voting members of the Panel), excluding The Faculty Member initiating the allegation of misconduct (See Section IV. A. 4., above) and excluding the chairperson of the department in which The Student named in the allegation is a graduate student member, and one (1) graduate student (voting member of the Panel), excluding The Student who is the subject of the allegation. One of the graduate faculty members of the Panel will be designated by The Chairperson as the “Hearing Officer” in charge of the Hearing Panel. Any member of the Hearing Panel who perceives that there is any irregularity in the proceedings of the Hearing process has the responsibility of PROMPTLY reporting this to the
Dean of Graduate Studies. Selection of the Hearing Panel shall include at least one but no more than two faculty members from the Involved Department in the allegation and shall be done as follows:

1. the graduate student member:
   -shall be selected by the officers of the Graduate Student Council at an on-need basis,
   -shall not be a graduate student member of the same Department as The Student named in the allegation, and -must be currently classified as a Regular Graduate Student in the category of Degree-Seeking Students and in good academic standing (not on probation);
2. one faculty member from inside or outside the Involved Department may be selected by The Student named in the allegation;
3. one faculty member from inside or outside the Involved Department may be selected by The Faculty Member initiating the allegation; and
4. two faculty members selected by The Chairperson. The Chairperson's selections shall assure that the composition of the Panel includes at least one but no more than two members from the Involved Department in the event that The Student and/ or The Faculty Member do not select such a member. Additionally, if The Student and/ or The Faculty Member decline( s) to select a Panel member or fail to respond to The Chairperson within ten (10) days of the request (see Section IV. B. and IV. D. 2., above), then The Chairperson will also select that member or members, likewise with due consideration for the basic composition of the Panel as defined above.

F. Scheduling the Hearing: The Hearing Officer shall, within five (5) days of the selection of members of the Hearing Panel, (1) schedule the day, time and place for the Hearing to occur (which shall be sometime between 20 and 30 days after the selection of the Hearing Panel), and (2) provide written notice of this schedule to The Faculty Member, The Student, The Chairperson, and The Dean of Graduate Studies. Both The Student and The Faculty Member shall be informed with this scheduling notification that during the Hearing each:

1. will be given the opportunity to present his/ her own viewpoint of the situation(s) that directly led to the allegation(s), and/ or
2. may have witnesses speak or have witnesses' affidavits read on his/ her behalf.

G. Documents, Representatives & Witnesses for the Hearing:
All information cited below shall be promptly sent to (see time deadlines indicated in this Section) or collected by the Hearing Officer, who shall promptly distribute copies of the information to The Student, The Faculty Member, and the rest of the Hearing Panel members.
1. The Faculty Member’s Inquiry Report sent to The Chairperson (see Section IV. B.),
2. The Chairperson’s Notification of Allegation letter sent to The Student (see Section IV. D.),
3. The Hearing Officer’s letter to The Student and The Faculty Member stating the day, time and place for the hearing (see Section IV. F.),
4. The Student’s written Response to the allegation(s), if such was sent to The Chairperson (see Section IV. D. 2. a.),
5. Any documents provided by The Student and/ or The Faculty Member for presentation as evidence to the Hearing Panel (sent at least by five (5) days before the Hearing),
6. Names of Representatives:
   a. Each party to the Hearing should be present for the Hearing unless the Chairperson agrees that another person may appear as a substitute representative. A Hearing may be held even if The Student and/ or The Faculty Member fail to appear for the Hearing. Neither The Student nor The Faculty Member is compelled to appear or testify at the Hearing, and no inference may be drawn by the Hearing Panel against The Student or the Faculty Member due to his/ her failure or refusal to testify or appear.
   b. The use of legal counsel is discouraged.
7. Names of Witnesses:
The Student and The Faculty Member shall provide a list of intended witnesses, if any, to the Hearing Officer at least ten (10) days before the Hearing is to occur. The Hearing Officer shall provide these names, reciprocally, to The Faculty Member and The Student at least five (5) days before the Hearing.
8. All materials (including the audio recording tapes identified in Section IV. H. 3., below) concerning the alleged violation of misconduct should be treated as CONFIDENTIAL documents. The Hearing Panel members will return all materials received for the Hearing to the Hearing Officer at the end of the scheduled Hearing., The Hearing Officer will forward ALL ORIGINAL AND PHOTOCOPIED AND AUDIO TAPE RECORDED MATERIALS to the Dean of Graduate Studies (see Section IV. A. 5., above).

H. Conducting the Hearing: The Hearing Officer of the Hearing Panel may establish procedures in addition to those listed, however, the basic requirements of the Hearing procedure as listed here may not be altered by the Hearing Officer:
1. The Hearing shall be conducted in a closed session and witnesses shall be excluded from the Hearing except when actually testifying.
2. The Hearing Officer shall have the authority to keep order, rule on questions of relevance and evidence, and shall possess other powers normal and necessary for a fair and orderly Hearing. Rules of Evidence that govern courtroom proceedings shall not apply.
3. There shall be only a single audio tape recording made of the proceedings in order to provide an accurate record of the Hearing for possible review by the Hearing Panel (Section IV. I. 1) and/ or Dean of Graduate Studies (Section IV. I. 4.).
4. The Hearing Officer shall introduce the Hearing Panel members, The Faculty Member, The Student, and, their representatives, if any.
5. The Hearing Officer shall explain the Hearing Procedures as outlined herein.
6. The Hearing Officer shall announce that The Faculty Member initiating the allegation has the responsibility to persuade the
Hearing Panel by a preponderance of evidence that academic misconduct has occurred.

7. The Hearing Officer shall orally review the allegation(s) of misconduct which led to the Hearing, and the possible sanction(s).

8. The Hearing Officer shall allow The Faculty Member to state the allegation and explain the incident. The Faculty Member may choose to remain silent. (see Section IV. G. 6. a.).

9. The Hearing Officer shall allow The Student to reply and explain the incident. The Student, if present, may choose to remain silent. (see Section IV. G. 6. a.).

10. Hearing Panel members may direct questions to The Faculty Member, if present, The Student, if present, and any witnesses and/or representatives.

11. Through the procedural process of the Hearing, The Student and The Faculty Member may question one another and any witnesses appearing. One witness at a time may be called by either The Faculty Member or The Student. No witness will be permitted to participate in the Hearing if his/her name was not previously given to the Hearing Officer in accord with Section, IV. G. 7., above. IN EXCEPTIONAL CIRCUMSTANCES, this provision may be modified by decision of the Hearing Officer, and, if it is, The Student and The Faculty Member will be given sufficient opportunity to collect information to respond to whatever the witness presents.

12. The Hearing Officer shall state that the Hearing Panel will make a recommendation to the Dean of Graduate Studies within seven (7) days after the Hearing.

I. Findings of the Hearing Panel and Recommendation Carried Forward:

1. At the conclusion of the Hearing, the Panel members, alone and in closed session, shall deliberate and decide by a majority vote (anonymous written ballot counted by the Hearing Officer and verified by the graduate student member) if "academic misconduct," as alleged by The Faculty Member and only based upon all evidence presented to and heard by the Hearing Panel, "has occurred" or "has not occurred."

2. If the Panel's decision is that "academic misconduct has occurred," then the Panel members shall deliberate and determine (by majority vote) their recommendation(s) for specific disciplinary action and/or sanction(s), if any.

3. The Hearing Officer shall compile comments, rationale, findings, voting results, and recommendations in writing and forward them within seven (7) days after the Hearing to the Dean of Graduate Studies. The Hearing Panel recommendation(s) shall not be binding upon the Dean of Graduate Studies.

4. The Dean of Graduate Studies shall consider the recommendation(s) and report of the Hearing Officer and any relevant information and take action.

J. Notifications Consequent to the Hearing Process:

1. The Dean of Graduate Studies shall, within seven (7) days of receipt of the summary final report of the Hearing Officer, send written notification of his/her action(s) to The Faculty Member, The Student (notification by certified or registered mail with return receipt requesting delivery date), and the Hearing Officer.

2. If this final action of the Hearing process concludes that academic misconduct by The Student has NOT occurred, then the Dean of Graduate Studies also shall, in writing, instruct the chairperson(s) of the involved department(s) that: a. all materials appended to any and all departmental files, including a possible so-called permanent file on The Student, that would not have been in these files if an allegation of misconduct had not been made shall be removed (also see Section IV. A. 5., above) b. conscientious efforts are to be made by the involved department(s) not to subject the student to unwarranted bias or action by the department(s) consequent to the hearing process.

IV. Sanctions that may be Imposed for Academic Misconduct:

A. Censure: A written reprimand for actions which constitute academic misconduct. Censure may include a written warning that subsequent actions of academic misconduct may be the cause for a more severe disciplinary sanction.

B. Unsatisfactory Work: Treating as unsatisfactory any work which is a product of academic misconduct. This may include reduction of a pending or existing grade (including the awarding of a Failing grade) for the work and/or a grade in the course.

C. Suspension: Exclusion from classes and other specified privileges or activities for a definite period not in excess of two years.

D. Expulsion: Termination of graduate student status for an indefinite period. The conditions of readmission, if any, shall be stated in the order of expulsion. Approved by Graduate Studies Committee. University of Kansas Medical Center, April 4, 1991.

Academic Probation

The cumulative grade point average is computed at the end of each semester with the inclusion of grades earned at KU for all courses acceptable for graduate credit. If the cumulative grade point average falls below 3.0 (B average), the student is placed on probation by the Office of Graduate Studies and the student and program are both notified in writing.

The grades of P, S, U, and I, for which no numerical equivalents are defined, are excluded from the computation. If the student's overall graduate average has been raised to a 3.0 by the end of the next semester of enrollment after being placed on probation, the student may be returned to good academic standing. If not, the student may not be permitted to enroll and will be dismissed unless the Dean of Graduate Studies acts favorably on a program recommendation for the student to continue study.

If a student is admitted provisionally due to deficiencies in grade point average, a student must earn an overall graduate average of at least 3.0 during the first 9 hours of enrollment which is the equivalent of one semester full-time enrollment. When the overall 3.0 grade point average has been achieved, the program submits a Progress to Degree form to move the student from provisional to regular admission status. A student admitted provisionally who fails to earn a 3.0 average in the first 9 hours of enrollment may be dismissed immediately. If provisional continuation
is recommended by the program, and approved by the Dean of Graduate Studies, the student may remain on provisional status for one additional semester. Subsequent recommendation and approval are required for each additional semester continued on provisional status.

Students who have been dismissed from a graduate program may be readmitted for further graduate study at KU only by petition of the graduate program that will accept the student. The petition must be approved by the Dean of Graduate Studies on the appropriate campus (Medical Center or Lawrence).

Childbirth Accommodation

The University of Kansas Medical Center acknowledges that the years spent in graduate and professional degree programs can be prime childbearing years for students. KUMC wishes to assert itself as an institution that values family-friendly policies for students, faculty and staff by adopting a student-specific childbirth accommodation policy. This policy illustrates a commitment by KUMC to diversity and inclusion which will allow the institution to recruit and retain the highest quality students.

The University of Kansas Medical Center will grant students up to a six-week accommodation period for welcoming a child under the following conditions: the birth of a child, the adoption of a child, or the placement of a child for adoption or foster care. The six-week accommodation period can be granted as a leave, a revised academic, research, or clinical schedule, or a combination of the above.

Eligibility

This policy will apply to all enrolled students regardless of gender or marital status. Other situations related to family life would continue to be covered by general leave of absence. Depending on their academic program, timing of birth/adoption, and level of support they will receive in caring for a newborn, a student may find it more advantageous both academically and personally to take a leave of absence rather than utilizing the childbirth accommodation policy.

Academic Accommodations

A student should fill out the Application for an Academic Accommodation Period form to initiate discussions with their advisor(s) and departmental or school administrators as soon as possible, but no later than four months prior to the anticipated delivery date. If a child is being welcomed through adoption or foster care, please fill out an Application for an Academic Accommodation Period form as soon as possible depending on the situation. Individual programs and departments will review the student’s requests and, along with the student and other necessary parties (i.e. advisors, instructors), determine the accommodations that will be provided. These discussions should also detail the type of academic engagement, and progress expected from the student while on leave or a revised academic schedule. If a program decides that due to academic requirements, a leave of absence is more appropriate, a request may be denied. The denial of the request must be made to the student in writing with adequate justification. If an accommodation period of less than six weeks is proposed, this decision must also be justified. Upon approval of a student’s request, a plan will be submitted to the Dean of the student’s School. The plan will outline the specific accommodations being provided for a student, as well as any expectations from the academic program. Students may appeal decisions regarding accommodations. The appeal of the decision must be made in writing and submitted to the Dean of the student’s School. The Dean of the student’s School will have final decision-making authority.

All academic programs and departments are expected to work with their students and make a good-faith effort to provide reasonable accommodations so that their students can remain in good academic standing and continue progress towards their degree while also balancing the demands of caring for a new child. It is also encouraged that advisors, academic staff, and departmental leaders work with sensitivity and imagination to provide more than these minimum standards put forth by KUMC when circumstances allow for further accommodations. Students should be proactive in speaking with advisors, instructors, and academic deans when they are planning a family or expecting a child to devise the best personal and academic plan.

Student Status

Students will retain their full time student status if approved for an academic accommodation period. Additionally, for students who decide to take a leave of absence, they will have the option to pay student fees if they wish to have continued access to campus resources.

Financial Support (applicable to those funded by GTAs, GRAs, or Fellowships)

For students who currently receive stipends through a graduate teaching assistantship (GTA) or graduate research assistantship (GRA), they will remain fully funded for a six-week period. Students who do not receive stipends at the time of application are not eligible for financial support. Any continuation of support past six weeks will be determined on an individual basis. Students will remain funded by their current stipend source for the first two weeks and then will be funded by a Childbirth Accommodation Fund through the Office of Graduate Studies for up to four additional weeks. Students in the MD/PhD program would continue to receive their stipends from their current source during the MD phase and from current stipend source for two weeks and then the Childbirth Accommodation Fund for up to four additional weeks during the PhD phase. If a student is on a grant or fellowship that allows them to receive stipends during maternity/paternity leaves, then they will continue to be paid by their current funding source for the entire six-week period. If funding is not allowed by the outside grant or fellowship, then the student will receive six weeks of support from the Childbirth Accommodation Fund.

While not covered under this childbirth accommodation policy, students who experience medically necessary absences during pregnancy or due to conditions related to pregnancy should refer to the federal Title IX policy to educate themselves about their rights regarding their education. If you feel that you are experiencing discrimination due to pregnancy or related conditions, please contact the Office of Institutional Opportunity and Access (IOA@ku.edu).

Course Numbering System

Courses that may give graduate credit are numbered according to the following scheme:

- **Courses numbered 500-699** are designed primarily for juniors and seniors, but are also taken by some graduate students who have fewer than 30 hours of graduate credit.
- **Courses numbered 700-799** are designed primarily for graduate students who have fewer than 30 hours of graduate credit, but they are also taken by some undergraduates.
- **Courses numbered 800-899** are designed primarily for graduate students who have fewer than 30 hours of graduate credit.
Courses numbered 900-999 are designed primarily for graduate students who have 30 or more hours of graduate credit.

Courses that contain a mixture of undergraduate and graduate students should set requirements for graduate credit beyond or different from the requirements for undergraduate credit. No course, regardless of its number, can give graduate credit unless it has been approved for graduate credit by the appropriate Graduate Studies Office (Medical Center or Lawrence) and is taught by a person holding a current appointment to the Graduate Faculty.

Co-enrollment (Seniors and Graduate Study)

Seniors at KU who will complete the requirements for a baccalaureate degree in a given semester, and who have very strong academic records (grade-point average higher than 3.0 on a 4.0 scale), must apply and be admitted provisionally as degree seeking students and request the permission of the appropriate Graduate Studies Office (Medical Center or Lawrence) to co-enroll for the final undergraduate semester. Seniors requesting the privilege of co-enrollment must make formal application through the online graduate application.

Procedure

To meet the criteria of co-enrollment, the student must earn undergraduate credit for at least one class during the co-enrollment semester. Continuing education courses may be used to satisfy this requirement. If after the co-enrollment semester the baccalaureate degree is not completed, the student will not be permitted to enroll in courses for graduate credit until the baccalaureate degree has been conferred. After one semester, students are not eligible for co-enrollment and the graduate admission will be retracted.

Students who are eligible to co-enroll receive an email from the Registrar’s Office before enrollment with instructions on how to enroll in more than one career (ex. LAW, GRDL-Graduate, UGDL-Undergraduate). Students will have separate appointment times to enroll for each career and must enroll only in the courses that will count correctly toward the career in which they are enrolling during each appointment time. When enrollment is complete for each career, students must check the grading option for each course to ensure the class will be counted correctly.

Discontinuance

A student may voluntarily resign from their program of study by submitting an "Official Severance Form" located on the Registrar’s website (http://www.kumc.edu/student-services/office-of-the-registrar/current-students/dropping-and-withdrawing-from-classes.html).

Dismissal

Graduate programs are responsible for evaluating the students in their programs to ensure that they are making satisfactory progress toward a degree. If the graduate program finds that a student is not making satisfactory progress due to, but not limited to, cases where the student has run out of time to degree, or the student has neither been enrolled nor received an approved leave of absence, or academic misconduct has occurred, the program may recommend to the Dean of Graduate Studies that the student be dismissed from the program. Dismissal is requested by the graduate program through the Progress to Degree form.

Students who have been dismissed from a graduate program may be readmitted for further graduate study at KU only by petition of the graduate program that will accept the student. The petition must be approved by the Dean of Graduate Studies.

Academic Probation and Dismissal

Upon falling below a cumulative grade-point average of 3.0, computed with the inclusion of grades earned at KU for all courses acceptable for graduate credit, the student is placed on probation by the Office of Graduate Studies. The grades of P, S, U, and I, for which no numerical equivalents are defined, are excluded from the computation.

If the student’s overall GPA has been raised to 3.0 by the end of the next semester of enrollment after being placed on probation, the student may be returned to good academic standing. If not, the student will be dismissed unless the Dean of Graduate Studies acts favorably on a program recommendation for the student to continue study.

Distance Education

The University of Kansas offers online and hybrid courses and certificate and degree programs. For more information about specific online course and degree program options, students should contact their academic department of study. Similar to regular courses, the availability of online courses varies by semester and year.

Embargo of Theses and Dissertations

When an exception to the immediate release of a thesis or dissertation is necessary, an embargo provides a temporary, delayed public release of the work. Embargo periods of six months, one year, or two years are available. While embargoes are not intended to be permanent, renewals of the original embargo period are permissible. Considerations that may be deemed reasonable for granting permission for an embargo include, but are not limited to:

- Patentable rights or other issues are contained in the work that disclosure of which may be detrimental to the rights or interests of the author.
- There is a need to prevent disclosure of government information about persons, institutions, technologies, etc. that is contained in the work.
- An academic or commercial press has expressed interest in acquiring the rights to publish the work as a book that may require an embargo.
- The work contains content that has already been submitted to a peer-reviewed journal that may require an embargo.
- Approval for delay has been granted by the KU Restricted Research Committee.

Requests for an extension of the embargo should be directed to the Office of Graduate Studies and must be received at least one month prior to the expiration of the current embargo to ensure sufficient time to process the request. A request for an embargo submitted to the University of Kansas affects only the publication of the thesis or dissertation in KU ScholarWorks. It is the graduate student's responsibility to request an extension from both the University of Kansas for the copy in KU ScholarWorks and separately through ProQuest/UMI.

While there is no limit to the number of times a student can request an embargo extension, embargoes that have been allowed to expire without a request for an extension will result in the thesis or dissertation being made publicly available.
The embargo period will be calculated beginning at the end of the semester in which the student graduates with the specific dates being: December 31st, May 31st, and August 31st.

**Procedure**

**Steps necessary for embargoing a thesis or dissertation:**

Theses and dissertations at the University of Kansas are made available in two electronic databases: KU ScholarWorks and ProQuest/UMI Dissertations and Theses. Items in KU ScholarWorks are publicly accessible on the world-wide web and can be indexed by search engines such as Google, Bing, Yahoo, and others.

A student who does not wish to have his or her thesis or dissertation made public in these two venues for some limited period of time must receive permission to embargo the thesis or dissertation from one of the following 1) department graduate director, 2) department chair, or 3) committee chair, and the Dean of Graduate Studies. The student must request this permission with the Electronic Thesis and Dissertation (ETD) Release Form. The University of Kansas will accept the thesis or dissertation—thereby completing all degree requirements—only if the student signs this release form. Likewise, the University of Kansas will only entertain requests for an embargo on the publication of a thesis or dissertation through submission of this same form.

To ensure that embargoed work is restricted, students must take two steps after receiving the appropriate signatures before graduation.

- First, the student must submit the Electronic Thesis and Dissertation (ETD) Release Form to the Office of Graduate Studies. If an embargo has been approved, this form will ensure that the work is temporarily restricted in KU ScholarWorks.

- Second, during the electronic submission process to ProQuest/UMI, the student must select the embargo option under the publishing restrictions section. If an embargo has been approved, this step will ensure that public view of the work is temporarily restricted in the ProQuest/UMI Dissertations and Theses database. See the related documents section below for more information.

**Note:** If a student does not receive permission for an embargo and/or does not submit the required documentation requesting such an embargo to Graduate Studies prior to graduation, the work will be made publicly available through KU ScholarWorks, and search engines like Google, Bing, Yahoo, and others will find and index the work. For this reason, once a work is released publicly, it is impossible to deploy an embargo in its entirety, because copies of a released work are likely to be stored on the web even if the KU ScholarWorks or ProQuest/UMI copies are retracted. It is therefore crucial for students who desire the embargo option to request it prior to graduation and to request extensions, if needed, prior to the work being exposed to public search engines.

Dissertation defenses are open to the public. In the event that an embargo is deemed necessary for a dissertation, the committee should consider holding an additional question period for the defense that is closed to the public. Any sensitive data may be discussed in the closed session.

**Enrollment Policy**

All graduate students are expected either to be enrolled or to be on approved Leave of Absence at all times while completing the credit hours required for the fulfillment of their degrees unless they have been dismissed from the program or discontinued (voluntarily resigned) from the program.

Graduate students are not normally permitted to enroll for more than 16 hours a semester or more than 8 hours in summer session.

**Full-Time, Half-Time, and Part-Time Enrollment Policy**

**Full-time enrollment for fall and spring semesters**

- Enrollment in 9 credit hours;
- Enrollment in 6 credit hours plus a GTA, GRA, or GA appointment, regardless of percentage of appointment;
- Enrollment in 6 credit hours for graduate students using the Montgomery GI Bill – Active Duty (MGIB-AD) and Post-9/11 GI Bill – Active Duty;
- Doctoral candidates enrolled in dissertation hour(s). *See doctoral candidates below.

**Full-time enrollment for summer sessions**

- Enrollment in 6 credit hours;
- Enrollment in 3 credit hours plus a GTA, GRA, or GA appointment, regardless of percentage of appointment;
- Enrollment in 3 credit hours for graduate students using the Montgomery GI Bill – Active Duty (MGIB-AD) and Post-9/11 GI Bill – Active Duty;
- Doctoral candidates enrolled in dissertation hour(s). *See doctoral candidates below.

**Half-time enrollment for fall and spring semesters**

- Enrollment in 5 credit hours;
- Enrollment in 3 credit hours plus a GTA, GRA, or GA appointment, regardless of percentage of appointment;
- Enrollment in 3 credit hours for graduate students using the Montgomery GI Bill – Active Duty (MGIB-AD) and Post-9/11 GI Bill – Active Duty.

**Half-time enrollment for summer sessions**

- Enrollment in 3 credit hours;
- Enrollment in 1 credit hour plus a GTA, GRA, or GA appointment, regardless of percentage of appointment;
- Enrollment in 1 credit hour for graduate students using the Montgomery GI Bill – Active Duty (MGIB-AD) and Post-9/11 GI Bill – Active Duty.

Students enrolled in fewer hours than defined by half-time enrollment are considered part-time.

All students should check with their graduate degree programs and Graduate Studies' policies to determine if additional enrollment requirements or summer enrollment requirements exist.

**Note:** A few internship programs have been approved by Graduate Studies to count as full-time enrollment. Students enrolled in these internship programs will be counted as full-time students.

*A doctoral candidate is defined as a doctoral student who has successfully passed the comprehensive examination. See Post-Comprehensive Enrollment in this section of the catalog for doctoral candidate enrollment requirement.*
International Student Enrollment

International students in F-1 and J-1 status must also comply with Federal immigration requirements of pursuing a full course of study each semester to maintain their legal status. All international students must conform to residence requirements, even though immigration regulatory requirements may be lower.

All students should check with their graduate degree programs to determine if the program has additional enrollment requirements.

Grading

The basic system is an A, B, C, D, F system, where A designates above-average graduate work; B, average graduate work; C, passing but not average graduate work (C– is not considered a passing grade); D and F, failing graduate work. C–, D, and F work does not count toward fulfilling degree requirements.

The letter P is used only to indicate participation in thesis, dissertation, and research enrollments (related to thesis or dissertation), and in the first semester enrollment of a multi-semester sequence course. In any semester, an instructor may, at his or her option, assign a letter grade of A, B, C, D, or F when evidence about performance is available. Upon completion of thesis/dissertation or research hours leading to a master’s or doctoral degree, the P remains on the final transcript except for the last semester of enrollment. A letter grade (A, B, C, D, or F) is assigned in the last semester of enrollment to characterize the quality of the final product. The I grade is not appropriate for enrollment in thesis, dissertation, or research and is not accepted.

For enrollments other than thesis, dissertation, or research, the letter I indicates course work that has been of passing quality, some part of which is, for good reason, unfinished.

A student who has an I posted for a course must make up the work by the date determined by the instructor, in consultation with the student, which may not exceed one calendar year, or the last day of the term of graduation, whichever comes first. An I grade not removed according to this rule shall automatically convert to a grade of F or U, or the lapse grade assigned by the course instructor, and shall be indicated on the student’s record.

The grades of S and U may be used to designate satisfactory and unsatisfactory performance, respectively, in continuing education, workshop, and institute courses upon the recommendation of the department offering the course. No more than 6 hours total of graduate courses graded S are permitted to count toward a degree. An exception to this rule is that in courses numbered 800 or above for which Graduate Council authorization has been given, the instructor may report a grade of S for students who have satisfactorily attended the course but for whom it has not been possible to evaluate the quality of performance. The S and U grades are not used in computing the grade-point average.

The Credit/No Credit option is authorized for graduate students. For graduate students, the grade of CR will be received for grades of C and above, and the grade of NC (no credit) will be received for grades of C– and below.

No course graded CR or NC can count toward the satisfaction of the requirements for a graduate degree or a graduate certificate. This prohibition includes any courses taken to meet the Research Skills and Responsible Scholarship requirement. Please see the Research Skills and Responsible Scholarship policy in the Doctoral Degree Requirements section of this catalog for more information.

The individual schools have the option of using or not using +/-, according to the policy adopted by the particular school. B– does not represent satisfactory work in graduate studies.

In the grading system defined above, at least a B average is required on course work counted toward any of the master’s degrees or the Specialist in Education degree at KU, and only courses graded A, B, or C (excluding C–) may be so counted. Course work counted toward a doctorate, including that for a master’s degree if obtained at KU, should average at least a B or better. Courses graded P, S, U, or I are excluded from the computation of the average.

Performance is graded Honors, Satisfactory, or Unsatisfactory for the following examinations:

1. The general examination for the master’s degree.
2. The general examination for the degree of Specialist in Education.
3. The comprehensive oral examination for the doctorate.
4. The final examination for the doctorate.

Graduate Credit

Three conditions must be met for a student to receive graduate credit for work satisfactorily completed at KU:

1. The student must have gained graduate admission.
2. The course must be numbered 500 level or above and have been approved for graduate credit by the appropriate school/college and the Graduate Council on the Medical Center campus.
3. The instructor must have gained appointment to the Graduate Faculty.

Credit by Examination

Credit by examination is not accepted toward graduate degrees.

Transfer Credit

Six hours of graduate credit taken at a regionally accredited graduate school may be transferred and applied to a program leading to one of the master’s degrees if the credits were taken before the final semester of enrollment at KU and have the approval of the major department and the appropriate school.

Eight hours may be approved for transfer if the student holds a baccalaureate degree from KU.

The total of transferred credit, including graduate continuing education credit and distance-learning courses taken at KU may not exceed 6 hours, or 8 if the student holds a baccalaureate from KU.

Only work graded B (3.0 on a 4.0 scale) or higher may be transferred. KU does not accept transfer credit for courses that have been graded B– or below. KU also does not accept transfer for institutes, workshops, or life/work experience. Any exceptions to this policy must be approved by the department and the Dean of Graduate Studies.

To transfer credits, the Progress to Degree form must be initiated by the student’s department.
Credit will not transfer for courses that were counted toward the requirements for an undergraduate or graduate degree, whether completed at KU or another institution.

No credit is actually transferred toward the doctorate, but programs may take relevant prior graduate work into consideration in setting up programs of study.

**Graduate Course Work Expiration Dates**

Courses completed at the University of Kansas, or transfer credits from another university, cannot be used to fulfill graduate degree requirements if these courses were completed more than ten (10) years prior to the final defense for doctoral candidates or graduation for master’s students. A request to make an exception to this policy must be approved by the program and the Dean of Graduate Studies.

**Graduate Student Oral Exams**

**Attendance**

Ideally, all members of the committee are physically present at graduate student oral examinations. For M.S. and M.S. students, this includes the final general exam, project defense or thesis defense. Ph.D. students include the doctoral comprehensive oral exam, and the doctoral final oral exam (i.e., dissertation defense).

A majority of committee members must be physically present for an examination to commence; for doctoral oral examinations, this requirement is 3 of the 5 members, for master’s oral examinations, the requirement is 2 of the 3 members.

In addition, it is required that the student being examined, the chair of the committee, and the outside committee member be physically present at the examination or defense. Mediated attendance by the student, chair, and outside member is prohibited. If a situation arises in which a member cannot be physically present, attendance via mediated means (tele/video-conferencing) is acceptable at the discretion of the committee chair.

In cases where the student prefers an examination in which all committee members are physically present, the student’s preference shall be honored.

In the event of failure of technology during the examination, all members of the committee present must concur that the examination was substantially complete. If any member of the committee dissents, the examination is considered cancelled and must be rescheduled. The committee members at remote locations must be contacted to submit their decision concerning the assessment of the examination before the exam results are recorded.

The Office of Graduate Studies will manage consideration of and decisions on exceptions to the policy outlined above. Requests for exceptions to this policy shall be submitted in writing to the Dean of Graduate Studies. If exceptions are granted, Graduate Studies will request that a member of the departmental leadership (the chair or director of graduate studies) be present at the examination.

**Committee Composition**

The majority of committee members serving on a graduate student oral examination committee in most cases are in the candidate’s department/program of study.

Ph.D. doctoral committees are composed of at least five voting members and must adhere to the following requirements:

1. The chair of the committee must hold dissertation status. If the committee has co-chairs, at least one of the co-chairs must hold dissertation status.
2. One member must meet the requirements for serving as an outside member: i.e., be a KU faculty member holding regular or dissertation graduate faculty status and is not a faculty member holding graduate status in the candidate’s department/program. The outside member represents Graduate Studies and is a voting member of the committee, has full rights to participate in the examination, and reports any unsatisfactory or irregular aspects of the examination.

Master’s committees are composed of at least three voting members and must adhere to the following requirements:

1. At least two committee members must be members of the candidate’s department/program.

**Grievance Policy and Procedures for Graduate Students**

A graduate student who believes herself or himself unfairly or unlawfully treated in an academic matter may present a grievance to the academic department or appropriate program chairperson. Each academic unit has established grievance policies and procedures. Concerns regarding illegal discrimination or harassment should be reported to the Equal Opportunity Office. For academic misconduct issues, see the Academic Misconduct policy in this section of the catalog.

The grievance procedure may not be used as an appeal for a grade. Grades should be appealed at the department or program level. Committees established at the department, program or school level to hear grievances proceed in accordance with their own specific procedures and make recommendations to the appropriate administrative officers as provided in those procedures. Appeals from the decision of a department or program or school must be made to the Dean of Graduate Studies.

The appellate process is designed to ensure that due process has been afforded an individual in the initial hearing. The Dean of Graduate Studies will appoint the committee chair from the membership of the KUMC Graduate Council. Two other members will be selected by the chair from the Graduate Council and one other graduate faculty member selected by the student complainant and a second graduate faculty member selected by the accused. The selection of these faculty members shall be acceptable to both parties. A student member will be selected by the President of the Graduate Student Council. Care should be taken to ensure that none of the members has a conflict of interest in this case.

This committee will examine all pertinent documents including student records and interview the parties directly involved in the complaint as well as other parties deemed necessary. Minutes of testimony will be provided to both the complainant and accused parties after the hearing is completed. It is essential that all parties retain confidentiality of information gained through the hearing process. Both parties will be provided an opportunity to respond to the minutes in writing before the committee’s final recommendation is forwarded to the Dean of Graduate Studies who will make the final determination. The documents provided to the grievance committee will be retained in the Office of Graduate Studies for a period of three years, after which time they will be destroyed. There is no further appeal.
Independent Study

Independent study is a research experience or directed readings independently pursued through an academic department. Students should contact their academic department to discuss independent study opportunities to investigate a special research problem or directed readings in an area not covered by regular courses.

Intellectual Property Policy

All enrolled students are subject to the Board of Regents and KU Intellectual Property Policies. The ownership of student works submitted in fulfillment of academic requirements is retained by the creator(s). By enrolling, the student gives the institution a nonexclusive royalty-free license to mark on, modify, retain the work in the process of instruction, or otherwise handle the work, as set out in the institution’s Intellectual Property Policy or in the course syllabus. The institution does not have the right to use the work in any other manner without the written consent of the creator(s).

Leave of Absence

The Office of Graduate Studies may grant a leave of absence (LOA) from an academic program for up to one year, with the possibility of extension. The student must make a written request for a leave of absence from their academic program and submit to their program. The program forwards the student’s request along with the program’s recommendation to the Dean of Graduate Studies for approval. If approved, the time on leave from the academic program will not be counted toward the maximum time granted to complete a degree (doctoral, 8 years; master’s, 7 years).

Post-Comprehensive Enrollment for Doctoral Candidates

Doctoral candidates are required, after passing the comprehensive oral examination, to be continuously enrolled in one or more hours of dissertation that both moves the student towards degree completion and reflect, as accurately as possible, the candidate’s demands on faculty time and university facilities. During this time, until all requirements for the degree are completed (including the filing of the dissertation) or until 18 post-comprehensive hours have been completed (whichever comes first), the candidate must enroll for a minimum of 6 hours a semester and 3 hours a summer session.

Post-comprehensive enrollment may include enrollment during the semester or summer session in which the comprehensive oral examination has been passed. If after 18 hours of post-comprehensive enrollment the degree is not completed, the candidate must continue to enroll each semester and each summer session until all degree requirements have been met. The number of hours of each enrollment are determined by the candidate’s advisor and must reflect as accurately as possible the candidate’s demands on faculty time and university facilities.

Posthumous Degrees

In order to recognize the achievement of students who have died, the University of Kansas may grant undergraduate, graduate and professional degrees posthumously. This policy applies to deceased students who were in good academic standing at the time of death and enrolled for their final semester at the University of Kansas, as determined by the dean of the school or college. Requests for posthumous degrees must be initiated by the student’s academic department and approved by the dean of the school or college conferring the degree. Each case will be determined on its own merits.

The dean of the school or college posthumously conferring the degree should contact the Office of the University Registrar to confirm the correct information for the degree to be conferred, notify the Vice Provost for Academic Affairs, and coordinate with the Office of the Chancellor for notification to the family. Posthumous degrees are conferred during the semester in which the student was expected to graduate. The Chancellor informs the student’s family in writing of the posthumous award of the degree.

Progress to Degree Policy

The Progress to Degree system is used by Graduate Studies to track and monitor graduate student progress. The forms should be used to report items such as change in degree plan within the same department, change in admission status, transfer credit towards a master’s degree, master’s general exam, master’s thesis defense and oral comprehensive and final exam for PhD students. This system is used by designated faculty or staff to request Graduate Studies approval for the various functions indicated.

Research Compliance

There are certain types of research or activities that may not be pursued unless specific prior approval and/or training has been obtained. Students should refer to KUMC Office of Compliance (http://www.kumc.edu/compliance.html) policies.

Student Responsibilities

All graduate students are responsible for informing themselves of requirements and policies of the Office of Graduate Studies. They are also expected to be familiar with the regulations and requirements of their departments and of their graduate programs. Program Graduate Directors and Office of Graduate Studies staff are ready to answer questions and offer counsel. It is each graduate student’s responsibility to know and observe all regulations and procedures relating to the graduate degree program the student is pursuing. In no case will a regulation be waived or an exception be granted because students plead ignorance of, or contend that they were not informed of, requirements, regulations, procedures, and deadlines. Responsibility for following all policies and meeting all requirements and deadlines rests with the student.

Undergraduate Enrollment in Graduate-Level Courses

Well-qualified undergraduate students may be permitted to enroll in 800- or 900-level courses for undergraduate credit with the approval of the instructor and the student’s advisor. The student must bring a Count Towards Degree form signed by the instructor, a letter of explanation and recommendation from the advisor, and current academic record to the Office of Graduate Studies for approval. If approved, the Office of Graduate Studies signs the Count Towards Degree form, which the student must present to the staff in the Student Records Center to enroll in the courses. Courses taken for undergraduate credit may not be transferred to graduate credit.
Applied English

Applied English Center

Applied English Center courses provide English language instruction to non-native speakers of English. All students whose native language is not English, including international students and residents or citizens of the United States, are required by the Faculty Senate Rules and Regulations (http://www.policy.ku.edu) to enroll in the English language courses, if any, specified for them by the AEC before enrolling in any academic work.

Admission to KU does not constitute a waiver of the University of Kansas English proficiency requirement. Students may be required to take the English Proficiency Exam and may be required to take courses with the Applied English Center.

Courses labeled 140 and above and AECT 101 are available for credit toward an undergraduate degree. To receive a grade of Credit, students must receive a grade of A, B, or C in the course. Transcripts show No Credit for these courses in which students receive a grade of D or F.

A maximum of 9 hours of credit may count toward undergraduate degrees in the College of Liberal Arts and Sciences and the School of Business. A maximum of 6 hours of credit may count toward undergraduate degrees in the School of Architecture, Design and Planning. Consult an advisor in the College or school for details.

Courses

AEC 5. Short Term Program with Applied English Center Course Enrollment: _____ 1-16 Hours. U.
Skill-based special topics at appropriate level(s) for short term program students attending core AEC courses for a partial term. Prerequisite: Placement in this course by the Applied English Center. LEC.

AEC 6. Anticipated Future Applied English Center Credit Hours. 1-16 Hours. U.
This course is a placeholder for future anticipated Applied English Center credit hour enrollment. Prerequisite: Placement in this course by the Applied English Center. LEC.

AEC 7. Short Term Programs Self-Contained Enrollment: _____ 1-16 Hours. U.
Specialized English language courses for short term program students. Courses focus on the use of English in particular fields of study or employment based on program objectives. Prerequisite: Placement in this course by the Applied English Center. LEC.

AEC 10. Diagnostic Tests for Level 1. 1-16 Hours. U.
Diagnostic test. Enrollment required for students who take proficiency test at semester start and place into level 1 courses. Prerequisite: Placement in this course by the Applied English Center. LEC.

AEC 11. Study Hall 1-1. 0 Hours. U.
A beginning level study hall course structured to assist students, with limited English proficiency, in learning and practicing concepts presented in core courses. Prerequisite: Placement in this course by the Applied English Center. LEC.

AEC 12. Study Hall 1-2. 0 Hours. U.
A beginning level study hall course structured to assist students with foundational English proficiency in learning and practicing concepts presented in core courses. Prerequisite: Placement in this course by the Applied English Center. LEC.

AEC 13. Study Hall 1-3. 0 Hours. U.
A beginning level study hall course structured to assist students with elementary English proficiency in learning and practicing concepts presented in core courses. Prerequisite: Placement in this course by the Applied English Center. LEC.

AEC 82. Classroom Communication for International Teaching Assistants. 3-4 Hours. U.
Practice of communication skills: pronunciation, fluency and vocabulary development, question and answer techniques, paraphrasing and discussion; video-recorded practice teaching mini-lectures or demonstrations with feedback by instructor in tutorial sessions and by other native speakers during presentations. Open only to graduate students or seniors near graduation. Four credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Students must have completed all AEC courses except AECG 151 or AECR 151, have a score of at least 35 on the SPEAK test; and have written permission from the Applied English Center. LEC.

AEC 90. English Proficiency Test. 0 Hours. U.
Final proficiency test. Required of all students enrolled in one or more Applied English Center courses, except AEC 82. Graded satisfactory/unsatisfactory. LEC.

AEC 150. Advanced English for Academic Purposes 5. 6-7 Hours. U.
A content-based combined skills course offering advanced instruction in university-level written and spoken materials. Students are required to write response papers, essays, and a research paper, as well as take essay tests and make oral presentations. Additional objectives of this course include developing notetaking skills in lectures and completing a portfolio for assessment at midterm and semester end. Seven credits in the fall and spring semesters; six credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

AECG 11. Grammar for Communication for Academic Purposes 1-1. 3-5 Hours. U.
A beginning level communicative course designed to help students with limited English proficiency acquire essential vocabulary and rudimentary sentence- and discourse-level grammar to begin expressing meaning appropriately and accurately in spoken and written English. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

AECG 12. Grammar for Communication for Academic Purposes 1-2. 3-5 Hours. U.
A beginning level communicative course designed to help students with foundational English proficiency gain basic vocabulary and sentence- and discourse-level grammar to continue expressing meaning appropriately and accurately in spoken and written English. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

AECG 13. Grammar for Communication for Academic Purposes 1-3. 3-5 Hours. U.
A beginning level communicative course designed to help students with elementary English proficiency increase basic vocabulary and sentence- and discourse-level grammar to further express meaning appropriately and accurately in spoken and written English. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

AECG 20. Grammar for Communication for Academic Purposes 2. 3-5 Hours. U.
A lower-intermediate level communicative course designed to help students build conventional sentence- and discourse-level grammar and
vocabulary to expand their ability to express meaning appropriately and accurately in spoken and written English. At this level, students practice increasingly complex sentence structures and vocabulary in a wide variety of in-class and out-of-class activities, including group projects. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

AECG 30. Grammar for Communication for Academic Purposes 3. 3-5 Hours. U.
An upper-intermediate level communicative course designed to help students increase conventional sentence- and discourse-level grammar and vocabulary to advance their ability to express meaning appropriately and accurately in spoken and written English. At this level, students continue to learn and practice increasingly complex sentence structures and vocabulary in a wide variety of in-class and out-of-class activities, including group projects. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

AECG 140. Grammar for Communication for Academic Purposes 4. 3-5 Hours. U.
A low-advanced level communicative course designed to help students better understand sentence- and discourse-level grammar and vocabulary to support their ability to express meaning appropriately and accurately in spoken and written English. At this level, students master increasingly complex sentence structures and vocabulary through practice in a wide variety of in-class and out-of-class activities. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

AECG 151. Special Studies in Grammar for Communication 5-1. 3-4 Hours. U.
An individualized course combining in-class and on-line work designed to help upper-advanced level students better review sentence- and discourse-level grammar and vocabulary to support their ability to identify, analyze, and correct errors in writing. In this course, students write weekly essays in the AEC computer lab and receive feedback and individualized grammar assignments via e-mail. Students also have several face-to-face conferences with their instructor and must use review skills to write a passing essay within a designated time limit. Four credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

AECG 152. Special Studies in Grammar for Communication 5-2. 2 Hours. U.
An individualized course combining in-class and on-line work designed to help high-advanced level students better review sentence- and discourse-level grammar and vocabulary to support their ability to identify, analyze, and correct errors in writing. In this course, students write weekly essays in the AEC computer lab and receive feedback and individualized grammar assignments via e-mail. Enrollment in this course is intended for students requiring less intensive special studies instruction. Prerequisite: Placement in this course by the Applied English Center. LEC.

AEC 11. Listening and Speaking for Academic Purposes 1-1. 3-5 Hours. U.
A beginning level course designed to provide students with limited English proficiency practice in pronunciation, fluency, vocabulary development, and comprehension. Students work with several topics during the semester, building listening and note-taking skills in academic and conversational texts. Speaking and presentation skills include discussing and summarizing the content of oral text, creating and editing recorded work, and using computer programs to create visual aids for large group presentations. Written work is also required. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

AECG 12. Listening and Speaking for Academic Purposes 1-2. 3-5 Hours. U.
A beginning level course designed to provide students with foundational English proficiency practice in pronunciation, fluency, vocabulary development, and comprehension. Students work with several topics during the semester, expanding listening and note-taking skills in academic and conversational texts. Speaking and presentation skills include discussing and summarizing the content of oral text, creating and editing recorded work, and using computer programs to create visual aids for large group presentations. Written work is also required. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

AECG 13. Listening and Speaking for Academic Purposes 1-3. 3-5 Hours. U.
A beginning level course designed to provide students with elementary English proficiency practice in English pronunciation, fluency, vocabulary development, and comprehension. Students work with several topics during the semester, improving listening and note-taking skills in academic and conversational texts. Speaking and presentation skills include discussing and summarizing the content of oral text, creating and editing recorded work, and using computer programs to create visual aids for large group presentations. Written work is also required. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

AECG 30. Grammar for Communication for Academic Purposes 3. 3-5 Hours. U.
A high-intermediate level course designed to provide students practice in pronunciation, fluency, vocabulary development, and comprehension. Students work with several topics during the semester, advancing listening and note-taking skills in academic and conversational texts. Speaking and presentation skills include leading panel discussions, creating and editing digital recordings, and developing formal class presentations using computer programs. Written work is also required. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

AECG 20. Grammar for Communication for Academic Purposes 2. 3-5 Hours. U.
A lower-intermediate level course designed to provide students practice in pronunciation, fluency, vocabulary development, and comprehension. Students work with several topics during the semester, furthering listening and note-taking skills in academic and conversational texts, while also developing content discussion and summarization skills. Speaking and presentation skills include leading panel discussions, creating and editing digital recordings, and developing formal class presentations using computer programs. Written work is also required. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

AECG 30. Listening and Speaking for Academic Purposes 3. 3-5 Hours. U.
A high-intermediate level course designed to provide students practice in pronunciation, fluency, vocabulary development, and comprehension. Students work with several topics during the semester, advancing listening, note-taking, and content discussion skills, while also learning to respond to oral texts, give presentations, and participate in classroom discussions. Written work is also required. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

AEC 140. Listening and Speaking for Academic Purposes 4. 3-5 Hours. U.
A lower-advanced level course designed to provide students practice in pronunciation, fluency, comprehension, and vocabulary development, with an emphasis on college-level content. Students work with and listen to lectures and interviews to better understand oral material and improve note-taking, content discussion, interview, summarization, and presentation skills in an advanced setting. Written work and analysis are also required. Five credits in the fall and spring semesters; three credits
in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

**AECR 11. Reading and Writing for Academic Purposes 1-1. 3-5 Hours. U.**

A beginning level course designed to teach students with limited English proficiency strategies to begin reading and writing. Emphasis is placed on taking notes from academic texts to demonstrate and develop students’ understanding of the organization of English writing. At this level, students focus on establishing writing fluency and building a foundation of high-frequency vocabulary. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

**AECR 12. Reading and Writing for Academic Purposes 1-2. 3-5 Hours. U.**

A beginning level course designed to teach students with foundational English proficiency strategies for improving their reading and writing. Emphasis is placed on taking notes from academic texts to demonstrate and build students’ understanding of the organization of English writing. At this level, students focus on increasing writing fluency and expanding their base knowledge of high-frequency vocabulary. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

**AECR 13. Reading and Writing for Academic Purposes 1-3. 3-5 Hours. U.**

A beginning level course designed to teach students with elementary English proficiency strategies for accelerating their reading and writing. Emphasis is placed on taking notes from academic texts to demonstrate and further students’ understanding of the organization of English writing. At this level, students focus on enhancing writing fluency and expanding their general knowledge of high-frequency vocabulary. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

**AECR 15. Reading and Writing for Academic Purposes 1-5. 3-5 Hours. U.**

A beginning to lower-intermediate level course designed to teach students with elementary English proficiency strategies for advancing their reading and writing. Emphasis is placed on taking notes from academic texts to demonstrate and promote students’ understanding of the organization of English writing. At this level, students focus on progressing writing fluency and broadening their general knowledge of high-frequency vocabulary. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

**AECR 20. Reading and Writing for Academic Purposes 2. 3-5 Hours. U.**

A low-intermediate level course designed to teach and reinforce strategies for improving students’ academic reading and writing. At this level, emphasis is placed on writing complex sentences and paragraphs to strengthen fluency and vocabulary. Additional competencies developed in this course include writing essays and integrating ideas from several sources into academic writing. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

**AECR 30. Reading and Writing for Academic Purposes 3. 3-5 Hours. U.**

A high-intermediate level course designed to teach and promote strategies for improving students’ academic reading and writing. At this level, emphasis is placed on improving fluency, building vocabulary, and developing academic skills, including summarizing, responding to test questions, and integrating ideas from several sources. Additional objectives emphasized in this course include furthering critical reading and writing skills as well as producing a research paper. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

**AECR 140. Reading and Writing for Academic Purposes 4. 3-5 Hours. U.**

A low-advanced level course designed to teach and promote strategies for improving students’ academic reading and writing. At this level, students work to achieve a high level of fluency, vocabulary, and academic skills, including summarizing, responding to test questions, and integrating ideas from several sources. Additional objectives emphasized in this course include furthering critical reading and writing skills as well as producing a research paper. Five credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

**AECL 151. Special Studies in Reading and Writing 5-1. 3-4 Hours. U.**

A high-advanced level course designed to help polish student’s strategies for academic reading and writing in preparation for college-level coursework. Continued emphasis is placed on increasing fluency, building vocabulary, and developing academic skills, such as note taking and summarization. To help transition skills to a collegiate setting, students work with university course material from a variety of academic areas. Four credits in the fall and spring semesters; three credits in the summer term. Prerequisite: Placement in this course by the Applied English Center. LEC.

**AECL 152. Special Studies in Reading and Writing 5-2. 2 Hours. U.**

A high-advanced level course designed to help polish student’s strategies for academic reading and writing in preparation for college-level coursework. Continued emphasis is placed on increasing fluency, building vocabulary, and developing academic skills, such as note taking and summarization. To help transition skills to a collegiate setting, students work with university course material in a variety of academic areas. Enrollment in this course is intended for students requiring less intensive special studies instruction. Prerequisite: Placement in this course by the Applied English Center. LEC.

**AECS 150. Laboratory Practice. 1-2 Hours.**

Advanced language practice in a laboratory setting designed to coincide with the level 5 capstone course. Emphasis is placed on refining grammar skills, with additional opportunities provided to practice speaking, listening, and reading skills. Prerequisite: Placement in this course by the Applied English Center. Requisite: AEC 150. LAB.

**AECT 1. Special Enrollment in English as a Second Language Non-Credit Tutorial: _____ 1-16 Hours. U.**

Individualized schedule of instruction in one or more language skills at appropriate level(s) for students enrolling in level 1, 2, or 3 AEC courses. Prerequisite: Placement in this course by the Applied English Center. LEC.
AECT 82. Tutorial in Classroom Communication for International Teaching Assistants: ______. 2-4 Hours. U.
Improve English communication skills: work on pronunciation and grammatical accuracy and fluency using speech recognition software and by presenting mini-lectures that are video recorded for review. Receive individual feedback and prioritization of tasks in weekly tutorial. Special emphasis is placed on classroom communication strategies. Open only to graduate students or seniors near graduation. Variable hour enrollment dependent on student need. Prerequisite: Students must have completed all AEC courses except AECG 151 or AECR 151, have a score of at least 35 on the SPEAK test, and have written permission from the Applied English Center. LEC.

AECT 101. Special Enrollment in English as a Second Language For-Credit Tutorial: _____. 1-16 Hours. U.
Individualized schedule of instruction in one or more language skills at appropriate level(s) for students enrolling in level 4 or 5 AEC courses. Prerequisite: Placement in this course by the Applied English Center. LEC.
The University of Kansas is one of only 37 U.S. universities with a full offering of Army, Air Force, and Naval ROTC programs. These programs are integrated into the mainstream of campus activities. All ROTC programs offer scholarships that pay tuition and fees, furnish books and uniforms, and provide a monthly living allowance.

Students in ROTC pursue regular courses toward a degree and augment their studies with courses from the Departments of Military Science, Aerospace Studies, or Naval Science. These courses may be crosslisted with a professional school or reviewed on an individual basis by the Assembly of the College of Liberal Arts and Sciences (http://clas.ku.edu) for accreditation toward degree requirements.

On successful completion of requirements and graduation from KU, Army or Air Force ROTC cadets are commissioned as Army or Air Force Second Lieutenants, and Naval ROTC Midshipmen are commissioned either as Ensigns in the Navy or as Second Lieutenants in the Marine Corps.

Programs
Graduation requirements and regulations for every academic program are provided in this catalog. Degree requirements and course descriptions are subject to change. In most cases, you will use the catalog of the year you entered KU (see your advisor (http://www.advising.ku.edu) for details). Other years' catalogs

Army - Army: Department of Military Science
Air Force - Air Force: Department of Aerospace Studies
Navy - Navy: Department of Naval Science

Army: Department of Military Science

The Program
The Department of Military Science administers the Army Reserve Officers Training Corps program at KU. The military science curriculum provides a student with unique leadership and management training, along with practical experience. It develops qualities basic to success in the Army and in the civilian sector. It also offers the student the opportunity to earn an officer's commission in the Army.

Eligible students enrolled at KU may register for a 100- or 200-level military science course or for ARMY 303 or ARMY 450. These students receive credit if the course they are enrolled in has been approved for degree credit in the College of Liberal Arts and Sciences (http://clas.ku.edu). The credit does not count toward the required 100 hours in the College for students earning a baccalaureate degree in the College of Liberal Arts and Sciences.

Students who want to receive a commission in the Army through the ROTC program must meet the eligibility requirements of Section 2103, Title 10, U.S. Code, and current Department of Defense and Department of the Army guidelines.

4-Year Program
The 4-year Army ROTC program is made up of a basic course and an advanced course.

Basic Course
The basic course is taken during the first 2 years of college. It covers subjects such as organizational behavior, leadership, management, ethics, writing, public speaking, military affairs, and tactics. All necessary textbooks, classroom materials, uniforms, and other equipment are furnished at no cost. Students who have completed the basic course; have met academic, physical, and medical standards; and have the potential to serve as officers may enter the advanced course.

The basic course is composed of a total of 4 courses. A student may enter the basic course at one of 3 points (if eligible).

1. Entering First-Semester First-Year Students
First semester:
ARMY 101 Introduction to Military Science I 1
Second semester:
ARMY 102 Introduction to Military Science II 1
Third semester:
ARMY 201 Basic Military Science I 1
Fourth semester:
ARMY 202 Basic Military Science II 1

2. Entering Second-Semester First-Year Students
First semester:
ARMY 102 Introduction to Military Science II 1
Second semester:
ARMY 101 Introduction to Military Science I 1
ARMY 201 Basic Military Science I 1
Third semester:
ARMY 202 Basic Military Science II 1

3. Entering Third Semester (Sophomore Year)
First semester:
ARMY 101 Introduction to Military Science I 1
ARMY 102 Introduction to Military Science II 1
Second semester:
ARMY 201 Basic Military Science I 1
ARMY 202 Basic Military Science II 1
Advanced Course

The advanced course normally is taken during the final 2 years of college. It offers instruction in military organization, tactics, military law, Army administration, and leadership. All necessary books, classroom supplies, uniforms, and other equipment are issued to students at no cost. During the summer between the junior and senior years of college, students must attend the Leadership Development and Assessment Camp, a fully paid, five-week training and evaluation course. LDAC gives each student the chance to practice for an extended period of time what they have learned in the classroom. All students contracted in the advanced course receive stipends from the government of up to $5,000 a year.

The advanced course is composed of a total of 4 courses.

First Year

First semester:
ARMY 301 Theory and Dynamics of Tactical Operations I 3
Second semester:
ARMY 302 Theory and Dynamics of Tactical Operations II 3

Second Year

First semester:
ARMY 401 Concepts of Military Management 3
Second semester:
ARMY 402 The Military Profession 3

2-Year Program

Students can receive credit for the basic course in 3 ways other than taking the 4 courses associated with the basic course. Students who complete the basic course by 1 of these alternate means can enroll in basic course classes but cannot enroll in the advanced course until they are academic juniors. Any upper-level student, junior through graduate, may earn a commission through the 2-year program. The 3 alternate ways to receive basic course credit are:

1. Successfully completing the basic enlisted training offered by any of the armed services.
2. Successfully completing the ROTC Leadership Training Course held each summer (prerequisite to ARMY 301).
3. Successfully completing at least 4 years of high school Junior ROTC.

Professional Military Education Course

The following course is required for commissioning:

Military History. Gain an understanding of the evolution of warfare, military theory, the military profession, and the place of military institutions in American society. The requirement can be met by successfully completing a history course focusing on either a major war or on military history in general. ROTC courses also meet this requirement.

Scholarships and Financial Assistance

Army ROTC offers 2-, 3-, and 4-year scholarships to qualified students. Scholarships are awarded on a competitive basis to students with outstanding academic and leadership abilities. These scholarships pay for all tuition, required fees, $1,200 a year for books and other supplies, and a stipend of up to $5,000 a year. Special consideration is given to students who major in nursing, engineering, or the sciences. The Kansas Army National Guard offers numerous educational benefits such as the Board of Regents Scholarship.

Army National Guard and Army Reserve Students

Students who are members of the Army National Guard or the Army Reserve may enroll in Army ROTC classes and be members of their units at the same time. Once students enter a contractual agreement as early as their sophomore year, they can remain members of their units under the Simultaneous Membership Program. These students are still eligible for all military benefits they have earned under enlisted contract such as Tuition Assistance, GI Bill, and drill pay; additionally, they may compete for guaranteed reserve forces designated ROTC scholarships if they commit to commissioning to the Army Reserve or Army National Guard.

Courses

ARMY 10. Leadership Laboratory. 0 Hours. U. Required of all Army Cadets. A study of Army customs and courtesies, drill and ceremony, career opportunities in the Army, and the life and work of a junior Army officer. Cadets develop leadership potential through practical supervised training. Course must be taken in conjunction with ARMY 101, 102, 201, 202, 301, 302, 401, and 402. Course not approved for credit in the College of Liberal Arts and Sciences. LAB.

ARMY 101. Introduction to Military Science I. 1 Hour. U. Required introductory course for the Army military science program. Course is comprised of one hour of lecture and one hour of laboratory per week. Introduces the military science program as an element of the reserve forces and includes an examination of major legislation, the Army organization structure, and military leadership techniques. Approved for degree credit in the College of Liberal Arts and Sciences. Such courses count within the limit of 25 hours accepted from other schools and divisions. LAB.

ARMY 102. Introduction to Military Science II. 1 Hour. U. Course comprised of one hour of lecture and one hour of leadership laboratory per week. A general study and appreciation of the American military system from colonial times to the present. The course identifies factors present in the American society and national policy in each particular historical period which influenced the development of American military systems. The relationship between the military establishment and the larger American society is examined in each historical period. Approved for degree credit in the College of Liberal Arts and Sciences. Such courses count within the limit of 25 hours accepted from other schools and divisions. Prerequisite: ARMY 101 or department approval. LEC.

ARMY 201. Basic Military Science I. 1 Hour. U. Course comprised of one hour of lecture and one hour of laboratory per week. Analyzes the principles of war and military leadership at small unit level, and introduces principles of military writing. Approved for degree credit in the College of Liberal Arts and Sciences. Such courses count within the limit of 25 hours accepted from other schools and divisions. Prerequisite: ARMY 102 or department approval. LAB.

ARMY 202. Basic Military Science II. 1 Hour. U. Course is comprised of one hour of lecture and one hour of leadership laboratory per week. Curriculum consists of the fundamentals of topographic map reading and their application in a field environment. Includes instruction in various types of maps, marginal information, topographic symbols and colors, scale, distance, direction and use of
the magnetic compass. Approved for degree credit in the College of Liberal Arts and Sciences. Such courses count within the limit of 25 hours accepted from other schools and divisions. Prerequisite: ARMY 201 or department approval. LAB.

**ARMY 301. Theory and Dynamics of Tactical Operations I. 3 Hours. U.**
Course is comprised of three hours of lecture and two hours of leadership laboratory per week. A comprehensive study of conventional tactical operations. Emphasizes the fundamentals of land warfare and the qualities necessary to conduct fluid, non-linear operations. Introduces the student to the tenets of Air-Land Battle, the underlying structure of modern warfare, the dynamics of combat power, and the application of classical principles of war to a contemporary battlefield. Approved for degree credit in the College of Liberal Arts and Sciences. Such courses count within the limit of 25 hours accepted from other schools and divisions. Prerequisite: ARMY 302 or department approval. LEC.

**ARMY 302. Theory and Dynamics of Tactical Operations II. 3 Hours. U.**
Course is comprised of three hours of lecture and two hours of leadership laboratory per week. Expands on the application of conventional tactical operations in the low, medium, and high intensity conflict spectrum. Examines the three-dimensional nature of modern warfare and the unified battlefield. Approved for degree credit in the College of Liberal Arts and Sciences. Such courses count within the limit of 25 hours accepted from other schools and divisions. Prerequisite: ARMY 301 or department approval. LEC.

**ARMY 303. Military Conditioning. 1 Hour. U.**
Introduction to the theoretical and practical aspects of developing physical fitness programs for all Army personnel from the commander or supervisor’s perspective. Provides an overview of total fitness, defines physical fitness, outlines the phases of fitness, discusses various types of fitness programs, and presents evaluation criteria. Approved for degree credit in the College of Liberal Arts and Sciences, to count within the limit of 25 hours accepted from other schools and divisions. LEC.

**ARMY 304. Concepts of Military Management. 3 Hours. U.**
Course is comprised of three hours of lecture and two hours of leadership laboratory per week. An introduction to the military management system with special attention to the functions, organizations, and operations of military training, logistics and administration. The use of standardized staff formats in the development of plans and orders is emphasized from the standpoint of the leader with limited resources. Extensive use of standard staff procedures is emphasized in problem solving scenarios. Approved for degree credit in the College of Liberal Arts and Sciences. Such courses count within the limit of 25 hours accepted from other schools and divisions. LEC.

**ARMY 401. Leadership and Management. 3 Hours. U.**
Introduction to the theoretical and practical aspects of developing leadership skills for all Army personnel from the commander or supervisor’s perspective. Provides an overview of total leadership, defines leadership, outlines the phases of leadership, discusses various types of leadership programs, and presents evaluation criteria. Approved for degree credit in the College of Liberal Arts and Sciences, to count within the limit of 25 hours accepted from other schools and divisions. LEC.

**ARMY 402. The Military Profession. 3 Hours. U.**
Course is comprised of three hours of lecture and two hours of leadership laboratory per week. A seminar on the military profession as an object of study. Focus is on the internal structure of the profession, current problems, and interaction with the larger American society. Seminar topics include but are not limited to the following: a historical perspective on the military profession; civil-military relations; social and political impact of military activities; military justice; professionalism versus careerism. Approved for degree credit in the College of Liberal Arts and Sciences. Such courses count within the limit of 25 hours accepted from other schools and divisions. Prerequisite: ARMY 401 or department approval. LEC.

**ARMY 450. Military Analysis. 1 Hour. U.**
A study of present and future military operations; emphasis placed on analysis of problem. The student will defend his/her analysis through written and oral presentations. Prerequisite: Permission of department chairperson. LEC.

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**Reserve Officers Training Corps - Air Force**

**The Program**
The Air Force Reserve Officer Training Corps program trains intelligent, energetic, and dedicated men and women for service as second lieutenants in the United States Air Force. To accomplish this, the Air Force, with approval of KU, has established a curriculum that allows commissioning in 3- to 4-year programs.

**Air Force: Department of Aerospace Studies**

Detachment 280, Military Science Building
1520 Summerfield Hall Drive, Room 109
Lawrence, KS 66045-7554
785-864-4676
http://www.afrotc.ku.edu/

Lieutenant Colonel Brian R. Salmons, Chair
785-864-4676

**4-Year Program**
The Air Force ROTC program is divided into the General Military Course (GMC) and the Professional Officer Course (POC). The program is for high-school scholarship recipients as well as those without scholarships. All cadets not on scholarship are eligible to compete for in-college scholarships, which are awarded based on GPA, physical fitness, commander’s ranking, and academic degree. Scholarships support tuition and fees, along with a nontaxable subsistence allowance. Scholarship recipients receive $900 a year for books. Please visit www.afrotc.com for more information about scholarships.

Although most AFROTC cadets complete the program in 4 years, students can join the program in their sophomore year by taking all GMC courses in one year. Certain majors such as engineering and atmospheric science are 5-year degrees, thus extending the student’s time in the program. More information can be obtained by contacting the Air Force ROTC office.

The General Military Course (GMC, Foundations of the USAF, Airpower History) is offered during the first 2 years of college and constitutes an introduction to the present-day Air Force. The emphasis is on the role of military forces in world affairs, customs and courtesies, being an officer, professionalism, the mission and organization of the Air Force, and the history of air power. If the cadet is medically and academically qualified and successfully completes 4 weeks of Field Training, he or she may enter the POC during the junior and senior years.

The Professional Officer Course (POC, Leadership Studies, National Security Studies) teaches leadership and management, organizational patterns, technologies, military policies and procedures, and provides an in-depth study of national security affairs. Cadets also learn and practice
communication, leadership, and management skills. POC cadets receive a nontaxable subsistence allowance.

**Current Subsistence Allowance for Contracted Cadets**  
(authorized Oct. 1, 2007)

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<tr>
<th>First-Year</th>
<th>Sophomore</th>
<th>Junior</th>
<th>Senior</th>
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<tr>
<td>$300</td>
<td>$350</td>
<td>$400</td>
<td>$500</td>
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All aerospace studies textbooks and uniforms for ROTC are provided free of charge.

**Air Force Career Fields**

Cadets commissioned from AFROTC are called to active duty in such diverse career fields as pilot, combat systems officer, engineering, nursing, space and missile officer, aircraft maintenance, personnel, air traffic control, space control, finance, scientist, contracting, weather, security forces, and public affairs. Medical and legal opportunities are available as well. Opportunities are limited only by initiative, ability, and desire. Go to www.afrotc.com (http://www.afrotc.com) for more information about career opportunities.

**Field Training**

AFROTC Field Training is held during summer break following the cadet’s second year in the program. Cadets must receive an enrollment allocation to attend field training, which is mandatory for cadets who wish to enter the POC. Each cadet receives pay and transportation to and from field training. The major areas of study are junior officer training, career orientation, survival training, base functions, team building, and physical training. College credit is not given for attending Field Training.

**Leadership Laboratory**

The Leadership Laboratory is a noncredit, 2-hour, once-a-week course taken every semester throughout the cadet’s enrollment in AFROTC. Instruction is conducted in the framework of an organized cadet corps with a progression of experiences that develop each student’s leadership potential. Leadership Lab also includes proper wear of the uniform, military rank, and military drill and ceremony. Because physical fitness is an integral part of Air Force life, an additional 2 hours a week of physical fitness activities each week.

**Scholarships**

High school seniors may apply for Air Force ROTC guaranteed scholarships covering the 4-year college period. Some technical majors, such as engineering, are regularly approved for five-year scholarship support. Students should apply no later than December 1 of the senior year of high school. Online applications (http://www.afrotc.com) are available beginning about May of the junior year. 2- and 3-year scholarships are available to qualified college students. These are awarded competitively. Scholarships generally cover full tuition, laboratory and incidental fees, $900 a year for books, and the nontaxable subsistence allowance. Visit the website (http://www.afrotc.com) for more information and to apply online for a high school scholarship.

**Service Commitment**

Upon commissioning, the Air Force service commitment for most cadets is 4 years of active duty for most officers, 10 years for pilots, 6 years for cadets who become combat systems officers, air battle managers, or remote aircraft pilots. Certain cadets may be eligible to receive a commission directly into the guard or reserve for a commitment of 6 years.

**Courses**

**AIR 100. Leadership Laboratory. 0 Hours. U.**

The AS 100 and AS 200 Leadership Laboratory courses (LLABs) include a study of Air Force customs and courtesies, drill and ceremonies, and military commands. The LLAB also includes studying the environment of an Air Force officer and learning about areas of opportunity available to commissioned officers. The AS 300 and AS 400 LLABs consist of activities classified as leadership and management experiences. They involve the planning and controlling of military activities of the cadet corps and the preparation and presentation of briefings and other oral and written communications. LLABs also include interviews, guidance, and information which will increase the understanding, motivation, and performance of other cadets. LAB.

**AIR 144. Foundations of the USAF. 1 Hour. U.**

Survey course designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps. Featuring topics include: mission and organization of the Air Force, officer and professionalism, military customs and courtesies, Air Force officer opportunities, and an introduction to communication skills. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences. LEC.

**AIR 148. Foundations of the USAF. 1 Hour. U.**

Survey course designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps. Featuring topics include: mission and organization of the Air Force, officer and professionalism, military customs and courtesies, Air Force officer opportunities, and an introduction to communication skills. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences. LEC.

**AIR 284. Airpower History. 1 Hour. U.**

A course designed to examine general aspects of air and space power through an historical perspective ranging from the first balloons and dirigibles to space-age satellite systems and the Global War on Terrorism. Leaders, pivotal situations in peace and war, successes and failures are provided to extrapolate the development of Air Force capabilities (competencies), and missions (functions) in shaping today’s USAF air and space power. In addition, the students will continue to discuss the importance of the Air Force Core Values with the use of operational examples and historical Air Force leaders and will continue to develop their communication skills. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences. LEC.

**AIR 288. Airpower History. 1 Hour. U.**

A course designed to examine general aspects of air and space power through an historical perspective ranging from the first balloons and dirigibles to space-age satellite systems and the Global War on Terrorism. Leaders, pivotal situations in peace and war, successes and failures are provided to extrapolate the development of Air Force capabilities (competencies), and missions (functions) in shaping today’s USAF air and space power. In addition, the students will continue to discuss the importance of the Air Force Core Values with the use of operational examples and historical Air Force leaders and will continue to develop their communication skills. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences. LEC.
**AIR 344. Leadership Studies. 3 Hours. U.**
A study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing advanced leadership experiences in officer-type activities, giving students the opportunity to apply leadership and management principles of this course. LEC.

**AIR 348. Leadership Studies. 3 Hours. U.**
A study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing advanced leadership experiences in officer-type activities, giving students the opportunity to apply leadership and management principles of this course. LEC.

**AIR 400. National Security Affairs. 3 Hours. U.**
Course examines the national security process (from a military standpoint) from its birth with the Founding Fathers and the US Constitution to the joint warfighting scenarios of today. It looks at the Constitutionally established roles of the legislative and executive branches of government in dealing with defense issues during war or peacetime. It examines the current command and control structure within the Department of Defense and outlines the global responsibilities of the military, specifically of the US Air Force. This course also examines the development of National Security policy and the interrelationship between the Air Force, sister services and the Air Reserve component. Multiple classroom hours on formal military communications skills (writing and briefing) are included. The course culminates with a look at current political trends and U.S. defense policy decisions in some of the world’s major geographical areas. A mandatory Leadership Laboratory complements this course by providing advanced leadership experiences giving students the opportunity to apply leadership principles in a dynamic setting. LEC.

**AIR 404. National Security Affairs. 3 Hours. U.**
Course examines U.S. National Security Policy as it relates to major geographical regions and political issues across the world. It also covers multiple legal, social and policy structures/procedures that Air Force officers and commanders face day-to-day. Air Force communications techniques, formal writing and speaking, are covered in detail. The latter part of the course addresses situations that new officers will encounter in their first few assignments. LEC.

**Navy: Department of Naval Science**

**The Program**

Courses in naval science include both practical and theoretical instruction in subjects pertaining to the Navy and the Marine Corps. The **Navy-option** student receives 23 credit hours of naval science instruction over a period of 4 years. The **Marine-option** student receives 17 credit hours of instruction. Additionally, there is a 1-credit-hour naval science laboratory meeting every semester for 4 years. Laboratory sessions integrate and apply knowledge gained from naval science courses through practical application during tactical planning exercises, leadership training, and professional development. They also include classroom instruction on issues relating to naval careers and policies and some close-order drill.

**Navy: Department of Naval Science**

**Military Science Building**
1520 Summerfield Hall Drive. Room 115
Lawrence, KS 66045-7554
785-864-3161
http://www2.ku.edu/~kunrotc/

Captain David D. Schweizer, Chair
785-864-3161

**Admissions**

Male and female citizens of the United States who are 17 years old on or before September 1 of the year of initial enrollment may apply.

- **Scholarship** applicants must not have reached age 27 on June 30 of the year in which they will be commissioned.
- **College Program** students must not have reached age 27½ on June 30 of the year in which they will be commissioned.

Age waivers may be available to students with active duty military backgrounds. Please contact the NROTC office for details. All students must be physically qualified for the NROTC program and must enter into an agreement with the Secretary of the Navy to accept a commission, if offered, in the Navy or Marine Corps upon successful completion of work toward their first bachelor's degree.

**4-Year Scholarship NROTC Students**

Students may apply for scholarships in the fall preceding the year in which the scholarship is desired (January 1 deadline). Selection is based on high school grades, SAT/ACT test results, and aptitude for naval service.

If selected, students are appointed midshipmen and granted compensation and benefits specified by law. These benefits include tuition, required fees, laboratory equipment, a $750-a-year book stipend, and subsistence pay of $250 a month for first-year students. Subsistence pay increases to $300 a month for sophomores, $350 for juniors, and $400 for seniors.

Scholarship students participate in 3 required summer training cruises. Scholarship students assume an obligation to serve at least 5 years on active duty after commissioning as Ensign, U.S. Navy, or 4 years as Second Lieutenant, U.S. Marine Corps.

**4-Year College Program NROTC Students**

These NROTC students have the status of civilians who have entered into an agreement with the Navy. They are not entitled to all the benefits and compensation given to scholarship NROTC students but are entitled to uniform issue. A subsistence allowance of $350 a month for juniors and $400 for seniors is paid in the final two years of training.
These students participate in one summer cruise between their junior and senior years. College program students agree to accept commissions in the Naval or Marine Corps Reserve and serve a minimum of three years on active duty.

Upon proven superior performance in the college program, students may be offered 3- or 2-year scholarships with the same requirements and benefits as 4-year scholarship students.

2-Year Programs

Entrance into the 2-year scholarship or college programs is offered to qualified students with 2 years remaining to complete their undergraduate degrees. Students applying for the 2-year scholarship must have completed 1 year of differential and integral calculus of 1 real variable (MATH 115 and MATH 116, or MATH 121 and MATH 122) and must have attained a minimum grade of C. View the Placement Table for Initial Enrollment in Mathematics (p. 783).

Students who are accepted into either program must complete a paid 6-week summer course at the Naval Science Institute in Newport, Rhode Island. Upon successful completion of NSI, students have the same program benefits and requirements as students in the 4-year scholarship or college programs.

Applications for the 2-year programs must be completed by March 1 of the year of attendance at NSI.

Nursing Program

Students may apply for 2-, 3-, or 4-year nursing scholarships with the same benefits and deadlines as those listed above for regular scholarship programs. Upon successful completion of the B.S.N., the student is commissioned as an Ensign in the U.S. Navy Nurse Corps.

Naval Science Students

Any student enrolled at KU may enroll in a naval science course for KU credit. Such students are not considered to be in the NROTC program and are not entitled to receive any compensation, benefits, or a commission.

4-Year Program Requirements

Both Navy- and Marine-option students must take professional Navy- and/or Marine-option courses as part of the NROTC program. The normal sequence of courses is

Navy 4-Year Scholarship Students

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>NAVY 101</td>
<td>Introduction to Naval Science</td>
<td>2</td>
</tr>
<tr>
<td>NAVY 220</td>
<td>Seapower and Maritime Affairs</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 401</td>
<td>Principles of Naval Organization and Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(Leadership and Management I)</td>
<td></td>
</tr>
<tr>
<td>NAVY 180</td>
<td>Introduction to Naval Ships Systems I (Engineering)</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 300</td>
<td>Navigation and Operations I</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 304</td>
<td>Navigation and Operations II</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 184</td>
<td>Introduction to Naval Ships Systems II (Weapons)</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 402</td>
<td>Seminar in Military Leadership and Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(Leadership and Management II)</td>
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</tbody>
</table>

Marine 4-Year Scholarship Students

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>NAVY 101</td>
<td>Introduction to Naval Science</td>
<td>2</td>
</tr>
<tr>
<td>NAVY 220</td>
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<td>3</td>
</tr>
<tr>
<td>NAVY 401</td>
<td>Principles of Naval Organization and Management</td>
<td>3</td>
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<tr>
<td></td>
<td>(Leadership and Management I)</td>
<td></td>
</tr>
<tr>
<td>MCOR 380</td>
<td>Evolution of Warfare</td>
<td>3</td>
</tr>
<tr>
<td>MCOR 384</td>
<td>Amphibious Warfare</td>
<td>3</td>
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<tr>
<td>NAVY 402</td>
<td>Seminar in Military Leadership and Management</td>
<td>3</td>
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<tr>
<td></td>
<td>(Leadership and Management II)</td>
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</tbody>
</table>

The above courses are approved by the College of Liberal Arts and Sciences (http://clas.ku.edu) and count as elective credit but do not count toward the required 100 hours in the College for students earning a baccalaureate degree in the College of Liberal Arts and Sciences.

Navy scholarship students must take the following courses in the College of Liberal Arts and Sciences:

Mathematics and Physics (18)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 122</td>
<td>Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>PHSX 211</td>
<td>General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHSX 212</td>
<td>General Physics II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>(MATH 122 is a prerequisite for PHSX 212.)</td>
<td></td>
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</table>

Plus courses in the following areas (12)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td></td>
<td>American history, military affairs, or national</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>security policy</td>
<td></td>
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<tr>
<td></td>
<td>English</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Computer science</td>
<td>3</td>
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</tbody>
</table>

Navy-option college program students must complete 1 year (6 semester credit hours) of college-level study in both mathematics and physical science as a prerequisite for commissioning. Mathematics courses must be at the level of college algebra or higher and must be completed by the end of the junior year. The physical science requirement can be completed by a 1-year sequence, or 2 courses, in an area of physical science, and must be completed by the end of the senior year. Additionally, college program students must complete 6 semester credit hours of English and 3 credit hours of computer science.

Marine Corps Option

Marine-option students are not required to take MATH 121, MATH 122, PHSX 211, or PHSX 212, but are encouraged to do so. During the junior and senior years, Marine-option students take MCOR 380, MCOR 384, and 2 relevant courses taught by civilian faculty and approved by the marine officer instructor in lieu of NAVY 300 and NAVY 304.

Courses

MCOR 380. Evolution of Warfare. 3 Hours. U.

A study of the art, science, concepts, and evolution of warfare as one instrument of political action throughout history. The study of selected battles and campaigns serves as a vehicle to emphasize the application of the classical principles of warfare, the influence of leadership, and the advancement of technology of the art and science of war. This course is substituted for NAVY 300 by NROTC students selected for Marine Corps training. Approved for degree credit in the College of Liberal Arts and Sciences effective fall 1975. Such courses count within the limit of twenty-five hours accepted from other schools and divisions. LEC.
MCOR 384. Amphibious Warfare. 3 Hours. U.
An historical survey and evaluation of the concept, doctrinal origins, evolution, and strategic role of the amphibious projection of seapower ashore from antiquity and into the 20th century. The student studies and critiques historically significant amphibious campaigns. The student then evaluates the current and future need of an amphibious capability within the U.S. defense community. Approved for degree credit in the College of Liberal Arts and Sciences effective Fall 1976. Such courses count within the limit of 25 hours accepted from other schools and divisions. LEC.

NAVY 100. Naval Science Laboratory. 0 Hours. U.
Designed for and required annually of all NROTC midshipmen, to provide increased knowledge in the areas of warfare techniques, history, operations, and operational decision making. Applies knowledge learned from other accredited naval science courses. Highly educated, well known, professional guest lecturers appear frequently and make presentations on topics which apply to naval science courses, increase the educational awareness of future Navy and Marine Corps officers, and further develop the leadership and decision making of the officer candidates. Some close order drill and lectures on standard naval topics. Graded on a satisfactory/unsatisfactory basis. LAB.

NAVY 101. Introduction to Naval Science. 2 Hours. U.
An introduction to the Department of the Navy (U.S. Navy and U.S. Marine Corps) emphasizing its mission, organization, operation, and relationship to other U.S. federal and military institutions. Through historical overview, the development of the current Department of the Navy mission, organization and operation, both at sea and ashore, including customs, traditions, regulations, and professional/technical vocabulary is examined. Educational opportunities and specializations for naval officers are also detailed. Approved for degree credit in the College of Liberal Arts and Sciences effective Spring 1982. Such courses count within the limit of 25 hours accepted from other schools and divisions. LEC.

NAVY 180. Introduction to Naval Ships Systems I. 3 Hours. U.
A course designed to familiarize students with the types, structures, and purpose of naval ships. Ship compartmentation, propulsion systems, auxiliary power systems, electrical systems, interior communications, and control are included. Elements of ship design to achieve safe operations, damage control, and ship stability characteristics are examined. Approved for degree credit in the College of Liberal Arts and Sciences effective Fall 1971. Such courses count within the limit of 25 hours accepted from other schools and divisions. (Same as ENGR 180.) LEC.

NAVY 184. Introduction to Naval Ships Systems II. 3 Hours. U.
The concept of weapons systems and the systems approach are explored. The techniques of linear analysis of ballistics and weapons are introduced. The dynamics of the basic components of weapons control systems are investigated and stated as transfer functions. This course provides the tools for the future development in the student's understanding of the basic principles that underlie all modern naval weapons systems. Approved for degree credit in the College of Liberal Arts and Sciences effective Fall 1971. Such courses count within the limit of 25 hours accepted from other schools and divisions. (Same as ENGR 184.) Prerequisite: MATH 002. LEC.

NAVY 220. Seapower and Maritime Affairs. 3 Hours. U.
A survey of United States naval history from the American Revolution to the present with emphasis on major developments. Included is an in-depth discussion of the geopolitical theory of Mahan. The course also treats present day concerns in seapower and maritime affairs including the economic and political issues of merchant marine commerce, the law of the sea, the Global War on terror, and a comparison of United States and foreign naval strategies. Approved for degree credit in the College of Liberal Arts and Sciences effective Fall 1975. Such courses count within the limit of 25 hours accepted from other schools and divisions. LEC.

NAVY 300. Navigation and Operations I. 3 Hours. U.
A comprehensive study of the theory, principles, and procedures of ship navigation in coastal and open ocean environment. Includes piloting, triangulation, ocean and tidal currents, International and U.S. inland rules of the road for navigation, sight reduction, publications, and logs; an introduction to electronic navigation, including theory of wave propagation, hyperbolic and azimuthal systems, doppler, inertial, and satellite systems. Approved for degree credit in the College of Liberal Arts and Sciences effective Fall 1971. Such courses count within the limit of 25 hours accepted from other schools and divisions. (Same as ENGR 301.) LEC.

NAVY 304. Navigation and Operations II. 3 Hours. U.
A study of the laws for the prevention of collisions at sea; tactical formations and dispositions, relative motion, and the maneuvering board. A portion of the semester is devoted to an analysis of naval operations utilizing formal decision making theory, particularly as applied to command and control. Numerous case studies are used to examine the application of the above topics. Approved for degree credit in the College of Liberal Arts and Sciences effective Fall 1971. Such courses count within the limit of 25 hours accepted from other schools and divisions. (Same as ENGR 305.) Prerequisite: MATH 111 or higher. LEC.

NAVY 401. Principles of Naval Organization and Management. 3 Hours. U.
An introduction of management functions as they apply to routine daily military activities. The concepts of planning, organizing, staffing, directing, controlling, and coordinating are introduced and examined using lecture, seminar, and case study methods. The course includes discussions on responsibility and accountability, power and influence, managerial theories, decision making, personnel appraisal, organizational structure, and communications. Emphasis is placed on management of personnel and physical resources. Approved for degree credit in the College of Liberal Arts and Sciences effective Fall 1975. Such courses count within the limit of 25 hours accepted from other schools and divisions. LEC.

NAVY 402. Seminar in Military Leadership and Management. 3 Hours. U.
A study of military leadership and management which investigates techniques and concepts of task accomplishment in the absence of a normative business environment. The course includes an examination of military law, ethical leadership, personal responsibility, authority, and bureaucracy. The focus of discussion is on those aspects of leadership and management not normally present in civilian enterprise such as operating in the presence of hostility and morale management. Approved for degree credit in the College of Liberal Arts and Sciences effective Fall 1975. Such courses count within the limit of 25 hours accepted from other schools and divisions. LEC.
Pre-Majors

If you’re planning an undergraduate degree in a KU school that doesn’t admit first-year students, you’ll start out in the College of Liberal Arts and Sciences, complete your prerequisites, and then apply for admission to the KU school you want.

Meanwhile, you’ll be classified in one of the following ways:

• Prebusiness (p. 178)
• Preclinical laboratory science (p. 682)
• Predentistry (p. 1625)2
• Pre-education (p. 238)
• Pre-education (elementary) (p. 301)
• Pre-education (secondary) (p. 301)
• Pre-education (sport science/community health) (p. 418)
• Pre-education (p.e./health teacher education) (p. 418)
• Pre-engineering (p. 474)
• Prehealth information management (p. 701)
• Prehealth professions (p. 647)
• Prejournalism (p. 742)
• Prelaw (p. 1625)1
• Premedicine (p. 1625)1
• Prenursing (p. 1952)
• Pre-occupational therapy (p. 710)1
• Pre-optometry (p. 1625)2
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• Prephysical therapy (p. 430)1
• Prephysician’s assistant (p. 1625)2
• Prerespiratory care (p. 724)
• Presocial welfare (p. 2042)
• Preveterinary medicine (p. 1625)2

1 These are graduate programs at KU. If you’re interested in these programs, please consult your academic advisor for more information.

2 KU doesn’t offer these degree programs. Students may indicate interest in these areas as preparation for programs at other colleges and universities.
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